SPECSHEET

uOPG800

uGrid uOPG800 is an outdoor GPON Optical Network Terminal designed for FTTC scenario. It is an extreme temperature hardened product compliant with ITU-T G.984.X standard which is perfect for outside networks which experience extreme temperature fluctuations, voltage imbalances and electrical surges. It provides 4 ports IEEE802.3af/at 1000M Ethernet ports, with 30W single Ethernet port output and Maximum 75W 4 ports output. Communication links to security and traffic cameras, digital signage, and access points are just a few examples of successful deployments by operators.

uOPG800 is integrated with new generation WiFi chipset to provides high-speed wireless access based on 802.11ac Wave2 technology standard with the rates of up to 1.167Gbps. It has rich radio frequency control, mobile access, network security, multi-service support functions. It works with uGrid wireless controller to provide a high-performance wireless mobile network based on zero configuration, which is very suitable for deployment in outdoor high-density places such as squares, scenic spots and stadiums, etc.

Description

- Compliant with ITU-T G.984.x (G.984.5 support)
- 2.5Gbps downstream rate, 1.25Gbps upstream rate. Maximum 20KM transmission distance.
- Provide x4 IEEE802.3af/at 1000M Ethernet ports, with 30W single Ethernet port output and Maximum 75W 4 ports output. (with WiFi AP, max. 3 ports output)
- Support 40v-120v wide range AC input voltage, including 60/90V draw power from cable.
- Support dual image backup and alternative image rollback.
- Support monitoring and management of each PSE Ethernet port.
- Support monitoring the input/output voltage and current of each terminal equipment.
- Provide variety of remote monitoring and management methods, including OMCI/WEB/Telnet/SNMP management and configuration.
- -40 ～ +60℃ operation temperature, 6KV lightning protection class. Reliable operation in variety of harsh environment.
- Remote PoE Mode A/B Selection.
- Advanced WiFi wireless connection support
  - MU-MIMO support
  - 802.11ac wave2, up to 1.167Gbps
  - Intelligent RF management. Wireless controller provides automatic power and channel adjustment function
  - Intelligent load balancing mechanism. Support load balancing according to the number of access users and traffic
  - Seamless roaming across the network
  - Provide fine wireless user management
  - Support wireless intrusion detection and intrusion prevention
  - User security access. 802.1X, Poral/Web, MAC, LDAP authentication support
  - Zero-configuration Centralized Management

Technical Parameters

Optical	
PON interface	ITU-TG.984.x Standard，Class B+ Compliant with SFF-8472 SC/UPC interface，Uplink 1310nm/downlink 1490nm Receiving sensitivity:≤-28dBm Transmitting power:0.5~5dBm
Ethernet	
Standard	IEEE802.3 af/at
LAN	4 x 10/100/1000BASE-T Support Auto-negotiation Support MDI/MDIX auto detection Maximum 100m transmission distance
Layer2 Bridging	
MAC	Support ethernet data frame filtering based on port, SA/DA Support 2000byte MTU Compliant with IEEE 802.3as 4K MAC address list
VLAN	Support ingress/egress 802.1p tag on each port Support ingress/egress 802.1q tag on each port Support double tagging, compliant with IEEE 802.1ad
port	Support bandwidth control Support port mirroring
QOS	Support forwarding traffic classification via SA/DA IP, SA/DA MAC, VLAN priority, DSCP. Support forwarding traffic class into GEMPORT & TCONT
Management	
Management	Support WEB, OMCI, Telnet, console management. Support OMCI, FTP remote upgrade Support dual image backup & alternative image rollback
Hardware	
Power	40v~120v wide range AC input voltage
Power Dissipation	≤ 10W & Provide 75W PSE output
dimension	L x W x H: 28.5x 20 x 12cm
Operating temperature	-40℃～60℃
Storage temperature	-40℃～85℃
Operating humidity	10%-90%, no Coagulation
Storage humidity	5%-90%, no Coagulation

WiFi Parameters	
Specifications	802.11 a/b/g/n, 802.11 ac wave1/wave2
	2.4GHz/5GHz Dual band
	SU-MIMO/MU-MIMO
Output Power	2.4GHz, Max. 24dBm (single way)
	5.8GHz, Max. 24dBm (single way)
Max Concurrent User	256 (number varies depending on the application environment)
Virtual AP	32
FIT AP Features	
FIT AP Zero Configuration	Support
DHCP Discover	Support
DNS Discover	Support
Static IP discover	Support
AP Basic Functions	
Roaming	AC support
Multicast	IGMP-SNOOPING
Router Mode	Support
VLAN	Support
STP	Support
Auto discovering	Support, (DHCP option/DNS/static ip/broadcast)
Channel/Frequency Adjust	Support
Load Balancing	Support load balancing based on user number and flow rate
Flow Control	Support flow control based on user IP
Routing Protocol	Support static routing
QoS	
802.11e	Support WMM
QoS Policy Map	Support different SSID / VLAN mapping different QoS policy
User Numbers Load Balancing	Support
Flow Load Balancing	Support
Administration	
Network Management	Support Web/SNMP/SSH/CLI/Telnet
Maintenance Mode	Support local maintenance and remote maintenance
Log Function	Support local log, log host, log file export
Statistical Information	Support
Safety Features	
WEP Encryption	Support 64/128 bytes encryption
WPA Encryption	WPA, WPA2, WPA-PSK, WPA2-PSK
Authentication Mode	Support 802.1X、MAC address、PPPOE、Portal
MAC Address Filtering	Support
VLAN	Support
User Isolation	Support

Broadcast Suppression	Support
Packet Filtering	Support
SSID Hide	Support
RF Features	
Receiving Sensitivity	802.11b： ≤-97dBm@1Mbps; ≤-89dBm@11Mbps
	802.11a/g: ≤-91dBm @6Mbps ；≤-75dBm @54Mbps
	802.11an (HT20)：≤-91dBm@MCS0；≤-68dBm@MCS8 802.11an (HT40)：≤-89dBm@MCS0；≤-64dBm@MCS9 802.11ac(VHT80): ≤-85dBm@MCS0；≤-60dBm@MCS9

Ordering Information

uOPG	PON-XXX		Ethernet port-XX		Optical connector-XX		Power Supply-XX		WiFi-XX	
	800	GPON	04	4 Ports	SU	SC/UPC	V2	Cable Power 40~90VAC or 110VAC Input	W1	11AC Wave2
					SA	SC/APC	V3	110-220VAC	W2	WiFi6