Huawei 10G PON Access ONU Datasheet

CONTENT

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Overview

The 10G PON Series ONUs (SmartAX MA5818, MA5821/MA5822, and MA5898) are 10G PON multi-service access devices provided by Huawei and are mainly used in FTTB and FTTC scenarios. These series products support upstream 10G PON ports and are compatible with PON networks, achieving smooth upgrade from PON to 10G PON and meeting capacity expansion requirements on developing future ultra-broadband.

Models & Appearance

Huawei 10G PON Access ONU Products provide 4 models:
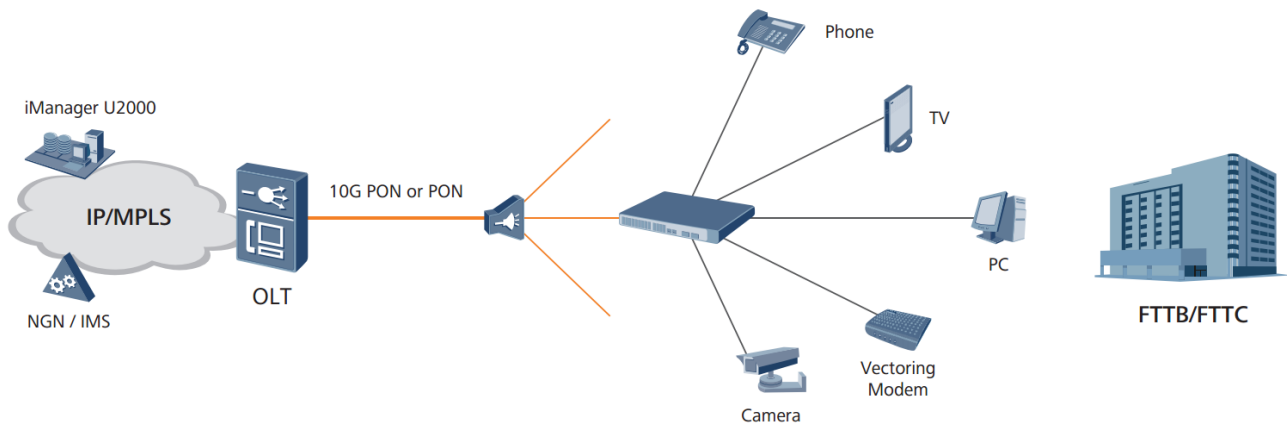
MA5818

MA5821

MA5822

MA5898

The 10G PON series ONUs connect to OLTs through 10G PON or PON networks in the upstream direction, and to user PCs through ADSL2+/VDSL2 and GE/FE ports in the downstream direction. The 10G PON series ONUs can also connect to phones through twisted pairs to provide POTS voice services. In addition, they provide enterprise private line services by connecting to private branch exchanges (PBXs) and routers and transmitting services to OLTs

Highlights

10G PON upstream ports

• 10G PON ports allow for higher access bandwidth, meeting users' bandwidth requirements and high-bandwidth service requirements.

• 10G PON ONUs are compatible with existing PON networks and ODN networks.

Complete specifications and flexible service configuration

• Configurations of diversified specifications are available, allowing customers to select configurations based on user density and thereby achieving optimal return on investment (ROI).

• Mixed insertion of multiple types of service boards is supported and port quantity configuration is flexible, improving installation efficiency and thereby meeting requirements of different customers.

Vectoring-based bandwidth acceleration (supported by the MA5818 only)

• With the vectoring technology, the MA5818 supports a transmission rate 50%-90% higher than that supported by devices using the common VDSL2 technology.

- With a higher transmission rate, the MA5818 provides users with diversified types of high-rate services, such as high definition (HD) video and live broadcast.

- Unique combo board design supports access of high-density users, saving construction costs and deployment space and reducing O&M costs for customers.

Key Features

Classification	Features
10G GPON	The 10G GPON transmission complies with ITU-T Recommendation G.987 and ITU-T Recommendation G.988, and provides asymmetric transmission rates of 2.5 Gbit/s in the upstream direction and 10 Gbit/s in the downstream direction. • Burst optical or electrical transmission • Ranging • Forward error correction (FEC) • Line encryption • Dynamic bandwidth assignment (DBA)
Layer 2 management	• MAC address management • Virtual local area network (VLAN) management • Flow Bundle • Layer 2 forwarding policies ◦ SVLAN+MAC forwarding ◦ VLAN+Session ID forwarding ◦ SVLAN+CVLAN forwarding • 1:1 VMAC • V:1 VMAC • Transparent transmission of protocol packets
Quality of service (QoS)	• Traffc Classifcation Policy • Priority Processing • Traffc Policing • Access control list (ACL)
Layer 3 features	• DHCP client • Address Resolution Protocol (ARP)

	• DNS Client • Static route
Multicast	• Internet Group Management Protocol (IGMP) version 2 or 3 proxy and snooping • Multicast users • Multicast logs • Port-based multicast connection admission control (CAC)
Networking features	• ETH OAM • L2VPN • Network time synchronization
Operation and maintenance security	• User management • Remote connection security • Log management
Line security	• Advanced Encryption Standard (AES) 128 encryption for GPON downstream transmission • Advanced Encryption Standard (AES) 128 encryption for 10G GPON downstream transmission
Operation and maintenance features	• Ethernet operations, administration and maintenance (OAM), including connectivity fault management (CFM) and Ethernet in the frst mile (EFM) • Startup time optimization • Local operation and maintenance • Remote operation and user management • Version and data management • Device exception management • GPON MxU authentication
Environment monitoring	• 4830 power monitoring • MiniESC

Product	MA5818	MA5821	MA5822	MA5898
W x D x H	482.6mm × 245mm × 88.1mm	MA5821 8FE 250mm × 180mm × 43.6mm MA5821 16FE/24FE 442mm × 220mm × 43.6mm	442mm × 220mm × 43.6mm	442mm × 220mm × 43.6mm
Network-Side Port	One SFP optical port 10G PON or PON (auto-negotiation)	One SFP optical port 10G PON or PON (auto-negotiation)	One SFP optical port 10G PON or PON (auto-negotiation)	One SFP optical port 10G PON or PON (auto-negotiation)
User-Side Port	• 4 service slots • 20 board combinations • Available service ports: GE, FE, ADSL2+VDSL2, POTS • 8a, 8b, 8c, 8d, 12a, 12b, 17a spectrum profles	8FE/16FE/24FE	8FE+8POTS /16FE+16POTS /24FE+24POTS	4GE+8FE/8E1 2GE(electrical)+2GE(optical) +8FE/E1
Operating Environment	-40°C ~ +65°C 5%RH ~ 95%RH	-40°C ~ +65°C 5%RH ~ 95%RH	-40°C ~ +65°C 5%RH ~ 95%RH	-40°C ~ +65°C 5%RH ~ 95%RH
Lightening Protection	Power port: 6kv DSL/POTS/ISDN: 4kV	Power port: 6kv FE: 6kv	Power port: 6kv FE: 6kv	Power port: 6kv FE: 6kv POTS: 4v

Power	• DC power supply: -38.4 V to -72 V DC • AC power supply: 90 V to 264 V AC • Backup power supply: -43.2 V to -52 V DC	AC power supply: 220 V AC	AC power supply: 220 V AC	• AC power supply: 220 V AC+backup (2 V DC) • DC power supply: (–48 V DC) (2 x DC)

Basic Ordering Information

SKU	Model
MA5818	Huawei SmartAX MA5818, supporting 20 Gbit/s upstream transmission and 1 Gbit/s access
MA5821-8FE	Huawei SmartAX MA5821, 8FE
MA5821-8GE	Huawei SmartAX MA5821, 8GE
MA5821-16FE	Huawei SmartAX MA5821, 16FE
MA5821-16GE	Huawei SmartAX MA5821, 16GE
MA5821-24FE	Huawei SmartAX MA5821, 24FE
MA5821-24GE	Huawei SmartAX MA5821, 24GE
MA5821-24GE-POE	Huawei SmartAX MA5821, 24GE, PoE
MA5822-8FE-POTS	Huawei SmartAX MA5822, 8 FE+8 POTS
MA5822-8GE-POTS	Huawei SmartAX MA5822, 8 GE+8 POTS
MA5822-16FE-POTS	Huawei SmartAX MA5822, 16 FE+16 POTS
MA5822-16GE-POTS	Huawei SmartAX MA5822, 16 GE+16 POTS
MA5822-24FE-POTS	Huawei SmartAX MA5822, 24 FE+24 POTS

MA5822-24GE-POTS	Huawei SmartAX MA5822, 24 GE+24 POTS
MA5898	Huawei SmartAX MA5898, 4GE+16FE

Where to Buy

Want to buy this series of products? please contact:

● Tel: +1-626-239-8066 (USA)/ +852-3050-1066 / +852-3174-6166

● Fax: +852-3050-1066 (Hong Kong)

● Email: sales@router-switch.com (Sales Inquiries)

Or visit: Huawei SmartAX MA58xx Series

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