ACRONYMS
AND ABBREVIATIONS

10BaseT:	10 Mb/s over twisted pair; an Ethernet standard (IEEE 802.3)
100BaseT:	100 Mb/s over twisted pair; an Ethernet standard (IEEE 802.3)
1000BaseT:	1000 Mb/s over twisted pair; an Ethernet standard (IEEE 802.3ab)
2B1Q:	two bits to one quartenary
2FSK:	two-level frequency-shift keying
3R:	reshaping, retiming, and reamplifying
4B/5B:	four bit to five bit coding
4FSK:	four-level frequency shift keying
7B/8B:	seven bit to eight bit coding
8B/10B:	eight bit to ten bit coding
AAL:	ATM adaptation layer
ACK:	acknowledgment
ACTS:	advanced communications technology and services
ADM:	add–drop multiplexer
ADSL:	asymmetric digital subscriber line
AH:	applications header
AIS:	alarm indication signal; aka blue alarm
AIU:	access interface unit
Al:	aluminum
AMI:	alternate mark inversion
AN:	access node
ANSI:	American National Standards Institute
AON:	all-optical network
AOTF:	acousto-optic tunable filter
AP:	access point; adjunct processor

APD:	avalanche photo detector; avalanche photodiode
APON:	ATM-based broadband PON
APS:	automatic protection switching
AR:	antireflective
As:	arsenic
ASE:	amplified spontaneous emission; amplifier spontaneous emission
ASK:	amplitude shift keying
ASP:	adjunct service point
ATM:	asynchronous transfer mode
ATU:	ADSL transceiver unit
AU:	administrative unit
AWG:	array waveguide grating
B6ZS:	bipolar six-zero substitution
B8ZS:	bipolar eight-zero substitution
BBER:	background block error ratio
BCD:	binary-coded decimal; blocked calls delayed
BER:	bit error rate
BFSK:	binary FSK
BICI:	broadband inter carrier interface
BIM:	byte-interleaved multiplexer
BIP:	bit-interleaved parity
BIP8:	bit-interleaved parity, 8 field
BPF:	band-pass filter
BPSK:	binary PSK
B/s:	bits per second
BV:	bipolar violation
CAC:	call admission control
CAM:	content-addressable memory
CAP:	carrierless amplitude phase; competitive access provider
CATV:	cable television
CBR:	constant bit rate
CDC:	chromatic dispersion coefficient
CDMA:	code division multiple access
CDV:	cell delay variation
CELP:	code-excited linear prediction
CER:	cell error rate
CIU:	channel interface unit
CLP:	cell loss priority
CLR:	cell loss rate
CM:	communications module
CMI:	coded mark inversion

CMOS:	complementary metal oxide semiconductor
CPDWM:	chirped-pulse WDM
CPRING:	client protection ring
CRBS:	cell relay bearer service
CRC:	cyclic redundancy check
CS:	convergence sublayer; channel spacing
CSA:	carrier serving area
CTD:	cell transfer delay
CTI:	computer telephony integration
CU	channel unit
CV:	coding violation
CW:	continuous wave
CWDM:	coarse wavelength division multiplexer
DA:	dispersion accommodation
dB:	decibel
dBm:	decibel with 1 mW reference level
DBR:	distributed Bragg reflector
DCF:	dispersion-compensated fiber; distributed coordination function
DCS:	digital cross-connect system
DES:	data encryption standard
DFB:	distributed feedback
DFCF:	dispersion-flattened compensated fiber
DFF:	dispersion-flattened fiber
DFI:	domain format identifier
DGD:	differential group delay
DMTF:	desktop management task force
DPA:	dynamic packet assignment
DSCF:	dispersion-slope-compensated fiber
DSF:	dispersion-shifted fiber
DSL:	digital subscriber line
DSn:	digital signal level n; $n = 0, 1, 2, 3$
DTF:	dielectric thin film
DWDM:	dense wavelength division multiplexing
DWE:	dynamic wavelength equalizer
E1:	a wideband digital facility at 2.048 Mb/s, aka CEPT-1
E3:	a broadband digital facility at 34.368 Mb/s, aka CEPT-3
EBC:	errored block count
EC:	echo canceller; embedded channel
EDFA:	erbium-doped fiber amplifier
EML:	element management layer; electroabsorption modulated DFB laser
E-n:	European signal level n ($n = 1, 2, 3$, and 4)
E/O:	electrical-to-optical

F:	fluoride
FBG:	fiber Bragg grating
FBS:	fiber bundle switch
FDDI:	fiber-distributed data interface
FDM:	frequency division multiplexing
FITL:	fiber in the loop
FOA:	fiber-optic amplifier
FOT:	fiber-optic terminal
FOTS:	fiber-optic transmission system
FPI:	Fabry–Perot interferometer
FPM:	four-photon mixing
FPS:	fast packet switching
FR:	frame relay
FSK:	frequency-shift keying
FT:	fixed transmitter
FTTB:	fiber to the building
FTTC:	fiber to the curb
FTTCab:	fiber to the cabinet
FTTD:	fiber to the desk
FTTH:	fiber to the home
FTTO:	fiber to the office
FTTT:	fiber to the town
FWM:	four-wave mixing
Ga:	gallium
Gb/s:	gigabits per second = 1000 Mb/s
GEF:	gain equalization filter
GHz:	gigahertz (10^9 Hz)
GRIN:	graded index fiber
GRIN-rod:	graded index rod
GVD:	group velocity dispersion
IF:	interference filter
IC:	integrated circuit; interference canceller
ICI:	inter carrier interface
IEEE:	Institute of Electrical and Electronics Engineers
IETF:	Internet Engineering Task Force
IM/DD:	intensity modulation with direct detection
In:	indium
IP:	Internet Protocol
IPv6:	internet Protocol, version 6
IR:	infrared
ISI:	inter symbol interference
ITU:	International Telecommunications Union
ITU-T:	ITU Telecommunications Standardization Sector

Kb/s:	kilobits per second = 1000 bits/s
K×N:	*K*-input, *N*-output port
LA:	line amplifier
LAN:	local-area network
LD:	laser diode; long distance
LED:	light-emitting diode
$LiNbO_3$:	lithium niobate
LPF:	low-pass filter
M1:	level 1 multiplexer
MAN:	Metropolitan Area Network
MBE:	molecular beam epitaxy
Mb/s:	megabits per second (1000 Kb/s)
MBS:	maximum burst rate
MCVD:	modified chemical vapor deposition
MEMS:	micro electromechanical system
MFL:	multifrequency cavity laser
MHz:	megahertz (10^6 Hz)
MO:	managed object
MOCVD:	metal organic chemical vapor dispersion
MONET:	multiwavelength optical networking
MPOA:	multi protocol over ATM
MQW:	multiple quantum well
MQWL:	multiple quantum well lasers
ms:	millisecond
μs:	microsecond
mW:	milliwatt
NAP:	network access provider
NAU:	network–addressable unit
NC:	network connection
Nd:	neodymium
NE:	network element
NEXT:	near-end cross-talk
NF:	noise figure
NGI:	next-generation Internet
NIC:	network interface card
NIU:	network interface unit
nm:	nanometer
NRZ:	non-return to zero
ns:	nanosecond
NT:	network termination
NZDF:	nonzero dispersion fiber

OA:	optical amplifier
OADM:	optical ADM
OAM:	operations, administration, and management
OAMP:	OAM and provisioning services
OAR:	optically amplified receiver
OAS:	optical amplifier section
OAT:	optically amplified transmitter
OC:	optical carrier
OCDM:	optical code division multiplexing
OCh:	optical channel
OCn:	optical carrier level n ($n = 1, 3, 12, 48, 192$)
ODL:	optical data link
ODU:	optical demultiplex unit
O/E:	optical-to-electrical conversion
OEIC:	Optoelectronic integrated circuit
OFA:	optical fiber amplifier
OFD:	optical frequency discriminator
OFDM:	optical frequency division multiplexing; orthogonal frequency division multiplexing
OFS:	optical fiber system
OH:	overhead; hydroxyl
OLC:	optical loop carrier
OLS:	optical line system
OMU:	optical multiplex Unix
ONTC:	Optical Networks Technology Consortium
ONU:	optical network unit
OOK:	on–off keying
OPLL:	optical phase-locked loop
OPS:	optical protection switch
ORL:	optical return loss
OS:	operating system
OSC:	optical supervisory channel
OSNR:	optical signal-to-noise ratio
OTDM:	optical time division multiplexing
OTE:	optical terminating equipment
OTS:	optical transmission section
OTU:	optical translator unit
OVD:	outer vapor deposition
OXC:	optical cross-connect
P:	phosphorus
PD:	photodiode; propagation delay
PDFA:	praseodymium-doped fiber amplifier
PDL:	polarization-dependent loss

PDN: packet data network
PFCB: per fluoro cyclo butane
PHASARS: phased-array gratings
PHY: physical layer
PIC: photonic integrated circuit
PIN: positive intrinsic negative photodiode
PLC: planar lightwave circuit
PLL: phase-locked loop
PM: performance monitoring
PMD: polarization mode dispersion
PMF: polarization-maintaining fiber
POP: point of presence
PPP: point-to-point protocol
PPS: path protection switching
PRK: phase reversal keying
PSK: phase-shift keying
PVC: permanent virtual circuit
PVP: permanent virtual path

QAM: quadrature amplitude modulation
QoS: quality of service
QPSK: quadrature PSK; quatenary PSK; quadriphase PSK

RF: radio frequency
RS: reduced slope
RSVP: resource reservation setup protocol
RZ: return to zero

SAP: service access point
SAR: segmentation and reassembly
SBS: stimulated Brillouin scattering amplifiers
SCR: sustainable cell rate
SDH: synchronous digital hierarchy
SDM: space division multiplexing
SDSL: symmetric DSL
SEED: self-electro-optic effect device
SFL: single-frequency laser
SI: step index
SLA: service-level agreement
SLM: synchronous line multiplexer
SM: switching module
SMDS: switched multimegabit digital services
SMF: single-mode fiber
SMN: SONET management network; SDH management network

SN:	sequence number; service node
SNA:	systems network architecture
SNAP:	sub net access protocol
SNCP:	sub network connection protection
SNMP:	simple network management protocol
SNR:	signal-to-noise ratio
SOA:	semiconductor optical amplifier
SOHO:	small office/home office
SONET:	synchronous optical network
SPM:	self phase modulation
SPRING:	shared protection ring
S-PVC:	soft PVC
SRS:	stimulated Raman scattering
SRTS:	synchronous residual time stamp
SS7:	signaling system 7
SSAP:	source service access point; session service access point (ISO)
SSMF:	standard single-mode fiber
SSR:	side mode suppression ratio
STB:	set-top box
SVC:	switched virtual circuit
T1:	a digital carrier facility used to transmit a DS1 signal at 1.544 Mb/s
Tb/s:	terabits per second = 1000 Gb/s
TCM:	tandem connection maintenance; trellis code modulation
TCP:	Transmission Control Protocol
TCP/IP:	Transmission Control Protocol/Internet Protocol
TDM:	time division multiplexing
TE:	terminal equipment; transverse electric
TEC:	thermoelectric cooler
tFWM:	temporal FWM
THz:	terahertz (1000 GHz)
TM:	terminal multiplexer; transverse magnetic
TOF:	tunable optical filters
TST:	time–space–time switch
TU:	tributary unit
UBR:	unspecified bit rate
UDP:	user datagram protocol
UI:	unit interval
UHF:	ultrahigh frequency
UNI:	user–network interface
URL:	uniform resource locator
UV:	ultraviolet

VAD:	vapor phase axial deposition
VBR:	variable bit rate
VC:	virtual channel
VCC:	VC connection
VDSL:	very high bit rate DSL
VLAN:	virtual LAN
VOA:	variable optical attenuator
VoIP:	voice-over IP
VP:	virtual path
VPC:	VP connection
WADM:	wavelength add–drop multiplexer
WAN:	wide-area network
WDM:	wavelength division multiplexing
WGR:	waveguide grating router
WIS:	wavelength-independent switch
WIXC:	wavelength interchanging cross-connect
WPON:	WDM PON
WSC:	wavelength-selective coupler
WSS:	wavelength-selective switch
WSXC:	wavelength-selective cross-connect
WORM:	write once, read many
xDSL:	any-DSL
YIG:	yttrium-iron garnet laser