Huawei SmartAX EA5800 OLT Datasheet

CONTENT

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Overview

Developed based on the distributed architecture, the EA5800 series multiservice access device is positioned as the next-generation OLT for NG-PON. With virtual access technology, it provides a unified carrying platform for multiple services over one fiber network, such as broadband, wireless, video, and monitoring.

This series provides multi-service over one fiber network:

- 8K

- Home

- Business

- Wi-Fi

- Internet of Things

- 4K

- Basic communications

The EA5800 provides GPON, XG-PON, XGS-PON, P2P GE, and 10GE access, and supports POL, FTTH, FTTB, and FTTC network construction modes. Thus it simplifies network architecture and reduces OPEX.
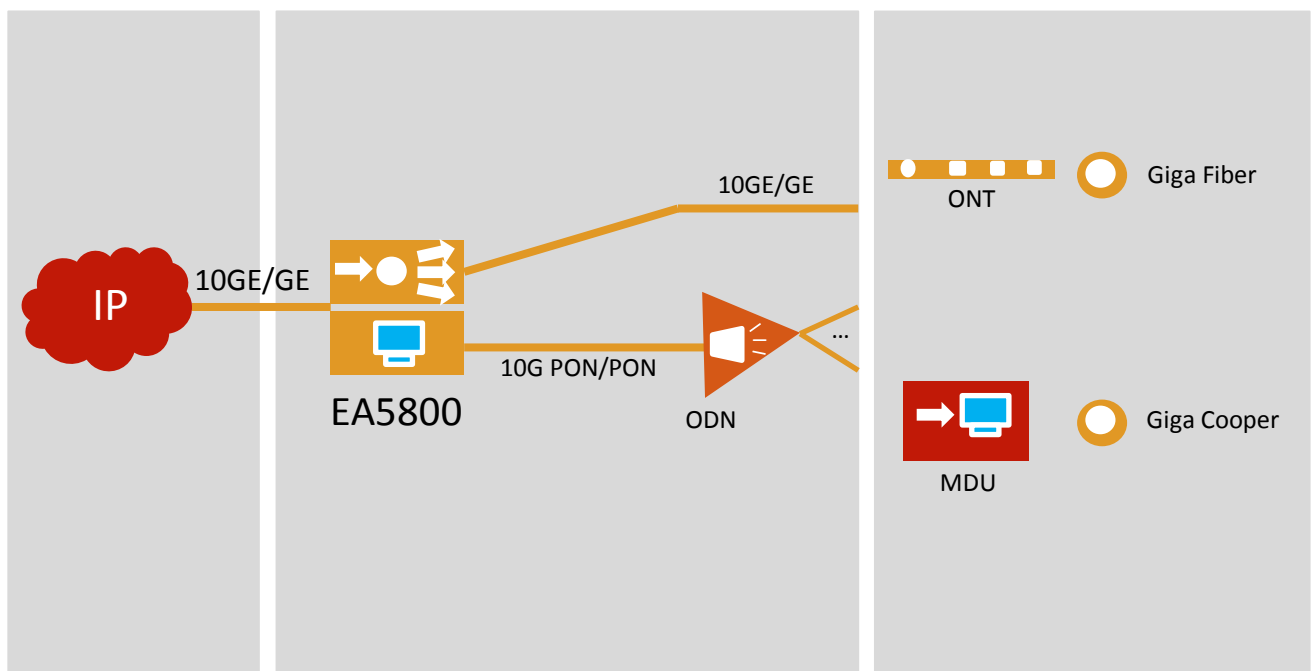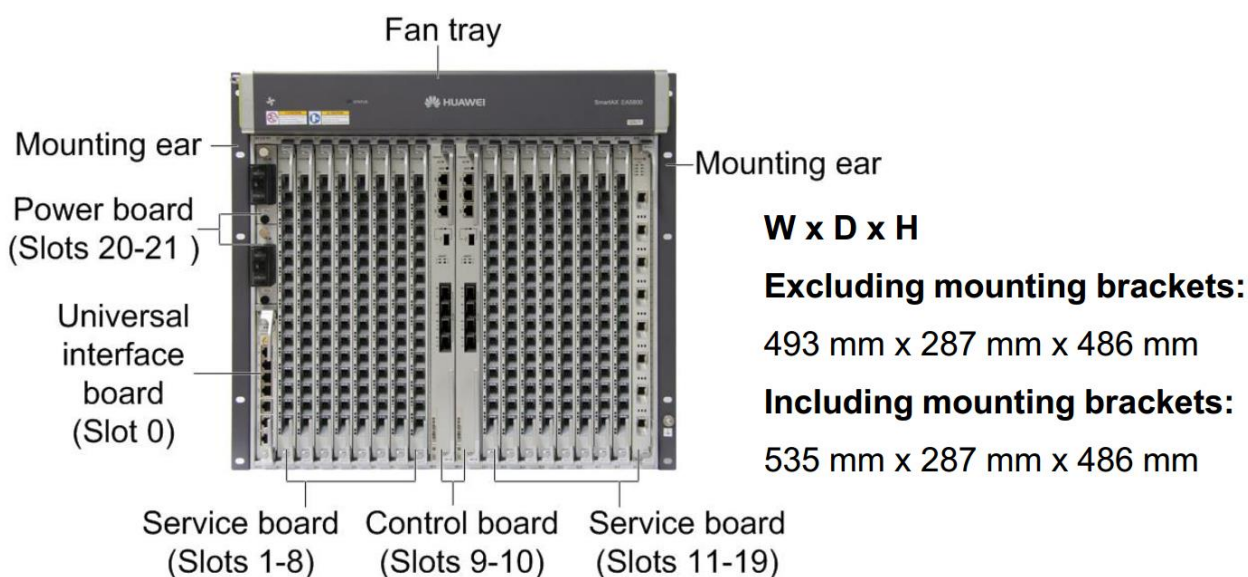
Models & Appearance

The EA5800 supports four types of subracks. The only difference between these subracks relies on the service slot quantity (they have the same functions and network positions).

EA5800-X17 (large-capacity, ETSI)

EA5800-X17 supports 17 service slots with backplane H901BPLB.

W x D x H

Excluding mounting brackets:

493 mm x 287 mm x 486 mm

Including mounting brackets:

535 mm x 287 mm x 486 mm

EA5800-X15 (large-capacity, IEC)

EA5800-X15 supports 15 service slots with backplane H901BPIB.

W x D x H

Excluding mounting brackets:

442 mm x 287 mm x 486 mm

Including mounting brackets:

482.6 mm x 287 mm x 486 mm
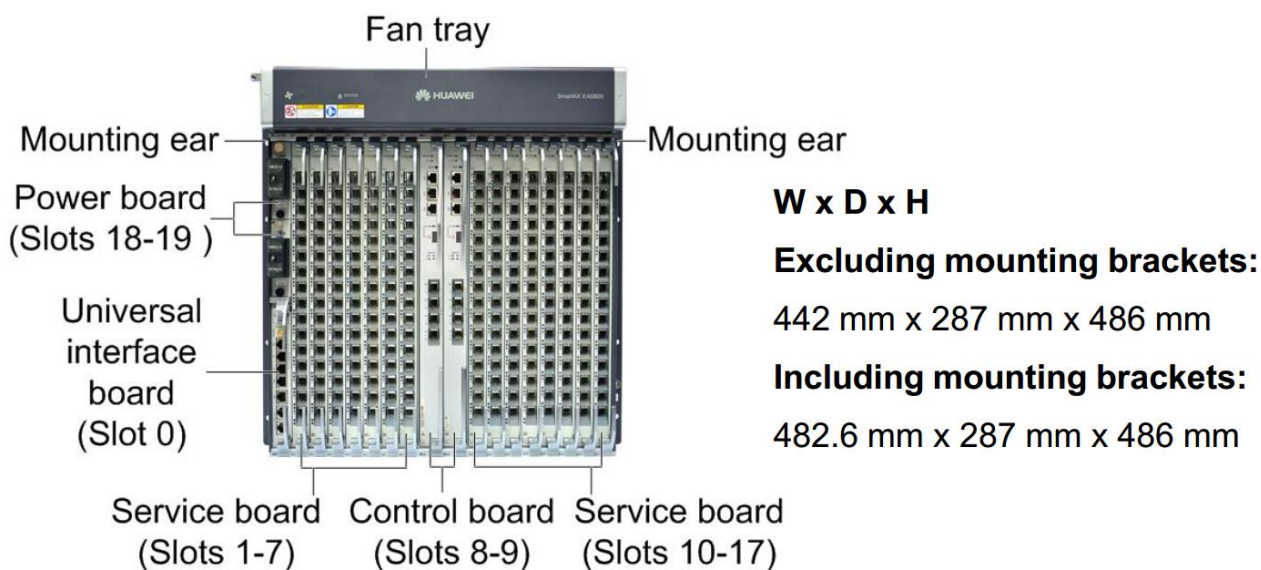
EA5800-X7 (medium-capacity)

EA5800-X7 supports 7 service slots with backplane H901BPMB.
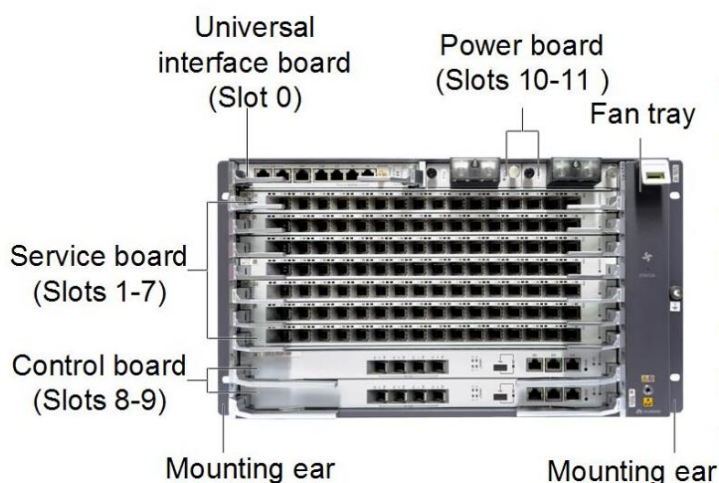
W x D x H

Excluding mounting brackets:

442 mm x 268.7 mm x 263.9 mm

Including IEC mounting brackets:

482.6 mm x 268.7 mm x 263.9 mm

Including ETSI mounting brackets:

535 mm x 268.7 mm x 263.9 mm

EA5800-X2 (small-capacity)

EA5800-X2 supports 2 service slots with backplane H901BPSB.
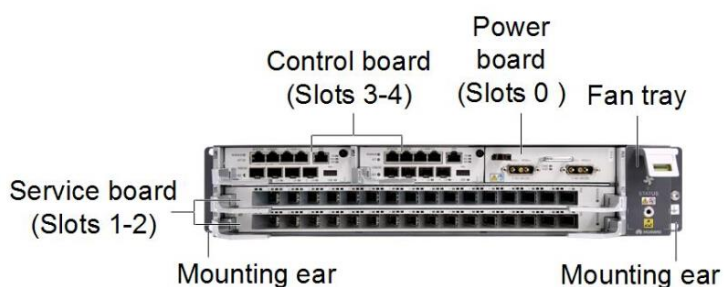
W x D x H

Excluding mounting brackets:

442 mm x 268.7 mm x 88.1 mm

Including IEC mounting brackets:

482.6 mm x 268.7 mm x 88.1 mm

Including ETSI mounting brackets:

535 mm x 268.7 mm x 88.1 mm

Key Features and Benefits

Distributed Architecture: High Performing and Non-blocking

The EA5800 distributes service processing on the control board to every service board, improving system switching capacity and performance. Each slot can support a throughput of up to 100 Gbit/s, ensuring smooth services without interruption.

The EA5800 supports distributed caching for channel zapping and fast starting of HD videos.

Software Hitless Upgrade: Upgrade Anytime

In the distributed architecture, control and forwarding are isolated, ensuring that services are not interrupted during device upgrades. This also reduces user complaints. Devices can be upgraded at daytime.

High Reliability

The EA5800 supports multiple protection mechanisms.

- Type B/type C dual-homing implements remote disaster recovery.

- 2 control boards and 2 power boards for redundancy.

- Dual-uplink protection.

Integrated Multiple Access Technologies

The EA5800 supports multiple access technologies, such as GPON, XG-PON, XGS-PON and P2P. Thus it is possible to carry multiple services on one optical network and save network construction costs.

Product Specifications

Parameters	EA5800-X17	EA5800-X15	EA5800-X7	EA5800-X2
Supported Cabinets	N63E-22	N66E-22	N63E-22, N66E-22	N63E-22
Board Configuration	Control board slots: 9, 10 Service board or upstream interface board slots: 1 to 8, 11 to 19 Universal interface board slot: 0 Power board slots: 20, 21	Control board slots: 8, 9 Service board or upstream interface board slots: 1 to 7, 10 to 17 Universal interface board slot: 0 Power board slots: 18, 19	Control board slots: 8, 9 Service board or upstream interface board slots: 1 to 7 Universal interface board slot: 0 Power board slots: 10, 11	Control board slots: 3, 4 Service board or upstream interface board slots: 1 to 2 Does not support universal interface board Power board slot: 0

Dimensions (W x D x H)	11U high and 21 inches wide Excluding mounting brackets: 493 mm x 287 mm x 486 mm Including mounting brackets: 535 mm x 287 mm x 486 mm	11U high and 19 inches wide Excluding mounting brackets: 442 mm x 287 mm x 486 mm Including mounting brackets: 482.6 mm x 287 mm x 486 mm	6U high and 19 inches wide Excluding mounting brackets: 442 mm x 268.7 mm x 263.9 mm Including IEC mounting brackets: 482.6 mm x 268.7 mm x 263.9 mm Including ETSI mounting brackets: 535 mm x 268.7 mm x 263.9 mm	2U high and 19 inches wide Excluding mounting brackets: 442 mm x 268.7 mm x 88.1 mm Including IEC mounting brackets: 482.6 mm x 268.7 mm x 88.1 mm Including ETSI mounting brackets: 535 mm x 268.7 mm x 88.1 mm
Maximum Weight (including mounting brackets)	45 kg	35 kg	26 kg	9.4 kg
Maximum Input Current	60A	60A	40A	DC power supply: 20A AC power supply: 8A
Power Supply Modes	DC power support (dual for backup)	DC power support (dual for backup)	DC power support (dual for backup)	DC power support (dual for backup) AC power supply + battery for backup
Working Voltage Range	-38.4V to -72V DC	-38.4V to -72V DC	-38.4V to -72V DC	DC power supply: -38.4V to -72V AC power supply: 100V to 240V
Rated voltage	-48V/-60V	-48V/-60V	-48V/-60V	DC power supply: -48V/-60V

				AC power supply: 110V/220V
Ambient Temperature	-40°C to 65°C*. The EA5800 can start up at temperatures as low as -25°C. Note: The 65°C temperature refers to the highest temperature measured at the air intake vent of service subrack.			
Ambient Humidity	5% RH to 95% RH			
Atmospheric Pressure	70 kPa to 106 kPa	70 kPa to 106 kPa	70 kPa to 106 kPa	70 kPa to 106 kPa
Altitude	4,000m. The air density varies with altitude and will affect the heat dissipation of a device. Therefore, the working environment temperature of the EA5800 varies with altitude.			
Switching Capacity of the Control Board (load sharing mode)	3.6 Tbit/s	3.6 Tbit/s	3.6 Tbit/s	480 Gbit/s
Maximum Bandwidth per Service Slot (load sharing mode)	100 Gbit/s	100 Gbit/s	100 Gbit/s	80 Gbit/s
System Layer 2 Packet Forwarding Rate (load sharing mode)	5,298 Mpps	5,298 Mpps	5,298 Mpps	714 Mpps
Maximum Number of Concurrent 4K Video Users	16,000	16,000	8,000	2,000
Maximum Number of MAC Addresses	262,143	262,143	262,143	262,143
Maximum Number of ARP/Routing Entries	131,072	131,072	131,072	131,072

Switching/Forwarding Delay	Short forwarding delay: The 100 Mbit/s Ethernet port sends 64-byte Ethernet packets at a delay shorter than 20 μs.			
Bit Error Rate (BER) in full load	A BER smaller than 10e-7 for a port that transmits data in full load.			
System Reliability Specifications	System availability for typical configurations: > 99.999% Mean-Time-Between-Failures (MTBF): About 45 years. Note: Due to different network environments and different boards used by devices, the preceding MTBF (45 years) of the EA5800 is only for reference. The average repair time for Field Replaceable Units (FRUs) is about 2 hours. The preceding values are only for reference. For details, please contact the relevant Huawei engineers.			
GPON Ports/ XG(S)-PON Ports	272	240	112	32
GE/FE Ports	816	720	336	96
10 GE Ports	408	360	168	16

Basic Ordering Information

Model	Product Description
Subracks	
EA5800-X17	Huawei SmartAX EA5800-X17, large-capacity, ETSI, supports 17 service slots
EA5800-X15	Huawei SmartAX EA5800-X15, large-capacity, IEC, supports 15 service slots
EA5800-X7	Huawei SmartAX EA5800-X7, medium-capacity, supports 7 service slots
EA5800-X2	Huawei SmartAX EA5800-X2, small-capacity, supports 2 service slots
Boards	
H902MPLAE	Huawei SmartAX EA5800 Main Processing Board

H901MPSCE	Huawei SmartAX EA5800 Main Processing Board
H901CIUA	Huawei SmartAX EA5800 Combo Interface Transfer Board
H901XGHDE	Huawei SmartAX EA5800 8-port Advanced XG-PON OLT Interface Board
H901OGHK	Huawei SmartAX EA5800 48-port Advanced GE/FE Optical Interface Board
H901NXED	Huawei SmartAX EA5800 8-port Enhanced 10GE Uplink Interface Board
H901OXHD	Huawei SmartAX EA5800 8-port Advanced 10GE Optical Interface Board
H902OXHD	Huawei SmartAX EA5800 8-port Advanced 10GE Optical Interface Board
H901GPSFE	Huawei SmartAX EA5800 16-port GPON OLT Interface Board
H901OXEG	Huawei SmartAX EA5800 24 port Aggregationed 10GE/GE Optical Interface Board
H901TWEDE	Huawei SmartAX EA5800 8-port Enhanced XGS-PON OLT Interface Board
H901XSHF	Huawei SmartAX EA5800 16-port XGS-PON OLT Interface Board
H902GPHFE	Huawei SmartAX EA5800 16-port GPON OLT Interface Board
H901PILA	Huawei SmartAX EA5800 Power Transfer Board
H901PISA	Huawei SmartAX EA5800 Power Transfer Board
H901PISB	Huawei SmartAX EA5800 Power Transfer Board
H902PISB	Huawei SmartAX EA5800 Power Transfer Board
H901FMLA	Huawei SmartAX EA5800 EA5800-X15/X17 fan tray
H901FMMA	Huawei SmartAX EA5800 EA5800-X7 fan tray
H901FMSA	Huawei SmartAX EA5800 EA5800-X2 fan tray

Where to Buy

Want to buy this series of products? please contact:

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● Fax: +852-3050-1066 (Hong Kong)

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Sources

https://e.huawei.com/us/products/enterprise-transmission-access/access/olt/ea5800