

In the face of increasing demands for high bandwidth and multi-play services, operators have to make a balance between economy and mass roll-out. How to smoothly evolve from FTTC, FTTB and FTTCab to FTTH is a challenge in front of telcos nowadays. Operators are considering building a PON network that is green, future-proof and saves TCO.

ZXA10 C300, the world's first future-proof and largest capability optical access platform, is developed with mass optical access roll-out as well as economy in mind. Its powerful functions and high performance make mass FTTx roll-out easier than ever before.



Key Features

- Unified platform for GPON/XGPON1 and P2P
- Large capacity and high density: meet operators' requirements for mass optical access roll-out
- Future-proof: support NG-PON, like XGPON1, TWDM PON
- Abundant service support capability: IPTV, VoIP, HSI, VPN, mobile backhaul, etc
- Diverse interfaces: P2MP, P2P and TDM interfaces can also be provided for business and residential application
- Enhanced multicast function: meets mass IPTV roll-out
- Higher security assurance: ONT authentication, user ID identification, port isolation, address binding, packet filtering, and broadcast packet limitation.
- Service differentiation: Comprehensive QoS mechanisms for voice, video and high speed Internet services.
- High reliability: key parts redundancy; support Type B and Type C protection for PON downlink and LACP/ STP/UAPS/ERPS for uplink
- Support 1588V2 and Synchronous Ethernet
- Support embedded OTDR in SFP

Technical Specifications

■ System Architecture

- Chassis Configuration (21")
 - Total 23 slots
 - 16 slots for universal line cards
 - 2 slots for switch & control cards
 - 2 slots for power cards
 - 2 slots for uplink and cascading interfaces
 - 1 slot for environment detecting card
- Chassis Configuration (19")
 - Total 21 slots
 - 14 slots for universal line cards
 - 2 slots for switch& control cards
 - 2 slots for power cards
 - 2 slots for uplink and cascading interfaces
 - 1 slot for environment detecting card

- Subscriber Card Density
 - GPON card: 8/16 ports per card
 - P2P card: 24/48 ports per card
 - XG PON1 card: 8 ports per card
- Uplink interface card
 - 4*10GE uplink per card
 - 2*10GE+2*GE uplink per card
 - 4*GE uplink per card
 - 1*STM-4/OC12 or 2*STM-1/OC3 TDM uplink per card
 - 32* E1/T1 uplink card (balanced and unbalanced)
- Environment detecting card
 - 2 * Hz/Bit external clock interfaces
 - 5 * Environment detecting interfaces

■ PON Features

- GPON compliant with ITU G.984.x
- P2P compliant with ITU G.985/G.986
- XG-PON1 compliant with ITU G.987.x and G.988
- Support up to 1:128 optical split ratio for xPON
- Support OLS (Optical Laser Supervising)
- Physical reach: 20km
- Highly-efficient DBA: NSR-DBA,SR-DBA
- GPON Transceiver power: Class B+ or class C+
- XG PON1 Transceiver power: Class N1 and N2a
- Type B and type C optical link protection
- Support FEC
- Support AES128
- Support SCB
- GPON MCM(Multi-Copy Multicast)
- Support 1550nm for third party CATV broadcasting

■ L2/L3 Features

- 4K VLAN
- 1:1/N:1 VLAN
- 802.1ad, SVLAN, Selective QinQ, VLAN stacking
- Line-speed forwarding
- STP/RSTP/MSTP compliant with IEEE 802.1d/802.1w/802.1s
- Link aggregation IEEE 802.3ad
- DHCP server, DHCP Relay (option 60/82), DHCP proxy
- IPv4/IPv6 dual stack
- L3 routing:
 - Statistic routing for IPv4 and IPv6
 - OSPFV2, RIPv1/v2, BGPV4
- RMON II
- Multicast – IPTV
 - 1K Multicast groups
 - IGMP Snooping and proxy (v1/v2/v3)
 - MLD V1/V2, snooping/proxy
 - MVLAN: 256 Multicast VLAN
 - Channel Access Control (CAC), Preview (PRV) and Call Detail Record (CDR) for IPTV
 - Less than 50ms channel zapping delay
- QoS
 - 8 queues per port
 - Queue & scheduling mechanism: SP, DWRR, SP+DWRR
 - DSCP labeling and relabeling
 - Stream classification, rate limiting, shaping and priority setting

- Traffic statistics
- Service based rate limit
- WRED and triple color
- SLA: CIR, PIR, EIR
- Security
 - L2- L4 ACL
 - IP and MAC source guard
 - Resistance against DOS attacks
 - MAC/IP anti-spoofing (MAC binding, IP binding, DHCP snooping)
 - Anti-flooding: broadcast packet suppression, IGMP packet suppression, DHCP packet suppression
 - MAC address number limit based on VLAN or GEM-port or xGEM-port
 - Port mirroring
 - User port identification such as PPPOE+ and DHCP Option 82

■ O&M

- Operator security, Multi-privileged operator, SSH v1/v2, FTP/TFTP, ACL
- Management protocol and interface: CLI, Telnet ,SNMP V1/V2C/V3, MIBII
- Remote firmware download and upgrade
- Environment detecting, control and alarm
- Performance statistics
- Over-heat protection

■ Environment

- Operating temperature: -25 °C ~ +55 °C
- Operating humidity: 5% ~ 95%, non-condensing

■ Power Supply

- Working voltage: -48 V ($\pm 20\%$) or : -60 V ($\pm 20\%$)

■ Dimensions

- 449.2mm (H) * 535mm (W) * 270mm (D)
(21 inch shelf)
- 443.7mm (H) * 482.6mm (W) * 270mm (D)
(19 inch shelf)
- 2200 mm (H) x 600 mm (W) x 300 mm ((D)
(Rack)