DKT COMEGA

INCREASE LIFETIME AND SERVICE ACTIVATION.

79761 | 10 Gbps EPON

FTTH NETWORKS

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Version 1.1

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DATASHEET

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INTRODUCTION

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the 10G-EPON SFU (Single Family Unit) 79761 incorporates interoperability, key customers' specific requirements and cost-efficiency.
Equipped with IEEE 802.3av compliant 10G Downstream and 10G Upstream XGS-PON interface, 79761 supports the full Triple Play of services including voice, video, and high speed internet access service.
Compliant with standard OAM and DPOE definitions, 79761 is manageable at remote side and supports the full range management functions including supervision, monitoring and maintenance.

Service

Data

The 79761 ONU is delivered with one 10G Base-T, and two 10/100/1000 Base-T Ethernet data interfaces, supporting:

- Auto-negotiation and MDI/MDIX auto-sensing
- Built-in layer-2 switch
- Advanced data features such as VLAN tag manipulation, classification, and filtering

Video

The 79761 ONU supports IPTV delivered in the form of data (by multicast or unicast).
In the case where multicast technology is used for delivering video content through a data channel, the ONU supports the dedicated downstream multicast LLID. So the video content is received and processed by all the ONUs through the unified channel which greatly improves the bandwidth efficiency.
In addition, the ONU supports IGMP snooping function to be applied for further optimization. When IGMP snooping is enabled, the ONU monitors the member joining and leaving activities at the Ethernet service port, and then selectively delivers the multicast streams.

INTERFACES

"FTTH-10GEPON-1F-3P"

Product	10G Base-T	10/100/1000 Base-T Interface
FTTH-10GEPON-1F-3P	1	2

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HIGH LEVEL SPECIFICATION

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PRODUCT RATIONALE

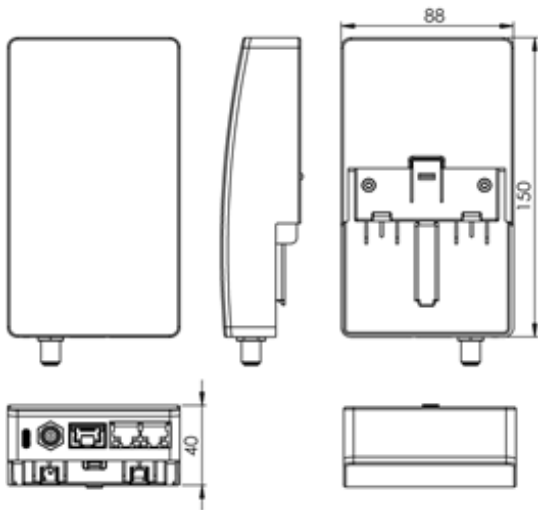
The industry terms this a “2 box solution”, where there is clear differentiation between FTU/ CPE and the router/home gateway. This solution optimizes sourcing/logistics as well as support and technical upgrade which remains flexible and smooth, and allow operators to offer an FTTH infrastructure suitable for both a retail and wholesale business model.

The FTU layout is based on a standard euro outlet form factor, customer perceives this unit as an outlet, not “yet another appliance in my house”, and the active part can be clicked directly on top of the FTU.

The active unit comes with 1x SC/APC (SC/UPC available upon request), based on a “none proprietary” solution, it can be adopted in environments with 3rd party equipment. It has low power dissipation, supporting the recommendation of “Code of Conduct on Energy Consumption of Broadband Equipment”.

PRODUCT MECHANICALS

All dimensions in mm.



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HIGH LEVEL SPECIFICATION

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Dimensions
151 x 40 x 88 mm (HxDxW)

Power Supply
+5V (feed via external AC/DC adapter)
2-PIN power adaptor input
Dying Gasp support
Power Consumption: less than 8W

Working Environment
Operating temperatur: 0 ºC ... 40 ºC
Humidity: 10 % ~ 95 % relative humidity

Safety & EMI
CE compliant

Installation
Wall mounting

PON Interface
Connector: SC/APC (SC/UPC available upon request)
Compliant with iEEE 802.3av and SIEPON IEEE 1904.1 standards
10 Gbps Burst Mode Upstream Transmitter
10 Gbps Downstream Receiver
Compliant with IEEE 802.3av PR-30 PHY - 15 to 29 dB Channel Loss - PR-10, PR-20 also supported
Wavelengths: US 1260 nm to 1280 nm, DS 1575 nm to 1580 nm

OAM
Standard compliant OAM (the embedded operations channel) interface as defined by IEEE 802.3av, IEEE 1904.1, DPoEv2.0 and CTC V3.0
Remote software image download over OAM, as well as activation and rebooting
Hold two software sets with software image integrity checking and automatic rollback

Ethernet Interface
10/100/1000 Base-T interface with RJ-45 connector
10G Base-T interface with RJ-45 connectors
Ethernet port auto negotiation or manual configuration
MDI/MDIX automatically sense
Hardware priority queues on the downstream direction in support of CoS
802.1D bridging
VLAN tagging/detagging per Ethernet port
VLAN stacking (Q-in-Q) and VLAN Translation
IP ToS/DSCP to 802.1p mapping
Class of Service based on UNI, VLAN-ID, 802.1p bit, and combination
Marking/remarking of 802.1p
IGMP v2/v3 snooping and IGMP snooping with proxy report
Broadcast/Multicast rate limiting

PON Features
Multiple LLIDs per device
Flexible mapping between traffic priority and LLID
Multicast LLID and IGMP/MLD support
Link Security
AES-128 both directions as defined by DPOE
Triple Churning defined by CTC
FEC (Forward Error Correction) in both directions
DBA reporting – 1-8Queue, 1-2Qsets
802.1p mapper service profile on U/S

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FTTH-BATTERY-STD

PRODUCT OVERVIEW

“FTTH-Battery-STD”

Electrical parameter	
Input	12 V; 3.3 A
Combined Output Power [W]	< 30
Output	12 ± 5 %V DC; < 2.5 A
USB	5 ± 5 %V DC; < 2 A
Transfer time	< 1 mS
3 cell Battery type	2600 mAH Lithium
Typical charge duration [h]	3 – 4

Mechanical parameters	
Outer dimensions [mm]	130 x 67.3 x 27
Weight [g]	~400
Wall hang screw [mm]	Recommented (Not included): Flat head countersunk Pozi drive 3.5 x 25
Wall hang Screwhead Ø [mm]	5.5 – 6.5

In-Box accessories
150 cm USB A to DC Ø 5.5 mm/1.45 mm cable
150 cm DC to DC Ø 5.5 mm Cable
Countersunk Pozidrice screw for wall mount

Enviroment	
Operational temperaruer range [°C]	0 – 40
Humidity [%]	20 – 90
Recommented battery replacement cycle	1.5 – 2 years or 300 full charge/discharge cycles
Item No.	**79731**

ADDITIONAL INFORMATION

- Fast and easy battery installation
- Long lasting capacity
- Support for both 5 V/12 V,
  capable of sourcing both ONT and router
- compact form factor, discrete design
- Suitable for wall mount or desktop placement
- exchangeable battery pack