

TSCOM ITP3100 EPON OLT

Industrial Grade Optical Access Platform

The Industrial ITP3100 Is A Utility Grade, Fully Managed EPON OLT That Provide A Rugged, Easy-To-Use, Highly Secure Infrastructure For Harsh Environments



- IEEE802.3AH GEPON
- COMPACT CHASSIS
- 64 SPLITS, 20KM REACH
- UP TO 256 SUBSCRIBERS SERVED IN COMPACT 1U CHASSIS
- -40 to 85 °C OPERATING TEMPERATURE
- DUAL REDUNDANT POWER INPUT WITH REVERSE POLARITY AND OVERLOAD PROTECTION
- IP40 PROTECTION
- EMC INDUSTRIAL LEVEL 4
- 4 RS485/RS232 SERIAL PORTS
- VLAN MANAGED SERVICES WITH PRIORITY QOS PROCESSING
- REMOTE PROVISIONING AND MANAGEMENT
- ADVANCED SECURITY
- SNMP NETWORK MANAGEMENT INTERFACE
- CIRCUIT TESTING AND LOOP BACKS FOR TELEPHONY SERVICES

TSCOM ITP3100 OLT is designed for power automation systems and supports up to 4 PON links, 6 Gigabit Ethernet interfaces (2 copper, 2 SFP and 2 combo ports). It also can offer 4 serial port RS232/RS485 as optional. Each PON interface delivers 1 Gbps of shared bandwidth for up to 64 subscribers, serving a maximum of 256 GEPON ONU from a compact 1U chassis. It is compliant with EMI and environmental standards applicable to utility substations, industrial manufacturing, process and control and intelligent transportation systems.

ITP3100 provide all-fiber protection to improve network reliability and survivability. Triggered by system failure—discovery mechanisms, such as signal loss and signal degradation, etc. ITP3100 EPON OLT performance features IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), Ethernet Automatic Protection Switching (EAPS), which used for implementing fault tolerant ring and mesh network to realize a switchover time of less than 50ms.

ITP3100 EPON OLT incorporates redundant power supply system (DC power at 12V, 24V, 48V and AC power at 220V) into customers' industrial automation network to enhance system reliability and uptime in the factory harsh environments

This series of ITP3100 can be applied in harsh environments including running in the operating temperature range between -40° and 85° with no fans, IP40 protection level, prevent thunder attacks and strong electromagnetic interference, EMI immunity according to IEC61850-3, IEEE1613 related standards..

The Industrial EPON OLT are especially great for applications requiring extended operating temperatures, rugged housings and high performance and reliability such as: power utility, security and surveillance monitoring, industrial automation, and hospitality and peripheral communications.

Specification

Physical

- 19" rack chassis
- Dimensions
44mm H x 482.6mm W x 315mm D
- Weight: 3Kg
- Housing: Metal, IP40 protection

Power and Environmental

- Power Consumption:
ITP3104-4S: 48.4w
ITP3100: 43.5w
- Dual Power modules redundancy
DC: -48V input (-36~-72V)
AC/DC: 110/220V
(DC88 ~300 V AC85 ~ 264 V)
- Overload current protection
Reverse polarity protection
- 40°C to +85°C ambient air temperature
- 5% to 95% operating humidity
(non condensing)
- MTBF: 250,000 hours

Architecture

- 4 fix OLT EPON interface
- 2 gigabit Combo interface
- 2 1000Base-FX ethernet interface
- 2 1000Base-T ethernet interface
- 4 RS232/RS485 (ITP3104-4S)
Transfer rate: 9600~38400bps
Transparent transmit of multiple electric power communication regulations including: IEC60870-5-101/104, IEC61850, CDT, DNP
- Backplane: 32G

OLT Module

- 4 GE PON port per chassis
- IEEE 802.3ah compliant
- SFF optical module
- SC/PC optical PHY (single-mode fiber)
- 1310nm burst receive,
1490nm continuous trans
- 30km 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 v1, 1,2,3,9 group
- FTP/TFTP, Telenet, 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 802.1p
- 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

Model	EPON	Ethernet			RS232 /RS485	Power
		GE Combo	GE SFP	GE TX		
ITP3100-V	4	TX	2	2	-	Dual DC18~60V
ITP3100-HV	4	2	2	2	-	AC90-264V and DC88-300V
ITP3100-MV	4	2	2	2	-	AC90-264V or DC88-300V DC18~60V
ITP3104-4S-V	4	2	2	2	4	Dual DC18~60V
ITP3104-4S-HV	4	2	2	2	4	AC90-264V and DC88-300V
ITP3104-4S-MV	4	2	2	2	4	AC90-264V or DC88-300V DC18~60V
EPON OLT SFP						
ITP-OLT-SFP-20	Industrial EPON OLT SFP module, 20km range, TX 1490nm ,RX 1310nm , SC					

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About Technology Co., Ltd

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