GT0813-O GPON OLT(Outdoor)
Datasheet

Porduct overview:

GT0813-OX is an outdoor 8-port GPON OLT device with option　independently developed by the company, with optional built-in EDFA+WDM combiner optical amplifier. The product follows the ITU-T G.984/G.988 technical standard. The product has good openness, high reliability, complete software functions, and flexibility. Compatible with any brand ONT. The product is suitable for outdoor harsh environments, resistant to high and low temperature, and can be widely used in operators' outdoor FTTH access, video surveillance, enterprise network, Internet of Things, etc.。

GT0813-O can be installed on a pole or on a wall, which is convenient for installation and maintenance. The equipment adopts the industry's advanced technology, provides customers with efficient GPON solutions,　Supports mixed networking of different types of ONUs, which can save a lot of costs。

GT0813-O

Built-in EDFA+WDM module (optional)

The optical amplifier uses the well-known high-performance erbium-yterbium co-doped double-clad fiber and low-noise pump laser. It has reliable circuit design and efficient heat dissipation design. The maximum total output power of the whole machine can reach+37dBm, supporting up to 16 outputs, including optical switch, CWDM and RF detection. It is applicable to the amplification and transmission of 1550nm optical signal in the downstream of FTTH network.

EDFA uses modular and erbium-doped fiber amplification technology. Support laser switch function and output optical power automatic power control (APC) function. The output optical power is ≥ 20dB, and the output power of the optical amplifier can be adjusted, which can float down 0-3dB, as the system power reserve. It is continuously adjustable at 0.1dBm step interval within 0-3dBm. For detailed configuration, please refer to EDFA manual 《 Field type optical amplifier EDFA.docx》.

The field EDFA has the following characteristics:

*- 3~+10dBm wide input range.

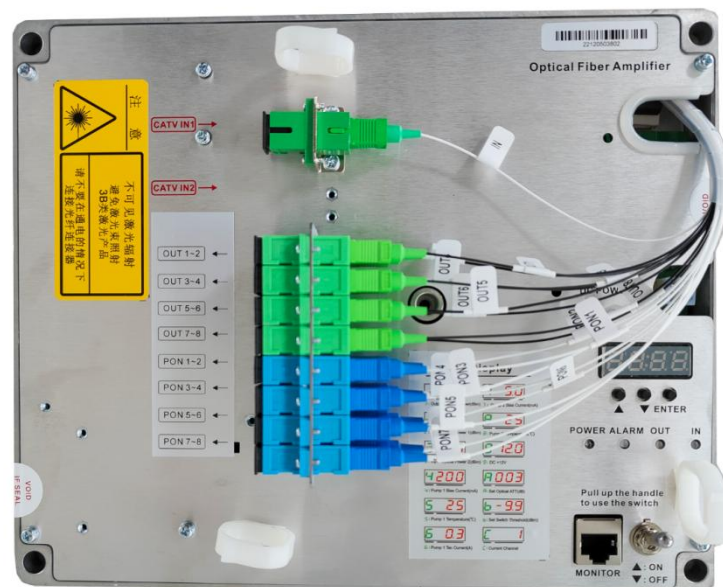*The maximum output total power is 20dBm, with 8-port output.

*Excellent noise coefficient and nonlinear index.

*The keys on the internal display screen provide parameter reference and setting

*Cast aluminum waterproof shell, IP67 protection grade, excellent heat dissipation performance.

*The switch power supply with high reliability can adapt to the harsh outdoor environment.

EDFA+WDM

Note: The optical signal of the downstream network is amplified and transmitted in the FTTX network. One channel of input CATV 1550nm signal, eight channels of input OLT PON 1490nm signal, and eight channels of output combined optical signal ports are connected to the user terminal ONU through the ODN network respectively.

Product specifications

Attributes	GT0813-O
Exchange capacity	104Gbps
Packet forwarding rate	77.376Mpps
Memory and storage	memory：2GB, storage：8GB
Management port	Console， MGMT
Port	8*GPON Port，1*10/100/1000M Base-T,4*1000M Base-X SFP/4*10GE SFP+
PON	Comply with ITU-TG.984/G.988 standard 20KM Physical differential distance，60KM transmission logical distance 1:128 Max splitting ratio Standard OMCI management function Open to any brand of ONT ONU batch software upgrade
VLAN	Support 4K VLAN Support Vlan based on port, MAC and protocol Support dual Tag VLAN, port-based static QinQ and fiexible QinQ
MAC	16K Mac address Support static MAC address setting Support black hole MAC address filtering Support port MAC address limit
ring network protocol	Support STP/RSTP/MSTP Support ERPS Ethernet ring network protection protocol Support Loopback-detection port loopback detection
port control	Support two-way bandwidth control Support port storm suppression Support 9K Jumbo ultra-long frame forwarding
Port aggregation	Support static link aggregation Support dynamic LACP Each aggregation group supports a maximum of 8 ports

Mirroring	Support port mirroring Support stream mirroring
ACL	Support standard and extended ACL Support ACL policy based on time period Provide flow classification and flow definition based on IP header information such as source/destination MAC address, VLAN, 802.1p, ToS, DSCP, source/destination IP address, L4 port number, protocol type, etc.
QoS	Support flow rate limiting function based on custom business flow Supports mirroring and redirection functions based on custom business flows Support priority marking based on custom service flow, support 802.1P, DSCP priority Remark capability Support port-based priority scheduling function, support queue scheduling algorithms such as SP/WRR/SP+WRR
Safety	Support user hierarchical management and password protection Support IEEE 802.1X authentication Support Radius&TACACS+ authentication Support MAC address learning limit, support black hole MAC function Support port isolation Support broadcast message rate suppression Support IP Source Guard Support ARP flood suppression and ARP spoofing protection Support DOS attack and virus attack protection
Layer 3	Support ARP learning and aging Support static route Support dynamic route RIP/OSPF/BGP/ISIS Support VRRP
System management	CLI、Telnet、WEB、SNMP V1/V2/V3、SSH2.0 Support FTP,TFTP file upload and downdload Support RMON Support SNTP Support system work log Support LLDP neighbor device discovery protocol Support 802.3ah Ethernet OAM Support RFC 3164 Syslog Support Ping and Traceroute

Environmenttemperature	Working Temperature: -20℃～55℃
	Storge temperature: -40℃～70℃
environment humidity	Operating humidity: 10%～95% (non-condensing)
	Storage humidity: 10%～95% (non-condensing)
environment friendly	China RoHs,、EEE
weight	≤9.5kg
fan	Fixed fans（three fans）
power	AC: 100～240V/3A 47/63Hz;
Power consumption	65W
Dimensions (Width * height * depth)	370x295x152mm

Technical parameters of EDFA+WDM module

Item		Unit	Parameters	Notes
Operating wavelength range		nm	1545 ~ 1565	
Input			1	
Input optical power range		dBm	−3 ~ +10	
Total output power		dBm	20	
Maximum number of outlets			8	
Output power stability		dB	±0.5	
Noise coefficient		dB	≤ 5.0	
Return loss	Input	dB	≥ 45	
	Output	dB	≥ 45	
Pump leakage power	Input	dBm	≤ −30	
	Output	dBm	≤ −30	
（C/N）		dB	≥ 50	
（C/CTB）		dB	≥ 65	
（C/CSO）		dB	≥ 65	
Optical connector type			SC/APC	
Voltage		V	AC220V	
Power consumption		W	≤ 30	
Operating temperature range		℃	−20 ~ +55	
Maximum working relative humidity		%	最大 95% 无冷凝	

Storage temperature	℃	−30 ～ +70	
Maximum storage relative humidity	%	最大 95% 无冷凝	
Size		340mm （L） x 240mm x （W）x130mm（H）	
Weight		4kg	

Purchasing Information

Product name	Product description
GT0813-O	8*PON port, 4*10GE/GE SFP +1*GERJ45 uplink port,
EDFA Module	EDFA+WDM module, output 8 * 20dbm. (Optional)