



Video Electronics Standards Association

## **Monitor Timing Standard**

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### **VESA and Industry Standards and Guidelines for Computer Display Monitor Timing (DMT)**

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This document includes all current VESA Monitor Timing Standards & Guidelines. 'Guidelines' are subjected to the same VESA review and approval process as 'Standards', but are designated as 'Guidelines' to ease concerns on the part of some VESA members that VESA is 'endorsing' these timing standards. 'Guidelines' designations are typically used for lower resolutions or lower refresh rates that are in common industry use in lower-performance systems. For reference, this document also includes a number of industry standard timings (de-facto standards) for the computer industry.

This document is the primary means of distribution for all VESA Monitor Timing Standards and Guidelines. The standards and guidelines covered by this document are outlined on the following page.

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## Intellectual Property

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If you have a product that incorporates any of the standards in this document, you should ask the company that manufactured your product for assistance. If you are a display or controller manufacturer, VESA can assist you with any clarifications you may require. All comments or reported errors should be submitted in writing to VESA using one of the following methods:

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## **Revision History**

|                           |                |  |
|---------------------------|----------------|--|
| Version 1.0 Revision 0.0  | Sept. 12, 1994 | Initial Release of the Standard  |
| Version 1.0 Revision 0.1  | Oct. 10, 1994  | Fixed sync polarity of 1024x768 @ 60 & 70 Hz. Removed page numbers so new timings could be added.  |
| Version 1.0 Revision 0.2  | Nov. 4, 1994   | Added notes & comments to clarify timing of interlaced modes.  |
| Version 1.0 Revision 0.3  | Feb. 16, 1995  | Fixed miscellaneous typos  |
| Version 1.0 Revision 0.4  | May 4, 1995    | Added EDID IDs for DDC, fixed 1024x768 interlace vertical times.   |
| Version 1.0 Revision 0.5  | June 14, 1995  | Added BIOS mode #s, fixed miscellaneous typos  |
| Version 1.0 Revision 0.6  | April 10, 1996 | Added new modes from VDMTPROP V1.0, R0.6 passed in March 1996 (85 Hz stds, 1152x864@75, 1280x960@60).  |
| Version 1.0 Revision 0.6a | Sept. 8, 1996  | Reformatted to Word 6 for electronic distribution  |
| Version 1.0 Revision 0.7  | Dec. 18, 1996  | Added new modes from VDMTREV V1.0, R0.8 passed in Dec. 1996 (1280x1024@60, 1600x1200@60, 65, 70, 75, 85)   |
| Version 1.0 Revision 0.8  | July 22, 1998  | Added 1792x1344, 1856X1392 & 1920x1440 all @60, 75 Hz. Corrected EDID code for 1600x1200@85 Hz.  |
| Version 1.0 Revision 0.9  | Aug. 21, 2003  | Added 848x480@60 Hz, CVT 1280x768 timings, 1360x768@60 Hz, CVT 1400x1050 timings, & CVT 1920x1200 timings based on US & Japan workgroup requests.  |
| Version 1.0 Revision 10   | July 14, 2004  | Added CVT 1.30MA (1440x900) & CVT 1.76MA (1680x1050) formats.  |
| Version 1.0 Revision 11   | May 1, 2007    | Added several DMT CVT Reduced Blanking Timings, 1280x800@60/75/85 Hz timings, 2560x1600@60/75/85 Hz and DMT IDs.   |
| Version 1.0 Revision 12   | Nov. 17, 2008  | Added timing definitions for 1280x720 @ 60Hz, 1366x768 @ 60 Hz (Normal & Reduced Blanking), 1600x900 @ 60 Hz (Reduced Blanking), 1920x1080 @ 60 Hz and 2048x1152 @ 60 Hz (Reduced Blanking). Updated Tables 1-1 and 2-1. |

# 1. DMT Standards and Guidelines Summary

Table 1-1 contains a summary of display monitor timings (DMT) that are defined in this standard. All DMTs listed in Table 1-1 are non-interlaced video timing modes - unless otherwise specified using the symbol “(Int.)”. The symbol “(Int.)” means that this DMT is interlaced. All DMTs listed in Table 1-1 include normal video blanking - unless otherwise specified using the symbol “(RB)”. The symbol “(RB)” means that this DMT includes Reduced Blanking. Complete timing specifications for these DMTs are defined in Section 4.

**Table 1-1: Summary of Display Monitor Timings – Standards and Guidelines**

| Pixel Format | Refresh Rate | Horizontal Frequency | Pixel Frequency | Standard Type     | Original Document | Date    |
|--------------|--------------|----------------------|-----------------|-------------------|-------------------|---------|
| 640 x 350    | 85 Hz        | 37.9 kHz             | 31.500 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
| 640 x 400    | 85 Hz        | 37.9 kHz             | 31.500 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
| 720 x 400    | 85 Hz        | 37.9 kHz             | 35.500 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
| 640 x 480    | 60 Hz        | 31.5 kHz             | 25.175 MHz      | Industry Standard | n/a               | n/a     |
|              | 72 Hz        | 37.9 kHz             | 31.500 MHz      | VESA Standard     | VS901101          | 12/2/92 |
|              | 75 Hz        | 37.5 kHz             | 31.500 MHz      | VESA Standard     | VDMT75HZ          | 10/4/93 |
|              | 85 Hz        | 43.3 kHz             | 36.000 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
| 800 x 600    | 56 Hz        | 35.2 kHz             | 36.000 MHz      | VESA Guidelines   | VG900601          | 8/6/90  |
|              | 60 Hz        | 37.9 kHz             | 40.000 MHz      | VESA Guidelines   | VG900602          | 8/6/90  |
|              | 72 Hz        | 48.1 kHz             | 50.000 MHz      | VESA Standard     | VS900603A         | 8/6/90  |
|              | 75 Hz        | 46.9 kHz             | 49.500 MHz      | VESA Standard     | VDMT75HZ          | 10/4/93 |
|              | 85 Hz        | 53.7 kHz             | 56.250 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
|              | 120 Hz (RB)  | 76.3 kHz             | 73.250 MHz      | CVT Red. Blanking | n/a               | 5/1/07  |
| 848 x 480    | 60 Hz        | 31.0 kHz             | 33.750 MHz      | VESA Standard     | AddDMT            | 3/4/03  |
| 1024 x 768   | 43 Hz (Int.) | 35.5 kHz             | 44.900 MHz      | Industry Standard | n/a               | n/a     |
|              | 60 Hz        | 48.4 kHz             | 65.000 MHz      | VESA Guidelines   | VG901101A         | 9/10/91 |
|              | 70 Hz        | 56.5 kHz             | 75.000 MHz      | VESA Standard     | VS910801-2        | 8/9/91  |
|              | 75 Hz        | 60.0 kHz             | 78.750 MHz      | VESA Standard     | VDMT75HZ          | 10/4/93 |
|              | 85 Hz        | 68.7 kHz             | 94.500 MHz      | VESA Standard     | VDMTPROP          | 3/1/96  |
|              | 120 Hz (RB)  | 97.6 kHz             | 115.500 MHz     | CVT Red. Blanking | n/a               | 5/1/07  |
| 1152 x 864   | 75 Hz        | 67.5 kHz             | 108.000 MHz     | VESA Standard     | VDMTPROP          | 3/1/96  |
| 1280 x 720   | 60 Hz        | 45.0 kHz             | 74.250 MHz      | CEA Standard      | CEA-861           | TBD     |
| 1280 x 768   | 60 Hz(RB)    | 47.4 kHz             | 68.250 MHz      | CVT Red. Blanking | AddDMT            | 3/4/03  |
|              | 60 Hz        | 47.8 kHz             | 79.500 MHz      | CVT               | AddDMT            | 3/4/03  |
|              | 75 Hz        | 60.3 kHz             | 102.250 MHz     | CVT               | AddDMT            | 3/4/03  |
|              | 85 Hz        | 68.6 kHz             | 117.500 MHz     | CVT               | AddDMT            | 3/4/03  |
|              | 120 Hz (RB)  | 97.4 kHz             | 140.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07  |
| 1280 x 800   | 60 Hz(RB)    | 49.3 kHz             | 71.000 MHz      | CVT Red. Blanking | CVT1.02MA-R       | 5/1/07  |
|              | 60 Hz        | 49.7 kHz             | 83.500 MHz      | CVT               | CVT 1.02MA        | 5/1/07  |
|              | 75 Hz        | 62.8 kHz             | 106.500 MHz     | CVT               | CVT 1.02MA        | 5/1/07  |
|              | 85 Hz        | 71.6 kHz             | 122.500 MHz     | CVT               | CVT 1.02MA        | 5/1/07  |
|              | 120 Hz (RB)  | 101.6 kHz            | 146.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07  |
| 1280 x 960   | 60 Hz        | 60.0 kHz             | 108.000 MHz     | VESA Standard     | VDMTPROP          | 3/1/96  |
|              | 85 Hz        | 85.9 kHz             | 148.500 MHz     | VESA Standard     | VDMTPROP          | 3/1/96  |
|              | 120 Hz (RB)  | 121.9 kHz            | 175.500 MHz     | CVT Red. Blanking | n/a               | 5/1/07  |

| Pixel Format | Refresh Rate | Horizontal Frequency | Pixel Frequency | Standard Type     | Original Document | Date     |
|--------------|--------------|----------------------|-----------------|-------------------|-------------------|----------|
| 1280 x 1024  | 60 Hz        | 64.0 kHz             | 108.000 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 75 Hz        | 80.0 kHz             | 135.000 MHz     | VESA Standard     | VDMT75HZ          | 10/4/93  |
|              | 85 Hz        | 91.1 kHz             | 157.500 MHz     | VESA Standard     | VDMTPROP          | 3/1/96   |
|              | 120 Hz (RB)  | 130.0 kHz            | 187.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1360 x 768   | 60 Hz        | 47.7 kHz             | 85.500 MHz      | VESA Standard     | AddDMT            | 3/4/03   |
|              | 120 Hz (RB)  | 97.5 kHz             | 148.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1366 x 768   | 60 Hz        | 47.7 kHz             | 85.500 MHz      | VESA Standard     | DMT Update        | 11/30/07 |
| 1366 x 768   | 60 Hz (RB)   | 48.0 kHz             | 72.000 MHz      | VESA Standard     | VDMTREV           | 11/17/08 |
| 1400 x 1050  | 60 Hz(RB)    | 64.7 kHz             | 101.000 MHz     | CVT Red. Blanking | AddDMT            | 5/13/03  |
|              | 60 Hz        | 65.3 kHz             | 121.750 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 75 Hz        | 82.3 kHz             | 156.000 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 85 Hz        | 93.9 kHz             | 179.500 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 120 Hz (RB)  | 133.3 kHz            | 208.000 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1440 x 900   | 60 Hz(RB)    | 55.5 kHz             | 88.750 MHz      | CVT Red. Blanking | CVT1.30MA-R       | 7/14/04  |
|              | 60 Hz        | 55.9 kHz             | 106.500 MHz     | CVT               | CVT 1.30MA        | 7/14/04  |
|              | 75 Hz        | 70.6 kHz             | 136.750 MHz     | CVT               | CVT 1.30MA        | 7/14/04  |
|              | 85 Hz        | 80.4 kHz             | 157.000 MHz     | CVT               | CVT 1.30MA        | 7/14/04  |
|              | 120 Hz (RB)  | 114.2 kHz            | 182.750 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1600 x 900   | 60 Hz (RB)   | 60.0 kHz             | 108.000 MHz     | VESA Standard     | VDMTREV           | 11/17/08 |
| 1600 x 1200  | 60 Hz        | 75.0 kHz             | 162.000 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 65 Hz        | 81.3 kHz             | 175.500 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 70 Hz        | 87.5 kHz             | 189.000 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 75 Hz        | 93.8 kHz             | 202.500 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 85 Hz        | 106.3 kHz            | 229.500 MHz     | VESA Standard     | VDMTREV           | 12/18/96 |
|              | 120 Hz (RB)  | 152.4 kHz            | 268.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1680 x 1050  | 60 Hz(RB)    | 64.7 kHz             | 119.000 MHz     | CVT Red. Blanking | CVT1.76MA-R       | 7/14/04  |
|              | 60 Hz        | 65.3 kHz             | 146.250 MHz     | CVT               | CVT 1.76MA        | 7/14/04  |
|              | 75 Hz        | 82.3 kHz             | 187.000 MHz     | CVT               | CVT 1.76MA        | 7/14/04  |
|              | 85 Hz        | 93.9 kHz             | 214.750 MHz     | CVT               | CVT 1.76MA        | 7/14/04  |
|              | 120 Hz (RB)  | 133.4 kHz            | 245.500 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1792 x 1344  | 60 Hz        | 83.6 kHz             | 204.750 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 75 Hz        | 106.3 kHz            | 261.000 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 120 Hz (RB)  | 170.7 kHz            | 333.250 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1856 x 1392  | 60 Hz        | 86.3 kHz             | 218.250 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 75 Hz        | 112.5 kHz            | 288.000 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 120 Hz (RB)  | 176.8 kHz            | 356.500 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1920 x 1080  | 60 Hz        | 67.5 kHz             | 148.500 MHz     | CEA Standard      | CEA-861           | TBD      |
| 1920 x 1200  | 60 Hz(RB)    | 74.0 kHz             | 154.000 MHz     | CVT Red. Blanking | AddDMT            | 3/4/03   |
|              | 60 Hz        | 74.6 kHz             | 193.250 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 75 Hz        | 94.0 kHz             | 245.250 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 85 Hz        | 107.2 kHz            | 281.250 MHz     | CVT               | AddDMT            | 3/4/03   |
|              | 120 Hz (RB)  | 152.4 kHz            | 317.000 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |
| 1920 x 1440  | 60 Hz        | 90.0 kHz             | 234.000 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 75 Hz        | 112.5 kHz            | 297.000 MHz     | VESA Standard     | VDMTREV           | 9/17/98  |
|              | 120 Hz (RB)  | 182.9 kHz            | 380.500 MHz     | CVT Red. Blanking | n/a               | 5/1/07   |

| <b>Pixel Format</b> | <b>Refresh Rate</b> | <b>Horizontal Frequency</b> | <b>Pixel Frequency</b> | <b>Standard Type</b> | <b>Original Document</b> | <b>Date</b> |
|---------------------|---------------------|-----------------------------|------------------------|----------------------|--------------------------|-------------|
| 2048 x 1152         | 60 Hz (RB)          | 70.992 kHz                  | 156.750 MHz            | CVT Red. Blanking    | VDMTREV                  | 11/17/08    |
| 2560 x 1600         | 60 Hz (RB)          | 98.7 kHz                    | 268.500 MHz            | CVT Red. Blanking    | CVT4.10MA-R              | 5/1/07      |
|                     | 60 Hz               | 99.5 kHz                    | 348.500 MHz            | CVT                  | CVT 4.10MA               | 5/1/07      |
|                     | 75 Hz               | 125.4 kHz                   | 443.250 MHz            | CVT                  | CVT 4.10MA               | 5/1/07      |
|                     | 85 Hz               | 142.9 kHz                   | 505.250 MHz            | CVT                  | CVT 4.10MA               | 5/1/07      |
|                     | 120 Hz (RB)         | 203.2 kHz                   | 552.750 MHz            | CVT Red. Blanking    | n/a                      | 5/1/07      |



## 2. DMT Standard Codes & IDs Summary

Table 2-1 includes a list of Display Monitor Timing Identification (DMT ID) codes, Standard (STD) Timing 2 byte codes and Coordinated Video Timing (CVT) 3 byte codes. A display may use these codes to indicate support for the associated DMT. Refer to the latest version of VESA's Enhanced Extended Display Identification (E-EDID) Standard for an explanation of how to derive the STD 2 byte codes and the CVT 3 byte codes. The letters "n/a" (not applicable) indicates that a STD 2 byte code and/or a CVT 3 byte code (DMT is not CVT compliant) cannot be created.

**Table 2-1: Summary of DMT ID, STD 2 Byte & CVT 3 Byte Codes**

| <b>Pixel Format</b> | <b>Refresh Rate</b> | <b>DMT ID Codes</b> | <b>STD 2 Byte Codes</b> | <b>CVT 3 Byte Codes</b> |
|---------------------|---------------------|---------------------|-------------------------|-------------------------|
| 640 x 350           | 85 Hz               | 01h                 | n/a                     | n/a                     |
| 640 x 400           | 85 Hz               | 02h                 | (31, 19)h               | n/a                     |
| 720 x 400           | 85 Hz               | 03h                 | n/a                     | n/a                     |
|                     |                     |                     |                         |                         |
| 640 x 480           | 60 Hz               | 04h                 | (31, 40)h               | n/a                     |
|                     | 72 Hz               | 05h                 | (31, 4C)h               | n/a                     |
|                     | 75 Hz               | 06h                 | (31, 4F)h               | n/a                     |
|                     | 85 Hz               | 07h                 | (31, 59)h               | n/a                     |
|                     |                     |                     |                         |                         |
| 800 x 600           | 56 Hz               | 08h                 | n/a                     | n/a                     |
|                     | 60 Hz               | 09h                 | (45, 40)h               | n/a                     |
|                     | 72 Hz               | 0Ah                 | (45, 4C)h               | n/a                     |
|                     | 75 Hz               | 0Bh                 | (45, 4F)h               | n/a                     |
|                     | 85 Hz               | 0Ch                 | (45, 59)h               | n/a                     |
|                     | 120 Hz (RB)         | 0Dh                 | n/a                     | n/a                     |
|                     |                     |                     |                         |                         |
| 848 x 480           | 60 Hz               | 0Eh                 | n/a                     | n/a                     |
|                     |                     |                     |                         |                         |
| 1024 x 768          | 43 Hz (Int.)        | 0Fh                 | n/a                     | n/a                     |
|                     | 60 Hz               | 10h                 | (61, 40)h               | n/a                     |
|                     | 70 Hz               | 11h                 | (61, 4A)h               | n/a                     |
|                     | 75 Hz               | 12h                 | (61, 4F)h               | n/a                     |
|                     | 85 Hz               | 13h                 | (61, 59)h               | n/a                     |
|                     | 120 Hz (RB)         | 14h                 | n/a                     | n/a                     |
|                     |                     |                     |                         |                         |
| 1152 x 864          | 75 Hz               | 15h                 | (71, 4F)h               | n/a                     |
|                     |                     |                     |                         |                         |
| 1280 x 720          | 60 Hz               | 55h                 | (81, C0)h               | n/a                     |
|                     |                     |                     |                         |                         |
| 1280 x 768          | 60 Hz(RB)           | 16h                 | n/a                     | (7F, 1C, 21)h           |
|                     | 60 Hz               | 17h                 | n/a                     | (7F, 1C, 28)h           |
|                     | 75 Hz               | 18h                 | n/a                     | (7F, 1C, 44)h           |
|                     | 85 Hz               | 19h                 | n/a                     | (7F, 1C, 62)h           |
|                     | 120 Hz (RB)         | 1Ah                 | n/a                     | n/a                     |
|                     |                     |                     |                         |                         |

| <b>Pixel Format</b> | <b>Refresh Rate</b> | <b>DMT ID Codes</b> | <b>STD 2 Byte Codes</b> | <b>CVT 3 Byte Codes</b> |
|---------------------|---------------------|---------------------|-------------------------|-------------------------|
| 1280 x 800          | 60 Hz (RB)          | 1Bh                 | n/a                     | (8F, 18, 21)h           |
|                     | 60 Hz               | 1Ch                 | (81, 00)h               | (8F, 18, 28)h           |
|                     | 75 Hz               | 1Dh                 | (81, 0F)h               | (8F, 18, 44)h           |
|                     | 85 Hz               | 1Eh                 | (81, 19)h               | (8F, 18, 62)h           |
|                     | 120 Hz (RB)         | 1Fh                 | n/a                     | n/a                     |
| 1280 x 960          | 60 Hz               | 20h                 | (81, 40)h               | n/a                     |
|                     | 85 Hz               | 21h                 | (81, 59)h               | n/a                     |
|                     | 120 Hz (RB)         | 22h                 | n/a                     | n/a                     |

|             |             |     |           |               |
|-------------|-------------|-----|-----------|---------------|
| 1280 x 1024 | 60 Hz       | 23h | (81, 80)h | n/a           |
|             | 75 Hz       | 24h | (81, 8F)h | n/a           |
|             | 85 Hz       | 25h | (81, 99)h | n/a           |
|             | 120 Hz (RB) | 26h | n/a       | n/a           |
| 1360 x 768  | 60 Hz       | 27h | n/a       | n/a           |
|             | 120 Hz (RB) | 28h | n/a       | n/a           |
| 1366 x 768  | 60 Hz       | 51h | n/a       | n/a           |
| 1366 x 768  | 60 Hz(RB)   | 56h | n/a       | n/a           |
| 1400 x 1050 | 60 Hz(RB)   | 29h | n/a       | (0C, 20, 21)h |
|             | 60 Hz       | 2Ah | (90, 40)h | (0C, 20, 28)h |
|             | 75 Hz       | 2Bh | (90, 4F)h | (0C, 20, 44)h |
|             | 85 Hz       | 2Ch | (90, 59)h | (0C, 20, 62)h |
|             | 120 Hz (RB) | 2Dh | n/a       | n/a           |
| 1440 x 900  | 60 Hz(RB)   | 2Eh | n/a       | (C1, 18, 21)h |
|             | 60 Hz       | 2Fh | (95, 00)h | (C1, 18, 28)h |
|             | 75 Hz       | 30h | (95, 0F)h | (C1, 18, 44)h |
|             | 85 Hz       | 31h | (95, 19)h | (C1, 18, 68)h |
|             | 120 Hz (RB) | 32h | n/a       | n/a           |
| 1600 x 900  | 60 Hz (RB)  | 53h | (A9, C0)h | n/a           |
| 1600 x 1200 | 60 Hz       | 33h | (A9, 40)h | n/a           |
|             | 65 Hz       | 34h | (A9, 45)h | n/a           |
|             | 70 Hz       | 35h | (A9, 4A)h | n/a           |
|             | 75 Hz       | 36h | (A9, 4F)h | n/a           |
|             | 85 Hz       | 37h | (A9, 59)h | n/a           |
|             | 120 Hz (RB) | 38h | n/a       | n/a           |
| 1680 x 1050 | 60 Hz(RB)   | 39h | n/a       | (0C, 28, 21)h |
|             | 60 Hz       | 3Ah | (B3, 00)h | (0C, 28, 28)h |
|             | 75 Hz       | 3Bh | (B3, 0F)h | (0C, 28, 44)h |
|             | 85 Hz       | 3Ch | (B3, 19)h | (0C, 28, 68)h |
|             | 120 Hz (RB) | 3Dh | n/a       | n/a           |

| Pixel Format | Refresh Rate | DMT ID Codes | STD 2 Byte Codes | CVT 3 Byte Codes |
|--------------|--------------|--------------|------------------|------------------|
| 1792 x 1344  | 60 Hz        | 3Eh          | (C1, 40)h        | n/a              |
|              | 75 Hz        | 3Fh          | (C1, 4F)h        | n/a              |
|              | 120 Hz (RB)  | 40h          | n/a              | n/a              |
| 1856 x 1392  | 60 Hz        | 41h          | (C9, 40)h        | n/a              |
|              | 75 Hz        | 42h          | (C9, 4F)h        | n/a              |
|              | 120 Hz (RB)  | 43h          | n/a              | n/a              |
| 1920 x 1080  | 60 Hz        | 52h          | (D1, C0)h        | n/a              |
| 1920 x 1200  | 60 Hz(RB)    | 44h          | n/a              | (57, 28, 21)h    |
|              | 60 Hz        | 45h          | (D1, 00)h        | (57, 28, 28)h    |
|              | 75 Hz        | 46h          | (D1, 0F)h        | (57, 28, 44)h    |
|              | 85 Hz        | 47h          | (D1, 19)h        | (57, 28, 62)h    |
|              | 120 Hz (RB)  | 48h          | n/a              | n/a              |
| 1920 x 1440  | 60 Hz        | 49h          | (D1, 40)h        | n/a              |
|              | 75 Hz        | 4Ah          | (D1, 4F)h        | n/a              |
|              | 120 Hz (RB)  | 4Bh          | n/a              | n/a              |
| 2048 x 1152  | 60 Hz (RB)   | 54h          | (E1, C0)h        | n/a              |
| 2560 x 1600  | 60 Hz (RB)   | 4Ch          | n/a              | (1F, 38, 21)h    |
|              | 60 Hz        | 4Dh          | n/a              | (1F, 38, 28)h    |
|              | 75 Hz        | 4Eh          | n/a              | (1F, 38, 44)h    |
|              | 85 Hz        | 4Fh          | n/a              | (1F, 38, 62)h    |
|              | 120 Hz (RB)  | 50h          | n/a              | n/a              |

**Notes for Table 2-1:**

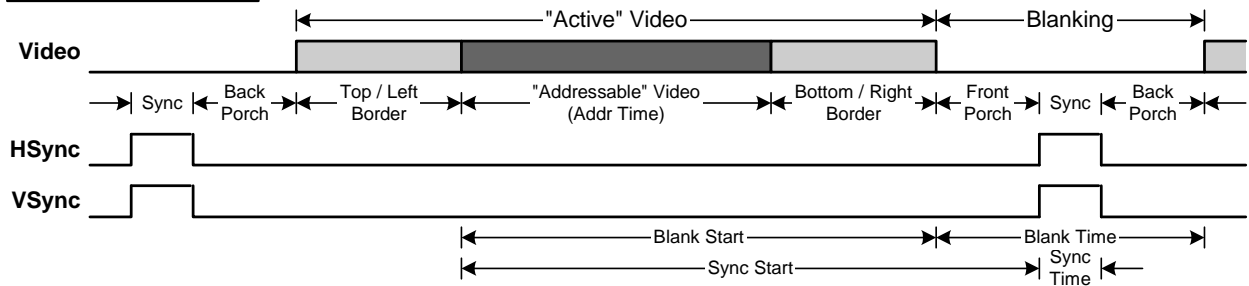
1. The CVT 3 Byte Codes listed in Table 2-1 are unique and are assigned to one video timing mode that was generated using the CVT Formulas. A source may decode the CVT 3 Byte Code and determine the number of vertical lines, the aspect ratio, the number of horizontal pixels (calculated), the preferred vertical refresh rate, a single supported refresh rate and the blanking style. For example, a source can decode the CVT 3 Byte Code, (7F, 1C, 44)h, with the following results: the number of vertical lines is 768, the aspect ratio is 15 : 9 AR, the number of horizontal pixels (calculated) is 1280, the preferred vertical refresh rate is 75 Hz, the supported vertical refresh rate is 75 Hz and the blanking style is standard (CRT style). Refer to VESA E-EDID Standard (Rel. A, Rev. 2) for an explanation on how to derive a CVT 3 Byte Code from video timing mode parameters.
2. A display (receiver) manufacturer may use the CVT 3 Byte Code to indicate support for a fixed pixel format and one or more vertical refresh rates.
3. For example, a display may contain a CVT 3 Byte Code which indicates support for 1280 x 768 and support for 50 Hz, 60 Hz, 75 Hz & 85 Hz vertical refresh rates with 60 Hz being the preferred vertical refresh rate. In this case the CVT 3 Byte code would be (7F, 1C, 3E)h. When the source decodes the CVT 3 Byte code, (7F, 1C, 3E)h, it knows that the display supports 1280 x 768, along with 50 Hz, 60 Hz, 75 Hz & 85 Hz vertical refresh rates with 60 Hz being the preferred vertical refresh rate. The source should output 1280 x 768 at 60 Hz (standard CRT style blanking). The source also knows that the 60 Hz (reduced blanking) is not supported in the display. Refer to VESA E-EDID Standard (Rel. A, Rev. 2) for an explanation on how to derive a CVT 3 Byte Code from the video timing mode parameters.

### 3. DMT Video Timing Parameter Definitions:

Section 3 includes a list of drawings that define the video timing parameters for all DMTs defined in this standard. There are four drawings based on the possible combinations of positive and negative horizontal and vertical syncs.

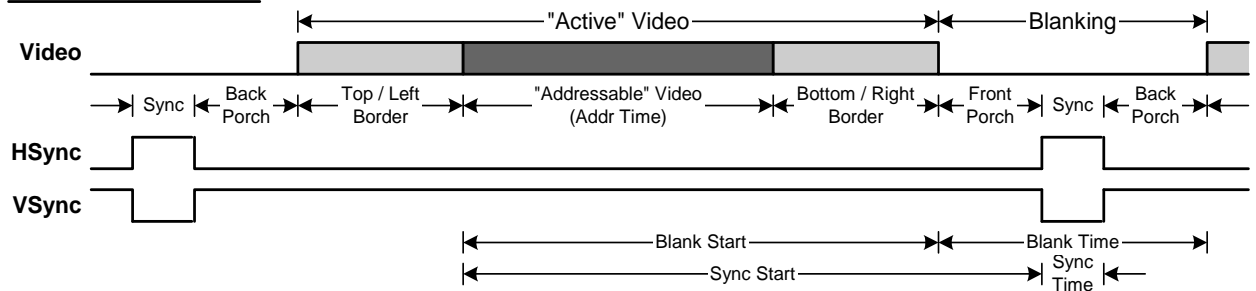
#### 3.1 DMT Video Timing Parameter Definitions - Positive H & Positive V Syncs:

##### Definition of Terms



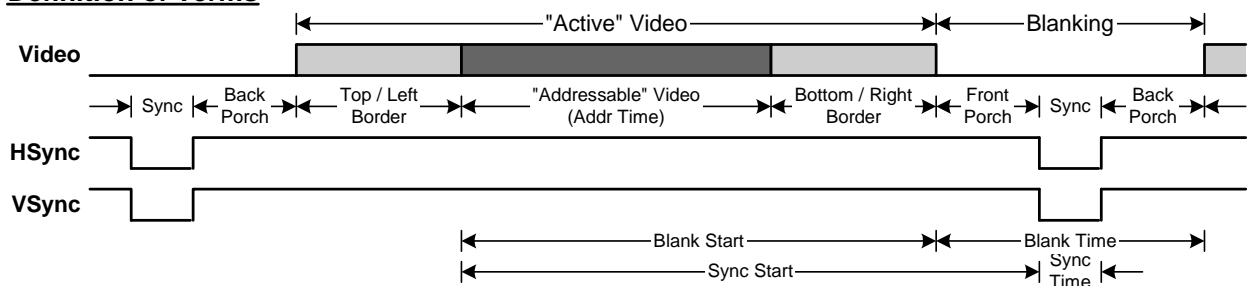
#### 3.2 DMT Video Timing Parameter Definitions - Positive H & Negative V Syncs:

##### Definition of Terms



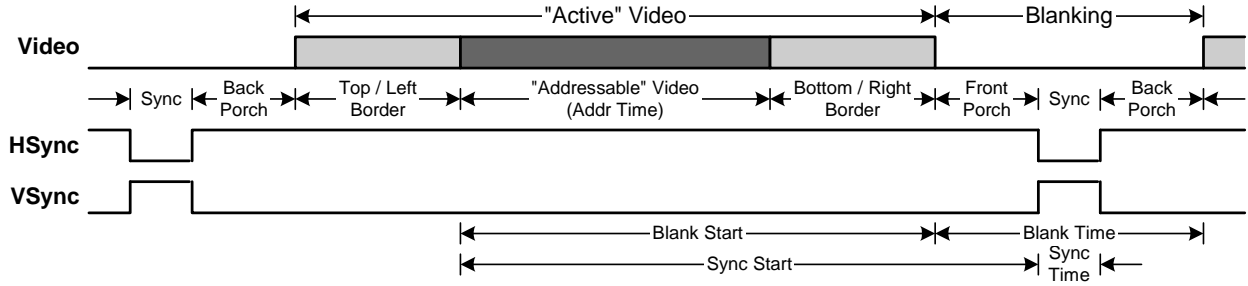
#### 3.3 DMT Video Timing Parameter Definitions - Negative H & Negative V Syncs:

##### Definition of Terms

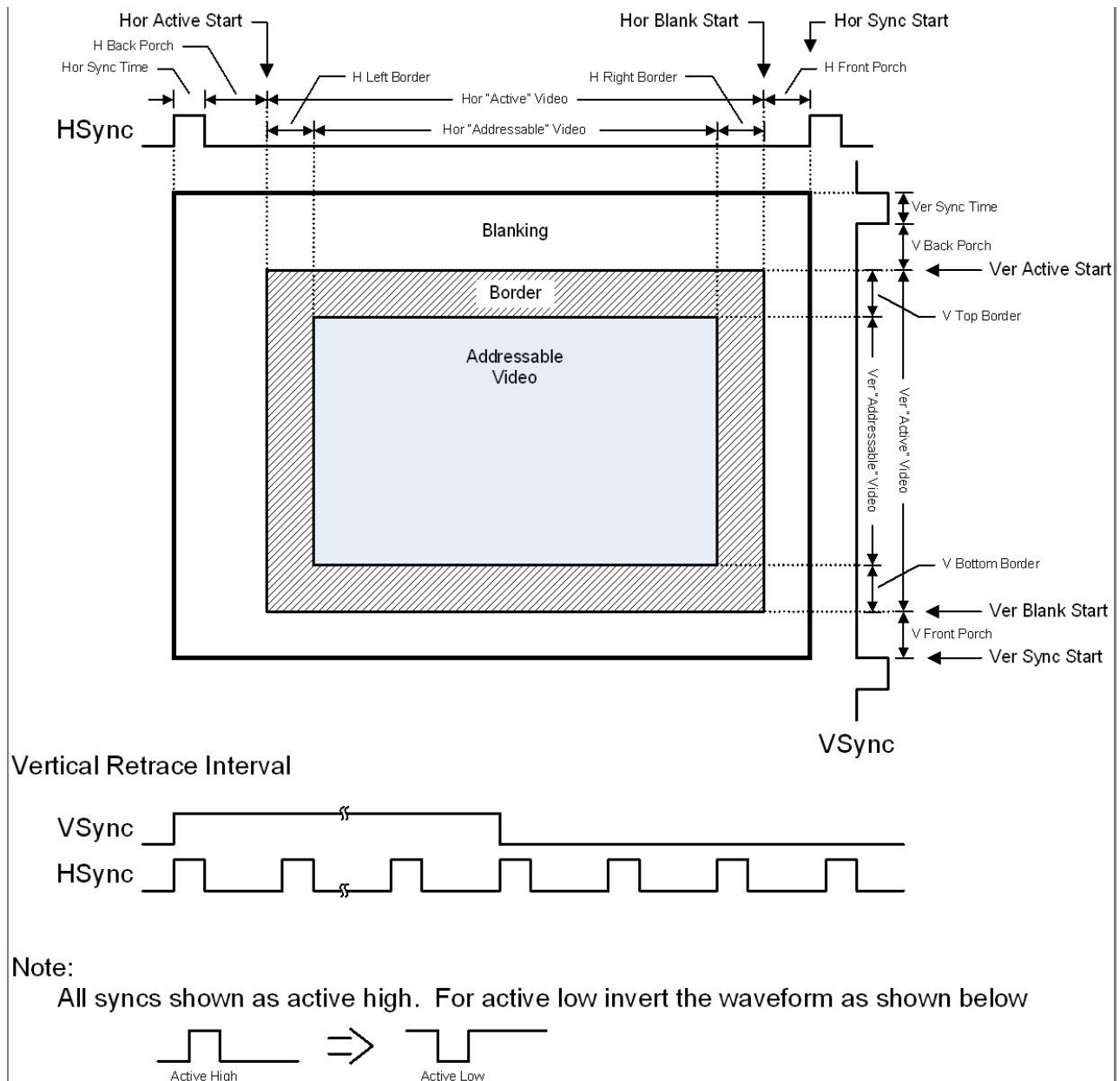


### 3.4 DMT Video Timing Parameter Definitions - Negative H & Positive V Syncs:

#### Definition of Terms



### 3.5 DMT Video Timing Parameter Definitions - Total Frame Timing:



## 4. DMT Timing Specifications

Section 4 includes a list of detailed timing parameters for all DMTs defined in this standard.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 640 x 350 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 01h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                   |                |
|--------------------|----------------------------|------------|-------------------|----------------|
| Timing Name        | = <b>640 x 350 @ 85Hz;</b> |            |                   |                |
| Hor Pixels         | = <b>640;</b>              | // Pixels  |                   |                |
| Ver Pixels         | = <b>350;</b>              | // Lines   |                   |                |
| Hor Frequency      | = 37.861;                  | // kHz     | = 26.4 usec       | / line         |
| Ver Frequency      | = 85.080;                  | // Hz      | = 11.8 msec       | / frame        |
| Pixel Clock        | = <b>31.500;</b>           | // MHz     | = 31.7 nsec       | ± 0.5%         |
| Character Width    | = <b>8;</b>                | // Pixels  | = 254.0 nsec      |                |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | =                 | 3.8 %          |
| Hor Sync Polarity  | = <b>POSITIVE;</b>         | // HBlank  | = 23.1% of HTotal |                |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>         | // VBlank  | = 21.3% of VTotal |                |
| Hor Total Time     | = 26.413;                  | // (usec)  | = 104 chars       | = 832 Pixels   |
| Hor Addr Time      | = 20.317;                  | // (usec)  | = 80 chars        | = 640 Pixels   |
| Hor Blank Start    | = 20.317;                  | // (usec)  | = 80 chars        | = 640 Pixels   |
| Hor Blank Time     | = 6.095;                   | // (usec)  | = 24 chars        | = 192 Pixels   |
| Hor Sync Start     | = 21.333;                  | // (usec)  | = 84 chars        | = 672 Pixels   |
| // H Right Border  | = 0.000;                   | // (usec)  | = 0 chars         | = 0 Pixels     |
| // H Front Porch   | = 1.016;                   | // (usec)  | = 4 chars         | = 32 Pixels    |
| Hor Sync Time      | = 2.032;                   | // (usec)  | = 8 chars         | = 64 Pixels    |
| // H Back Porch    | = 3.048;                   | // (usec)  | = 12 chars        | = 96 Pixels    |
| // H Left Border   | = 0.000;                   | // (usec)  | = 0 chars         | = 0 Pixels     |
| Ver Total Time     | = 11.754;                  | // (msec)  | = 445 lines       | HT - (1.06xHA) |
| Ver Addr Time      | = 9.244;                   | // (msec)  | = 350 lines       | = 4.88         |
| Ver Blank Start    | = 9.244;                   | // (msec)  | = 350 lines       |                |
| Ver Blank Time     | = 2.509;                   | // (msec)  | = 95 lines        |                |
| Ver Sync Start     | = 10.090;                  | // (msec)  | = 382 lines       |                |
| // V Bottom Border | = 0.000;                   | // (msec)  | = 0 lines         |                |
| // V Front Porch   | = 0.845;                   | // (msec)  | = 32 lines        |                |
| Ver Sync Time      | = 0.079;                   | // (msec)  | = 3 lines         |                |
| // V Back Porch    | = 1.585;                   | // (msec)  | = 60 lines        |                |
| // V Top Border    | = 0.000;                   | // (msec)  | = 0 lines         |                |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 640 x 400 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 02h; STD 2 Byte Code: (31, 19)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                               |
|--------------------|----------------------------|------------|-------------------------------|
| Timing Name        | = <b>640 x 400 @ 85Hz;</b> |            |                               |
| Hor Pixels         | = <b>640;</b>              | // Pixels  |                               |
| Ver Pixels         | = <b>400;</b>              | // Lines   |                               |
| Hor Frequency      | = 37.861;                  | // kHz     | = 26.4 usec / line            |
| Ver Frequency      | = 85.080;                  | // Hz      | = 11.8 msec / frame           |
| Pixel Clock        | = <b>31.500;</b>           | // MHz     | = 31.7 nsec ± 0.5%            |
| Character Width    | = <b>8;</b>                | // Pixels  | = 254.0 nsec                  |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 3.8 %                       |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>         | // HBlank  | = 23.1% of HTotal             |
| Ver Sync Polarity  | = <b>POSITIVE;</b>         | // VBlank  | = 10.1% of VTotal             |
| Hor Total Time     | = 26.413;                  | // (usec)  | = 104 chars = 832 Pixels      |
| Hor Addr Time      | = 20.317;                  | // (usec)  | = 80 chars = 640 Pixels       |
| Hor Blank Start    | = 20.317;                  | // (usec)  | = 80 chars = 640 Pixels       |
| Hor Blank Time     | = 6.095;                   | // (usec)  | = 24 chars = 192 Pixels       |
| Hor Sync Start     | = 21.333;                  | // (usec)  | = 84 chars = 672 Pixels       |
| // H Right Border  | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 1.016;                   | // (usec)  | = <b>4</b> chars = 32 Pixels  |
| Hor Sync Time      | = 2.032;                   | // (usec)  | = <b>8</b> chars = 64 Pixels  |
| // H Back Porch    | = 3.048;                   | // (usec)  | = <b>12</b> chars = 96 Pixels |
| // H Left Border   | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 11.754;                  | // (msec)  | = 445 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 10.565;                  | // (msec)  | = 400 lines = 4.88            |
| Ver Blank Start    | = 10.565;                  | // (msec)  | = 400 lines                   |
| Ver Blank Time     | = 1.189;                   | // (msec)  | = 45 lines                    |
| Ver Sync Start     | = 10.591;                  | // (msec)  | = 401 lines                   |
| // V Bottom Border | = 0.000;                   | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.026;                   | // (msec)  | = <b>1</b> lines              |
| Ver Sync Time      | = 0.079;                   | // (msec)  | = <b>3</b> lines              |
| // V Back Porch    | = 1.083;                   | // (msec)  | = <b>41</b> lines             |
| // V Top Border    | = 0.000;                   | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to section 3.4.



## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 720 x 400 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 03h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                                |
|--------------------|----------------------------|------------|--------------------------------|
| Timing Name        | = <b>720 x 400 @ 85Hz;</b> |            |                                |
| Hor Pixels         | = <b>720;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>400;</b>              | // Lines   |                                |
| Hor Frequency      | = 37.927;                  | // kHz     | = 26.4 usec / line             |
| Ver Frequency      | = 85.039;                  | // Hz      | = 11.8 msec / frame            |
| Pixel Clock        | = <b>35.500;</b>           | // MHz     | = 28.2 nsec ± 0.5%             |
| Character Width    | = <b>9;</b>                | // Pixels  | = 253.5 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 3.8 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>         | // HBlank  | = 23.1% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>         | // VBlank  | = 10.3% of VTotal              |
| Hor Total Time     | = 26.366;                  | // (usec)  | = 104 chars = 936 Pixels       |
| Hor Addr Time      | = 20.282;                  | // (usec)  | = 80 chars = 720 Pixels        |
| Hor Blank Start    | = 20.282;                  | // (usec)  | = 80 chars = 720 Pixels        |
| Hor Blank Time     | = 6.085;                   | // (usec)  | = 24 chars = 216 Pixels        |
| Hor Sync Start     | = 21.296;                  | // (usec)  | = 84 chars = 756 Pixels        |
| // H Right Border  | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 1.014;                   | // (usec)  | = <b>4</b> chars = 36 Pixels   |
| Hor Sync Time      | = 2.028;                   | // (usec)  | = <b>8</b> chars = 72 Pixels   |
| // H Back Porch    | = 3.042;                   | // (usec)  | = <b>12</b> chars = 108 Pixels |
| // H Left Border   | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 11.759;                  | // (msec)  | = 446 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 10.546;                  | // (msec)  | = 400 lines = 4.87             |
| Ver Blank Start    | = 10.546;                  | // (msec)  | = 400 lines                    |
| Ver Blank Time     | = 1.213;                   | // (msec)  | = 46 lines                     |
| Ver Sync Start     | = 10.573;                  | // (msec)  | = 401 lines                    |
| // V Bottom Border | = 0.000;                   | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.026;                   | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.079;                   | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 1.107;                   | // (msec)  | = <b>42</b> lines              |
| // V Top Border    | = 0.000;                   | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: n/a **\*\* For Reference Only - Not a VESA Standard \*\***  
 Resolution: 640 x 480 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 04h; STD 2 Byte Code: (31, 40)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 11h, 12h, 101h, 110h, 111h, & 112h (1, 4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                            |
|--------------------|----------------------------|------------|----------------------------|
| Timing Name        | = <b>640 x 480 @ 60Hz;</b> |            |                            |
| Hor Pixels         | = <b>640;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>480;</b>              | // Lines   |                            |
| Hor Frequency      | = 31.469;                  | // kHz     | = 31.8 usec / line         |
| Ver Frequency      | = 59.940;                  | // Hz      | = 16.7 msec / frame        |
| Pixel Clock        | = <b>25.175;</b>           | // MHz     | = 39.7 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>                | // Pixels  | = 317.8 nsec               |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 2.0 %                    |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>         | // HBlank  | = 18.0% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>         | // VBlank  | = 5.5% of VTotal           |
| Hor Total Time     | = 31.778;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Addr Time      | = 25.422;                  | // (usec)  | = 80 chars = 640 Pixels    |
| Hor Blank Start    | = 25.740;                  | // (usec)  | = 81 chars = 648 Pixels    |
| Hor Blank Time     | = 5.720;                   | // (usec)  | = 18 chars = 144 Pixels    |
| Hor Sync Start     | = 26.058;                  | // (usec)  | = 82 chars = 656 Pixels    |
| // H Right Border  | = 0.318;                   | // (usec)  | = 1 chars = 8 Pixels       |
| // H Front Porch   | = 0.318;                   | // (usec)  | = 1 chars = 8 Pixels       |
| Hor Sync Time      | = 3.813;                   | // (usec)  | = 12 chars = 96 Pixels     |
| // H Back Porch    | = 1.589;                   | // (usec)  | = 5 chars = 40 Pixels      |
| // H Left Border   | = 0.318;                   | // (usec)  | = 1 chars = 8 Pixels       |
| Ver Total Time     | = 16.683;                  | // (msec)  | = 525 lines HT – (1.06xHA) |
| Ver Addr Time      | = 15.253;                  | // (msec)  | = 480 lines = 4.83         |
| Ver Blank Start    | = 15.507;                  | // (msec)  | = 488 lines                |
| Ver Blank Time     | = 0.922;                   | // (msec)  | = 29 lines                 |
| Ver Sync Start     | = 15.571;                  | // (msec)  | = 490 lines                |
| // V Bottom Border | = 0.254;                   | // (msec)  | = 8 lines                  |
| // V Front Porch   | = 0.064;                   | // (msec)  | = 2 lines                  |
| Ver Sync Time      | = 0.064;                   | // (msec)  | = 2 lines                  |
| // V Back Porch    | = 0.794;                   | // (msec)  | = 25 lines                 |
| // V Top Border    | = 0.254;                   | // (msec)  | = 8 lines                  |

**Definition of Terms:** Refer to section 3.3.

## VESA MONITOR TIMING STANDARD

Adopted: 11/11/90 (VESA #901101)  
 Resolution: 640 x 480 at 72 Hz (non-interlaced)  
 EDID ID: DMT ID: 05h; STD 2 Byte Code: (31, 4C)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 11h, 12h, 101h, 110h, 111h, & 112h (1, 4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                                |
|--------------------|----------------------------|------------|--------------------------------|
| Timing Name        | = <b>640 x 480 @ 72Hz;</b> |            |                                |
| Hor Pixels         | = <b>640;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>480;</b>              | // Lines   |                                |
| Hor Frequency      | = 37.861;                  | // kHz     | = 26.4 usec / line             |
| Ver Frequency      | = 72.809;                  | // Hz      | = 13.7 msec / frame            |
| Pixel Clock        | = <b>31.500;</b>           | // MHz     | = 31.7 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                | // Pixels  | = 254.0 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 6.3 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>         | // HBlank  | = 21.2% of HTotal              |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>         | // VBlank  | = 4.6% of VTotal               |
| Hor Total Time     | = 26.413;                  | // (usec)  | = 104 chars = 832 Pixels       |
| Hor Addr Time      | = 20.317;                  | // (usec)  | = 80 chars = 640 Pixels        |
| Hor Blank Start    | = 20.571;                  | // (usec)  | = 81 chars = 648 Pixels        |
| Hor Blank Time     | = 5.587;                   | // (usec)  | = 22 chars = 176 Pixels        |
| Hor Sync Start     | = 21.079;                  | // (usec)  | = 83 chars = 664 Pixels        |
| // H Right Border  | = 0.254;                   | // (usec)  | = <b>1</b> chars = 8 Pixels    |
| // H Front Porch   | = 0.508;                   | // (usec)  | = <b>2</b> chars = 16 Pixels   |
| Hor Sync Time      | = 1.270;                   | // (usec)  | = <b>5</b> chars = 40 Pixels   |
| // H Back Porch    | = 3.810;                   | // (usec)  | = <b>15</b> chars = 120 Pixels |
| // H Left Border   | = 0.254;                   | // (usec)  | = <b>1</b> chars = 8 Pixels    |
| Ver Total Time     | = 13.735;                  | // (msec)  | = 520 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 12.678;                  | // (msec)  | = 480 lines = 4.88             |
| Ver Blank Start    | = 12.889;                  | // (msec)  | = 488 lines                    |
| Ver Blank Time     | = 0.634;                   | // (msec)  | = 24 lines                     |
| Ver Sync Start     | = 12.916;                  | // (msec)  | = 489 lines                    |
| // V Bottom Border | = 0.211;                   | // (msec)  | = <b>8</b> lines               |
| // V Front Porch   | = 0.026;                   | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.079;                   | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.528;                   | // (msec)  | = <b>20</b> lines              |
| // V Top Border    | = 0.211;                   | // (msec)  | = <b>8</b> lines               |

**Definition of Terms:** Refer to section 3.3.

## VESA MONITOR TIMING STANDARD

Adopted: 10/4/93  
Resolution: 640 x 480 at 75 Hz (non-interlaced)  
EDID ID: DMT ID: 06h; STD 2 Byte Code: (31, 4F)h; CVT 3 Byte Code: n/a  
BIOS Modes: 11h, 12h, 101h, 110h, 111h, & 112h (1, 4, 8, 15, 16, & 24 bpp)  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                          |            |                            |
|--------------------|---|--------------------------|------------|----------------------------|
| Timing Name        | = | <b>640 x 480 @ 75Hz;</b> |            |                            |
| Hor Pixels         | = | <b>640;</b>              | // Pixels  |                            |
| Ver Pixels         | = | <b>480;</b>              | // Lines   |                            |
| Hor Frequency      | = | 37.500;                  | // kHz     | = 26.7 usec / line         |
| Ver Frequency      | = | 75.000;                  | // Hz      | = 13.3 msec / frame        |
| Pixel Clock        | = | <b>31.500;</b>           | // MHz     | = 31.7 nsec ± 0.5%         |
| Character Width    | = | <b>8;</b>                | // Pixels  | = 254.0 nsec               |
| Scan Type          | = | <b>NONINTERLACED;</b>    | // H Phase | = 6.2 %                    |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>         | // HBlank  | = 23.8% of HTotal          |
| Ver Sync Polarity  | = | <b>NEGATIVE;</b>         | // VBlank  | = 4.0% of VTotal           |
| Hor Total Time     | = | 26.667;                  | // (usec)  | = 105 chars = 840 Pixels   |
| Hor Addr Time      | = | 20.317;                  | // (usec)  | = 80 chars = 640 Pixels    |
| Hor Blank Start    | = | 20.317;                  | // (usec)  | = 80 chars = 640 Pixels    |
| Hor Blank Time     | = | 6.349;                   | // (usec)  | = 25 chars = 200 Pixels    |
| Hor Sync Start     | = | 20.825;                  | // (usec)  | = 82 chars = 656 Pixels    |
| // H Right Border  | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.508;                   | // (usec)  | = 2 chars = 16 Pixels      |
| Hor Sync Time      | = | 2.032;                   | // (usec)  | = 8 chars = 64 Pixels      |
| // H Back Porch    | = | 3.810;                   | // (usec)  | = 15 chars = 120 Pixels    |
| // H Left Border   | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 13.333;                  | // (msec)  | = 500 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.800;                  | // (msec)  | = 480 lines = 5.13         |
| Ver Blank Start    | = | 12.800;                  | // (msec)  | = 480 lines                |
| Ver Blank Time     | = | 0.533;                   | // (msec)  | = 20 lines                 |
| Ver Sync Start     | = | 12.827;                  | // (msec)  | = 481 lines                |
| // V Bottom Border | = | 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.027;                   | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = | 0.080;                   | // (msec)  | = 3 lines                  |
| // V Back Porch    | = | 0.427;                   | // (msec)  | = 16 lines                 |
| // V Top Border    | = | 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.3.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 640 x 480 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 07h; STD 2 Byte Code: (31, 59)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                            |
|--------------------|----------------------------|------------|----------------------------|
| Timing Name        | = <b>640 x 480 @ 85Hz;</b> |            |                            |
| Hor Pixels         | = <b>640;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>480;</b>              | // Lines   |                            |
| Hor Frequency      | = 43.269;                  | // kHz     | = 23.1 usec / line         |
| Ver Frequency      | = 85.008;                  | // Hz      | = 11.8 msec / frame        |
| Pixel Clock        | = <b>36.000;</b>           | // MHz     | = 27.8 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>                | // Pixels  | = 222.2 nsec               |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 1.4 %                    |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>         | // HBlank  | = 23.1% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>         | // VBlank  | = 5.7% of VTotal           |
| Hor Total Time     | = 23.111;                  | // (usec)  | = 104 chars = 832 Pixels   |
| Hor Addr Time      | = 17.778;                  | // (usec)  | = 80 chars = 640 Pixels    |
| Hor Blank Start    | = 17.778;                  | // (usec)  | = 80 chars = 640 Pixels    |
| Hor Blank Time     | = 5.333;                   | // (usec)  | = 24 chars = 192 Pixels    |
| Hor Sync Start     | = 19.333;                  | // (usec)  | = 87 chars = 696 Pixels    |
| // H Right Border  | = 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 1.556;                   | // (usec)  | = 7 chars = 56 Pixels      |
| Hor Sync Time      | = 1.556;                   | // (usec)  | = 7 chars = 56 Pixels      |
| // H Back Porch    | = 2.222;                   | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 11.764;                  | // (msec)  | = 509 lines HT – (1.06xHA) |
| Ver Addr Time      | = 11.093;                  | // (msec)  | = 480 lines = 4.27         |
| Ver Blank Start    | = 11.093;                  | // (msec)  | = 480 lines                |
| Ver Blank Time     | = 0.670;                   | // (msec)  | = 29 lines                 |
| Ver Sync Start     | = 11.116;                  | // (msec)  | = 481 lines                |
| // V Bottom Border | = 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.023;                   | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = 0.069;                   | // (msec)  | = 3 lines                  |
| // V Back Porch    | = 0.578;                   | // (msec)  | = 25 lines                 |
| // V Top Border    | = 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.3.

## VESA MONITOR TIMING STANDARD

Adopted: 8/7/90 (VESA #900601)  
 Resolution: 800 x 600 at 56 Hz (non-interlaced)  
 EDID ID: DMT ID: 08h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 BIOS Modes: 102h, 103h, 113h, 114h, & 115h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                                |
|--------------------|----------------------------|------------|--------------------------------|
| Timing Name        | = <b>800 x 600 @ 56Hz;</b> |            |                                |
| Hor Pixels         | = <b>800;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>600;</b>              | // Lines   |                                |
| Hor Frequency      | = 35.156;                  | // kHz     | = 28.4 usec / line             |
| Ver Frequency      | = 56.250;                  | // Hz      | = 17.8 msec / frame            |
| Pixel Clock        | = <b>36.000;</b>           | // MHz     | = 27.8 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                | // Pixels  | = 222.2 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 5.1 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>         | // HBlank  | = 21.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>         | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 28.444;                  | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Addr Time      | = 22.222;                  | // (usec)  | = 100 chars = 800 Pixels       |
| Hor Blank Start    | = 22.222;                  | // (usec)  | = 100 chars = 800 Pixels       |
| Hor Blank Time     | = 6.222;                   | // (usec)  | = 28 chars = 224 Pixels        |
| Hor Sync Start     | = 22.889;                  | // (usec)  | = 103 chars = 824 Pixels       |
| // H Right Border  | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.667;                   | // (usec)  | = <b>3</b> chars = 24 Pixels   |
| Hor Sync Time      | = 2.000;                   | // (usec)  | = <b>9</b> chars = 72 Pixels   |
| // H Back Porch    | = 3.556;                   | // (usec)  | = <b>16</b> chars = 128 Pixels |
| // H Left Border   | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 17.778;                  | // (msec)  | = 625 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 17.067;                  | // (msec)  | = 600 lines = 4.89             |
| Ver Blank Start    | = 17.067;                  | // (msec)  | = 600 lines                    |
| Ver Blank Time     | = 0.711;                   | // (msec)  | = 25 lines                     |
| Ver Sync Start     | = 17.095;                  | // (msec)  | = 601 lines                    |
| // V Bottom Border | = 0.000;                   | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.028;                   | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.057;                   | // (msec)  | = <b>2</b> lines               |
| // V Back Porch    | = 0.626;                   | // (msec)  | = <b>22</b> lines              |
| // V Top Border    | = 0.000;                   | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 8/7/90 (VESA #900602)  
Resolution: 800 x 600 at 60 Hz (non-interlaced)  
EDID ID: DMT ID: 09h; STD 2 Byte Code: (45, 40)h; CVT 3 Byte Code: n/a  
BIOS Modes: 102h, 103h, 113h, 114h, & 115h (4, 8, 15, 16, & 24 bpp)  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                          |            |                            |
|--------------------|---|--------------------------|------------|----------------------------|
| Timing Name        | = | <b>800 x 600 @ 60Hz;</b> |            |                            |
| Hor Pixels         | = | <b>800;</b>              | // Pixels  |                            |
| Ver Pixels         | = | <b>600;</b>              | // Lines   |                            |
| Hor Frequency      | = | 37.879;                  | // kHz     | = 26.4 usec / line         |
| Ver Frequency      | = | 60.317;                  | // Hz      | = 16.6 msec / frame        |
| Pixel Clock        | = | <b>40.000;</b>           | // MHz     | = 25.0 nsec ± 0.5%         |
| Character Width    | = | <b>8;</b>                | // Pixels  | = 200.0 nsec               |
| Scan Type          | = | <b>NONINTERLACED;</b>    | // H Phase | = 2.3 %                    |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>         | // HBlank  | = 24.2% of HTotal          |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>         | // VBlank  | = 4.5% of VTotal           |
| Hor Total Time     | = | 26.400;                  | // (usec)  | = 132 chars = 1056 Pixels  |
| Hor Addr Time      | = | 20.000;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Start    | = | 20.000;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Time     | = | 6.400;                   | // (usec)  | = 32 chars = 256 Pixels    |
| Hor Sync Start     | = | 21.000;                  | // (usec)  | = 105 chars = 840 Pixels   |
| // H Right Border  | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 1.000;                   | // (usec)  | = 5 chars = 40 Pixels      |
| Hor Sync Time      | = | 3.200;                   | // (usec)  | = 16 chars = 128 Pixels    |
| // H Back Porch    | = | 2.200;                   | // (usec)  | = 11 chars = 88 Pixels     |
| // H Left Border   | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 16.579;                  | // (msec)  | = 628 lines HT - (1.06xHA) |
| Ver Addr Time      | = | 15.840;                  | // (msec)  | = 600 lines = 5.2          |
| Ver Blank Start    | = | 15.840;                  | // (msec)  | = 600 lines                |
| Ver Blank Time     | = | 0.739;                   | // (msec)  | = 28 lines                 |
| Ver Sync Start     | = | 15.866;                  | // (msec)  | = 601 lines                |
| // V Bottom Border | = | 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.026;                   | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = | 0.106;                   | // (msec)  | = 4 lines                  |
| // V Back Porch    | = | 0.607;                   | // (msec)  | = 23 lines                 |
| // V Top Border    | = | 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 9/10/91 (VESA #900603A)  
 Resolution: 800 x 600 at 72 Hz (non-interlaced)  
 EDID ID: DMT ID: 0Ah; STD 2 Byte Code: (45, 4C)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 102h, 103h, 113h, 114h, & 115h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                            |            |                                |
|--------------------|----------------------------|------------|--------------------------------|
| Timing Name        | = <b>800 x 600 @ 72Hz;</b> |            |                                |
| Hor Pixels         | = <b>800;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>600;</b>              | // Lines   |                                |
| Hor Frequency      | = 48.077;                  | // kHz     | = 20.8 usec / line             |
| Ver Frequency      | = 72.188;                  | // Hz      | = 13.9 msec / frame            |
| Pixel Clock        | = <b>50.000;</b>           | // MHz     | = 20.0 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                | // Pixels  | = 160.0 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>    | // H Phase | = 0.4 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>         | // HBlank  | = 23.1% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>         | // VBlank  | = 9.9% of VTotal               |
| Hor Total Time     | = 20.800;                  | // (usec)  | = 130 chars = 1040 Pixels      |
| Hor Addr Time      | = 16.000;                  | // (usec)  | = 100 chars = 800 Pixels       |
| Hor Blank Start    | = 16.000;                  | // (usec)  | = 100 chars = 800 Pixels       |
| Hor Blank Time     | = 4.800;                   | // (usec)  | = 30 chars = 240 Pixels        |
| Hor Sync Start     | = 17.120;                  | // (usec)  | = 107 chars = 856 Pixels       |
| // H Right Border  | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 1.120;                   | // (usec)  | = <b>7</b> chars = 56 Pixels   |
| Hor Sync Time      | = 2.400;                   | // (usec)  | = <b>15</b> chars = 120 Pixels |
| // H Back Porch    | = 1.280;                   | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| // H Left Border   | = 0.000;                   | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 13.853;                  | // (msec)  | = 666 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 12.480;                  | // (msec)  | = 600 lines = 3.84             |
| Ver Blank Start    | = 12.480;                  | // (msec)  | = 600 lines                    |
| Ver Blank Time     | = 1.373;                   | // (msec)  | = 66 lines                     |
| Ver Sync Start     | = 13.250;                  | // (msec)  | = 637 lines                    |
| // V Bottom Border | = 0.000;                   | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.770;                   | // (msec)  | = <b>37</b> lines              |
| Ver Sync Time      | = 0.125;                   | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.478;                   | // (msec)  | = <b>23</b> lines              |
| // V Top Border    | = 0.000;                   | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.



## VESA MONITOR TIMING STANDARD

Adopted: 10/4/93  
Resolution: 800 x 600 at 75 Hz (non-interlaced)  
EDID ID: DMT ID: 0Bh; STD 2 Byte Code: (45, 4F)h; CVT 3 Byte Code: n/a  
BIOS Modes: 102h, 103h, 113h, 114h, & 115h (4, 8, 15, 16, & 24 bpp)  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                          |            |                            |
|--------------------|---|--------------------------|------------|----------------------------|
| Timing Name        | = | <b>800 x 600 @ 75Hz;</b> |            |                            |
| Hor Pixels         | = | <b>800;</b>              | // Pixels  |                            |
| Ver Pixels         | = | <b>600;</b>              | // Lines   |                            |
| Hor Frequency      | = | 46.875;                  | // kHz     | = 21.3 usec / line         |
| Ver Frequency      | = | 75.000;                  | // Hz      | = 13.3 msec / frame        |
| Pixel Clock        | = | <b>49.500;</b>           | // MHz     | = 20.2 nsec ± 0.5%         |
| Character Width    | = | <b>8;</b>                | // Pixels  | = 161.6 nsec               |
| Scan Type          | = | <b>NONINTERLACED;</b>    | // H Phase | = 6.8 %                    |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>         | // HBlank  | = 24.2% of HTotal          |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>         | // VBlank  | = 4.0% of VTotal           |
| Hor Total Time     | = | 21.333;                  | // (usec)  | = 132 chars = 1056 Pixels  |
| Hor Addr Time      | = | 16.162;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Start    | = | 16.162;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Time     | = | 5.172;                   | // (usec)  | = 32 chars = 256 Pixels    |
| Hor Sync Start     | = | 16.485;                  | // (usec)  | = 102 chars = 816 Pixels   |
| // H Right Border  | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.323;                   | // (usec)  | = 2 chars = 16 Pixels      |
| Hor Sync Time      | = | 1.616;                   | // (usec)  | = 10 chars = 80 Pixels     |
| // H Back Porch    | = | 3.232;                   | // (usec)  | = 20 chars = 160 Pixels    |
| // H Left Border   | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 13.333;                  | // (msec)  | = 625 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.800;                  | // (msec)  | = 600 lines = 4.2          |
| Ver Blank Start    | = | 12.800;                  | // (msec)  | = 600 lines                |
| Ver Blank Time     | = | 0.533;                   | // (msec)  | = 25 lines                 |
| Ver Sync Start     | = | 12.821;                  | // (msec)  | = 601 lines                |
| // V Bottom Border | = | 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.021;                   | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = | 0.064;                   | // (msec)  | = 3 lines                  |
| // V Back Porch    | = | 0.448;                   | // (msec)  | = 21 lines                 |
| // V Top Border    | = | 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
Resolution: 800 x 600 at 85 Hz (non-interlaced)  
EDID ID: DMT ID: 0Ch; STD 2 Byte Code: (45, 59)h; CVT 3 Byte Code: n/a  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                          |            |                            |
|--------------------|---|--------------------------|------------|----------------------------|
| Timing Name        | = | <b>800 x 600 @ 85Hz;</b> |            |                            |
| Hor Pixels         | = | <b>800;</b>              | // Pixels  |                            |
| Ver Pixels         | = | <b>600;</b>              | // Lines   |                            |
| Hor Frequency      | = | 53.674;                  | // kHz     | = 18.6 usec / line         |
| Ver Frequency      | = | 85.061;                  | // Hz      | = 11.8 msec / frame        |
| Pixel Clock        | = | <b>56.250;</b>           | // MHz     | = 17.8 nsec ± 0.5%         |
| Character Width    | = | <b>8;</b>                | // Pixels  | = 142.2 nsec               |
| Scan Type          | = | <b>NONINTERLACED;</b>    | // H Phase | = 5.7 %                    |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>         | // HBlank  | = 23.7% of HTotal          |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>         | // VBlank  | = 4.9% of VTotal           |
| Hor Total Time     | = | 18.631;                  | // (usec)  | = 131 chars = 1048 Pixels  |
| Hor Addr Time      | = | 14.222;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Start    | = | 14.222;                  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Time     | = | 4.409;                   | // (usec)  | = 31 chars = 248 Pixels    |
| Hor Sync Start     | = | 14.791;                  | // (usec)  | = 104 chars = 832 Pixels   |
| // H Right Border  | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.569;                   | // (usec)  | = 4 chars = 32 Pixels      |
| Hor Sync Time      | = | 1.138;                   | // (usec)  | = 8 chars = 64 Pixels      |
| // H Back Porch    | = | 2.702;                   | // (usec)  | = 19 chars = 152 Pixels    |
| // H Left Border   | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 11.756;                  | // (msec)  | = 631 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 11.179;                  | // (msec)  | = 600 lines = 3.56         |
| Ver Blank Start    | = | 11.179;                  | // (msec)  | = 600 lines                |
| Ver Blank Time     | = | 0.578;                   | // (msec)  | = 31 lines                 |
| Ver Sync Start     | = | 11.197;                  | // (msec)  | = 601 lines                |
| // V Bottom Border | = | 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.019;                   | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = | 0.056;                   | // (msec)  | = 3 lines                  |
| // V Back Porch    | = | 0.503;                   | // (msec)  | = 27 lines                 |
| // V Top Border    | = | 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 800 x 600 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 0Dh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                            |
|--------------------|--|------------|----------------------------|
| Timing Name        | = <b>800 x 600 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>800;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = <b>600;</b>                                      | // Lines   |                            |
| Hor Frequency      | = 76.302;  | // kHz     | = 13.1 usec / line         |
| Ver Frequency      | = 119.972;   | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = <b>73.250;</b>                                   | // MHz     | = 13.7 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>  | // Pixels  | = 109.2 nsec               |
| Scan Type          | = <b>NONINTERLACED;</b>                            | // H Phase | = 1.7 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                 | // HBlank  | = 16.7% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                  | // VBlank  | = 5.7% of VTotal           |
| Hor Total Time     | = 13.106;  | // (usec)  | = 120 chars = 960 Pixels   |
| Hor Addr Time      | = 10.922;  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Start    | = 10.922;  | // (usec)  | = 100 chars = 800 Pixels   |
| Hor Blank Time     | = 2.184;   | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 11.577;  | // (usec)  | = 106 chars = 848 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.655;   | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.437;   | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 1.092;   | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 8.335;   | // (msec)  | = 636 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.863;   | // (msec)  | = 600 lines = 1.53         |
| Ver Blank Start    | = 7.863;   | // (msec)  | = 600 lines                |
| Ver Blank Time     | = 0.472;   | // (msec)  | = 36 lines                 |
| Ver Sync Start     | = 7.903;   | // (msec)  | = 603 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.039;   | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.052;   | // (msec)  | = 4 lines                  |
| // V Back Porch    | = 0.380;   | // (msec)  | = 29 lines                 |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 848 x 480 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 0Eh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                          |            |                            |
|--------------------|---|--------------------------|------------|----------------------------|
| Timing Name        | = | <b>848 x 480 @ 60Hz;</b> |            |                            |
| Hor Pixels         | = | <b>848;</b>              | // Pixels  |                            |
| Ver Pixels         | = | <b>480;</b>              | // Lines   |                            |
| Hor Frequency      | = | 31.020;                  | // kHz     | = 32.2 usec / line         |
| Ver Frequency      | = | 60.000;                  | // Hz      | = 16.7 msec / frame        |
| Pixel Clock        | = | <b>33.750;</b>           | // MHz     | = 29.6 nsec ± 0.5%         |
| Character Width    | = | <b>8;</b>                | // Pixels  | = 237.0 nsec               |
| Scan Type          | = | <b>NONINTERLACED;</b>    | // H Phase | = 4.4 %                    |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>         | // HBlank  | = 22.1% of HTotal          |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>         | // VBlank  | = 7.2% of VTotal           |
| Hor Total Time     | = | 32.237;                  | // (usec)  | = 136 chars = 1088 Pixels  |
| Hor Addr Time      | = | 25.126;                  | // (usec)  | = 106 chars = 848 Pixels   |
| Hor Blank Start    | = | 25.126;                  | // (usec)  | = 106 chars = 848 Pixels   |
| Hor Blank Time     | = | 7.111;                   | // (usec)  | = 30 chars = 240 Pixels    |
| Hor Sync Start     | = | 25.600;                  | // (usec)  | = 108 chars = 864 Pixels   |
| // H Right Border  | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.474;                   | // (usec)  | = 2 chars = 16 Pixels      |
| Hor Sync Time      | = | 3.319;                   | // (usec)  | = 14 chars = 112 Pixels    |
| // H Back Porch    | = | 3.319;                   | // (usec)  | = 14 chars = 112 Pixels    |
| // H Left Border   | = | 0.000;                   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 16.667;                  | // (msec)  | = 517 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 15.474;                  | // (msec)  | = 480 lines = 5.6          |
| Ver Blank Start    | = | 15.474;                  | // (msec)  | = 480 lines                |
| Ver Blank Time     | = | 1.193;                   | // (msec)  | = 37 lines                 |
| Ver Sync Start     | = | 15.667;                  | // (msec)  | = 486 lines                |
| // V Bottom Border | = | 0.000;                   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.193;                   | // (msec)  | = 6 lines                  |
| Ver Sync Time      | = | 0.258;                   | // (msec)  | = 8 lines                  |
| // V Back Porch    | = | 0.741;                   | // (msec)  | = 23 lines                 |
| // V Top Border    | = | 0.000;                   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: n/a **\*\* For Reference Only - Not a VESA Standard \*\***  
 Resolution: 1024 x 768 at 43 Hz (interlaced)  
 EDID ID: DMT ID: 0Fh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 BIOS Modes: 104h, 105h, 116h, 117h, & 118h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |  |           |                                 |
|--------------------|--|-----------|---------------------------------|
| Timing Name        | = <b>1024 x 768 @ 43Hz (Interlaced);</b> |           |                                 |
| Hor Pixels         | = <b>1024;</b>                           | // Pixels |                                 |
| Ver Pixels         | = <b>768;</b>                            | // Lines  |                                 |
| Hor Frequency      | = 35.522;                                | // kHz    | = 28.2 usec / line              |
| Ver Frequency      | = 86.957;                                | // Hz     | = 11.5 msec / <b>field</b>      |
| Pixel Clock        | = <b>44.900;</b>                         | // MHz    | = 22.3 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                              | // Pixels | = 178.2 nsec                    |
| Scan Type          | = <b>INTERLACED;</b>                     |           |                                 |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                       | // HBlank | = 19.0% of HTotal               |
| Ver Sync Polarity  | = <b>POSITIVE;</b>                       | // VBlank | = 5.9% of VTotal                |
| Hor Total Time     | = 28.151;                                | // (usec) | = 158 chars = 1264 Pixels       |
| Hor Addr Time      | = 22.806;                                | // (usec) | = 128 chars = 1024 Pixels       |
| Hor Blank Start    | = 22.806;                                | // (usec) | = 128 chars = 1024 Pixels       |
| Hor Blank Time     | = 5.345;                                 | // (usec) | = 30 chars = 240 Pixels         |
| Hor Sync Start     | = 22.984;                                | // (usec) | = 129 chars = 1032 Pixels       |
| // H Right Border  | = 0.000;                                 | // (usec) | = <b>0</b> chars = 0 Pixels     |
| // H Front Porch   | = 0.178;                                 | // (usec) | = <b>1</b> chars = 8 Pixels     |
| Hor Sync Time      | = 3.920;                                 | // (usec) | = <b>22</b> chars = 176 Pixels  |
| // H Back Porch    | = 1.247;                                 | // (usec) | = <b>7</b> chars = 56 Pixels    |
| // H Left Border   | = 0.000;                                 | // (usec) | = <b>0</b> chars = 0 Pixels     |
| Ver Total Time     | = 23.000;                                | // (msec) | = 817 lines (Per Frame)         |
| Ver Addr Time      | = 21.620;                                | // (msec) | = 768 lines (Per Frame)         |
| Ver Blank Start    | = 21.620;                                | // (msec) | = 768 lines (Per Frame)         |
| Ver Blank Time     | = 0.676;                                 | // (msec) | = 24 lines ( <b>Per Field</b> ) |
| Ver Sync Start     | = 21.620;                                | // (msec) | = 768 lines (Per Frame)         |
| // V Bottom Border | = 0.000;                                 | // (msec) | = <b>0</b> lines (Odd Field)    |
| // V Front Porch   | = 0.000;                                 | // (msec) | = <b>0</b> lines (Odd Field)    |
| Ver Sync Time      | = 0.113;                                 | // (msec) | = <b>4</b> lines (Both Fields)  |
| // V Back Porch    | = 0.563;                                 | // (msec) | = <b>20</b> lines (Odd Field)   |
| // V Top Border    | = 0.000;                                 | // (msec) | = <b>0</b> lines (Odd Field)    |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 9/10/91 (VESA #901101A)  
 Resolution: 1024 x 768 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 10h; STD 2 Byte Code: (61, 40)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 104h, 105h, 116h, 117h, & 118h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1024 x 768 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1024;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                                |
| Hor Frequency      | = 48.363;                   | // kHz     | = 20.7 usec / line             |
| Ver Frequency      | = 60.004;                   | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>65.000;</b>            | // MHz     | = 15.4 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 123.1 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 5.1 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>          | // HBlank  | = 23.8% of HTotal              |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>          | // VBlank  | = 4.7% of VTotal               |
| Hor Total Time     | = 20.677;                   | // (usec)  | = 168 chars = 1344 Pixels      |
| Hor Addr Time      | = 15.754;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Start    | = 15.754;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Time     | = 4.923;                    | // (usec)  | = 40 chars = 320 Pixels        |
| Hor Sync Start     | = 16.123;                   | // (usec)  | = 131 chars = 1048 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.369;                    | // (usec)  | = <b>3</b> chars = 24 Pixels   |
| Hor Sync Time      | = 2.092;                    | // (usec)  | = <b>17</b> chars = 136 Pixels |
| // H Back Porch    | = 2.462;                    | // (usec)  | = <b>20</b> chars = 160 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.666;                   | // (msec)  | = 806 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 15.880;                   | // (msec)  | = 768 lines = 3.98             |
| Ver Blank Start    | = 15.880;                   | // (msec)  | = 768 lines                    |
| Ver Blank Time     | = 0.786;                    | // (msec)  | = 38 lines                     |
| Ver Sync Start     | = 15.942;                   | // (msec)  | = 771 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.062;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.124;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.600;                    | // (msec)  | = <b>29</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.3.

## VESA MONITOR TIMING STANDARD

Adopted: 8/9/91 (VESA #910801-2)  
 Resolution: 1024 x 768 at 70 Hz (non-interlaced)  
 EDID ID: DMT ID: 11h; STD 2 Byte Code: (61, 4A)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 104h, 105h, 116h, 117h, & 118h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1024 x 768 @ 70Hz;</b> |            |                                |
| Hor Pixels         | = <b>1024;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                                |
| Hor Frequency      | = 56.476;                   | // kHz     | = 17.7 usec / line             |
| Ver Frequency      | = 70.069;                   | // Hz      | = 14.3 msec / frame            |
| Pixel Clock        | = <b>75.000;</b>            | // MHz     | = 13.3 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 106.7 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 4.5 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>          | // HBlank  | = 22.9% of HTotal              |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>          | // VBlank  | = 4.7% of VTotal               |
| Hor Total Time     | = 17.707;                   | // (usec)  | = 166 chars = 1328 Pixels      |
| Hor Addr Time      | = 13.653;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Start    | = 13.653;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Time     | = 4.053;                    | // (usec)  | = 38 chars = 304 Pixels        |
| Hor Sync Start     | = 13.973;                   | // (usec)  | = 131 chars = 1048 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.320;                    | // (usec)  | = <b>3</b> chars = 24 Pixels   |
| Hor Sync Time      | = 1.813;                    | // (usec)  | = <b>17</b> chars = 136 Pixels |
| // H Back Porch    | = 1.920;                    | // (usec)  | = <b>18</b> chars = 144 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 14.272;                   | // (msec)  | = 806 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 13.599;                   | // (msec)  | = 768 lines = 3.23             |
| Ver Blank Start    | = 13.599;                   | // (msec)  | = 768 lines                    |
| Ver Blank Time     | = 0.673;                    | // (msec)  | = 38 lines                     |
| Ver Sync Start     | = 13.652;                   | // (msec)  | = 771 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.053;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.106;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.513;                    | // (msec)  | = <b>29</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.3.



## VESA MONITOR TIMING STANDARD

Adopted: 10/4/93  
 Resolution: 1024 x 768 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 12h; STD 2 Byte Code: (61, 4F)h; CVT 3 Byte Code: n/a  
 BIOS Modes: 104h, 105h, 116h, 117h, & 118h (4, 8, 15, 16, & 24 bpp)  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                            |
|--------------------|-----------------------------|------------|----------------------------|
| Timing Name        | = <b>1024 x 768 @ 75Hz;</b> |            |                            |
| Hor Pixels         | = <b>1024;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                            |
| Hor Frequency      | = 60.023;                   | // kHz     | = 16.7 usec / line         |
| Ver Frequency      | = 75.029;                   | // Hz      | = 13.3 msec / frame        |
| Pixel Clock        | = <b>78.750;</b>            | // MHz     | = 12.7 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 101.6 nsec               |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 6.1 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 22.0% of HTotal          |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.0% of VTotal           |
| Hor Total Time     | = 16.660;                   | // (usec)  | = 164 chars = 1312 Pixels  |
| Hor Addr Time      | = 13.003;                   | // (usec)  | = 128 chars = 1024 Pixels  |
| Hor Blank Start    | = 13.003;                   | // (usec)  | = 128 chars = 1024 Pixels  |
| Hor Blank Time     | = 3.657;                    | // (usec)  | = 36 chars = 288 Pixels    |
| Hor Sync Start     | = 13.206;                   | // (usec)  | = 130 chars = 1040 Pixels  |
| // H Right Border  | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.203;                    | // (usec)  | = 2 chars = 16 Pixels      |
| Hor Sync Time      | = 1.219;                    | // (usec)  | = 12 chars = 96 Pixels     |
| // H Back Porch    | = 2.235;                    | // (usec)  | = 22 chars = 176 Pixels    |
| // H Left Border   | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 13.328;                   | // (msec)  | = 800 lines HT – (1.06xHA) |
| Ver Addr Time      | = 12.795;                   | // (msec)  | = 768 lines = 2.88         |
| Ver Blank Start    | = 12.795;                   | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.533;                    | // (msec)  | = 32 lines                 |
| Ver Sync Start     | = 12.812;                   | // (msec)  | = 769 lines                |
| // V Bottom Border | = 0.000;                    | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.017;                    | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = 0.050;                    | // (msec)  | = 3 lines                  |
| // V Back Porch    | = 0.466;                    | // (msec)  | = 28 lines                 |
| // V Top Border    | = 0.000;                    | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.



## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 1024 x 768 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 13h; STD 2 Byte Code: (61, 59)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1024 x 768 @ 85Hz;</b> |            |                                |
| Hor Pixels         | = <b>1024;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                                |
| Hor Frequency      | = 68.677;                   | // kHz     | = 14.6 usec / line             |
| Ver Frequency      | = 84.997;                   | // Hz      | = 11.8 msec / frame            |
| Pixel Clock        | = <b>94.500;</b>            | // MHz     | = 10.6 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 84.7 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 5.8 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 25.6% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 5.0% of VTotal               |
| Hor Total Time     | = 14.561;                   | // (usec)  | = 172 chars = 1376 Pixels      |
| Hor Addr Time      | = 10.836;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Start    | = 10.836;                   | // (usec)  | = 128 chars = 1024 Pixels      |
| Hor Blank Time     | = 3.725;                    | // (usec)  | = 44 chars = 352 Pixels        |
| Hor Sync Start     | = 11.344;                   | // (usec)  | = 134 chars = 1072 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.508;                    | // (usec)  | = <b>6</b> chars = 48 Pixels   |
| Hor Sync Time      | = 1.016;                    | // (usec)  | = <b>12</b> chars = 96 Pixels  |
| // H Back Porch    | = 2.201;                    | // (usec)  | = <b>26</b> chars = 208 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 11.765;                   | // (msec)  | = 808 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 11.183;                   | // (msec)  | = 768 lines = 3.07             |
| Ver Blank Start    | = 11.183;                   | // (msec)  | = 768 lines                    |
| Ver Blank Time     | = 0.582;                    | // (msec)  | = 40 lines                     |
| Ver Sync Start     | = 11.197;                   | // (msec)  | = 769 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.015;                    | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.044;                    | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.524;                    | // (msec)  | = <b>36</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1024 x 768 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 14h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |            |                            |
|--------------------|---|------------|----------------------------|
| Timing Name        | = <b>1024 x 768 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>1024;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>                                       | // Lines   |                            |
| Hor Frequency      | = 97.551;   | // kHz     | = 10.3 usec / line         |
| Ver Frequency      | = 119.989;  | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = <b>115.500;</b>                                   | // MHz     | = 8.7 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>   | // Pixels  | = 69.3 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.4 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 13.5% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 5.5% of VTotal           |
| Hor Total Time     | = 10.251;   | // (usec)  | = 148 chars = 1184 Pixels  |
| Hor Addr Time      | = 8.866;  | // (usec)  | = 128 chars = 1024 Pixels  |
| Hor Blank Start    | = 8.866;  | // (usec)  | = 128 chars = 1024 Pixels  |
| Hor Blank Time     | = 1.385;  | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 9.281;  | // (usec)  | = 134 chars = 1072 Pixels  |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.416;  | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.277;  | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 0.693;  | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 8.334;  | // (msec)  | = 813 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.873;  | // (msec)  | = 768 lines = 0.85         |
| Ver Blank Start    | = 7.873;  | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.461;  | // (msec)  | = 45 lines                 |
| Ver Sync Start     | = 7.904;  | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.031;  | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.041;  | // (msec)  | = 4 lines                  |
| // V Back Porch    | = 0.390;  | // (msec)  | = 38 lines                 |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 1152 x 864 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 15h; STD 2 Byte Code: (71, 4F)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                            |
|--------------------|-----------------------------|------------|----------------------------|
| Timing Name        | = <b>1152 x 864 @ 75Hz;</b> |            |                            |
| Hor Pixels         | = <b>1152;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>864;</b>               | // Lines   |                            |
| Hor Frequency      | = 67.500;                   | // kHz     | = 14.8 usec / line         |
| Ver Frequency      | = 75.000;                   | // Hz      | = 13.3 msec / frame        |
| Pixel Clock        | = <b>108.000;</b>           | // MHz     | = 9.3 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 74.1 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 6.0 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 28.0% of HTotal          |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.0% of VTotal           |
| Hor Total Time     | = 14.815;                   | // (usec)  | = 200 chars = 1600 Pixels  |
| Hor Addr Time      | = 10.667;                   | // (usec)  | = 144 chars = 1152 Pixels  |
| Hor Blank Start    | = 10.667;                   | // (usec)  | = 144 chars = 1152 Pixels  |
| Hor Blank Time     | = 4.148;                    | // (usec)  | = 56 chars = 448 Pixels    |
| Hor Sync Start     | = 11.259;                   | // (usec)  | = 152 chars = 1216 Pixels  |
| // H Right Border  | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.593;                    | // (usec)  | = 8 chars = 64 Pixels      |
| Hor Sync Time      | = 1.185;                    | // (usec)  | = 16 chars = 128 Pixels    |
| // H Back Porch    | = 2.370;                    | // (usec)  | = 32 chars = 256 Pixels    |
| // H Left Border   | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 13.333;                   | // (msec)  | = 900 lines HT – (1.06xHA) |
| Ver Addr Time      | = 12.800;                   | // (msec)  | = 864 lines = 3.51         |
| Ver Blank Start    | = 12.800;                   | // (msec)  | = 864 lines                |
| Ver Blank Time     | = 0.533;                    | // (msec)  | = 36 lines                 |
| Ver Sync Start     | = 12.815;                   | // (msec)  | = 865 lines                |
| // V Bottom Border | = 0.000;                    | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.015;                    | // (msec)  | = 1 lines                  |
| Ver Sync Time      | = 0.044;                    | // (msec)  | = 3 lines                  |
| // V Back Porch    | = 0.474;                    | // (msec)  | = 32 lines                 |
| // V Top Border    | = 0.000;                    | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 1280 x 720 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 55h; STD 2 Byte Code: 81h, C0h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***  
 Per CEA-861 --- 720p (Code 4) Timing Definitions

### Detailed Timing Parameters

|                    |                             |            |  |
|--------------------|-----------------------------|------------|--|
| Timing Name        | = <b>1280 x 720 @ 60Hz;</b> |            |  |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |  |
| Ver Pixels         | = <b>720;</b>               | // Lines   |  |
| Hor Frequency      | = 45.000;                   | // KHz     | = 22.2 usec / line                     |
| Ver Frequency      | = 60.000;                   | // Hz      | = 16.7 msec / frame                    |
| Pixel Clock        | = <b>74.250;</b>            | // MHz     | = 13.5 nsec ±0.5%                      |
| Character Width    | = <b>1;</b>                 | // Pixels  | = 13.5 nsec                            |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 3.3 %                                |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 22.4% of HTotal                      |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.0% of VTotal                       |
| Hor Total Time     | = 22.222;                   | // (usec)  | = 1650 chars = 1650 Pixels             |
| Hor Addr Time      | = 17.239;                   | // (usec)  | = 1280 chars = 1280 Pixels             |
| Hor Blank Start    | = 17.239;                   | // (usec)  | = 1280 chars = 1280 Pixels             |
| Hor Blank Time     | = 4.983;                    | // (usec)  | = 370 chars = 370 Pixels               |
| Hor Sync Start     | = 18.721;                   | // (usec)  | = 1390 chars = 1390 Pixels             |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = <b>0</b> Pixels     |
| // H Front Porch   | = 1.481;                    | // (usec)  | = <b>110</b> chars = <b>110</b> Pixels |
| Hor Sync Time      | = 0.539;                    | // (usec)  | = <b>40</b> chars = <b>40</b> Pixels   |
| // H Back Porch    | = 2.963;                    | // (usec)  | = <b>220</b> chars = <b>220</b> Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = <b>0</b> Pixels     |
| Ver Total Time     | = 16.667;                   | // (msec)  | = 750 lines HT – (1.06xHA)             |
| Ver Addr Time      | = 16.000;                   | // (msec)  | = 720 lines = 3.95                     |
| Ver Blank Start    | = 16.000;                   | // (msec)  | = 720 lines                            |
| Ver Blank Time     | = 0.667;                    | // (msec)  | = 30 lines                             |
| Ver Sync Start     | = 16.111;                   | // (msec)  | = 725 lines                            |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines                       |
| // V Front Porch   | = 0.111;                    | // (msec)  | = <b>5</b> lines                       |
| Ver Sync Time      | = 0.111;                    | // (msec)  | = <b>5</b> lines                       |
| // V Back Porch    | = 0.444;                    | // (msec)  | = <b>20</b> lines                      |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines                       |

**Definition of Terms:** Refer to Section 3.1

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1280 x 768 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 16h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (7F, 1C, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |  |            |                            |
|--------------------|--|------------|----------------------------|
| Timing Name        | = <b>1280 x 768 @ 60Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>1280;</b>                                     | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>                                      | // Lines   |                            |
| Hor Frequency      | = 47.396;  | // kHz     | = 21.1 usec / line         |
| Ver Frequency      | = 59.995;  | // Hz      | = 16.7 msec / frame        |
| Pixel Clock        | = <b>68.250;</b>                                   | // MHz     | = 14.7 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>  | // Pixels  | = 117.2 nsec               |
| Scan Type          | = <b>NONINTERLACED;</b>                            | // H Phase | = 1.1 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                 | // HBlank  | = 11.1% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                  | // VBlank  | = 2.8% of VTotal           |
| Hor Total Time     | = 21.099;  | // (usec)  | = 180 chars = 1440 Pixels  |
| Hor Addr Time      | = 18.755;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = 18.755;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = 2.344;   | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 19.458;  | // (usec)  | = 166 chars = 1328 Pixels  |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.703;   | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.469;   | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 1.172;   | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 16.668;  | // (msec)  | = 790 lines HT – (1.06xHA) |
| Ver Addr Time      | = 16.204;  | // (msec)  | = 768 lines = 1.22         |
| Ver Blank Start    | = 16.204;  | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.464;   | // (msec)  | = 22 lines                 |
| Ver Sync Start     | = 16.267;  | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.063;   | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.148;   | // (msec)  | = 7 lines                  |
| // V Back Porch    | = 0.253;   | // (msec)  | = 12 lines                 |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1280 x 768 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 17h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (7F, 1C, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1280 x 768 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                                |
| Hor Frequency      | = 47.776;                   | // kHz     | = 20.9 usec / line             |
| Ver Frequency      | = 59.870;                   | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>79.500;</b>            | // MHz     | = 12.6 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 100.6 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 3.8 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>           | // HBlank  | = 23.1% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 3.8% of VTotal               |
| Hor Total Time     | = 20.931;                   | // (usec)  | = 208 chars = 1664 Pixels      |
| Hor Addr Time      | = 16.101;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Start    | = 16.101;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Time     | = 4.830;                    | // (usec)  | = 48 chars = 384 Pixels        |
| Hor Sync Start     | = 16.906;                   | // (usec)  | = 168 chars = 1344 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.805;                    | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| Hor Sync Time      | = 1.610;                    | // (usec)  | = <b>16</b> chars = 128 Pixels |
| // H Back Porch    | = 2.415;                    | // (usec)  | = <b>24</b> chars = 192 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.703;                   | // (msec)  | = 798 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 16.075;                   | // (msec)  | = 768 lines = 3.86             |
| Ver Blank Start    | = 16.075;                   | // (msec)  | = 768 lines                    |
| Ver Blank Time     | = 0.628;                    | // (msec)  | = 30 lines                     |
| Ver Sync Start     | = 16.138;                   | // (msec)  | = 771 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.063;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.147;                    | // (msec)  | = <b>7</b> lines               |
| // V Back Porch    | = 0.419;                    | // (msec)  | = <b>20</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1280 x 768 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 18h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (7F, 1C, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                            |
|--------------------|-----------------------------|------------|----------------------------|
| Timing Name        | = <b>1280 x 768 @ 75Hz;</b> |            |                            |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                            |
| Hor Frequency      | = 60.289;                   | // KHz     | = 16.6 usec / line         |
| Ver Frequency      | = 74.893;                   | // Hz      | = 13.4 msec / frame        |
| Pixel Clock        | = <b>102.250;</b>           | // MHz     | = 9.8 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 78.2 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 3.8 %                    |
| Hor Sync Polarity  | = <b>NEGATIVE</b>           | // HBlank  | = 24.5% of HTotal          |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.6% of VTotal           |
| Hor Total Time     | = 16.587;                   | // (usec)  | = 212 chars = 1696 Pixels  |
| Hor Addr Time      | = 12.518;                   | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = 12.518;                   | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = 4.068;                    | // (usec)  | = 52 chars = 416 Pixels    |
| Hor Sync Start     | = 13.301;                   | // (usec)  | = 170 chars = 1360 Pixels  |
| // H Right Border  | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.782;                    | // (usec)  | = 10 chars = 80 Pixels     |
| Hor Sync Time      | = 1.252;                    | // (usec)  | = 16 chars = 128 Pixels    |
| // H Back Porch    | = 2.034;                    | // (usec)  | = 26 chars = 208 Pixels    |
| // H Left Border   | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 13.352;                   | // (msec)  | = 805 lines HT – (1.06xHA) |
| Ver Addr Time      | = 12.739;                   | // (msec)  | = 768 lines = 3.32         |
| Ver Blank Start    | = 12.739;                   | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.614;                    | // (msec)  | = 37 lines                 |
| Ver Sync Start     | = 12.788;                   | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;                    | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.050;                    | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.116;                    | // (msec)  | = 7 lines                  |
| // V Back Porch    | = 0.448;                    | // (msec)  | = 27 lines                 |
| // V Top Border    | = 0.000;                    | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
Resolution: 1280 x 768 at 85 Hz (non-interlaced)  
EDID ID: DMT ID: 19h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (7F, 1C, 62)h  
Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                           |            |   |                              |
|--------------------|---|---------------------------|------------|---|------------------------------|
| Timing Name        | = | <b>1280 x 768 @ 85Hz;</b> |            |   |                              |
| Hor Pixels         | = | <b>1280;</b>              | // Pixels  |   |                              |
| Ver Pixels         | = | <b>768;</b>               | // Lines   |   |                              |
| Hor Frequency      | = | 68.633;                   | // kHz     | = | 14.6 usec / line             |
| Ver Frequency      | = | 84.837;                   | // Hz      | = | 11.8 msec / frame            |
| Pixel Clock        | = | <b>117.500;</b>           | // MHz     | = | 8.5 nsec ± 0.5%              |
| Character Width    | = | <b>8;</b>                 | // Pixels  | = | 68.1 nsec                    |
| Scan Type          | = | <b>NONINTERLACED;</b>     | // H Phase | = | 4.0 %                        |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>           | // HBlank  | = | 25.2% of HTotal              |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>          | // VBlank  | = | 5.1% of VTotal               |
| Hor Total Time     | = | 14.570;                   | // (usec)  | = | 214 chars = 1712 Pixels      |
| Hor Addr Time      | = | 10.894;                   | // (usec)  | = | 160 chars = 1280 Pixels      |
| Hor Blank Start    | = | 10.894;                   | // (usec)  | = | 160 chars = 1280 Pixels      |
| Hor Blank Time     | = | 3.677;                    | // (usec)  | = | 54 chars = 432 Pixels        |
| Hor Sync Start     | = | 11.574;                   | // (usec)  | = | 170 chars = 1360 Pixels      |
| // H Right Border  | = | 0.000;                    | // (usec)  | = | <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = | 0.681;                    | // (usec)  | = | <b>10</b> chars = 80 Pixels  |
| Hor Sync Time      | = | 1.157;                    | // (usec)  | = | <b>17</b> chars = 136 Pixels |
| // H Back Porch    | = | 1.838;                    | // (usec)  | = | <b>27</b> chars = 216 Pixels |
| // H Left Border   | = | 0.000;                    | // (usec)  | = | <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = | 11.787;                   | // (msec)  | = | 809 lines HT – (1.06xHA)     |
| Ver Addr Time      | = | 11.190;                   | // (msec)  | = | 768 lines = 3.02             |
| Ver Blank Start    | = | 11.190;                   | // (msec)  | = | 768 lines                    |
| Ver Blank Time     | = | 0.597;                    | // (msec)  | = | 41 lines                     |
| Ver Sync Start     | = | 11.234;                   | // (msec)  | = | 771 lines                    |
| // V Bottom Border | = | 0.000;                    | // (msec)  | = | <b>0</b> lines               |
| // V Front Porch   | = | 0.044;                    | // (msec)  | = | <b>3</b> lines               |
| Ver Sync Time      | = | 0.102;                    | // (msec)  | = | <b>7</b> lines               |
| // V Back Porch    | = | 0.452;                    | // (msec)  | = | <b>31</b> lines              |
| // V Top Border    | = | 0.000;                    | // (msec)  | = | <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.



## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 768 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 1Ah; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |            |                            |
|--------------------|---|------------|----------------------------|
| Timing Name        | = <b>1280 x 768 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>1280;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>                                       | // Lines   |                            |
| Hor Frequency      | = 97.396;   | // kHz     | = 10.3 usec / line         |
| Ver Frequency      | = 119.798;  | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = <b>140.250;</b>                                   | // MHz     | = 7.1 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>   | // Pixels  | = 57.0 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.1 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 11.1% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 5.5% of VTotal           |
| Hor Total Time     | = 10.267;   | // (usec)  | = 180 chars = 1440 Pixels  |
| Hor Addr Time      | = 9.127;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = 9.127;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = 1.141;  | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 9.469;  | // (usec)  | = 166 chars = 1328 Pixels  |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.342;  | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.228;  | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 0.570;  | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 8.347;  | // (msec)  | = 813 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.885;  | // (msec)  | = 768 lines = 0.59         |
| Ver Blank Start    | = 7.885;  | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.462;  | // (msec)  | = 45 lines                 |
| Ver Sync Start     | = 7.916;  | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.031;  | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.072;  | // (msec)  | = 7 lines                  |
| // V Back Porch    | = 0.359;  | // (msec)  | = 35 lines                 |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 800 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 1Bh; STD 2 Byte Code: n/a; CVT 3 Byte Code: (8F, 18, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |  |            |                               |
|--------------------|--|------------|-------------------------------|
| Timing Name        | = <b>1280 x 800 @ 60Hz CVT (Reduced Blanking);</b> |            |                               |
| Hor Pixels         | = <b>1280;</b>                                     | // Pixels  |                               |
| Ver Pixels         | = <b>800;</b>                                      | // Lines   |                               |
| Hor Frequency      | = 49.306;  | // kHz     | = 20.3 usec / line            |
| Ver Frequency      | = 59.910;  | // Hz      | = 16.7 msec / frame           |
| Pixel Clock        | = <b>71.000;</b>                                   | // MHz     | = 14.1 nsec ±0.5%             |
| Character Width    | = <b>8;</b>  | // Pixels  | = 112.7 nsec                  |
| Scan Type          | = <b>NONINTERLACED;</b>                            | // H Phase | = 1.1 %                       |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                 | // HBlank  | = 11.1% of HTotal             |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>                                 | // VBlank  | = 2.8% of VTotal              |
| Hor Total Time     | = 20.282;  | // (usec)  | = 180 chars = 1440 Pixels     |
| Hor Addr Time      | = 18.028;  | // (usec)  | = 160 chars = 1280 Pixels     |
| Hor Blank Start    | = 18.028;  | // (usec)  | = 160 chars = 1280 Pixels     |
| Hor Blank Time     | = 2.254;   | // (usec)  | = 20 chars = 160 Pixels       |
| Hor Sync Start     | = 18.704;  | // (usec)  | = 166 chars = 1328 Pixels     |
| // H Right Border  | = 0.000;   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.676;   | // (usec)  | = <b>6</b> chars = 48 Pixels  |
| Hor Sync Time      | = 0.451;   | // (usec)  | = <b>4</b> chars = 32 Pixels  |
| // H Back Porch    | = 1.127;   | // (usec)  | = <b>10</b> chars = 80 Pixels |
| // H Left Border   | = 0.000;   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.692;  | // (msec)  | = 823 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.225;  | // (msec)  | = 800 lines = 1.17            |
| Ver Blank Start    | = 16.225;  | // (msec)  | = 800 lines                   |
| Ver Blank Time     | = 0.466;   | // (msec)  | = 23 lines                    |
| Ver Sync Start     | = 16.286;  | // (msec)  | = 803 lines                   |
| // V Bottom Border | = 0.000;   | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.061;   | // (msec)  | = <b>3</b> lines              |
| Ver Sync Time      | = 0.122;   | // (msec)  | = <b>6</b> lines              |
| // V Back Porch    | = 0.284;   | // (msec)  | = <b>14</b> lines             |
| // V Top Border    | = 0.000;   | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 800 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 1Ch; STD 2 Byte Code: (81, 00)h; CVT 3 Byte Code: (8F, 18, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                           |              |                            |
|--------------------|---|---------------------------|--------------|----------------------------|
| Timing Name        | = | <b>1280 x 800 @ 60Hz;</b> |              |                            |
| Hor Pixels         | = | <b>1280;</b>              | // Pixels    |                            |
| Ver Pixels         | = | <b>800;</b>               | // Lines     |                            |
| Hor Frequency      | = | 49.702;                   | // kHz       | = 20.1 usec / line         |
| Ver Frequency      | = | 59.810;                   | // Hz        | = 16.7 msec / frame        |
| Pixel Clock        | = | <b>83.500;</b>            | // MHz       | = 12.0 nsec ±0.5%          |
| Character Width    | = | <b>8;</b>                 | // Pixels    | = 95.8 nsec                |
| Scan Type          | = | <b>NONINTERLACED;</b>     | // H Phase = | 3.8 %                      |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>          | // HBlank =  | 23.8% of HTotal            |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>          | // VBlank =  | 3.7% of VTotal             |
| Hor Total Time     | = | 20.120;                   | // (usec)    | = 210 chars = 1680 Pixels  |
| Hor Addr Time      | = | 15.329;                   | // (usec)    | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = | 15.329;                   | // (usec)    | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = | 4.790;                    | // (usec)    | = 50 chars = 400 Pixels    |
| Hor Sync Start     | = | 16.192;                   | // (usec)    | = 169 chars = 1352 Pixels  |
| // H Right Border  | = | 0.000;                    | // (usec)    | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.862;                    | // (usec)    | = 9 chars = 72 Pixels      |
| Hor Sync Time      | = | 1.533;                    | // (usec)    | = 16 chars = 128 Pixels    |
| // H Back Porch    | = | 2.395;                    | // (usec)    | = 25 chars = 200 Pixels    |
| // H Left Border   | = | 0.000;                    | // (usec)    | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 16.720;                   | // (msec)    | = 831 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.096;                   | // (msec)    | = 800 lines = 3.87         |
| Ver Blank Start    | = | 16.096;                   | // (msec)    | = 800 lines                |
| Ver Blank Time     | = | 0.624;                    | // (msec)    | = 31 lines                 |
| Ver Sync Start     | = | 16.156;                   | // (msec)    | = 803 lines                |
| // V Bottom Border | = | 0.000;                    | // (msec)    | = 0 lines                  |
| // V Front Porch   | = | 0.060;                    | // (msec)    | = 3 lines                  |
| Ver Sync Time      | = | 0.121;                    | // (msec)    | = 6 lines                  |
| // V Back Porch    | = | 0.443;                    | // (msec)    | = 22 lines                 |
| // V Top Border    | = | 0.000;                    | // (msec)    | = 0 lines                  |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 800 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 1Dh; STD 2 Byte Code: (81, 0F)h; CVT 3 Byte Code: (8F, 18, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                           |              |                            |
|--------------------|---|---------------------------|--------------|----------------------------|
| Timing Name        | = | <b>1280 x 800 @ 75Hz;</b> |              |                            |
| Hor Pixels         | = | <b>1280;</b>              | // Pixels    |                            |
| Ver Pixels         | = | <b>800;</b>               | // Lines     |                            |
| Hor Frequency      | = | 62.795;                   | // kHz       | = 15.9 usec / line         |
| Ver Frequency      | = | 74.934;                   | // Hz        | = 13.3 msec / frame        |
| Pixel Clock        | = | <b>106.500;</b>           | // MHz       | = 9.4 nsec ±0.5%           |
| Character Width    | = | <b>8;</b>                 | // Pixels    | = 75.1 nsec                |
| Scan Type          | = | <b>NONINTERLACED;</b>     | // H Phase = | 3.8 %                      |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>          | // HBlank =  | 24.5% of HTotal            |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>          | // VBlank =  | 4.5% of VTotal             |
| Hor Total Time     | = | 15.925;                   | // (usec)    | = 212 chars = 1696 Pixels  |
| Hor Addr Time      | = | 12.019;                   | // (usec)    | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = | 12.019;                   | // (usec)    | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = | 3.906;                    | // (usec)    | = 52 chars = 416 Pixels    |
| Hor Sync Start     | = | 12.770;                   | // (usec)    | = 170 chars = 1360 Pixels  |
| // H Right Border  | = | 0.000;                    | // (usec)    | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.751;                    | // (usec)    | = 10 chars = 80 Pixels     |
| Hor Sync Time      | = | 1.202;                    | // (usec)    | = 16 chars = 128 Pixels    |
| // H Back Porch    | = | 1.953;                    | // (usec)    | = 26 chars = 208 Pixels    |
| // H Left Border   | = | 0.000;                    | // (usec)    | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 13.345;                   | // (msec)    | = 838 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.740;                   | // (msec)    | = 800 lines = 3.18         |
| Ver Blank Start    | = | 12.740;                   | // (msec)    | = 800 lines                |
| Ver Blank Time     | = | 0.605;                    | // (msec)    | = 38 lines                 |
| Ver Sync Start     | = | 12.788;                   | // (msec)    | = 803 lines                |
| // V Bottom Border | = | 0.000;                    | // (msec)    | = 0 lines                  |
| // V Front Porch   | = | 0.048;                    | // (msec)    | = 3 lines                  |
| Ver Sync Time      | = | 0.096;                    | // (msec)    | = 6 lines                  |
| // V Back Porch    | = | 0.462;                    | // (msec)    | = 29 lines                 |
| // V Top Border    | = | 0.000;                    | // (msec)    | = 0 lines                  |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 800 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 1Eh; STD 2 Byte Code: (81, 19)h; CVT 3 Byte Code: (8F, 18, 62)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1280 x 800 @ 85Hz;</b> |            |                                |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>800;</b>               | // Lines   |                                |
| Hor Frequency      | = 71.554;                   | // kHz     | = 14.0 usec / line             |
| Ver Frequency      | = 84.880;                   | // Hz      | = 11.8 msec / frame            |
| Pixel Clock        | = <b>122.500;</b>           | // MHz     | = 8.2 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 65.3 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 4.0 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>          | // HBlank  | = 25.2% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 5.1% of VTotal               |
| Hor Total Time     | = 13.976;                   | // (usec)  | = 214 chars = 1712 Pixels      |
| Hor Addr Time      | = 10.449;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Start    | = 10.449;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Time     | = 3.527;                    | // (usec)  | = 54 chars = 432 Pixels        |
| Hor Sync Start     | = 11.102;                   | // (usec)  | = 170 chars = 1360 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.653;                    | // (usec)  | = <b>10</b> chars = 80 Pixels  |
| Hor Sync Time      | = 1.110;                    | // (usec)  | = <b>17</b> chars = 136 Pixels |
| // H Back Porch    | = 1.763;                    | // (usec)  | = <b>27</b> chars = 216 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 11.781;                   | // (msec)  | = 843 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 11.180;                   | // (msec)  | = 800 lines = 2.9              |
| Ver Blank Start    | = 11.180;                   | // (msec)  | = 800 lines                    |
| Ver Blank Time     | = 0.601;                    | // (msec)  | = 43 lines                     |
| Ver Sync Start     | = 11.222;                   | // (msec)  | = 803 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.042;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.084;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.475;                    | // (msec)  | = <b>34</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 800 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 1Fh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |            |                            |
|--------------------|---|------------|----------------------------|
| Timing Name        | = <b>1280 x 800 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>1280;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = <b>800;</b>                                       | // Lines   |                            |
| Hor Frequency      | = 101.563;  | // kHz     | = 9.8 usec / line          |
| Ver Frequency      | = 119.909;  | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = <b>146.250;</b>                                   | // MHz     | = 6.8 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>   | // Pixels  | = 54.7 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.1 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 11.1% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 5.5% of VTtotal          |
| Hor Total Time     | = 9.846;  | // (usec)  | = 180 chars = 1440 Pixels  |
| Hor Addr Time      | = 8.752;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Start    | = 8.752;  | // (usec)  | = 160 chars = 1280 Pixels  |
| Hor Blank Time     | = 1.094;  | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 9.080;  | // (usec)  | = 166 chars = 1328 Pixels  |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.328;  | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.219;  | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 0.547;  | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 8.340;  | // (msec)  | = 847 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.877;  | // (msec)  | = 800 lines = 0.57         |
| Ver Blank Start    | = 7.877;  | // (msec)  | = 800 lines                |
| Ver Blank Time     | = 0.463;  | // (msec)  | = 47 lines                 |
| Ver Sync Start     | = 7.906;  | // (msec)  | = 803 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.030;  | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.059;  | // (msec)  | = 6 lines                  |
| // V Back Porch    | = 0.374;  | // (msec)  | = 38 lines                 |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 1280 x 960 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 20h; STD 2 Byte Code: (81, 40)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1280 x 960 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>960;</b>               | // Lines   |                                |
| Hor Frequency      | = 60.000;                   | // kHz     | = 16.7 usec / line             |
| Ver Frequency      | = 60.000;                   | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>108.000;</b>           | // MHz     | = 9.3 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 74.1 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 6.0 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 28.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 16.667;                   | // (usec)  | = 225 chars = 1800 Pixels      |
| Hor Addr Time      | = 11.852;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Start    | = 11.852;                   | // (usec)  | = 160 chars = 1280 Pixels      |
| Hor Blank Time     | = 4.815;                    | // (usec)  | = 65 chars = 520 Pixels        |
| Hor Sync Start     | = 12.741;                   | // (usec)  | = 172 chars = 1376 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.889;                    | // (usec)  | = <b>12</b> chars = 96 Pixels  |
| Hor Sync Time      | = 1.037;                    | // (usec)  | = <b>14</b> chars = 112 Pixels |
| // H Back Porch    | = 2.889;                    | // (usec)  | = <b>39</b> chars = 312 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.667;                   | // (msec)  | = 1000 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.000;                   | // (msec)  | = 960 lines = 4.1              |
| Ver Blank Start    | = 16.000;                   | // (msec)  | = 960 lines                    |
| Ver Blank Time     | = 0.667;                    | // (msec)  | = 40 lines                     |
| Ver Sync Start     | = 16.017;                   | // (msec)  | = 961 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.017;                    | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.050;                    | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.600;                    | // (msec)  | = <b>36</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 1280 x 960 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 21h; STD 2 Byte Code: (81, 59)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                             |
|--------------------|-----------------------------|------------|-----------------------------|
| Timing Name        | = <b>1280 x 960 @ 85Hz;</b> |            |                             |
| Hor Pixels         | = <b>1280;</b>              | // Pixels  |                             |
| Ver Pixels         | = <b>960;</b>               | // Lines   |                             |
| Hor Frequency      | = 85.938;                   | // kHz     | = 11.6 usec / line          |
| Ver Frequency      | = 85.002;                   | // Hz      | = 11.8 msec / frame         |
| Pixel Clock        | = <b>148.500;</b>           | // MHz     | = 6.7 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 53.9 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 4.6 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 25.9% of HTotal           |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 5.0% of VTotal            |
| Hor Total Time     | = 11.636;                   | // (usec)  | = 216 chars = 1728 Pixels   |
| Hor Addr Time      | = 8.620;                    | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = 8.620;                    | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = 3.017;                    | // (usec)  | = 56 chars = 448 Pixels     |
| Hor Sync Start     | = 9.051;                    | // (usec)  | = 168 chars = 1344 Pixels   |
| // H Right Border  | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.431;                    | // (usec)  | = 8 chars = 64 Pixels       |
| Hor Sync Time      | = 1.077;                    | // (usec)  | = 20 chars = 160 Pixels     |
| // H Back Porch    | = 1.508;                    | // (usec)  | = 28 chars = 224 Pixels     |
| // H Left Border   | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 11.764;                   | // (msec)  | = 1011 lines HT - (1.06xHA) |
| Ver Addr Time      | = 11.171;                   | // (msec)  | = 960 lines = 2.5           |
| Ver Blank Start    | = 11.171;                   | // (msec)  | = 960 lines                 |
| Ver Blank Time     | = 0.593;                    | // (msec)  | = 51 lines                  |
| Ver Sync Start     | = 11.183;                   | // (msec)  | = 961 lines                 |
| // V Bottom Border | = 0.000;                    | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.012;                    | // (msec)  | = 1 lines                   |
| Ver Sync Time      | = 0.035;                    | // (msec)  | = 3 lines                   |
| // V Back Porch    | = 0.547;                    | // (msec)  | = 47 lines                  |
| // V Top Border    | = 0.000;                    | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.1.



## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 960 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 22h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |            |                             |
|--------------------|---|------------|-----------------------------|
| Timing Name        | = <b>1280 x 960 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1280;</b>                                      | // Pixels  |                             |
| Ver Pixels         | = <b>960;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 121.875;  | // kHz     | = 8.2 usec / line           |
| Ver Frequency      | = 119.838;  | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>175.500;</b>                                   | // MHz     | = 5.7 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>   | // Pixels  | = 45.6 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.1 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 11.1% of HTotal           |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 5.6% of VTtotal           |
| Hor Total Time     | = 8.205;  | // (usec)  | = 180 chars = 1440 Pixels   |
| Hor Addr Time      | = 7.293;  | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = 7.293;  | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = 0.912;  | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 7.567;  | // (usec)  | = 166 chars = 1328 Pixels   |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.274;  | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.182;  | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.456;  | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.345;  | // (msec)  | = 1017 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.877;  | // (msec)  | = 960 lines = 0.47          |
| Ver Blank Start    | = 7.877;  | // (msec)  | = 960 lines                 |
| Ver Blank Time     | = 0.468;  | // (msec)  | = 57 lines                  |
| Ver Sync Start     | = 7.902;  | // (msec)  | = 963 lines                 |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.025;  | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.033;  | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.410;  | // (msec)  | = 50 lines                  |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
Resolution: 1280 x 1024 at 60 Hz (non-interlaced)  
EDID ID: DMT ID: 23h; STD 2 Byte Code: (81, 80)h; CVT 3 Byte Code: n/a  
BIOS Modes: 106h, 107h, 119h, 11Ah, & 11Bh (4, 8, 15, 16, & 24 bpp)  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1280 x 1024 @ 60Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1280;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1024;</b>               | // Lines   |                             |
| Hor Frequency      | = | 63.981;                    | // kHz     | = 15.6 usec / line          |
| Ver Frequency      | = | 60.020;                    | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>108.000;</b>            | // MHz     | = 9.3 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 74.1 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 5.9 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>           | // HBlank  | = 24.2% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 3.9% of VTotal            |
| Hor Total Time     | = | 15.630;                    | // (usec)  | = 211 chars = 1688 Pixels   |
| Hor Addr Time      | = | 11.852;                    | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = | 11.852;                    | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = | 3.778;                     | // (usec)  | = 51 chars = 408 Pixels     |
| Hor Sync Start     | = | 12.296;                    | // (usec)  | = 166 chars = 1328 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.444;                     | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = | 1.037;                     | // (usec)  | = 14 chars = 112 Pixels     |
| // H Back Porch    | = | 2.296;                     | // (usec)  | = 31 chars = 248 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.661;                    | // (msec)  | = 1066 lines HT - (1.06xHA) |
| Ver Addr Time      | = | 16.005;                    | // (msec)  | = 1024 lines = 3.07         |
| Ver Blank Start    | = | 16.005;                    | // (msec)  | = 1024 lines                |
| Ver Blank Time     | = | 0.656;                     | // (msec)  | = 42 lines                  |
| Ver Sync Start     | = | 16.020;                    | // (msec)  | = 1025 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.016;                     | // (msec)  | = 1 lines                   |
| Ver Sync Time      | = | 0.047;                     | // (msec)  | = 3 lines                   |
| // V Back Porch    | = | 0.594;                     | // (msec)  | = 38 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 10/4/93  
Resolution: 1280 x 1024 at 75 Hz (non-interlaced)  
EDID ID: DMT ID: 24h; STD 2 Byte Code: (81, 8F)h; CVT 3 Byte Code: n/a  
BIOS Modes: 106h, 107h, 119h, 11Ah, & 11Bh (4, 8, 15, 16, & 24 bpp)  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1280 x 1024 @ 75Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1280;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1024;</b>               | // Lines   |                             |
| Hor Frequency      | = | 79.976;                    | // kHz     | = 12.5 usec / line          |
| Ver Frequency      | = | 75.025;                    | // Hz      | = 13.3 msec / frame         |
| Pixel Clock        | = | <b>135.000;</b>            | // MHz     | = 7.4 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 59.3 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 6.9 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>           | // HBlank  | = 24.2% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 3.9% of VTotal            |
| Hor Total Time     | = | 12.504;                    | // (usec)  | = 211 chars = 1688 Pixels   |
| Hor Addr Time      | = | 9.481;                     | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = | 9.481;                     | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = | 3.022;                     | // (usec)  | = 51 chars = 408 Pixels     |
| Hor Sync Start     | = | 9.600;                     | // (usec)  | = 162 chars = 1296 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.119;                     | // (usec)  | = 2 chars = 16 Pixels       |
| Hor Sync Time      | = | 1.067;                     | // (usec)  | = 18 chars = 144 Pixels     |
| // H Back Porch    | = | 1.837;                     | // (usec)  | = 31 chars = 248 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 13.329;                    | // (msec)  | = 1066 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.804;                    | // (msec)  | = 1024 lines = 2.45         |
| Ver Blank Start    | = | 12.804;                    | // (msec)  | = 1024 lines                |
| Ver Blank Time     | = | 0.525;                     | // (msec)  | = 42 lines                  |
| Ver Sync Start     | = | 12.816;                    | // (msec)  | = 1025 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.013;                     | // (msec)  | = 1 lines                   |
| Ver Sync Time      | = | 0.038;                     | // (msec)  | = 3 lines                   |
| // V Back Porch    | = | 0.475;                     | // (msec)  | = 38 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 3/1/96  
 Resolution: 1280 x 1024 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 25h; STD 2 Byte Code: (81, 99)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                             |
|--------------------|------------------------------|------------|-----------------------------|
| Timing Name        | = <b>1280 x 1024 @ 85Hz;</b> |            |                             |
| Hor Pixels         | = <b>1280;</b>               | // Pixels  |                             |
| Ver Pixels         | = <b>1024;</b>               | // Lines   |                             |
| Hor Frequency      | = 91.146;                    | // kHz     | = 11.0 usec / line          |
| Ver Frequency      | = 85.024;                    | // Hz      | = 11.8 msec / frame         |
| Pixel Clock        | = <b>157.500;</b>            | // MHz     | = 6.3 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 50.8 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 4.6 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal           |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.5% of VTotal            |
| Hor Total Time     | = 10.971;                    | // (usec)  | = 216 chars = 1728 Pixels   |
| Hor Addr Time      | = 8.127;                     | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = 8.127;                     | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = 2.844;                     | // (usec)  | = 56 chars = 448 Pixels     |
| Hor Sync Start     | = 8.533;                     | // (usec)  | = 168 chars = 1344 Pixels   |
| // H Right Border  | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.406;                     | // (usec)  | = 8 chars = 64 Pixels       |
| Hor Sync Time      | = 1.016;                     | // (usec)  | = 20 chars = 160 Pixels     |
| // H Back Porch    | = 1.422;                     | // (usec)  | = 28 chars = 224 Pixels     |
| // H Left Border   | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 11.761;                    | // (msec)  | = 1072 lines HT - (1.06xHA) |
| Ver Addr Time      | = 11.235;                    | // (msec)  | = 1024 lines = 2.36         |
| Ver Blank Start    | = 11.235;                    | // (msec)  | = 1024 lines                |
| Ver Blank Time     | = 0.527;                     | // (msec)  | = 48 lines                  |
| Ver Sync Start     | = 11.246;                    | // (msec)  | = 1025 lines                |
| // V Bottom Border | = 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.011;                     | // (msec)  | = 1 lines                   |
| Ver Sync Time      | = 0.033;                     | // (msec)  | = 3 lines                   |
| // V Back Porch    | = 0.483;                     | // (msec)  | = 44 lines                  |
| // V Top Border    | = 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1280 x 1024 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 26h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1280 x 1024 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1280;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1024;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 130.035;   | // kHz     | = 7.7 usec / line           |
| Ver Frequency      | = 119.958;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>187.250;</b>                                    | // MHz     | = 5.3 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 42.7 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 1.1 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 11.1% of HTotal           |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.5% of VTotal            |
| Hor Total Time     | = 7.690;   | // (usec)  | = 180 chars = 1440 Pixels   |
| Hor Addr Time      | = 6.836;   | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Start    | = 6.836;   | // (usec)  | = 160 chars = 1280 Pixels   |
| Hor Blank Time     | = 0.854;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 7.092;   | // (usec)  | = 166 chars = 1328 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.256;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.171;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.427;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.336;   | // (msec)  | = 1084 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.875;   | // (msec)  | = 1024 lines = 0.44         |
| Ver Blank Start    | = 7.875;   | // (msec)  | = 1024 lines                |
| Ver Blank Time     | = 0.461;   | // (msec)  | = 60 lines                  |
| Ver Sync Start     | = 7.898;   | // (msec)  | = 1027 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.023;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.054;   | // (msec)  | = 7 lines                   |
| // V Back Porch    | = 0.385;   | // (msec)  | = 50 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1360 x 768 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 27h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                            |
|--------------------|-----------------------------|------------|----------------------------|
| Timing Name        | = <b>1360 x 768 @ 60Hz;</b> |            |                            |
| Hor Pixels         | = <b>1360;</b>              | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                            |
| Hor Frequency      | = 47.712;                   | // kHz     | = 21.0 usec / line         |
| Ver Frequency      | = 60.015;                   | // Hz      | = 16.7 msec / frame        |
| Pixel Clock        | = <b>85.500;</b>            | // MHz     | = 11.7 nsec ± 0.5%         |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 93.6 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 5.4 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 24.1% of HTotal          |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 3.4% of VTotal           |
| Hor Total Time     | = 20.959;                   | // (usec)  | = 224 chars = 1792 Pixels  |
| Hor Addr Time      | = 15.906;                   | // (usec)  | = 170 chars = 1360 Pixels  |
| Hor Blank Start    | = 15.906;                   | // (usec)  | = 170 chars = 1360 Pixels  |
| Hor Blank Time     | = 5.053;                    | // (usec)  | = 54 chars = 432 Pixels    |
| Hor Sync Start     | = 16.655;                   | // (usec)  | = 178 chars = 1424 Pixels  |
| // H Right Border  | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.749;                    | // (usec)  | = 8 chars = 64 Pixels      |
| Hor Sync Time      | = 1.310;                    | // (usec)  | = 14 chars = 112 Pixels    |
| // H Back Porch    | = 2.994;                    | // (usec)  | = 32 chars = 256 Pixels    |
| // H Left Border   | = 0.000;                    | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 16.662;                   | // (msec)  | = 795 lines HT – (1.06xHA) |
| Ver Addr Time      | = 16.097;                   | // (msec)  | = 768 lines = 4.1          |
| Ver Blank Start    | = 16.097;                   | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.566;                    | // (msec)  | = 27 lines                 |
| Ver Sync Start     | = 16.159;                   | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;                    | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.063;                    | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.126;                    | // (msec)  | = 6 lines                  |
| // V Back Porch    | = 0.377;                    | // (msec)  | = 18 lines                 |
| // V Top Border    | = 0.000;                    | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1360 x 768 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 28h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |            |                            |
|--------------------|---|------------|----------------------------|
| Timing Name        | = <b>1360 x 768 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = <b>1360;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = <b>768;</b>                                       | // Lines   |                            |
| Hor Frequency      | = 97.533;   | // kHz     | = 10.3 usec / line         |
| Ver Frequency      | = 119.967;  | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = <b>148.250;</b>                                   | // MHz     | = 6.7 nsec ± 0.5%          |
| Character Width    | = <b>8;</b>   | // Pixels  | = 54.0 nsec                |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.1 %                    |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 10.5% of HTotal          |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 5.5% of VTtotal          |
| Hor Total Time     | = 10.253;   | // (usec)  | = 190 chars = 1520 Pixels  |
| Hor Addr Time      | = 9.174;  | // (usec)  | = 170 chars = 1360 Pixels  |
| Hor Blank Start    | = 9.174;  | // (usec)  | = 170 chars = 1360 Pixels  |
| Hor Blank Time     | = 1.079;  | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = 9.497;  | // (usec)  | = 176 chars = 1408 Pixels  |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = 0.324;  | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = 0.216;  | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = 0.540;  | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = 8.336;  | // (msec)  | = 813 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.874;  | // (msec)  | = 768 lines = 0.53         |
| Ver Blank Start    | = 7.874;  | // (msec)  | = 768 lines                |
| Ver Blank Time     | = 0.461;  | // (msec)  | = 45 lines                 |
| Ver Sync Start     | = 7.905;  | // (msec)  | = 771 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                  |
| // V Front Porch   | = 0.031;  | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = 0.051;  | // (msec)  | = 5 lines                  |
| // V Back Porch    | = 0.379;  | // (msec)  | = 37 lines                 |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 1366 x 768 at 60 Hz (non-interlaced) **NORMAL BLANKING**  
 EDID ID: DMT ID: 51h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                                 |
|--------------------|-----------------------------|------------|---------------------------------|
| Timing Name        | = <b>1366 x 768 @ 60Hz;</b> |            |                                 |
| Hor Pixels         | = <b>1366;</b>              | // Pixels  |                                 |
| Ver Pixels         | = <b>768;</b>               | // Lines   |                                 |
| Hor Frequency      | = 47.712;                   | // KHz     | = 21.0 usec / line              |
| Ver Frequency      | = 59.790;                   | // Hz      | = 16.7 msec / frame             |
| Pixel Clock        | = <b>85.500;</b>            | // MHz     | = 11.7 nsec ±0.5%               |
| Character Width    | = <b>1;</b>                 | // Pixels  | = 11.7 nsec                     |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 4.0 %                         |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 23.8% of HTotal               |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 3.8% of VTotal                |
| Hor Total Time     | = 20.959;                   | // (usec)  | = 1792 chars = 1792 Pixels      |
| Hor Addr Time      | = 15.977;                   | // (usec)  | = 1366 chars = 1366 Pixels      |
| Hor Blank Start    | = 15.977;                   | // (usec)  | = 1366 chars = 1366 Pixels      |
| Hor Blank Time     | = 4.982;                    | // (usec)  | = 426 chars = 426 Pixels        |
| Hor Sync Start     | = 16.795;                   | // (usec)  | = 1436 chars = 1436 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels     |
| // H Front Porch   | = 0.819;                    | // (usec)  | = <b>70</b> chars = 70 Pixels   |
| Hor Sync Time      | = 1.673;                    | // (usec)  | = <b>143</b> chars = 143 Pixels |
| // H Back Porch    | = 2.491;                    | // (usec)  | = <b>213</b> chars = 213 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels     |
| Ver Total Time     | = 16.725;                   | // (msec)  | = 798 lines HT – (1.06xHA)      |
| Ver Addr Time      | = 16.097;                   | // (msec)  | = 768 lines = 4.02              |
| Ver Blank Start    | = 16.097;                   | // (msec)  | = 768 lines                     |
| Ver Blank Time     | = 0.629;                    | // (msec)  | = 30 lines                      |
| Ver Sync Start     | = 16.159;                   | // (msec)  | = 771 lines                     |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines                |
| // V Front Porch   | = 0.063;                    | // (msec)  | = <b>3</b> lines                |
| Ver Sync Time      | = 0.063;                    | // (msec)  | = <b>3</b> lines                |
| // V Back Porch    | = 0.503;                    | // (msec)  | = <b>24</b> lines               |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines                |

**Definition of Terms:** Refer to Section 3.1



## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 1366 x 768 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 56h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |           |                               |
|--------------------|-----------------------------|-----------|-------------------------------|
| Timing Name        | = <b>1366 x 768 @ 60Hz;</b> |           |                               |
| Hor Pixels         | = <b>1366;</b>              | // Pixels |                               |
| Ver Pixels         | = <b>768;</b>               | // Lines  |                               |
| Hor Frequency      | = 48.000;                   | // KHz    | = 20.8 usec / line            |
| Ver Frequency      | = 60.000;                   | // Hz     | = 16.7 msec / frame           |
| Pixel Clock        | = <b>72.000;</b>            | // MHz    | = 13.9 nsec ±0.5%             |
| Character Width    | = <b>1;</b>                 | // Pixels | = 13.9 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>     |           | // H Phase = 1.7 %            |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank | = 8.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank | = 4.0% of VTotal              |
| Hor Total Time     | = 20.833;                   | // (usec) | = 1500 chars = 1500 Pixels    |
| Hor Addr Time      | = 18.972;                   | // (usec) | = 1366 chars = 1366 Pixels    |
| Hor Blank Start    | = 18.972;                   | // (usec) | = 1366 chars = 1366 Pixels    |
| Hor Blank Time     | = 1.861;                    | // (usec) | = 134 chars = 134 Pixels      |
| Hor Sync Start     | = 19.167;                   | // (usec) | = 1380 chars = 1380 Pixels    |
| // H Right Border  | = 0.000;                    | // (usec) | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.194;                    | // (usec) | = <b>14</b> chars = 14 Pixels |
| Hor Sync Time      | = 0.778;                    | // (usec) | = <b>56</b> chars = 56 Pixels |
| // H Back Porch    | = 0.889;                    | // (usec) | = <b>64</b> chars = 64 Pixels |
| // H Left Border   | = 0.000;                    | // (usec) | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.667;                   | // (msec) | = 800 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.000;                   | // (msec) | = 768 lines = 0.72            |
| Ver Blank Start    | = 16.000;                   | // (msec) | = 768 lines                   |
| Ver Blank Time     | = 0.667;                    | // (msec) | = 32 lines                    |
| Ver Sync Start     | = 16.021;                   | // (msec) | = 769 lines                   |
| // V Bottom Border | = 0.000;                    | // (msec) | = <b>0</b> lines              |
| // V Front Porch   | = 0.021;                    | // (msec) | = <b>1</b> lines              |
| Ver Sync Time      | = 0.063;                    | // (msec) | = <b>3</b> lines              |
| // V Back Porch    | = 0.583;                    | // (msec) | = <b>28</b> lines             |
| // V Top Border    | = 0.000;                    | // (msec) | = <b>0</b> lines              |

**Definition of Terms:** Refer to Section 3.1

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1400 x 1050 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 29h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (0C, 20, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |   |            |                             |
|--------------------|---|------------|-----------------------------|
| Timing Name        | = <b>1400 x 1050 @ 60Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1400;</b>                                      | // Pixels  |                             |
| Ver Pixels         | = <b>1050;</b>                                      | // Lines   |                             |
| Hor Frequency      | = 64.744;   | // kHz     | = 15.4 usec / line          |
| Ver Frequency      | = 59.948;   | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = <b>101.000;</b>                                   | // MHz     | = 9.9 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>   | // Pixels  | = 79.2 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 1.0 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 10.3% of HTotal           |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 2.8% of VTtotal           |
| Hor Total Time     | = 15.446;   | // (usec)  | = 195 chars = 1560 Pixels   |
| Hor Addr Time      | = 13.861;   | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Start    | = 13.861;   | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Time     | = 1.584;  | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 14.337;   | // (usec)  | = 181 chars = 1448 Pixels   |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.475;  | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.317;  | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.792;  | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 16.681;   | // (msec)  | = 1080 lines HT – (1.06xHA) |
| Ver Addr Time      | = 16.218;   | // (msec)  | = 1050 lines = 0.75         |
| Ver Blank Start    | = 16.218;   | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = 0.463;  | // (msec)  | = 30 lines                  |
| Ver Sync Start     | = 16.264;   | // (msec)  | = 1053 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.046;  | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.062;  | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.355;  | // (msec)  | = 23 lines                  |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1400 x 1050 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 2Ah; STD 2 Byte Code: (90, 40)h; CVT 3 Byte Code: (0C, 20, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                             |            |                             |
|--------------------|---|-----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1400 x 1050 @ 60Hz;;</b> |            |                             |
| Hor Pixels         | = | <b>1400;</b>                | // Pixels  |                             |
| Ver Pixels         | = | <b>1050;</b>                | // Lines   |                             |
| Hor Frequency      | = | 65.317;                     | // kHz     | = 15.3 usec / line          |
| Ver Frequency      | = | 59.978;                     | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>121.750;</b>             | // MHz     | = 8.2 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                   | // Pixels  | = 65.7 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>       | // H Phase | = 3.9 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>             | // HBlank  | = 24.9% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>            | // VBlank  | = 3.6% of VTotal            |
| Hor Total Time     | = | 15.310;                     | // (usec)  | = 233 chars = 1864 Pixels   |
| Hor Addr Time      | = | 11.499;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Start    | = | 11.499;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Time     | = | 3.811;                      | // (usec)  | = 58 chars = 464 Pixels     |
| Hor Sync Start     | = | 12.222;                     | // (usec)  | = 186 chars = 1488 Pixels   |
| // H Right Border  | = | 0.000;                      | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.723;                      | // (usec)  | = 11 chars = 88 Pixels      |
| Hor Sync Time      | = | 1.183;                      | // (usec)  | = 18 chars = 144 Pixels     |
| // H Back Porch    | = | 1.906;                      | // (usec)  | = 29 chars = 232 Pixels     |
| // H Left Border   | = | 0.000;                      | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.673;                     | // (msec)  | = 1089 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.076;                     | // (msec)  | = 1050 lines = 3.12         |
| Ver Blank Start    | = | 16.076;                     | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = | 0.597;                      | // (msec)  | = 39 lines                  |
| Ver Sync Start     | = | 16.121;                     | // (msec)  | = 1053 lines                |
| // V Bottom Border | = | 0.000;                      | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.046;                      | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.061;                      | // (msec)  | = 4 lines                   |
| // V Back Porch    | = | 0.490;                      | // (msec)  | = 32 lines                  |
| // V Top Border    | = | 0.000;                      | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1400 x 1050 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 2Bh; STD 2 Byte Code: (90, 4F)h; CVT 3 Byte Code: (0C, 20, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                              |            |                             |
|--------------------|------------------------------|------------|-----------------------------|
| Timing Name        | = <b>1400 x 1050 @ 75Hz;</b> |            |                             |
| Hor Pixels         | = <b>1400;</b>               | // Pixels  |                             |
| Ver Pixels         | = <b>1050;</b>               | // Lines   |                             |
| Hor Frequency      | = 82.278;                    | // kHz     | = 12.2 usec / line          |
| Ver Frequency      | = 74.867;                    | // Hz      | = 13.4 msec / frame         |
| Pixel Clock        | = <b>156.000;</b>            | // MHz     | = 6.4 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 51.3 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 3.8 %                     |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 26.2% of HTotal           |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.5% of VTotal            |
| Hor Total Time     | = 12.154;                    | // (usec)  | = 237 chars = 1896 Pixels   |
| Hor Addr Time      | = 8.974;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Start    | = 8.974;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Time     | = 3.179;                     | // (usec)  | = 62 chars = 496 Pixels     |
| Hor Sync Start     | = 9.641;                     | // (usec)  | = 188 chars = 1504 Pixels   |
| // H Right Border  | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.667;                     | // (usec)  | = 13 chars = 104 Pixels     |
| Hor Sync Time      | = 0.923;                     | // (usec)  | = 18 chars = 144 Pixels     |
| // H Back Porch    | = 1.590;                     | // (usec)  | = 31 chars = 248 Pixels     |
| // H Left Border   | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 13.357;                    | // (msec)  | = 1099 lines HT – (1.06xHA) |
| Ver Addr Time      | = 12.762;                    | // (msec)  | = 1050 lines = 2.64         |
| Ver Blank Start    | = 12.762;                    | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = 0.596;                     | // (msec)  | = 49 lines                  |
| Ver Sync Start     | = 12.798;                    | // (msec)  | = 1053 lines                |
| // V Bottom Border | = 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.036;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.049;                     | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.510;                     | // (msec)  | = 42 lines                  |
| // V Top Border    | = 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1400 x 1050 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 2Ch; STD 2 Byte Code: (90, 59)h; CVT 3 Byte Code: (0C, 20, 62)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                              |            |                             |
|--------------------|------------------------------|------------|-----------------------------|
| Timing Name        | = <b>1400 x 1050 @ 85Hz;</b> |            |                             |
| Hor Pixels         | = <b>1400;</b>               | // Pixels  |                             |
| Ver Pixels         | = <b>1050;</b>               | // Lines   |                             |
| Hor Frequency      | = 93.881;                    | // kHz     | = 10.7 usec / line          |
| Ver Frequency      | = 84.960;                    | // Hz      | = 11.8 msec / frame         |
| Pixel Clock        | = <b>179.500;</b>            | // MHz     | = 5.6 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 44.6 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 4.0 %                     |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 26.8% of HTotal           |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 5.0% of VTTotal           |
| Hor Total Time     | = 10.652;                    | // (usec)  | = 239 chars = 1912 Pixels   |
| Hor Addr Time      | = 7.799;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Start    | = 7.799;                     | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Time     | = 2.852;                     | // (usec)  | = 64 chars = 512 Pixels     |
| Hor Sync Start     | = 8.379;                     | // (usec)  | = 188 chars = 1504 Pixels   |
| // H Right Border  | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.579;                     | // (usec)  | = 13 chars = 104 Pixels     |
| Hor Sync Time      | = 0.847;                     | // (usec)  | = 19 chars = 152 Pixels     |
| // H Back Porch    | = 1.426;                     | // (usec)  | = 32 chars = 256 Pixels     |
| // H Left Border   | = 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 11.770;                    | // (msec)  | = 1105 lines HT – (1.06xHA) |
| Ver Addr Time      | = 11.184;                    | // (msec)  | = 1050 lines = 2.38         |
| Ver Blank Start    | = 11.184;                    | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = 0.586;                     | // (msec)  | = 55 lines                  |
| Ver Sync Start     | = 11.216;                    | // (msec)  | = 1053 lines                |
| // V Bottom Border | = 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.032;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.043;                     | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.511;                     | // (msec)  | = 48 lines                  |
| // V Top Border    | = 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
Resolution: 1400 x 1050 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
EDID ID: DMT ID: 2Dh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |  |            |                             |
|--------------------|---|--|------------|-----------------------------|
| Timing Name        | = | <b>1400 x 1050 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = | <b>1400;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = | <b>1050;</b>                                       | // Lines   |                             |
| Hor Frequency      | = | 133.333;   | // kHz     | = 7.5 usec / line           |
| Ver Frequency      | = | 119.904;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = | <b>208.000;</b>                                    | // MHz     | = 4.8 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>  | // Pixels  | = 38.5 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>                              | // H Phase | = 1.0 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>                                   | // HBlank  | = 10.3% of HTotal           |
| Ver Sync Polarity  | = | <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = | 7.500;   | // (usec)  | = 195 chars = 1560 Pixels   |
| Hor Addr Time      | = | 6.731;   | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Start    | = | 6.731;   | // (usec)  | = 175 chars = 1400 Pixels   |
| Hor Blank Time     | = | 0.769;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = | 6.962;   | // (usec)  | = 181 chars = 1448 Pixels   |
| // H Right Border  | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.231;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = | 0.154;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = | 0.385;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 8.340;   | // (msec)  | = 1112 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 7.875;   | // (msec)  | = 1050 lines = 0.37         |
| Ver Blank Start    | = | 7.875;   | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = | 0.465;   | // (msec)  | = 62 lines                  |
| Ver Sync Start     | = | 7.898;   | // (msec)  | = 1053 lines                |
| // V Bottom Border | = | 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.023;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.030;   | // (msec)  | = 4 lines                   |
| // V Back Porch    | = | 0.413;   | // (msec)  | = 55 lines                  |
| // V Top Border    | = | 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1440 x 900 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 2Eh; STD 2 Byte Code: n/a; CVT 3 Byte Code: (C1, 18, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |  |            |                               |
|--------------------|--|------------|-------------------------------|
| Timing Name        | = <b>1440 x 900 @ 60Hz CVT (Reduced Blanking);</b> |            |                               |
| Hor Pixels         | = <b>1440;</b>                                     | // Pixels  |                               |
| Ver Pixels         | = <b>900;</b>                                      | // Lines   |                               |
| Hor Frequency      | = 55.469;  | // kHz     | = 18.0 usec / line            |
| Ver Frequency      | = 59.901;  | // Hz      | = 16.7 msec / frame           |
| Pixel Clock        | = <b>88.750;</b>                                   | // MHz     | = 11.3 nsec ±0.5%             |
| Character Width    | = <b>8;</b>  | // Pixels  | = 90.1 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>                            | // H Phase | = 1.0 %                       |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                 | // HBlank  | = 10.0% of HTotal             |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                  | // VBlank  | = 2.8% of VTotal              |
| Hor Total Time     | = 18.028;  | // (usec)  | = 200 chars = 1600 Pixels     |
| Hor Addr Time      | = 16.225;  | // (usec)  | = 180 chars = 1440 Pixels     |
| Hor Blank Start    | = 16.225;  | // (usec)  | = 180 chars = 1440 Pixels     |
| Hor Blank Time     | = 1.803;   | // (usec)  | = 20 chars = 160 Pixels       |
| Hor Sync Start     | = 16.766;  | // (usec)  | = 186 chars = 1488 Pixels     |
| // H Right Border  | = 0.000;   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.541;   | // (usec)  | = <b>6</b> chars = 48 Pixels  |
| Hor Sync Time      | = 0.361;   | // (usec)  | = <b>4</b> chars = 32 Pixels  |
| // H Back Porch    | = 0.901;   | // (usec)  | = <b>10</b> chars = 80 Pixels |
| // H Left Border   | = 0.000;   | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.694;  | // (msec)  | = 926 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.225;  | // (msec)  | = 900 lines = 0.83            |
| Ver Blank Start    | = 16.225;  | // (msec)  | = 900 lines                   |
| Ver Blank Time     | = 0.469;   | // (msec)  | = 26 lines                    |
| Ver Sync Start     | = 16.279;  | // (msec)  | = 903 lines                   |
| // V Bottom Border | = 0.000;   | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.054;   | // (msec)  | = <b>3</b> lines              |
| Ver Sync Time      | = 0.108;   | // (msec)  | = <b>6</b> lines              |
| // V Back Porch    | = 0.306;   | // (msec)  | = <b>17</b> lines             |
| // V Top Border    | = 0.000;   | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1440 x 900 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 2Fh; STD 2 Byte Code: (95, 00)h; CVT 3 Byte Code: (C1, 18, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1440 x 900 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1440;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>900;</b>               | // Lines   |                                |
| Hor Frequency      | = 55.935;                   | // kHz     | = 17.9 usec / line             |
| Ver Frequency      | = 59.887;                   | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>106.500;</b>           | // MHz     | = 9.4 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 75.1 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 4.0 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>           | // HBlank  | = 24.4% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 3.6% of VTotal               |
| Hor Total Time     | = 17.878;                   | // (usec)  | = 238 chars = 1904 Pixels      |
| Hor Addr Time      | = 13.521;                   | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Start    | = 13.521;                   | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Time     | = 4.357;                    | // (usec)  | = 58 chars = 464 Pixels        |
| Hor Sync Start     | = 14.272;                   | // (usec)  | = 190 chars = 1520 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.751;                    | // (usec)  | = <b>10</b> chars = 80 Pixels  |
| Hor Sync Time      | = 1.427;                    | // (usec)  | = <b>19</b> chars = 152 Pixels |
| // H Back Porch    | = 2.178;                    | // (usec)  | = <b>29</b> chars = 232 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.698;                   | // (msec)  | = 934 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 16.090;                   | // (msec)  | = 900 lines = 3.55             |
| Ver Blank Start    | = 16.090;                   | // (msec)  | = 900 lines                    |
| Ver Blank Time     | = 0.608;                    | // (msec)  | = 34 lines                     |
| Ver Sync Start     | = 16.144;                   | // (msec)  | = 903 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.054;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.107;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.447;                    | // (msec)  | = <b>25</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.



## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1440 x 900 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 30h; STD 2 Byte Code: (95, 0F)h; CVT 3 Byte Code: (C1, 18, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1440 x 900 @ 75Hz;</b> |            |                                |
| Hor Pixels         | = <b>1440;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>900;</b>               | // Lines   |                                |
| Hor Frequency      | = 70.635;                   | // kHz     | = 14.2 usec / line             |
| Ver Frequency      | = 74.984;                   | // Hz      | = 13.3 msec / frame            |
| Pixel Clock        | = <b>136.750;</b>           | // MHz     | = 7.3 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 58.5 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 3.9 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>           | // HBlank  | = 25.6% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 4.5% of VTotal               |
| Hor Total Time     | = 14.157;                   | // (usec)  | = 242 chars = 1936 Pixels      |
| Hor Addr Time      | = 10.530;                   | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Start    | = 10.530;                   | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Time     | = 3.627;                    | // (usec)  | = 62 chars = 496 Pixels        |
| Hor Sync Start     | = 11.232;                   | // (usec)  | = 192 chars = 1536 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.702;                    | // (usec)  | = <b>12</b> chars = 96 Pixels  |
| Hor Sync Time      | = 1.112;                    | // (usec)  | = <b>19</b> chars = 152 Pixels |
| // H Back Porch    | = 1.814;                    | // (usec)  | = <b>31</b> chars = 248 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 13.336;                   | // (msec)  | = 942 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 12.741;                   | // (msec)  | = 900 lines = 3                |
| Ver Blank Start    | = 12.741;                   | // (msec)  | = 900 lines                    |
| Ver Blank Time     | = 0.595;                    | // (msec)  | = 42 lines                     |
| Ver Sync Start     | = 12.784;                   | // (msec)  | = 903 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.042;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.085;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.467;                    | // (msec)  | = <b>33</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1440 x 900 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 31h; STD 2 Byte Code: (95, 19)h; CVT 3 Byte Code: (C1, 18, 68)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                             |            |                                |
|--------------------|-----------------------------|------------|--------------------------------|
| Timing Name        | = <b>1440 x 900 @ 85Hz;</b> |            |                                |
| Hor Pixels         | = <b>1440;</b>              | // Pixels  |                                |
| Ver Pixels         | = <b>900;</b>               | // Lines   |                                |
| Hor Frequency      | = 80.430;                   | // kHz     | = 12.4 usec / line             |
| Ver Frequency      | = 84.842;                   | // Hz      | = 11.8 msec / frame            |
| Pixel Clock        | = <b>157.000;</b>           | // MHz     | = 6.4 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 51.0 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 3.9 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>           | // HBlank  | = 26.2% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 5.1% of VTotal               |
| Hor Total Time     | = 12.433;                   | // (usec)  | = 244 chars = 1952 Pixels      |
| Hor Addr Time      | = 9.172;                    | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Start    | = 9.172;                    | // (usec)  | = 180 chars = 1440 Pixels      |
| Hor Blank Time     | = 3.261;                    | // (usec)  | = 64 chars = 512 Pixels        |
| Hor Sync Start     | = 9.834;                    | // (usec)  | = 193 chars = 1544 Pixels      |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.662;                    | // (usec)  | = <b>13</b> chars = 104 Pixels |
| Hor Sync Time      | = 0.968;                    | // (usec)  | = <b>19</b> chars = 152 Pixels |
| // H Back Porch    | = 1.631;                    | // (usec)  | = <b>32</b> chars = 256 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 11.787;                   | // (msec)  | = 948 lines HT – (1.06xHA)     |
| Ver Addr Time      | = 11.190;                   | // (msec)  | = 900 lines = 2.71             |
| Ver Blank Start    | = 11.190;                   | // (msec)  | = 900 lines                    |
| Ver Blank Time     | = 0.597;                    | // (msec)  | = 48 lines                     |
| Ver Sync Start     | = 11.227;                   | // (msec)  | = 903 lines                    |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.037;                    | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.075;                    | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.485;                    | // (msec)  | = <b>39</b> lines              |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
Resolution: 1440 x 900 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
EDID ID: DMT ID: 32h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |   |            |                            |
|--------------------|---|---|------------|----------------------------|
| Timing Name        | = | <b>1440 x 900 @ 120Hz CVT (Reduced Blanking);</b> |            |                            |
| Hor Pixels         | = | <b>1440;</b>                                      | // Pixels  |                            |
| Ver Pixels         | = | <b>900;</b>                                       | // Lines   |                            |
| Hor Frequency      | = | 114.219;  | // kHz     | = 8.8 usec / line          |
| Ver Frequency      | = | 119.852;  | // Hz      | = 8.3 msec / frame         |
| Pixel Clock        | = | <b>182.750;</b>                                   | // MHz     | = 5.5 nsec ± 0.5%          |
| Character Width    | = | <b>8;</b>   | // Pixels  | = 43.8 nsec                |
| Scan Type          | = | <b>NONINTERLACED;</b>                             | // H Phase | = 1.0 %                    |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>                                  | // HBlank  | = 10.0% of HTotal          |
| Ver Sync Polarity  | = | <b>NEGATIVE</b>                                   | // VBlank  | = 5.6% of VTtotal          |
| Hor Total Time     | = | 8.755;  | // (usec)  | = 200 chars = 1600 Pixels  |
| Hor Addr Time      | = | 7.880;  | // (usec)  | = 180 chars = 1440 Pixels  |
| Hor Blank Start    | = | 7.880;  | // (usec)  | = 180 chars = 1440 Pixels  |
| Hor Blank Time     | = | 0.876;  | // (usec)  | = 20 chars = 160 Pixels    |
| Hor Sync Start     | = | 8.142;  | // (usec)  | = 186 chars = 1488 Pixels  |
| // H Right Border  | = | 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| // H Front Porch   | = | 0.263;  | // (usec)  | = 6 chars = 48 Pixels      |
| Hor Sync Time      | = | 0.175;  | // (usec)  | = 4 chars = 32 Pixels      |
| // H Back Porch    | = | 0.438;  | // (usec)  | = 10 chars = 80 Pixels     |
| // H Left Border   | = | 0.000;  | // (usec)  | = 0 chars = 0 Pixels       |
| Ver Total Time     | = | 8.344;  | // (msec)  | = 953 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 7.880;  | // (msec)  | = 900 lines = 0.4          |
| Ver Blank Start    | = | 7.880;  | // (msec)  | = 900 lines                |
| Ver Blank Time     | = | 0.464;  | // (msec)  | = 53 lines                 |
| Ver Sync Start     | = | 7.906;  | // (msec)  | = 903 lines                |
| // V Bottom Border | = | 0.000;  | // (msec)  | = 0 lines                  |
| // V Front Porch   | = | 0.026;  | // (msec)  | = 3 lines                  |
| Ver Sync Time      | = | 0.053;  | // (msec)  | = 6 lines                  |
| // V Back Porch    | = | 0.385;  | // (msec)  | = 44 lines                 |
| // V Top Border    | = | 0.000;  | // (msec)  | = 0 lines                  |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 1600 x 900 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 53h; STD 2 Byte Code: A9h, C0h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                             |            |                               |
|--------------------|-----------------------------|------------|-------------------------------|
| Timing Name        | = <b>1600 x 900 @ 60Hz;</b> |            |                               |
| Hor Pixels         | = <b>1600;</b>              | // Pixels  |                               |
| Ver Pixels         | = <b>900;</b>               | // Lines   |                               |
| Hor Frequency      | = 60.000;                   | // KHz     | = 16.7 usec / line            |
| Ver Frequency      | = 60.000;                   | // Hz      | = 16.7 msec / frame           |
| Pixel Clock        | = <b>108.000;</b>           | // MHz     | = 9.3 nsec ±0.5%              |
| Character Width    | = <b>8;</b>                 | // Pixels  | = 74.1 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>     | // H Phase | = 2.0 %                       |
| Hor Sync Polarity  | = <b>POSITIVE;</b>          | // HBlank  | = 11.1% of HTotal             |
| Ver Sync Polarity  | = <b>POSITIVE;</b>          | // VBlank  | = 10.0% of VTotal             |
| Hor Total Time     | = 16.667;                   | // (usec)  | = 225 chars = 1800 Pixels     |
| Hor Addr Time      | = 14.815;                   | // (usec)  | = 200 chars = 1600 Pixels     |
| Hor Blank Start    | = 14.815;                   | // (usec)  | = 200 chars = 1600 Pixels     |
| Hor Blank Time     | = 1.852;                    | // (usec)  | = 25 chars = 200 Pixels       |
| Hor Sync Start     | = 15.037;                   | // (usec)  | = 203 chars = 1624 Pixels     |
| // H Right Border  | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.222;                    | // (usec)  | = <b>3</b> chars = 24 Pixels  |
| Hor Sync Time      | = 0.741;                    | // (usec)  | = <b>10</b> chars = 80 Pixels |
| // H Back Porch    | = 0.889;                    | // (usec)  | = <b>12</b> chars = 96 Pixels |
| // H Left Border   | = 0.000;                    | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.667;                   | // (msec)  | = 1000 lines HT – (1.06xHA)   |
| Ver Addr Time      | = 15.000;                   | // (msec)  | = 900 lines = 0.96            |
| Ver Blank Start    | = 15.000;                   | // (msec)  | = 900 lines                   |
| Ver Blank Time     | = 1.667;                    | // (msec)  | = 100 lines                   |
| Ver Sync Start     | = 15.017;                   | // (msec)  | = 901 lines                   |
| // V Bottom Border | = 0.000;                    | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.017;                    | // (msec)  | = <b>1</b> lines              |
| Ver Sync Time      | = 0.050;                    | // (msec)  | = <b>3</b> lines              |
| // V Back Porch    | = 1.600;                    | // (msec)  | = <b>96</b> lines             |
| // V Top Border    | = 0.000;                    | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to Section 3.1

## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
 Resolution: 1600 x 1200 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 33h; STD 2 Byte Code: (A9, 40)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1600 x 1200 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1600;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1200;</b>               | // Lines   |                                |
| Hor Frequency      | = 75.000;                    | // kHz     | = 13.3 usec / line             |
| Ver Frequency      | = 60.000;                    | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>162.000;</b>            | // MHz     | = 6.2 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 49.4 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 5.6 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 13.333;                    | // (usec)  | = 270 chars = 2160 Pixels      |
| Hor Addr Time      | = 9.877;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Start    | = 9.877;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Time     | = 3.457;                     | // (usec)  | = 70 chars = 560 Pixels        |
| Hor Sync Start     | = 10.272;                    | // (usec)  | = 208 chars = 1664 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.395;                     | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| Hor Sync Time      | = 1.185;                     | // (usec)  | = <b>24</b> chars = 192 Pixels |
| // H Back Porch    | = 1.877;                     | // (usec)  | = <b>38</b> chars = 304 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.667;                    | // (msec)  | = 1250 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.000;                    | // (msec)  | = 1200 lines = 2.86            |
| Ver Blank Start    | = 16.000;                    | // (msec)  | = 1200 lines                   |
| Ver Blank Time     | = 0.667;                     | // (msec)  | = 50 lines                     |
| Ver Sync Start     | = 16.013;                    | // (msec)  | = 1201 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.013;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.040;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.613;                     | // (msec)  | = <b>46</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
 Resolution: 1600 x 1200 at 65 Hz (non-interlaced)  
 EDID ID: DMT ID: 34h; STD 2 Byte Code: (A9, 45)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1600 x 1200 @ 65Hz;</b> |            |                                |
| Hor Pixels         | = <b>1600;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1200;</b>               | // Lines   |                                |
| Hor Frequency      | = 81.250;                    | // kHz     | = 12.3 usec / line             |
| Ver Frequency      | = 65.000;                    | // Hz      | = 15.4 msec / frame            |
| Pixel Clock        | = <b>175.500;</b>            | // MHz     | = 5.7 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 45.6 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 5.6 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 12.308;                    | // (usec)  | = 270 chars = 2160 Pixels      |
| Hor Addr Time      | = 9.117;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Start    | = 9.117;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Time     | = 3.191;                     | // (usec)  | = 70 chars = 560 Pixels        |
| Hor Sync Start     | = 9.481;                     | // (usec)  | = 208 chars = 1664 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.365;                     | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| Hor Sync Time      | = 1.094;                     | // (usec)  | = <b>24</b> chars = 192 Pixels |
| // H Back Porch    | = 1.732;                     | // (usec)  | = <b>38</b> chars = 304 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 15.385;                    | // (msec)  | = 1250 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 14.769;                    | // (msec)  | = 1200 lines = 2.64            |
| Ver Blank Start    | = 14.769;                    | // (msec)  | = 1200 lines                   |
| Ver Blank Time     | = 0.615;                     | // (msec)  | = 50 lines                     |
| Ver Sync Start     | = 14.782;                    | // (msec)  | = 1201 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.012;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.037;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.566;                     | // (msec)  | = <b>46</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
 Resolution: 1600 x 1200 at 70 Hz (non-interlaced)  
 EDID ID: DMT ID: 35h; STD 2 Byte Code: (A9, 4A)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1600 x 1200 @ 70Hz;</b> |            |                                |
| Hor Pixels         | = <b>1600;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1200;</b>               | // Lines   |                                |
| Hor Frequency      | = 87.500;                    | // kHz     | = 11.4 usec / line             |
| Ver Frequency      | = 70.000;                    | // Hz      | = 14.3 msec / frame            |
| Pixel Clock        | = <b>189.000;</b>            | // MHz     | = 5.3 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 42.3 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 5.6 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 11.429;                    | // (usec)  | = 270 chars = 2160 Pixels      |
| Hor Addr Time      | = 8.466;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Start    | = 8.466;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Time     | = 2.963;                     | // (usec)  | = 70 chars = 560 Pixels        |
| Hor Sync Start     | = 8.804;                     | // (usec)  | = 208 chars = 1664 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.339;                     | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| Hor Sync Time      | = 1.016;                     | // (usec)  | = <b>24</b> chars = 192 Pixels |
| // H Back Porch    | = 1.608;                     | // (usec)  | = <b>38</b> chars = 304 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 14.286;                    | // (msec)  | = 1250 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 13.714;                    | // (msec)  | = 1200 lines = 2.46            |
| Ver Blank Start    | = 13.714;                    | // (msec)  | = 1200 lines                   |
| Ver Blank Time     | = 0.571;                     | // (msec)  | = 50 lines                     |
| Ver Sync Start     | = 13.726;                    | // (msec)  | = 1201 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.011;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.034;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.526;                     | // (msec)  | = <b>46</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
Resolution: 1600 x 1200 at 75 Hz (non-interlaced)  
EDID ID: DMT ID: 36h; STD 2 Byte Code: (A9, 4F)h; CVT 3 Byte Code: n/a  
Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1600 x 1200 @ 75Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1600;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1200;</b>               | // Lines   |                             |
| Hor Frequency      | = | 93.750;                    | // kHz     | = 10.7 usec / line          |
| Ver Frequency      | = | 75.000;                    | // Hz      | = 13.3 msec / frame         |
| Pixel Clock        | = | <b>202.500;</b>            | // MHz     | = 4.9 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 39.5 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 5.6 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal            |
| Hor Total Time     | = | 10.667;                    | // (usec)  | = 270 chars = 2160 Pixels   |
| Hor Addr Time      | = | 7.901;                     | // (usec)  | = 200 chars = 1600 Pixels   |
| Hor Blank Start    | = | 7.901;                     | // (usec)  | = 200 chars = 1600 Pixels   |
| Hor Blank Time     | = | 2.765;                     | // (usec)  | = 70 chars = 560 Pixels     |
| Hor Sync Start     | = | 8.217;                     | // (usec)  | = 208 chars = 1664 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.316;                     | // (usec)  | = 8 chars = 64 Pixels       |
| Hor Sync Time      | = | 0.948;                     | // (usec)  | = 24 chars = 192 Pixels     |
| // H Back Porch    | = | 1.501;                     | // (usec)  | = 38 chars = 304 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 13.333;                    | // (msec)  | = 1250 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.800;                    | // (msec)  | = 1200 lines = 2.29         |
| Ver Blank Start    | = | 12.800;                    | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = | 0.533;                     | // (msec)  | = 50 lines                  |
| Ver Sync Start     | = | 12.811;                    | // (msec)  | = 1201 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.011;                     | // (msec)  | = 1 lines                   |
| Ver Sync Time      | = | 0.032;                     | // (msec)  | = 3 lines                   |
| // V Back Porch    | = | 0.491;                     | // (msec)  | = 46 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.1.



## VESA MONITOR TIMING STANDARD

Adopted: 12/18/96  
 Resolution: 1600 x 1200 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 37h; STD 2 Byte Code: (A9, 59)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1600 x 1200 @ 85Hz;</b> |            |                                |
| Hor Pixels         | = <b>1600;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1200;</b>               | // Lines   |                                |
| Hor Frequency      | = 106.250;                   | // kHz     | = 9.4 usec / line              |
| Ver Frequency      | = 85.000;                    | // Hz      | = 11.8 msec / frame            |
| Pixel Clock        | = <b>229.500;</b>            | // MHz     | = 4.4 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 34.9 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 5.6 %                        |
| Hor Sync Polarity  | = <b>POSITIVE;</b>           | // HBlank  | = 25.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 9.412;                     | // (usec)  | = 270 chars = 2160 Pixels      |
| Hor Addr Time      | = 6.972;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Start    | = 6.972;                     | // (usec)  | = 200 chars = 1600 Pixels      |
| Hor Blank Time     | = 2.440;                     | // (usec)  | = 70 chars = 560 Pixels        |
| Hor Sync Start     | = 7.251;                     | // (usec)  | = 208 chars = 1664 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.279;                     | // (usec)  | = <b>8</b> chars = 64 Pixels   |
| Hor Sync Time      | = 0.837;                     | // (usec)  | = <b>24</b> chars = 192 Pixels |
| // H Back Porch    | = 1.325;                     | // (usec)  | = <b>38</b> chars = 304 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 11.765;                    | // (msec)  | = 1250 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 11.294;                    | // (msec)  | = 1200 lines = 2.02            |
| Ver Blank Start    | = 11.294;                    | // (msec)  | = 1200 lines                   |
| Ver Blank Time     | = 0.471;                     | // (msec)  | = 50 lines                     |
| Ver Sync Start     | = 11.304;                    | // (msec)  | = 1201 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.009;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.028;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.433;                     | // (msec)  | = <b>46</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1600 x 1200 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 38h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1600 x 1200 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1600;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1200;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 152.415;   | // kHz     | = 6.6 usec / line           |
| Ver Frequency      | = 119.917;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>268.250;</b>                                    | // MHz     | = 3.7 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 29.8 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 0.9 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 9.1% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = 6.561;   | // (usec)  | = 220 chars = 1760 Pixels   |
| Hor Addr Time      | = 5.965;   | // (usec)  | = 200 chars = 1600 Pixels   |
| Hor Blank Start    | = 5.965;   | // (usec)  | = 200 chars = 1600 Pixels   |
| Hor Blank Time     | = 0.596;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 6.144;   | // (usec)  | = 206 chars = 1648 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.179;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.119;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.298;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.339;   | // (msec)  | = 1271 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.873;   | // (msec)  | = 1200 lines = 0.24         |
| Ver Blank Start    | = 7.873;   | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = 0.466;   | // (msec)  | = 71 lines                  |
| Ver Sync Start     | = 7.893;   | // (msec)  | = 1203 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.020;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.026;   | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.420;   | // (msec)  | = 64 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1680 x 1050 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 39h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (0C, 28, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |   |            |                               |
|--------------------|---|------------|-------------------------------|
| Timing Name        | = <b>1680 x 1050 @ 60Hz CVT (Reduced Blanking);</b> |            |                               |
| Hor Pixels         | = <b>1680;</b>                                      | // Pixels  |                               |
| Ver Pixels         | = <b>1050;</b>                                      | // Lines   |                               |
| Hor Frequency      | = 64.674;   | // kHz     | = 15.5 usec / line            |
| Ver Frequency      | = 59.883;   | // Hz      | = 16.7 msec / frame           |
| Pixel Clock        | = <b>119.000;</b>                                   | // MHz     | = 8.4 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>   | // Pixels  | = 67.2 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 0.9 %                       |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 8.7% of HTotal              |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 2.8% of VTotal              |
| Hor Total Time     | = 15.462;   | // (usec)  | = 230 chars = 1840 Pixels     |
| Hor Addr Time      | = 14.118;   | // (usec)  | = 210 chars = 1680 Pixels     |
| Hor Blank Start    | = 14.118;   | // (usec)  | = 210 chars = 1680 Pixels     |
| Hor Blank Time     | = 1.345;  | // (usec)  | = 20 chars = 160 Pixels       |
| Hor Sync Start     | = 14.521;   | // (usec)  | = 216 chars = 1728 Pixels     |
| // H Right Border  | = 0.000;  | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.403;  | // (usec)  | = <b>6</b> chars = 48 Pixels  |
| Hor Sync Time      | = 0.269;  | // (usec)  | = <b>4</b> chars = 32 Pixels  |
| // H Back Porch    | = 0.672;  | // (usec)  | = <b>10</b> chars = 80 Pixels |
| // H Left Border   | = 0.000;  | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.699;   | // (msec)  | = 1080 lines HT – (1.06xHA)   |
| Ver Addr Time      | = 16.235;   | // (msec)  | = 1050 lines = 0.5            |
| Ver Blank Start    | = 16.235;   | // (msec)  | = 1050 lines                  |
| Ver Blank Time     | = 0.464;  | // (msec)  | = 30 lines                    |
| Ver Sync Start     | = 16.282;   | // (msec)  | = 1053 lines                  |
| // V Bottom Border | = 0.000;  | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.046;  | // (msec)  | = <b>3</b> lines              |
| Ver Sync Time      | = 0.093;  | // (msec)  | = <b>6</b> lines              |
| // V Back Porch    | = 0.325;  | // (msec)  | = <b>21</b> lines             |
| // V Top Border    | = 0.000;  | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1680 x 1050 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 3Ah; STD 2 Byte Code: (B3, 00)h; CVT 3 Byte Code: (0C, 28, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1680 x 1050 @ 60Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1680;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1050;</b>               | // Lines   |                             |
| Hor Frequency      | = | 65.290;                    | // kHz     | = 15.3 usec / line          |
| Ver Frequency      | = | 59.954;                    | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>146.250;</b>            | // MHz     | = 6.8 nsec ±0.5%            |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 54.7 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 3.9 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank  | = 25.0% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 3.6% of VTotal            |
| Hor Total Time     | = | 15.316;                    | // (usec)  | = 280 chars = 2240 Pixels   |
| Hor Addr Time      | = | 11.487;                    | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Start    | = | 11.487;                    | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Time     | = | 3.829;                     | // (usec)  | = 70 chars = 560 Pixels     |
| Hor Sync Start     | = | 12.198;                    | // (usec)  | = 223 chars = 1784 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.711;                     | // (usec)  | = 13 chars = 104 Pixels     |
| Hor Sync Time      | = | 1.203;                     | // (usec)  | = 22 chars = 176 Pixels     |
| // H Back Porch    | = | 1.915;                     | // (usec)  | = 35 chars = 280 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.679;                    | // (msec)  | = 1089 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.082;                    | // (msec)  | = 1050 lines = 3.14         |
| Ver Blank Start    | = | 16.082;                    | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = | 0.597;                     | // (msec)  | = 39 lines                  |
| Ver Sync Start     | = | 16.128;                    | // (msec)  | = 1053 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.046;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.092;                     | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.459;                     | // (msec)  | = 30 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1680 x 1050 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 3Bh; STD 2 Byte Code: (B3, 0F)h; CVT 3 Byte Code: (0C, 28, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1680 x 1050 @ 75Hz;</b> |            |                                |
| Hor Pixels         | = <b>1680;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1050;</b>               | // Lines   |                                |
| Hor Frequency      | = 82.306;                    | // kHz     | = 12.1 usec / line             |
| Ver Frequency      | = 74.892;                    | // Hz      | = 13.4 msec / frame            |
| Pixel Clock        | = <b>187.000;</b>            | // MHz     | = 5.3 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 42.8 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 3.9 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 26.1% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.5% of VTotal               |
| Hor Total Time     | = 12.150;                    | // (usec)  | = 284 chars = 2272 Pixels      |
| Hor Addr Time      | = 8.984;                     | // (usec)  | = 210 chars = 1680 Pixels      |
| Hor Blank Start    | = 8.984;                     | // (usec)  | = 210 chars = 1680 Pixels      |
| Hor Blank Time     | = 3.166;                     | // (usec)  | = 74 chars = 592 Pixels        |
| Hor Sync Start     | = 9.626;                     | // (usec)  | = 225 chars = 1800 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.642;                     | // (usec)  | = <b>15</b> chars = 120 Pixels |
| Hor Sync Time      | = 0.941;                     | // (usec)  | = <b>22</b> chars = 176 Pixels |
| // H Back Porch    | = 1.583;                     | // (usec)  | = <b>37</b> chars = 296 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 13.353;                    | // (msec)  | = 1099 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 12.757;                    | // (msec)  | = 1050 lines = 2.63            |
| Ver Blank Start    | = 12.757;                    | // (msec)  | = 1050 lines                   |
| Ver Blank Time     | = 0.595;                     | // (msec)  | = 49 lines                     |
| Ver Sync Start     | = 12.794;                    | // (msec)  | = 1053 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.036;                     | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.073;                     | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.486;                     | // (msec)  | = <b>40</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 10/24/04  
 Resolution: 1680 x 1050 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 3Ch; STD 2 Byte Code: (B3, 19)h; CVT 3 Byte Code: (0C, 28, 68)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1680 x 1050 @ 85Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1680;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1050;</b>               | // Lines   |                             |
| Hor Frequency      | = | 93.859;                    | // kHz     | = 10.7 usec / line          |
| Ver Frequency      | = | 84.941;                    | // Hz      | = 11.8 msec / frame         |
| Pixel Clock        | = | <b>214.750;</b>            | // MHz     | = 4.7 nsec ±0.5%            |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 37.3 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 3.8 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank  | = 26.6% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 5.0% of VTotal            |
| Hor Total Time     | = | 10.654;                    | // (usec)  | = 286 chars = 2288 Pixels   |
| Hor Addr Time      | = | 7.823;                     | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Start    | = | 7.823;                     | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Time     | = | 2.831;                     | // (usec)  | = 76 chars = 608 Pixels     |
| Hor Sync Start     | = | 8.419;                     | // (usec)  | = 226 chars = 1808 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.596;                     | // (usec)  | = 16 chars = 128 Pixels     |
| Hor Sync Time      | = | 0.820;                     | // (usec)  | = 22 chars = 176 Pixels     |
| // H Back Porch    | = | 1.416;                     | // (usec)  | = 38 chars = 304 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 11.773;                    | // (msec)  | = 1105 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 11.187;                    | // (msec)  | = 1050 lines = 2.36         |
| Ver Blank Start    | = | 11.187;                    | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = | 0.586;                     | // (msec)  | = 55 lines                  |
| Ver Sync Start     | = | 11.219;                    | // (msec)  | = 1053 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.032;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.064;                     | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.490;                     | // (msec)  | = 46 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1680 x 1050 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 3Dh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1680 x 1050 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1680;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1050;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 133.424;   | // kHz     | = 7.5 usec / line           |
| Ver Frequency      | = 119.986;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>245.500;</b>                                    | // MHz     | = 4.1 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 32.6 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 0.9 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 8.7% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = 7.495;   | // (usec)  | = 230 chars = 1840 Pixels   |
| Hor Addr Time      | = 6.843;   | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Start    | = 6.843;   | // (usec)  | = 210 chars = 1680 Pixels   |
| Hor Blank Time     | = 0.652;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 7.039;   | // (usec)  | = 216 chars = 1728 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.196;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.130;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.326;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.334;   | // (msec)  | = 1112 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.870;   | // (msec)  | = 1050 lines = 0.24         |
| Ver Blank Start    | = 7.870;   | // (msec)  | = 1050 lines                |
| Ver Blank Time     | = 0.465;   | // (msec)  | = 62 lines                  |
| Ver Sync Start     | = 7.892;   | // (msec)  | = 1053 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.022;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.045;   | // (msec)  | = 6 lines                   |
| // V Back Porch    | = 0.397;   | // (msec)  | = 53 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1792 x 1344 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 3Eh; STD 2 Byte Code: (C1, 40)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1792 x 1344 @ 60 Hz</b> |            |                                |
| Hor Pixels         | = <b>1792;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1344;</b>               | // Lines   |                                |
| Hor Frequency      | = 83.640;                    | // kHz     | = 12.0 usec / line             |
| Ver Frequency      | = 60.000;                    | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>204.750;</b>            | // MHz     | = 4.9 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 39.1 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 4.1 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE;</b>           | // HBlank  | = 26.8% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 3.6% of VTotal               |
| Hor Total Time     | = 11.956;                    | // (usec)  | = 306 chars = 2448 Pixels      |
| Hor Addr Time      | = 8.752;                     | // (usec)  | = 224 chars = 1792 Pixels      |
| Hor Blank Start    | = 8.752;                     | // (usec)  | = 224 chars = 1792 Pixels      |
| Hor Blank Time     | = 3.204;                     | // (usec)  | = 82 chars = 656 Pixels        |
| Hor Sync Start     | = 9.377;                     | // (usec)  | = 240 chars = 1920 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.625;                     | // (usec)  | = <b>16</b> chars = 128 Pixels |
| Hor Sync Time      | = 0.977;                     | // (usec)  | = <b>25</b> chars = 200 Pixels |
| // H Back Porch    | = 1.602;                     | // (usec)  | = <b>41</b> chars = 328 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.667;                    | // (msec)  | = 1394 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.069;                    | // (msec)  | = 1344 lines = 2.68            |
| Ver Blank Start    | = 16.069;                    | // (msec)  | = 1344 lines                   |
| Ver Blank Time     | = 0.598;                     | // (msec)  | = 50 lines                     |
| Ver Sync Start     | = 16.081;                    | // (msec)  | = 1345 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.012;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.036;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.550;                     | // (msec)  | = <b>46</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.



## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1792 x 1344 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 3Fh; STD 2 Byte Code: (C1, 4F)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |              |                             |
|--------------------|---|----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>1792 x 1344 @ 75Hz;</b> |              |                             |
| Hor Pixels         | = | <b>1792;</b>               | // Pixels    |                             |
| Ver Pixels         | = | <b>1344;</b>               | // Lines     |                             |
| Hor Frequency      | = | 106.270;                   | // kHz       | = 9.4 usec / line           |
| Ver Frequency      | = | 74.997;                    | // Hz        | = 13.3 msec / frame         |
| Pixel Clock        | = | <b>261.000;</b>            | // MHz       | = 3.8 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels    | = 30.7 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase = | 5.2 %                       |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>           | // HBlank =  | 27.0% of HTotal             |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank =  | 5.2% of VTotal              |
| Hor Total Time     | = | 9.410;                     | // (usec)    | = 307 chars = 2456 Pixels   |
| Hor Addr Time      | = | 6.866;                     | // (usec)    | = 224 chars = 1792 Pixels   |
| Hor Blank Start    | = | 6.866;                     | // (usec)    | = 224 chars = 1792 Pixels   |
| Hor Blank Time     | = | 2.544;                     | // (usec)    | = 83 chars = 664 Pixels     |
| Hor Sync Start     | = | 7.234;                     | // (usec)    | = 236 chars = 1888 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.368;                     | // (usec)    | = 12 chars = 96 Pixels      |
| Hor Sync Time      | = | 0.828;                     | // (usec)    | = 27 chars = 216 Pixels     |
| // H Back Porch    | = | 1.349;                     | // (usec)    | = 44 chars = 352 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 13.334;                    | // (msec)    | = 1417 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.647;                    | // (msec)    | = 1344 lines = 2.13         |
| Ver Blank Start    | = | 12.647;                    | // (msec)    | = 1344 lines                |
| Ver Blank Time     | = | 0.687;                     | // (msec)    | = 73 lines                  |
| Ver Sync Start     | = | 12.656;                    | // (msec)    | = 1345 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.009;                     | // (msec)    | = 1 lines                   |
| Ver Sync Time      | = | 0.028;                     | // (msec)    | = 3 lines                   |
| // V Back Porch    | = | 0.649;                     | // (msec)    | = 69 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
Resolution: 1792 x 1344 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
EDID ID: DMT ID: 40h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |  |            |                             |
|--------------------|---|--|------------|-----------------------------|
| Timing Name        | = | <b>1792 x 1344 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = | <b>1792;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = | <b>1344;</b>                                       | // Lines   |                             |
| Hor Frequency      | = | 170.722;   | // kHz     | = 5.9 usec / line           |
| Ver Frequency      | = | 119.974;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = | <b>333.250;</b>                                    | // MHz     | = 3.0 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>  | // Pixels  | = 24.0 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>                              | // H Phase | = 0.8 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>                                   | // HBlank  | = 8.2% of HTotal            |
| Ver Sync Polarity  | = | <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = | 5.857;   | // (usec)  | = 244 chars = 1952 Pixels   |
| Hor Addr Time      | = | 5.377;   | // (usec)  | = 224 chars = 1792 Pixels   |
| Hor Blank Start    | = | 5.377;   | // (usec)  | = 224 chars = 1792 Pixels   |
| Hor Blank Time     | = | 0.480;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = | 5.521;   | // (usec)  | = 230 chars = 1840 Pixels   |
| // H Right Border  | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.144;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = | 0.096;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = | 0.240;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 8.335;   | // (msec)  | = 1423 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 7.872;   | // (msec)  | = 1344 lines = 0.16         |
| Ver Blank Start    | = | 7.872;   | // (msec)  | = 1344 lines                |
| Ver Blank Time     | = | 0.463;   | // (msec)  | = 79 lines                  |
| Ver Sync Start     | = | 7.890;   | // (msec)  | = 1347 lines                |
| // V Bottom Border | = | 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.018;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.023;   | // (msec)  | = 4 lines                   |
| // V Back Porch    | = | 0.422;   | // (msec)  | = 72 lines                  |
| // V Top Border    | = | 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1856 x 1392 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 41h; STD 2 Byte Code: (C9, 40)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                             |              |                             |
|--------------------|---|-----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>1856 x 1392 at 60Hz;</b> |              |                             |
| Hor Pixels         | = | <b>1856;</b>                | // Pixels    |                             |
| Ver Pixels         | = | <b>1392;</b>                | // Lines     |                             |
| Hor Frequency      | = | 86.333;                     | // kHz       | = 11.6 usec / line          |
| Ver Frequency      | = | 59.995;                     | // Hz        | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>218.250;</b>             | // MHz       | = 4.6 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                   | // Pixels    | = 36.7 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>       | // H Phase = | 5.1 %                       |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>            | // HBlank =  | 26.6% of HTotal             |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>            | // VBlank =  | 3.3% of VTotal              |
| Hor Total Time     | = | 11.583;                     | // (usec)    | = 316 chars = 2528 Pixels   |
| Hor Addr Time      | = | 8.504;                      | // (usec)    | = 232 chars = 1856 Pixels   |
| Hor Blank Start    | = | 8.504;                      | // (usec)    | = 232 chars = 1856 Pixels   |
| Hor Blank Time     | = | 3.079;                      | // (usec)    | = 84 chars = 672 Pixels     |
| Hor Sync Start     | = | 8.944;                      | // (usec)    | = 244 chars = 1952 Pixels   |
| // H Right Border  | = | 0.000;                      | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.440;                      | // (usec)    | = 12 chars = 96 Pixels      |
| Hor Sync Time      | = | 1.026;                      | // (usec)    | = 28 chars = 224 Pixels     |
| // H Back Porch    | = | 1.613;                      | // (usec)    | = 44 chars = 352 Pixels     |
| // H Left Border   | = | 0.000;                      | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.668;                     | // (msec)    | = 1439 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.124;                     | // (msec)    | = 1392 lines = 2.57         |
| Ver Blank Start    | = | 16.124;                     | // (msec)    | = 1392 lines                |
| Ver Blank Time     | = | 0.544;                      | // (msec)    | = 47 lines                  |
| Ver Sync Start     | = | 16.135;                     | // (msec)    | = 1393 lines                |
| // V Bottom Border | = | 0.000;                      | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.012;                      | // (msec)    | = 1 lines                   |
| Ver Sync Time      | = | 0.035;                      | // (msec)    | = 3 lines                   |
| // V Back Porch    | = | 0.498;                      | // (msec)    | = 43 lines                  |
| // V Top Border    | = | 0.000;                      | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1856 x 1392 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 42h; STD 2 Byte Code: (C9, 4F)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |              |                             |
|--------------------|---|----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>1856 x 1392 @ 75Hz;</b> |              |                             |
| Hor Pixels         | = | <b>1856;</b>               | // Pixels    |                             |
| Ver Pixels         | = | <b>1392;</b>               | // Lines     |                             |
| Hor Frequency      | = | 112.500;                   | // kHz       | = 8.9 usec / line           |
| Ver Frequency      | = | 75.000;                    | // Hz        | = 13.3 msec / frame         |
| Pixel Clock        | = | <b>288.000;</b>            | // MHz       | = 3.5 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels    | = 27.8 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase = | 4.4 %                       |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>           | // HBlank =  | 27.5% of HTotal             |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank =  | 7.2% of VTotal              |
| Hor Total Time     | = | 8.889;                     | // (usec)    | = 320 chars = 2560 Pixels   |
| Hor Addr Time      | = | 6.444;                     | // (usec)    | = 232 chars = 1856 Pixels   |
| Hor Blank Start    | = | 6.444;                     | // (usec)    | = 232 chars = 1856 Pixels   |
| Hor Blank Time     | = | 2.444;                     | // (usec)    | = 88 chars = 704 Pixels     |
| Hor Sync Start     | = | 6.889;                     | // (usec)    | = 248 chars = 1984 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.444;                     | // (usec)    | = 16 chars = 128 Pixels     |
| Hor Sync Time      | = | 0.778;                     | // (usec)    | = 28 chars = 224 Pixels     |
| // H Back Porch    | = | 1.222;                     | // (usec)    | = 44 chars = 352 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 13.333;                    | // (msec)    | = 1500 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.373;                    | // (msec)    | = 1392 lines = 2.06         |
| Ver Blank Start    | = | 12.373;                    | // (msec)    | = 1392 lines                |
| Ver Blank Time     | = | 0.960;                     | // (msec)    | = 108 lines                 |
| Ver Sync Start     | = | 12.382;                    | // (msec)    | = 1393 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.009;                     | // (msec)    | = 1 lines                   |
| Ver Sync Time      | = | 0.027;                     | // (msec)    | = 3 lines                   |
| // V Back Porch    | = | 0.924;                     | // (msec)    | = 104 lines                 |
| // V Top Border    | = | 0.000;                     | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1856 x 1392 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 43h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1856 x 1392 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1856;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1392;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 176.835;   | // kHz     | = 5.7 usec / line           |
| Ver Frequency      | = 119.970;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>356.500;</b>                                    | // MHz     | = 2.8 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 22.4 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 0.8 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 7.9% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = 5.655;   | // (usec)  | = 252 chars = 2016 Pixels   |
| Hor Addr Time      | = 5.206;   | // (usec)  | = 232 chars = 1856 Pixels   |
| Hor Blank Start    | = 5.206;   | // (usec)  | = 232 chars = 1856 Pixels   |
| Hor Blank Time     | = 0.449;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 5.341;   | // (usec)  | = 238 chars = 1904 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.135;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.090;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.224;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.335;   | // (msec)  | = 1474 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.872;   | // (msec)  | = 1392 lines = 0.14         |
| Ver Blank Start    | = 7.872;   | // (msec)  | = 1392 lines                |
| Ver Blank Time     | = 0.464;   | // (msec)  | = 82 lines                  |
| Ver Sync Start     | = 7.889;   | // (msec)  | = 1395 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.017;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.023;   | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.424;   | // (msec)  | = 75 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 1920 x 1080 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 52h; STD 2 Byte Code: (D1, C0)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***  
 Per CEA-861 --- 1080p (Code 16) Timing Definition

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1920 x 1080 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>1920;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1080;</b>               | // Lines   |                                |
| Hor Frequency      | = 67.500;                    | // kHz     | = 14.8 usec / line             |
| Ver Frequency      | = 60.000;                    | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>148.500;</b>            | // MHz     | = 6.7 nsec ± 0.5%              |
| Character Width    | = <b>4;</b>                  | // Pixels  | = 26.9 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 1.4 %                        |
| Hor Sync Polarity  | = <b>POSITIVE</b>            | // HBlank  | = 12.7% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE</b>            | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 14.815;                    | // (usec)  | = 550 chars = 2200 Pixels      |
| Hor Addr Time      | = 12.929;                    | // (usec)  | = 480 chars = 1920 Pixels      |
| Hor Blank Start    | = 12.929;                    | // (usec)  | = 480 chars = 1920 Pixels      |
| Hor Blank Time     | = 1.886;                     | // (usec)  | = 70 chars = 280 Pixels        |
| Hor Sync Start     | = 13.522;                    | // (usec)  | = 502 chars = 2008 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.593;                     | // (usec)  | = <b>22</b> chars = 88 Pixels  |
| Hor Sync Time      | = 0.296;                     | // (usec)  | = <b>11</b> chars = 44 Pixels  |
| // H Back Porch    | = 0.997;                     | // (usec)  | = <b>37</b> chars = 148 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.667;                    | // (msec)  | = 1125 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.000;                    | // (msec)  | = 1080 lines = 1.11            |
| Ver Blank Start    | = 16.000;                    | // (msec)  | = 1080 lines                   |
| Ver Blank Time     | = 0.667;                     | // (msec)  | = 45 lines                     |
| Ver Sync Start     | = 16.059;                    | // (msec)  | = 1084 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.059;                     | // (msec)  | = <b>4</b> lines               |
| Ver Sync Time      | = 0.074;                     | // (msec)  | = <b>5</b> lines               |
| // V Back Porch    | = 0.533;                     | // (msec)  | = <b>36</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.1

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1920 x 1200 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 44h; STD 2 Byte Code: n/a; CVT 3 Byte Code: (57, 28, 21)h  
 Method: CVT Reduced Blanking

### Detailed Timing Parameters

|                    |   |            |                             |
|--------------------|---|------------|-----------------------------|
| Timing Name        | = <b>1920 x 1200 @ 60Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1920;</b>                                      | // Pixels  |                             |
| Ver Pixels         | = <b>1200;</b>                                      | // Lines   |                             |
| Hor Frequency      | = 74.038;   | // kHz     | = 13.5 usec / line          |
| Ver Frequency      | = 59.950;   | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = <b>154.000;</b>                                   | // MHz     | = 6.5 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>   | // Pixels  | = 51.9 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 0.8 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 7.7% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                   | // VBlank  | = 2.8% of VTotal            |
| Hor Total Time     | = 13.506;   | // (usec)  | = 260 chars = 2080 Pixels   |
| Hor Addr Time      | = 12.468;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = 12.468;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = 1.039;  | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 12.779;   | // (usec)  | = 246 chars = 1968 Pixels   |
| // H Right Border  | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.312;  | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.208;  | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.519;  | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;  | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 16.681;   | // (msec)  | = 1235 lines HT – (1.06xHA) |
| Ver Addr Time      | = 16.208;   | // (msec)  | = 1200 lines = 0.29         |
| Ver Blank Start    | = 16.208;   | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = 0.473;  | // (msec)  | = 35 lines                  |
| Ver Sync Start     | = 16.248;   | // (msec)  | = 1203 lines                |
| // V Bottom Border | = 0.000;  | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.041;  | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.081;  | // (msec)  | = 6 lines                   |
| // V Back Porch    | = 0.351;  | // (msec)  | = 26 lines                  |
| // V Top Border    | = 0.000;  | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1920 x 1200 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 45h; STD 2 Byte Code: (D1, 00)h; CVT 3 Byte Code: (57, 28, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1920 x 1200 @ 60Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1920;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1200;</b>               | // Lines   |                             |
| Hor Frequency      | = | 74.556;                    | // kHz     | = 13.4 usec / line          |
| Ver Frequency      | = | 59.885;                    | // Hz      | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>193.250;</b>            | // MHz     | = 5.2 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 41.4 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 3.9 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank  | = 25.9% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 3.6% of VTotal            |
| Hor Total Time     | = | 13.413;                    | // (usec)  | = 324 chars = 2592 Pixels   |
| Hor Addr Time      | = | 9.935;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = | 9.935;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = | 3.477;                     | // (usec)  | = 84 chars = 672 Pixels     |
| Hor Sync Start     | = | 10.639;                    | // (usec)  | = 257 chars = 2056 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.704;                     | // (usec)  | = 17 chars = 136 Pixels     |
| Hor Sync Time      | = | 1.035;                     | // (usec)  | = 25 chars = 200 Pixels     |
| // H Back Porch    | = | 1.739;                     | // (usec)  | = 42 chars = 336 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.699;                    | // (msec)  | = 1245 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.095;                    | // (msec)  | = 1200 lines = 2.88         |
| Ver Blank Start    | = | 16.095;                    | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = | 0.604;                     | // (msec)  | = 45 lines                  |
| Ver Sync Start     | = | 16.135;                    | // (msec)  | = 1203 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.040;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.080;                     | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.483;                     | // (msec)  | = 36 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.



## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1920 x 1200 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 46h; STD 2 Byte Code: (D1, 0F)h; CVT 3 Byte Code: (57, 28, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1920 x 1200 @ 75Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1920;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1200;</b>               | // Lines   |                             |
| Hor Frequency      | = | 94.038;                    | // kHz     | = 10.6 usec / line          |
| Ver Frequency      | = | 74.930;                    | // Hz      | = 13.3 msec / frame         |
| Pixel Clock        | = | <b>245.250;</b>            | // MHz     | = 4.1 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 32.6 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 4.0 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank  | = 26.4% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 4.4% of VTotal            |
| Hor Total Time     | = | 10.634;                    | // (usec)  | = 326 chars = 2608 Pixels   |
| Hor Addr Time      | = | 7.829;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = | 7.829;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = | 2.805;                     | // (usec)  | = 86 chars = 688 Pixels     |
| Hor Sync Start     | = | 8.383;                     | // (usec)  | = 257 chars = 2056 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.555;                     | // (usec)  | = 17 chars = 136 Pixels     |
| Hor Sync Time      | = | 0.848;                     | // (usec)  | = 26 chars = 208 Pixels     |
| // H Back Porch    | = | 1.403;                     | // (usec)  | = 43 chars = 344 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 13.346;                    | // (msec)  | = 1255 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 12.761;                    | // (msec)  | = 1200 lines = 2.34         |
| Ver Blank Start    | = | 12.761;                    | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = | 0.585;                     | // (msec)  | = 55 lines                  |
| Ver Sync Start     | = | 12.793;                    | // (msec)  | = 1203 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.032;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.064;                     | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.489;                     | // (msec)  | = 46 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 8/21/03  
 Resolution: 1920 x 1200 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 47h; STD 2 Byte Code: (D1, 19)h; CVT 3 Byte Code: (57, 28, 62)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |            |                             |
|--------------------|---|----------------------------|------------|-----------------------------|
| Timing Name        | = | <b>1920 x 1200 @ 85Hz;</b> |            |                             |
| Hor Pixels         | = | <b>1920;</b>               | // Pixels  |                             |
| Ver Pixels         | = | <b>1200;</b>               | // Lines   |                             |
| Hor Frequency      | = | 107.184;                   | // kHz     | = 9.3 usec / line           |
| Ver Frequency      | = | 84.932;                    | // Hz      | = 11.8 msec / frame         |
| Pixel Clock        | = | <b>281.250;</b>            | // MHz     | = 3.6 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels  | = 28.4 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase | = 4.0 %                     |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank  | = 26.8% of HTotal           |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank  | = 4.9% of VTotal            |
| Hor Total Time     | = | 9.330;                     | // (usec)  | = 328 chars = 2624 Pixels   |
| Hor Addr Time      | = | 6.827;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = | 6.827;                     | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = | 2.503;                     | // (usec)  | = 88 chars = 704 Pixels     |
| Hor Sync Start     | = | 7.339;                     | // (usec)  | = 258 chars = 2064 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.512;                     | // (usec)  | = 18 chars = 144 Pixels     |
| Hor Sync Time      | = | 0.740;                     | // (usec)  | = 26 chars = 208 Pixels     |
| // H Back Porch    | = | 1.252;                     | // (usec)  | = 44 chars = 352 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 11.774;                    | // (msec)  | = 1262 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 11.196;                    | // (msec)  | = 1200 lines = 2.09         |
| Ver Blank Start    | = | 11.196;                    | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = | 0.578;                     | // (msec)  | = 62 lines                  |
| Ver Sync Start     | = | 11.224;                    | // (msec)  | = 1203 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.028;                     | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.056;                     | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.494;                     | // (msec)  | = 53 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1920 x 1200 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 48h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1920 x 1200 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1920;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1200;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 152.404;   | // kHz     | = 6.6 usec / line           |
| Ver Frequency      | = 119.909;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>317.000;</b>                                    | // MHz     | = 3.2 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 25.2 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 0.8 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 7.7% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTtotal           |
| Hor Total Time     | = 6.562;   | // (usec)  | = 260 chars = 2080 Pixels   |
| Hor Addr Time      | = 6.057;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = 6.057;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = 0.505;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 6.208;   | // (usec)  | = 246 chars = 1968 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.151;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.101;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.252;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.340;   | // (msec)  | = 1271 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.874;   | // (msec)  | = 1200 lines = 0.14         |
| Ver Blank Start    | = 7.874;   | // (msec)  | = 1200 lines                |
| Ver Blank Time     | = 0.466;   | // (msec)  | = 71 lines                  |
| Ver Sync Start     | = 7.894;   | // (msec)  | = 1203 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.020;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.039;   | // (msec)  | = 6 lines                   |
| // V Back Porch    | = 0.407;   | // (msec)  | = 62 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1920 x 1440 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 49h; STD 2 Byte Code: (D1, 40)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |              |                             |
|--------------------|---|----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>1920 x 1440 @ 60Hz;</b> |              |                             |
| Hor Pixels         | = | <b>1920;</b>               | // Pixels    |                             |
| Ver Pixels         | = | <b>1440;</b>               | // Lines     |                             |
| Hor Frequency      | = | 90.000;                    | // kHz       | = 11.1 usec / line          |
| Ver Frequency      | = | 60.000;                    | // Hz        | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>234.000;</b>            | // MHz       | = 4.3 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>                  | // Pixels    | = 34.2 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase = | 4.2 %                       |
| Hor Sync Polarity  | = | <b>NEGATIVE;</b>           | // HBlank =  | 26.2% of HTotal             |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank =  | 4.0% of VTotal              |
| Hor Total Time     | = | 11.111;                    | // (usec)    | = 325 chars = 2600 Pixels   |
| Hor Addr Time      | = | 8.205;                     | // (usec)    | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = | 8.205;                     | // (usec)    | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = | 2.906;                     | // (usec)    | = 85 chars = 680 Pixels     |
| Hor Sync Start     | = | 8.752;                     | // (usec)    | = 256 chars = 2048 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.547;                     | // (usec)    | = 16 chars = 128 Pixels     |
| Hor Sync Time      | = | 0.889;                     | // (usec)    | = 26 chars = 208 Pixels     |
| // H Back Porch    | = | 1.470;                     | // (usec)    | = 43 chars = 344 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.667;                    | // (msec)    | = 1500 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.000;                    | // (msec)    | = 1440 lines = 2.41         |
| Ver Blank Start    | = | 16.000;                    | // (msec)    | = 1440 lines                |
| Ver Blank Time     | = | 0.667;                     | // (msec)    | = 60 lines                  |
| Ver Sync Start     | = | 16.011;                    | // (msec)    | = 1441 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.011;                     | // (msec)    | = 1 lines                   |
| Ver Sync Time      | = | 0.033;                     | // (msec)    | = 3 lines                   |
| // V Back Porch    | = | 0.622;                     | // (msec)    | = 56 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 9/17/98  
 Resolution: 1920 x 1440 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 4Ah; STD 2 Byte Code: (D1, 4F)h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>1920 x 1440 @ 75Hz;</b> |            |                                |
| Hor Pixels         | = <b>1920;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1440;</b>               | // Lines   |                                |
| Hor Frequency      | = 112.500;                   | // kHz     | = 8.9 usec / line              |
| Ver Frequency      | = 75.000;                    | // Hz      | = 13.3 msec / frame            |
| Pixel Clock        | = <b>297.000;</b>            | // MHz     | = 3.4 nsec ± 0.5%              |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 26.9 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 3.9 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 27.3% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.0% of VTotal               |
| Hor Total Time     | = 8.889;                     | // (usec)  | = 330 chars = 2640 Pixels      |
| Hor Addr Time      | = 6.465;                     | // (usec)  | = 240 chars = 1920 Pixels      |
| Hor Blank Start    | = 6.465;                     | // (usec)  | = 240 chars = 1920 Pixels      |
| Hor Blank Time     | = 2.424;                     | // (usec)  | = 90 chars = 720 Pixels        |
| Hor Sync Start     | = 6.949;                     | // (usec)  | = 258 chars = 2064 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.485;                     | // (usec)  | = <b>18</b> chars = 144 Pixels |
| Hor Sync Time      | = 0.754;                     | // (usec)  | = <b>28</b> chars = 224 Pixels |
| // H Back Porch    | = 1.185;                     | // (usec)  | = <b>44</b> chars = 352 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 13.333;                    | // (msec)  | = 1500 lines HT - (1.06xHA)    |
| Ver Addr Time      | = 12.800;                    | // (msec)  | = 1440 lines = 2.04            |
| Ver Blank Start    | = 12.800;                    | // (msec)  | = 1440 lines                   |
| Ver Blank Time     | = 0.533;                     | // (msec)  | = 60 lines                     |
| Ver Sync Start     | = 12.809;                    | // (msec)  | = 1441 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.009;                     | // (msec)  | = <b>1</b> lines               |
| Ver Sync Time      | = 0.027;                     | // (msec)  | = <b>3</b> lines               |
| // V Back Porch    | = 0.498;                     | // (msec)  | = <b>56</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 1920 x 1440 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 4Bh; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
 Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |  |            |                             |
|--------------------|--|------------|-----------------------------|
| Timing Name        | = <b>1920 x 1440 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = <b>1920;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = <b>1440;</b>                                       | // Lines   |                             |
| Hor Frequency      | = 182.933;   | // kHz     | = 5.5 usec / line           |
| Ver Frequency      | = 119.956;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = <b>380.500;</b>                                    | // MHz     | = 2.6 nsec ± 0.5%           |
| Character Width    | = <b>8;</b>  | // Pixels  | = 21.0 nsec                 |
| Scan Type          | = <b>NONINTERLACED;</b>                              | // H Phase | = 0.8 %                     |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                   | // HBlank  | = 7.7% of HTotal            |
| Ver Sync Polarity  | = <b>NEGATIVE</b>                                    | // VBlank  | = 5.6% of VTotal            |
| Hor Total Time     | = 5.466;   | // (usec)  | = 260 chars = 2080 Pixels   |
| Hor Addr Time      | = 5.046;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Start    | = 5.046;   | // (usec)  | = 240 chars = 1920 Pixels   |
| Hor Blank Time     | = 0.420;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = 5.172;   | // (usec)  | = 246 chars = 1968 Pixels   |
| // H Right Border  | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = 0.126;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = 0.084;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = 0.210;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = 8.336;   | // (msec)  | = 1525 lines HT – (1.06xHA) |
| Ver Addr Time      | = 7.872;   | // (msec)  | = 1440 lines = 0.12         |
| Ver Blank Start    | = 7.872;   | // (msec)  | = 1440 lines                |
| Ver Blank Time     | = 0.465;   | // (msec)  | = 85 lines                  |
| Ver Sync Start     | = 7.888;   | // (msec)  | = 1443 lines                |
| // V Bottom Border | = 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = 0.016;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = 0.022;   | // (msec)  | = 4 lines                   |
| // V Back Porch    | = 0.426;   | // (msec)  | = 78 lines                  |
| // V Top Border    | = 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.

## VESA MONITOR TIMING STANDARD

Adopted: 11/17/08  
 Resolution: 2048 x 1152 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 54h; STD 2 Byte Code: E1h, C0h; CVT 3 Byte Code: n/a  
 Method: **\*\*\* NOT CVT COMPLIANT \*\*\***

### Detailed Timing Parameters

|                    |   |                            |              |                             |
|--------------------|---|----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>2048 x 1152 @ 60Hz;</b> |              |                             |
| Hor Pixels         | = | <b>2048;</b>               | // Pixels    |                             |
| Ver Pixels         | = | <b>1152;</b>               | // Lines     |                             |
| Hor Frequency      | = | 72.000;                    | // KHz       | = 13.9 usec / line          |
| Ver Frequency      | = | 60.000;                    | // Hz        | = 16.7 msec / frame         |
| Pixel Clock        | = | <b>162.000;</b>            | // MHz       | = 6.2 nsec ±0.5%            |
| Character Width    | = | <b>1;</b>                  | // Pixels    | = 6.2 nsec                  |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase = | 1.6 %                       |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>           | // HBlank =  | 9.0% of HTotal              |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank =  | 4.0% of VTotal              |
| Hor Total Time     | = | 13.889;                    | // (usec)    | = 2250 chars = 2250 Pixels  |
| Hor Addr Time      | = | 12.642;                    | // (usec)    | = 2048 chars = 2048 Pixels  |
| Hor Blank Start    | = | 12.642;                    | // (usec)    | = 2048 chars = 2048 Pixels  |
| Hor Blank Time     | = | 1.247;                     | // (usec)    | = 202 chars = 202 Pixels    |
| Hor Sync Start     | = | 12.802;                    | // (usec)    | = 2074 chars = 2074 Pixels  |
| // H Right Border  | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.160;                     | // (usec)    | = 26 chars = 26 Pixels      |
| Hor Sync Time      | = | 0.494;                     | // (usec)    | = 80 chars = 80 Pixels      |
| // H Back Porch    | = | 0.593;                     | // (usec)    | = 96 chars = 96 Pixels      |
| // H Left Border   | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 16.667;                    | // (msec)    | = 1200 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 16.000;                    | // (msec)    | = 1152 lines = 0.49         |
| Ver Blank Start    | = | 16.000;                    | // (msec)    | = 1152 lines                |
| Ver Blank Time     | = | 0.667;                     | // (msec)    | = 48 lines                  |
| Ver Sync Start     | = | 16.014;                    | // (msec)    | = 1153 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.014;                     | // (msec)    | = 1 lines                   |
| Ver Sync Time      | = | 0.042;                     | // (msec)    | = 3 lines                   |
| // V Back Porch    | = | 0.611;                     | // (msec)    | = 44 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to Section 3.1

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 2560 x 1600 at 60 Hz (non-interlaced) **REDUCED BLANKING**  
 EDID ID: DMT ID: 4Ch; STD 2 Byte Code: n/a; CVT 3 Byte Code: (1F, 38, 21)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |            |                               |
|--------------------|---|------------|-------------------------------|
| Timing Name        | = <b>2560 x 1600 @ 60Hz CVT (Reduced Blanking);</b> |            |                               |
| Hor Pixels         | = <b>2560;</b>                                      | // Pixels  |                               |
| Ver Pixels         | = <b>1600;</b>                                      | // Lines   |                               |
| Hor Frequency      | = 98.713;   | // kHz     | = 10.1 usec / line            |
| Ver Frequency      | = 59.972;   | // Hz      | = 16.7 msec / frame           |
| Pixel Clock        | = <b>268.500;</b>                                   | // MHz     | = 3.7 nsec ± 0.5%             |
| Character Width    | = <b>8;</b>   | // Pixels  | = 29.8 nsec                   |
| Scan Type          | = <b>NONINTERLACED;</b>                             | // H Phase | = 0.6 %                       |
| Hor Sync Polarity  | = <b>POSITIVE;</b>                                  | // HBlank  | = 5.9% of HTotal              |
| Ver Sync Polarity  | = <b>NEGATIVE;</b>                                  | // VBlank  | = 2.8% of VTotal              |
| Hor Total Time     | = 10.130;   | // (usec)  | = 340 chars = 2720 Pixels     |
| Hor Addr Time      | = 9.534;  | // (usec)  | = 320 chars = 2560 Pixels     |
| Hor Blank Start    | = 9.534;  | // (usec)  | = 320 chars = 2560 Pixels     |
| Hor Blank Time     | = 0.596;  | // (usec)  | = 20 chars = 160 Pixels       |
| Hor Sync Start     | = 9.713;  | // (usec)  | = 326 chars = 2608 Pixels     |
| // H Right Border  | = 0.000;  | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| // H Front Porch   | = 0.179;  | // (usec)  | = <b>6</b> chars = 48 Pixels  |
| Hor Sync Time      | = 0.119;  | // (usec)  | = <b>4</b> chars = 32 Pixels  |
| // H Back Porch    | = 0.298;  | // (usec)  | = <b>10</b> chars = 80 Pixels |
| // H Left Border   | = 0.000;  | // (usec)  | = <b>0</b> chars = 0 Pixels   |
| Ver Total Time     | = 16.675;   | // (msec)  | = 1646 lines HT – (1.06xHA)   |
| Ver Addr Time      | = 16.209;   | // (msec)  | = 1600 lines = 0.02           |
| Ver Blank Start    | = 16.209;   | // (msec)  | = 1600 lines                  |
| Ver Blank Time     | = 0.466;  | // (msec)  | = 46 lines                    |
| Ver Sync Start     | = 16.239;   | // (msec)  | = 1603 lines                  |
| // V Bottom Border | = 0.000;  | // (msec)  | = <b>0</b> lines              |
| // V Front Porch   | = 0.030;  | // (msec)  | = <b>3</b> lines              |
| Ver Sync Time      | = 0.061;  | // (msec)  | = <b>6</b> lines              |
| // V Back Porch    | = 0.375;  | // (msec)  | = <b>37</b> lines             |
| // V Top Border    | = 0.000;  | // (msec)  | = <b>0</b> lines              |

**Definition of Terms:** Refer to section 3.2.



## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 2560 x 1600 at 60 Hz (non-interlaced)  
 EDID ID: DMT ID: 4Dh; STD 2 Byte Code: n/a; CVT 3 Byte Code: (1F, 38, 28)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>2560 x 1600 @ 60Hz;</b> |            |                                |
| Hor Pixels         | = <b>2560;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1600;</b>               | // Lines   |                                |
| Hor Frequency      | = 99.458;                    | // kHz     | = 10.1 usec / line             |
| Ver Frequency      | = 59.987;                    | // Hz      | = 16.7 msec / frame            |
| Pixel Clock        | = <b>348.500;</b>            | // MHz     | = 2.9 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 23.0 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 4.0 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 26.9% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 3.5% of VTotal               |
| Hor Total Time     | = 10.055;                    | // (usec)  | = 438 chars = 3504 Pixels      |
| Hor Addr Time      | = 7.346;                     | // (usec)  | = 320 chars = 2560 Pixels      |
| Hor Blank Start    | = 7.346;                     | // (usec)  | = 320 chars = 2560 Pixels      |
| Hor Blank Time     | = 2.709;                     | // (usec)  | = 118 chars = 944 Pixels       |
| Hor Sync Start     | = 7.897;                     | // (usec)  | = 344 chars = 2752 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.551;                     | // (usec)  | = <b>24</b> chars = 192 Pixels |
| Hor Sync Time      | = 0.803;                     | // (usec)  | = <b>35</b> chars = 280 Pixels |
| // H Back Porch    | = 1.354;                     | // (usec)  | = <b>59</b> chars = 472 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 16.670;                    | // (msec)  | = 1658 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 16.087;                    | // (msec)  | = 1600 lines = 2.27            |
| Ver Blank Start    | = 16.087;                    | // (msec)  | = 1600 lines                   |
| Ver Blank Time     | = 0.583;                     | // (msec)  | = 58 lines                     |
| Ver Sync Start     | = 16.117;                    | // (msec)  | = 1603 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.030;                     | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.060;                     | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.493;                     | // (msec)  | = <b>49</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 2560 x 1600 at 75 Hz (non-interlaced)  
 EDID ID: DMT ID: 4Eh; STD 2 Byte Code: n/a; CVT 3 Byte Code: (1F, 38, 44)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |                              |            |                                |
|--------------------|------------------------------|------------|--------------------------------|
| Timing Name        | = <b>2560 x 1600 @ 75Hz;</b> |            |                                |
| Hor Pixels         | = <b>2560;</b>               | // Pixels  |                                |
| Ver Pixels         | = <b>1600;</b>               | // Lines   |                                |
| Hor Frequency      | = 125.354;                   | // kHz     | = 8.0 usec / line              |
| Ver Frequency      | = 74.972;                    | // Hz      | = 13.3 msec / frame            |
| Pixel Clock        | = <b>443.250;</b>            | // MHz     | = 2.3 nsec ±0.5%               |
| Character Width    | = <b>8;</b>                  | // Pixels  | = 18.0 nsec                    |
| Scan Type          | = <b>NONINTERLACED;</b>      | // H Phase | = 4.0 %                        |
| Hor Sync Polarity  | = <b>NEGATIVE</b>            | // HBlank  | = 27.6% of HTotal              |
| Ver Sync Polarity  | = <b>POSITIVE;</b>           | // VBlank  | = 4.3% of VTotal               |
| Hor Total Time     | = 7.977;                     | // (usec)  | = 442 chars = 3536 Pixels      |
| Hor Addr Time      | = 5.776;                     | // (usec)  | = 320 chars = 2560 Pixels      |
| Hor Blank Start    | = 5.776;                     | // (usec)  | = 320 chars = 2560 Pixels      |
| Hor Blank Time     | = 2.202;                     | // (usec)  | = 122 chars = 976 Pixels       |
| Hor Sync Start     | = 6.245;                     | // (usec)  | = 346 chars = 2768 Pixels      |
| // H Right Border  | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| // H Front Porch   | = 0.469;                     | // (usec)  | = <b>26</b> chars = 208 Pixels |
| Hor Sync Time      | = 0.632;                     | // (usec)  | = <b>35</b> chars = 280 Pixels |
| // H Back Porch    | = 1.101;                     | // (usec)  | = <b>61</b> chars = 488 Pixels |
| // H Left Border   | = 0.000;                     | // (usec)  | = <b>0</b> chars = 0 Pixels    |
| Ver Total Time     | = 13.338;                    | // (msec)  | = 1672 lines HT – (1.06xHA)    |
| Ver Addr Time      | = 12.764;                    | // (msec)  | = 1600 lines = 1.86            |
| Ver Blank Start    | = 12.764;                    | // (msec)  | = 1600 lines                   |
| Ver Blank Time     | = 0.574;                     | // (msec)  | = 72 lines                     |
| Ver Sync Start     | = 12.788;                    | // (msec)  | = 1603 lines                   |
| // V Bottom Border | = 0.000;                     | // (msec)  | = <b>0</b> lines               |
| // V Front Porch   | = 0.024;                     | // (msec)  | = <b>3</b> lines               |
| Ver Sync Time      | = 0.048;                     | // (msec)  | = <b>6</b> lines               |
| // V Back Porch    | = 0.503;                     | // (msec)  | = <b>63</b> lines              |
| // V Top Border    | = 0.000;                     | // (msec)  | = <b>0</b> lines               |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
 Resolution: 2560 x 1600 at 85 Hz (non-interlaced)  
 EDID ID: DMT ID: 4Fh; STD 2 Byte Code: n/a; CVT 3 Byte Code: (1F, 38, 62)h  
 Method: CVT Compliant

### Detailed Timing Parameters

|                    |   |                            |              |                             |
|--------------------|---|----------------------------|--------------|-----------------------------|
| Timing Name        | = | <b>2560 x 1600 @ 85Hz;</b> |              |                             |
| Hor Pixels         | = | <b>2560;</b>               | // Pixels    |                             |
| Ver Pixels         | = | <b>1600;</b>               | // Lines     |                             |
| Hor Frequency      | = | 142.887;                   | // kHz       | = 7.0 usec / line           |
| Ver Frequency      | = | 84.951;                    | // Hz        | = 11.8 msec / frame         |
| Pixel Clock        | = | <b>505.250;</b>            | // MHz       | = 2.0 nsec ±0.5%            |
| Character Width    | = | <b>8;</b>                  | // Pixels    | = 15.8 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>      | // H Phase = | 4.0 %                       |
| Hor Sync Polarity  | = | <b>NEGATIVE</b>            | // HBlank =  | 27.6% of HTotal             |
| Ver Sync Polarity  | = | <b>POSITIVE;</b>           | // VBlank =  | 4.9% of VTotal              |
| Hor Total Time     | = | 6.999;                     | // (usec)    | = 442 chars = 3536 Pixels   |
| Hor Addr Time      | = | 5.067;                     | // (usec)    | = 320 chars = 2560 Pixels   |
| Hor Blank Start    | = | 5.067;                     | // (usec)    | = 320 chars = 2560 Pixels   |
| Hor Blank Time     | = | 1.932;                     | // (usec)    | = 122 chars = 976 Pixels    |
| Hor Sync Start     | = | 5.478;                     | // (usec)    | = 346 chars = 2768 Pixels   |
| // H Right Border  | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.412;                     | // (usec)    | = 26 chars = 208 Pixels     |
| Hor Sync Time      | = | 0.554;                     | // (usec)    | = 35 chars = 280 Pixels     |
| // H Back Porch    | = | 0.966;                     | // (usec)    | = 61 chars = 488 Pixels     |
| // H Left Border   | = | 0.000;                     | // (usec)    | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 11.772;                    | // (msec)    | = 1682 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 11.198;                    | // (msec)    | = 1600 lines = 1.63         |
| Ver Blank Start    | = | 11.198;                    | // (msec)    | = 1600 lines                |
| Ver Blank Time     | = | 0.574;                     | // (msec)    | = 82 lines                  |
| Ver Sync Start     | = | 11.219;                    | // (msec)    | = 1603 lines                |
| // V Bottom Border | = | 0.000;                     | // (msec)    | = 0 lines                   |
| // V Front Porch   | = | 0.021;                     | // (msec)    | = 3 lines                   |
| Ver Sync Time      | = | 0.042;                     | // (msec)    | = 6 lines                   |
| // V Back Porch    | = | 0.511;                     | // (msec)    | = 73 lines                  |
| // V Top Border    | = | 0.000;                     | // (msec)    | = 0 lines                   |

**Definition of Terms:** Refer to section 3.4.

## VESA MONITOR TIMING STANDARD

Adopted: 5/1/07  
Resolution: 2560 x 1600 at 120 Hz (non-interlaced) **REDUCED BLANKING**  
EDID ID: DMT ID: 50h; STD 2 Byte Code: n/a; CVT 3 Byte Code: n/a  
Method: Generated using CVT (Reduced Blanking) Formula

### Detailed Timing Parameters

|                    |   |  |            |                             |
|--------------------|---|--|------------|-----------------------------|
| Timing Name        | = | <b>2560 x 1600 @ 120Hz CVT (Reduced Blanking);</b> |            |                             |
| Hor Pixels         | = | <b>2560;</b>                                       | // Pixels  |                             |
| Ver Pixels         | = | <b>1600;</b>                                       | // Lines   |                             |
| Hor Frequency      | = | 203.217;   | // kHz     | = 4.9 usec / line           |
| Ver Frequency      | = | 119.963;   | // Hz      | = 8.3 msec / frame          |
| Pixel Clock        | = | <b>552.750;</b>                                    | // MHz     | = 1.8 nsec ± 0.5%           |
| Character Width    | = | <b>8;</b>  | // Pixels  | = 14.5 nsec                 |
| Scan Type          | = | <b>NONINTERLACED;</b>                              | // H Phase | = 0.6 %                     |
| Hor Sync Polarity  | = | <b>POSITIVE;</b>                                   | // HBlank  | = 5.9% of HTotal            |
| Ver Sync Polarity  | = | <b>NEGATIVE</b>                                    | // VBlank  | = 5.5% of VTtotal           |
| Hor Total Time     | = | 4.921;   | // (usec)  | = 340 chars = 2720 Pixels   |
| Hor Addr Time      | = | 4.631;   | // (usec)  | = 320 chars = 2560 Pixels   |
| Hor Blank Start    | = | 4.631;   | // (usec)  | = 320 chars = 2560 Pixels   |
| Hor Blank Time     | = | 0.289;   | // (usec)  | = 20 chars = 160 Pixels     |
| Hor Sync Start     | = | 4.718;   | // (usec)  | = 326 chars = 2608 Pixels   |
| // H Right Border  | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| // H Front Porch   | = | 0.087;   | // (usec)  | = 6 chars = 48 Pixels       |
| Hor Sync Time      | = | 0.058;   | // (usec)  | = 4 chars = 32 Pixels       |
| // H Back Porch    | = | 0.145;   | // (usec)  | = 10 chars = 80 Pixels      |
| // H Left Border   | = | 0.000;   | // (usec)  | = 0 chars = 0 Pixels        |
| Ver Total Time     | = | 8.336;   | // (msec)  | = 1694 lines HT – (1.06xHA) |
| Ver Addr Time      | = | 7.873;   | // (msec)  | = 1600 lines = 0.01         |
| Ver Blank Start    | = | 7.873;   | // (msec)  | = 1600 lines                |
| Ver Blank Time     | = | 0.463;   | // (msec)  | = 94 lines                  |
| Ver Sync Start     | = | 7.888;   | // (msec)  | = 1603 lines                |
| // V Bottom Border | = | 0.000;   | // (msec)  | = 0 lines                   |
| // V Front Porch   | = | 0.015;   | // (msec)  | = 3 lines                   |
| Ver Sync Time      | = | 0.030;   | // (msec)  | = 6 lines                   |
| // V Back Porch    | = | 0.418;   | // (msec)  | = 85 lines                  |
| // V Top Border    | = | 0.000;   | // (msec)  | = 0 lines                   |

**Definition of Terms:** Refer to section 3.2.