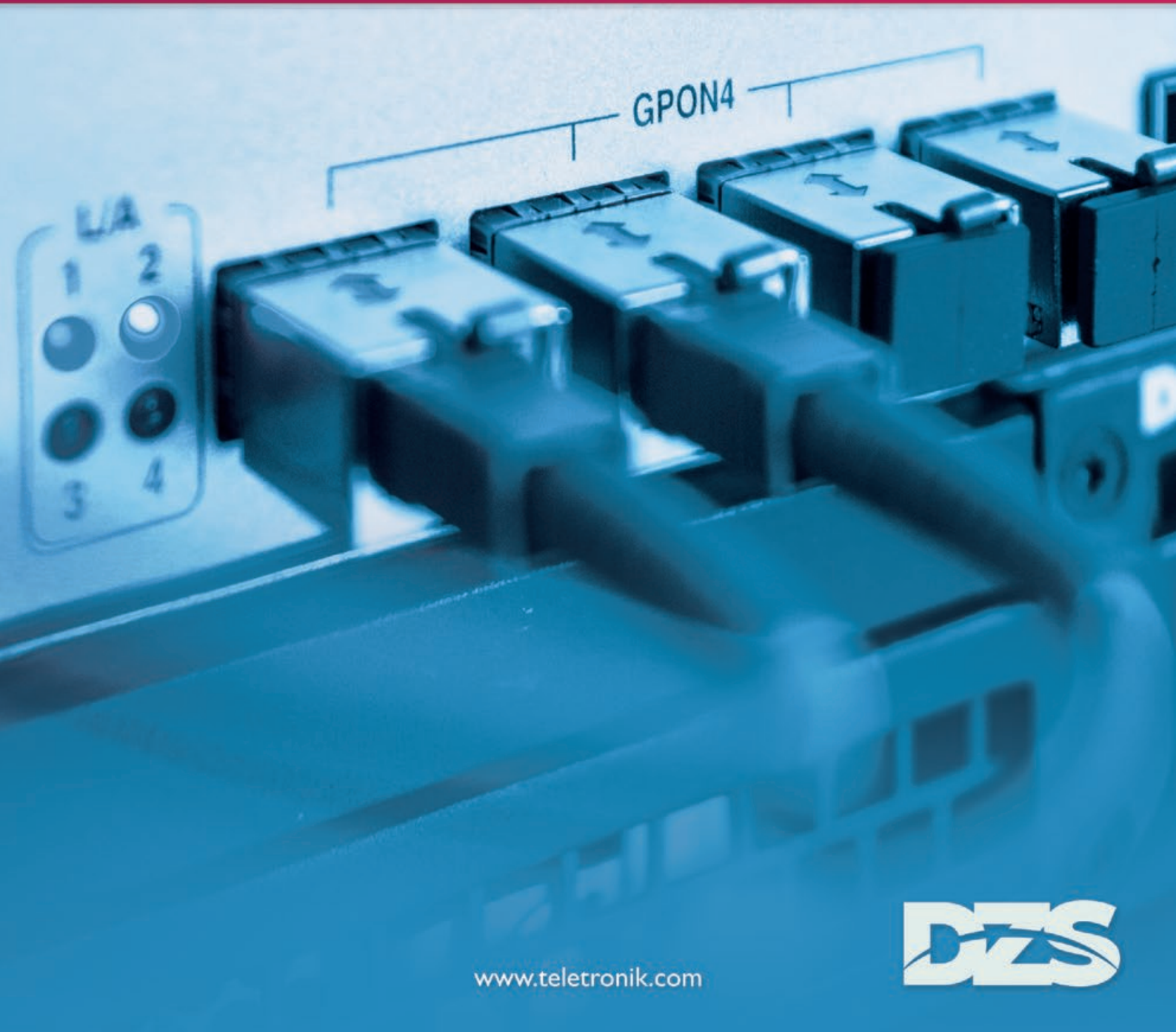


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## GPON EQUIPMENT



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## Connecting with the wonders, **FTTH Solution**

- FTTH: Top 10 Player in the World
- G/E-PON : No. 1 Player in Korea

DZS FTTH solution is designed for service providers to deliver ideal solution to fulfill the customers' growing demand. Our Passive Optical Network (PON) products can be used for different possible FTTH deployments to simplify network structure and reduce costs. G/E-PON solution introduces a point-to-multipoint technology that Optical Line Terminal (OLT) locates at the central office connecting several Optical Network Terminals (ONTs) or Multi Dwelling Units (MDUs) at the customer's premises via the passive optical splitter.

GPON Optical Network Terminal is a subscriber unit with optical port (usually with SC/APC connector) and several interfaces (such as Gigabit Ethernet, FXS, WiFi, „F” for CATV), depending on model. ONT is the last device in GPON network, installed in subscriber's apartment. This is an active device (requires power supply), usually to use inside buildings and is fed from subscriber's socket.



H66X	H665	H665GR	H662GR	H660G	H660GM	H660RW	H660RM
<b>LAN Port</b>	1x10/100/1000	1x10/100/1000	2x10/100/1000	4x10/100/1000	4x10/100/1000	4x10/100/1000	4x10/100/1000
<b>POTS VoIP Port</b>	N/A	N/A	1xFXS	N/A	1xFXS	2xFXS	2xFXS
<b>WiFi 2.4 Ghz</b>	N/A	N/A	N/A	N/A	2x2 b/g/n 300Mb/s	2x2 b/g/n 300Mb/s	2x2 b/g/n 300Mb/s
<b>WiFi 5 Ghz</b>	N/A	N/A	N/A	N/A	2x2 MIMO 867Mbps w 802.11ac	N/A	2x2 802.11ac
<b>"F" port CATV</b>	N/A	✓	✓	N/A	N/A	✓	✓
<b>USB</b>	N/A	N/A	N/A	N/A	✓	N/A	N/A
<b>Router/NAT</b>	✓	✓	✓	✓	✓	✓	✓



## V5808

### GPON OLT

#### Overview

As the number of services using internet communication such as broadband internet, internet phone, and IPTV is increasing, the need for high performance network equipment is increasing. This is not an exception in areas where population density is low and where there are few subscribers. You can plan more effectively in terms of the cost of network deployment.

The V5808 is a compact GPON OLT system with eight GPON ports, four 1G / 10GBase-R ports for uplinks, and four 1000Base-T ports, making it suitable for low-density and FTTx services at low cost. It

The V5808 supports Gigabit ports and can be used in a variety of network environments. In addition, the redundant configuration of the power supply is realized, and the network system is not interrupted, ensuring stable service.

#### Features

- 118 Gbps switching capacity
- 8 GPON ports, 10GE 4 ports and GE (Electric) 4 ports
- High Capacity Uplink / Service Interface  
2.5Gbps (down) / 1.25Gbps (up)
- Reliable FTTx service with power redundancy system
- Enhanced QoS services
- IGMP support for IPTV
- Fully Managed via Dasan's INAS Element Manager
- Increased reliability through power redundancy
- Comfortable network management  
with SNMPv2 / v3 and RMON



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All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

#### Specifications

Service	8 GPON (SFP, SC/PC type)
Uplink Ports	4 GE Electric Port [100/1000Base-T (RJ45)] 4 1G/10GBase-R (SFP+) ports
MGMT Ports	1 100/1000Base-TX (RJ45)
Console Port	1 Console (RS232)
Layer 2	Standard Ethernet bridging Port/Subnet/Protocol-based VLAN Spanning Tree: STP, RSTP, MSTP 802.3ad Link aggregation based on MAC
Layer 3	L3 Host(IPv4/IPv6) 1.5K/768 Static routing 1K L2 Multicast 1p mapper service profile on U/S Mapping of GEM Ports into a T-CONT with priority queues based scheduling Support for Multicast GEM Port
Multicast	IGMPv1/v2/v3 IGMP snooping IGMP filtering and throttling Multicast VLAN Registration (MVR)

GPON	ITU-T G.984 compliant Supports ITU-T G.984.4 ONT Management & Control Interface (OMCI) Remote ONT/ONU management Automatic ONT ranging 4k port-ID and 1k alloc-ID
Management Interface	Serial / Telnet (CLI) SNMPv1/v2/v3 DHCP server, relay agent with option82 Remote Monitoring (RMON)
Operating Requirements	Operating Temperature: -20~60°C Humidity: 0~90% (non-condensing)
Dimensions	Size (W x H x D): 440 x 44 x 300mm
Input Power	AC type : 100-240VAC, 50/60Hz DC type : -48/60VDC





## V5816

### GPON OLT

#### Overview

As the number of services using internet communication such as broadband internet, internet phone, and IPTV is increasing, the need for high performance network equipment is increasing. This is not an exception in areas where population density is low and where there are few subscribers. You can plan more effectively in terms of the cost of network deployment.

The V5816 is a compact GPON OLT system with 16 GPON ports, four 1G / 10GBase-R ports for uplinks, and four 1000Base-T ports, making it suitable for low-density and FTTx services at low cost.

The V5816 supports Gigabit ports and is applicable to a variety of network environments. In addition, the redundant configuration of the power supply is realized, and the network system is not interrupted, ensuring stable service.

#### Features

- 168 Gbps switching capacity
- 16 GPON ports, 4 10GE ports and 4 GE (Electric) ports
- Reliable FTTx service with power redundancy system
- Enhanced QoS services
- IGMP support for IPTV
- Fully Managed via Dasan's INAS Element Manager
- Increased reliability through power redundancy
- Comfortable network management with SNMPv2 / v3 and RMON



**InCa** [www.inca-nms.com](http://www.inca-nms.com)

All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

#### Specifications

Service	16 GPON (SFP, SC/PC type)
Uplink Ports	4 GE Electric Port [100/1000Base-T (RJ45)] 4 1G/10GBase-R (SFP+) ports
MGMT Ports	1x 100/1000Base-TX (RJ45)
Console Port	1x Console (RS232)
External Port	1x USB2.0
Layer 2	Standard Ethernet bridging Port/Subnet/Protocol-based VLAN Spanning Tree: STP, RSTP, MSTP 802.3ad Link aggregation based on MAC Flow Control
Layer 3	L3 Host(IPv4/IPv6) 1.5K/768 Static routing 1K L2 Multicast
Multicast	IGMPv1/v2/v3 IGMP snooping IGMP filtering and throttling Multicast VLAN Registration (MVR)

GPON	ITU-T G.984 compliant Supports ITU-T G.984.4 ONT Management & Control Interface (OMCI) Remote ONT/ONU management Automatic ONT ranging 4k port-ID and 1k alloc-ID
Security	Secure Shell (SSH) v1/v2 802.1x RADIUS, TACACS+ authentication Storm Control
Management	Serial / Telnet (CLI) SNMPv1/v2/v3 DHCP server, relay agent with option82 Remote Monitoring (RMON) Syslog, Port Mirroring
Operating Requirements	Operating Temperature: -20~60°C Humidity: 0~90% (non-condensing)
Dimensions	Size (W x H x D): 440 x 44 x 300mm
Input Power	AC type : 100-240VAC, 50/60Hz DC type : -48/60VDC



## Overview

The V8102 is a 2RU height chassis-based GPON OLT system with four slots for two service module units and two switching fabric units with uplink modules, providing a wide range of high-performance features for FTTx applications. A high-density chassis system that supports up to 4,096 residential and business subscribers with 32 GPON ports (1: 128 split ratio).

The most compact type of GPON OLT Chassis system that supports GPON Protection worldwide. The V8102 provides high capacity GPON access and 10GbE uplink with a 320Gbps non-blocking switch fabric. The V8102 is a fully redundant design concept for SFU / Power / GPON devices to ensure the reliability of the equipment. PON technology adds new features to improve performance and interoperability and seeks support for new applications, services, and installation environments.

## Specifications

Flash Memory	8MB(Boot)+64MB(NOS)
SDRAM	2GB(DDR3)
Service Port	2 Slot for SIU(Service Interface Unit) - SIU_GPON16 : 16 GPON (SFP, SC/PC)
Uplink Port	2 Slots for SFU(Switching Fabric Unit) - SFU : 4 10GE Ports(SFP+) or 4 GE Port(SFP)
Management	Management Interface - 1 Port RS-232 for Console(RJ45) 1 Port Tx for MGMT(RJ45) 1 Port Alarm Interface(RJ45) 1 Port microSD Interface
MAC Table	176K(UFT)
Routing Table	8K(IPv4)/6K(IPv6)
VLAN	4K
Switching Capacity	320Gbps
Operating Temp.	-15~55°C
Operating Humidity	0~90% (non-condensing)
Power Voltage	Input : -48VDC (redundancy)
Dimensions	443.8 x 88.5 x 280 mm (W x H x D)

## V8102

### GPON OLT


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All devices are available with optional **InCa Provisioning and Network Management System & 24/7 support service**

## Features

- 32 GPON ports per chassis(16 Port per Unit)
- Ready for 16 XG-PON ports per chassis(8 Port per Unit)
- 4 x 10GE/GE Uplink(Selectable)
- Multi-service chassis for FTTx deployments
- Full redundancy
- Support and delivery of various service types  
VoIP, IP-TV, high-speed internet, mobile, etc.
- Non-stop forwarding, Non-stop routing features based on distributed architecture
- Selective service/uplink modular units for flexible network
- High capacity GPON access and 10GbE uplink and line rate performance
- Realtime network traffic monitoring and analyzing
- Common & familiar CLI via console/telnet
- SNMPv2/v3 with RMON, Alarms
- L2/L3/L4 classification / Priority management

## Capabilities

Layer 2	Standard Ethernet bridging Port/subnet/protocol-based VLAN Spanning tree: STP, RSTP, MSTP 802.3ad link aggregation
Layer 3	IPv4 routing / IPv6 routing RIPv1/v2, OSPFv2, BGPv4 Virtual Router Redundancy Protocol (VRRP)
Multicast	IGMPv1/v2/v3, PIM-SM/SSM IGMP snooping Multicast VLAN Registration (MVR)
GPON	GPON OLT compliant with ITU-T G.984 Remote ONT/MDU management Automatic ONT ranging Multiple T-CONTs per MDU (ONT) Supports up to 64 (max.128) connections over a single fiber
Management	Serial / Telnet (CLI) SNMPv1/v2/v3, RMON
MPLS(*Plan)	RSVP-TE and path protection and local repair(Head-end role) EXP-based QoS Clock sync: BITS, IEEE 1588v2, SyncE
QoS	Traffic scheduling (SP, WRR, DRR) 8 queues per port Advanced traffic management - metering, egress shaping



## V8106

### GPON OLT


[www.inca-nms.com](http://www.inca-nms.com)


All devices are available with optional **InCa Provisioning and Network Management System** & 24/7 support service

## Overview

DASAN Networks' V8106 is a 6RU height chassis based GPON OLT system which is comprised of 10 slots for 6 service modular slots, 2 switching fabric slot and 2 uplink slots for delivering a wide range of full-featured and high-performance over FTTx applications. It is a high-density chassis system that supports up to 12,288 residential and business subscribers with 96 GPON ports(1:128 split ratio). The most compact type GPON OLT Chassis system as supporting GPON Protection in worldwide. V8106 features high capacity GPON access and 10GbE uplink and line rate performance with a 640Gbps non-blocked switch fabric. Moreover V8106 is ready for XG-PON service, the service line support the fully 8 ports of XG-PON signal as same chassis. V8106 guarantees equipment-level reliability with full redundancy design concept of SFU/Power/GPON units. The PON technology adds new features and functionality targeted at improving performance and inter-operability, and adds support for new applications, services, and deployment scenarios.

## Specifications

Flash Memory	8MB(Boot)+128MB(NOS)
SDRAM	2GB(DDR3)
Service Port	6 Slot for SIU(Service Interface Unit) SIU_GPON16 : 16 GPON (SFP, SC/PC) SIU_GPON16T* : 16 GPON (SFP, SC/PC) SIU_XGPON8* : 8 XG-PON1 (XFP, SC/PC)
Uplink Port	2 Slots for NIU(Network Interface Unit) - NIU_10GE4 : 4 10GE Ports(SFP+)
Management	Management Interface 1 Port RS-232 for Console(RJ45) 1 Port Tx for MGMT(RJ45) 1 Port microSD Interface
MAC Table	32K(Max.288K)
Routing Table	16K(IPv4)/8K(IPv6), Max120K(IPv4)/60K(IPv6)
VLAN	4K
Switching Capacity	640Gbps
Operating Temp.	-25~55°C
Operating Humidity	0~90% (non-condensing)
Power Voltage	Input : -48VDC (redundancy)
Dimensions	482.6 x 265.9 x 280.0mm (W x H x D)

## Features

- 96 GPON ports per chassis(16 Port per Unit)
- Ready for 48 XG-PON ports per chassis (8 Port per Unit)
- 4 x 10GE/GE Uplink(Selectable) per slot
- Multi-service chassis for FTTx deployments Full redundancy
- Support and delivery of various service types  
VoIP, IP-TV, high-speed internet, mobile, etc.
- Non-stop forwarding, Non-stop routing features  
based on distributed architecture
- Selective service/uplink modular units for flexible network
- High capacity GPON access and 10GbE uplink  
and line rate performance
- Realtime network traffic monitoring and analyzing
- Common & familiar CLI via console/telnet
- SNMPv2/v3 with RMON, Alarms
- L2/L3/L4 classification / Priority management

## Capabilities

Layer 2	Standard Ethernet bridging Port/subnet/protocol-based VLAN Spanning tree: STP, RSTP, MSTP 802.3ad link aggregation
Layer 3	IPv4 routing / IPv6 routing RIPv1/v2, OSPFv2, BGPv4 Virtual Router Redundancy Protocol (VRRP)
Multicast	IGMPv1/v2/v3, PIM-SM/SSM IGMP snooping Multicast VLAN Registration (MVR)
GPON	GPON OLT compliant with ITU-T G.984 Remote ONT/MDU management Automatic ONT ranging Multiple T-CONTs per MDU (ONT) Supports up to 64 (max.128) connections over a single fiber
Management	Serial / Telnet (CLI) SNMPv1/v2/v3, RMON
MPLS(*Plan)	RSVP-TE and path protection and local repair(Head-end role) EXP-based QoS Clock sync*: BITS, IEEE 1588v2, SyncE
QoS	Traffic scheduling (SP, WRR, DWRR) 8 queues per port Advanced traffic management - metering, egress shaping



## Overview

The H665 is Optical Network Terminal (ONT) compliant with ITU-T G.984 standard. DASAN Networks has developed H665 for all clients on the basis of Gigabit Passive Optical Network (GPON) technology. GPON technology supports upstream 1.25Gbps and downstream 2.5Gbps data transmission rate. With DASAN's leading-edge GPON technology, users can enjoy bandwidth-consuming multimedia services such as real-time video, audio and gaming much easier and faster than ever before.

The H665 is comprised of one GPON uplink port and one Gigabit Ethernet downlink port supporting 10/100/1000Base-T (RJ45). The H665 supports high speed internet access service. The H665 contains both built-in wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAPT address translation, multiple PPPoE clients support for high speed internet service.

## Specifications

Flash Memory	128MB
SDRAM	128MB
Uplink Port	1 GPON port (SC/APC, BOSA)
Service Port	1 10/100/1000BASE-T port (RJ45)
LED	POWER, PON, ALARM, LAN
Operating Temp.	23 to 113°F (-5 to 45°C)
Operating Humidity	5 to 95% (non-condensing)
Power Voltage (Adapter)	Input: 100-240VAC, 50/60Hz Output: 12VDC/0.5A
Dimensions	4.50 x 1.26 x 3.74 in (114 x 32 x 95 mm) (W x H x D)
Miscellaneous Interface	On/Off power switch
GPON	ITU-T G.984 compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping as GEM and T-CONT Dying gasp
Layer 2	Untagged port configuration IEEE802.1D and IEEE802.1Q bridging Standard Ethernet bridging MAC address learning with auto aging

## H665

### FTTH/GPON ONT

## Features

#### GPON Interface

- ITU-T G.984.3 compliant GPON ONT
- Data rate of 1.25Gbps (Up)/2.5Gbps(Down)
- Wavelength : TX 1310nm, RX 1490nm

#### Advanced QoS & Network Management

- Protection of delay-sensitive traffic based on SLA
- Multi-Layer Filtering
- Remote Fault monitoring
- IEEE 802.1D and IEEE 802.1Q bridging
- Dying Gasp support



InCa

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All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

VLAN	VLAN port filtering Destination address port filtering Source MAC address learning
Multicast	IGMP snooping
QoS	HW-based internal IEEE 802.1p (CoS) Strict Priority (SP) 802.1Q QoS mapping, ToS/CoS 8 queues per port
Management	ITU-T 984.4 compliant OMCI interface IEEE 802.3x flow control LED indications for maintenance Web-based management
Residential Gateway Unit	PPPoE client: multiple clients per RGONT Automatically initiating the session Automatically keep alive DHCP server / client NAT and NAPT NAT session up to 16K DNS Relay server (DNS relay, DNS transparent) Port forwarding Integrated stateful packet inspection firewall with ACL





## H665GR

FTTH/GPON

ONT

### Overview

DASAN Networks has developed H665GR for all clients on the basis of Gigabit Passive Optical Network (GPON) technology. GPON technology supports upstream 1.25Gbps and downstream 2.5Gbps data transmission rate. With DASAN's leading-edge GPON technology, users can enjoy bandwidth-consuming multimedia services such as real-time video, audio and gaming much easier and faster than ever before. The H665GR provides one GPON uplink port plus one Gigabit Ethernet(10/100/1000Base-T) port and one RF video port.

The H665GR supports the multiple services including video, and high speed internet access. The H665GR utilizes technology for intelligent IP-based access allowing reliability of network deployment models and management system.

### Features

#### GPON Interface

- ITU-T G.984.x compliant GPON ONT
- Interface capacity: 1.2Gbps/2.5Gbps (US/DS)
- Wavelength: TX 1310nm, RX 1490nm

#### RF Video Interface

- Analog RF video over 1550nm wavelength
- 18dBmV output level, 47MHz~1000MHz passband

#### Advanced QoS & Network Management

- Priority queues and scheduling on Upstream
- 802.1p mapper service profile on US
- Remote Fault Monitoring
- IEEE 802.1D and IEEE 802.1Q bridging



**hCa** [www.inca-nms.com](http://www.inca-nms.com)

All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

### Specifications

Flash Memory	128MB NAND
SDRAM	128MB DDR2
Uplink Port	1 GPON port (SC/APC, BOSA)
Service Port	1 10/100/1000BASE-T port (RJ45)
Video Interface	1 RF Video port (F-connector)
LED	PWR, PON, ALM, SPD, DPX, CATV
Operating Temp.	23 to 122°F (-5 to 50°C)
Operating Humidity	5 to 90% (non-condensing)
Power Voltage (adapter)	Input: 100-240VAC, 50/60Hz Output: 12VDC/0.5A
Dimensions	160 × 40 × 124.5 mm (W x H x D)
Miscellaneous Interface	On/Off power switch
GPON	ITU-T G.984.x compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp

Layer 2	Untagged port configuration IEEE802.1D and IEEE802.1Q bridging Standard Ethernet bridging MAC address learning with auto aging (Up to 4K MAC addresses)
VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping
QoS	HW-based internal IEEE 802.1p (CoS) Strict Priority (SP) 8 queues per port
RGU (L3 Routing mode)	PPPoE client : one client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAPT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL



## Overview

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the GPON ONT H662GR incorporates interoperability, key customers' specific requirements and cost-efficiency.

The H662GR provides one GPON uplink port plus two Gigabit Ethernet (10/100/1000Base-T) ports, one FXS and one RF video interface ports that enhance the ability to deliver demanding VoIP services. The device has networking with triple-play capability that simplifies/integrates the home equipment. Equipped with ITU-T G.984 compliant 2.5G Downstream and 1.25G Upstream GPON interface, the H662GR supports the full Triple Play of services including voice, video, and high speed internet access.

The H662GR contains both built-in wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAPT address translation, PPPoE client support for high speed Internet service.

## Specifications

Flash Memory	128MB NAND
SDRAM	128MB DDR
Uplink Port	1 GPON port (SC/APC, BOSA)
Service Port	2 10/100/1000BASE-T ports (RJ45)
FXS Interface	1 FXS ports (RJ11)
LED	PWR, PON, ALARM, VoIP, TEL, LAN1-2
Operating Temp.	23 to 122°F (-5 to 50°C)
Operating Humidity	20 to 90% (non-condensing)
Power Voltage (adapter)	Input: 100-240VAC, 50/60Hz Output: 12VDC/1.5A
Dimensions	Antennas folded (160 x 31 x 130 mm)
Miscellaneous Interface	On/Off power switch, Reset button (system reboot)
GPON	ITU-T G.984 compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp
Layer 2	Untagged port configuration Standard Ethernet bridging MAC address learning with auto aging (Up to 4K MAC addresses)

## H662GR

### Broadband Access FTTx/GPON ONT

## Features

#### GPON Interface

- ITU-T G.984.x compliant GPON ONT
- Data rate of 1.2Gbps/2.5Gbps(US/DS)
- Wavelength: TX 1310nm, RX 1490nm

#### VoIP Service

- SIP RFC3261/3262/3264
- DTMF dialing / Pulse dialing
- Multiple codecs: G.711, G.723.1, G.729
- T.38 FAX mode
- Echo cancellation

#### Residential Gateway Unit Feature

- L3 routing gateway with NAT/NAPT and firewall
- PPPoE client, DHCP/DNS server support
- Port forwarding

#### RF Video Interface

- Analog RF video over 1550nm wavelength
- 18dBmV output level, 42MHz~1000MHz passband



**InCa** [www.inca-nms.com](http://www.inca-nms.com)

All devices are available with optional InCa Provisioning and Network Management System & 24/7 support service.

VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping
QoS	HW-based internal IEEE 802.1p (CoS) Strict Priority (SP) 8 queues per port
VoIP	SIP (RFC3261/3262/3264) 5-REN per FXS RTP, RTCP (RFC3550/3551) DTMF dialing / Pulse dialing Multiple codecs: G.711, G.723.1, G729 T.38 FAX mode Echo cancellation
RGU (L3 Routing mode)	PPPoE client : multi client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAPT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL



## H660G

### FTTH/GPON ONT

#### Overview

DASAN Networks H660G optical network terminal is targeted for all subscribers high-speed data interfaces in a cost effective indoor housing. Fully compliant with ITU-T G.984 standards, the H660G supports data rates of 1.25Gbps upstream and 2.5Gbps downstream.

With DASAN's leading-edge G-PON technology, users can enjoy bandwidth-intensive multimedia services such as real-time video, audio and gaming much easier and faster than ever before. The H660G supports one G-PON uplink port and four 10/100/1000Base-T Gigabit Ethernet ports.

The H660G utilizes technology for intelligent IP-based access resulting in reliable network deployment models and management.

#### Features

##### G-PON Interface

- ITU-T G.984.x compliant GPON ONT
- Data rate of 1.25Gbps /2.5Gbps (US/DS)
- Wavelength : TX 1310nm, RX 1490nm

##### Advanced QoS & Network Management

- Priority queues and scheduling on Upstream
- 802.1p mapper service profile on US
- Remote Fault Monitoring
- IEEE 802.1D and IEEE 802.1Q bridging



**hCa** [www.inca-nms.com](http://www.inca-nms.com)

All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

#### Specifications

Flash Memory	128MB NAND
SDRAM	128MB DDR3
Uplink Port	1 GPON port (SC/APC, BOSA)
Service Port	4 10/100/1000BASE-T ports (RJ45)
Operating Temp.	23 to 122°F (-5 to 50°C)
Operating Humidity	20 to 90% (non-condensing)
Power Voltage (adapter)	Input: 100-240VAC, 50/60Hz Output: 12VDC/0.5A
Dimensions	(160 × 40 × 124.5 mm) (W x H x D)
Miscellaneous Interface	On/Off power switch, Reset button (system reboot)
GPON	ITU-T G.984.x compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp

#### Capabilities

Layer 2	Untagged port configuration IEEE802.1D and IEEE802.1Q bridging Standard Ethernet bridging MAC address learning with auto aging (Up to 4K MAC addresses)
VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping
QoS	HW-based internal IEEE 802.1p (CoS) Strict Priority (SP) 8 queues per port
RGU (L3 Routing mode)	PPPoE client : one client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAPT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL





## H660GM

### FTTH/GPON ONT

#### Overview

The H660GM provides one GPON uplink port plus four Gigabit Ethernet (10/100/1000Base-T) ports, 11b/g/n, 11ac wireless interface, one USB port and one FXS voice ports that enhance the ability to deliver demanding VoIP/Wi-Fi services.

The device has built-in concurrent dual-band Wi-Fi 802.11 a/b/g/n and 802.11ac networking with triple-play capability that simplifies/ integrates the home equipment. Equipped with ITU-T G.984 compliant 2.5G Downstream and 1.25G Upstream GPON interface, the H660GM supports the full Triple Play of services including voice, video, and high speed internet access.

The H660GM contains both built-in wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAT address translation, PPPoE client support for high speed Internet service.

#### Specifications

Dimensions	Size (W x H x D) 190 x 63.7 x 150mm (Antennas Folded)
Power	Input Power: 12V/2A
Uplink Ports	SC/APC connector for GPON
Service Ports	2 x FXS 4 x RJ45 10/100/1000Base-T 1 x RF Overlay 2x2 11n and 2x2 11ac WiFi
GPON	ITU-T G.984 compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp
Layer 2	Untagged port configuration Standard Ethernet bridging MAC address learning with auto aging (Up to 4K MAC addresses)
RGU (L3, Routing mode)	PPPoE client : one client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL

#### Features

- Triple Play Services – IP Video, VoIP, High Speed Internet Access
- GPON
- 2 Voice Ports
- 4 Gigabit Ethernet Ports
- 1 RF Video Overlay
- VoIP service
- Multicast Video
- Management – Web GUI
- L3 Routing gateway, NAT, NAT



**InCa** [www.inca-nms.com](http://www.inca-nms.com)

All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping
Wi-Fi	IEEE802.11a/b/g/n/ac compliant Multiple SSIDs 64/128bit wireless encryption protocol(WEP)
VoIP	SIP Codec Support: G.711, G.723.1, G.729 5 REN per port T.38 FAX mode Echo Cancellation
Management	Web GUI CLI
Operating Requirements	Operating Temperature: -5~50°C Humidity: 20~90% (non-condensing)



## H660RW

### FTTH/GPON ONT

#### Overview

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the GPON ONT H660RW incorporates interoperability, key customers' specific requirements and cost-efficiency.

The H660RW provides one GPON uplink port plus four Gigabit Ethernet (10/100/1000Base-T) ports, one RF video interface, wireless interface and two FXS voice ports that enhance the ability to deliver demanding VoIP/Wi-Fi services.

The H660RW supports the full Triple Play of services including voice, video, and high speed internet access. The H660RW contains both built-in wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAPT address translation, PPPoE client support for high speed Internet service.

#### Features

##### GPON Interface

- ITU-T G.984.x compliant GPON ONT
- Interface capacity: 1.2Gbps/2.5Gbps (US/DS)
- Wavelength: TX 1310nm, RX 1490nm

##### Wireless LAN

- IEEE802.11b/g/n wireless interface, dual antenna
- Multiple SSIDs
- Security: WEP, WPA-PSK (TKIP) & WPA2-PSK (AES)

##### VoIP Service

- SIP RFC3261/3262/3264
- DTMF dialing / Pulse dialing
- Multiple codecs: G.711, G.723.1, G.729
- T.38 FAX mode, Echo cancellation

##### RF Video Interface

- Analog RF video over 1550nm wavelength
- 18dBmV output level, 47MHz~1000MHz passband

#### Specifications

Uplink Ports	SC/APC connector for GPON
Service Ports	2 x FXS 4 x RJ45 10/100/1000Base-T 1 x RF Overlay 2x2 11n and 2x2 11ac WiFi
GPON	ITU-T G.984 compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp
Layer 2	Untagged port configuration Standard Ethernet bridging MAC address learning with auto aging(Up to 4K MAC addresses)
RGU (L3,Routing mode)	PPPoE client : one client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAPT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL
VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping

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Wi-Fi	IEEE802.11a/b/g/n/ac compliant Multiple SSIDs 64/128bit wireless encryption protocol(WEP)
VoIP	SIP Codec Support: G.711, G.723.1, G.729 5 REN per port T.38 FAX mode Echo Cancellation
Management	Web GUI CLI
Operation	Operating Temperature: -5~50°C Humidity: 20~90% (non-condensing)
Dimensions	Size (W x H x D) 190 x 63.7 x 150mm (Antennas Folded)
Power	Input Power: 12V/2A



## Overview

The H660RM provides one GPON uplink port plus four Gigabit Ethernet (10/100/1000Base-T) ports, 11b/g/n, 11ac wireless interface and two FXS voice ports that enhance the ability to deliver demanding VoIP/Wi-Fi services.

The device has built-in concurrent dual-band Wi-Fi 802.11 a/b/g/n and 802.11ac networking with triple-play capability that simplifies/integrates the home equipment. Equipped with ITU-T G.984 compliant 2.5G Downstream and 1.25G Upstream GPON interface, the H660RM supports the full Triple Play of services including voice, video, and high speed internet access.

The H660RM contains both built-in wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAPT address translation, PPPoE client support for high speed Internet service.

## H660RM

### FTTH/GPON ONT

## Features

- Triple Play Services
- IP Video, VoIP, High Speed Internet Access
- GPON
- 2 Voice Ports
- 4 Gigabit Ethernet Ports
- 1 RF Video Overlay
- VoIP service
- Multicast Video
- Management – Web GUI
- L3 Routing gateway, NAT,NAPT



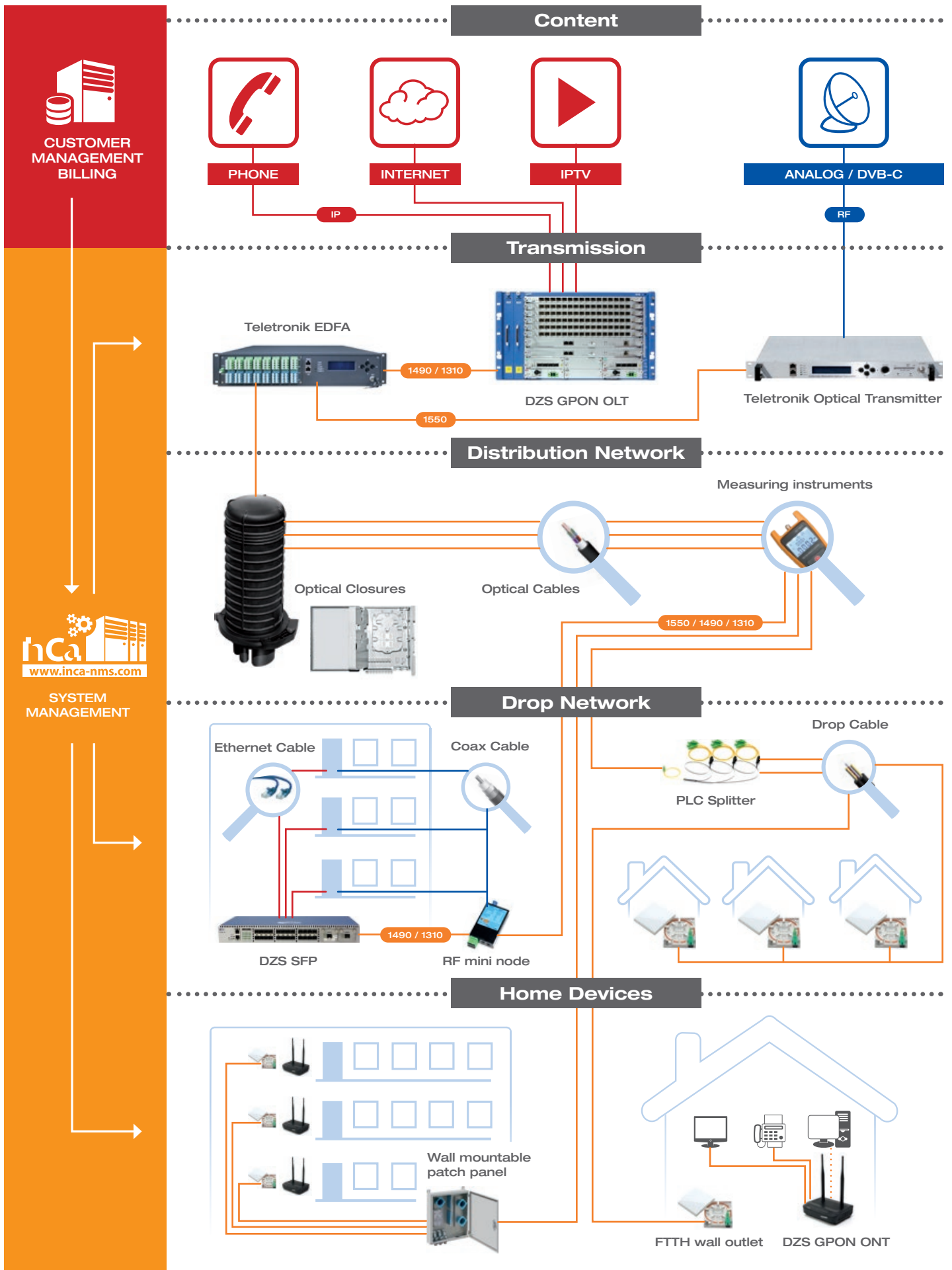
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All devices are available with optional **InCa Provisioning** and **Network Management System & 24/7 support service.**

## Specifications

Uplink Ports	SC/APC connector for GPON
Service Ports	2 x FXS 4 x RJ45 10/100/1000Base-T 1 x RF Overlay 2x2 11n and 2x2 11ac WiFi
GPON	ITU-T G.984 compliant Forward Error Correction (FEC) Multiple T-CONTs/GEM ports per device Flexible mapping between GEM port and T-CONT Dying gasp
Layer 2	Untagged port configuration Standard Ethernet bridging MAC address learning with auto aging(Up to 4K MAC addresses)
RGU (L3,Routing mode)	PPPoE client : one client per RG ONT DHCP server / client DNS Relay server (DNS relay, DNS transparent) NAT and NAPT: 16K session (US 8K, DS 8K) Port forwarding Stateful packet inspection firewall with ACL

VLAN	VLAN port filtering Destination address port filtering
Multicast	IGMP snooping
Wi-Fi	IEEE802.11a/b/g/n/ac compliant Multiple SSIDs 64/128bit wireless encryption protocol(WEP)
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Power	Input Power: 12V/2A
Operating Requirements	Operating Temperature: -5~50°C Humidity: 20~90% (non-condensing)





For in depth information please visit our webpage  
Für mehr Information bitte besuchen Sie unsere Webseite

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