

# TSCOM TP3100 OLT

## Carrier Grade Optical Access Platform

**Compact Gigabit Ethernet Passive Optical Network (Gepon) Platform Delivers Voice, High-Speed Data And Video Services To Residential And Business Subscribers**



- IEEE802.3AH GEAPON
- COMPACT CHASSIS
- 64 SPLITS, 20KM REACH
- UP TO 256 SUBSCRIBERS SERVED IN COMPACT 1U CHASSIS
- DYNAMIC BANDWIDTH ALLOCATION
- 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
- ADVANCED SECURITY
- SNMP NETWORK MANAGEMENT INTERFACE
- CIRCUIT TESTING AND LOOP BACKS FOR TELEPHONY SERVICES

Telesail's TSCOM TP3100 Optical Line Terminal (OLT) provides a direct optical interface to the Ethernet/IP network core. Together with Telesail's Optical Network Unit(ONU), it completes the end-to-end FTTx with up to 1 Gbps of bandwidth to residential and business customers. Combining the economic benefits of Ethernet Passive Optical Network (GEPON) with built-in L2 switching functionalities, TSCOM TP3100 is the ideal carrier class optical access and transport platform for FTTx (FTTB, FTTH, FTTC).

### Highlights and Benefits

#### Flexible and Cost-effective Triple Play Transport

TSCOM TP3100 OLT supports up to 4 PON links, 6 GE interfaces. Each PON interface delivers 1 Gbps of shared bandwidth for up to 64 subscribers, serving a maximum of 256 GEPON subscribers from a compact 1U chassis. High subscriber density combined with the operational cost savings of GEPON technology make TSCOM TP3100 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.

#### Customized Broadband Service Offerings

TSCOM TP3100 QoS features allow operators to oversubscribe bandwidth while protecting delay-sensitive traffic based on individualized Service Level Agreement (SLA). Dynamic bandwidth allocation enables operators to bill bandwidth in 1 Mbps increments. For video services, IGMP support allows for multicast control and snooping, ensures efficient utilization of network infrastructure.

#### Easy Provision, Rapid Revenue Generation

Powerful OAM functions enable remote diagnostics, flexible provisioning, and reconfiguration of the TSCOM TP3100 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.

## Specification

### Physical

- 19" rack chassis
- Dimensions  
TP3100: 44mm H x 442mm W x 315mm D
- Weight: 2Kg

### Power and Environmental

- Power Consumption:<40W
- Dual Power modules redundancy  
DC: -48V input (-40~-57V)  
AC: 100-240V ,47/63 Hz
- 0°C to +55°C ambient air temperature
- 10% to 85% operating humidity  
(non condensing)

### Architecture

- Compact 1U chassis with 4 fix OLT EPON interface
- 2 gigabit Combo interface
- 2 1000Base-FX ethernet interface
- 2 1000Base-T ethernet interface
- Backplane: 32G

### OLT Module

- 4 GEAPON port per chassis
- IEEE 802.3ah compliant
- SFF optical module
- SC/PC optical PHY (single-mode fiber)
- 1310nm burst receive
- 1490nm continuous trans
- Symmetric 1.25Gbps per PON port
- 20km distance
- Splits per OLT port Max: 1:64
- Tx Power:+2dbm ~ +7dbm
- Rx Sensitivity:-30dbm
- Trunk fiber protection, full protection support

### Layer 2 switching Functions

- STP/RSTP
- Port based Vlan,IEEE802.1Q with 4K VLANs handling
- GVRP,PVLAN,VLAN Stacking(QinQ)
- IEEE 802.3ad link aggregation(LACP)
- IEEE802.3x in full duplex, back pressure in half duplex
- 16K MAC table support
- MAC management( Learning control, limit and aging) support

### Network Management

- 1 10/100BaseT OAM Ethernet port (RJ45)
- 1 RS232 for console
- Web-enabled GUI based local configuration
- SNMP v1,v2c
- RMON
- FTP/TFTP,Telnet,Console interface with CLI
- ONU Remote Upgrade and Management
- In-Band/Out-of-band management
- Environmental monitoring

### Multicast

- IGMPv1/v2/v3, Proxy and Snooping
- Multicast Vlan,Fast Leave
- Multicast control support

### Quality of Service (QoS)

- 8 CoS queuing
- IPv4 TOS priority, IEEE 802.1 p
- SP and WRR congestion management
- Classification based Traffic Metering, Shaping and Marking
- Upstream Dynamic Bandwidth Allocation (DBA) per ONU
- Downstream Bandwidth Control per ONU

### Security

- Access Control List (ACL)
- Port/MAC binding,MAC filtering and Limit
- Per VLAN User Isolation
- Packet mirroring per ingress/egress port
- Limiting the maximum number of users per port
- EPON Frame Encryption: AES128 bit downlink encryption
- Broadcast/Multicast/DLF storm control

## Order Information

### TSCOM TP3100 EPON OLT

TP3100	1U,19-inch cabinet ,provides 4 fix EPON interfaces(without OLT SFP optical module),4 gigabit combo interfaces 2 100/1000BaseT and 2 100/1000Base- FX interfaces,single power supply ,AC90-264V
TP3100 -DC	1U,19-inch cabinet ,provides 4 fix EPON interfaces(without OLT SFP optical module),4 gigabit combo interfaces 2 100/1000BaseT and 2 100/1000Base- FX interfaces,single power supply ,DC 36~72V
TP3100-2AC	1U,19-inch cabinet ,provides 4 fix EPON interfaces(without OLT SFP optical module),4 gigabit combo interfaces 2 100/1000BaseT and 2 100/1000Base- FX interfaces,dual power supply ,AC90-264V
TP3100-2DC	1U,19-inch cabinet ,provides 4 fix EPON interfaces(without OLT SFP optical module),4 gigabit combo interfaces 2 100/1000BaseT and 2 100/1000Base- FX interfaces,dual power supply ,DC 36~72V

### EPON Optical Module

OLT-SFP-20	OLT SFP module, 20km range, TX 1490nm ,RX 1310nm , SC interface
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### About Telesail 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>.