



# Smart NG-OLT:

Building Broader, Faster, and Smarter Access Networks

——The Huawei SmartAX MA5800

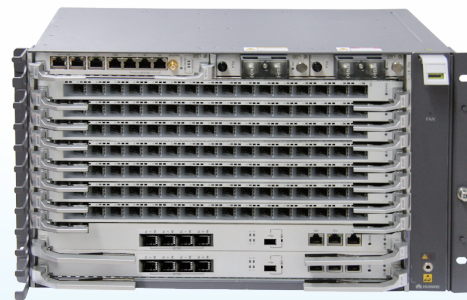


## Product Overview

- The SmartAX MA5800 multi-service access module is the industry's first smart NG-OLT. As a next-generation OLT that employs a distributed architecture, MA5800 supports ultra-broadband, fixed mobile converged services, and smart capabilities. It is the most advanced OLT for NG-PON in the industry, catering to the demand for a broader, faster and smarter access network for the ultimate service experience.
- The MA5800 provides GPON, XG-PON, TWDM-PON, WDM-PON, GE and 10GE access and supports FTTH, FTTD, FTTB, FTTC and D-CCAP network applications. This architecture is key to building a heterogeneous access network with full home, enterprise and mobile backhaul services. The MA5800 integrates OLT, aggregation switch and edge router functionalities into one platform and supports high density GE/10GE interfaces for MDU, DSLAM, MSAN and OLT aggregation. It helps carriers simplify network architecture and reduce network OPEX.
- The MA5800 series features two product models. The larger MA5800-X17 has 17 service slots while the medium-sized MA5800-X7 has 7 service slots. Both models have cross-compatible hardware and software.

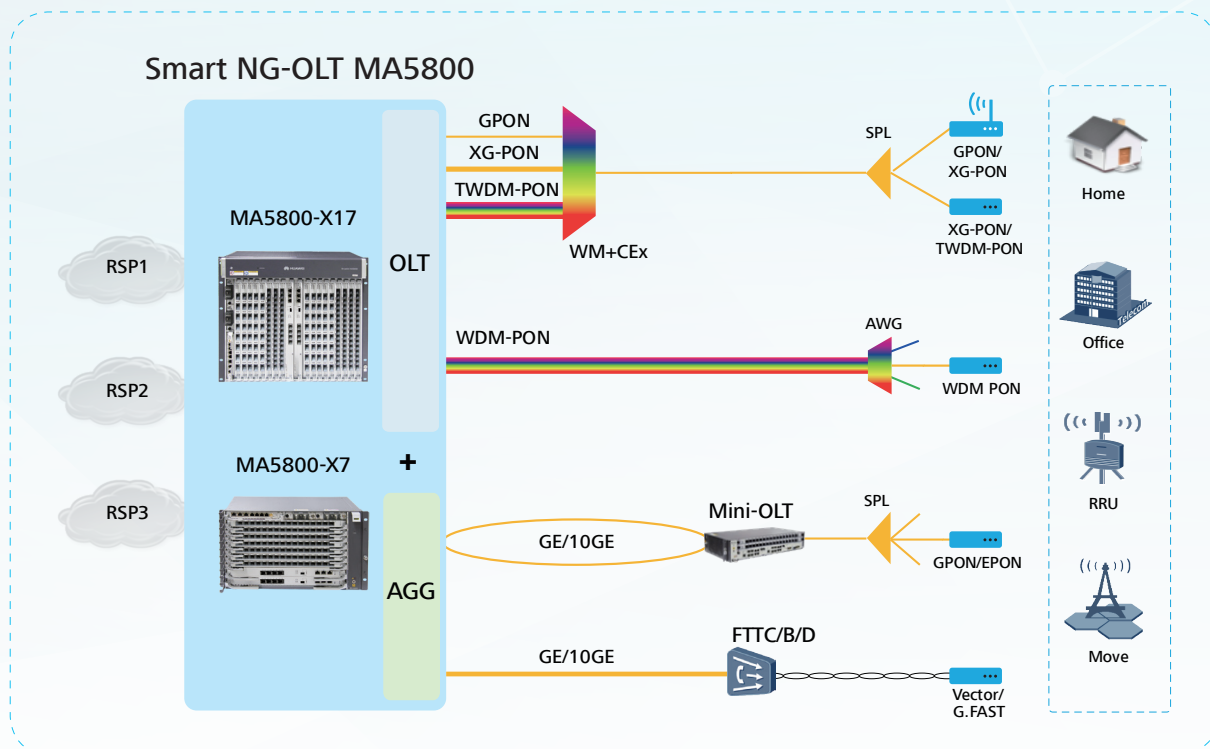


**MA5800-X17**



**MA5800-X7**

## Product Highlights



### Ultra-broadband

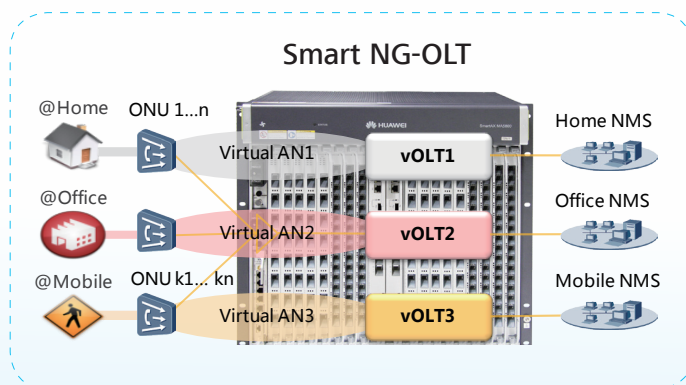
- The MA5800 leverages industry-leading distributed architecture to avoid the traditional OLT bottleneck from limited switching capacity. Each service slot offers 200 Gbit/s-throughput capability, guaranteeing non-blocking access for high-density XG-PON and 40G-PON.
- Each subrack supports up to 32K users with 100 Mbit/s of non-blocking bandwidth, letting everyone enjoy seamless 4K videos.

### Fixed mobile convergence(FMC)

- Full-service PON/P2P access for home, enterprise and mobile backhaul creates a single optical network with FMC services.
- The MA5800 integrates OLT and aggregation switch functions into one platform with simplified network architecture.

### Smart Capabilities

- MA5800 hardware features a programmable network processor (NP) chipset. This provides SDN-based smart service support, enabling the rapid rollout of new services.
- The MA5800's virtual access network feature enables one physical access network to be virtualized and partitioned logically. This supports carriers' smart operations such as differential multi-service operations and network wholesale to retail service providers, thus achieving agile service deployment.





## Product Specifications

Item	MA5800-X17	MA5800-X7
Switching Capacity	7 Tbit/s	7 Tbit/s
MAC Addresses	256K	256K
ARP/router table	64K	64K
GPON Ports	272	112
XG-PON Ports	136	56
GE/FE Ports	816	336
10GE Ports	136	56
Dimensions in mm (H*W*D)	486*533*286	264*442*242
Operating temperature range	Indoor cabinet with 1 subrack: -40°C to +65°C Indoor cabinet with 2 subracks: -40°C to +55°C	-40°C to +65°C
DC Power Supply	-38.4 to -72 V	-38.4 to -72 V
GPON Board	16 ports with Class B+/ C+ SFP optical modules; eOTDR; 40 km differential reach; 4-level HQoS; 1588V2	
XG-PON Board	8 ports with SFP+ optical modules; 40 km differential reach; 4-level HQoS; 1588V2	
Ethernet GE/FE Board	48*FE/GE (CSFP interface) or 24*FE/GE (SFP interface); SyncE and 1588v2	
Ethernet 10GE Board	8* 10 GE (SFP+ interface) or 8* GE (SFP/eSFP interface); SyncE and 1588v2	
Layer 2 Function	VLAN+MAC forwarding, SVLAN+CVLAN forwarding, PPPoE Plus, DHCP option82	
Layer 3 Function	Static route, RIP, OSFP/OSPFv3, IS-IS, BGP/BGP4+, ARP, DHCP relay, VRF	
MPLS&PWE3	LDP, RSVP-TE, MPLS OAM, tunnel PS, TDM/ETH PWE3, PW Redundancy, MPLS BGP IP VPN	
IPv6	Dual-stack IPv4 and IPv6, IPv6 Layer2 and Layer 3 forwarding, DHCPv6 relay	
Multicast	IGMPv2, IGMPv3, IGMP proxy and snooping, VLAN-based multicast	
QoS	Traffic classification, priority processing, trTCM based traffic policing, HQoS, traffic shaping, WRED, PQ/WRR/PQ+WRR, ACL	
System Reliability	GPON and XG-PON type B, type C; Inter-board or intra-board LAG, MSTP; Control boards and service boards ISSU	

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