# Bab XII.

# SPESIFIKASI TEKNIS

**I. Daftar Perangkat dan Pekerjaan**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Jenis Barang** | **Satuan** | **Volume** |
| 1 | 12 core FO Cable Multimode 50/125um Dirrect Burried Double Jacket | meter | 972 |
| 2 | OTB Wallmmount FixUp 24 cores, include : material support | unit | 6 |
| 3 | Switch 24 auto-sensing 10/100 ports & 2 auto-sensing 10/100/1000 ports 2 open mini-GBIC (SFP) slots | pcs | 6 |
| 4 | Module 1G SFP LC SX Transceiver | pcs | 12 |
| 5 | Patchcord Multimode FC to LC, 3 meter, Duplex | pcs | 12 |
| 6 | Sub-Duct HDPE 27/32, Pipa Conduit & material support | lot | 1 |
| 7 | Installasi kabel FO (galian tanah, crossing aspal) | lot | 1 |
| 8 | Splicing / Penyambungan kabel FO | lot | 1 |
| 9 | Testing dengan OTDR Multimode | lot | 1 |
| 10 | Documentation : as build drawing ( 1 set asli, 3 copy + cd ) | lot | 1 |

**A. Spesifikasi Perangkat**

1. **Spesifikasi Kabel Fiber Optic, Multimode 50/125µm**
   * + Outdoor Direct Buried
     + Double jacket hdpe with corrugated steel armoured multiloose tube
     + Neon coating fiber core coloring technology

|  |  |
| --- | --- |
| **Multimode 50/125um Reference Standard ITU-T G 651** | |
| **General Characteristics** | |
| Material | Silica/Doped Silica |
| Refractive Index Profile | Graded Index |
| Numerical Appeture | 0.200 ± 0.0015 |
| **Coating Characteristics** | |
| Primary Coating material | Dual Layer UV cured acrylate resin  (Also available with Neon Coating) |
| External Coating Diameter | 245 ± 10 μm |
| Coating / Clading Concentricity | <12.0 μm |
| Coating non Circulanty Error | 6 % |
| **Geometrical Characteristics** | |
| Core Diameter | 50.0 ± 2.5 μm |
| Cladding Diameter | 125.0 ± 1.0 μm |
| Core Cladding Concentricity Error | <1.5 μm |
| Cladding Circularity Error | <1.0 % |
| Core non Circularity Error | 6.0 % |
| **Attenuation Coefficients** | |
| @850 nm | <3.0 dB/km |
| @1300 nm | <1.0 dB/km |
| Point Discontinuity @1550 & 1350 nm | <0.05 dB |
| Attenuation Uniformity @850 & 1300 nm | <0.05 dB/km |
| **Bandwidth** | |
| @850 nm | >500 Mhz. Km |
| @1300 nm | >500 Mhz.km |
| **Mechanical Characteristics** | |
| Proof Test | >1.0% |
| **Except for attenuation at wavelenght 850 and 1300 nm, all data of value above are guaranteed by fibre supplier** | |

**Struktur Kabel Serat Optik**



1. **Switch Hub 24 Port**

|  |  |
| --- | --- |
| **Technical Features :** | |
| Ports | 24 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full; Media type: Auto-MDIX; 1 RJ-45 serial console port; 2 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only; 2 open mini-GBIC (SFP) slots |
| Rack mounting | Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only |
| Memory and processor | MIPS @ 300 MHz, 16 MB flash, 128 MB SDRAM; packet buffer size: 1 MB |
| Latency | 100 Mb: < 4.1 µs (LIFO ); 1000 Mb: < 2.9 µs (LIFO ) |
| Address table size | 8,000 entries |
| Routing/switching capacity | 12.8 Gbps |
| Throughput | up to 9.5 million pps |
| Management features | command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C) |
| Communications | HTML and telnet management; IEEE 802.1D MAC Bridges; IEEE 802.1p Priority; IEEE 802.1Q VLANs; IEEE  802.1v VLAN classification by Protocol and Port; IEEE 802.1w Rapid Reconfiguration of Spanning Tree; IEEE 802.3ad Link Aggregation Control Protocol (LACP); IEEE 802.3x Flow Control; RFC 768 UDP; RFC 783 TFTP Protocol (revision 2); RFC 792 ICMP; RFC 793 TCP; RFC 826 ARP; RFC 854 TELNET; RFC 951 BOOTP; RFC 1542 BOOTP Extensions; RFC 2030 Simple Network Time Protocol (SNTP) v4; RFC 2131 DHCP; RFC 3046 DHCP Relay Agent Information Option; RFC 3376 IGMPv3; RFC 1213 MIB II; RFC 1493 Bridge MIB; RFC 1573 SNMP MIB II; RFC 2021 RMONv2 MIB; RFC 2096 IP Forwarding Table MIB; RFC 2613 SMON MIB; RFC 2618 RADIUS Client MIB; RFC 2665 Ethernet-Like-MIB; RFC 2668 802.3 MAU MIB; RFC 2674 802.1p and IEEE 802.1Q Bridge MIB; RFC 2737 Entity MIB (Version 2); RFC 2863 The Interfaces Group MIB; IEEE 802.1AB Link Layer Discovery Protocol (LLDP); RFC 3164 BSD syslog Protocol; RFC 3176 sFlow; ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED); SNMPv1/v2c/v3; IEEE 802.1X Port Based Network Access Control; RFC 1492 TACACS+; Secure Sockets Layer (SSL); SSHv1/SSHv2 Secure Shell |
| Power requirements | Voltage: 100 -127 VAC / 200 -240 VAC; Frequency: 50 /60 Hz |
| Power availability | 0.8 A / 0.4 A |
| Power consumption | 41 W |

**3. SFP Module 1000BASE**

* Wavelength 850 nm
* Fiber core size 50 microns
* Jarak transmisi max 550 m (1,804 ft)
* Output -9.5 to 0, input -17 to 0, connector LC

**II. Denah**

