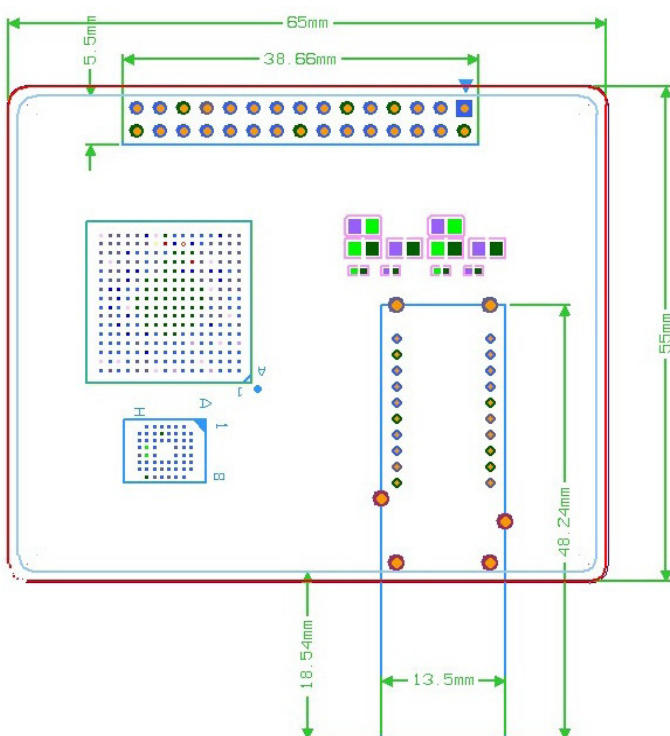# TSCOM TP200C

REMOTE COMMUNICATION ONU MODULE FOR DATA CONCENTRATOR

The Intelligent Network- Optical Fiber Concentrator
It can be applicable as an important node in the AMI which is networked with several utility meters and central utility servers and enables communication of the data between the meters and the utility servers.

Remote Communication EPON ONU Module TP200C

Abiding by IEEE802.3ah, Telesail TP200Cseries meets relevant requirements of GEPON OUN regulated in technical requirements of YD/T1475-2006—Ethernet-Based EPON and China Telecom EPON Technical Requirement CTC2.0/2.1. It can support the transparent transmission of multiple electric power communication regulations such as IEC60870-5-101/104, EC61850, CDT and DNP. It also can realize the protocol conversion function from DL/T645 to Q/GDW376.1. It can work as data concentrator to transparent transmit the meter data.It provide provide EPON network both back to the utility's network collection center(NCC) and into the customer's home. The resulting two-way communications network gives utilities greater efficiency, more reliable service delivery.

Mechanical Drawings

PIN Definition

Pin No	Name	Direction	Description
1,3,5	VDD5v	Input	Input power:5V±0.25V Maximum transient current: 1.5A
2	GND	Input	Power-source ground
4	USB-HP	Differential signal	USB HOST +
6	USB-HN	Differential signal	USB HOST -
7	GND	Input	Power-source ground
8	VDDUSB	Input	USB power: 5V±0.1V Maximum current: 500mA
9	RXD	Output	Output signal of the serial interface (3.3V/TTL)
10	RST	Input	Input signal of the serial interface (3.3V/TTL)
11	GND	Input	Power-source ground
12	CTS	Output	Output signal of the serial interface (3.3V/TTL)
13	TXD	Input	Input signal of the serial interface (3.3V/TTL)
14	DTR	Input	Input signal of the serial interface (3.3V/TTL)
15	DCD	Output	Output signal of the serial interface (3.3V/TTL)
16	GND	Input	Power-source ground
17	RI	Output	Output signal of the serial interface (3.3V/TTL)
18	STATE3	Output	Identification of the module type
19	STATE4	Output	Identification of the module type
20	IGT	Input	Control signal ; "1" means the communication module is in working module. (3.3V/TTL)

Specification

Standard

- Technical Requirements of YD-T 1475-2006 access network-- EPON
- China Telecom EPON Technical Requirements--CTC2.0/2.1
- Q/GDW 375.1-2009 Electricity Information Collection's Model Standard: Transformer Standard Collection Terminal's Model Standard
- Q/GDW 375.2-2009 Electricity Information Collection's Model Standard: Transformer Collection Terminal's Model Standard
- Q/GDW 376.1-2009 Electricity Information Collection's Telecommunication Protocol: Telecommunication Protocol Between Station and Information Collection Terminal
- IEC60870-5-101/104

Power and Environmental

- Power Consumption:<1.2W
- Input voltage: 5V
- Working temperature: -40°C~75°C Storage temperature: -40°C~85°C Relative humidity: 5%~95% no condensation

Port Configuration

- 1 GEPON interfaces
- 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:-1dbm ~ +4dbm
- Rx Sensitivity:-30dbm

Serial Port Functions

- serial interface: RS485
- Maximum port rate: 9600~38400bps
- Type of the session: supporting TCP server, TCP Client and UDP
- Supporting the transparent transmission of multiple electric power communication regulations such as IEC60870-5-101/104, EC61850, CDT and DNP.

Reliability

- Access Control List (ACL)
- Port/MAC binding,MAC filtering and Limit
- Per VLAN User Isolation
- Packet mirroring per ingress/egress port
- EPON Frame Encryption: AES128 bit downlink encryption
- Broadcast/Multicast/DLF storm control
- Dying-Gasp
- Supporting hot swap

Quality of Service (QoS)

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

Management

- Comply with the EPON OAM in Clause 57 in IEEE802.3-2005
- ONU Remote Upgrade and Management
- Environmental monitoring

Order Information

TSCOM TP200C - Data Concentrator	
TP200C	Remote communication onu module of data concentrator

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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