半导体工业常用英文缩写

（来源于互联网）

A/D analog to digital

AA atomic absorption

AAS atomic absorption spectroscopy

ABC activity-based costing

ABM activity-based management

AC alternating current; activated carbon

ACF anisotropic conductive film

ACI after-clean inspection

ACP anisotropic conductive paste

ACT alternative control techniques; actual cycle time

ADC analog-to-digital converter

ADE advanced development environment

ADI after-develop inspection

ADT applied diagnostic technique

ADTSEM Apply/Develop Track Specific Equipment Model

AE atomic emission; acousticemission; absolute ellipsometry

AEC advanced equipment controller

AECS Advanced Equipment ControlSystem; Automated Equipment Control System

AEI after-etch inspection; automated equipment interface

AEM analytical electron microscopy

AES Auger emission/electron spectroscopy

AFM atomic force microscopy

AFP abrasive-free polish

Ag silver

A-GEMTF Advanced GEM Task Force

AGV automated guided vehicle

AHF anhydrous hydrogen fluoride

AHU air handling unit

AIR automated image retrieval

Al aluminum
ALD atomic layer deposition
ALE atomic layer epitaxy; application logic element
ALS advanced light source; advanced low-power Schottky
AMC airborne molecular contamination
AMHS automated material handling system
AMT advanced manufacturing technology
AMU atomic mass unit
ANN artificial neural network
ANOVA analysis of variance
AOV air-operated valve
AP adhesion promoter
APA advanced performance algorithm
APC advanced process control
APCD add-on pollution control device
APCFI Advanced Process Control Framework Initiative
APCVD atmospheric pressure chemical vapor deposition
APEC advanced process equipment control
API application programming interface; atmospheric pressure ionization
APM atmospheric passivation module; acoustic plate mode
APRDL Advanced Products Research and Development Laboratory
aPSM attenuating phase-shift mask
AQI ACCESS query interface
AQL acceptable quality level
Ar argon
AR aspect ratio
ARAMS Automated Reliability
ARC antireflective coating
ARDE aspect ratio-dependent etching
ARPA Advanced Research Projects Agency (see DARPA)
ARS angle-resolved scattering

As arsenic

AS/RS automated storage and retrieval system

ASAP Advanced Stepper Application Program

ASIC application-specific integrated circuit

ASO automatic shutoff

ASP advanced strip and passivation; advanced strip processor

ASR automated send receive

ATDF Advanced ToolDevelopment Facility

ATE automatic test equipment

ATG automatic test generation

ATLAS abbreviated test language for all systems

atm atmosphere

ATP advanced technology program; adenosine triphosphate; acceptance and tool performance

ATR attenuated total reflectance

Att attenuated

Au gold

AVP advanced vertical processor

AVS advanced visualization system

AWE asymptotic waveform evaluation

AWISPM above wafer in situ particle monitoring

AWS advanced wet station

B billion; boron

Ba barium

BARC bottom antireflective coating

BASE Boston Area Semiconductor Education (Council)

BAW bulk acoustic wave

BC bias contrast

BDEV behavior-level deviation

BDS Brownian Dynamics Simulation

Be beryllium

BEOL back end of line

BESOI bonded and etchback silicon on insulator

BF brightfield
BFGS Broyden-Fletcher- Goldfarb-Shanno optimization algorithm

BFL buffered field-effect transistor logic
BGA ball grid array
BHT Brinell hardness test
Bi bismuth
BiCMOS bipolar complementary metal-oxide semiconductor
BIFET bipolar field-effect transistor
BIM binary intensity mask
BiMOS bipolar metal-oxide semiconductor
BIST built-in self-test
BIT bulk ion temperature
BITE built-in test equipment
BMC bubble memory controller
BMD bulk micro defect
BOE buffered oxide etchant
BOR bottom of range
BOSS Book of SEMI Standards; binary object storage system
BOX buried oxide
BPR beam profile reflectometry; business process reengineering

BPSG boron phosphosilicate glass
BPTEOS BPSG from a TEOS source
Br bromine
BSE backscattered electron detection
BTAB bumped tape automated bonding
BV breakdown voltage
C carbon
Ca calcium
CA CIM architecture
CAA CIM applications architecture
CAB Competitive Analysis Benchmarking

CAD computer-aided design
CADT control application development tool
CAE computer-aided engineering
CAI computer-assisted instruction
CAM computer-aided manufacturing
CAPS computer-assisted problem solving
CAR chemically amplified resist
CARRI Computerized Assessment of Relative Risk Impacts
CASE computer-aided softwareengineering; computer-aided systems engineering
CAT computer-aided testing
CAW Construction Analysis Workgroup
CAWC cryogenic aerosol wafer cleaning
CBGA ceramic ball grid array
CBS chemical bottle storage area
CBT computer-based training
CC chip carrier; cluster controller
CCC ceramic chip carrier
CCD charge-coupled device
CCSL compatible current-sinking logic
CCW counterclockwise
Cd cadmium
CD critical dimension
CD/OL critical dimension overlay
CDA clean dry air
CDE chemical downstream etch
CDEM Customer Delivery Enterprise Model
CDI collector-diffusion isolation
CDM Common Device Model for SAB
CDO controlled decomposition/oxidation
CDR chemical distribution room
CDS chemical distribution system
Ce cerium

CE capillary electrophoresis
CEC cell evaluation chip
CEE control execution environment
CEM continuous emissions monitoring
CER-DIP ceramic dual in-line package
CFA component failure analysis
CFC chlorofluorocarbon
CFD computational fluid dynamics
CFM contamination-free manufacturing
CIC cleanroom interface chamber
CID charge-injection device
CIE computer-integrated engineering
CIM computer-integrated manufacturing
CIM-OSA computer-integrated manufacturing-open systems architecture (ESPRIT program)
CIP Continuous Improvement Program
CIS Center for Integrated Systems
CISC complex instruction set computer
Cl chlorine
CLCC ceramic leaded chip carrier
CLIC closed-loop intensity control
CM configuration management; cassette module
CMC cassette module controller
CML current mode logic
CMM capability maturity model
CMOS complementary metal-oxide semiconductor
CMP chemical mechanical planarization
CMR common-mode rejection ratio; cancel move request
CNC computer numerical control; condensation nucleus counter

CNT carbon nanotube
Co cobalt
COB chip-on-board

COC cost of consumables

CODEC coder-decoder

COED computer-optimized experimental design

COGS cost of goods sold

CoO cost of ownership

CORBA common object request broker architecture

CORE composite object reference

COSS common object services specification

COT customer-owned tooling

CoV coefficient of variance

Cp process capability

CPD concurrent product development

CPE Communications

CPGA ceramic pin grid array

Cpk process capability index

CQFP ceramic quad flat pack

CQN closed-queuing network

Cr chromium

CRC cyclic redundancy check

CRM Cost/Resource Model

Cs cesium

CSA CIM systems architecture

CSE control systems engineering

CSF critical success factor

CSL current-steering logic

CSMA/CD carrier-sense

CSP chip-scale package

CSPED concurrent semiconductor production and equipment development

CST CIM systems technology

CSTR continuously stirred tank reactor

CSV comma-separated variable

CTC cluster tool controller

CTE coefficient of thermal expansion
CTI cycle time improvement
CTMC cluster tool modular communications
Cu copper
CUB central utility building
CUBES capacity utilization bottleneck efficiency system
CUI common user interface
CUSUM cumulative sum
CV capacitance-to-voltage
CVCM collected volatile condensable materials
CVD chemical vapor deposition
CW continuous wave
Cz Czochralski process
D/A digital to analog
D/B die bonding
DAC digital-to-analog converter
DAS direct absorption spectroscopy
DASSL differential algebraic system solver
DBMS database management system
DC direct current
DCA direct chip attachment
DCATS double-contained acid transfer system
DCE distributed computer environment
DCL digital command language; display communication log
DCS dichlorosilane
DDL device description language
DDMS defect data management system
DEDS discrete-event dynamic simulation
DES data encryption standard; display equipment status
DF darkfield
DFC densified fluid clean
DFE dual-frequency etch
DFM design for manufacturing

DFR design for reliability
DFT design for test
DFY design for yield
DHF dilute hydrofluoric acid
DI deionized; dielectric isolation
DIBL drain-induced barrier leakage
DIC differential interference contrast
DIL dual in-line
DIP dual in-line package
DLBI device-level burn-in
DLOC developed source lines of code
DLS display lot status
DLT device-level test
DLTS deep-level transient spectroscopy
DMA direct memory access; dynamic mechanical analysis
DMH display message helps
DML data manipulation language; display message log
DMM digital multimeter
DMOS diffused metal-oxide semiconductor
DMR display move requests
DO dynamic optimization
DOA dead-on alignment
DOAS differential optical absorption spectroscopy
DOE design of experiments
DOF depth of focus
DOP dioctylphthalate
DPA destructive physical analysis
DPM digital panel meter
DPP discharge-produced plasma
DPSRAM dual-port static random access memory
DRAM dynamic random access memory
DRAPAC Design Rule and Process Architecture Council
DRC design rule check

DRE destruction removal efficiency

DRIFTS diffuse reflectance infrared Fourier transform spectroscopy

DRT defect review tool

DSA display system activity; dimensionally stable anode

DSC differential scanning calorimetry

DSMC direct simulation Monte Carlo

DSQ downstream quartz

DSS display stocker status

DSW direct step-on-wafer

DT dynamic test

DTA differential thermal analysis

DTC direct thermocouple control

DTL diode transistor logic

DTM defect test monitor; delay time multiplier; device test module; digital terrain map

DTMPN defect test monitor phase number

DUT device under test

DUV deep ultraviolet

DV design verification

DVER design rule verification

DVM digital voltmeter

DVS display vehicle status

DWG domain work group

EAPSM embedded attenuated phase-shift mask

EAROM electrically alterable read-only memory

EASE equipment and software emulator

e-beam electron beam

EBHT electron-beam high-throughput lithography

EBIC electron beam-induced current

EBR edge bead removal

EC engineering change; equipment controller

ECA engineering capability assessment

ECAD electronic computer-aided design; engineering computer-aided design

ECAE electronic computer-aided engineering

ECL emitter coupled logic

ECN engineering change notice

ECO engineering change order

ECQB electrochemical quartz crystal balance

ECR electron cyclotron resonance

EDA electronic design automation

EDS energy-dispersive spectroscopy

EDU equipment-dependent uptime

EDX energy-dispersive X-ray

EDXA energy-dispersive X-ray analysis

EEDF electron energy distribution function

EELS electron energy-loss spectroscopy

EEPROM electrically erasable programmable read-only memory

EFEM equipment front-end module

EFOCS evanescent fiber-optic chemical sensor

EFTIR emission Fourier transform infrared spectroscopy

EFV excess flow valve

EGE ethylene glycol ethers

EHS extremely hazardous substance

EI equipment integration

EID Equipment InterfaceDevelopment

EIP Equipment Improvement Program; Equipment Improvement Project

EIS electrochemical impedance spectroscopy

EKF extended Kalman filter

ELF extremely low frequency

EM enterprise model; electromagnetic; electromigration

EMA equipment maturity assessment

EMC electromagnetic capability; electromagnetic compatability

EMF electromagnetic field
EMG electromigration
EMI electromagnetic interference
EMMA electron microscopy and microanalysis
EMP electromagnetic pulse
EMR enter move request
EMU electromagnetic unit
EOS electrical overstress
EOT end of transfer; equivalent oxide thickness
EP extreme pressure; electropolish
EPI epitaxial
EPL electron projection lithography
EPR electron paramagnetic resonance
EPROM electrically programmable read-only memory
EPSS electronic performance support system
EPT equipment performance tracking
EQUIP C/I equipment control and integration
EQUIP RTC equipment real-time control
ERAM equipment reliability
ERM enterprise reference model
ERN external recurrent neural network
ERP extended range pyrometer
ERS event reporting standard
ERT emergency response time
ES engineering specification; expert system
ESC electrostatic chuck
ESCA electron spectroscopy for chemical analysis
ESD electrostatic discharge
ESH environment
ESM electronic service manual
ETAB Executive Technical Advisory Board
ETQR External Total Quality and Reliability
EUV extreme ultraviolet

eV electron volt

EWMA exponentially weighted moving average

F fluorine

F/I final inspection

FA failure analysis

FAB fast atom bombardment

FAMOS floating-gate avalanche-injection metal-oxide semiconductor

FBGA fine-pitch ball grid array

FC flip chip

FCM facilities cost model

FCS factory control system

FDC fault detection and classification

FDE frequency domain experiments

FDSOI fully depleted silicon on insulator

Fe iron

FEC fabrication evaluation chip

FEM finite element model

FEOL front end of line

FESEM field emission scanning electron microscopy

FET field-effect transistor

FFT fast Fourier transform

FFU filter fan unit

FI filterability index; factory integration

FIB focused ion beam

FID flame ionization detector

FIFO first-in

FIMS front-opening interface mechanical standard

FL fuzzy logic

FLOPC floating point operations needed per cycle

FLOTOX floating gate tunnel oxide

FLRT factory layout/relayout tool

FM foreign material

FMEA failure mode and effects analysis
FMMC factory material movement component
FMVP Framework Member Validation Project
FNN feed-forward neural network
FOCS fiber-optic chemical sensor
FOSB front opening shipping box
FOUP front opening unified pod
FOV field of view
FOX field oxide
FP flash point
FPD focal plane deviation; flat panel display
FPGA field-programmable gate array
FPLA field-programmable logic array
FPLF field-programmable logic family
FPLS field-programmable logic switch
FPMS Factory Performance Modeling Software
FPROM field-programmable read-only memory
FRACAS Failure Reporting
FRAME Failure Rate Analysis and Modeling
FRMB fast ramp mini batch
FSG fused silica glass
FSM finite state machine
FT final test; Fourier transform
FTA fault tree analysis
FTAB Focus Technical Advisory Board
FTIR Fourier transform infrared
FW full wave
FWHM full-width half-maximum
FZ float zone
Ga gallium
GAC granular activated carbon
GC gas chromatography; gravimetric calibrator
GCC generic cell controller

GCD gas chromatography distillation
GCMS gas chromatography mass spectroscopy
GDPP gas drive plasma pinch
GDS graphical design system; graphical design software
Ge germanium
GEM Generic EquipmentModel
GEMVS GEM verification system
GES generic equipment simulator
GFC gas filter correlation
GFCI ground fault circuit interrupter
GIDL gate-induced drain leakage
GILD gas immersion laser doping
GLC gas liquid chromatography
GOI gate oxide integrity
GPIB general-purpose interface bus
GSCE gas source control equipment
GTS GEM Test System
H hydrogen
HAP hazardous air pollutant
HARI high aspect ratio inspection
HAST highly accelerated stress testing
HAZCOM Hazard Communication Standard
HB horizontal Bridgeman crystal
HCI hot carrier injection
HCM hollow cathode magnetron
HCMOS high-density CMOS
HCS hot-carrier suppressed
HD high density
HDL hardware description language
HDP high-density plasma
HDPE high-density polyethylene
He helium
HEM high-efficiency matching

HEPA high-efficiency particulate air
Hf hafnium
HF hydrofluoric acid
Hg mercury
HIBS heavy ion backscattering spectrometry
HiPOx high-pressure oxygen
HLF horizontal laminar flow
HMDS hexamethyldisilizane
HMIS hazardous materials inventory statement
HMMP hazardous materials management plan
HMOS high-performance MOS; high-density MOS
HOMER hazardous organic mass emission rate
HOPG highly oriented pyrolitic graphite
HP high purity
HPEM Hybrid Plasma Equipment Model
HPI high pressure isolation
HPL high-performance logic
HPLC high-performance liquid chromatography
HPM hazardous production materials; high-purity metal
HPV high-pressure vent
HRA human reliability analysis
HRR high ramp rate
HRTEM high-resolution transmission electron microscopy
HSQ hydrogen silsesquioxane
HTO high-temperature oxidation
HTRB high-temperature reverse bias
HUPW hot ultrapure water
HVAC heating
I iodine
I/O input/output
I2L integrated injector logic
I300I International 300 mm Initiative
IC integrated circuit; Investment Council; ion chromatography

ICAP inductively coupled argon-plasma spectrometry

ICMS integrated circuit measurement system

ICP inductively coupled plasma

ICP-AES inductively coupled plasma atomic emission spectroscopy

ICP-MS inductively coupled plasma mass spectrometry

ICT ideal cycle time

IDDQ direct drain quiescent current

IDEAL initiating

IDL interface definition language

IDLH immediately dangerous to life or health

IDS interactive diagnostic system

IEA ion energy analysis

IEC infused emitter coupling

IEDF ion energy distribution function

IERN internal-external recurrent neural network

IF interface

IGFET insulated-gate field-effect transistor

ILB inner lead bond

ILD interlevel dielectric; interlayer dielectric

ILS intracavity laser spectroscopy

IM integrated model; integrated metrology

IMD intermetal dielectric

IMMA ion microphobe mass analysis

IMS ion mobility spectroscopy

In indium

INCAMS individual cassette manufacturing system

IPA isopropyl alcohol

IPL ion projection lithography

IPT ideal process time

Ir iridium

IR infrared

IRAS infrared reflection-absorption spectroscopy

IRIS imaging of radicals interacting with surfaces
IRN internal recurrent neural network
IRONMAN Improving Reliability of New Machines at Night
IRTC-1 interconnect reliability test chip-1
IS information systems; interface specifications; integrated systems
ISC Industry Steering Council
ISEM inspection/review specific equipment model
ISM inductor super magnetron
ISMT International SEMATECH
ISPM in situ particle monitor
ISR in situ rinse
ISS ion scattering spectroscopy
ITRI Interconnection Technology
ITRS International Technology
IVH interstitial via hole
IVP integrated vacuum processing
JDP Joint Development Program
JEDEC Joint Electron Device Engineering Council
JESSI Joint European Submicron Silicon Initiative
JIC Joint Industrial Council
JIT just-in-time
JJT Josephson junction transistor
JVD jet vapor deposition
K potassium; thousand
keV kilo electron volt
KPA key process area
Kr krypton
kV kilovolt
La lanthanum
LAMMA laser micro-mass analysis
LAMMS laser micro-mass spectroscopy
LC inductance-capacitance; liquid chromatography

LCA lifecycle analysis

LCC leaded chip carrier

LCL lower confidence limit

LDD lightly doped drain

LDL lower detection limit

LDP low-density plasma

LDPE low-density polyethylene

LEC liquid encapsulated Czochralski crystal

LEL lower explosive limit

LER line edge roughness

LF laminar flow

LFL lower flammable limit

LGQ linear Gaussian quadratic

Li lithium

LI laser interferometry

LIC linear integrated circuit

LID leadless inverted device

LIFO last in

LIMA laser-induced mass analysis

LIMS laser-induced mass spectrometry

LLCC leadless chip carrier

LLD lower limit of detection

LLNQ least lots next queue

LM light microscope

LMMA laser microprobe mass analysis

LOCOS local oxidation of silicon

LOS loss of selectivity

LPC linear predictive coding; laser particle counter; low particle concentration; liquid-borne particle counter

LPCVD low-pressure chemical vapor deposition

LPD light point defect

LPE liquid phase epitaxy

LPI low-pressure isolation

LPP laser-produced plasma
LRS laser Raman spectroscopy
LSE latex sphere equivalent
LSHI large-scale hybrid integration
LSI large-scale integration
LSM laser scanning microscope
LTA laser thermal anneal
LTCVD low-temperature chemical vapor deposition
LTO low-temperature oxidation/oxide
LTPD lot tolerance percent defective
LTV local thickness variation
LV latent variable
LVDT linear voltage differential transducer
LVI low-voltage inverter
LVS layout verification of schematic
LWR linewidth reduction
LWS large wafer study
M million; mega
MACT maximum achievable control technology
MALDI matrix-assisted laser desorption and ionization
MAN metropolitan area network
Management Standard
Manufacturing and Science
MAP manufacturing automation protocol
Master Deliverables List
MAWP maximum allowable working pressure
MB machine batch
MBC machine bath collection
MBE molecular beam epitaxy
MBPC model-based process control
MBTC model-based temperature control
MCBA mean cycles between assists
MCBF mean cycles between failures

MCBI mean cycles between interrupts
MCM multichip module; manufacturing cycle management
MCP master control processor;multichip package
MCS material control system
MCU microprocessor control unit; mobile calibration unit
MCVD metal chemical vapor deposition
MDL minimum detection limit;
MD-MOS multi-drain metal-oxide semiconductor
MDQ market-driven quality
MEBS medium energy backscattering spectrometry
MEEF mask error enhancement factor
MEMS microelectromechanical system
MERIE magnetically enhanced reactive ion etching
MES manufacturing execution systems
MESFET metal-semiconductor field-effect transistor
METS Materials and Equipment Trading Service
MeV mega electron volt
MFC mass flow controller
MFM mass flow meter
Mg magnesium
MG manufactured goods
MHI material hazard index
MHz megahertz
MIC monolithic integrated circuit
MID material ID
MIE magnetron ion etching
MIM metal-insulator-metal
MIS metal insulator silicon
MLCC multilayer ceramic capacitor
MLL modify lot location
MLM multilevel metal
MLR message log report
MMC Manufacturing Methods Council

MMD Microlithographic Mask Development program

MMIC monolithic microwave integrated circuit

MMM material movement management

MMMS Material Movement

MMO multimodel optimization

MMOS modified MOS

MMST Microelectronics Manufacturing Science and Technology

Mn manganese

MNOS metal-nitride-oxide semiconductor

MNS metal-nitride semiconductor

Mo molybdenum

MO metal-organic

MOCVD metal-organic chemical vapor deposition

MOP modify operating procedures

MOS metal-oxide semiconductor

MOS-C metal-oxide semiconductor capacitor

MOSFET metal-oxide semiconductor field-effect transistor mp melting point

MP massively parallel

MP-OES multipoint optical emission spectroscopy

MPRES modular plasma reactor simulator

MPU microprocessor unit

MRP materials requirements planning

MRP-II manufacturing resource planning

MS mass spectrometry; mass spectroscopy

MSDS Material Safety Data Sheet

MSEM Metrology Specific Equipment Model

MSG Management Steering Group

MSHA Mine Safety and Health Administration

MSI medium-scale integration; manufacturing support item

MSID mass spectrometer lead detector

MSLD mass spectrometer leak detector

MSTAB Manufacturing Systems Technical Advisory Board

MTBA mean time between assists

MTBF mean time between failures

MTBFp mean (productive) time between failures

MTBI mean time between interrupt; mean time between incident

MTOL mean time off line; mean time on line

MTS Material Tracking Standard

MTTA mean time to assist

MTTF mean time to failure

MTTR mean time to repair

MV megavolt

MVTR moisture vapor transmission rate

MW molecular weight

MWBC mean wafers between cleans

MWT monitor wafer turner

N nitrogen

Na sodium

NA numerical aperture

NCMS National Center for

NCS Network Communication Standard

NDA nondisclosure agreement

NDE nondestructive evaluation

NDIR nondispersive infrared spectroscopy

NDP neutron depth profiling

NDT nondestructive testing

NDUV nondispersive ultraviolet spectroscopy

NEC National Electric Code

NESHAP National Emissions Standards for Hazardous Air Pollutants

NFOM near-field optical microscopy

NGL next-generation lithography

Ni nickel

NIL nanoimprint lithography

NIRA near-infrared reflection analysis
NMOS negative channel metal-oxidesemiconductor
NMR nuclear magnetic resonance
NN neural network
NRE nonrecurring engineering
NTRS National Technology Roadmap for Semiconductors
NTU nephelometric turbidity unit
NVR non-volatile residue
O oxygen
OBA object behavior analysis
OBEM Object-Based Equipment Model
OBIC optical beam-induced current
OBL object-based language
OC open cassette
OCR optical character recognition
OD outside diameter
ODS ozone-depleting substances
OEE overall equipment effectiveness
OEM original equipment manufacturer
OES optical emission spectroscopy
OHT overhead transport; overhead hoist transport
OHV overhead vehicle
OL overlay
OLB outer lead bond
OLE object linking and embedding
OM operational modeling; optical microscopy
OMA object management architecture
OMS optical mass spectroscopy
OMT object modeling technique
OO object-oriented
OOA object-oriented analysis
OOD object-oriented design
OODB object-oriented database

OODBMS object-oriented database management system

OOP object-oriented programming

OPC optical particle counter; optical proximity correction

OS operating system

OSD organic spin-on dielectric

OSF Open Systems Foundation

OSG organosilicate glass

OSI open system interconnection

OSRM Office of Standard Reference Materials

OSS Object Services Standard

Ox oxide

P phosphorous

P/T precision-tolerance

PAB post-apply bake

PAC photoactive compound

PACVD plasma-assisted chemical vapor deposition

PA-FTIR photoacousticFourier transform infrared spectroscopy

PAG photoacid generator

PAL process automation language; programmable array logic; process asset library

PAM process application module

PAS photoacoustic spectroscopy

PAWS portable acoustic wave sensor

Pb lead

PBET Performance-Based Equipment Training

PBGA plastic ball grid array

PBL poly-buffered LOCOS

PBS photon backscattering

PC personal computer; programmable controller; process control

PCAD packaging computer-aided design

PCB printed circuit board

PCMP post-chemical mechanical polishing

PCMS plasma chemistry Monte-Carlo simulation
PCO photocatalytic oxidation
PCR principle component regression
PCT process change team
Pd palladium
PDC passive data collection
PDF portable document format
PDSOI partially depleted silicon on insulator
PDU protocol data unit
PDVC phase-dependent voltage contrast
PEB post-exposure bake
PECVD plasma-enhanced chemical vapor deposition
PED post-exposure delay
PEDS plasma-enhanced deposition system
PEELS parallel electron energy loss spectrometry
PEL permissible exposure level
PES photoelectron spectroscopy
PET post-etch treatment
PETEOS plasma-enhancedtetraethylorthosilicate
PFA perfluoroalkoxy
PFC perfluorocarbon
PFPE perfluorinated polyether
PGA pin grid array
P-GILD projection gas immersion laser doping
PGV person-guided vehicle
PI proportional integral
PID proportional integral derivative; process-induced defect
PIII plasma immersion ion implantation
PIND particle impact noise detection
PIP process-induced particle
PIV peak inverse voltage; post indicator valve
PLA programmable logic array
PLC programmable logic controller

PLCC plastic leaded chip carrier
PLL plasma lockload
PLS partial least squares; projection of latent structures
PLY photolimited yield
PM process monitor; preventive maintenance; process module
PMC process module controller
PMCC Pensky-Martens closed cup
PMI phase measuring interferometer
PMMA polymethyl methacrylate
PMOS positive channel metal-oxide semiconductor
PMS particle measuring system
PMT photomultiplier tube
PMTF Product Management Task Force
POR process-of-record
POU point-of-use
POUCG point-of-use chemical generation
PPE personal protective equipment
PPGA plastic pin grid array
PPID process program identification
PQFP plastic quad flat pack
PRAS particle reactor analysis services
PRB pseudo-random binary
PRBS pseudo-random binary sequence
PROM programmable read-only memory
PRSC parametric response surface control
PRV person rail guided vehicle
PS porous silicon
PSB phase-shifting blank
PSC porous silicon capacitor
PSD power spectral density; port status display
PSG phosphosilicate glass
PSII plasma source ion implantation
PSL polystyrene latex

PSLS polystyrene latex sphere

PSM phase-shift mask

Pt platinum

PTAB Project TechnicalAdvisory Board

PTC pre- and post-process treatment chambers

PTFE polytetrafluorethylene

PVA polyvinylacetate

PVC polyvinylchloride

PVD physical vapor deposition

PVDF polyvinylidene fluoride

PWB printed wiring board

PWP particles per wafer pass

QA quality assurance

QC quality control

QCM quartz crystal microbalances

QDR quick dump rinse

QFD quality function deployment

QFP quad flat pack

QMS quadrupole mass spectrometry

QSR quality system review

QTAT quick turn around time

R2R run-to-run

Ra radium

RAC remote access and control

RAIRS reflection-absorption infrared spectroscopy

RAM random access memory;reliability

RAMP Reliability Analysis and Modeling Program

Rb rubidium

RBB base sheet resistance

RBS refractive backscattering; Rutherford backscattering spectroscopy

RCWA rigorous coupled wave analysis

RDR rotating disk reactor

Re rhenium

REL recommended exposure limit

Research Institute

RESSFOX recessed sealed sidewall field oxidation

RF radio frequency; resonance frequency

RFI request for information; radio frequency interference

RFM radio frequency monitoring

RFO restricted flow orifice

RFP request for plan; request for proposal; radio frequency probe

RGA residual gas analysis

RGV rail-guided vehicle

RH relative humidity

RI reliability improvement

RIE reactive ion etch

RISC reduced instruction set computer/computing

RIST rule induction and statistical testing

RMOS refractory metal-oxide semiconductor

RMS root mean square; Recipe Management Standard

RMTF Recipe Management Task Force

RNN recurrent neural network

RO reverse osmosis

Roadmap for Semiconductors

ROC remote object communications

ROE return on equity

ROI return on investment

ROM read-only memory

RPAO remote plasma-assisted oxidation

RR removal rate

RRMSEP relative root mean square error of prediction

RSE reactive sputter etch

RSF relative sensitivity factor

RSM response surface methodology; response surface matrix

RT room temperature
RTA rapid thermal anneal
RTB real-time backplane
RTCVD rapid thermal chemical vapor deposition
RTD resistance temperature detector
RTL resistor-transistor logic; register transfer level
RTM rapid thermal multiprocessing
RTO rapid thermal oxidation; regenerative thermal oxidizer
RTP rapid thermal processing/processor
RTR real-time reporting
Ru ruthenium
S sulfur
S/D source/drain
S/N signal-to-noise
SA surface area; subresolution assist; structured analysis
SAM scanning auger microscopy
SAT spray acid tool
SAW surface acoustic wave
Sb antimony
SB strong base ion exchange
SC1 Standard Clean 1
SC2 Standard Clean 2
SCA surface charge analysis
SCALE SEMATECH Cell Application Learning Environment
SCALPEL scattering with aperture limited projection lithography

SCC strategic cell controller
SCCS source code control system
SCE short channel effects
SCF super critical fluid
SCI surface charge imaging
SCM scanning capacitance microscopy
SCOE SEMATECH Center of Excellence

SCP single-chip package

SCR silicon-controlled rectifier

SD small dual in-line package; structured design

SDFL Schottky-diode FET logic

Se selenium

SE spectroscopic ellipsometry; secondary electron

SEAJ Semiconductor Equipment Association of Japan

SEC size exclusion chromatography

SECS Semiconductor Equipment Communications Standard

SEG selective epitaxial growth

SEIM software engineering improvement method

SEM scanning electron microscopy; specific equipment model

SEMI Semiconductor Equipment and Materials International

SFC supercritical fluid chromatography

SFCS shop floor control system

SFCS I/F shop floor control system interface

SGMRS Semiconductor Generic Manufacturing Requirements Specification

Si silicon

SIA Semiconductor Industry Association

SIDP sputter ion depth profiling

SIMO single input

SIMOX separation by implantation of oxygen

SIMS secondary ion mass spectroscopy

SiP system-in-a-package

SISO single input

SL specification limit

SLAM scanning laser acoustic microscopy; single-layer aluminum metallization

SLC surface laminar circuit

SM stress migration

SMB single-mask bumping

SMC surface-mounted component

SME subject matter expert; software maintenance engineer
SMIF standard mechanical interface
SMPM SECS message protocol machine
SMS SECS message service
SMTS Strategic Material Transport System
Sn tin
SNMS sputtered neutral mass spectroscopy
SNOM scanning near-field optical microscopy
SNR signal-to-noise ratio
SO small outline (package)
SoC system-on-a-chip
SOD spin-on dielectric
SODAS SEMATECH Organized Damage Analysis Software
SOG spin-on glass
SOI silicon on insulator
SOIC small outline integrated circuit
SOM scanning optical microscopy; sulfuric acid-ozone mixture
SoP system-on-a-package
SOP standard operating procedure
SOS silicon on sapphire
SPC statistical process control
SPICE simulation program with integrated circuit emphasis
SPIDER SEMATECH Process Induced Damage Effect Revealer

SPIDER-MEM SPIDER-Manufacturing Equipment Monitor
SPIN Software Process Improvement Network
SPM scanning probe microscopy
SPP single-phase printing
SPR semiconductor process representation
SPV surface photo voltage
SQC statistical quality control
SQPMM Software Quality and Process Maturity Model
Sr strontium

SRAM static random access memory
SRC Semiconductor Research Corp.
SRP spreading resistance probe
SRS software requirements specification
SSA Semiconductor Safety Association; spatial signature analysis
SSE sum squared error
SSEM Stepper Specific Equipment Model
SSI small-scale integration
SSM strategic sourcing methodology
sSOI strained silicon on insulator
SSQA Standardized Supplier Quality Assessment
SSRL SEMATECH Software Reuse Library
SSRP SEMATECH Software Reuse Program
STAR simultaneous transmitted and reflected
STEL short-term exposure limit
STEM scanning transmission electron microscopy
STI shallow trench isolation
STM scanning tunneling microscopy
STP standard temperature and pressure; system test plan
SU subresolution attenuated
SWEAT standard wafer-level electromigration accelerated test
SWI static walkthrough/inspection
SWIM Semiconductor Workbench for Integrated Modeling
SWP single-wafer processing
SWR semiconductor wafer representation
SWV square wave voltammetry
T/C thermocompression
Ta tantalum
TAB Technical Advisory Board; tape automated bonding
TAP Tool Application Program
TAS trace analysis system
TASC Technical Analysis Service for CoO

TAT turnaround time

TBAH tetrabutylammonium hydroxide

TC time constant; temperature coefficient; thermocouple

TCA test calibration assembly; 1

TCAD technology computer-aided design

TCC tactical cell controller

TCE temperature coefficient of expansion

TCM tunneling current microscopy

TCP transformer-coupled plasma; tape carrier package

TCP/IP transmission control protocol/Internet protocol

TCR temperature coefficient of resistance

TD thermal desorption

TDDB time-dependent dielectric breakdown

TDEAT tetrakis (diethylamino) titanium

TDLAS tunable diode laser absorption spectroscopy

TDMAT tetrakis (dimethylamido) titanium

TDMS thermal desorption mass spectrometry

TDS thermal desorption spectroscopy

Te tellurium

TE transverse electric; transmitted electron

TEA transverse excited atmosphere

TEC thermal expansion coefficient; test and electrical characterization

TECAP transistor electrical characterization and analysis program

TED transient enhanced diffusion; transmitted electron detection

TEG technical exchange group

TEM transmission electron microscopy; transverse electromagnetic

TEOS tetraethylorthosilicate; tetrethoxysilicide

TFC total fault coverage

TFE tetrafluorethylene

TFT thin-film transistor
TG thermogravimetry
TGA thermal gas analysis; thermal gravimetric analysis
THC total hydrocarbons
Ti titanium
TIBA triisobutlaluminum
TIR total indicator runout; total internal reflection
TIS tool-induced shift
Tl thallium
TLC thin layer chromatography
TLE tool loading elevator
TLI thin layer imaging
TLM tape-laying machine; telemeter; transition line model
TLV threshold limit value
TLV/TWA threshold limit value/time-weighted average
TM transport module
TMA thermal mechanical analyzer
TMB trimethylborate
TMC transport module controller; transfer module controller
TMP trimethylphosphate; turbomolecular pump
TO transistor outline package
TOA take-off angle
TOC total organic carbon; total oxidizable carbon
TOF time-of-flight
TPD temperature program desorption
TPG test pattern generation
TPM total productive maintenance; total productive manufacturing
TPRS temperature programmed reaction spectroscopy
TPU thermal processing unit
TQM total quality management
TSCA Toxic Substances Control Act
TSI top surface imaging

TSOP thin small outline package
TSP temperature-sensitive parameter
TT technology transfer
TTL transistor-transistor logic
TTV total thickness variation
TVS triangular voltage sweep
TWA time-weighted average
TWG Technical Working Group
TXRF total X-ray fluorescence
U uranium
UBM under-bump metallurgy
UCL upper confidence limit; upper control limit
UF ultra-filtration
UHF ultrahigh frequency
UHP ultrahigh purity
UHV ultrahigh vacuum
UID user identification
ULA uncommitted logic array
ULK ultralow-k
ULPA ultralow particulate air
ULSI ultralarge-scale integration uph units per hour
UPW ultrapure water
USART universal synchronous/ asynchronous receiver/transmitter
USOP ultrasmall outline package
Utt unattenuated
UV ultraviolet
V vanadium; volt
VAC volts alternating current
VAR value-added reseller; volt-ampere reactive
VASE variable angle spectroscopic ellipsometry
VDC volts direct current
VDP Van der Pauw

VDS vapor distribution system

VHF very high frequency

VLE vapor levitation epitaxy

VLF vertical laminar flow

VLSI very large-scale integration

VME versa micromodule extension; virtual manufacturing enterprise

V-MOS v-groove metal-oxide semiconductor

VOC volatile organic compound

VPD vapor phase desorption; vapor phase decomposition

VPD-ICPMS vapor phase decomposition-inductively coupled plasma mass spectroscopy

VTP vertical thermal processor

VTVM vacuum tube voltmeter

VUV vacuum ultraviolet

W tungsten

W/B wire bonding

WAN wide area network

WB weak base

WBS work breakdown structure

WBSEM Wire Bonder Specific Equipment Model

WDS wavelength-dispersive spectrometry of X-rays

WDX wavelength-dispersive X-ray

WDXA wavelength-dispersive X-ray analysis

WEC wafer environment control

WFT wafer fabrication template

WIB within-batch

WIP work in process; work in progress

WIW within-wafer

WIWNU within-wafer non-uniformity

WLBI wafer-level burn-in

WLP wafer-level package

WLT wafer-level test

WNP waste neutralization plant
WPC wafer process chamber
wph wafers per hour
WSI wafer-scale integration
WTC wafer transfer chamber
WTW wafer to wafer
WTWNU wafer-to-wafer non-uniformity
X inductive reactance
XANES X-ray adsorption near edge structure spectroscopy
Xe xenon
XLS excimer laser system; extended light scatterer
XPS X-ray photoelectron spectroscopy
XRD X-ray diffraction
XRF X-ray fluorescence spectrometry
Y yttrium
YAG yttrium aluminum garnet
Z zinc
Zr zirconium