

Clearfield ODC-1000 Outdoor Cabinet



DESCRIPTION

The Clearfield ODC-1000 broadband powered outdoor cabinet has been designed with the philosophy of modularity and flexibility, while maintaining a maximum heat dissipation capability. Designed to accommodate Calix C7, E-Series, B-Series and F5 shelves, the ODC-1000 provides all the powering, protection and cable management to serve up to 576 subscribers, or up to 1280 PON subscribers. The ODC-1000 supports 100% density of narrowband and broadband services.

KEY ATTRIBUTES

MODULARITY: Clearfield cabinets are designed to easily scale from a minimal configuration to the maximum capacity of the cabinet. Design consideration has been taken to enable the customer to field install and scale common options such as line protection, cooling, and cross-connect modules. The cabinet can be configured for as low as 48 lines with the option of scaling up to the maximum capacity of 1280 lines.

FLEXIBILITY: The ODC-1000 has been designed to accommodate third-party equipment in both the front and rear equipment compartments, as well as the splice chamber. Twenty-three-inch equipment racks in the front, rear, and splice chambers allows for the installation of common devices such as fiber management, passive optical splitters, and CWDM EDFAs.

REAR ACCESS: The ODC 1000 is equipped with a rear door which allows access to the back of the equipment mounted in the front equipment chamber. When configured for a Calix C7, the C7 is mounted to a swing bracket to enable access to the rear of the shelf. In addition, any 19-inch gear mounted above the C7 has the ability to swing open for rear access via an optional swing bracket kit.

FTTP READY: The ODC-1000 can terminate large amounts of fiber, comfortably serving as the intermediary to deploy fiber-to-the-home or fiber-to-the-business services. With the usage of standard 23-inch equipment racks, the ODC-1000 can support the usage of high density third-party Fiber Distribution Panels, allowing a smooth transition of every subscriber from copper- to fiber-based services when desired.

SERVICE VARIETY: The ODC-1000 supports traditional copper-based services (POTS, DS0 specials, xDSL), yet gives service providers the ability to support large quantities of other high revenue-generating services, such as DS1 (hi-cap quality with 1:N protection), DS3, OC-3, OC-12, Gigabit Ethernet, and fiber-to-the-home, all from the same platform with no need to deploy overlay networks for specific services.

POWER MANAGEMENT: Intelligent power management features guarantee continued delivery of narrowband and selective user-provisioned broadband services during extended periods of battery-powered operation.

ADVANCED COOLING: The ODC-1000 cabinet has been designed from the ground up to address heat dissipation issues associated with the deployment of high-speed services from remote terminal locations. Cooling is achieved via door-mounted air-to-air heat exchangers that are either factory- or field-installable. The ODC-1000 has low-capacity and high-capacity door mount cooling options. The low-capacity cooling option is available to cool up to 240 lines of POTS+DSL services. The high-capacity cooling option is designed to cool up to 576 lines of POTS+DSL services and provide additional cooling for third party equipment. Customers can initially deploy the low-capacity cooling option and then field-upgrade to the high-capacity option as service requirements warrant.

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EASE OF MAINTENANCE: The Clearfield powered outdoor cabinets contain a variety of features designed to ensure ease of maintenance, including:

- Hinged protector panels to facilitate simple access for wiring purposes
- Cable towel bars to neatly route up to 576 lines of copper
- Swing bracket mounting for shelves and third-party equipment
- Door-mounted heat exchanger options for simple field replacements
- A separate compartment for fiber and copper access
- Convenient access for troubleshooting and electrical maintenance.

FLEXIBLE SPLICE COMPARTMENT: The ODC 1000 cabinet offers a modular approach to fiber and cable splicing:

- Cable towel bars provided with the cabinet can be used to neatly route up to 576 lines of copper
- Twenty-three-inch rack space in the splice chamber is provided to mount copper protection panels, cross-connect panels, and Clearfield fiber management systems
- The cable entrance area accepts up to:
 - four 4-inch (outside diameter) subscriber cable entries
 - two 2-inch cable entries for fiber/AC

FIELD UPGRADES: The ODC-1000 supports field-installable options. These include:

- A door-mount heat exchange system
- Clearfield fiber management options, fiber splice trays, and distribution cassettes
- EDFA Mounting Kit (Third Party)
- Test head installation kits (Third Party)
- Generator connectors
- Cross-connect panels
- Line protection blocks (50-pair increments)
- Battery warmer pads
- Zone 4 seismic kits for batteries
- Additional broadband shelves (Calix E7-2, B6, E5)

O R D E R I N G I N F O R M A T I O N

Contact your Clearfield Sales Representative for a list of available Clearfield ODC-1000 Outdoor Cabinet packages.

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WIRED CAPACITY

Copper: Up to 576 lines
 PON: Up to 1280 subscribers
 C7: Up to 480 ADSL2 and POTS ports*
 E5: Up to 384 VDSL2 and POTS ports*
 B6: Up to 576 ADSL2 and POTS ports

DIMENSIONS

38 inches (width) x 34 inches (depth) x 54 inches (height)

WEIGHT

560 lbs. (Equipped with Northstar 170 AH batteries: 1000 lbs.)

COLOR

Warm gray

ENVIRONMENTAL

Ambient temperature (per GR-487): -40° C to +46° C (-40° F to +115° F)

COOLING

Door-mount heat exchanger options (750 Watts/1850 Watts)

MOUNTING OPTIONS

Pad, Pole, H-frame, Wall, 3rd party Pedestal

POWER

Power feed: 110–240 VAC single phase, 60-Amp service with UL listed service disconnect
 Redundant AC feeds to rectifier
 Redundant DC feeds to systems
 Low voltage DC disconnect (-42V)
 High power AC surge protection (Joslyn)
 Remote power feed: ±190 VDC

DC RECTIFIERS

Valere Compact Power System
 4 rectifier modules maximum
 120 Amp max. total capacity
 Rectifier modules: 20 or 30 Amp

CABLE MANAGEMENT

Copper plant OSP connectors: MS² or 710

ALARMS

Breaker/fuse fail alarm (rectifier distribution)
 Door security alarm
 Rectifier Minor alarm
 Rectifier Major alarm
 Heat exchanger fail/overtemp alarm
 LVD Active alarm
 Batteries on discharge alarm
 AC Fail alarm

BATTERY BACK-UP

Preferred battery: Northstar 170 AH
 One string per cabinet (or two strings with second battery riser option)

Vendor	Model	Ah
Northstar	NSB 170FT	170Ah
Avestor	SE48S80	160Ah
Flamm	12FAT 155	155Ah
GNB	M12V155FT	155Ah
Enersys	SBS190FT	190Ah
Enersys	SBS100FT	100Ah
C+D Dynasty	TEL-150F	150Ah
Northstar	NSB 100FT	100Ah
Enersys	SBS C11	92Ah

COPPER PROTECTION PANELS

Standard 5-pin protection blocks – modular in 50-pair increments
 Up to six (6) 50-pair protection blocks per Protector Panel
 Mounting Frame (600 pairs total)

SAFETY

UL 60950
 CAN/CSA-C22.2 No. 60950

EMC

FCC Part 15 Class A
 ICES-003 Class A

CALIX EQUIPMENT SUPPORTED

E5-platform (up to 16 units)
 (1) C7 chassis
 (1) F5 chassis
 (1) B6-012i chassis
 (1) B6-006 chassis
 (12) B6-001 chassis
 (9) E7-2 chassis

FIBER MANAGEMENT OPTIONS

23-inch fiber splice trays
 Fusion—12 positions per tray*
 Heat Shrink—12 positions per tray*
 Mechanical—12 positions per tray*

*up to 10 trays per splice tray holder

CLEARFIELD FIBER DISTRIBUTION PANEL OPTIONS

12/24 position panel: LC, SC, ST, and FC connectors

CLEARFIELD FIBER DISTRIBUTION CASSETTES

SC connectors—12 positions per cassette
 LC connectors—12 positions per cassette

GENERATOR CONNECTOR OPTIONS

30 Amp NEMA twist lock w/breaker and interlock
 60 Amp pin & sleeve w/breaker and interlock (Hubbell)
 100 Amp pin & sleeve w/breaker and interlock (Hubbell)

COMPLIANCE

Telcordia, GR-63-CORE, NEBS Requirements, Issue 1, October 1995
 Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets, Issue 2, March 2000

S P E C I F I C A T I O N S

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SPACE FOR THIRD PARTY EQUIPMENT

Configuration	Front	Rear	Splice Chamber
Non-Cross Connect (240 lines)	6 RU/12" Deep	16 RU/12" Deep	16 RU/4" Deep
Cross Connect (240 lines)	6 RU/12" Deep	10 RU/12" Deep	None
Non-Cross Connect (480 lines)	6 RU/12" Deep	16 RU/12" Deep	10 RU/4" Deep
Cross Connect (480 lines)	6 RU/12" Deep	16 RU/12" Deep	None