# ZXA10 C620 Datasheet

ZXA10 C620 is a 2U high capacity optical access equipment based on TITAN platform. It meets the full-scenario access needs of ultra-high bandwidth, big video, FMC and network re-architecture, and provides the integration of transmission and access, as well as carrier-class QoS and security.

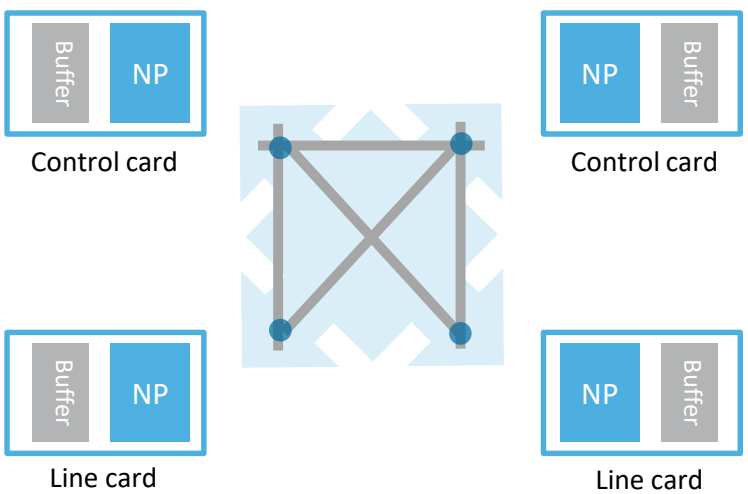
DC Shelf:

AC Shelf:

## Key Features

### System architecture

- Programmable Network Processor(NP)
- Support control and forwarding planes separate.




### Access Features

- 32 GPON, 10G PON, Any-PON or Combo PON ports.
- Three generations of PON technologies and directions, and two generations PON(GPON and XG(S)-PON) in one card.
- Support full services and scenarios access, such as big video, 5G bearing, Access office re-architecture, etc.

## Hardware Features

### Shelf configuration

- Total 6 slots (AC) / 7 slots (DC)
- 2 slots for service cards
- 2 slots for switch & control cards
- 1 slot for AC power card / 2 slots for DC power cards
- 1 slot for fan module

### System capability

- Switching capacity of backplane bus: 1.8 Tbit/s
- Switching and control card: 240 Gbit/s
- System switching capacity: 480 Gbit/s

### Uplink interface card

- 4 * 10GE/GE uplink per card (on switching and control card

### Subscriber card density

- GPON card: 16 ports per card
- XGS-PON card: 16 ports per card
- XG-PON card: 16 ports per card
- XG-PON & GPON Combo PON card: 16 Combo PON ports per card
- XGS-PON & GPON Combo PON card: 16 Combo PON ports per card
- Any-PON card: 16 Any-PON ports per card
- 10G-EPON card: 16 ports per card
- P2P card:16 ports 10GE SFP+/GE SFP, or 24 CSFP P2P GE/FE (supports 48-port)

### Management & Maintenance

- 1 out-of-band management interface
- 1 maintenance serial interface
- 1 Environmental detection serial interface
- 1 clock interface provided by SPUFS
- 1 line card debugging serial interface

## PON Features

### GPON

- Compliant to ITU G.984.x, G.988
- Support up to 1:128 optical split ratio
- Support OLS (Optical Line Supervision)
- Support optical link protection
- Support downstream/upstream FEC
- Supports AES-128 encryption
- Maximum logical distance: 60 km
- Maximum differential distance: 40 km maximum physical distance : 60 km

### XG-PON

- Compliant to ITU G.987.x and G.988
- Support up to 1:256 optical split ratio
- Support OLS (Optical Line Supervision)
- Support optical link protection
- Support downstream/upstream FEC
- Supports AES-128 encryption
- Maximum logical distance: 60 km
- Maximum differential distance: 40 km maximum physical distance : 60 km

### XGS-PON

- Compliant to ITU G.9807 and G.988
- Support up to 1:256 optical split ratio
- Support OLS (Optical Line Supervision)
- Support optical link protection
- Support downstream/upstream FEC
- Supports AES-128 encryption
- Maximum logical distance: 60 km
- Maximum differential distance: 40 km maximum physical distance : 60 km

### Combo PON

- Each port integrates GPON optical module, XG-PON/XGS-PON optical module and WDM1r
- Support up to 1:128 optical split ratio
- Support OLS (Optical Line Supervision)
- Support optical link protection
- Support downstream/upstream FEC
- Supports AES-128 encryption
- Maximum logical distance: 60 km
- Maximum differential distance: 40 km maximum physical distance : 60 km

## L2/L3 Features

### L2 Features

- Access control: MAC filtering, ACL
- L2-port: Physical Ethernet ports, logical Vports and aggregation ports, support L2 services and TPID configuration
- 128K mac address, 1:1 VLAN, N:1 VLAN and TLS VLAN, VLAN translation, VLAN stacking, flexible QinQ
- Permanent MAC, MAC address aging/learning/query/number limit
- Uplink protocol: STP/RSTP/MSTP, LACP

### L3 Features

- Basic routing: unicast routing forwarding, static route, IP based load balance, ECMP
- Dynamic routing: RIPv1/v2, OSPFv2/v3, BGP4, IS-IS v2, graceful restart, MD5, etc.
- DHCPv4: DHCP relay/proxy, Option 82, Option 60
- ARP: ARP protocol, ARP Proxy
- IPV4 host route table: 64K
- IPV6 host route table: 64K

## QoS Features

- Supports SP, WRR, and SP+DWRR queue scheduling on Ethernet ports, PON ports, and Vports
- DSCP labeling and relabeling
- Traffic statistics
- H-QoS
- Stream classification, rate limiting, shaping and priority setting
- Congestion Avoidance: tail drop, color-based RED, WRED
- Configuration of CIR/PIR/CBS/PBS/CM, TrTCM(Two Rate Three Color Marker)

## Security Features

### System security

- L4 port disable
- CPU protocol packet rate limit and scheduling

### Service security

- MAC address anti-drifting
- DHCP service security
- Port isolation: Uplink port/User port
- Broadcast packets separation based on VLAN

### Network security

- Broadcast/multicast flooding rate limitation
- Forwarding panel protocol packet rate limit
- Downstream ARP filtering
- DHCP anti-spoofing
- Anti-DoS attack
- ARP/IP anti-spoofing
- IP Source Guard
- ACL

## OAM Features

- Management protocol and interface: CLI, Telnet/SSHv2, SNMP v1/v2/v3, IGMP/MLD proxy/snooping model, Alarm and performance model
- Performance statistic and diagnosis
- Remote firmware download and upgrade
- Environment detecting, control and alarm
- Ethernet OAM: 802.1ag/Y.1731
- System fault auto-recovery and performance detection

## Multicast

- IGMP v1/v2/v3, IGMP snooping, IGMP proxy, SPR, and Router
- MLD v1/v2
- Multicast VLAN: 4K
- IGMP multicast group quantity: 4K
- ASM/SSM mode based on IGMPv3 and MLDv2
- Supports SCB multicast forwarding and L3 multicast forwarding
- Global or VLAN protocol enable or disable

## Power Supply

- DC Working voltage: -48 V (±20%), or -60 V (±20%)
- AC  Working voltage: 100V ~ 240V

## Environment

- Operating temperature-40 ℃ ~ 65 ℃ for overall unit
- Starting up temperature ≥ -25℃
- Operating humidity: 5% ~ 95%, non-condensing
- Altitude: ≤ 4000 m
- Air pressure: 70 kPa~106 kPa

## Dimensions

- Shelf: 88.1 mm x 482.6 mm x 283.5 mm (Height × Width × Depth)

## Weight

- Empty chassis: 3.93 kg
- Full configuration: < 13 kg