# Product Overview

The H665 is Optical Network Terminal (ONT) compliant with ITU-T G.984 standard. DASAN Network Solutions 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.

Service Scenario for PON

A PON consists of an Optical Line Termination (OLT) located at the Central Office and a set of Multi Dwelling Units (MDUs) or Optical Network Terminals (ONTs) located at the customer's premises. Between them is the optical distribution network (ODN) comprised of fibers and passive optical splitters or couplers. A splitter is a device that divides an optical signal into two or more signals. The OLT connects the PON to the IP network that controls and manages the PON clients. An MDU (ONT) connects the user-specific network to the PON. The ONT can be utilized by a single subscriber or used as a multi-dwelling gateway for a local network.
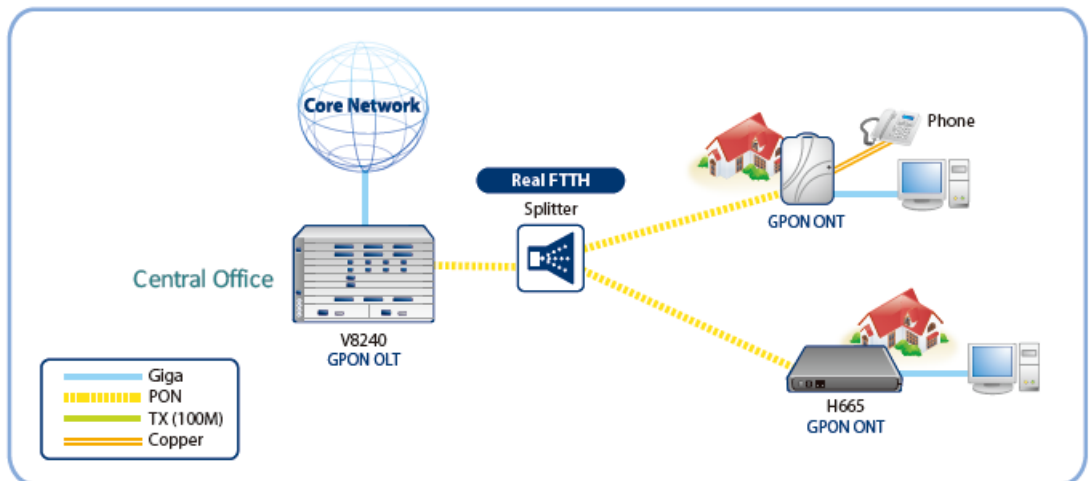
Interface Layout

The following diagram shows the interface layout of the product.
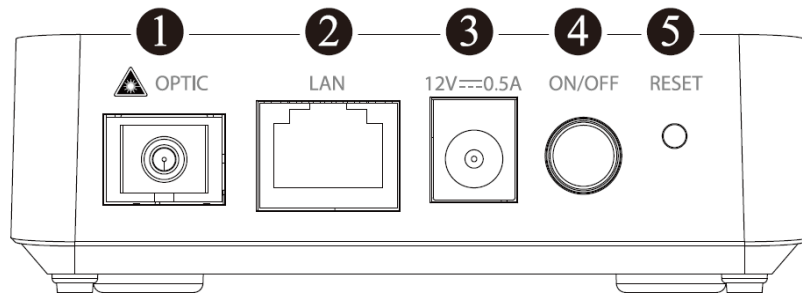
The following table describes each interface as indicated in the diagram above.

Interface Name	Description	Connector Type
① OPTIC port	Connect optical network 1 x GPON uplink interface	SC/APC
② LAN port	Connect to the PC or LAN 1 x 10/100/1000Base-T interface for data communication	RJ45
③ POWER port	Connect the external power supply	AC/DC adapter
④ ON/OFF Button	Turn on/off the unit	-
⑤ Reset Button	Reboot the unit	-

Operating Status LEDs

The status of the ONT is indicated by the LEDs located on the front of unit. LED indicators illuminate to show normal ONT operation, and will blink and/or turn off to indicate the current status or errors. Refer to the following table for details of each LED state.

PWR   PON   ALM   Internet   LAN
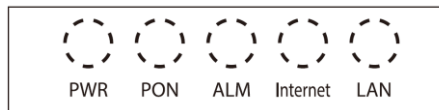
Label	Color	Status	Description
PWR	Green	On	The system is turned on.
	Off		The system is turned off.
PON	Red	On	No optic signal. And the unit has not been registered.
	Green	On	Optic signal normal. Normally registered.
		Blinking	Firmware being downloaded. DO NOT turn off the unit.
ALM	Red	On	No optical signal, firmware update fail or other faults.
	Off		Received optical power is normal.
Internet	Green	On	In service
	Off		No in service
LAN	Green	On	The link is up.
		Blinking	Port is sending or receiving data.
	Off		The link is down.

Product Specifications

Capabilities

System

- 128MB Flash Memory
- 128MB SDRAM
- GPON Interface Capacity:
  Up 1.25Gbps / Down 2.5Gbps
  - Bidirectional Optical Sub Assembly
    (BOSA) type module
    Receiving optical sensitivity:
    Better than -28dBm

GPON ONT

- 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
- Support Single /Multiple T-CONT(s) mode
- Priority queues and scheduling on
  Upstream
- Activation with automatic discovered
  Serial Number and password
- Dying Gasp

L2 Switch

- Untagged port configuration
- IEEE802.1D and IEEE802.1Q
  bridging
- Standard Ethernet bridging
- MAC address learning with auto aging
  and filtering (Up to 64 MAC address)

Multicast

- IGMP snooping

Quality of Service

- HW-based internal IEEE 802.1p
  (CoS)
- Strict Priority (SP)
- 802.1Q (VLAN tag) QoS mapping,
  ToS/CoS
- 8 queues per port

Management

- ITU_T 984.4 compliant with OMCI
  interface
- IEEE802.3x flow control
- LED indications for maintenance
- Web-based management

VLAN

- VLAN port filtering
- Destination address port filtering

Residential Gateway Unit Features (L3 Routing mode)

- 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

Physical Specifications

Mechanics

- Dimensions
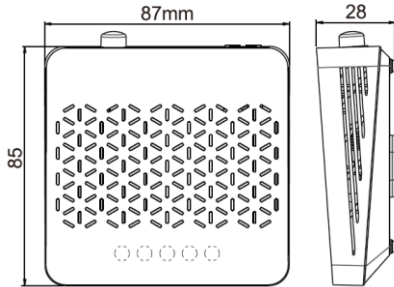
Environmental Conditions

- Operating temperature
  23 to 122°F (-5 to 50°C)
- Operating humidity
  0 to 90% (non-condensing)

Power Voltage (Adapter)

- Input: 100-240VAC, 50/60Hz
- Output: 12VDC/0.5A

Interface Parameter

- GPON i/f
  1 GPON (SC/APC type)
- Gigabit Ethernet i/f
  1 10/100/1000Base-T (RJ45)

Operating Indicators

- PWR: ON / OFF
             Power status
- PON: ON / Blinking
             ONT registration, optical
             power status
- ALM: ON / OFF,
             Optical Signal status
- Internet: ON / OFF,
             Service status
- LAN: ON / Blinking / OFF,
             LAN port link status,
             Activity status

Ordering Information

Base Standard
H665(C1) 1-Port G-PON (Class B+, ITU-T G.984), 1-Port 10/100/1000Base-T - Flash 128MB and SDRAM 128MB - SC/APC Connector type - Power Adaptor : Input 100~240VAC, Output 12V/0.5A

DASAN Network Solutions, Inc.