TSCOM ITP1208

IP40, Industrial EPON Customer Premise

Device Integrated With 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 ITP1208

- **FULL IEEE802.3/802.3AH COMPLIANCE**

- **1U COMPACT CHASSIS**

- **64 SPLITS, 30KM REACH,**

- **-40 TO 85 °C OPERATING TEMPERATURE**

- **DUAL REDUNDANT POWER INPUT WITH REVERSE POLARITY AND OVERLOAD PROTECTION**

- **IP40 METAL CASE**

- **DC 12V,DC 24V, 48V OR AC220V POWER REDUNDANT POWER INPUT INTERFACE**

- **DIN-RAIL OR WALL MOUNT SUPPORT**

- **FOUR 10/100BASE-T(X) RJ45**

- **TWO EPON PORT FOR FIBER PROTECTION**

- **FOUR RS485 or RS232**

- **IP40 METAL CASE**

ITP1208 series EPON ONU is designed for power automation systems and supports 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, s industrial automation, and hospitality and peripheral communications.

ITP1208 provide all-fiber protection to improve network reliability and survivability. Triggered by system failure—discovery mechanisms, such as signal loss and signal degradation, etc. ITP1208 EPON OLT 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, ITP1208 can support powerful and flexible network construction such as tree,hand-in-hand,link and ring topology.

ITP1208 EPON ONU 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 ITP1208 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..

Specification

Physical

- Installation
  DIN-rail or wall mount
- Dimensions
  75mm(W) x150mm (D) x177mm(H)
- Weight: 1.5kg
- Single-ribbed aluminum chassis,fanless
- Housing: Metal, IP40 protection

Power and Environmental

- Power Consumption:<10W
- Dual Power modules redundancy
  AC: 220VAC
  DC:12VDC,24VDC or 48VDC
  Fluctuated range of the input voltage: ±10%
- Overload current protection
  Reverse polarity protection
- -40°C to +85°C ambient air temperature
- 5% to 95% operating humidity
  (non condensing)
- Hull: Protection level: IP40
- MTBF: 250,000 hours

Architecture

- 2 fix ONU EPON interface
- 4 10/100 Base-T interface
- 4 serial ports RS232/RS485
- 1 Console port (mini USB)
- Serial interfaces
  Suppor 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 Characterstics

- 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 DDMI
- 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,Telenet,Console interface with CLI
- ONU Remote Upgrade and Management
- In-Band/Out-of-band management
- Environmental monitoring

Order Information

Industrial TSCOM ITP1208 ONU	
ITP1208-V	Industrial GEPON optical network unit provides 2 fix EPON interfaces, 4 10/100BaseT ,4 RS232/RS485 interface, power supply DC12~60V
ITP1208-HV	Industrial GEPON 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

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.
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