

MA5683T Datasheet

Overview

The MA5683T is the Huawei SmartAX MA5600T model, providing 13 slots. Huawei SmartAX MA5600T is the global first OLT which integrates the functionality of aggregation switch and edge router. It can provide high-density GPON, 10GPON and Ethernet P2P optical access, triple play service, TDM/ATM/Ethernet leased line services for business customers and high precision clock, and high-density GE/10GE interfaces for cascading remote access equipments. MA5600T helps to simplify network architecture, to improve network reliability and lower TCO essentially.

Quick Spec

Table 1 shows the quick spec.

Model	MA5683T
(W/D/H) mm	442×283.2×263
Cabinet	Indoor: N66E-18 Outdoor: F01D500, F01S300
Configuration	control board: 2 Service board: 6 Universal Interface board: 1 Upstream interface board: 2 Power interface board: 2
MTBF	≈45 years
Switching Capacity of the Backplane Bus	1.5Tbit/s (H801MABO) 2Tbit/s (H802MABO)
Switching Capacity of the Control Board	MCUD/MCUD1: 128Gbit/s (Standby mode), 256Gbit/s (Load-sharing mode)
Access Capacity	• 48*10G GPON • 96*GPON • 288*GE
Maximum uplink port (GIU)	• 4*GE • 4*10GE

Product Details

The Huawei SmartAX 5600T provide these features:

- ★ Convergence and access integration
 - Provides super large convergence switching capacity. Specifically, an MA5600T series device supports 3.2 Tbit/s backplane capacity, 1,920 Gbit/s switching capacity, and 512,000 MAC addresses.
 - Provides super high-density cascading capability. Specifcally, an MA5600T series device supports a maximum of 46 x 10GE or 768 GE services, with no additional convergence switches.
- ★ High reliability
 - Provides highly reliable networking capabilities and ensures dual-OLT hot backup, remote disaster tolerance, and service upgrades without interruption.
 - Provides comprehensive Quality of Service (QoS) functions and supports traffic classification management, priority control, and bandwidth control. The Hierarchical-Quality of Service (H-QoS) function meets various Service Level Agreement (SLA) requirements of commercial customers.
 - Provides an End-to-End (E2E) highly reliable design, enabling Bidirectional Forwarding Detection (BFD), Smart Link, Link Aggregation Control Protocol (LACP) redundancy protection and GPON type B/type C line protection in the upstream direction.
- ★ Multi-scenario access
 - Supports access of multiple E1 private line services, and Native Time-Division Multiplexing (TDM) or Circuit Emulation Services over Packet (CESoP)/ Structure-Agnostic TDM over Packet (SAToP) function.

MA5683T Datasheet

- Supports the Emulated Local Area Network (ELAN) function and Virtual Local Area Network (VLAN)-based internal traffic exchange, satisfying enterprise and community network application requirements.
 - Supports non-convergence access of Internet Protocol television (IPTV) users. One subrack supports 8,000 multicast users and 4,000 multicast channels.
- ★ Smooth evolution
- Supports GPON, 10G Passive Optical Network (PON), and 40G PON on a platform, enabling smooth evolution and achieving ultra-bandwidth access.
 - Supports IPv4/IPv6 dual stacks and IPv6 multicast, enabling smooth evolution from IPv4 to IPv6.
- ★ Energy saving
- Uses special chips for conserving power. Specifically, 16 ports on a GPON board consume less than 73 W of power.
 - Supports idle board automatic power-off and intelligent fan speed adjustment, effectively lowering idle board power consumption.

Supported Boards

Table 2 shows the recommended boards of this model.

Category	Model	Description
Control Boards	H801SCUH	Huawei SmartAX MA5600 Super Control Unit Board
	H801SCUV	Huawei SmartAX MA5600 Super Control Unit Board
	H801SCUN	Huawei SmartAX MA5600 Super Control Unit Board
	H801MCUD	Huawei SmartAX MA5600 Control Unit Board (GE Uplink)
	H801MCUD1	Huawei SmartAX MA5600 Control Unit Board (GE/10GE Uplink)
	H801SCUK	Huawei SmartAX MA5600 Super Control Unit Board
Services Boards	H806GPBH	Huawei SmartAX MA5600 8-port Advanced GPON OLT Interface Board
	H807GPBH	Huawei SmartAX MA5600 8-port Advanced GPON OLT Interface Board
	H801GPMD	Huawei SmartAX MA5600 8-port Advanced GPON OLT Interface Board
	H805GPDF	Huawei SmartAX MA5600 16-port GPON OLT Interface board
	H801XGBD	Huawei SmartAX MA5600 8-port XG-PON OLT Interface board
	H802XGBC	Huawei SmartAX MA5600 4-port XG-PON OLT Interface Board
	H801SPUF	Huawei SmartAX MA5600 Multifunctional Service Process Board
	H801ETHB	Huawei SmartAX MA5600 Ethernet Service Access Board
Power Boards	H801PRTA	Huawei SmartAX MA5600 Power Transfer Board
	H801PRTE	Huawei SmartAX MA5600 Power Transfer Board
	H801PRTG	Huawei SmartAX MA5600 Power Transfer Board
Fan Boards	H801FCBI	Huawei SmartAX MA5600 MA5603T fan tray(FCBI)

MA5683T Datasheet

Compare to Similar Items

Table 3 shows the comparison.

Model	MA5600T-ETSI	MA5600T-IEC	MA5683T	MA5608T
Configuration	control board: 2 Service board: 16 Universal Interface board: 1 Upstream interface board: 2 Power interface board: 2	control board: 2 Service board: 14 Universal Interface board: 1 Upstream interface board: 2 Power interface board: 2	control board: 2 Service board: 6 Universal Interface board: 1 Upstream interface board: 2 Power interface board: 2	control board: 2 Service board: 2 Power interface board: 1
Switching Capacity of the Backplane Bus	3.2Tbit/s	-	1.5Tbit/s (H801MABO) 2Tbit/s (H802MABO)	720Gbit/s
Access Capacity	• 128*10G GPON • 256*GPON • 768*GE/FE	• 112*10G GPON • 224*GPON • 672*GE/FE	• 48*10G GPON • 96*GPON • 288*GE	• 8*10G GPON • 32*GPON • 96*GE
Maximum uplink port (GIU)	• 4*GE • 4*10GE	• 4*GE • 4*10GE	• 4*GE • 4*10GE	-

Specification

MA5603T Specification	
(W/D/H) mm	442×283.2×263
Operating Environment	Temperature: -40°C to +65°C RH: 5% to 95%
Power Parameter	Supports -48 V DC power input, dual-power supply protection, and working voltage range of -38.4 V to -72 V.
Cabinet	Indoor: N66E-18 Outdoor: F01D500, F01S300
Configuration	control board: 2 Service board: 6 Universal Interface board: 1 Upstream interface board: 2 Power interface board: 2
MTBF	≈45 years
Switching Capacity of the Backplane Bus	1.5Tbit/s (H801MABO) 2Tbit/s (H802MABO)
Switching Capacity of the Control Board	MCUD/MCUD1: 128Gbit/s (Standby mode), 256Gbit/s (Load-sharing mode)
Access Capacity	• 48*10G GPON • 96*GPON • 288*GE
Maximum uplink port (GIU)	• 4*GE • 4*10GE