

List of abbreviations

ACCA	automatic control and computer architectures
ADSL	asymmetric digital subscriber line
AFE	analog front-end
AFM	atomic force microscopy
APS	active pixel sensor
APSM	alternating phase shift masks
ARC	anti-reflection coating
ASIC	application specific integrated circuit
ASIP	application specific instruction set processors
ATM	asynchronous transfer mode
BARC	bottom anti-reflective layer
BEOL	back-end of line
BI	background information
BOS	balance-of-system
BRAN	broadband radio access network
CAD	computer aided design
CATV	cable television
CDM	charged device model
CDMA	code division multiple access
CMP	chemical mechanical polishing
CP	charge pumping
CSP	chip-scale package
CVD	chemical vapor deposition
DECT	digital enhanced cordless telecommunication
DFA	detrended fluctuation analysis
DIBL	drain induced barrier loading
DOE	design-of-experiments
DRIE	deep reactive ion etched
DSP	digital signal processing
DTSE	data transfer and storage exploration
DUV	deep-ultra violet
EDA	electronic design automation

EDFA	erbium-doped fiber amplifier
EL	electroluminescence
ELOG	epitaxial lateral overgrowth
EMC	electromagnetic compatibility
ESD	electrostatic discharge
ES&H	environmental, safety & health
FDTD	finite difference time domain
FEE	front end electronics
FERAM	ferroelectric non-volatile memories
FI	foreground information
FIB	focused ion beam
FPGA	field programmable gate array
FSMD	finite state machine with datapath
FDTD	finite difference time domain
GCSOA	gain-clamped semiconductor optical amplifiers
GEO	geostationary earth orbit
GIS	geographical information system
GMR	giant magnetoresistive
GPS	global positioning system
HBM	human body model
HDP	high-density plasma
HIMOS	high injection MOS
HIPO	high ohmic poly
HVAV	heating, ventilation and air conditioning
IC	integrated circuit
IIAP	IMEC industrial affiliation program
ILD	inter level dielectric
IMD	inter metal dielectric
IMOS	integrated mirror optical switch
IPR	industrial property rights
IT	information technology
LCD	liquid crystal displays
LED	light emitting diode
LET	linear energy transport
MBE	molecular beam epitaxy

MCLED	microcavity LED
MCM	multi-chip modules
MEMS	microelectromechanical systems
MIC	module integrated convertor
MMIC	monolithic microwave integrated circuit
NNMS	non linear network measurement system
MOVPE	metal organic vapor phase epitaxy
MPEG	moving pictures expert group
MPW	multi-project wafer
MTJ	magnetic tunnel junction
NSOM	near-field optical microscopy
NVM	non-volatile memories
OFDM	orthogonal frequency division multiplexing
OIIC	optically interconnected integrated circuits
OLED	organic light emitting device
OPC	optical proximity correction
P2ID	plasma process-induced damage
PAL	phased array lasers
PBGA	plastic ball grid array
PCB	printed circuit board
PDFE	partical detector front-end
PIC	photonic integrated circuit
PMD	pre metal dielectric
PMM	physical memory management
PMSM	permanent magnet synchronous motor
PON	passive optical network
POU	point-of-use
PSGA	plastic stud grid array
PV	photovoltaics
PVD	physical vapor deposition
QAM	quadrative amplitude modulation
QW	quantum well
RBS	Rutherford backscattering spectroscopy
RF	radio frequency
RGB	red, green and blue

RSM	response surface models
RTA	rapid thermal annealing
RTP	rapid thermal processing
RTS	random telegraph signal
SBU	sequential build-up
SDH	synchronous digital hierarchy
SDMA	spatial division multiple access
SEM	scanning electron microscopy
SET	single electron transistor
SEU	single event upsets
SILC	stress induced leakage current
SIMS	secondary ion mass spectrometry
SML	spatially modulated light
SOA	semiconductor optical amplifiers
SRP	spreading resistance probe
SSRM	scanning spreading resistance microscopy
STI	shallow trench isolation
TCAD	technology computer aided design
TDMA	time division multiplex access
TEM	transmission electron microscopy
TLP	transmission line pulse
TOF-SIMS	time-of-flight SIMS
UCP	ultra clean processing
VAHMOS	vertical heterojunction MOS transistor structures
VCSEL	vertical cavity surface emitting laser
VMM	virtual memory management
WDM	wavelength division multiplexing
WIDNU	with-in die non uniformity
WIWNU	with-in wafer non uniformity
WDM	wavelength division multiplexing
WLAN	wireless local area network