Huawei MA5600T
All-in-one Access Platform

SmartAX MA5600T is the global first all-in-one access platform which can provide copper and optical integrated access. It can provide high density POTS, ISDN, G.SHDSL, ADSL2+/VDSL2, GPON/10GPON and Ethernet fiber P2P access, triple-play service, TDM/ATM/Ethernet leased line services for business customers and mobile base access with high reliability and high precision clock, high density GE/10GE interfaces for cascading remote access equipments. MA5600T helps to simplify network architecture, to enable seamless migration in FTTx network and lower TCO essentially.
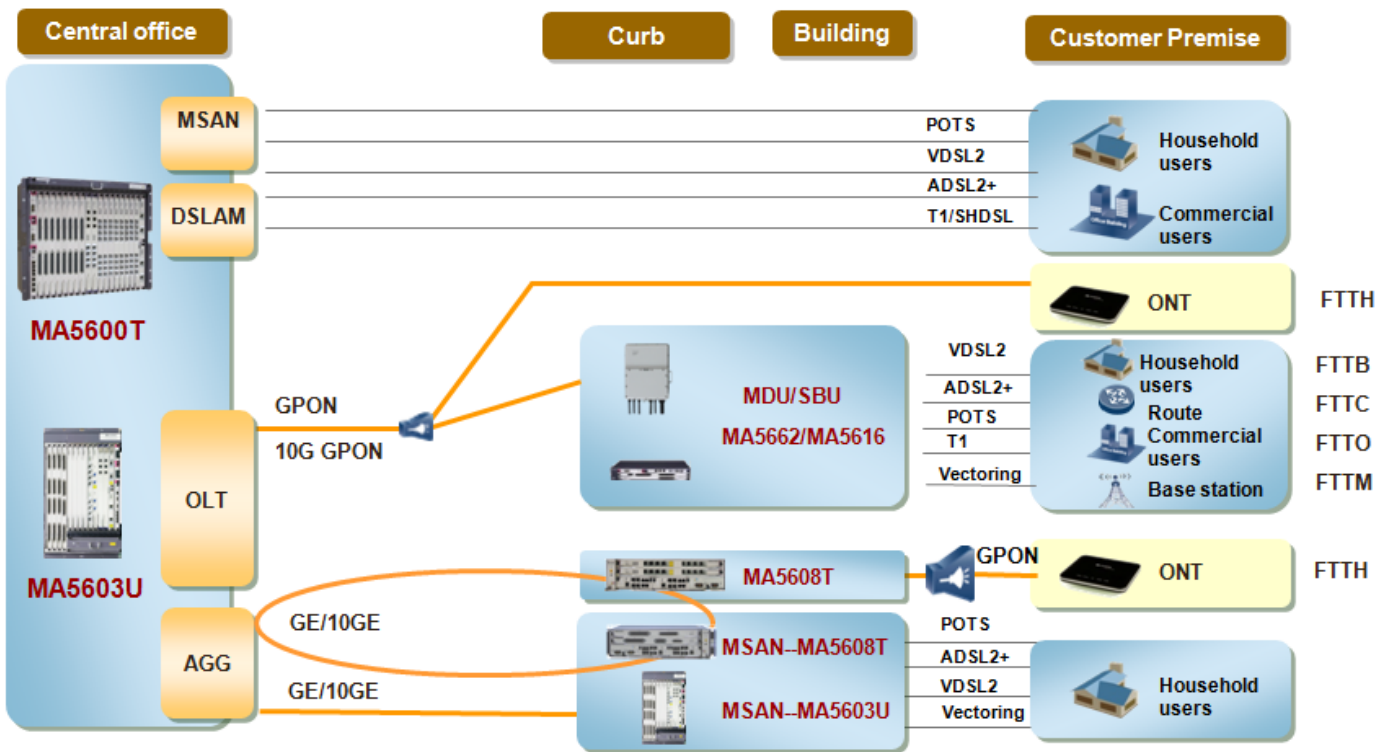
There are three types of frame. The large frame (MA5600T) has 14 service slots, the middle frame (MA5603U) has 6 service slots, the small frame (MA5608T) has 2 service slots. The service cards and software are all compatible between MA5600T, MA5603U and MA5608T.

MA5600T   **MA5603U**   **MA5608T**

- 2006, global first T-bit all-in-one platform for commercial deployment, and IEC InfoVision Award for creative in access platform
- 2008, global first "10G PON ready" access platform, enable FTTx seamless evolution
- 2009, global first access and aggregation Integrated access platform, simply the network architecture
- 2010, global first "IPV6 ready" (phase 2 enhanced) access device certificated by IPV6 forum.
- 2011, 40G PON prototype release   frame (MA5603U) has 6 service slots.
- 2012, 16*GPON and 4*10GPON boards commercial deployment

Typical MA5600T Access Network

Key Features

Any Access

- Support multiple access methods: POTS/G.SHDSL/ADSL2+/ VDSL2/ GPON/Ethernet P2P
- Support multiple scenarios: CO / FTTC / FTTB / FTTH / FTTO / FTTM

Any Service

- High performance IPTV service
- H-QoS support 3-level QoS (Difference ISP/service/user) guaranteeing OLT wholesale

- Traditional T1 service access, Native TDM or CESoP for traditional T1 service of enterprise and mobile base access
- E2E high reliability guarantee, BFD/LAG/MSTP/RRPP/Smart Link for uplink redundancy and Type B/Type C dual homing for fiber protection;
- E-LAN function for local traffic inter-connection, satisfy the requirement of enterprise and campus network

Access and Aggregation Integrated

- Large aggregation capacity, 3.2T bit/s backplane capacity, 960Gbit/s switch capacity, 512k MAC addresses
- High density GE/10GE interfaces for cascading, up to 36*10GE or 384*GE interfaces, no need for additional investment of aggregation switches

- High reliability networking support direct connection to the BRAS, ONU dual-homing to two OLTs for redundancy and hitless software upgrading function

Green

- Fully comply with COC V4.0 standard, average DSL port power consumption is 20% less than industry
- Unique energy-saving bus, the idle service card can be powered off when there is no service provision
- With Huawei-developed GPON chipsets, the maximum power consumption of the 8-port GPON card is only 49W, 30% less than industry

Product Specifications

System Performance

- 3.2T bit/s backplane capacity, 960G bit/s switch capacity, 512k MAC addresses
- Line speed L2/L3 switching
- Static route/RIP/OSPF/MPLS
- BITS/T1/Ethernet Synchronization/IEEE 1588v2/1PPS+TOD

COMBO Line Card

- 48*port VDSL2 Combo ports per card
- MELT Support
- G.INP Physical layer retransmission
- 1:1 non-convergence for online users

VDSL2 Line Card

- 48* port per card over POTS with MELT, without SPL
- 3.2G VDSL2 provide a non-blocking 50Mbps bandwidth to every user at the same time
- Backward compatible to ADSL/ADSL2+
- 2*twisted pairs bonding
- G.INP Physical layer retransmission

Ethernet P2P Line Card

- 48*port per card with CSFP optical module, 672 ports per shelf
- Port-based and queue-based traffic shaping
- Single fiber double direction access, 100Mbit/s or 1000Mbit/s per port
- DHCP Option 82 relay agent and PPPoE relay agent
- Ethernet OAM

EFM G.SHDSL Line Card

- 16*port per card with .bis
- 4*twisted pairs bonding(M-pair or EFM bonding)
- MELT and wetting current support

GPON Line Card

- 8/16*port per card with pluggable SFP optical module (Class B+ or Class C+)
- Up to 1:128 splitting ratio
- Bidirectional FEC
- ONU-based and queue-based traffic shaping
- Rogue ONT detection and isolation
- Type B / Type C protection and Type C dual-homing
- Optical power meter (±1dB precision support)
- eOTDR (1:8 splitting ratio)

10G GPON Line Card

- 4*port per card with pluggable XFP optical module
- Up to 1:128 splitting ratio (N1)
- Bidirectional FEC
- Rogue ONT detection and isolation
- Type B / Type C protection and Type C dual-homing
- GPON coexistence

T1 & TDM G.SHDSL Line Card

- 16*T1 and 16*TDM GSHDSL port per card
- T1 extension or PRI PBX access
- TDM PWE3 support
- G.SHDSL wetting current support

Physical Parameters

Dimensions (Width×Depth×Height)

- MA5600T Chassis (10U): 530mm×275.8mm×447.2 mm
- MA5603U Chassis (8U): 352.8mm×305mm×536mm
- MA5608T Chassis (2U): 442mm×233.5mm×88.1mm

Power Supply

- MA5600T/MA5603U: -48V or -60V DC powering via redundant power feeds, working voltage range: -38.4V to -72V
- MA5608T supports both DC/AC power supply mode and supports dual power protection and battery backup while using the AC power

Running Environment

- MA5600T ambient working temperature : -25C to +55C
- MA5603U/MA5608T ambient working temperature : -40C to +65C