

INCREASE LIFETIME AND SERVICE ACTIVATION.

7975X SERIES | 10 Gbps Active Ethernet | XGSPON



FTTH NETWORKS

Further information on DKTCOMEGA.com

Sign up for our email newsletter and always be informed first!

SIGN UP

Version 1.1.1

DATASHEET

7975X SERIES | 10 Gbps Active Ethernet | XGSPON

INTRODUCTION

The DKT 7975x series is built to fit the well proven DKT FTU. The newly developed active part is based upon a sophisticated wirespeed Layer 2 switching-based “System-on-Chip” (SoC) solution. This solution implies that fiber termination and service activation occur as part of the operator’s “demarcation point” at the end customer in a FTTH 10 Gbps environment.

PRODUCT OVERVIEW

“7975x series”

Parameter	79751	79752	79757	79759
10 Gbps WAN	✓	✓	-	-
XGSPON WAN	-	-	✓	✓
1 Gbps LAN	2	2	2	2
10 Gbps LAN	1	1	1	1
CATV	-	✓	-	✓
Switch engine ³⁾	✓	✓	✓	✓
CATV RF filter option	-	✓	-	✓
WDM filter	-	²⁾	-	✓
Fiber Connector	SC/UPC	SC/UPC + SC/APC	SC/APC	SC/APC
SFP WAN	✓	✓	✓	✓
Clickable FTU	✓	✓	✓	✓
TR-069	✓	✓	-	-
Item No.	79751	79752	79757	79759

²⁾ Option

³⁾ Support for VLANs, Q-in-Q, QoS, IGMP, Jumbo Frames and traffic shaping and manipulation

HIGH LEVEL SPECIFICATION

7975X SERIES | 10 Gbps Active Ethernet | XGSPON

PRODUCT RATIONALE

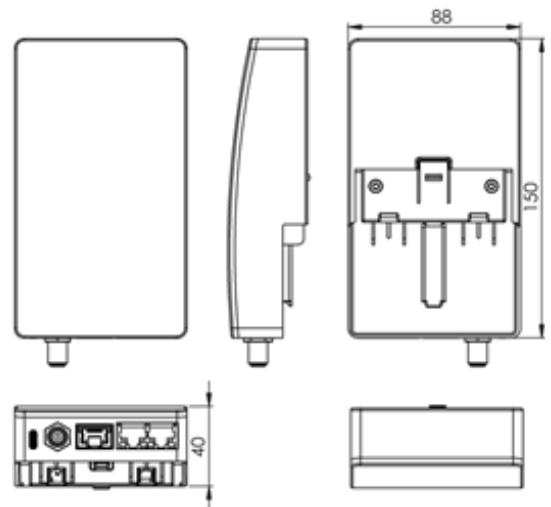
The industry terms this a “2 box solution”, where there is clear differentiation between FTU/CPE and the router/home gateway. This solution optimizes sourcing/logistics as well as support and technical upgrade which remains flexible and smooth, and allow operators to offer an FTTH infrastructure suitable 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/ UPC + 1x SC/APC (CATV option) for 10 Gbps Active Ethernet, and 1x SC /APC for XGSPON (WDM built- in), 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.



ORDERING INFORMATION

All passive FTUs has to be ordered seperately.

- **79751:** FTTH-10G-1F-3P, 10 G WAN, 1x 10 G and 2x 1 G LAN,
- **79752:** FTTH-10G-2F-3P-CATV, 10 G WAN, 1x 10 G and 2x 1 G LAN, CATV
- **79757:** FTTH-XGS-1F-3P, XGSPON WAN, 1x 10 G and 2x 1 G LAN
- **79759:** FTTH-XGS-1F-3P-CATV, XGSPON WAN, 1x 10 G and 2x 1 G LAN, CATV

HIGH LEVEL SPECIFICATION

7975X SERIES | 10 Gbps Active Ethernet | XGSPON

<p>System</p> <p>Cortina CA8271 Multi-protocol, 10 G SoC (System-on-Chip)</p> <p>128 MB NAND FLASH</p> <p>256 MB RAM</p>	<p>Layer 2 Ethernet</p> <p>Layer 2 wire speed</p> <p>IEEE 802.1 Q VLANs incl Q-in-Q</p> <p>IEEE 802.1 Q tag insertion and stripping</p> <p>DHCP relay/option 82</p> <p>IGMP v2/3 snooping</p> <p>Flow packet policing</p> <p>Traffic shaping</p> <p>Support for Jumbo Frames, 2k frames</p>	<p>Management</p> <p>DKT OS based on Linux, provisioning via DHCP/TFTP</p> <p>TR-069, incl. TR-181</p> <p>SNMP /2/3</p> <p>SSH</p> <p>HTTP(S) WEB</p>
<p>10Gbps WAN</p> <p>1x WAN SMF, IEEE 802.3ae</p> <p>10 GBASE-LR TX: 1270 nm; RX: 1330 nm;</p> <p>Range: 20 km</p> <p>Laser Class 1</p> <p>Optical Connector: SC/UPC</p>	<p>CATV</p> <p>85 dBuV@-5 dBm, input</p>	<p>Physical Characteristics</p> <p>Operating temperatur: 0 °C ... 40 °C</p> <p>151 x 40 x 88 mm (HxDxW)</p> <p>Weight: < 0.5 kg</p>
<p>XGSPON WAN</p> <p>1x WAN SFP+, ITU T G.9807.1</p> <p>X GSPON, Tx: 1270 nm, Rx: 1577 nm</p> <p>Range: 20 km</p> <p>Laser Class 1</p> <p>Optical Connector: SC/UPC</p>	<p>Optical wavelength: 1310 ... 1550 nm</p> <p>Max optical input level: +3 dBm</p> <p>Typ operational optical input level: -10 ... -3 dBm</p> <p>Optical Connector: SC/APC</p> <p>RF flatness: <+/- 1 dB</p> <p>CNR: Typ. 49 dB</p> <p>CTB: > 60 dB</p> <p>CSO: > 60 dB</p> <p>F-connector, 75 Ohm</p> <p>LED: GREEN: >-10 dBm Signal; RED: <-10 dBm</p>	<p>Power</p> <p>USB-C adapter</p> <p>Europlug, white color (UK/US available upon request)</p> <p>Power dissipation: < 10 W</p> <p>LED: GREEN: Power on</p>
<p>10 Gbps LAN</p> <p>1x RJ-45, support for 10 G BASE-T</p> <p>2 LEDs: - YELLOW: SPEED (10 Gbps); - GREEN: LINK/ACTIVITY</p>	<p>Monitoring</p> <p>Digital Optical Monitoring, SFF-8472</p> <p>OAM as option supporting IEEE 802.3 ah, Dying Gasp, Discovery and Loop-back</p> <p>CATV signal level, higher/lower than -10 dBm</p>	<p>Approvals and Certifications</p> <p>CE marking, RoHS, WEEE</p> <p>Safety EN 60950</p> <p>Emission: EN55022:2010 Class B; EN 55032:2015</p> <p>Immunity: EN 55024: 2010 + A1: 2015; EN 55035: 2017; EN 60728-2</p>
<p>1 Gbps LAN</p> <p>2x RJ-45, support for 10/10/1000 BASE-TX</p> <p>Auto-negotiating HD/FD</p> <p>Auto-MDI/MDIX</p> <p>2 LEDs: - YELLOW: SPEED (1 Gbps); - GREEN: LINK/ACTIVITY</p>		

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]	Recommended (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

Environment

Operational temperature range [°C]	0 - 40
Humidity [%]	20 - 90
Recommended 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

