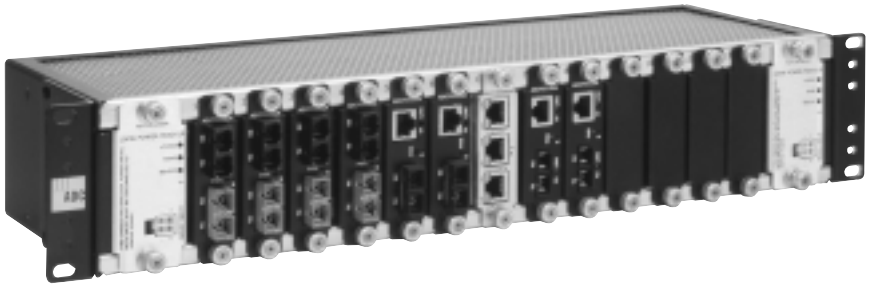
Media Converters

OptEnet™ Media Converter Platform



Features:

- Modular design enables line card diversity within the same chassis
- Extend central office interconnect between network elements when distances are greater than 100 meters
- Ethernet delivery solution from central office to customer premises
- Reduce capital expenses associated with expensive optical line cards in network elements
- Auto-negotiation features eliminate the need for optical line card upgrade in network elements
- Redundant -48Vdc power supplies
- Supports SNMP and Telnet communication protocols
- Daisy-chain communication interfaces
- Supports 10Base-T, 100Base-TX and 1000Base-T UTP conversion to singlemode fiber
- Multimode fiber to singlemode fiber conversions
- Medium Dependent Interface Cross-over (MDI-X) eliminates network collisions
- NEBS Level 3, UL and FCC standards compliant

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Media Converters

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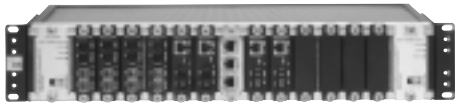
Common Equipment

OptEnet™ Modular Chassis

The OptEnet chassis is a modular chassis, which enables multiple types of line cards to be deployed simultaneously within the same chassis.

Features

- Supports up to twelve OptEnet line cards
- All front access
- Accepts dual redundant power supplies
- 19 inches wide with 23-inch reverse mounting ears
- Two rack units high
- Optional SNMP and/or alarm functionality



OptEnet 12 Slot Modular Chassis

Specifications

PHYSICAL

Dimensions (HxWxD):	3.5" x 17.5" x 5.75" (8.89 x 44.45 x 12.0 cm)
Weight (empty):	8.5 lbs (3.86 kg)

ENVIRONMENTAL

Operating Conditions:	5°C to 40°C at 5% to 85% relative humidity
Short Term Conditions:	-5°C to 50°C at 5% to 90% relative humidity
Storage Conditions:	-40°C to 70°C at 10% to 95% relative humidity (no condensation)

Ordering Information

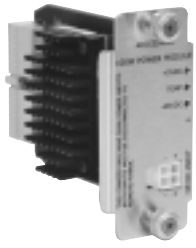
Description	Catalog Number
OptEnet modular chassis: 12-port	ADCCE1100A

Power Supply Modules

The OptEnet chassis accepts power from DC sources. Dual power supplies are deployed within the chassis to provide redundant power to all line cards along the back plane.

Features

- -48Vdc (100 W) power supply
- +24Vdc (100 W) power supply
- Extended temperature versions available
- Power connection on the front panel
- Power and temperature status LEDs



OptEnet DC Power Supply Module

Specifications

DC Input Voltage: -48Vdc, +24Vdc

Ordering Information

Description	Catalog Number
OptEnet +24Vdc power supply module	ADCCE2200A
OptEnet -48Vdc power supply module – extended temp	ADCCE2400A

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Common Equipment

Communications Modules

If remote monitoring is required, a central processor unit (CPU) can be deployed within the OptEnet™ platform. An alarm card is available if only local alarm indications are required. The CPU and alarm card are optional. Only one of the two modules can be deployed in the chassis, so the network administrator must determine which alarm notification method is preferable.

CPU Features:

- Serial and Ethernet interface
- SNMP and Telnet communications protocols
- Compatible with all SNMP management platforms
- Daisy-chain up to four units, via one IP address
- Firmware upgrade via TFTP or serial
- Five simultaneous Telnet sessions

Alarm Card Features:

- Normally open and normally closed alarm contacts

OptEnet
CPU

OptEnet
Alarm Module

Specifications

CPU Specifications

Ethernet Interface:	10Base-T, RJ45 connector
COM IN Interface:	RS-232 DCE, RJ45 connector
COM OUT Interface:	RS-232 DTE, RJ45 connector
Communications Protocol:	SNMP and ASCII

Alarm Module Specifications

Power ON Indicator:	Green
Alarm Indicator:	Red
Contact Closures:	Normally open and normally closed

Ordering Information

Description	Catalog Number
OptEnet central processor unit	ADCCE3000A
OptEnet alarm module	ADCCE3100A

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Media Converters
OptEnet™ Media Converter Platform

Media Conversion Line Cards
Singlemode to Multimode Optical Converter Line Card

The OptEnet™ singlemode to multimode media converter line card is one of a family of line cards that can be deployed in the OptEnet modular chassis. The card is designed to convert optical signals transported on a singlemode link to an optical signal that can be transported on a multimode link. The card supports any protocol and data rate between 10 Mbps to 622 Mbps (OC-12).

Supported Data Rates

Signal Type/Protocol	Data Rate	Comments
Ethernet	10 Mbps	10BASE-FL
Fast Ethernet	100 Mbps	100BASE-FX
ATM/SONET/SDH	155 Mbps	OC-3
	622 Mbps	OC-12

OptEnet Singlemode to Multimode Optical Converter Module

Features

- Single circuit line card
- Duplex transmission
- Link status and power LED indications
- Optical connections on front panel
- Protocol independent
- Supports data rates 10 Mbps up to OC-12

Specifications

ELECTRICAL
- **Input Power:** 2.7 Watts maximum; normal operation

MECHANICAL
- **Chassis Compatibility:** OptEnet modular chassis
- **Fiber Optic Connectors:** SC
- **Dimensions (HxWxD):** 1.14" x 8.07" x 7.4" (2.89 x 20.5 x 18.8 cm)
- **Weight:** 0.27 lbs (122 g)

OPTICAL
- **Singlemode**
  - **Wavelength:** 1274 to 1356 nm range
  - **Output Optical Power (XMT):** -15dBm minimum, -8dBm maximum
  - **Input Optical Power (RCV):** -8dBm minimum, -32dBm maximum
- **Multimode**
  - **Wavelength:** 1270 to 1380 nm range
  - **Output Optical Power (XMT)**
    - **62.5/125µm:** -20dBm minimum, -14dBm maximum
    - **50/125µm:** -24dBm minimum, -14dBm maximum
  - **Input Optical Power (RCV):** -26dBm minimum, -14 dBm maximum

Ordering Information

Description	Catalog Number
OptEnet singlemode to multimode, 10-622 Mb/s line card	ADCPE6000A

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Media Converters

OptEnet™ Media Converter Platform

OptEnet™ 10/100 Mbps Ethernet Line Card

The OptEnet 10/100 Mbps Ethernet media converter line card is designed to convert optical signals to electrical signals. The line card has an auto negotiation feature allowing it to detect and synchronize with either a 10Base-T or 100BASE-TX signal. The card supports 10BASE-T and 100BASE-T data rates over UTP and 1310 nm optics (singlemode fiber).

Supported Protocols

Application	Data Rate	Media	Distance	Interface
10Base-T	10 Mbps	UTP Category 3, 4 or 5 (2-pair)	328 feet (100 m)	RJ45
100Base-TX	100 Mbps	UTP Category 5 (2-pair)	328 feet (100 m)	RJ45
100Base-LX	10/100 Mbps	1300 singlemode fiber	9.3 miles (15 km) (8/125µm)	SC

Features

- Supports 10Base-T, and 100Base-T
- Full and half duplex transmission (transmit and receive)
- Ethernet and fiber optic link indicators
- Auto negotiation over fiber and copper (ANSI/TIA 785)
- MDI-X – Auto-detects and corrects cross-over

OptEnet 100Base-LX Ethernet Line Card

Specifications

ELECTRICAL

Input Power: 1.75 Watts maximum; normal operation

MECHANICAL

Chassis Compatibility: OptEnet modular chassis
Fiber Optic Connectors: SC
Dimensions (HxWxD): 1.14" x 8.07" x 7.4" (2.89 x 20.5 x 18.8 cm)
Weight: 0.27 lbs (122 g)
Electrical Interface: RJ45
Optical Interface: SC

OPTICAL

Singlemode
Wavelength: 1270 to 1380 nm range
Output Optical Power (XMT)
8/125µm: -15dBm minimum, -8dBm maximum
Input Optical Power (RCV): -31dBm minimum, -7dBm maximum

Ordering Information

Description	Catalog Number
OptEnet 100BASE-LX (SC) line card	ADCPE4200A

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Media Converters
OptEnet™ Media Converter Platform

Media Conversion Line Cards
OptEnet™ Gigabit Ethernet Line Card

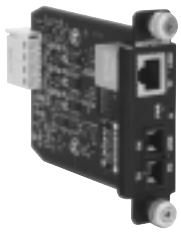
The OptEnet 1000 Mbps media converter line card is designed to convert optical signals to electrical signals. The card supports 1000BASE-T data rates over UTP and 1310 nm optics (singlemode fiber).

Supported Protocols

Application	Data Rate	Media	Distance	Interface
1000Base-TX	1000 Mbps	UTP Category 5e (4-pair)	328 feet (100 m)	RJ45
1000Base-LX	1000 Mbps	1300 singlemode fiber	6.2 miles (10 km) (8/125µm)	SC

Features

- Supports Gigabit Ethernet
- Duplex transmission (transmit and receive)
- Ethernet and fiber optic link indicators
- MDI-X – Auto-detects and corrects cross-over



OptEnet 1000Base-LX
Line Card

Specifications

ELECTRICAL

Input Power:	2.2 Watts maximum; normal operation

MECHANICAL

Chassis Compatibility:	OptEnet modular chassis
Fiber Optic Connectors:	SC
Dimensions (HxWxD):	1.14" x 8.07" x 7.4" (2.89 x 20.5 x 18.8 cm)
Weight:	0.27 lbs (122 g)
Electrical Interface:	RJ45
Optical Interface:	SC

OPTICAL

Singlemode	
Wavelength:	1270 to 1355 nm range
Output Optical Power (XMT)	
8/125µm:	-11dBm minimum, -3dBm maximum
Input Optical Power (RCV):	-22dBm minimum, -20dBm maximum

Ordering Information

Description	Catalog Number
OptEnet 1000BASE-LX (SC) line card	ADCPE5100A

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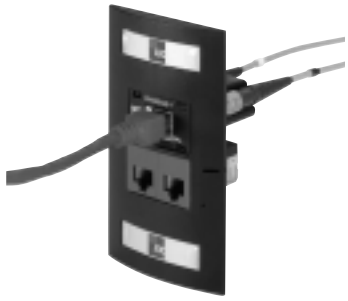
Media Converters
Work Area Media Converter

Work Area Media Converter



Media Converter shown with 6000 Modular Jacks in 6000 Faceplate.

Features

- Reduces work area clutter by placing media conversion circuitry behind the faceplate.
- Eliminates external power adapter and fiber jumper in workstation applications.
- Improves protection of circuits by securing circuitry behind the faceplate.
- Streamlines installation and troubleshooting with built-in intelligence for optical link integrity and UTP link integrity indicators at work area.
- Supports 10Base-T and 100Base-TX UTP and 10Base-FL, 100Base-SX, and 100Base-FX multimode fiber with auto negotiation.

Ordering Information

Description	Ordering Number
Work Area Media Converter Kits Mouse port power option 850 nm 1300 nm *Kit includes media converter, power adapter, 3' PS/2 jumper, and 3' blue RJ45 patch cord*	 ADC6S1SXSTMM1*XX** ADC6S1FXSTMM1*XX**
Wall outlet power option 850 nm 1300 nm *Kit includes media converter, power adapter, AC/DC wall outlet power adapter, and 3' blue RJ45 patch cord*	 ADC6S1SXSTMM2*XX** ADC6S1FXSTMM2*XX**
USB port power option 850 nm 1300 nm *Kit includes media converter and USB patch cord*	 ADC6S1SXSTMM3*XXYY*** ADC6S1FXSTMM3*XXYY***

Ordering notes:
*Replace *XX* in ordering number with choice of color for media converter below

00 = Electrical Ivory 02 = Black 01 = Office White

**To order USB port power cable, replace *YY* in ordering number with desired length in meters: 02, 05, 07, or 10. Replace *XX* in ordering number with choice of color for media converter

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