

## FWXG-890SG, XGS-PON 10GE+1GE ONT



### 1. Product Description

"Quality Broadband" has become the consensus of the development of the global broadband industry. Meeting the needs of users for 10G bandwidth has become a challenge for operators. To meet the challenges faced by operators, Huawei's next-generation large-capacity distributed intelligent OLT platform EA5800 Series provides a single service board that supports XGS-PON, XG-PON, and GPON mixed access application scenarios.

FULLWELL is a certified solution partner of Huawei. In order to cater to the integration of RF over network and move towards 10G bandwidth, Fullwell has developed the product of XGS-PON + CATV WDM EDFA, XGS-PON WDM optical receiver and XGS-PON ONU, helping operators to create all-optical, automated and intelligent FTTH integrated access network.

FULLWELL XGS series is the latest optical transmission system equipment of XGS-PON + CATV FTTH / FTTP triple play network integration, and it is the function of combining OLT XGS-PON broadband signal and CATV 1550nm optical signal after amplification. Achieving GPON, 10GPON, XGPON, XGSPON, NGPON2, GEAPON, Ethernet PtP & Wavelength multiplexing of RF video (CATV+

SAT-TV) in FTTH XGS-PON networks. Compatible with XGS-PON OLT, such as Huawei, Nokia, calix and ZTE, without losing of data, and has a high cost performance.

FWXG-890S XGS-PON ONT (Single Family Unit) incorporates interoperability, key customers' specific requirements and cost-efficiency. Equipped with ITU-T G.9807.1 compliant 10G Downstream and 10G Upstream XGS-PON interface, FWXG-890SG supports the full Triple Play of services including voice, video, and high-speed internet access service.

## 2. Product feature

### ▶ PON Interface

- . Compliant with ITU-T G.9807.1 XGS-PON standards
- . On-board optics
- . 10 Gbps Burst Mode Upstream Transmitter and 10 Gbps Downstream Receiver
- . Compliant with ITU-T G.9807 Class N1
- . +4dBm ~+9dBm launch power, -28dBm sensitivity, and -9dBm overload
- . Wavelengths:US 1270nm, DS 1577nm

### ▶ PON QoS

- . Multiple T-CONTs per device
- . Multiple XGEM Ports per device
- . Flexible mapping between XGEM Ports and T-CONT
- . Activation with automatic discovered SN and password in conformance with ITU-T G.9807. 1
- . AES- 128 Decryption with key generation and switching
- . FEC (Forward Error Correction) in both directions
- . DBA reporting
- . 802. 1p mapper service profile on U/S
- . Mapping of XGEM Ports into a T-CONT with priority queues based scheduling
- . Support Multicast XGEM port and incidental broadcast XGEM port.

### ▶ Ethernet Interface

- . 10GBase-T interface with RJ-45 connectors, compatible with 5GBase-T, 2.5GBase-T and 1GBase-T

- . 10/100/1000Base-T interface with RJ-45 connector
- . Auto-negotiation and MDI/MDIX auto-sensing or manual configuration
- . Built-in layer-2 switch
- . Advanced data features such as VLAN tag manipulation, classification, and filtering
- . Hardware priority queues on the downstream direction in support of CoS
- . 802. 1D bridging
- . VLAN tagging/detagging per Ethernet port
- . VLAN stacking (Q-in-Q) and VLAN Translation
- . IP ToS/DSCP to 802. 1p mapping
- . Class of Service based on UNI, VLAN-ID, 802. 1p bit, and combination
- . Marking/remarking of 802. 1p
- . IGMP v2/v3 snooping and IGMP snooping with proxy report
- . Broadcast/Multicast rate limiting
  
- ▶ **OAM**  
Standard compliant OMCI (the embedded operations channel) interface as defined by ITU-T G.988
  - . Alarming and AVC report, performance monitoring
  - . Remotely software image download over OMCI, as well as activation and rebooting
  - . supports the full range FCAPS functions including supervision, monitoring and maintenance.
  - . Hold two software sets with software image integrity checking and automatic rollback
  - . Support TR-069 and TR- 181 (optional)
  
- ▶ **POWER**
  - . +12V/1A (feed via external AC/DC adapter)
  - . 2-PIN power adaptor input
  - . Power Consumption: less than 10W
  - . Industry-leading 12V power adapter, non-stop work design for more than 5 years.
  
- ▶ **Safety & EMI**
  - . FCC/ETL compliant

. CE compliant

### 3. Technical Parameters

Items	Unit	Specifications
XGS-PON standard.		XGS-PON ITU-T G.9807.1,ITU-T G.988
Optical interface		SC/APC connector,1 XGS-PON interface( XGS-PON Class N1)Receiving sensitivity: $\leq -28\text{dBm}$ Transmitting optical power: $+4 \sim +9\text{dBm}$ Transmission distance: 20KM
Speed	Gbps	XGS-PON: uplink 10Gbps, downlink 10Gbps
Wavelength	nm	Tx1270, Rx 1577
Interface	Data	10GE 10000Mbps 1GE 10/100/1000Mbps Auto adaptive Ethernet interfaces, Full/Half Duplex, RJ45 connectors
Indicator	LED	Power, Alarm,1GE,10GE,Optical
Operating condition	$^{\circ}\text{C}$	Operating temp: $-5 \sim +45$
Storing condition	$^{\circ}\text{C}$	Storing temp: $-30 \sim +60$
Humidity	%	20~80(non-condensing)
Power supply	V	DC 12V,1A adapter
Power consumption	W	$\leq 10$
Dimension	mm	150*110*30(L*W*H)
Net weight	Kg	0.25

