

DAFTAR SINGKATAN

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| 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> |

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| 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> |

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| 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) |