

SIMPLICITY IN INSTALLATION AND SERVICE ACTIVATION.

7973X / 7974X SERIES | 1 Gbps Active Ethernet | GPON



FTTH NETWORKS

Further information on DKTCOMEGA.com

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

SIGN UP

Version 1.1.3

DATASHEET

7973X / 7974X SERIES | 1 Gbps Active Ethernet | GPON

INTRODUCTION

The small form factor, combined with ease of installation due to its click-on interface, makes our gateways an extremely flexible solution, with optimized handling and efficiency. The solution is built to allow the customer to perform the service activation. The combined solution for FTU and gateway services are formed in an extremely compact form factor, 88 x 88 x 65 mm, making it viewed by the customer as just another outlet..

PRODUCT OVERVIEW

“7973x, 7974x and 7975x series”

Parameter	79734	79740	79741	79742	79753	79754	79755	79756
1 Gbps WAN	✓	¹⁾	✓	✓	-	-	-	-
GPON WAN	-	-	-	-	✓	✓	✓	✓
1 Gbps LAN	1	-	4	4	1	1	4	4
CATV	-	✓	-	✓	²⁾	²⁾	²⁾	²⁾
Switch engine ³⁾	✓	-	✓	✓	✓	✓	✓	✓
SFP WAN	Fixed	-	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fiber Connector	SC/UPC	SC/APC	SC/UPC	SC/UPC + SC/APC	SC/APC	SC/APC	SC/APC	SC/APC
WDM filter	-	-	²⁾	²⁾	-	-	-	-
WBF blocker	-	-	-	-	-	✓	-	✓
GPON Optics	-	-	-	-	CLASS B+	CLASS C+	CLASS B+	CLASS C+
Compatible with DKT clickable FTUs	✓	✓	✓	✓	✓	✓	✓	✓
TR-069	✓	-	✓	✓	-	-	-	-
Item No.	79734	79740	79741	79742	79753	79754	79755	79756

¹⁾ Data port loop though, adapter SC/APC

²⁾ Option

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

HIGH LEVEL SPECIFICATION

7973X, 7974X AND 7975X SERIES | 1 Gbps Active Ethernet | GPON

Hardware	Power and Characteristic	CATV
100/1000 Base-BX-U auto sense WAN	Power supply: External 5VDC, 2A	The following is applicable for 79740/42:
The following is applicable for 79734:	Europlug, white color	1x RF-out F-connector (75 Ohm)
1x 10/100/1000 Base-T (RJ-45) LAN	Power dissipation: < 4.5 W typical	Optical wavelength: 1310 ... 1550 nm
The following is applicable for 79741/2:	Environmental Specifications	Max optical input level: 0 dBm
4x 10/100/1000 Base-T (RJ-45) LAN	Operating temperature: 0 °C to 40 °C	Operational optical input level: -10 ... -3 dBm
Optical Interface	Max operating humidity: 85 % RH (non-condensing)	RF bandwidth: 65 ... 1006 MHz
SMF ITU-T G.652	Storage temperature: 0 °C to 70 °C	RF output: 84 dBuV at -5 dBm input, no AGC
Optical Connector: SC/UPC	Max storage humidity: 95 % RH (non-condensing)	RF flatness: < +/- 1dB
TX 1260 - 1360 nm	Physical Characteristics	CNR: > 49 dB
RX 1480 - 1580 nm	Operating temperature: 0 °C to 40 °C	CSO: > 60 dB
15km range	Dimensions (H x D x W): TBD x 88 x 88 mm	CTB: > 60 dB
Laser Class 1	Weight: < 0.3 kg	Status LEDs
Ethernet	Approvals and Certifications	WAN link/activity
Auto-negotiating full/half duplex	CE marking	LAN link/activity
Auto-MDI/MDIX	Safety EN 60950	Power On
Layer 2 wire speed packet switching	Emission: EN55022 Class B	CATV (when applicable):
IEEE 802.1Q VLANs (4k VLANs) incl Q-in-Q	Immunity: EN55024	< -10 dBm (red) > -10 dBm (green)
IEEE 802.1Q tag insertion and stripping	Management	
DHCP relay/Option 82	DKT OS based on Linux, provisioning via DHCP/TFTP	
4k MAC address database	TELNET	
Ingress and egress rate limiting	SSH	
IGMP v1/2/3 snooping	SNMP v1/2/3	
Support for Jumbo Frames	OAM as option supporting IEEE 802.3 ah, Dying Gasp, Discovery and Loopback	
QoS	TR-069, including support for TR-181	
IEEE 802.1p prioritization and reclassification		
4 QoS queues per port		

DSCP/ToS

The device layout is based on a standard euro outlet form factor, customer perceives this unit as an outlet, not “yet another appliance in my house”. Analogy to power, CATV and telephony outlet, where the utility company and the operator make a clear demarcation point between the network and home installation. Comes as standard with 1x SC/UPC + 1x SC/APC, based on a none proprietary solution, can be adopted in environments with 3rd party equipment. Low power dissipation, supporting the recommendation of “Code of Conduct on Energy Consumption of Broadband Equipment”.

GPON

79753, 79754, 79755 and 79756 | GPON ONT

PRODUCT OVERVIEW

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the DKT GPON ONT incorporates interoperability, key customers' specific requirements and cost-efficiency. Equipped with ITU-T G.984 compliant 2.5 Gbps Downstream and 1.25 Gbps Upstream GPON interface, the ONT supports the full Triple Play of services including video, and high speed internet access.

Compliant with standard OMCI definition, the ONT is manageable at remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

SERVICES

Data

The ONT is delivered with one 10/100/1000 Base-T Ethernet data interface, supporting:

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

Voice

To enable VoIP access, the ONT supports interfacing external IAD box or Home Router with voice capability through the Ethernet Interface.

Video

The ONT supports video contents delivered in the form of data (by multicast or unicast).

In case where multicast technology is used for delivering video contents through data channel, the ONT supports the dedicated multicast GEM port on the Downstream.

So the video contents are received and processed by all the ONTs through the unified channel and this greatly improves the bandwidth efficiency.

In addition, the ONT supports IGMP snooping function to be applied for further optimization. When IGMP snooping is enabled, the ONT monitors the member joining and leaving activities at the Ethernet service port, and then selectively delivers the multicast streams.



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

