T065G SFU ONT (4 GE, RF)

The T065G is an ITU-T G.984 ONT designed for delivery of IP-based data services, IPTV video services, and RF video services to the single-family home or apartment. The T065G offers four Gigabit Ethernet ports and one RF video port.

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T065G
INDOOR GPON ONT

Hi-speed IP Convergence at the Home

The T065G is designed for indoor installation and can be desktop or wall-mounted. A single optical fiber carries upstream and downstream traffic over the GPON between the OLT and the ONT. The T065G is fully provisioned and managed from the OLT using PLOAM/OMCI.

IPTV Services

For IPTV services the T065G serves both PON multicast and unicast video-on-demand. This capability removes the need to transport multiple copies of the same content, greatly improving bandwidth efficiency. The T065G optimizes multicast switching performance using IGMP snooping standard. With the IGMP snooping standard, the T065G monitors the join and leave messages generated by the set-top box to selectively deliver multicast streams only to the involved ports.
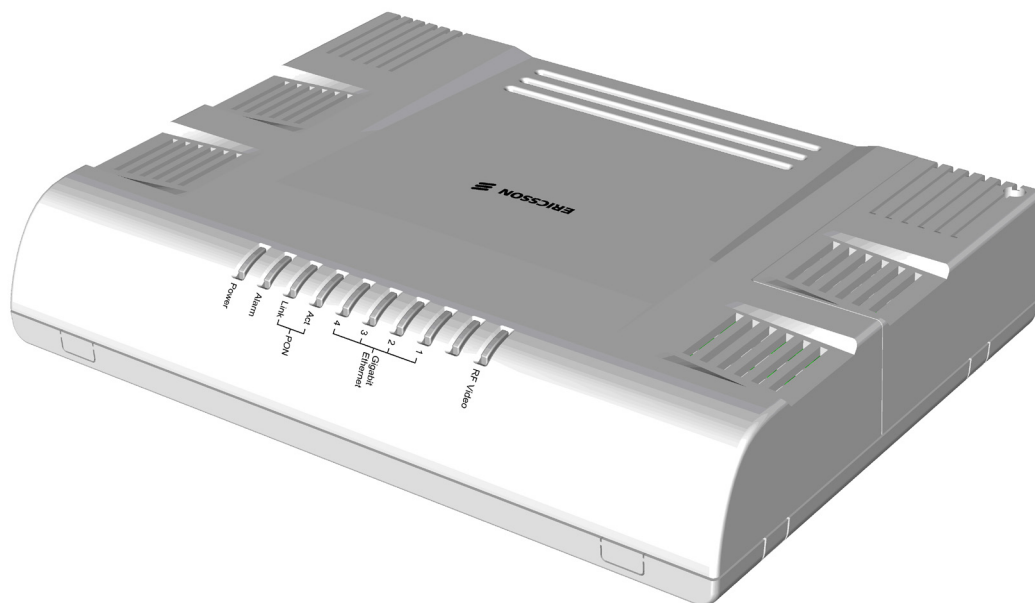
Advanced Data Services

Data capabilities for the T065G include data transfer at wirespeed, auto-negotiation and auto-sensing. The T065G built-in Ethernet switch features VLAN manipulation, classification and filtering.

RF Video

The T065G supports an RF video overlay at 1550 nm which can provide up to 80 analog channels without requiring a set-top box in addition to hundreds of digital channels.

Quality of Service

The T065G supports VLAN QoS priority and DBA which provides a flexible use of the upstream bandwidth.

TECHNICAL SPECIFICATIONS
T065G

GENERAL FEATURES

Compliance
– ITU-T G.984.1 - GPON General characteristics
– ITU-T G.984.2 - GPON Physical Media Dependent (PMD) layer specification
– ITU-T G.984.3 - GPON Transmission convergence layer specification
– ITU-T G.984.4 - ONT Management and Control Interface (OMCI) specification
– IEEE 802.1, 802.1D, 802.3i, 802.1p, 802.1q, 802.3u, 802.3ab

Layer 2 protocol
– Ethernet over GPON Encapsulation Method (GEM)
– 8 T-CONTs
– 32 GEM Port ID
– Fully remote managed through PLOAM/OMCI
– Supports FEC and AES encryption

NETWORK INTERFACE
– Class B+ GPON optical transceiver
– Diplexer fiber class B+

Throughput
– Line rate at 2488 Mbps downstream and 1244 Mbps upstream
– 8 KHz framing downstream
– TDMA upstream

Transmitter (Upstream)
– DFB laser diode
– Wavelength: 1310 nm ± 20 nm
– Average optical transmit power: up to +5 dBm

Receiver (Downstream)
– APD receiver
– Wavelength: 1490 nm ±10 nm
– Sensitivity: -28 dBm

SUBSCRIBER INTERFACES

– Four 10/100/1000Base-T GigE ports
– RJ45 connectors
– Ethernet ports are autosensing and autonegotiating
– Management and firmware upgrades through OMCI
– VLAN QoS and T-CONT types 1-5
– 802.1D learning bridge, 4096 MAC addresses
– 802.1p mapper with classifier, eight priority levels
– 802.1Q tag-based VLANs
– QinQ or port based VLANs
– Ethernet jumbo frames (2k)

OPTICAL CONNECTOR
– Female single-mode SC/APC connector

IPTV SUPPORT
– PON multicast
– 128 simultaneous multicast streams
– Unicast Video-on-Demand (VoD)
– IGMP snooping, v1, v2, v3

RF VIDEO PORT
– 75-ohm Type F coaxial connector
– Remotely provisionable port
– Operating bandwidth: 54 - 870 MHz
– RF output power: 14.5 dBmV per channel

FIBER MANAGEMENT
Integrated fiber slack storage

PHYSICAL SPECIFICATIONS

Dimensions
HxWxD: 43.8 x 238 x 180 mm
(HxWxD: 1.7 x 9.4 x 7.1 in)

Weight
645 gram (1.4 lb)

Mounting Options
Desktop or wall-mount

LED Indicators
– Power
– Alarm
– PON Link
– PON Act
– GigE 1-4
– RF Video

Power Adaptor
– Input 100 - 240V, 50 - 60 Hz, 0.5A
– Output: 12 VDC/1A

Power Consumption
Under 15W

UPS 8-pin connector, signals:
– Battery missing
– On battery
– Battery low
– Replace battery

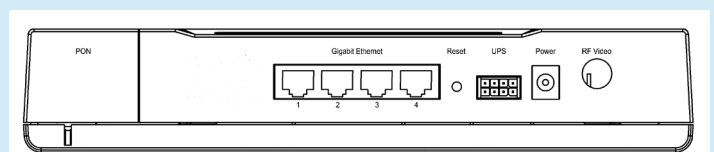## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature, Max
0℃ to +45℃ (32℉ to 113℉)

Operating Relative Humidity, Max
5 - 95%, noncondensing

Regulatory
EMI/EMC: EN 300 386 Class B
Safety: EN 60950 and IEC 60950 with all national deviations
RoHS: EU directive 2002/95/EC

T065G ONT Back Panel