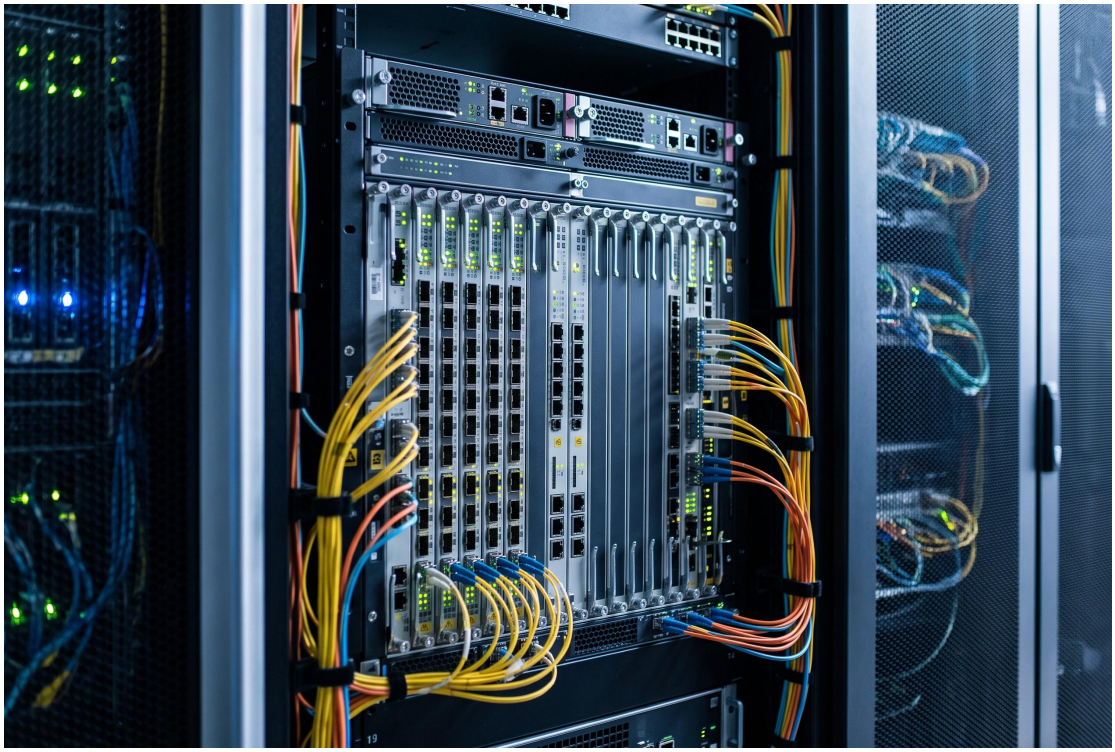
ZXA10 C600 High-Capacity Optical Access Platform - Official Technical Overview & Hardware Datasheet

EXECUTIVE SUMMARY

The ZXA10 C600 represents a paradigm shift in optical access platform engineering, embodying ZTE's TITAN architecture philosophy to deliver carrier-grade performance for next-generation FTTx networks. As a large-capacity optical line terminal (OLT) platform, the C600 addresses the escalating bandwidth demands of 4K/8K video, virtual reality, fixed-mobile convergence, and enterprise-grade connectivity scenarios . The platform's fully-distributed, programmable router architecture establishes a foundation for seamless evolution from GPON through XGS-PON and toward future 50G PON deployments, protecting operator investments across multiple technology generations .



HARDWARE ARCHITECTURE & SILICON

The ZXA10 C600 chassis is engineered around a high-end router architecture that fundamentally separates control plane and forwarding plane functions, enabling non-blocking traffic forwarding at line rate . At the silicon core, ZTE's in-house developed 16nm network processor (NP) integrates NP and fabric functions into a single chip, delivering industry-leading integration density . The 5-in-1 PON chipset achieves 16-port-per-chip density while consuming 31.8% less power than CoC v8 reference designs for Combo PON configurations . The backplane provides 14 Tbit/s switching capacity, while the main control switching cards deliver 3.68 Tbit/s per card and 7.36 Tbit/s system-level capacity .

KEY FEATURES & ROUTING LOGIC

- Fully-Distributed Switching Fabric: Control and forwarding planes operate independently with redundant control cards, enabling In-Service Software Upgrade (ISSU) and Non-Stop Routing (NSR) with zero service interruption .
- Three-Generation PON Coexistence: Single platform supports GPON, XG-PON, XGS-PON, 10G-EPON, and Combo PON technologies, with Any-PON capability permitting flexible technology switching without hardware replacement .
- Industry-Leading Port Density: Supports up to 272 GPON/XG-PON/XGS-PON/Combo PON ports in the 21-inch chassis configuration, or 240 ports in the 19-inch configuration .
- Non-Blocking Forwarding: 200G per service slot bandwidth eliminates oversubscription, ensuring deterministic performance for latency-sensitive applications including 5G uRLLC backhaul .
- SDN/NFV Readiness: Native NetConf/YANG support enables integration with third-party SDN controllers and orchestration systems, with built-in blade capability for NFVI deployment .
- Network Slicing: Hardware-level resource partitioning allows dedicated card, port, or ONU assignment to discrete network slices with guaranteed isolation .

COMPLIANCE & STANDARDS

The ZXA10 C600 conforms to international telecommunications standards including ITU-T G.984.x (GPON), G.987.x (XG-PON), G.9807.1 (XGS-PON), and G.988 (OMCI). Ethernet services comply with IEEE 802.1Q, 802.1ad, 802.1ag, and 802.3 standards. The platform supports MEF-compliant Carrier Ethernet services and holds CE and RoHS certifications for European market deployment . Synchronization capabilities meet ITU-T G.8262, G.8264, and G.781 requirements for frequency and time distribution .

TECHNICAL SPECIFICATIONS

The following matrix presents verified hardware parameters for the ZXA10 C600 platform in its standard configurations.

Parameter	**Specification**
Form Factor	11U, 19-inch or 21-inch chassis options
Dimensions (21-inch)	486.1 mm x 535 mm x 288.5 mm (H x W x D)
Dimensions (19-inch)	486.1 mm x 482.6 mm x 288.5 mm (H x W x D)
Backplane Capacity	14 Tbit/s

System Switching Capacity	7.36 Tbit/s
Main Control Switching	3.68 Tbit/s per card
Per-Slot Bandwidth	200 Gbit/s
Service Slots	17 (21-inch) / 15 (19-inch)
Max PON Ports	272 (21-inch) / 240 (19-inch)
Power Supply	Dual -48V DC (±20%) or -60V DC (±20%), hot-swappable
Operating Temperature	-40°C to +65°C (start-up ≥ -25°C)
Operating Humidity	5% to 95% non-condensing
Maximum Input Current	60A per power feed

ORDERING SKU INFORMATION

Service cards are configured per deployment requirements and include GPON variants (GFBL/GFGM/GFGN), XG-PON (GFGH/GFGT), XGS-PON (GFCH), 10G-EPON (EFTL/EFGM), and Combo PON options supporting mixed GPON/10G PON ONU populations . Uplink cards provide 8 or 16 ports of 10GE, or 2 ports of 100GE for high-capacity aggregation scenarios. Control and switching cards (SFUD/SFUB/SFUC) are deployed in redundant pairs for carrier-grade availability. Power cards (PRVR) support dual -48V DC feeds with load sharing. The FCVD fan card provides active cooling with front-to-rear

airflow .

