

GPON OLT STANDALONE OPTICAL CONCENTRATOR 3508

Product Type	equipment
Description	The OLT (Optical Line Terminal) 3508 is an equipmento used in Passive Optical Local Area Networks (PON LAN), as an optical switch with GPON ports, provides 4 optical uplink interfaces with speed up to 10 Gbps. This platform enables aggregate switch functionality with Layer 2 and Layer 3 switching and routing functionality on the same platform, thus simplifying the network architecture, allowing greater reliability in data delivery. Combining with the economic benefits of passive Gigabit Ethernet Passive Optical Network (GPON) networks, the OLT 3508 is an excellent and optimized solution for high bandwidth.
Main Features	• Supports up to 1024 ONUs; • Transparency of the main network protocols; • Self Provisioning of ONUs; • Consumption statistics; • Allows integration with management software; • Switching capacity: 176 Gbps; • Throughput capacity: 101 Mpps; • Layer 2 Features; • Support for GPON Class B+, C+ and C++ SFPs; • Authentication of users via RADIUS and TACACS; • Supports NTP
General Characteristics	The OLT 3508 support up to 8 GPON ports, each port provides a maximum bandwidth of 2.5 Gbps Downstream and 1.25 Gbps Upstream shared by 128 ONUs. The total is 1024 ONUs concentrated on an OLT of 1 U Rack.
GPON	• Downstream: 2.5 Gbps; • Upstream: 1.25 Gbps; • Downstream wavelength: 1490 nm; • Upstream wavelength: 1310 nm; • Capacity up to 128 ONUs per GPON port; • Support of 20km of logical distance and up to 60 km of physical distance; • ITU-T G.984.4 support for the management and control of ont interfaces (OMCI); • Support for NSR and SR DBA upstream band control (G.984.3); • 8 T-CONTs per ONT, plus ip-host;

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- T-CONT alloc-ID: 1K per PON port;
- GEM port-ID: 4K per PON port;
- Remote ONT management;
- Automatic discovery and ONT range;
- ONT UNI/ONT ANI port statistics;
- GPON channel encryption (AES-128);
- Support for FEC (Forward error correction);
- Communication between ONTs on the same port;
- Profile Global e Default by ONT model;
- Remote update of the firmware of the ONTs through OMCI;
- Automatic update functionality;
- ONT power check remotely, via OLT;
- File transfer to ONT;
- VoIP-Profile for voIP configuration das ONUs;
- MAC throttling and querying by ONT's PORT UNI Eth (ONU max-hosts);
- ONU Mac-Filter;
- ONU Restore Default;
- ONU Block;
- Loop-Detect;
- Type B Redundancy - Single Homing (same OLT):

  Switching to OLT standby will occur in the following cases:
  - Fiber breakage of the active OLT GPON interface;
  - Great attenuation in the fiber of the active OLT GPON interface;

- Type B Redundancy - Dual Homing (between OLTs):

  Switching to OLT standby will occur in the following cases:
  - Fiber breakage of the active OLT GPON interface;
  - Great attenuation in the fiber of the active OLT GPON interface;
  - Active OLT uplink interface down.

Management

- Access via Serial, Secure Shell - SSH (v1/v2) and Telnet (CLI);
- In-band and out-of-band management;
- SNMP v1/v2/v3;
- Management through IPv4 or IPv6;
- Local and remote logging system;
- NTP and Timezone;
- DNS;
- OLT configuration files for local and remote storage (text format);
- Port Mirroring (SPAN and RPSAN);
- Port Counters (GE/XE/GPON);
- RMON;
- LLDP and LLDP-MED.

Layer 2

- Non-blocking Switching and Throughput Capability;

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- Standard Ethernet Bridging;
- 64k MACs addresses;
- 4062 VLANs, 802.1q;
- Port-based VLAN;
- MAC-Based VLAN;
- Subnet-Based VLAN;
- VLAN Stacking (QinQ);
- VLAN Translation;
- Spanning Tree (STP) - IEEE 802.1D;
- Rapid Spanning Tree Protocol (RSTP) - IEEE 802.1w;
- Multiple Spanning Tree Protocol (MSTP) - IEEE 802.1s;
- Jumbo Frame (12,270 bytes);
- Flow control;
- Static and dynamic LAG (LACP)

Layer 3

- DHCP Server;
- DHCP Client;
- DHCP Relay;
- DCHP Proxy;
- DHCP Snooping;
- DHCP Verify Source;
- DHCP Option 121;
- DHCP Option 82;
- Protocol by-pass (DHCP, STP,L3,LLDP);
- Static routing IPv4 and IPv6;
- Open Shortest Path First (OSPF) v2/v3;
- Routing Information Protocol (RIP) v1/v2 and RIPng.

Qos

- Traffic scheduling (SP, WRR and DRR)
- 8 rows per port
- Bandwidth management per port
- COS, DSCP / TOS marking / remarking

Multicast

- IGMP v2/v3
- IGMP Snooping
- IGMP Static Join
- 1024 multicast groups

Security

- Authentication control via 802.1x;
- Authentication via 802.1x with VLAN assignment;
- Storm Control: Broadcast, Multicast and DLF;
- DoS Protection;
- ACLs;

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- Radius and TACACS for user authentication;
- RADIUS for ONT authentication.

Dimensional Characteristics

- 483,6 mm (19") x 370 mm x 44 mm (1 U's) (W x L x H).

Supply

- Full Range 36 ~ 60 VDC / 90 ~ 250 VAC ("Hot Swap");
- Operates on 1 + 0 and 1 + 1;
- Maximum Consumption: 100 W.

MTBF

ºC	Hours	Days	Years
25	227554,0	9481,4	26,0
30	201695,0	8404,0	23,0
35	162089,0	6753,7	18,5
40	130247,0	5427,0	14,9
45	104731,0	4363,8	12,0
50	84320,0	3513,3	9,6

Interfaces

- GPON interfaces: 8;
- 8 (eight) Optical interfaces 1 Gbps (Slot SFP) can be optical or electric according to the SFP used;
- 4 (four) 1G / 10 Gbps optical interfaces (SFP +);
- Up to 128 ONUs per PON port.
- RS-232 Console Port - RJ-45 connector.

Environmental specification

- Operating Temperature: 0 ° C to 50 ° C;
- Storage Temperature: -5 ° C to 50 ° C;
- Transport Temperature: -40 ° C to 70 ° C;
- Relative Humidity: Up to 95%, non-condensing.

Related Products

- Product 3508 eligible for Furukawa Support and Service (FSS).

Contact us for more information.

Compatibility

- GPON OPTICAL MODEM LW110-44B
- GPON OPTICAL MODEM G400B/PoE S2
- GPON OPTICAL MODEM LW710-40BP
- INDUSTRIAL OPTICAL MODEM LW510-40BP
- GPON OPTICAL MODEM LD510-20B INDUSTRIAL

Items Included

- 1 x AC and DC power supply module[1];

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- Console cable;
- DC connector;
- Rack installation kit;
- Installation guide.

Note

1 - The product already comes with 1 power supply with AC and DC inputs, another unit can be purchased to work in redundancy (code: 37050053). Power cable **not** included.

Warranty

- One-year warranty.
- Software Technical Validity: 365 days.

Warranty coverage and technical support service are conditional on the exclusive use of GPON Furukawa family equipment (OLTs, ONUs, Power Supplies, Transceivers, ...).

Part Numbers

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