

# ZXA10 C300 Datasheet

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, EPON and P2P
- Large capacity and high density: meet operators' requirements for mass optical access roll-out
- Future-proof: support NG-PON, like 10G EPON, 10G GPON, WDM PON, and LR PON
- Abundant service support capability: IPTV, VoIP, HSI, VPN, mobile backhaul, etc
- Diverse interfaces: besides 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.
- Flexible networking topologies: Various uplink interface and subtending interface
- High reliability: key parts redundancy; support Type B and Type C protection for PON downlink and LACP/ STP/RSTP/MSTP for uplink

## Technical Specifications

### ■ System Architecture

- Capacity
  - Matrix capacity: 400/800Gbps
  - Bandwidth per subscriber slot: 20/40Gbps
- Chassis Configuration (21")
  - Backplane capacity: 3.2T
  - 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 monitoring card
- Chassis Configuration (19")
  - Backplane capacity: 2.8T
  - 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 monitoring card

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- Subscriber Card Density
  - GPON card: 4/8 ports per card
  - EPON card: 4/8 ports per card
  - P2P card: 8/16 ports per card
  - 10G EPON card: 2 ports per card
- Uplink interface card
  - 4\*10GE 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 monitoring card
  - 2 \* Hz/Bit external clock interfaces
  - 5 \* Environment monitoring interfaces

## ■ PON Features

- EPON compliant with IEEE 802.3ah
- GPON compliant with ITU G.984.x
- 10GEPON compliant with IEEE 802.3v
- Support up to 1:128 optical split ratio for GPON, 1:64 optical split ratio for EPON and 1:256 optical split ratio for 10GEPON
- Support OLS (Optical Laser Supervising )
- Physical reach: 20~60km
- Highly-efficient DBA: NSR-DBA,SR-DBA
- 1PPS+TOD,IEEE 1588V2
- Transceiver power: Class B+ or class C+
- Type B and type C optical link protection
- FEC
- AES128
- SCB

## ■ L2/L3 Features

- 4K VLAN
- 1:1/N:1 VLAN
- 802.1ad, SVLAN, Selective QinQ, VLAN stacking
- 32k MAC address table depth, expandable to 256k
- 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
- L3 routing:
  - Statistic routing
  - RIP V1/V2, OSPF v2, IS-IS, BGP
  - Multicast routing: PIM-SM, PIM-DM
- RMON II
- Multicast – IPTV
  - 1K Multicast groups IGMP V1/2/3, IGMP Snooping and proxy (v1/v2/v3)
  - MVLAN: 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
  - IPv4 DSCP Diffserv
  - Stream classification, rate limiting, shaping and priority setting

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- Traffic statistics
- WRED and triple color
- SLA: CIR, PIR, EIR, MBS
- Security
  - L2- L4 ACL
  - IEEE 802.1x subscriber authentication
  - 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
  - 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 monitoring, control and alarm

## ■ Environment

- Operating temperature: -5 °C ~ +45 °C
- Operating humidity: 5% ~ 95%, non-condensing

## ■ Power Supply

- Working voltage: -48 V ( $\pm 20\%$ ) or 220V AC ( $\pm 20\%$ , 50Hz)

## ■ 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)

## ■ Weight

- 60kg (Empty rack for 19inch and 21 inch)
- 175kg (19 inch rack)
- 183kg (21 inch Rack)

## ■ Power Consumption

- GPON
  - : 1400W (21 inch rack')
  - : 1250W (19 inch rack')
- EPON
  - : 750W (21 inch rack')
  - : 680W (19 inch rack')