

DAFTAR SINGKATAN

TULT	: Telkom University Landmark Tower
FTE	: Fakultas Teknik Elektro
FRI	: Fakultas Rekayasa Industri
FIF	: Fakultas Informatika
CCTV	: <i>Closed Circuit Television</i>
FTTB	: <i>Fiber-to-the-Building</i>
ODC	: <i>Optical Distribution Cabinet</i>
ONT	: <i>Optical Network Terminal</i>
OLT	: <i>Optical Line Terminal</i>
OTB	: <i>Optical Termination Box</i>
UTP	: <i>Unshield Twisted Pair</i>
WLAN	: <i>Wireless Local Area Network</i>
PuTI	: Pusat Teknologi Informasi
AC	: <i>Air Conditioner</i>
CO ₂	: Karbon Dioksida
AP	: <i>Access Point</i>
TKO	: Titik Konversi Optik
FTTX	: <i>Fiber To The X</i>
Tx	: <i>Transmitter</i>
Rx	: <i>Receiver</i>
ASHRAE	: <i>American Society of Heating, Refrigeration, and Air Conditioning Engineers</i>
TDM	: <i>Time Division Multiplexing</i>
PON	: <i>Passive Optical Network</i>
G-PON	: <i>Gigabit-capable Passive Optical Network</i>
X-GPON	: <i>10 Gigabyte Passive Optical Network</i>
NG-PON	: <i>Next Generation Passive Optical Network</i>
WDM	: <i>Wavelength Division Multiplexing</i>
XGS-PON	: <i>10 Gigabit-capable Symmetric Passive Optical Network</i>
QoS	: <i>Quality of Service</i>
FO	: <i>Fiber Optic</i>
LCD	: <i>Liquid Crystal Display</i>

LED	: <i>Light Emitting Diode</i>
RTB	: <i>Rise time Budget</i>
LPB	: <i>Link power Budget</i>
SNR	: <i>Signal to Noise Ratio</i>
BER	: <i>Bit Error Rate</i>
SoC	: <i>System-on-a-Chip</i>
NDIR	: <i>Non-Dispersif Infrared</i>
VCC	: <i>Voltage Control Center</i>
SDA	: <i>Serial Data A</i>
SCL	: <i>Serial Clock A</i>
UART	: <i>Universal Asynchronous Receiver Transmitter</i>
E_{ϵ}	: <i>Error</i>
m	: <i>Kosentrasi Analyzer</i>
x	: <i>Kosentrasi Sensor</i>
P_{tx}	: <i>Daya keluaran sumber optik (dBm)</i>
P_{rx}	: <i>Sensitivitas daya maksimum detektor (dBm)</i>
SM	: <i>Safety margin</i>
α_{tot}	: <i>Redaman total sistem (dB)</i>
L	: <i>Panjang serat optik (Km)</i>
α_c	: <i>Redaman Konektor (dB/buah)</i>
α_s	: <i>Redaman sambungan (dB/sambungan)</i>
α_{serat}	: <i>Redaman serat optik (dB/ Km)</i>
N_s	: <i>Jumlah sambungan</i>
t_{tx}	: <i>Rise time transmitter (ns)</i>
t_{rx}	: <i>Rise time receiver (ns)</i>
$t_{intermodal}$: <i>Bernilai nol (untuk serat optik single mode)</i>
$t_{intramodal}$: <i>$\Delta\sigma \times L \times Dm$</i>
ps	: <i>picosecond</i>
$\Delta\sigma$: <i>Lebar Spektral (nm)</i>
L	: <i>Panjang serat optik (Km)</i>
Dm	: <i>Dispersi Material (ps/nm.Km)</i>
P_{in}	: <i>Daya yang diterima receiver (P_{rx} dalam bentuk watt)</i>
R	: <i>Responsitivity (A/W)</i>

M	: <i>Avalanche Photodiode Gain</i>
q	: <i>Electron Charge</i> ($1,69 \times 10^{-19}$ C)
$F(M)$: <i>Noise Figure</i>
B_e	: <i>Receiver Electrical Bandwidth</i> (Hz)
K_B	: <i>Konstanta Boltzman's</i> ($1,38 \times 10^{-23}$ J/K)
T	: <i>Suhu Ruangan</i> (300 K)
R_L	: <i>Resistensi</i> (Ω)
$erfc$: <i>Error Function</i>
Q	: <i>Nilai Q Factor</i>
π	: <i>Konstanta pi</i> (3,14)