

XGSPON OLT Chassis

AX3500 Series



- **Cost-effective triple play support**
- **Enriched bandwidth allocation policy**
- **Flexible provisioning, quick revenue**
- **Up to 10 Gbps upstream/downstream**
- **Hybrid platform for GPON/XG(S)PON technology**
- **Redundant power supply**
- **Hot-swappable modular design**
- **Remote management**

Ascent's AX3517 is a chassis GPON platform which support GPON/XG(S)PON and fully compliance with ITU-T G.984/G.987/G.988/G.9807 standards. Coordinate with Ascent's ONT, it completes the end-to-end optical last mile with up to 10 Gbps bandwidth for triple play services to residential and business customers.

AX3517 supports up to 272× GPON/208× XG(S)PON/240× XG(S)PON&GPON Combo PON in 17 service slots from a compact 11U chassis. It provides 4× 25GE/10GE + 4× 25GE/10GE uplink interface on CSM (Control & Switch Module), also can support up to 104× 25GE/10GE/GE uplink or up to 26× 100GE uplink interface. High subscriber density and low cost of entry, combined with the operational cost savings of GPON technology make Ascent GPON a compelling alternative to legacy, last-mile access solutions.

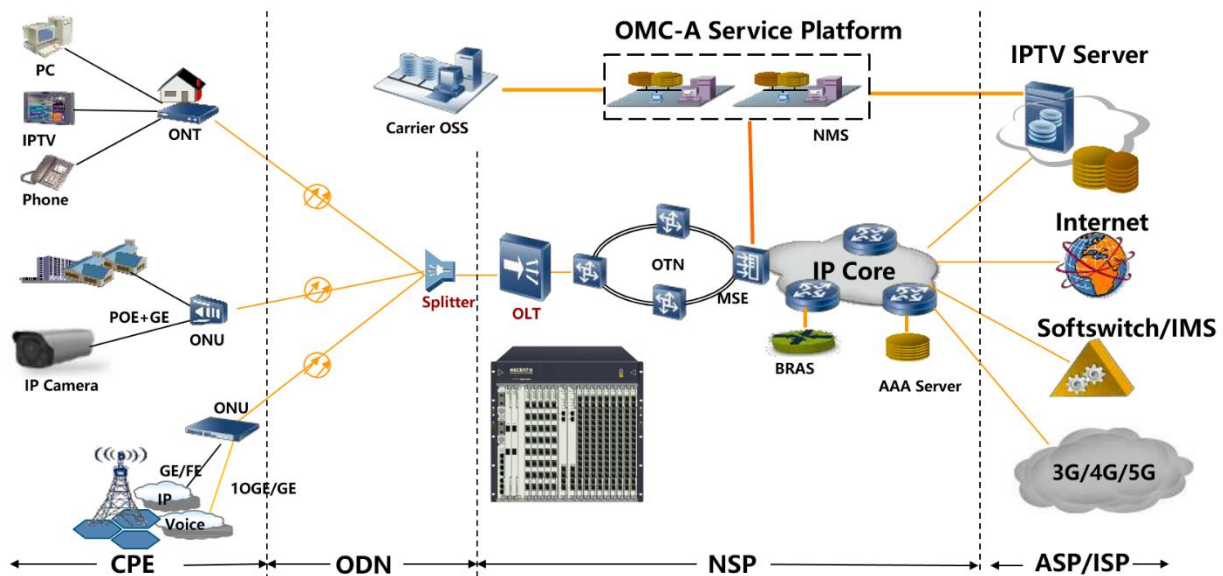
AX3517 supports 5 T-CONT types compliance with ITU-T G.984.3 as well. The enriched QoS features such as traffic policy/traffic shaping/rate limit/Schedule allow operators to provision flexible bandwidth allocate policy for multiple customized service.

AX3517 also supports SNMP/CLI for remote management. Powerful OMCI functions enable remote diagnostics, flexible provisioning, and reconfiguration of the Ascent NMS platform.

Key Features

- ITU-T G.984/G.987/G.988/G.9807 compliant 10gbps/2.5gbps downstream and 10Gbps/2.5gbps/1.25Gbps upstream PON interface
- Hybrid platform for GPON/XG(S)PON technology
- Power/CSM redundance, PON protection
- 272*GPON/208*XG(S)PON/240*XG(S)PON & GPON combo PON ports in 11U chassis
- Hot swap modular design
- Advanced L2/L3 functions
- Abundant QoS functions
- Unified NMS platform
- Remote provision and management

Diagrams



Specifications

Physical Characteristics

Dimensions (W×D×H)	530 mm × 286 mm × 486 mm
Weight	46 kg
Power	DC: -48 V (pluggable) Dual DC power redundancy
Power Consumption	1600 W (typical)
Uplink	4× 25GE/10GE + 4× 25GE/10GE interface on CSM 104× 25GE SFP28/10GE SFP+, 26× 100GE QSFP28
PON	272× 16 GPON/208× XG(S)PON/240× GPON&XG(S) combo PON
PON Fiber	SM, BIDI
PON Interface type	SC/UPC

Switch/Interface Specifications

Switch Capacity	4.8 Tbps
Flash Size	64 MB + 8 GB (CSM), 64 MB (PON)
Memory Size	4 GB (CSM), 4 GB (PON)
Split Ratio	1:64 (GPON), 1:128 (XG(S)PON)
Bandwidth	GPON: 1.25 Gbps (up), 2.5 Gbps (down) XGPON: 2.5 Gbps (up), 10 Gbps (down) XGSPON: 10 Gbps (up), 10 Gbps (down)
PON Tx Power	3 dBm to 7 dBm (C+), 4 dBm to 8 dBm (N2a)
PON Rx Sensitivity	-30 dBm (C+), -29.5 dBm (N2a)
PON Rx Overload	-12 dBm (C+), -9 dBm (N2a)
Wavelength	PON: 1310 nm (up), 1490 nm (down) XG(S)PON: 1270 nm (up), 1577 nm (down)

Compliance

ITU-T G.984/G.987/G.988/G.9807
IEEE 802.1D, Spanning Tree
IEEE 802.1Q, VLAN
IEEE 802.1w, RSTP
IEEE 802.3ad, LACP
Ethernet – II

Environment

Operating Temperature	0 °C to 40 °C
Storage Temperature	-40 °C to 70 °C
Relative Humidity	10 % to 90 %, non-condensing

Features

PON	Splitter Ratio: 1:128(GPON), 1:256(XG(S)PON) Support B+/C+(GPON), N1/N2(XG(S)PON) transceiver SN / Password / SN+Password ONU authentication FEC ONU Digital Diagnostic Monitor Rogue ONU Detection
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PTP	Support IEEE 1588 V2, G.8265.1, G.8275.1, G.8275.2
SyncE	Support G.8261, G.8262, G.8264
L2	Line-speed switch/forwarding 710K MAC address table Port-based VLAN, Protocol-based VLAN, 802.1q VLAN ONU-based QinQ, 1:1/N:1 VLAN translate LACP/LAG STP/RSTP/MSTP Port Mirror Flow control / Back pressure Broadcast/DLF/Unknown Multicast storm control
L3	Switch Virtual Interface (SVI): IPv4/IPv6 Static Route Static/Dynamic ARP ICMP/Traceroute DHCP Server / DHCP Relay: IPv4/IPv6
Multicast	IGMPv1/v2 snooping MLDv1 snooping IGMP snooping with Proxy Fast Leave
QoS (Quality of Service)	IEEE 802.1p, 8 CoS queue SP/WRR/SP+WRR IPv4 TOS/IP Precedence Classification/Shaping/Policy/Rate limit/Schedule DBA ONU-based bandwidth control in downstream
Security	SSH ACL User isolation Encryption in PON downstream DHCP Option82 / PPPoE+
OAM	FTP/TFTP, Ethernet OAM SNMP v1 & v2c, Telnet (IPv4/IPv6), Console (CLI) In-band/out-band management Auto provision for ONU configuration PM

Ordering Information

Product Name	Product Description
AX3517	AX3517 Chassis (11U front-access) with backplane and fan tray
CSM3S	Control & Switching Module (4.8 Tbps), 4× 25GE/10GE uplink
GPN4C	GPON card, 16 ports
XGS1C	XGPON or XGSPON card, 16 ports
XSM2A	XG(S)PON&GPON Combo card, 8 ports
XSM2C	XG(S)PON&GPON Combo card, 16 ports
XUC1A	25GE/10GE/GE card, 8 ports
HUC1D	100GE card, 2 ports
PDC1A	DC power card, input: -40 V to -60 V

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