

KOLT- 4804

4-port EPON Mini-OLT

Feature Summary

- ◆ 19" standard rack mountable
- ◆ 4 EPON ports, Four 10GE/1GE SFP+/SFP ports and four 1GE RJ45 ports

Field proven EPON Technology

- ◆ Complies with IEEE 802.3ah
- ◆ 1.25Gbps downstream & 1.25Gbps upstream
- ◆ Up to 1:64 optical splitting ration per port
- ◆ Support port-based rate limitation and bandwidth control
- ◆ Support Dynamic Bandwidth Allocation (DBA)

High performance Layer 2+ switching

- ◆ IPv4 and IPv6 support
- ◆ Comprehensive VLAN and QoS support
- ◆ 16 K Mac address
- ◆ Support Vlan translation and QinQ;
- ◆ Support port isolation
- ◆ Support port rate limitation
- ◆ Support 802.1D Bridging and 802.1W RSTP;
- ◆ Support static LACP;
- ◆ Access control list;
- ◆ IEEE802.x flow control;

Flexible SNI networking

- ◆ Up to 4 x 10GE/1GE (SFP+/SFP) ports
- ◆ 4 x 1GE (RJ)(10/100/1000Mbps) ports
- ◆ IEEE 802.1ad Provider Bridging
- ◆ IEEE 802.3ad Static Link Aggregation

Carrier class operation & management

- ◆ Port Status monitoring and configuration management;
- ◆ Layer2 switch configuration such as VLAN, Trunk,
- ◆ EPON management function: DBA,ONU authorization,
- ◆ Online configuration and management;

Security

- ◆ Layer 1 to 4 packet filtering (ACL)
- ◆ Broadcast/multicast/DLF packet limit

Powering

- ◆ Dual/Single AC power inputs

The KOLT-4804 EPON OLT supports Four EPON OLT ports, Four 10GE/1GE ports and four 1GE ports. They are 1RU high and mounted in standard 19" racks or wider racks using adapters. The compact design, low power consumption, 99.99 Percent High Availability, extended operating temperature range and alarm inputs facilitate remote deployment where rack space is limited and ambient environment is harsh.

Applications

The KOLT-4804 serves many markets such as cable TV, Large institution campus and apartment complex networks, providing premium triple-play broadband access data, voice and video (IPTV & VoD) services. KOLT-4804 can also be deployed as backbone network infrastructure to carry mobile backhaul services. The high port density and energy efficiency allow service providers to save on both the equipment cost and the operation cost. At up to 64 optical splits, each KOLT-4804 supports up to 256 ONTs/ONUs. Multiple KOLT-4804 units can be networked together to serve much larger number of subscribers over shared uplinks.

Standards

The KOLT-4804 design takes advantages of the latest switching technologies. By complying with the IEEE 802.3ah EPON standards, the KOLT-4804 achieves interoperability with a wide range of EPON ONTs. The OLT can be connected to the ONT through G.652, G.655, G.657 SMF cables.

Flexible Management

The KOLT-4804 is managed with either KTPL Element Management System (KEMS) that supports auto-discovery of OLTs and ONUs/ONTs and provides configuration, profile based provisioning, event and fault management via its multiple Privileged CLI.

SPECIFICATIONS

EPON Interface

| | |
|--------------|---|
| Ports: | 4 SFP ports |
| Standard: | Fully IEEE 802.3ah compliant |
| Line rate: | Downstream: 1.25 Gbps; Upstream: 1.25 Gbps |
| Connector: | SFP Plug-in module; SC/UPC on SFP |
| Link Budget: | -28 dB |
| Wavelength: | Transmit: 1310+/-20nm; Receive: 1490+/-10nm |
| Distance: | up to 20 km (subject to optical budget) |
| LLID: | Supports various LLID configuration |

Ethernet Uplink Trunking Interfaces*

| | |
|-----------|--|
| 10GE/1GE: | 4x SFP+ ports; 802.3ae / 802.3z |
| 1GE: | 4 x SFP ports; 802.3 / 802.3u / 802.3z |

Management Interfaces

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|-------|--|
| Mode: | Supports both In-Band and Out-of-Band Management |
| Port: | 1*10/100BASE-T out of band port, 1*CONSOLE |

Switching

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|----------------|---|
| VLAN Models: | VLAN per customer Model and VLAN per Service Model with VLAN Translation as required. |
| Performance: | Full throughput non-blocking for all ports; 16K MACs; 4K VLANs. |
| Spanning Tree: | RSTP (802.1w) |
| VLAN Mapping: | untagged, single tagged, VLAN transparent and Q-in-Q double tagged |
| Multicast: | IGMPv2 snooping, 256 IP Multicast Groups. |
| Forwarding: | IPv4, IPv6 |
| Mirroring: | SNI and PON port mirroring |

Security

| | |
|-------------|---|
| DHCPv4/6: | DHCP (RFC2131/3315) snooping, DHCP Options: Option 82 (RFC3046)/43/37/18 Broadcast / Multicast / DLF packet limit |
| Protection: | ONU Authentication, ONU Auto Registration & ONU Auto Discovery |
| PON: | Layer 1~4 Packet Filtering (ACL) |
| ACLs: | Layer 1~4 Packet Filtering (ACL) |

Protection

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|------|---------------------------------------|
| SNI: | 802.3ad Static Link Aggregation, LACP |
|------|---------------------------------------|

Quality of Service

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|-------------|-------------------------------------|
| Congestion: | Back pressure (802.3x Flow Control) |
| Scheduling: | SP, WRR, SP+WRR |

Management

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|------------|---|
| Local: | CLI via Consol port |
| Remote: | EMS, SNMP v1/v2c, Telnet, SSH, WEB |
| ONT/ONUs: | Managed via EMS, Telnet, SSH, WEB |
| Alarms: | Critical/ Major/Minor Severity; Alarm &Event logging, Local Alarm Storage, Syslog Logging |
| Time Sync: | NTPv4/v6 (RFC5905) |

Power

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|------------|---|
| AC option: | AC: 100~240V, 47/63Hz; supports Redundancy. |
| Power: | 30 Watts (Max) |

Physical

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|------------------|----------------------------------|
| Operating Temp: | 0°C to 50 °C |
| Storage Temp: | -40 °C to 85 °C |
| Humidity (N.C.): | 5% to 90% RH |
| Rack: | 19 inch ANSI/ETSI standard rack |
| Dimensions: | 442mm (W) x 200mm (D) x 43mm (H) |
| Weight: | 3.2Kg |
| LED Indicators: | Refer to User's guide |
| Alarm Contacts: | Isolated dry contacts |
| Reset Button: | Recessed push button on front |
| Cooling: | Forced Air Fan Cooling |

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