

TSCOM ITP1008

IP30, Industrial EPON Customer Premise

Device Integrated With One or Two EPON Interface For Fiber Protect, RS232/RS485 Support, Utility Grade Design, A Wide Temperature Range Of -40°C To +85°C, Harsh Environments Suitable



Industrial EPON ONU
TSCOM ITP1008

- **FULL IEEE802.3/802.3AH COMPLIANCE**
- **1U COMPACT CHASSIS**
- **64 SPLITS, 30KM REACH,**
- **-40 TO 85 °C OPERATING TEMPERATURE**
- **IP30 METAL CASE**
- **DC 24V OR AC220V**
- **FOUR 10/100BASE-T(X) RJ45**
- **ONE OR TWO EPON PORT FOR FIBER PROTECTION**
- **FOUR RS485 or RS232**

ITP1008/ITP1208-L series EPON ONU is designed for power automation systems and supports one or two EPON uplinks, four 10/100BASE-TX interfaces and four serial port RS232/485. The Industrial EPON ONU are especially great for applications requiring extended operating temperatures, rugged housings and high performance and reliability such as: power utility, industrial automation, and hospitality and peripheral communications.

ITP1008/ITP1208-L provide all-fiber protection to improve network reliability and survivability. Triggered by system failure—discovery mechanisms, such as signal loss and signal degradation, etc. ITP1008/ITP1208-L EPON ONU performance features IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), Ethernet Automatic Protection Switching (EAPS), and two EPON ports for fiber protection which used for implementing fault tolerant ring and mesh network to realize a switchover time of less than 10ms. Therefore, ITP1008/ITP1208-L can support powerful and flexible network construction such as tree, hand-in-hand, link and ring topology.

ITP1008/ITP1208-L can be applied in harsh environments including running in the operating temperature range between -40° and 85° with no fans, IP30 protection level, prevent thunder attacks and strong electromagnetic interference, EMI immunity according to IEC61850-3, IEEE1613 related standards..

Specification

Physical

- Dimensions
75mm(W) x150mm (D) x177mm(H)
- Weight: 1kg
- Single-ribbed aluminum chassis,fanless
- Housing: Metal, IP30 protection

Power and Environmental

- Power Consumption:<10W
- AC: 220VAC or DC: 24V
Fluctuated range of the input voltage: $\pm 10\%$
- 40°C to +85°C ambient air temperature
- 5% to 95% operating humidity
(non condensing)
- Hull: Protection level: IP30
- MTBF: 250,000 hours

Architecture

- 1 fix ONU EPON interface (ITP1008)
2 fix ONU EPON Interface (ITP1208-L)
- 4 10/100 Base-T interface
- 4 serial ports RS232/RS485
- 1 Console port (mini USB)
- Serial interfaces
Support RS232, RS485 in full-duplex or half-duplex mode
Transfer rate: 9600~38400bps
Support TCP server/Client and UDP
Transparent transmit of multiple electric power communication regulations including: IEC60870-5-101/104,IEC61850,CDT,DNP
- Alarm Interface
Supporting the output of two relays and a current load of 1 A@24 VDC

Optical Characteristics

- IEEE 802.3ah compliant
- SFF optical module
- SC/PC optical PHY (single-mode fiber)
- Tx:1310nm Rx:1490nm
- Symmetric 1.25Gbps per PON port
- 20km distance

- Splits per OLT port Max: 1:64
- Tx Power:+0dbm ~ +4dbm
- Rx Sensitivity:-30dbm
- Supporting optical power check DDML
- Trunk fiber protection, "1+1" protection
switchover time within 10ms

Layer 2 switching Functions

- STP/RSTP
- Port based Vlan,IEEE802.1Q with 4K VLANs handling
- VLAN Stacking(QinQ),selective QinQ
- IEEE 802.3ad link aggregation(LACP)
- IEEE802.3x in full duplex, back pressure in half duplex,Head of Line
- 8K MAC table support
- MAC management(Learning control,limit and aging) support
- EAPS loop circuit protection
- Ethernet – II, Ethernet-SNAP

Quality of Service (QoS)

- 4 CoS queuing
- IEEE 802.1p and DSCP PRI Mark/remark
- SP and WRR congestion management
- Classification based Traffic Metering, Shaping and Marking
- CAR

Multicast

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

Network 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
- Dying-Gasp
- Support loopback detection
- Preventing DOS/ARP/ICMP attacks

Management

- 1 Console port (mini USB)
- Web-enabled GUI based local configuration
- SNMP v1, v2c
- RMON v1, 1,2,3,9 group
- FTP/TFTP,Telnet,Console interface with CLI
- ONU Remote Upgrade and Management
- In-Band/Out-of-band management
- Environmental monitoring

Order Information

IP30,Industrial TSCOM ITP1008/1208-L ONU	
ITP1008-LV	IP30,Industrial GEAPON optical network unit provides 1 fix EPON interfaces, 4 10/100BaseT ,4 RS232/RS485 interface, power supply DC24V
ITP1008-LHV	IP30,Industrial GEAPON optical network unit provides 2 fix EPON interfaces, 4 10/100BaseT ,4 RS232/RS485 interface, single power supply ,AC220V
ITP1208-LV	IP30,Industrial GEAPON optical network unit provides 2 fix EPON interfaces, 4 10/100BaseT ,4 RS232/RS485 interface, power supply DC24V
ITP1208-LHV	IP30,Industrial GEAPON optical network unit provides 2 fix EPON interfaces, 4 10/100BaseT ,4 RS232/RS485 interface, single power supply ,AC220V

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About Technology Co., Ltd

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