

TSCOM GP3800 GPON OLT

Carrier Grade Optical Access Platform

Compact Gigabit-Capable PON (GPON) Platform Delivers end-to-end Ultra-Broadband services to subscribers in single-family, small office, and multi-dwelling units.



TSCOM GP3800 GPON
Optical Line Terminal

- **100 GBPS FULLY NON-BLOCKING SWITCH FABRIC**
- **128 SPLITS, 20KM REACH**
- **ROUTING FUNCTION: RIP, OSPF, BGP**
- **INDIVIDUALIZED BILLING PER SERVICE LEVEL AGREEMENT**
- **PORT AGGREGATION AND SPANNING-TREE SUPPORT FOR REDUNDANT DATA NETWORK ACCESS**
- **VLAN MANAGED SERVICES WITH PRIORITY QOS PROCESSING**
- **MULTICAST SUPPORT FOR VIDEO STREAMING**
- **REMOTE PROVISIONING AND MANAGEMENT**
- **CARRIER CLASS REDUNDANCY**
- **SNMP NETWORK MANAGEMENT INTERFACE**
- **CIRCUIT TESTING AND LOOP BACKS FOR TELEPHONY SERVICES**

TSCOM GP3800 GPON Optical Line Terminal (OLT) provides a direct optical interface to the Ethernet/IP network core. Together with Telesail's GPON Optical Network Unit(ONU), it completes the end-to-end FTTx with the downstream rate is up to 2.488 Gbit/s and the upstream rate is up to 1.244 Gbit/s. Optimized for the delivery of video, the GP3800 features unparalleled density, scalability and flexibility to provide superior capacity for growth in services such as IPTV, high definition VOD and time-shifted television.

Highlights and Benefits

Flexible and Cost-effective Triple Play Transport

TSCOM GP3800 GPON OLT supports up to 8/16 PON links, 4 GE SFP interfaces, 4 GE Combo and 4 10GE SFP+. Each GPON interface delivers 2.5/1.25Gbps of shared bandwidth for up to 128 subscribers. The GP3800 features flexible and high capacity GPON access and WAN uplinks, unparalleled scalability and line rate performance with a 126/156Gbps fully non-blocking switch fabric in a compact 1U chassis that supports over 1024 residential and business subscribers. High subscriber density combined with the operational cost savings of GPON technology make TSCOM GP3800 a compelling alternative to legacy, first-mile access solutions. It supports flexible concentration ratio between OLT and GE uplink modules thus providing wide variety of Service deployment option.

Easy Provision, Rapid Revenue Generation

Powerful OAM functions enable remote diagnostics, flexible provisioning, and reconfiguration of the TSCOM GP3800 OLT. Meanwhile, hardware-based flow classification, multicast, rate limitation and advanced QoS give strong supports for users to operate the value-added services. It is highly reliable and 1+1 power redundancy support. Also the trunk fiber can be automatically switchover when trouble occurs on the trunk fiber link.

Technical Specification

Physical

- 19" rack chassis
- Dimensions
44mm H x 442.5mm W x 304mm D
- Weight: 5.5Kg (GP3808)
5.6Kg (GP3816)

Power and Environmental

- Power Consumption: <60W (GP3808)
<70W (GP3816)
- Dual Power modules redundancy
DC: -48V input (-36~-72V)
AC: 90-264V ,47/63 Hz
- 0°C to +45°C ambient air temperature
- 10% to 85% operating humidity
(non condensing)
- MTBF: 95,000Hr (GP3808)
90,000Hr (GP3816)

Standards

- ITU-T G.984/G.988 compliant
- IEEE 802.11D, Spanning Tree
- IEEE802.1Q, Vlan
- IEEE802.1w, RSTP
- IEEE 802.3ad (Link Aggregation Control Protocol (LACP)) Ethernet II

Layer 2 switching Functions

- STP/RSTP/MSTP
- Port/IP/Protocol/MAC based Vlan, IEEE802.1Q with 4K VLANs handling
- GVRPPVLAN, VLAN Stacking(QinQ)
- IEEE802.3x in full duplex, back pressure in half duplex
- MAC management(Learning control, limit and aging) support
- EAPS

Layer 3 Function

- Static route
- RIP V1/V2
- OSPF
- BGP

Multicast

- L2 multicast
- IGMP Snooping
- Fast Leave
- MLD snooping

Quality of Service (QoS)

- Backpressure flow control (half duplex)
- IEEE802.3x flow control (full duplex)
- IEEE 802.1p, CoS
- SP ,WRR and FIFO congestion management
- Classification based Traffic Metering, Shaping and Marking
- Upstream Dynamic Bandwidth Allocation (DBA) per ONU
- Downstream Bandwidth Control per ONU

DHCP

- Server/Relay/Client
- DHCP snooping
- DHCP option 66,67,82
- DAI
- IP source guard

Reliability

- Unidirectional Link Detection (UDLD)
- Hot swap of the GPON optical module

- Optical path protection of GPON (type B/C, hand-in-hand)
- Abnormal luminescence ONU

Network Management

- 1 10/100BaseT OAM Ethernet port (RJ45)
- 1 RS232 for console
- Web-enabled GUI based local configuration
- ISSU, SNMP v1, v2c
- Debug output, NTP
- FTP/TFTP, Telenet, Console interface with CLI

Security

- L2~L4 Access Control List (ACL)
- Port/MAC binding, MAC filtering and Limit
- Flow-based ACL, Port isolation
- Transmission data encryption on PON port
- Broadcast/Multicast/DLF storm control
- Anti attack for DDOS, TCP-SYN-Flood, UDP-flood, ARP-flood, etc

System Performance

Item	GP3808	GP3816
Service Interface		
PON ports	8	16
GE uplink	4 100/1000M SFP+4 GE SFP/TX	4 100/1000M SFP+4 GE SFP/TX
10GE uplink	4 10GE/GE SFP+	4 10GE/GE SFP+
Supported GPON SFP module	Class B+, Class C+, Class c++	Class B+, Class C+, Class c++
Management interface		
RJ45 Console	1	1
Mini-USB Console	1	1
Out-of-Band	1	1
System Capacity		
DRAM(MB)	512	512
Flash(MB)	32	32
Backplane(Gbps)	126	156
MAC table	64k	64k
Buffer size(MB)	2	2
Jumbo frame(KB)	2	2
IPV4 routing table	32k	32k
IPV6 routing table	8k	8k
Active VLAN	4094	4094
SVI number	400	400

Order Information

TSCOM GP3800 OLT Series

GP3808	1U,19-inch cabinet ,provides 8 fix GPON interfaces(without OLT SFP optical module), 4 100/1000Base- FX interfaces, 4 GE TX/SFP combo interfaces, 4 10GE SFP+ interface,1 console port, 1 out-of-band management 10/100 Base- TX port, single power supply, AC90-264V,expandible to dual power supply
GP3808-DC	1U,19-inch cabinet ,provides 8 fix GPON interfaces(without OLT SFP optical module), 4 100/1000Base- FX interfaces, 4 GE TX/SFP combo interfaces, 4 10GE SFP+ interface,1 console port, 1 out-of-band management 10/100 Base- TX port, standard DC36-72V,expandible to dual power supply
GP3816	1U,19-inch cabinet ,provides 16 fix GPON interfaces(without OLT SFP optical module), 4 100/1000Base- FX interfaces, 4 GE TX/SFP combo interfaces, 4 10GE SFP+ interface,1 console port, 1 out-of-band management 10/100 Base- TX port, single power supply, AC90-264V,expandible to dual power supply
GP3816-DC	1U,19-inch cabinet ,provides 12 fix EPON interfaces(without OLT SFP optical module), 4 100/1000Base- FX interfaces, 4 GE TX/SFP combo interfaces, 4 10GE SFP+ interface,1 console port, 1 out-of-band management 10/100 Base- TX port, standard DC36-72V,expandible to dual power supply
PWR-150-AC	OLT AC Power Module,Max150w ,input voltage AC90-240V
PWR-150-DC	OLT DC Power Module,Max 150w, input voltage DC36~72V
OLT-GSFP-B+	OLT SFP module, Class B+, TX:1490nm,2.488Gbps,RX:1310nm,1.244Gbps,SC/UPC Receptacle,0-70°C Temperature
OLT-GSFP-C+	OLT SFP module, Class C+, TX:1490nm,2.488Gbps,RX:1310nm,1.244Gbps,SC/UPC Receptacle,0-70°C Temperature
OLT-GSFP-C++	OLT SFP module, Class C++, TX:1490nm,2.488Gbps,RX:1310nm,1.244Gbps,SC/UPC Receptacle,0-70°C Temperature

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About Technology Co., Ltd

Telesail Technology is professional in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless,transmission solutions to operators in both emerging and established telecommunications markets around the world. Telesail enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks.

For more information about Telesail, visit the company's Web site at <http://www.telesail.com>.