



Huawei SmartAX MA5612 ONU Datasheet



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Overview

The SmartAX MA5612 multi-service access module (MA5612 for short) is an optical network unit (ONU) developed by Huawei. The MA5612 is a 1 U-high box-shaped device in which some service boards are mountable. It is mainly used on the fiber to the building (FTTB) and fiber to the curb (FTTC) networks. In addition, the MA5612 can meet certain requirements of private line access.

Models & Appearance

The MA5612 supports different configurations according to supported power port, uplink optical port, and whether the mother board supports POTS port.

Figure 1. MA5612 AC; with the POTS port:

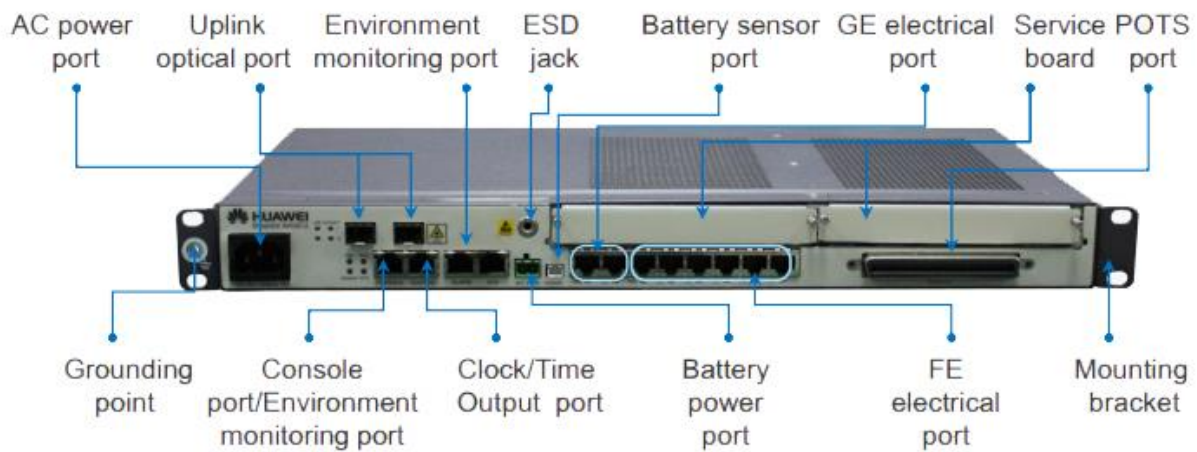


Figure 2. MA5612 DC; with the POTS port:



Figure 3. MA5612 AC; without POTS port:



Figure 4. MA5612 DC; without POTS port:



Figure 5. MA5612 AC; 10G PON upstream transmission:



Figure 6. MA5612 DC; 10G PON upstream transmission:



Figure 7. FTTB(C) networking diagram:

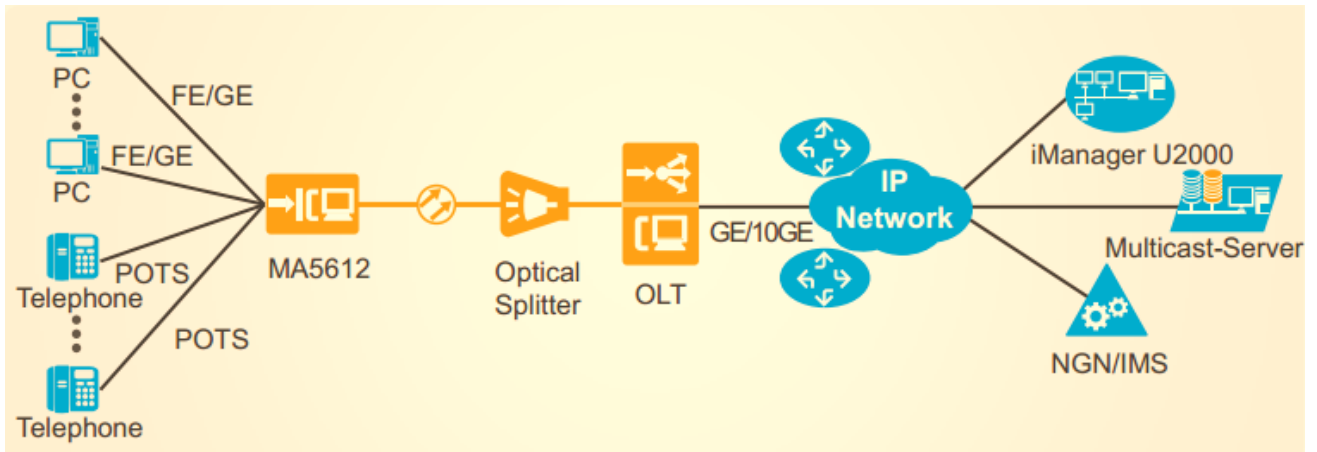


Figure 8. Networking of the TDM PBX service:

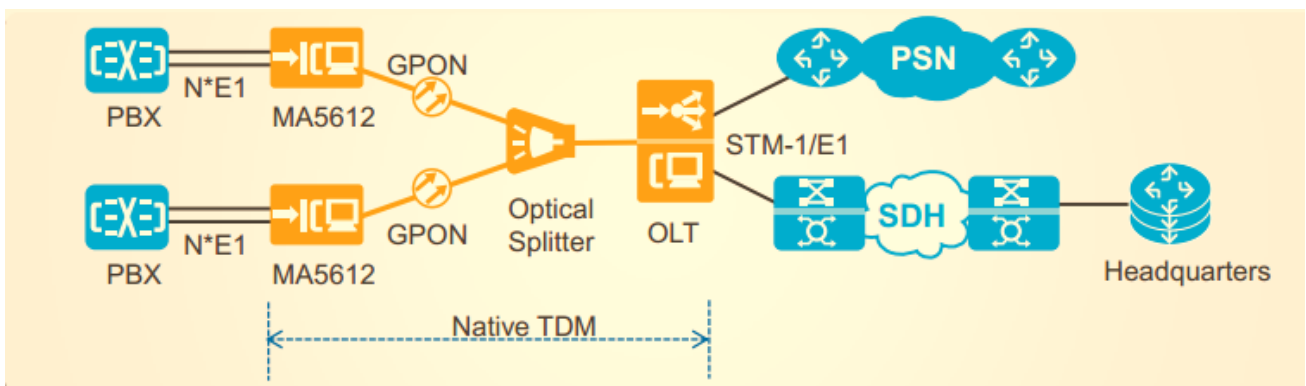
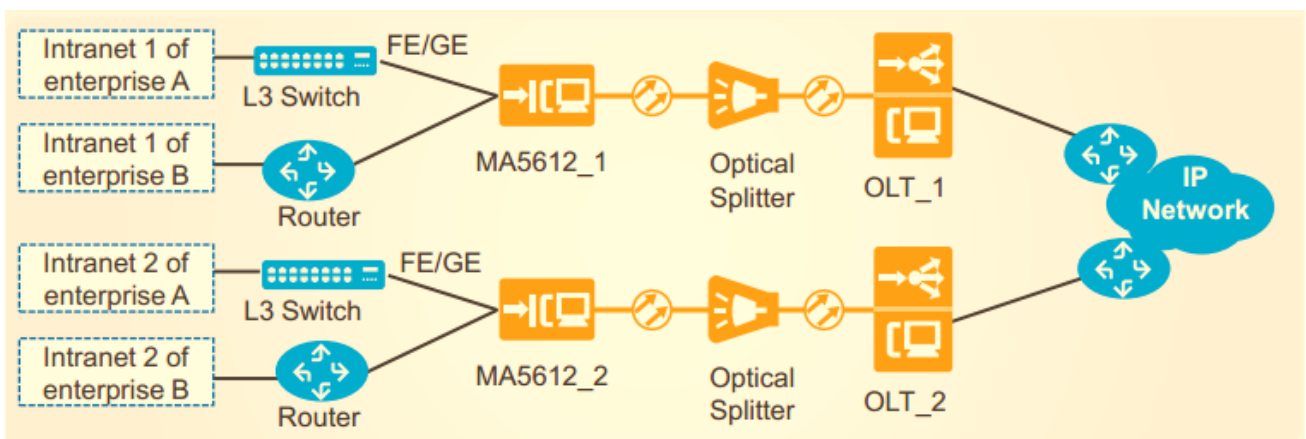


Figure 9. Networking of the enterprise router service:



10G GPON Upstream Transmission

- 10G PON ports allow higher access bandwidth and meet high-bandwidth service requirements.
- 10G GPON networks can coexist with the current PON networks to fully use the existing optical distribution network (ODN) resources.
- The 10G GPON transmission complies with ITU-T Recommendation G.987 and ITU-T Recommendation G.988

Various Services

The MA5612 supports data, multicast, and voice services, and comprehensive QoS guarantee functions.

- Flexible configuration specifications: The MA5612 supports upstream transmission using GE ports, GPON ports, 10G GPON ports based on application scenarios and network construction modes. Carriers can flexibly select a configuration according to user density, obtaining maximal return on investment.
- High-performance multicast services
- VoIP services
- Comprehensive QoS functions

Superior Maintainability and Manageability

- One-stop deployment and PnP: Supports offline deployment and PnP when PON is used for upstream transmission; supports configuration obtainment from the NMS, automatic configuration validity, and automatic connection and report to the NMS.
- Precise fault locating and remote troubleshooting.
- Network performance monitoring: network optimization and user monitoring.

Carrier-Class Reliability Design

- The hardware has passed the electrostatic discharge (ESD) test.
- Surge protection capability
- Powered port: differential mode 6 kV; common mode 6 kV
- User LAN port: differential mode 0.5 kV; common mode 4 kV.

- POTS port: 4 kV in horizontal direction and 4 kV in vertical direction.

· Supports power supply using batteries when the AC power supply is cut off in the AC + battery power configuration mode; disables broadband services whereas provides narrowband services when the broadband service disabling feature is enabled.

Specifications

Dimensions	
Weight	Empty shelf: about 3.7 kg Full configuration: about 4.22 kg
Width	442 mm (without mounting ears) 482.6 mm (with mounting ears for the 19-inch subrack)
Depth	245mm
High	43.6mm
Environment Specifications	
Perating Environment Temperature	-40 °C ~ +65 °C Note: The MA5612 is able to start up at a lowest temperature of -25°C and run at a lowest temperature of -40°C.
Operating Environment Humidity	5%RH~95%RH
Atmospheric Pressure	70kPa~106kPa
Altitude	< 4000 m Note: The air density varies with the altitude, which affects the heat dissipation capability of the MA5612. Therefore, the operating temperature of the MA5612 changes with the altitude.

Power Consumption		
Static Power Consumption	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The mother board provides no POTS ports and two FE boards are connected to the mother board.)	29.8W
	Broadband and narrowband configuration: 2GE ports, 14 FE ports, and 32 POTS ports; AC power supply. (The mother board provides POTS ports and one FE board and one POTS board are connected to the mother board.)	34W
	Private line access configuration: 16 E1 ports; DC power supply. (The mother board provide no POTS ports and two E1 boards are connected to the mother board.)	40.8W
	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The backplane provides POTS ports and two FE boards are connected to the backplane.)	33.1W
	Private line access configuration: 16 E1 ports; DC power supply. (The backplane provides POTS ports and two E1 boards are connected to the backplane.)	44.1W
Typical Power Consumption	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The mother board provides no POTS ports	33.2W

	and two FE boards are connected to the mother board.)	
	Broadband and narrowband configuration: 2GE ports, 14 FE ports, and 32 POTS ports; AC power supply. (The mother board provides POTS ports and one FE board and one POTS board are connected to the mother board.)	50.1W
	Private line access configuration: 16 E1 ports; DC power supply. (The mother board provide no POTS ports and two E1 boards are connected to the mother board.)	-
	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The backplane provides POTS ports and two FE boards are connected to the backplane.)	39.3W
	Private line access configuration: 16 E1 ports; DC power supply. (The backplane provides POTS ports and two E1 boards are connected to the backplane.)	-
Maximum Power Consumption	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The mother board provides no POTS ports and two FE boards are connected to the mother board.)	36.7W
	Broadband and narrowband configuration: 2GE ports, 14 FE ports, and 32 POTS ports; AC power supply.	78W

	(The mother board provides POTS ports and one FE board and one POTS board are connected to the mother board.)	
	Private line access configuration: 16 E1 ports; DC power supply. (The mother board provide no POTS ports and two E1 boards are connected to the mother board.)	45.2W
	Broadband configuration: 2 GE ports and 22 FE ports; AC power supply. (The backplane provides POTS ports and two FE boards are connected to the backplane.)	56.6W
	Private line access configuration: 16 E1 ports; DC power supply. (The backplane provides POTS ports and two E1 boards are connected to the backplane.)	48.5W

- Static power consumption: power consumption of a device when all its broadband ports are offline and voice ports are in the onhook state.
- Typical power consumption: power consumption of a device when 50% of its broadband ports are online and 25% of its voice ports are in the offhook state.
- Maximum power consumption: power consumption of a device when all its broadband ports are online and its maximum number of concurrent voice ports supported are in the offhook state.

Power Specifications

Power Supply Mode	220 V AC or 110 V AC power supply + backup power (12 V DC) -48 V DC power supply
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Operating Voltage Range	100 V AC to 240 V AC -48 V DC to -60 V DC
Maximum Input Current	1.5A 2A
<p>Backup power:</p> <ul style="list-style-type: none"> · Batteries will be charged when the device is powered by an AC power source. The charging voltage supported by a lead-acid battery ranges from 13.5 V to 13.8 V. The charging voltage supported by a Fe-lithium battery ranges from 14.1 V to 14.8 V. · If the AC power source is cut off, the device will be powered by batteries. The discharging voltage supported by a lead-acid battery ranges from 10.8 V to 13.5 V. The discharging voltage supported by a Fe-lithium battery ranges from 10.8 V to 14.4 V. 	

Basic Ordering Information

SKU	Description
MA5612-AC-POTS	Huawei SmartAX MA5612 AC, with the POTS port
MA5612-DC-POTS	Huawei SmartAX MA5612 DC, with the POTS port
MA5612-AC	Huawei SmartAX MA5612 AC, without the POTS port
MA5612-DC	Huawei SmartAX MA5612 DC, without the POTS port
MA5612-AC-10G-PON	Huawei SmartAX MA5612 AC, with the 10G PON upstream transmission
MA5612-DC-10G-PON	Huawei SmartAX MA5612 DC, with the 10G PON upstream transmission
EIUC	Huawei SmartAX MA5612 board, 8-channel Ethernet broadband board, providing the access service for Ethernet users, hot swappable

E81A	Huawei SmartAX MA5612 board, 8-channel E1 service board, providing the access service for E1 users, hot swappable
ASNb	Huawei SmartAX MA5612 board, 16-port narrowband voice service access board, used for accessing 16 channels of POTS services

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 MA561x Series](#)

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Source

<https://support.huawei.com/enterprise/en/doc/EDOC1000107059>