

Industry Acronyms

AC	Autoclave	DBG	Dimple Ball Grid Array
ACA	Anisotropic Conductive Adhesive	DBS	Direct Broadcast Satellite
ACES	Applied Computational Electromagnetics Society	DBTF	Design-Build-Test-Fix
AEM	Aircraft Equipment Monitor	DFR™	Design for Reliability
AF	Acceleration Factor	DIP	Dual In-line Package
AIAA	American Institute of Aeronautics and Astronautics	DL	Design Life
ALT	Accelerated Life Test	DMSMS	Diminishing Manufacturing Sources and Material Shortages
AMLCD	Active Matrix Liquid Crystal Display	DOE	Design of Experiment
ANSI	American National Standards Institute	DOF	Degrees of Freedom
AOQ	Average Outgoing Quality	DRAM	Dynamic Random Access Memory
AOQL	Actual Outgoing Quality Level	DSCC	Defense Supply Center Columbus
APQ	Accelerated Product Qualification	DUT	Device Under Test
ARAC	Aviation Rulemaking Advisory Committee	DWV	Dielectric Withstanding Voltage
ARP	Aerospace Recommended Practice	ECL	Emitter-Coupled Logic
ASIC	Application Specific Integrated Circuit	ECM	Electrochemical Migration
ASSC	Application Specific Standard Component	ECMP	Electronic Component Management Plan
ASSP	Application Specific Standard Product	EDA	Electronic Design Automation
AST	Accelerated Stress Test	EDRAM	Embedded Dynamic Random Access Memory
ATC	Accelerated Thermal Cycling AWGIECQ Avionics Working Group	EDS	Electron Disruptive Spectroscopy
a-Si	Amorphous Silicon	EEPLD	Electrically Erasable Programmable Logic Device
BEM	Boundary Element Method	EFIS	Electronic Flight Instrumentation System
BGA	Ball Grid Array	EIA	Electronic Industry Association
BME	Base Metal Electrode	ELD	Electroluminescent Displays
BT	Bismaleimide Triazine	EMC	Electromagnetic Compatibility
BV	Breakdown Voltage	EMC	Encapsulated Molding Compound
CA	Contract Assembly or Contract Assembler	EMCS	Electromagnetic Compatibility Society
CAGR	Compound Annual Growth Rate	EMI	Electromagnetic Interference
CALCE™	Computer Aided Life Cycle Engineering	EMS	Electronic Manufacturing Services
CB	Citizens Band	EN	Euro Norms (European Standards)
CBGA	Ceramic Ball Grid Array	EOL	End of Life
CCA	Circuit Card Assembly	EP	Energy Partitioning
CCD	Charge Coupled Device	EPLD	Erasable Programmable Logic Device
CCGA	Ceramic Column Grid Array	EPSC	Electronics Products and Systems Center/Consortium
CDM	Charged Device Model	ESD	Electrostatic Discharge
CECC	Cenelec Electronic Components Committee	ESEM	Environmental Scanning Electron Microscope
CFEM	Conventional Finite Element Method	ESR	Equivalent Series Resistance
CFF	Conductive Filament Formation	ESS	Environmental Stress Screening
CL	Confidence Level	EU	European Union
CLPT	Classical Laminated Plate Theory	FAA	Federal Aviation Agency
CM	Contract Manufacturing or Contract Manufacturer	FADEC	Full Authority Digital Engine Control
CMM	Component Maintenance Manual	FAR	Federal Aviation Regulations
CMOS	Complementary Metal Oxide Semiconductor	FBGA	Fine pitch ball grid array
COB	Chip on Board	FCC	Federal Communications Commission
COF	Chip on Flex	FCOB	Flip Chip On Board
COGS	Cost of Goods Sold	FCOC	Flip Chip On Ceramic
COTS	Commercial Off The Shelf	FCOF	Flip Chip on Flex
Cpk	Process Capability Index	FDTD	Finite Difference Time Domain
CPLD	Complex Programmable Logic Device	FEA	Finite Element Analysis
CR	Contact Resistance	FED	Field Emission Displays
CRT	Cathode Ray Tube	FEM	Finite Element Method
CSAM	C-mode Scanning Acoustic Microscopy	FET	Field Effect Transistor
CSP	Chip Scale Package	FFF	Form Fit and Function
CTE	Coefficient of Thermal Expansion	FFOP	Failure-Free Operating Period
DBC	Direct Bond Copper	FMEA	Failure Mode and Effect Analysis
		FMECA	Failure Mode Effect and Criticality Analysis

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Industry Acronyms

FPGA	Field Programmable Gate Array	LM	Life Margin
FRACAS	Failure Reporting, Analysis and Corrective Action System	LOT	Life of Type
FSDT	First-order Shear Deformable Theory	LPCC	Leadless Plastic Chip Carrier
FTA	Fault Tree Analysis	LRM	Line Replaceable Module
GA	Gate Array	LRU	Line Replaceable Unit
GAL	Generic Array Logic/Lattice	LSI	Large Scale Integration
GEM	Generalized Emulation of Microcircuits	LTB	Last Time Buy
GIDEP	Government Industry Data Exchange Program	LTOL	Low Temperature Operating Life
GPC	Government Procurement Committee	LVCES	Low Volume Complex Electronic System
GPWS	Ground Proximity Warning System	LVT	Low Voltage (BiCMOS) Technology
HALT	Highly Accelerated Life Test	LWDT	Layer-Wise Deformable Theory
HASS	Highly Accelerated Stress Screening	MAX	Multiple Array Matrix
HAST	Highly Accelerated Stress Test	MBGA	Metal Ball Grid Array
HBM	Human Body Model	MCM	Multi-Chip Module
HDL	Hardware Description Language	MDRR	Multi-Domain Rayleigh Ritz
HDTV	High Definition Television	MDSDT	Material Dependent Shear Deformable Theory
HM	Health Monitoring	MEMS	MicroElectroMechanical Systems
HSDT	Higher-order Shear Deformable Theory	MFG	Mixed Flowing Gases
HSOP	Small Outline Package with a Heat Sink	MFOP	Maintenance Free Operating Period
HTCC	High Temperature Cofired Ceramic	MLCC	Multilayer Ceramic Capacitor
HTOL	High Temperature Operation Life	MLD	Minimum Life Desired
HTRB	High Temperature Reverse Bias	MM	Machine Model
HTS	High Temperature Storage	MMC	Metal Matrix Composite
HTTP	Hyper-Text Transfer Protocol	Mn	Metal level number n
I/O	Input/Output	MOCA	Mitigation of Obsolescence Cost Analysis
IC	Integrated Circuit	MoL	Method of Lines
IDDQ	Quiescent Current	MoM	Method of Moments
IDSA	Incremental Damage Superposition Approach	MOS	Metal Oxide Semiconductor
IDT	Integrated Device Technology	MOSFET	Metal Oxide Semiconductor Field Effect Transistor
IEC	International Electrotechnical Commission	MRP	Maintenance Recovery Period
IECQ	International Electrotechnical Commission Quality Assessment System for Electronic Components	MSL	Moisture Sensitivity Level
IEEE	Institute of Electrical and Electronic Engineers	MTBF	Mean Time Between Failures
IFE	In-Flight Entertainment	MTBUR	Mean Time Between Unscheduled Removals
IGBT	Integrated Gate Bipolar Transistor	MTTF	Mean Time to Failure
IMA	Integrated Modular Avionics	NCMS	National Center for Manufacturing Sciences
IP	Intellectual Property	NEC	Numerical Electromagnetic Code
IPC	Institute for Interconnecting and Packaging Electronic Circuit	NEMI	National Electronics Manufacturing Initiative Inc.
IPD	Integrated Passive Devices	NEMP	Nuclear Electromagnetic Pulse
IR	Infra Red/Insulation Resistance	NFEM	Nested Finite Element Method
IRC	International Resistive Company	NFF	No Fault Found
Isat	Saturation Current	NIF	Normal Insertion Force
ITO	Indium tin oxide	NRE	Non-Recurring Engineering
JAN	Joint Army Navy	NSWC	Naval Surface Warfare Center
JAR	Joint Aviation Regulation	OEM	Original Equipment Manufacturer
JEDEC	Joint Electron Device Engineering Council	OLED	Organic Light Emitting Diodes
LCA	Logic Cell Array	OOR	Ordered Overall Range
LCCC	Leadless Ceramic Chip Carrier	PAL	Programmable Array Logic
LC	Liquid Crystal	PASIC	Programmable Application Specific Integrated Circuit
LCD	Liquid Crystal Display	PBGA	Plastic Ball Grid Array
LCM	Life Consumption Monitoring	PBT	Parasitic Bipolar Transistor
LGA	Land Grid Array	PC	Pre-Conditioning
LIF	Low Insertion Force	PC FAB	Printed Circuit Fabrication
LIGA	Acronym from German words for lithography, electroplating, and molding	PCB	Printed Circuit Board
		PCM	Phase Change Material
		PCN	Product Change Notice

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Industry Acronyms

PDI	Precision Devices Incorporated	SOWIC	Small Outline Wide Integrated Circuit
PDN	Product Discontinuance Notice	SPC	Statistical Process Control
PDP	Plasma Displays Panel	SPICE	Simulation Program with Integrated Circuit Emphasis
PEEC	Partial Element Equivalent Circuit	SPLD	Simple Programmable Logic Device
PFC	Primary Flight Control	SRAM	Static Random Access Memory
PGA	Pin Grid Array	SRU	Shop Replaceable Unit
PHM	Prognostic Health Monitoring	SUBM	Submicron
PLA	Programmable Logic Array	TAB	Tape Automated Bonding
PLCC	Plastic Leaded Chip Carrier	TBGA	Tape Ball Grid Array
PoF	Physics of Failure	TC	Temperature Cycle
POS	Proof of Screen	TCAS	Traffic-alert Collision Avoidance System
PPM	Parts Per Million	TCTF	Time-, Cycles-to Failure
PQFP	Plastic Quad Flat Pack	TDDb	Time-Dependent Dielectric Breakdown
PSD	Power Spectral Density	TEM	Transverse Electromagnetic
PT	Punch Through	TFT	Thin film transistor
PTH	Plated-Through Hole	Tg	Glass Transition Temperature
PTV	Plated-Through Via	TH	Through Hole
PWA	Printed Wiring Assembly	THB	Temperature, Humidity and Bias
PWB	Printed Wiring Board	TI	Transfer Impedance
PZT	Lead Zirconate Titanate	TLM	Transmission Line Matrix
QFP	Quad Flat Pack	TMM	Thermo -Mechanical Microstructural
QML	Qualified Manufacturer List	TS	Thermal Shock
QPL	Qualified Part List	TSMC:	Taiwan Semiconductor Manufacturing Corporation
QRD	Quality Reliability Durability	TTF	Time to Failure
RDF	Range Distribution Function	TTL	Transistor-Transistor Logic
RDSON	Drain to Source On Resistance	UBGA	Micro Ball Grid Array
RET	Reliability Enhancement Test	UV	Ultraviolet
RF	Radio Frequency	VCO	Voltage Controlled Oscillator
RFI	Radio Frequency Interference	VDCEP	Volume Driven Commercial Electronic Product
RH	Relative Humidity	VHDL	VHSIC Hardware Description Language
RMS	Root mean square	VHSIC	Very High-Speed IC
ROI	Return On Investment	VLSI	Very Large Scale Integration
RT	Room Temperature	VQ	Virtual Qualification
S&A	Safety and Arming Tin	Vt	Threshold Voltage
SAC	Silver Copper (SnAgCu)	WEEE	Waste from Electrical and Electronic Equipment
SAE	Society of Automotive Engineers	WLP	Wafer Level Package
SAM	Scanning Acoustic Microscope	xPyM	x Polysilicon and y Metal
SARA™	Simulation Assisted Reliability Assessment	ZIF	Zero Insertion Force
SBGA	Super Ball Grid Array		
SC	Standard Cell		
SCMOS	Scalable Complementary Metal Oxide Semiconductor		
SDA	Spectral Domain Approach		
SDDV	Stress-Driven Diffusive Voiding		
SDU	Shop Discardable Unit		
SE	Shielding Effectiveness		
SEM	Scanning Electron Microscope		
SI	Signal Integrity		
SIA	Semiconductor Industry Association		
SILC:	Stress Induced Leakage Current		
SM	Surface Mount		
SMD	Standard Microcircuit Drawing		
SMT	Surface Mount Technology		
SOC	System-On-Chip		
SOIC	Small Outline Integrated Circuit		
SOP	System-On-Package / Small Outline Package		



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