

KDPA8600-16

High-density Pizza-box XG(S)-PON OLT



Product Overview

KDPA GP8600-16 OLT is an XG(S)-PON and GPON multi-service OLT. It supports various networking modes such as FTTH, FTTO, FTTD, and POL, enabling comprehensive access for both residential and enterprise users. This OLT facilitates full-service integration over a single optical fiber network, simplifying the network architecture and reducing OPEX.

Product Characteristics

Standards Compliance: Adheres to ITU-T G.984/G.987/G.9807/G.988, China's communications industry standard "Access Network Technical Requirements—Gigabit Passive Optical Network (GPON)," and China Telecom's GPON equipment technical requirements CTC 2.0.

Interoperability: Excellent interoperability with automatic discovery and compatibility with third-party ONT devices.

Hardware Redundancy: Dual hot-swappable power supplies with redundancy design ensure stable operation.

Green and Eco-Friendly: Low power consumption reduces operational costs.

Trunk Fiber Protection: Supports automatic link protection when fiber faults occur.

Power Characteristics: Supports dual AC, dual DC, and mixed AC/DC power supply configurations; adopts a modular design, is hot-swappable, and meets EMC level 3 standards; has superior environmental adaptability compared to similar products.



Support 10Gbps uplink and downlink bandwidth



Efficient bandwidth usage and Ethernet services



The Splitting ratio ups to 1:256

Model Lists

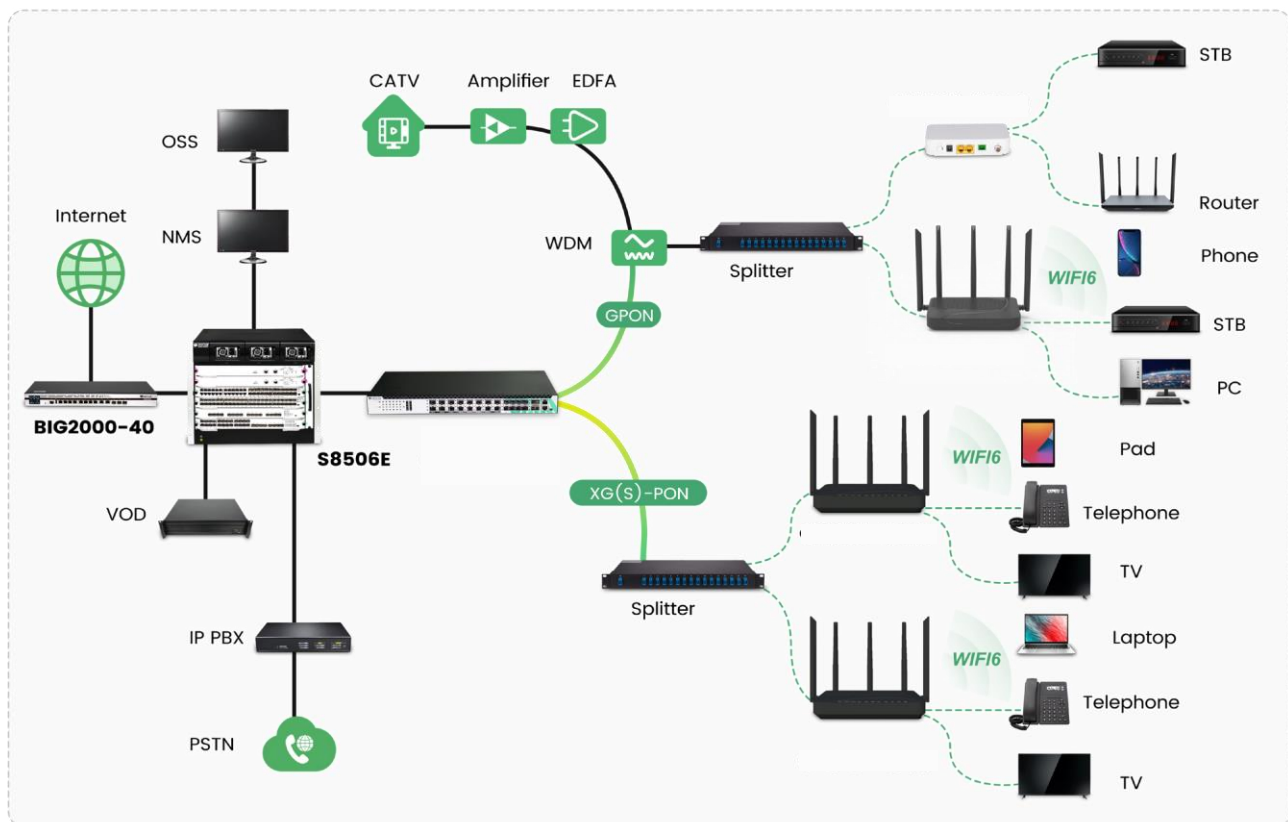
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High-density Pizza-box XG(S)-PON OLT



- 1-Port RJ45 Console
- 1-Port Out-band
- 16-Port XG(S)-PON/GPON
- 8-Port 10G SFP+
- 2-Port 100G/40G QSFP28

Application Diagram



System Performance

Item	KDPA8600-16
Service interface	
xPON ports	16 XG(S)-PON/GPON
10G uplink	8 SFP+
100G/40 uplink	2 QSFP28
Supported xPON transceiver	N1/N2 XGS-PON Class B+/C+/C++/C+++/D+ GPON
Management interface	
RJ45 console	1
Mini-USB console	1
Out-of-Band	1
System capacity	
DRAM (MB)	2048
Flash (MB)	4096
Backplane (Gbps)	880
MAC table	128K

Technical Specifications

Standards

- ITU-T G.984/G.987/G.9807/G.988
- IEEE 802.11D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- PRC Community Industry Standard “Technical requirements for access network - Gigabit-capable passive optical network (GPON)”, and China Telecom's GPON Technical Requirement CTC2.0
- IEEE 802.3ad Physical Link Static/Dynamic Aggregation (LACP)
- Ethernet-II

VLAN

- Port-based VLAN, 4K VLAN table entries
- QinQ, flexible QinQ

Multicast

- L2 multicast
- IGMP snooping
- MLD snooping

QoS

- Backpressure flow control (half duplex)
- IEEE 802.3x flow control (full duplex)
- IEEE 802.1p, CoS
- WRR, SP and FIFO queue schedule
- Uplink and downlink rate limiting functionality for each ONU
- Supports DBA and SLA functions

Reliability

- Unidirectional Link Detection protocol to prevent Spanning Tree Loop
- Hot-swappable PON optical modules
- PON optical path protection
- Type B single/dual homing protection
- Type C hand-in-hand protection
- Supports detection of abnormal emitting ONUs such as long-emission

Network Security

- Limit the maximum number of users per port
- Port isolation
- Broadcast storm control
- ACL (Access Control List) based on data flow
- Data transmission encryption over PON ports

Configuration Management

- Multiple management methods including CLI (Command Line Interface), SNMP (Simple Network Management Protocol), TELNET, etc.
- Software upgrades via TFTP
- Debug output capability

Environment

- Operating environment: 0°C~45°C; 10%~85% non-condensing

Physical Characteristics

Item		KDPA8600-16
Power supply		
AC (V)		100-240
DC (V)		36-72
Power slots		2
Max. consumption (W)		120
Total output BTU (note: 1000 BTU/hr = 293W)		409.56
Cooling system		
Fan number		4
Air-flow		Front-back
Noise@25°C(dBA)		<50
Appearance		
Chassis	Dimensions(WxDxH mm)	442.5x280x44
	Weight (Kg)(empty)	4.6
Package	Dimensions(WxDxH mm)	576 x 448 x 94
	Weight (Kg)	5.6
Environmental specifications		
Operating	Temperature	0-45°C
	Humidity (non-condensing)	10%-85%
Storage	Temperature	-40°C-80°C
	Humidity (non-condensing)	5%-95%
Accessories		
Parts		Power cord, rackmount kits, console cable
Reliability		
MTBF (Hr)		200,000
Certification		CE, FCC, ROHS

Ordering Information

Model	Description
KDPA 8600 - 16	16-port XG(S)-PON pizza-box OLT, 1-Port Console, 1-Port Out-of-band , 16-Port XG(S)-PON/GPON(excluding PON transceivers), 8-Port 10GE SFP+ 2-Port 100G/40G QSFP28; dual power slots with single hot-swap AC-220V power supply, 19-inch rack-mounted installation.
KDPA 8600-16-DC	16-port XG(S)-PON pizza-box OLT, 1-Port Console, 1-Port Out-of-band , 16-Port XG(S)-PON/GPON(excluding PON transceivers), 8-Port 10GE SFP+ 2-Port 100G/40G QSFP28; dual power slots with single hot-swap DC-48V power supply, 19-inch rack-mounted installation.
PWR-150-DCB	150W DC 36V-72V power supply
PWR-150-ACB	150W AC 100-240V power supply
OLT-XGS-N1	N1 XGS-PON OLT transceiver, downlink 10G, uplink 10G/2.5G, 1577nm/1270nm, SC interface
OLT-XGS-N2	N2 XGS-PON OLT transceiver, downlink 10G, uplink 10G/2.5G, 1577nm/1270nm, SC interface
OLT-GSFP-B+	Class B+ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface
OLT-GSFP-C+	Class C+ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface
OLT-GSFP-C++	Class C++ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface
OLT-GSFP-C+++	Class C+++ GPON OLT transceiver, downlink 2.5G/uplink 1.25G, 1490nm/1310nm, SC interface