

OGU 6830 - 4GWa - RF

GPON ONU with 4 GE Port + 1 RF Port + 11ac WiFi



OGU 6830 - 4GWa - RF is compliant with ITU-T G.984.X and ITU-T G.988 standard. It provides four 10/100/1000 BASE-T interfaces, one RF interface, and 802.11 b/g/n/ac WIFI for FTTH/FTTB CATV solution.

Applications

- ☐ FTTX
- ☐ CATV
- ☐ Data

Features

- ☐ Comply with ITU-T G.984.X / G.988 standard,
- ☐ Support 1* RF Interface for CATV Service (* Use OPT Interface)
- ☐ Downlink speed up to 2.5Gbits/s and Uplink speed up to 1.25Gbits/s
- ☐ Support high split ratio of 1:128 and up the coverage radius to 20 km
- ☐ Support DBA (Dynamic Bandwidth Assignment)
- ☐ Support powerful QoS function to meet the needs of different business types
- ☐ Support ONU auto-discovery / Link detection / remote upgrade of software
- ☐ Support VLAN division and user separation to avoid broadcast storm
- ☐ Support ACL and SNMP to configure data packet filter flexibly
- ☐ Support telnet remote maintenance and configuration
- ☐ Support software online upgrade
- ☐ Support OMCI and TR069 management
- ☐ Support loopback detection at user network interface
- ☐ Support Ethernet auto-negotiation and MDI / MDIX auto-detection
- ☐ CATV service can be enabled or disabled

Specifications

Item	Parameter
PON Interface	Uplink transmission rate : 1.25Gbps Downlink transmission rate : 2.5Gbps Network coverage radius : 20 km Optical interface : SC/PC Optical receiver with high sensitivity : $\geq -27\text{dBm}$ Luminous power : 1~4dBm For CATV use only
OPT Interface	Wavelength : Tx 1550nm Optical interface : SC/PC
Ethernet	LAN1~LAN4 , 10/100/1000Base-TX , RJ45
CATV Interface	1* CATV port, male RF port
Wireless	External antenna IEEE 802.11b/g/n/ac compliant Frequency: 2.4GHz & 5.8GHz Two Transmit and Two Receive path (2T2R)
Optical Performance	Wavelength : Tx 1310nm , Rx 1490nm (* Tx 1550nm for CATV) Tx Optical Power : 0 ~ 5dBm Rx Sensitivity : -27dBm Saturation Optical Power : -3dBm PON throughput : downstream > 2.2Gbps ; upstream > 1Gbps
Data Transmission	Ethernet port : 1000Mbps or 100Mbps Packet Loss Ratio : $<1 \times 10^{-12}$ latency : <1.5ms Plastic casing
Housing	DC12V / 1A adapter
Power supply	Power consumption : <10W
Power consumption	
Dimension	Dimension : 179mm(W)×122mm(D)×31mm(H) Weight : < 0.3kg
Environmental Requirement	Operating temperature : -5 °C to 45 °C Storage temperature : -40 °C to 80 °C Operating humidity : 5% to 90% (Non-condensing) Storage humidity : 5% to 95% (Non-condensing)

Software Specification

PON	Comply with ITU-T G.984 / G.988 GPON standard FEC (Forward Error Correction) in both upstream and downstream Dynamic bandwidth status report 802.1p mapped for upstream QoS scheduling based on SP or WRR between GEM port and T-CONT Downstream multicast GEM port and broadcast GEM port
Ethernet	Support Auto-speed and MDI / MDIX auto detection Internal L2 switch Advanced data processing function , such as VLAN label processing , flow classification and packet filtering.
Gateway	WAN support Router and Bridge mode Router mode support PPPoE / DHCP / static IP WAN support Internet and IPTV LAN support DHCP and static IP Support NAT and NAPT Support UPnP Uplink: Optical fiber ($\lambda = 1550 \text{ nm}$), Downlink: F-connector
CATV	RF Operating Bandwidth: 47 ~ 1000 MHz RF output level: $\geq 72 \text{ dBuV}$ Received optical power range: -15 ~ 0dBm Compatible with IEEE 802.11 b/g/n/ac, maximum support 300Mbps
WIFI	Dual band, 2.4GHz & 5.8GHz WEP , WPA-PSK , WPA2-PSK and other encryption
OAM	Standard OMCI comply with ITU-T G.988 Comply with TR-069 standard Comply with TR-098 , TR-140 terminal integrated management interface specification Alarm reporting and performance monitoring Remote software upgrade through OMCI

CATV Parameters

Input Optical Power	-18dBm ~ 0dBm (Rx : -18dBm)
Optical AGC Control Range	0 ~ -12dBm 1550 ± 10nm >
Operating Wavelength	45dB 47MHz ~ 1000MHz
Optical Return Loss	≥72dBuV (@-12 ~ -2dBm)
RF Bandwidth	≥51dB (@-1dBm) ≥60dB
RF Output Level	((@72dBuV) ≥60dB (@72dBuV)
C/N	≥14dB 75Ω
C/CTB	
C/CSO	
Output Return Loss	
Output Impedance	

WIFI Specification

Operate	Router or bridge 2x2 MIMO antenna IEEE
Antenna	802.11n : ≥75 Mbps @20M bandwidth
Throughput	IEEE 802.11ac ≥350 @80M bandwidth 2.412~2.483 GHz
Frequency	5.725~5.850 GHz 13*Channel
Channel	DSSS , CCK and OFDM
Modulation	BPSK , QPSK , 16QAM and 64QAM
Coding	-64dB
RF receive sensitivity	16dB
RF Maximum output power	