

# Nomenclature

ADS	Advanced Design System (Agilent)
ASIC	Application Specific IC
ASPIC	Application Specific Photonic IC
Aspic™	Advanced Simulator for Photonics Integrated Circuits (Filarete)
AWG	Arrayed Waveguide Grating
AWG	Arrayed waveguide grating
BB	Building Block (used for both BBB and CBB, where the distinction is not relevant)
BBB	Basic Building Block
BCB	Benzocyclobutene
BOTDR	Brillouin Optical Time Domain Reflectometry
BPM	Beam Propagation Method
BTB	Basic Technology Block
CBB	Composite Building Block
CMOS	Complementary Metal–Oxide–Semiconductor
CMRR	Common-Mode Rejection Ratio
COBRA	Communication Technologies; Basic Research and Applications (TU/e research institute)
DBR	Distributed Bragg Reflector
DFB	Distributed Feedback Laser
DI	Delay Interferometer
DQPSK	Differential Quadrature Phase Shift Keying
DRC	Design Rule Checking
DS	Down Stream
DUT	Device Under Test

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DUV	Deep Ultra-Violet (193 nm)
E-beam	Electron-beam
E-o efficiency	Electro-Optics (conversion) efficiency
EAM	Electro-Absorption Modulator
EI	Electrical Isolation section
EME	Eigen-Mode Expansion
ePIXnet	European Network of Excellence on Photonic Integrated Components and Circuits, FP6 ICT NoE
ERM	Electro-Refractive (phase) Modulator (depletion-type)
ERMI	Electro-Refractive (phase) Modulator (Injection-type)
EuroPIC	European manufacturing platform for Photonic Integration Circuits, FP7 NMP SME project
FDTD	Finite Difference Time Domain
FET	Field Effect Transistor
FMW	Fibre Matched Waveguide
FP	Fabry-Perot
FSR	Free Spectral Range
Ge	Germanium
IC	Integrated Circuit
IIR	Infinite Impulse Response
IMOS	InP Membrane on Silicon
InGaAs	Indium Gallium Arsenide
InGaAsP	Indium Gallium Arsenide Phosphide
InP	Indium Phosphide
IO	Input-Output
IOP PD	IOP Photonic Devices (IOP = Dutch Innovation Research Project)
IP	Intellectual Property
IPB	IP-Block
JePPIX	Joint European Platform for Photonic Integration of Components and Circuits
LSI	Large Scale Integration
MEMPHIS	Merging Electronics and Micro and nano-Photonics in Integrated Systems, Dutch SmartMix project.
MFD	Mode Field Diameter

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MI	Michelson Interferometer
MIR	Multimode Interference Reflector (MMI-Reflector)
MMI	Multi-Mode Interference
MOVPE	Metal-Organic Vapour-Phase Epitaxy
MPW	Multi Project Wafer
MQW	Multi Quantum Well
MZI	Mach-Zehnder Interferometer
OCT	Optical Coherence Tomography
PARADIGM	Photonic Advanced Research And Development for Integrated Generic Manufacturing, EU FP7 ICT Integrating Project
PCB	Printed Circuit Board
PD	Photo Detector
PDA	Photonic Design Automation
PDK	Process Design Kit
PHASAR	Phased Array (early name for AWG)
PHASAR	Phased array
PM-DQPSK	Polarisation Multiplexing Differential Quadrature Phase-Shift Keying
POSA	PIC Optical Sub-Assembly
PR	Polarisation Rotation section
QD	Quantum Dot
QW	Quantum Well
R&D	Research & Development
ROSA	Receiver Optical Sub-Assembly
RR	Ring Resonator
SA	Saturable Absorber
SAG	Selective Area Growth
SEM	Scanning Electron Microscope
SFDR	Spurious-Free Dynamic Range
Si	Silicon
SME	Small or Medium Enterprise
SOA	Semiconductor Optical Amplifier
SOI	Silicon On Insulator

SSC	Spot Size Convertor
SSMF	Standard Single Mode Fibre
STW GTIP	Generic Technologies in Integrated Photonics, STW Perspectief Project (STW = Dutch Technology Foundation)
TBR	Tunable Bragg Reflector
TE	Transverse Electric (field)
TEC	Thermo-Electric Cooler
Ti-Pt-Au	Titanium-Platinum-Gold (contact)
TM	Transverse Magnetic (field)
TOM	Thermo-Optic Modulator
TOSA	Transmitter Optical Sub Assembly
US	Up Stream
VLSI	Very Large Scale Integration
WDM	Wavelength Division Multiplexing
WG	Waveguide (passive)
WGR	Waveguide grating router
WGS	Deep etched waveguide (strong confinement)
WGT	Waveguide Termination
WWG	Shallow etched waveguide (weak confinement)
XFP	10 Gigabit Small Form Factor Pluggable module

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