

ZTE ZXA10 C300 Unified Access Platform Physical Layer Specifications - Official Technical Overview & Hardware Datasheet

EXECUTIVE SUMMARY

The ZTE ZXA10 C300 Unified Access Platform is a carrier-grade, high-density optical access solution engineered to meet the escalating demands of next-generation broadband networks. As a cornerstone of ZTE's optical access portfolio, the C300 delivers exceptional scalability, reliability, and performance for FTTx deployments, including GPON, XG-PON, and XGS-PON applications. This datasheet provides a comprehensive technical overview of the platform's physical layer specifications, chassis architecture, hardware components, and compliance standards. Designed for central office and remote terminal environments, the C300 enables service providers to deliver ultra-broadband services with unparalleled efficiency and operational simplicity.



ARCHITECTURE & CHASSIS DESIGN

The ZXA10 C300 employs a modular, carrier-class chassis architecture available in multiple configurations to suit diverse deployment scenarios. The platform supports a 19-inch rack-mountable form factor with options for 2U, 6U, and 10U chassis heights, allowing for flexible capacity scaling. The chassis is constructed from high-grade galvanized steel with an aluminum front panel, ensuring structural rigidity and efficient EMI shielding. A passive backplane design interconnects all line cards, control cards, and power modules, facilitating high-speed data transfer and hot-swappable component replacement. The front-accessible card slots are organized for optimal cable management and airflow, with dedicated slots for control and switching cards, PON line cards, uplink cards, and power supply units. The chassis supports front-to-back and back-to-front airflow options, accommodating various rack

ventilation configurations.

HARDWARE FEATURES

The C300 platform is built around a high-capacity switching fabric that supports non-blocking traffic forwarding. Key hardware components include the Control and Switching Card (CSC), which manages system control, routing, and switching functions; PON Line Cards supporting GPON, XG-PON, and XGS-PON standards with varying port densities; Uplink Cards providing 10GE/GE interfaces for backhaul connectivity; and Power Supply Units with 1+1 redundancy. The platform supports hot-swappable fan trays and power modules, ensuring continuous operation during maintenance. Physical layer interfaces include SC/APC and SC/UPC optical connectors for PON ports, RJ-45 and SFP/SFP+ cages for management and uplink interfaces, and a console port for local management. LED indicators on each card provide real-time status monitoring for power, link activity, and alarms.

COMPLIANCE & STANDARDS

The ZXA10 C300 complies with major international standards and regulatory requirements, including ITU-T G.984 (GPON), ITU-T G.987 (XG-PON), ITU-T G.9807 (XGS-PON), IEEE 802.3 (Ethernet), and RoHS directives. The platform

holds certifications such as CE, FCC, UL, and NEBS Level 3, ensuring suitability for global deployments. Safety compliance includes IEC 60950-1 and IEC 62368-1, while EMC performance meets EN 300 386 and FCC Part 15 requirements. The C300 is also designed to meet Telcordia GR-1089 and GR-63 standards for network equipment safety and environmental robustness.

TECHNICAL SPECIFICATIONS

The following table summarizes the key physical and performance specifications of the ZXA10 C300 platform.

Parameter	Specification
Form Factor	2U / 6U / 10U 19-inch rack-mountable chassis
Switching Capacity	Up to 3.6 Tbps (non-blocking)
PON Standards	GPON (ITU-T G.984), XG-PON (ITU-T G.987), XGS-PON (ITU-T G.9807)
PON Port Density	Up to 32 ports per line card, up to 256 ports per chassis
Uplink Interfaces	10GE / GE (SFP/SFP+), up to 8x10GE per uplink card
Power Supply	1+1 redundant AC (100-240V) or DC

	(-48V)
Power Consumption	Typical 800W (10U fully loaded)
Operating Temperature	-5°C to 55°C (23°F to 131°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% non-condensing
Dimensions (10U)	442 mm (W) x 444 mm (H) x 280 mm (D)
Weight (10U fully loaded)	Approximately 45 kg (99 lbs)
Management Ports	RJ-45 console, 10/100/1000Base-T out-of-band management
Optical Connectors	SC/APC or SC/UPC (PON), LC (SFP/SFP+)
Compliance	CE, FCC, UL, NEBS Level 3, RoHS, ITU-T, IEEE

ORDERING OPTIONS

The ZXA10 C300 is available in multiple configuration options to meet specific deployment needs. Standard chassis options include the C300-2U, C300-6U, and C300-10U, each supporting different numbers of line card slots. PON line cards can be ordered with 8, 16, or 32 ports for GPON, XG-PON, and XGS-PON

variants. Uplink cards are available with 4x10GE or 8x10GE interfaces, and redundant control cards are offered for high-availability configurations. Power supply options include AC (100-240V) and DC (-48V) modules with 1+1 redundancy. Fan tray assemblies and mounting kits are also available as separate orderable items. For detailed SKU information, please contact your ZTE sales representative.

