

INCREASE LIFETIME AND SERVICE ACTIVATION.

7975X SERIES | 10Gbps Active Ethernet | XGSPON



FTTH NETWORKS

DATASHEET

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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 10Gbps environment.

PRODUCT OVERVIEW

	79751	79752	79757	79759
10Gbps WAN	✓	✓	-	-
XGSPON WAN	-	-	✓	✓
1 Gbps LAN	2	2	2	2
10 Gbps LAN	1	1	1	1
CATV	-	✓	-	✓
Switch engine***)	✓	✓	✓	✓
CATV RF filter option	-	✓	-	✓
WDM filter	-	**)	-	✓
Fiber Connector	SC/UPC	SC/UPC + SC/APC	SC/APC	SC/APC
SFP WAN	✓	✓	✓	✓
Clickable FTU	✓	✓	✓	✓
TR-069	✓	✓	-	-

**)

Option

***)

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

HIGH LEVEL SPECIFICATION

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PRODUCT RATIONALE

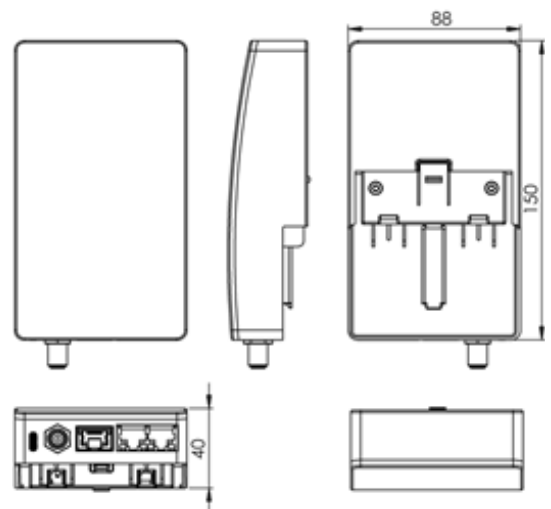
The industry terms this a “2 box solution”, where there is clear differentiation between FTU/CPE and the router/home gateway. This solution optimizes sourcing/logistics as well as support and technical upgrade which remains flexible and smooth, and allow operators to offer an FTTH infrastructure suitable 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/ UPC + 1x SC/APC (CATV option) for 10Gbps 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, 10G WAN, 1x 10G and 2x 1G LAN,
- 79752: FTTH-10G-2F-3P-CATV, 10G WAN, 1x 10G and 2x 1G LAN, CATV
- 79757: FTTH-XGS-1F-3P, XGSPON WAN, 1x 10G and 2x 1G LAN
- 79759: FTTH-XGS-1F-3P-CATV, XGSPON WAN, 1x 10G and 2x 1G LAN, CATV

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SYSTEM	LAYER 2 ETHERNET	MANAGEMENT
Cortina CA8271 Multi-protocol, 10G SoC (System-on-Chip)	Layer 2 wire speed	DKT OS based on Linux, provisioning via DHCP/TFTP
128MB NAND FLASH	IEEE 802.1Q VLANs incl Q-in-Q	TR-069, incl. TR-181
256MB RAM	IEEE 802.1Q tag insertion and striping	SNMP /2/3
10GBPS WAN	DHCP relay/option 82	SSH
1x WAN SMF, IEEE 802.3ae	IGMP v2/3 snooping	HTTP(S) WEB
10GBASE-LR TX: 1270nm; RX: 1330nm;	Flow packet policing	PHYSICAL CHARACTERISTICS
Range: 20km	Traffic shaping	Operating temperatur: 0°C ... 40°C
Laser Class 1	Support for Jumbo Frames, 2k frames	151 x 40 x 88mm (HxDxW)
Optical Connector: SC/UPC	CATV	Weight: <0.5kg
10GBPS LAN	85 dBuV@-5dBm, input	POWER
1x RJ-45, support for 10G BASE-T	Optical wavelength: 1310 ... 1550 nm	USB-C adapter
2 LEDs: - YELLOW: SPEED (10Gbps); - GREEN: LINK/ACTIVITY	Max optical input level: +3 dBm	Europlug, white color (UK/US available upon request)
1Gbps LAN	Typ operational optical input level: -10 ... -3 dBm	Power dissipation: <10W
2x RJ-45, support for 10/10/1000 BASE-TX	OPTICAL CONNECTOR: SC/APC	LED: GREEN: Power on
Auto-negotiating HD/FD	RF flatness: <+/- 1dB	APPROVALS AND CERTIFICATIONS
Auto-MDI/MDIX	CNR: Typ. 49 dB	CE MARKING, ROHS, WEEE
2 LEDs: - YELLOW: SPEED (1Gbps); - GREEN: LINK/ACTIVITY	CTB: > 60 dB	Safety EN 60950
	CSO: > 60dB	Emission: EN55022:2010 Class B; EN 55032:2015
	F-connector, 75Ohm	Immunity: EN55024:2010+A1:2015; EN55035:2017; EN 60728-2
	LED: GREEN: >-10dBm Signal; RED: <-10dBm	
	MONITORING	
	Digital Optical Monitoring, SFF-8472	
	OAM as option supporting IEEE 802.3ah, Dying Gasp, Discovery and Loopback	
	CATV signal level, higher/lower than -10dBm	