



CR-3816: 16-Slot Chassis for Modular EPON Media Converter

Key Features

- Supports standard 19" 3U high rack-mount chassis with 16 slots for converter modules
- 19-inch rack mount
 - The concentrator unit will fit in both Electronic Industries Association (EIA) standard compliant racks.
- Supports 3 fans for chassis heat radiating
- Operating temp range -0 ~ 40°C
- Supports chassis temperature detection with F/C both degree
- Supports FAN rotation rate (RPM) detection
- Supports chassis ID (CID) for chassis location indication
- Built-in management CPU module:
 - Supports DB-9 RS232 interface for console
 - Supports two Ethernet ports in management network
- Management Board LED display: Power/A/B, UTP port: Act/Link, CPU Run
- Supports hot-swappable and upgradeable management CPU module
- Supports hot-swappable converter modules
- Supports hot-swappable and loading-shared redundant power units, each can be DC or AC. Independent power input for each power modules
- Supports Real-Time Clock (RTC)
- Power monitor (absent/present, ON/OFF, DC/AC), fans monitor and temperature monitor
- Power supply: Hot-swap redundant, high reliability/safety
- Supports CO/CPE conversion port configuration for port state, Speed/Duplex, Flow Control and Bandwidth setting
- Complies with RoHS Requirement

Chassis Features

- The chassis has its own IP address, user name and password. In case of loss of username/password, a backdoor access will be available. It supports a forgetting username and password mechanism to login administrator right then reset the username and password.
- Supports IEEE 802.3ah OAM function for CO and CPE site "Remote Failure Indication", "Remote Loopback" and "Link Monitoring"
- Supports "Port Configuration" and "Bandwidth Configuration"
- Remote monitoring and control functions
 - Remote control and monitoring via the SNMP protocol or a web browser, CLI control via TELNET is also supported.
- Supports CO site media converter module ingress/egress bandwidth rating management
- Supports text-based text user interface with CLI via Telnet or RS-232 console serial interface
- Supports CLI for multi-port CPE devices for port configuration, port counter, CO/CPE fiber link loop back test and link failure trap event log.
- Supports Web UI for multi-port CPE devices for port configuration, port counter, CO/CPE fiber link loop back test and link failure trap event log.
- Supports Neutral web-based graphic user interface
- Supports Virtual Stack Web Management (VSM)
- Supports MIB II, Enterprise MIB and SNMP Traps with SNMPv1 and v2c
- Supports SNMP MIB OID for multi-port CPE devices for port configuration, port counter, CO/CPE fiber link loop back test and link failure trap event.
- Supports RMON 1,2,3,9 groups (for CO site module's port)
- Supports Management Security Configuration. It can filter connections by IP range, connection type - http, telnet and SNMP and filter action - accept or deny.
- Supports network time sync function with NTP and daylight savings
- Supports domain name address instead of IP address for NTP server and E-mail server setting
- Supports device name and location configurable function
- Supports SNMP access filtering for security, the SNMP set function could be disabled to limit the configurations be changed via SNMP set function
- Supports up to 6 trap / alarm hosts to receive the trap host and alarm message via mail and short message receiver
- Supports DHCP client for dynamic IP assignment
- Supports user account management, there are two level user authority
 - Administrator User:
 - Only one user is administrator authority in the chassis. The user could modify and look all configurations
 - Guest User:
 - The chassis could be setup to four guest authority users, the users could look configuration only, could not change configurations.

- Provides a Gigabit Ethernet PON (Passive Optical Network), converting 10/100/1000 Mbps Ethernet into optical signals with an optical coupler for point-to-multipoint networks. The EPON OLT converter module for the center unit can be selected to provide datacom service for distances of up to 20 km. The same subscriber unit EPON ONU converter is used for remote CPE site, whether 20 km type.
- One OLT handles up to 32 subscribers per fiber
 - Implements full duplex with single SM fiber links, along with an optical coupler for 32 branches, making it possible to handle up to 32 subscribers per single optical fiber.
- One chassis supports up to 512 subscribers
 - The center unit (rear access type) uses high-density packing to fit up to 512 subscribers into a 3U case height (132 mm), saving your valuable rack space.
- Independent channel configuration
 - Additional EPON converter module can be added as needed to economically handle subscriber growth. In addition, maintenance is possible in channel units, making it possible to respond to a fault on one channel without affecting the others.

Overview

The manageable box is a 19-inch Media Converter Chassis with cabinet height 3U. It is designed to accommodate 16 slots of various type of fiber media converter module at a central location for multiple segments cross connection and network management. Any combination of GEPON Fiber conversion solutions can be installed in a wiring closet for cable connection. The network management supports Web UI via browser, CLI via local console, Telnet interface and SNMPv2c. Supports IEEE 802.3ah OAM function for CO and CPE site "Remote Failure Indication", "Remote Loopback" and "Link Monitoring". Supports "Port Configuration" and "Bandwidth Configuration". Models equipped with DC48V power unit are also available for Telecom applications.

- Supports export trap log via TFTP protocol to backup the trap log data. There two method to export the trap log data
 - Manual Driven:
 - Export the trap log data via trap log export function in the web UI or CLI user interface
 - Log Pool Full Driven:
 - The maximum history log can be stored up to 160 entries. The history log data will be exported to TFTP server while the log pool was full.
- Supports CPU and converter module firmware upgrade, configuration data import/export and log data export via TFTP
- Supports diagnostic ping for the chassis to test an alive network device IP, the testing result included response time, nr. of packets and ping success rate.
- Supports chassis diagnostic for ram, flash, eeprom, temperature and fan detection
- Supports auto logout, user can adjust the Auto-Logout time in minutes.
- Supports import / export configuration file in Web UI, CLI and SNMP function via TFTP protocol to backup and restore configuration
- Simpler system configuration at installation
- The center unit automatically scans and records ID information from subscriber systems.
- Assurance of security for subscribers
 - Encryption in the PON layer assures security between subscribers.

Technical Specifications

Model Description

16-slot managed EPON converter chassis for modular EPON Media converter with redundant AC Power or redundant 48VDC Power

Converter Chassis	Model Power Supply Configuration	DC Output	Slots
CR-3816RAC	Two AC 100 or 240V Power Module w/ Redundancy	400W @+12V	16
CR-3816AC	One AC 100 or 240V Power Module wo/ Redundancy	200W @+12V	16
CR-3816RDC	Two DC -48V Power Module w/ Redundancy	400W @+12V	16
CR-3816DC	One DC -48V Power Module wo/ Redundancy	200W @+12V	16
CR-3816RADC	One AC 100 or 240V and One DC 48V Power Module w/ Redundancy	400W @+12V	16

Power Model	Power Supply Configuration	DC Output
CPS-AC200W	Redundant AC 100 or 240V	200W @+12V
CPS-DC200W	Redundant DC -48V	200W @+12V

Model	Description
OLT-E100BS4.S20	1-Port Gigabit Ethernet to EPON OLT Module, CO SC 20Km, 1490nm

Note:

- The OLT modules are ordered by model number and with a separate package
- The slide-in modules and converter chassis should be supplied only by the same manufacturer/vender. Both converter and chassis rack are built to match each other at dimensions, power bus/receptacle and power safety, etc.
- OLT-E100BS4.S20 must be installed in pairs, i.e., OLT-E100BS4.S20 at one end and ONU-E100BS3.S10 or ONU-E100BS3.S20 at the other one
- **Capacity:** 16 Slots for modular Media converter
- **Management:** SNMP and web-base via in-band LAN port or local serial CLI

- **Power supply:** Hot-swap redundant, high reliability/safety
- **Redundant Power Requirement:**

AC Power Input		Telecom DC Input	
Voltage	100 or 240 VAC	Voltage	48VDC
Frequency	50~60Hz	NA	NA
Dissipation	200W maximum	Dissipation	200W Maximum

- **Ambient Temperature:** 0 to 40°C
- **Humidity:** 5% to 90%
- **Dimensions:** 132(H) x 440(W) x 336.5(L) mm
- **Weight:** 8.52kg (without power)
 - 9.54 kg (includes 1 x AC power)
 - 10.56 kg (includes 2 x AC power)
 - 9.57 kg (includes 1 x DC power)
 - 10.62 kg (includes 2 x DC power)
 - 10.59 kg (includes 1 x AC power + 1 DC power)
- **Safety:** Complies with FCC Part 15 Class A & CE Mark Approval

Ordering Information

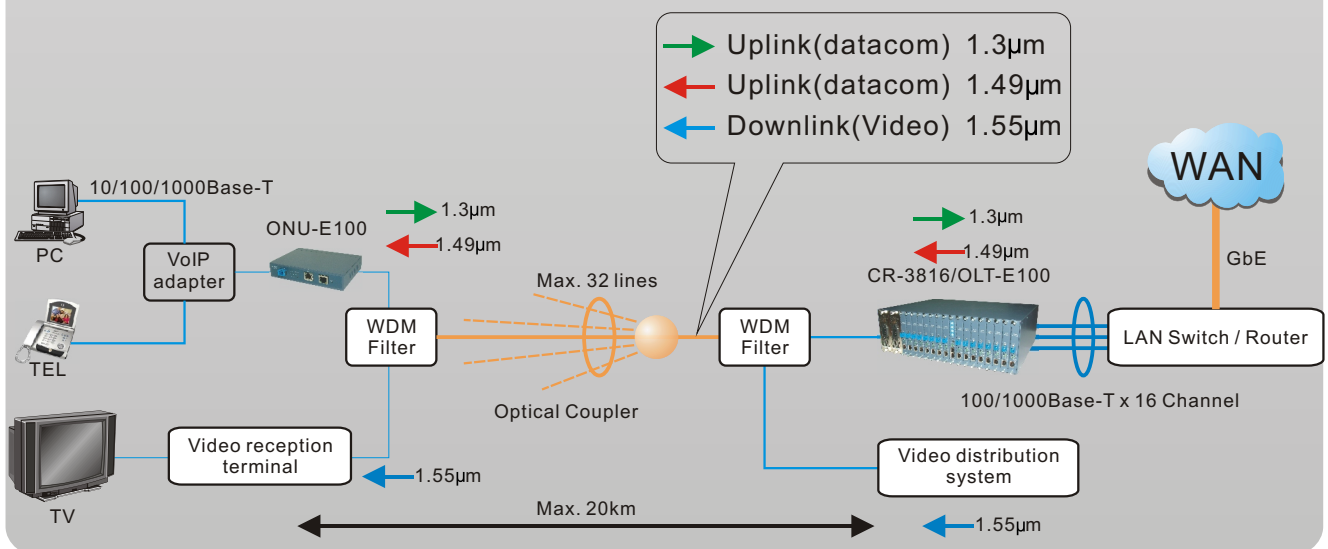
Model	Description
CR-3816RAC	16-Slot EPON Converter Chassis with Dual AC Input Redundant Power Supply
CR-3816RDC	16-Slot EPON Converter Chassis with Dual DC Input Redundant Power Supply
CR-3816RADC	16-Slot EPON Converter Chassis with AC+DC Input Redundant Power Supply
CR-3816AC	16-Slot EPON Converter Chassis with Single AC Input Redundant Power Supply
CR-3816DC	16-Slot EPON Converter Chassis with Single DC Input Redundant Power Supply
OLT-E100BS4.S20	1-Port Gigabit Ethernet to EPON OLT Module, CO SC 20km, 1490nm
ONU-E100BS3.S10	2-Port Gigabit Ethernet /Fast Ethernet to EPON ONU Converter CPE SC 10km, 1310nm
ONU-E100BS3.S20	2-Port Gigabit Ethernet /Fast Ethernet to EPON ONU Converter CPE SC 20km, 1310nm

Optional Accessory

Model	Description
CPS-AC200W	AC-DC Power Module 200W/12V, 100 or 240VAC, 50/60Hz
CPS-DC200W	DC-DC Power Module 200W/12V, -48VDC

Representative application

(CR-3816, OLT-E100 and ONU-E100 configuration)



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