



CTDI Products: End-to-End Solutions

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Edge200™ OLT

Providing cost effective, reliable connectivity between the core network and optical access network, the **Edge200** is CTDI's stackable central office chassis. The CTDI Edge200 offers proven reliability for delivering voice, video, and data services for 64 ONTs while maintaining CTDI's current network management capabilities. The Edge200 provides a full gigabit of bandwidth on 2 PONs from a compact 2U 19" rack mounted chassis. The product's temperature-hardened electronics and comprehensive remote management make it ideal for isolated applications without the need for expensive buildings or environmentally controlled enclosures. With a full compliment of testing and management capabilities, the Edge200 provides unparalleled flexibility and performance.

Features and Benefits

Robust, reliable and flexible

- Temperature hardened electronics suitable for curb mounting
- 19" rack mounting with front access connectivity (suitable for ANSI or ETSI rack mounting)
- Redundant -48VDC power
- External alarm (outputs and inputs)
- Voice, video and data services integrated into one platform
- Business, home and high-density applications in one network

Secure, high capacity data services

- Internal aggregation switch
- 2 Gbps optical and 2 100BaseT network interfaces
- Port aggregation and spanning-tree support for redundant data network access
- VLAN managed services with priority QoS processing
- Designated services support error free delivery of VoIP and streaming video content
- Universal PON bridging capabilities allows private LAN communications

Industry-standard TDM Telephony

- T1/E1 telephony interfaces for TDM/POTS service
- Integrated 1-0 digital cross connect
- Synchronous T1/E1 delivery
- Private point-to-point T1/E1 services

Universal video distribution

- RF video support via optical overlay (HDTV supported)
- Remote RF video service controls
- IP video using IGMP multicast and proxy functionality (HDTV supported)
- VoD capability with 2-way signaling

Comprehensive remote management

- Built in web-based configuration manager
- SNMP network management interface
- Software download and distribution control
- Circuit testing and loop backs for telephony services
- Extensive data port statistics



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Specifications

Physical

- 2U 19" rack mount
- Dimensions: 3.5" H x 17" W x 11" D (88.9mm H x 431.8mm W x 279.4mm D)
- Weight: 10 lbs (4.54kg)

System Features

- 2 1-Gbps Ethernet PONS (32 ONUs each)
- 64 ONUs total
- 4,032 VLANs
- 5 designated high-priority service facilities
- OAM&P control
- Automatic ONU ranging
- PON to PON bridging
- Same PON bridging
- Alarm management and forwarding

Data Network Interfaces

- 2x 1000BaseFX Ethernet interface SFP ports
- 2x 100BaseT network interfaces
- Port aggregation support
- Spanning tree support
- VLAN tagging
- Double-tagged packet support
- TOS and Ethernet priority support
- IP Video Multicast and Unicast support

TDM Interfaces

- 4x T1/E1 interfaces (RJ48)
- Full DS0 cross connect functionality
- Grooming for up to 120 DS0 channels
- Red/yellow alarm processing
- Performance monitoring on T1/E1 ports
- Status & Alarm indicators on each port

PON Interfaces (2)

- SC/APC optical PHY (single-mode fiber)
- 1.25 Gigabit Ethernet PON
- Broadcast downstream @ 1Gbps
- Burst-mode TDM upstream @ 960Mbps

Downstream PON optics (transmitter)

- Class 1 laser
- Optical output power level: >+3dBm
- Optical output power level with RF Overlay option: >+2dBm
- Transmit Laser wavelength 1490nm +/-2nm
- RF overlay wavelength 1550nm +/-20nm

Upstream PON optics (receiver)

- Optical receiver wavelength: 1310nm +/-50nm
- Optical receiver dynamic range:
 - with RF -7 to -28dBm
 - without RF -8 to -29dBm

Ordering information

Part #	Description
edge202	edge200 with 2 PONs, 4 T1/E1
edge204	edge200 with 2 PONs, 4 T1/E1, 2 RF video combiners

SFP Plug-ins

Part #	Description
OPT2100	1000BaseFX SFP module, multi-mode fiber, 850nm optics, 200 meter range
OPT2200	1000BaseFX SFP module, single-mode fiber, 1310nm optics, 20 kilometer range
OPT2300	1000BaseFX SFP module, single mode fiber, 1550nm optics, 70 kilometer range
COP2000	1000BaseT SFP module, RJ45 connector, CAT 5 cable, 300 foot range

System Timing

- Primary, secondary & tertiary clock source selections
- Internal (free-run)
- External BITS clock input, at 1.544 Mbps or 2.048 Mbps
- T1 or E1 derived clock timing

Alarm and Indicators

- Critical/Major, Minor alarm LED indicators
- Network data port status LED indicators
- T1/E1 port status LED indicators
- DC power indicator
- PON status indicator
- Lamp test function

Network Management

- 10/100BaseT OAM Ethernet port (RJ45)
- In-band or out-of-band management access
- Web-enabled GUI based local configuration
- SNMP v1 remote management capabilities
- Name/password security with access list and closed user groups
- GEMS Element Management System

Testing and Maintenance Capabilities

- OTDR automatically ranges the ONUs
- Variable TCAs for optical power
- TDM performance monitoring
- Digital pattern validation for POTS and T1 channels tests
- Loopback controls on TDM ports

Power and Environmental

- Dual -48VDC power feeds (-42 to -56VDC)
- 60 W maximum power consumption
- -40°C to +65°C ambient air temperature
- 5% to 95% operating humidity (non condensing)

Standards, Certifications, and Patents

- ANSI T1.102, T1.107, T1.107A, T1.404, T1.231
- Telcordia TR-TSY-000009, TR-NWT-000499
- ITU G.703, G.704, G.706
- IEEE 802.3
- FCC part 15a
- EN300 386
- Patents
- United States (US Pat 7 031 343)
- Taiwan (#90128223)
- China (ZL01821736.2)



CTDI
PRODUCTS

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