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.
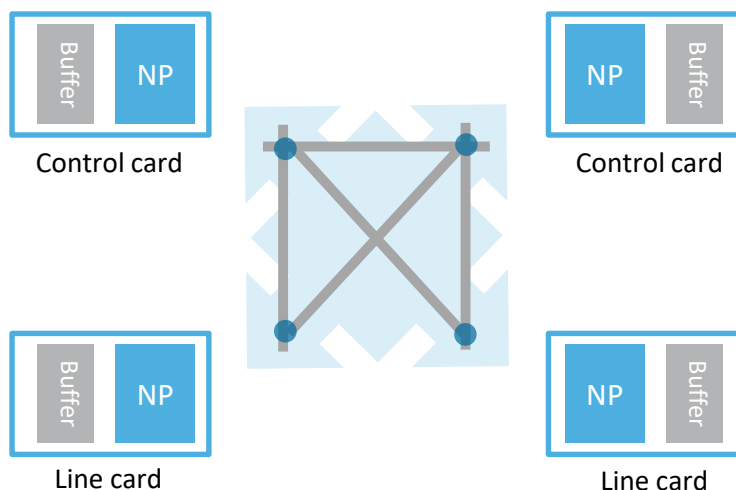
DC Shelf:

AC Shelf:

Key Features

● System architecture

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

Control card

Control card

Line card

Line card

● 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.

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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

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- ### 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)

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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 ($\pm$20%), or -60 V ($\pm$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