



2012 Product Catalog



Chassis



Modules



Standalone



SFP



Miniature



Making Your Net*work* Better — Since 1988

Company Overview

Since 1988, IMC Networks has set a standard as a "Made in the USA" manufacturer of a variety of specialized and industrial-grade fiber media conversion and fiber optic access solutions for Enterprise, Government and Service Providers' LANs, First-Mile FTTx networks and Metropolitan Area Networks, delivering 24 years of excellence in product quality, customer satisfaction and value.

With over one million products shipped, IMC Networks' products are deployed where copper to fiber, dual to single-fiber or Multi-mode to Single-mode fiber conversions are required, carrying both managed and unmanaged media converter modules that support 10, 100, 10/100, 10/100/1000 and Gigabit Ethernet, VDSL, T1/E1 and DS3/E3 technologies. IMC Networks' products are sold through a worldwide network of authorized distributors, resellers and OEM partners in more than 50 countries. IMC Networks is ISO 9001:2008 registered; all products are RoHS compliant, Made in the USA, and carry a 6 year comprehensive warranty (SFP products offer a 1 year warranty).

Product Overview

IMC Networks' media conversion solutions are available in a variety of form factors and configurations that allow networks to perform better, faster and more reliably; from low-cost standalone units to rack-mountable modules designed for high-density applications. The products in this catalog are organized by the following sections:

- Optical Access/FTTx products allow fiber network operators to deliver next-generation Managed Ethernet, high-speed Internet, Private line and Transparent LAN services
- Unmanaged Converters allow customers to convert multiple protocols and interfaces, such as 10/100Base-T copper to 100Base-Fx fiber

- Managed Converters come in a wide range of SNMP-managable devices and a variety of protocols including 10/100/1000 Ethernet and T1/E1/J1 range extenders
- Power over Ethernet (PoE) technology allows flexibility in Wireless Access Point and IP camera applications
- Fiber-to-Fiber Mode Converters connect fiber network segments with dissimilar fiber types
- SFPs allow network operators to upgrade fiber types and speeds, extending the lifespan of legacy hardware
- Chassis options support various FTTx and media conversion modules, ranging from single-slot, standalone unmanaged devices to 20-slot, fully-managed rack-mounted chassis
- SNMP iView² Element Management System (EMS) software is available Free of charge

Why IMC Networks?

- Twenty-four years of innovation
- Full U.S. operations; manufacturing, marketing & technical support
- Worldwide sales distribution with offices in:
 - Foothill Ranch, CA (West, Worldwide)
 - Clearwater, Florida (East, Latin America)
 - Aarschot/Brussels, Belgium (EMEA)
- Free worldwide technical support
- FCS Complimentary Fiber Consulting Services
- ISO 9001:2008 product quality management
- RoHS environmental compliance
- MEF certification
- EU Reach certification
- 6-year comprehensive warranty (SFP products are 1-year)
- Made in the USA (except SFP products)

Industry First Innovations

- 16-bit Ethernet LAN card (05/88)
- Ethernet over non-Ethernet cable (07/88)
- Modular repeaters (10/89)
- Media conversion products (09/91)
- Modular hubs (04/95)
- Manageable media converters (09/96)
- Gigabit Ethernet copper-to-fiber converters (04/00)
- Multi-media, multi-protocol chassis platform w/ SNMP (11/00)
- USB-powered miniature media converters (12/02)
- Compact Industrial Ethernet optical demarcation device (08/06)

IMC Networks Free Software

iView² / iView² v 3.0

IMC's free all-in-one network management application is offered in both a web and PC-based version. iView² gives users the ability to remotely view and manage all supported IMC Networks SNMP manageable and "iMcV" modules via an intuitive GUI.

UMA

The Unified Management Agent allows users to manage up to 41 devices installed in an iMediaChassis with a single IP address from a central location. Additionally, UMA allows users to administer firmware upgrades over multiple devices.

SNMP Management Module

The SNMP Management Module allows users to utilize the full SNMP functionality of all manageable "iMcV" modules when installed concurrently in an iMediaChassis. Employing managed media converters in your network allows for troubleshooting at remote sites without the initial need for a costly truck roll.

See page 45 for ordering information



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Converting the Metric System

Equation to calculate meters and kilometers to miles.

1 m = 0.000621 Miles
(m x 0.000621 = Miles)

1 km = 0.621 Miles
(km x 0.621 = Miles)

| Metric Conversion Table | |
|-------------------------|--------------|
| 100 m = | 0.0621 Miles |
| 550 m = | 0.341 Miles |
| 2 km = | 1.242 Miles |
| 15 km = | 9.315 Miles |
| 20 km = | 12.42 Miles |
| 40 km = | 24.84 Miles |
| 60 km = | 37.26 Miles |
| 70 km = | 43.47 Miles |
| 80 km = | 49.68 Miles |
| 120 km = | 74.52 Miles |



Product Overview

About Media Converters

Media converters connect different types of cabling media, extending transmission distances well beyond the capabilities of twisted pair wiring, and allowing for integration of new fiber-based equipment into non-fiber legacy networks. Conversely, media converters also allow operators to preserve their investment in legacy copper-port hardware as more and more legacy copper networks are updated with fiber.

IMC Networks' media conversion solutions are available in a variety of form factors and configurations, from low-cost standalone units to rack-mountable modules designed for high-density applications.

About FTTx & Optical Access

Optical Access and FTTx solutions from IMC Networks integrate traditional media converters with advanced remote management and configuration capabilities, allowing service providers to deliver next-generation, managed, high-speed Internet, Ethernet Private Line and Transparent LAN services to businesses, multi-dwelling units (MDUs) and residential customers. FTTx solutions are also used by Enterprise customers when managed media converters are needed on campus networks.

IMC Networks' solutions are available in a wide variety of form factors and configurations, ranging from standalone units (CPE), to rack-mountable modules designed for high-density applications.

Solutions Overview

Service Providers

IMC Networks' fiber optic media conversion and optical access solutions can make provisioning of fiber-based services less complex and more affordable.

Modular, chassis-based Central Office (CO) solutions accommodate a variety of managed Ethernet, VDSL, T1/E1/J1, DS3/E3 fiber extension and FTTx applications from the same platform. Intelligent Customer Premises Equipment (CPE) solutions allow service

providers to control, manage and monitor the entire access network and end points without a visit to the customer's location, reducing operational costs while providing capabilities not commonly found on other Ethernet media converters.

Whether providing Fiber-to-the-Home, Business or Premises, IMC Networks' solutions support distances up to 100 km, and offer single-strand and CWDM optical interfaces. The products work seamlessly with other manufacturers' products to maximize service providers' investment in the existing equipment and fiber network infrastructure.

Enterprise LAN/WAN

Fiber optic media converters make a crucial connection between different cabling types and speeds. Media converters are the most flexible, cost-effective solution for extending network distances and integrating fiber optic cabling into twisted pair structured cabling systems. They increase performance of active equipment and also accelerate legacy network segments to Gigabit speeds.

With solutions ranging from simple, standalone converters to intelligent, SNMP managed systems, IMC Networks provides the industry's widest variety of media and mode converters. These solutions support most Ethernet speeds, cabling types and distances, fitting a wide range of enterprise networking applications including:

- Bringing Fiber-to-the-Desk
- Bridging LAN segments with dissimilar fiber types
- Using PoE (Power over Ethernet) to bring power to network devices such as Wireless Access Points and IP Cameras

Government

The U.S. Government has historically been a pioneer in networking research, development and Internet technology. IMC Networks proudly supports federal, state and local governments with fiber solutions that combine high security with greater bandwidth.

IMC Networks is a preferred vendor to government organizations worldwide. In addition to standalone and PC card media converters,

IMC Networks also has an extensive line of SNMP-managed media converters that offer increased security. IMC Networks' fiber mode converters allow network managers to connect multi and single-mode network segments together, simplifying network planning.







IMC Networks proudly provides special pricing and free ground shipping under GSA contract #GS-35F-0491J. Visit <http://www.imcnetworks.com/Government/> for more information.



Why Fiber Optics?

Fiber is most commonly associated with long distance connections. Today, however, it is rapidly gaining market share in LAN topologies, once considered the domain of copper cabling. Fiber offers many advantages:

- It has exceptional bandwidth, and can carry multiple signals concurrently
- It is immune to electromagnetic interference
- It has no electromagnetic emissions, making it resistant to eavesdropping
- It is lightweight
- It is virtually "future proof"

| Quick Product Search Matrix Products Featured in This Catalog | | IE | Protocol | | | | | | | | Ports | | | | | Format | | SNMP | | Page |
|--|---|---------------------|------------------|-------------------|--------------------|-------------------|------------------------|----------|--------------|-----|-------|----------------|-------------|-----|---------------|------------|---------|---------|-----------|-------|
| | | Industrial Ethernet | 10 Mbps Ethernet | 100 Mbps Ethernet | 1000 Mbps Ethernet | 2.4 Gbps Ethernet | Protocol Independent * | T1/E1/J1 | DS3/E3/STS-1 | WDM | Fiber | Copper (RJ-45) | PoE (RJ-45) | SFP | Coaxial (BNC) | Standalone | Modular | Managed | Unmanaged | |
| FTTx | IE-MultiWay | • | • | • | • | | | | | | • | • | | • | | • | | • | | 4 |
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| | IE-iMcV-2xLIM | • | | • | | | | | | | • | • | | • | | | • | • | | 27 |
| | iMcV-PIM 10 Mbps, iMcV-LIM 100 Mbps iMcV-LIM 10/100 Mbps | | • | • | | | | | | | • | • | | | | | • | • | | 28 |
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* Protocol Independent ranges from 10 Mbps to 1.25 Gbps

** Rate conversion option available

Product Features

The following icons highlight features that are found in IMC Networks' products. The icons can be found on the top of each product page.



Autocross

Autocross allows for automatic detection of the correct MDI / MDIX configuration on the copper ports (RJ-45), eliminating the need to specify different cables (crossover or straight-through) and thus eliminating another step in troubleshooting.



Auto Negotiation

Auto Negotiation allows devices to automatically assign the most efficient line speed (10/100/1000 Mbps) and mode (Full-Duplex or Half-Duplex) for a particular network segment between two devices.



Coarse Wave Division Multiplexing

Coarse Wave Division Multiplexing (CWDM) uses uncooled lasers to combine multiple wavelengths (four, eight or 16; from 1310 nm to 1610 nm) onto a single fiber, using an ITU standard 20 nm spacing between the wavelengths. Adding wavelengths to the same fiber increases capacity, making CWDM technology a sound choice for large networks such as Gigabit Ethernet and Fibre Channel-based Metropolitan Area Networks (MAN).



Config Control

Configuration Control has been implemented on select iMcV-Modules. Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.



FiberAlert

FiberAlert minimizes the problems associated with the loss of one strand of fiber. If a strand is unavailable, the device at the receiver end notes the loss of link. The device will then stop transmitting on the fiber until a signal or link pulse is received. The result is that the link LED on BOTH sides of the fiber connection will go out indicating a fault somewhere in the fiber loop.



Industrial Ethernet / Equipment (IE)

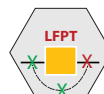
IE stands for "Industrial Ethernet" and refers to IMC Networks' designation for products that have been designed to operate in a wider temperature range rather than the typical 0°C to +40°C. IMC Networks' "IE" products contain additional features designed for industrial applications, such as multiple powering options and DIN clips. IE temperature ranges vary, so check the product specifications for more details.

IE products require third party enclosures for outdoor installations or protection from moisture, dust and other harsh environmental factors. External protection is also required for lightning or other serious power surges.



Last Gasp

The Last Gasp feature available on select IMC Networks modules allows for one final health status message to be sent when remote modules lose power, notifying network operators that a field visit is necessary.



Link Fault Pass-Through (LFPT)

LFPT (Link Fault Pass-Through) – A feature that allows a segment of a network, divided by a media converter, to act as if it was one physical piece of media. It does this by passing a link fault from one side of the media converter to the other. If a link is lost on one side of the media converter the converter forces a link fault on the other.



LinkLoss

LinkLoss is a troubleshooting feature that works on either the twisted pair port (TP/TX) or the fiber port (FO/FX) of devices which have at least one of each port type. When a fault occurs on one segment of a conversion, LinkLoss detects the fault and passes this information to the other segment. For example, if a media converter is not receiving a fiber link, FO/FX LinkLoss disables the transmitter on the media converter's twisted pair port. This results in a loss of link on the remote twisted pair device.



Managed Products

IMC Networks offers several products that support SNMP management, allowing operators to proactively manage and monitor their devices from a remote location.



On Board SNMP Management

IMC Networks offers "intelligent" products with on board SNMP management, allowing operators to proactively manage and monitor the devices without an additional management controller.



Power Over Ethernet (PoE)

Power Over Ethernet (PoE) is a standards based (IEEE 802.3af) method of delivering power over twisted-pair network cables (RJ-45) along with data, thus eliminating the need for a separate run for a power source. There are two types of PoE devices: the Power Sourcing Equipment (PSE) and the Powered Device (PD). The PSE supplies power to the PD.



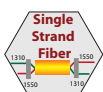
Q-in-Q

Q-in-Q, also known as Extra-Tagging, is an IEEE 802.1Q compliant method of assigning a VLAN tag to already tagged network traffic. Q-in-Q enables the transmission of data across multiple VLANs without altering the original data, providing safer and more secure transmission of data packets over the network.



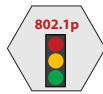
RoHS

With environmental protection becoming more important across the globe, IMC Networks has taken a leadership position by designing products that are free of lead, cadmium and 6 other toxic materials. This makes the products of IMC Networks compliant with the Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS), passed into law by the European Union. All part numbers starting with "8" are RoHS compliant.



Single-Strand Fiber

Single-Strand Fiber technology allows two wavelengths to share one fiber strand. Full-Duplex data travels on different wavelengths (1310 nm and 1550 nm) which effectively doubles the capacity of installed fiber. Since single-strand fiber products use optics that transmit and receive on two different wavelengths, single-strand fiber products must be deployed in pairs. The pair can consist of two IMC or third-party products that conform to the same IMC standard.



Traffic Prioritization

Traffic Prioritization (IEEE 802.1p) provides advanced packet management of network traffic by assigning a priority ID to each packet, insuring that high-priority traffic (such as VoIP) receives the network resources and bandwidth necessary for high Quality of Service (QoS).



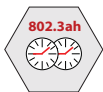
Unified Management Agent (UMA)

The Unified Management Agent (UMA) is a proprietary system developed by IMC Networks to utilize a separate management domain on the network in order to keep management and other data separate. UMA is an IP-less management method which simplifies management of supported devices by reducing the number of IP addresses.



VLAN Tagging

VLAN Tagging (IEEE 802.1Q) involves assigning identification information to data packets on a network to insure that data is efficiently and correctly routed between devices. The VLAN tag includes an EtherType, priority bits and a VLAN ID that allows each packet to remain secure and intact while being routed across multiple networks.



Administration and Maintenance

IEEE 802.3ah OAM includes features associated with Discovery, Link Monitoring, Events, Remote Loopback and Performance Monitoring and Reporting. IMC Networks' implementation of 802.3ah supports both Active and Passive operational modes on all ports and software upgrades are Free to IMC Networks clients.

IE-MultiWay



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

The Most Compact, Versatile, Managed CPE Ethernet FTTx Device on the Market.
Providing Solutions For:

- Managed Fiber Termination
- Fiber Drop & Insert
- Fiber Repeater
- Mode Conversion
- Dual Independent Media Conversion

Product Overview

The IE-MultiWay is a value-based, Carrier-class Ethernet, FTTx solution that is ideal for use as a CPE device at the customer's network edge as well as in a fiber infrastructure. The IE-MultiWay comes standard with two SFP uplink ports for the providers' network connection and two 10/100/1000Base-T copper ports.

There are four distinct DIP Switch selectable configurations that the IE-MultiWay supports. Among them are a 1+1 Uplink Protection Switch, a 4-Port Switch, and a Dual Copper to Fiber SFP Media/Mode Converter (two gigabit fiber media converters in one).

As a 4-port device, it can be employed with fiber redundancy (with or without 1+1 uplink protection) and status monitoring with management on all ports via OAM, for mission-critical applications. It also can be deployed as a dual 10/100/1000 Mbps copper to fiber media converter and be utilized as two separate converters.

The IE-MultiWay supports 10/100/1000 Mbps and 1 Gbps copper and 100 Mbps and 1 Gbps optical SFP modules, to provide greater flexibility in the network environment. The hot-swappable nature of the SFPs and the numerous fiber modes and types that are available allow for easy configuration and future upgrading as network demands evolve. For added control, DDMI is supported via the CLI for optical SFPs.

Local management is achieved through the serial port, which allows users to launch a serial session through the CLI. Commands such as interface statistics, RMON statistics, and OAM status and control are a few of the accessible features.

Features

Flexible Solution

- Copper to fiber SFP media converter
- Dual-independent copper to fiber SFP media converter(s)
- Fiber repeater
- SFP to SFP mode converter with copper drops (Re-amplify, Re-shape, Re-time)
- 4-Port Gigabit Switch
- 1+1 uplink protection (< 50 mSec)
- Supports per port service VLAN
- Supports daisy chain expansion
- Supports RMON Statistics
- Supports Jumbo Frames (up to 10240 bytes)
- -48V DC terminal for Telco applications
- Powering options can be combined for AC/DC redundancy

Advanced Remote Monitoring/Management

- Supports IEEE 802.3ah OAM (active/passive), 802.1ag CFM (Connectivity Fault Management) and Y.1731 on all Ports
- Discovery, Link Monitoring, Performance Monitoring and Remote Loopback
- Bandwidth Limiting with burst capability and priority queuing
- Rate limiting can be done at Layer 1, 2 or 3
- Via UMA, can act as a Remote when connected to a Host iMcV-Giga-FiberLinX-II
- Generates SNMP TRAPS based on events
- RS-232 CLI (Command Line Interface) console port

SFP Support

- Auto negotiate speed and flow control for 10/100/1000 copper SFPs with SGMII
- Supports fixed speed 1 Gbps full-duplex copper SFPs
- Auto detect for 100 or 1000 optical SFPs

"Industrial Ethernet" (IE) Features For Operation in Extended Temperatures

- Extended temperature functionality, up to -40° to +85° C
- Multiple power options: AC, DC and USB



Physical Specifications

Connectors:

RJ-45, SFP

Regulatory Approvals:

- FCC Class A (Using 48V Telco-type power)
- FCC Class B (Using all other power options)
- UL/cUL, CE

Operating Temperature:

+14° to +122° F (-10° to +50° C)

w/ Franmar AC Wall Adapter;

-40° to +185° F (-40° to +85° C)

w/ DC Configuration;

Storage Temperature:

-49° to +185° F (-45° to +85° C);

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.86"H x 3.66"W x 3.88"D (2.2 x 9.38 x 9.94 cm)

Supply Voltage:

5 to 24 VDC (Barrel)

48 VDC Telco (Terminal)

Power Information:*

Min: 3.15W (1 optic SFP [1 Gbps], 1 Tx [100 Mbps])

Max: 7.0W (2 Cu SFP [1 Gbps], 2 Tx [1 Gbps])

* Power consumption is based on SFP types

Shipping Weight:

1.0 lbs (0.45 kg)

Ordering Information

* IE-MultiWay

| | |
|-----------|---|
| 858-11121 | IE-MultiWay, 2TX/2SFP w/ AC to DC Power Adapter Varies |
| 854-11121 | IE-MultiWay, 2TX/2SFP w/o AC to DC Power Adapter Varies |

Available Accessories

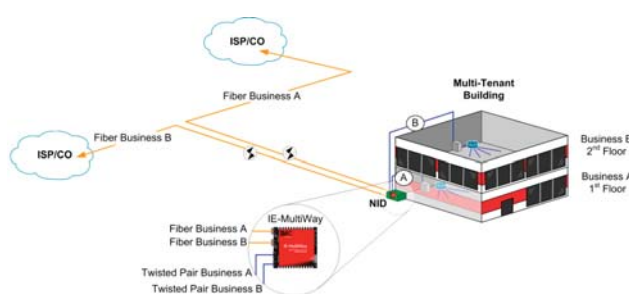
| | |
|-----------|---|
| 806-39753 | IE-Power/5V, AC to DC (DIN Rail) Power Adapter (-20° to +70° C) |
| 806-39105 | DIN Rail Clip |
| 806-39638 | Double-USB Power Cable, 36" |
| 825-39951 | Serial Cable, MiniJack to DB9 (female) |
| 895-39229 | Wall Mount Bracket |



Wall Mount Bracket

Application Example

Conversion of copper to fiber optic cabling for distance extension from the multi-tenant's dwelling to the ISP's central office is commonly used today. Data services are then distributed through fiber optic cabling via copper to Clients living in the building so Clients are able to gain access to the internet at greater speeds. Using IMC Networks' IE-MultiWay dual media converter option, ISP's can support two independent fiber-to-copper lines using a single device, saving equipment cost while providing the Clients with independent higher speed data services.



AccessEtherLinX/4



6-YEAR
Comprehensive
Warranty

Managed multi-port optical demarcation devices combining media conversion with advanced capabilities.

Product Overview

The AccessEtherLinX/4 enables service providers to offer differentiated, bandwidth-scalable data or "Transparent LAN" services to multi-tenant buildings and business customers. Residing at the customer premises, the AccessEtherLinX/4 provides a VLAN-based, Layer 2 entry point to the last mile fiber network, trunking, differentiating and separating customer traffic.

The AccessEtherLinX/4 features SNMP management, bandwidth control, VLAN tagging, traffic prioritization and IGMP multicast pruning/snooping with support for 4 customer ports. It provides an ideal and cost effective solution for delivering Ethernet-based services to business customers.

Choose from a variety of brackets and rackmounting options for easy installation.

Features

- Fiber or copper uplink options
- Independent RJ-45 ports for flexible configurations
- Easy to configure and manage with GUI-based iView²
- Can be managed using Telnet
- Includes DHCP and TFTP client
- Includes SNMP V2c
- Read/write IEEE 802.1Q VLAN-tags
- Bi-directional bandwidth control
- IEEE 802.3x compliant for Flow Control
- QoS – IEEE 802.1p-based packet prioritization
- Includes loopback test modes
- MAC address learning
- Includes LinkLoss and FiberAlert
- Selective Advertising
- Half and Full-Duplex operation
- Remote management and upgrades
- Supports IGMP multicast pruning/snooping

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber and CWDM fiber wavelengths
- AutoCross for automatic MDI-II/MDI-X switching

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, UL/cUL, CSA, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.5" H x 4.75" W x 7.25" D
(3.18 cm x 12.07 cm x 18.42 cm)

Power Rating

100-240V AC, 50/60Hz, 1A

Shipping Weight:

1.6 lbs. (0.6 kg)

Ordering Information

| | |
|-----------|--|
| 852-13120 | AccessEtherLinX, TX/4 + TX, 100 m |
| 852-13121 | AccessEtherLinX, TX/4 + FX-MM1300-ST, 5 km |
| 852-13122 | AccessEtherLinX, TX/4 + FX-MM1300-SC, 5 km |
| 852-13123 | AccessEtherLinX, TX/4 + FX-SM1310/PLUS-ST, 40 km |
| 852-13124 | AccessEtherLinX, TX/4 + FX-SM1310/PLUS-SC, 40 km |
| 852-13125 | AccessEtherLinX, TX/4 + FX-SM1310/LONG-ST, 80 km |
| 852-13126 | AccessEtherLinX, TX/4 + FX-SM1310/LONG-SC, 80 km |
| 852-13127 | AccessEtherLinX, TX/4 + FX-SM1550/LONG-SC, 80 km |
| 852-13130 | AccessEtherLinX, TX/4 + FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-10133 | AccessEtherLinX, TX/4 + SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 852-10134 | AccessEtherLinX, TX/4 + SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 852-10135 | AccessEtherLinX, TX/4 + SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-10136 | AccessEtherLinX, TX/4 + SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-10137 | AccessEtherLinX, TX/4 + SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 852-10138 | AccessEtherLinX, TX/4 + SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

CWDM versions available,
See website for details

Available Accessories

| | |
|-----------|-------------------|
| 895-39226 | Rackmount bracket |
| 895-39949 | Rackmount shelf |

Rackmount bracket

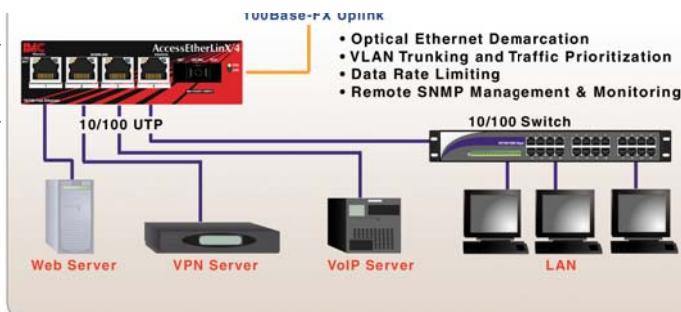


Rackmount shelf



Application Example

For residential and commercial fiber services, install the AccessEtherLinX/4 inside the customer premises to provide a demarcation point between the customer and service provider networks.





10/100/1000 Mbps Copper (TX) to 1000 Mbps Fiber (FX) Fast Ethernet

Giga-AccessEtherLinX-II



6-YEAR
Comprehensive
Warranty

A Managed Optical Demarcation device offering advanced "Multi-Tenant" capabilities unique to multi-port Ethernet-based CPE.

Product Overview

The Giga-AccessEtherLinX-II enables service providers to offer differentiated "Transparent LAN" services to multi-tenant building and business customers without the need for costly remote routers. Residing at the customer premises, the Giga-AccessEtherLinX-II provides a VLAN-based, Layer 2 entry point to the last mile fiber network to support trunking, differentiating and separating customer traffic. Featuring SNMP management with per-port 802.1Q VLAN, 802.1p QoS, traffic prioritization, bandwidth control and multicast pruning/snooping (using IGMP v1, v2), the Giga-AccessEtherLinX-II is perfect for a wide range of Fiber-to-the-Home, Fiber-to-the-Curb and Fiber-to-the-Business (FTTx) services, and is an ideal solution for delivering Ethernet-based services to customers quickly and cost effectively. Designed with a small footprint, the Giga-AccessEtherLinX-II facilitates easy installation inside the premises. It features four 10/100/1000 twisted pair Ethernet downlink ports (for connecting users/ LANs), with either a 1000Base-FX fiber or SFP uplink port, and is powered from an internal AC or DC power supply.

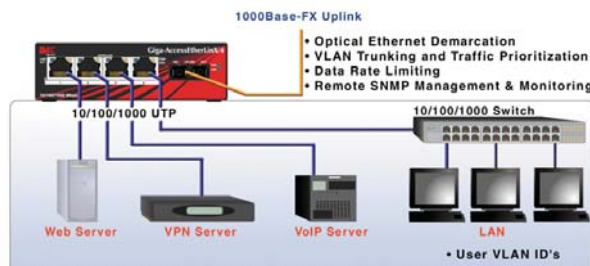
The Giga-AccessEtherLinX-II includes per-port bandwidth control and is 802.1Q VLAN compatible.

The Giga-AccessEtherLinX-II accepts traffic containing VLAN tags on the Uplink port and directs that traffic to the twisted pair downlink ports based on the VLAN ID. In addition to assigning 802.1Q VLAN-tags on a per-port basis, users can also "Qualify" the different VLAN TAGS to assign based on the DiffServ or PRI value of the incoming frame. Traffic priority for each port is supported with hi/low prioritization queues. The Giga-AccessEtherLinX-II includes per port bi-directional bandwidth control, and supports IGMP multicast pruning which ensures only the necessary amount of IP multicast packets are bridged.



Application Example

For residential and commercial fiber services, install the Giga-AccessEtherLinX-II inside the customer premises to provide a bridge between the customer and Service Provider networks, over a point-to-point fiber uplink. Each remote drop can be assigned two unique VLAN tags based on DiffServ or PRI values for easy routing through the network.



Features

- 802.1Q VLAN-tags on a per-port basis, based on DiffServ or PRI values
- QoS – 802.1p-based packet prioritization
- Allows configuration via GUI, Telnet or serial port
- Remote management and upgrades
- Per-port bi-directional bandwidth control
- Supports IGMP multicast pruning
- RMON traffic statistics
- Lowers the cost of provisioning fiber services
- SNMP-Manageable
- Supports remote "IP-Less" management when connected to a iMcV-Giga-FiberLinX-II
- All management traffic remains isolated from the remote LAN
- IEEE 802.1Q VLAN and 802.1p compliant
- VLAN-tagging and Q-in-Q (double-tagging) segregates customer traffic
- Up and running in less than five minutes
- Includes RMON statistics
- TRAP notification capability
- SNMP V1 and V2c compatible

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber and CWDM fiber wavelengths
- AutoCross for automatic MDI-II/MDI-X switching

Connectors:

RJ-45, SC and SFP

Regulatory Approvals:

FCC Class B, UL/cUL, CSA, CE

Operating Temperature:

+32° to 122° F (0° to +50° C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.64" H x 5.64" W x 8.95" D
(4.2 cm x 14.3 cm x 22.7 cm)

Power Requirements

100-240V AC, 50/60Hz, 0.5/0.25A for AC
48V DC, 0.5A for DC

Shipping Weight:

1.6 lbs. (0.6 kg)

Ordering Information

Giga-AccessEtherLinX-II AC Version

| | |
|-----------|--|
| 852-10302 | Giga-AccessEtherLinX-II, TX/4 + SFP (requires one SFP/1250 module), Varies |
| 852-10303 | Giga-AccessEtherLinX-II, TX/4 + SX-MM850-SC, 220/550 m |
| 852-10304 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1310-SC, 15 km |
| 852-10305 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1310/PLUS-SC, 40 km |
| 852-10306 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1550/LONG-SC, 80 km |
| 852-10307 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-10310 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 852-10311 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 852-10312 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 852-10313 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 852-10314 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-10315 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-10316 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 852-10317 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 852-10318 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 852-10319 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

Giga-AccessEtherLinX-II DC Version

| | |
|-----------|--|
| 852-32302 | Giga-AccessEtherLinX-II, TX/4 + SFP (requires one SFP/1250 module), Varies |
| 852-32303 | Giga-AccessEtherLinX-II, TX/4 + SX-MM850-SC, 220/550 m |
| 852-32304 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1310-SC, 15 km |
| 852-32305 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1310/PLUS-SC, 40 km |
| 852-32306 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1550/LONG-SC, 80 km |
| 852-32307 | Giga-AccessEtherLinX-II, TX/4 + LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-32310 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 852-32311 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 852-32312 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 852-32313 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 852-32314 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-32315 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-32316 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 852-32317 | Giga-AccessEtherLinX-II, TX/4 + SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 852-32318 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 852-32319 | Giga-AccessEtherLinX-II, TX/4 + SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

**CWDM versions available,
See website for details**

**Available Accessories
See page 5**





10/100 Mbps Auto Negotiating Copper (TX), 100 Mbps Fiber (FX) Ethernet (MAN, CityNet)

iMcV-FiberLinX-II



* SFPs Sold Separately

Optical demarcation module enabling delivery of transparent LAN services over fiber with integrated media conversion, carrier-grade remote management and line provisioning capabilities.

Product Overview

The iMcV-FiberLinX-II solution connects two remote networks over fiber optics and allows administrators to observe both the end-points and the fiber link between them, as single management entities and not as separate elements. Host management traffic is not visible to the remote or customer network nor is access to the customer network required, guaranteeing end-to-end data integrity.

The iMcV-FiberLinX-II can be configured remotely, can alert administrators to any potential problems on the long-haul fiber run, can provide vital information on link condition and can report data traffic statistics.

The iMcV-FiberLinX-II end points and fiber link can be managed as a single entity, allowing remote configuration and fault alerts to network administrators. As a copper-to-fiber media converter, it allows low-cost copper switches to connect to the fiber line. Offering unparalleled flexibility, the iMcV-FiberLinX-II supports multiple fiber types including multi-mode and single-mode as well as single-strand fiber, doubling the capacity of installed fiber. Coarse Wavelength Division Multiplexing (CWDM) functionality is also an option.



Features

- Transparency feature allows VLAN/non-VLAN traffic on the same port
- Provides differential priority
- Set bi-directional bandwidth
- Remotely configure settings
- Last Gasp SNMP trap
- Easy to configure and manage with GUI-based iView²
- Includes RJ-45 management port
- Manage/monitor fiber traffic
- Includes RMON statistics
- SNMP V1 and V2c compatible
- Supports the Unified Management Agent (UMA)
- Receive vital health information
- Q-in-Q/Extra-Tagging
- Supports 802.3ah OAM (Operation, Administration & Management)

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber, CWDM fiber and SFP

Connectors:

RJ-45, ST, SC and SFP

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

0° to +160°F (-20° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Power Consumption:

850mA at 3.3V DC

Shipping Weight:

0.30 lbs (0.11 kg)

Ordering Information

* iMcV-FiberLinX-II, SFP port(s)

| | |
|-----------|---|
| 856-14500 | iMcV-FiberLinX-II, TX/SFP, SFP Variable (requires one SFP/155-ED Module) |
| 856-14501 | iMcV-FiberLinX-II, SFP/SFP, SFP Variable (requires two SFP/155-ED Module) |

iMcV-FiberLinX-II, TX/TX

| | |
|-----------|---------------------------------|
| 856-14010 | iMcV-FiberLinX-II, TX/TX, 100 m |
|-----------|---------------------------------|

iMcV-FiberLinX-II, TX/FX

| | |
|-----------|--|
| 856-14011 | iMcV-FiberLinX-II, TX/FX-MM1300-ST, 5 km |
| 856-14012 | iMcV-FiberLinX-II, TX/FX-MM1300-SC, 5 km |
| 856-14015 | iMcV-FiberLinX-II, TX/FX-SM1310/PLUS-ST, 40 km |
| 856-14016 | iMcV-FiberLinX-II, TX/FX-SM1310/PLUS-SC, 40 km |
| 856-14017 | iMcV-FiberLinX-II, TX/FX-SM1310/LONG-ST, 80 km |
| 856-14018 | iMcV-FiberLinX-II, TX/FX-SM1310/LONG-SC, 80 km |
| 856-14021 | iMcV-FiberLinX-II, TX/FX-SM1550/LONG-SC, 80 km |
| 856-14022 | iMcV-FiberLinX-II, TX/FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 856-14039 | iMcV-FiberLinX-II, TX/SSFX-MM1310-SC (1310xmt/1550rcv), 2 km |
| 856-14040 | iMcV-FiberLinX-II, TX/SSFX-MM1550-SC (1550xmt/1310rcv), 2 km |
| 856-14043 | iMcV-FiberLinX-II, TX/SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 856-14044 | iMcV-FiberLinX-II, TX/SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 856-14045 | iMcV-FiberLinX-II, TX/SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-14046 | iMcV-FiberLinX-II, TX/SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-14047 | iMcV-FiberLinX-II, TX/SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 856-14048 | iMcV-FiberLinX-II, TX/SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

CWDM versions available,
See website for details

Use with Chassis Platform

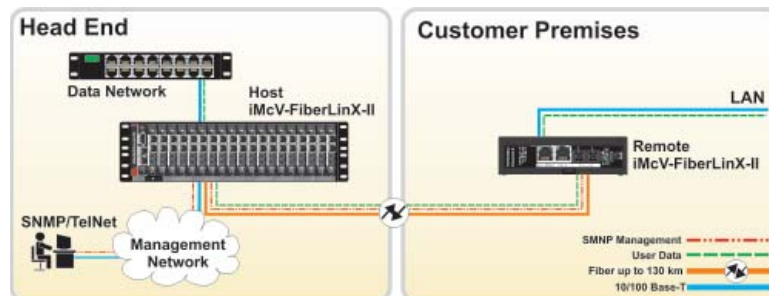
iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

Application Example

When used in pairs, a module configured as a Host resides at the head-end while another module, configured as a Remote, installs at the remote customer location (typically on the network edge where the customer network meets the service provider infrastructure). Using SNMP, the iMcV-FiberLinX-II solution monitors the entire link and ensures data integrity while remaining isolated and completely transparent to the customer LAN.





10/100/1000 Mbps Auto Negotiating Copper (TX), 1.25 Gbps (SX/LX) Gigabit Ethernet

iMcV-Giga-FiberLinX-II



* SFPs Sold Separately

An optical demarcation unit enabling delivery of transparent LAN services while providing carrier-grade management and line provisioning capabilities.

Product Overview

Service providers who provide Transparent LAN services must be able to remotely manage their customer premises equipment while keeping management and customer data traffic separated. The iMcV-Giga-FiberLinX-II provisions point-to-point fiber optic connections and provides a unique management tool to the entire link between two locations.

Field-proven worldwide since 1999, the iMcV-Giga-FiberLinX-II system is ideal for Optical Ethernet, FTTx and campus area network applications.

The iMcV-Giga-FiberLinX-II solution connects two remote networks over fiber optics and allows administrators to observe both the end-points, and the fiber link between them, as single management entities and not as separate elements. Host management traffic is not visible to the remote or customer network nor is access to the customer network required, guaranteeing end-to-end data integrity. The iMcV-Giga-FiberLinX-II allows for remote configuration and alerts administrators to any potential problems on the long-haul fiber run. It also functions as a copper-to-fiber media converter, allowing deployment of lower cost copper switches at both ends of the fiber connection.

Offering unparalleled flexibility, iMcV-Giga-FiberLinX-II supports multiple fiber types as well as single-strand fiber which can effectively double the capacity of installed fiber. The iMcV-Giga-FiberLinX-II module installs in a standard IMC Networks iMediaChassis series or MediaChassis/2.



Features

- VLAN-tagging and Q-in-Q (Extra Tagging) segregates customer traffic
- IEEE 802.1Q VLAN and 802.1p compliant
- Transparency feature allows VLAN/non-VLAN traffic on the same port
- Provides differential priority
- Remotely configure settings
- Easy to configure and manage with GUI-based iView²
- Includes RJ-45 management port
- Manage/monitor fiber traffic
- Includes RMON statistics
- SNMP V1 and V2c compatible
- Supports the Unified Management Agent (UMA)
- Supports 802.3ah OAM (Operation, Administration & Management)

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber, CWDM fiber and SFP

Connectors:

RJ-45, ST, SC and SFP

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

Double-wide module

Power Consumption:

850mA at 3.6V DC

Shipping Weight:

0.8 lbs (0.36 kg)

Ordering Information

* iMcV-Giga-FiberLinX-II, SFP port(s)

| | |
|-----------|---|
| 856-14760 | iMcV-Giga-FiberLinX-II, TX/SFP (requires one SFP/1250-ED Module) |
| 856-14761 | iMcV-Giga-FiberLinX-II, SFP/SFP (requires two SFP/1250-ED Module) |

iMcV-Giga-FiberLinX-II, SX/LX

| | |
|-----------|---|
| 856-14869 | iMcV-Giga-FiberLinX-II, TX/SX-MM850-SC, 220/550 m |
| 856-14870 | iMcV-Giga-FiberLinX-II, TX/LX-SM1310-SC, 15 km |
| 856-14871 | iMcV-Giga-FiberLinX-II, TX/LX-SM1310/PLUS-SC, 40 km |
| 856-14872 | iMcV-Giga-FiberLinX-II, TX/LX-SM1550/LONG-SC, 80 km |
| 856-14881 | iMcV-Giga-FiberLinX-II, TX/LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|---|
| 856-14873 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 856-14874 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 856-14890 | iMcV-Giga-FiberLinX-II, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 856-14891 | iMcV-Giga-FiberLinX-II, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 856-14875 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-14876 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-14892 | iMcV-Giga-FiberLinX-II, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 856-14893 | iMcV-Giga-FiberLinX-II, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 856-14877 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 856-14878 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |
| 856-14879 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1490/XLONG-SC, (1490xmt/1550rcv), 80 km |
| 856-14880 | iMcV-Giga-FiberLinX-II, TX/SSLX-SM1550/XLONG-SC, (1550xmt/1490rcv), 80 km |

Available Accessories

| | |
|-----------|--------------|
| 825-39950 | Serial Cable |
|-----------|--------------|

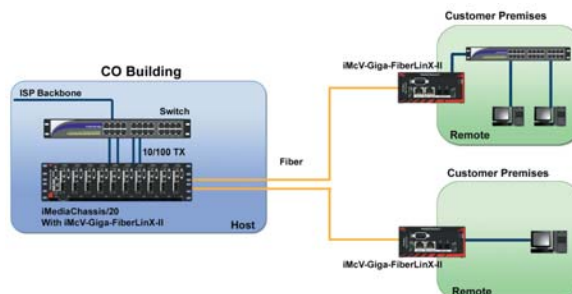
CWDM versions available, See website for details

Use with Chassis Platform

iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46

Application Example

When used in pairs, a module configured as a Host resides at the head-end while another module, configured as a Remote, installs at the remote customer location (typically on the network edge where the customer network meets the service provider infrastructure). Using SNMP, the iMcV-Giga-FiberLinX-II solution monitors the entire link and ensures data integrity while remaining isolated and completely transparent to the customer LAN.



IE-MiniFiberLinX-II



Compact fiber optic CPE for industrial-grade delivery over fiber, with media conversion, carrier grade management and line provisioning capabilities.

Product Overview

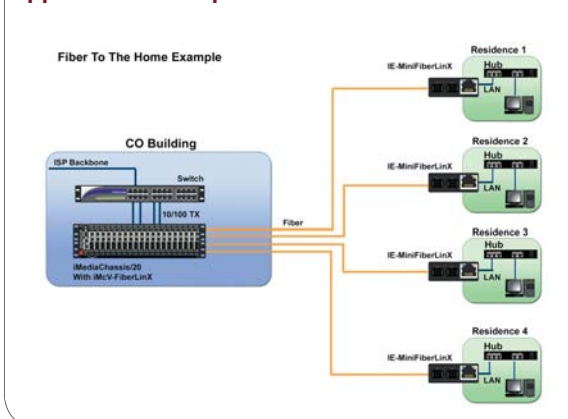
The compact IE-MiniFiberLinX-II provides point-to-point fiber optic connections with a unique management tool to monitor the entire link between two locations. IE-MiniFiberLinX-II CPE for fiber optic networks allows service providers to deliver "triple-play" voice, video and data services to customer premises.

As a copper-to-fiber converter, the IE-MiniFiberLinX-II supports multiple fiber types including multi-mode, single-mode, single-strand fiber (SSF), and Course Wavelength Division Multiplexing (CWDM) functionality to increase the capacity of existing fiber. It allows for remote configuration, provides vital alerts to network administrators, and can manage the CPE and fiber link as a single entity.

Equipped with one 100 Mbps fiber data port, one 10/100 twisted pair port for data and management, as well as an auxiliary port designed to function as a serial port (when used with the included adapter), the IE-MiniFiberLinX-II also offers multiple powering options: AC power (with included adapter), DC (through a 4-terminal power block), as well as Power over Ethernet, acting as a Powered Device (PD) to draw power when connected to 802.3af compliant Power Sourcing Equipment (PSE).

Combining copper-to-fiber conversion, extended temperature performance, plug-and-play operation, miniature size and multiple power options, the IE-MiniFiberLinX-II is one of the most versatile fiber optic CPE devices available.

Application Example



Features

- Loopback troubleshooting
- Power options: AC, DC and 802.3af Power over Ethernet (PoE)
- Preserves complete end-to-end fiber connection integrity
- Includes bi-directional bandwidth control
- Read/write IEEE 802.1Q VLAN-tags
- QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,880pps for 10 Mbps; 148,800pps for 100 Mbps;
- MTU: Supports over-sized packets up to 1536 bytes
- SNMP V1 and V2c compatible
- Managed via Telnet
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports the Unified Management Agent (UMA)
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber
- Supports passive 802.3ah OAM (Operation, Administration & Management)

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber, CWDM fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:

-4° to +167°F (-20° to +75°C) DC Configuration
+32° to +122°F (0° to +50°C) with AC wall adapter

Storage Temperature:

-49° to +185°F (-45° to +85°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.85"H x 1.83"W x 3.38"D (2.15 x 4.64 x 8.58 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz 5V
DC output at 10W, 2.0A
DC Input: 7 to 50V DC, 1A-0.1A

Shipping Weight:

0.30 lbs (0.11 kg)



Ordering Information

With AC Power Supply

| | |
|-----------|---|
| 856-19717 | IE-MiniFiberLinX-II, TP-TX/FX-MM850-ST, 2 km |
| 856-19718 | IE-MiniFiberLinX-II, TP-TX/FX-MM850-SC, 2 km |
| 856-19722 | IE-MiniFiberLinX-II, TP-TX/FX-MM1300-ST, 5 km |
| 856-19723 | IE-MiniFiberLinX-II, TP-TX/FX-MM1300-SC, 5 km |
| 856-19724 | IE-MiniFiberLinX-II, TP-TX/FX-SM1310/PLUS-ST, 40 km |
| 856-19725 | IE-MiniFiberLinX-II, TP-TX/FX-SM1310/PLUS-SC, 40 km |
| 856-19726 | IE-MiniFiberLinX-II, TP-TX/FX-SM1310/LONG-ST, 80 km |
| 856-19727 | IE-MiniFiberLinX-II, TP-TX/FX-SM1310/LONG-SC, 80 km |
| 856-19730 | IE-MiniFiberLinX-II, TP-TX/FX-SM1550/LONG-SC, 80 km |
| 856-19728 | IE-MiniFiberLinX-II, TP-TX/FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|---|
| 856-19750 | IE-MiniFiberLinX-II, TP-TX/SSFx-MM1310-SC (1310xmt/1550rcv), 2 km |
| 856-19751 | IE-MiniFiberLinX-II, TP-TX/SSFx-MM1550-SC (1550xmt/1310rcv), 2 km |
| 856-19752 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 856-19753 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 856-19754 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-19755 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-19756 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 856-19757 | IE-MiniFiberLinX-II, TP-TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Without AC Power Supply

| | |
|-----------|--|
| 856-19740 | IE-MiniFiberLinX-II Module, TP-TX/FX-MM850-ST, 2 km |
| 856-19741 | IE-MiniFiberLinX-II Module, TP-TX/FX-MM850-SC, 2 km |
| 856-19732 | IE-MiniFiberLinX-II Module, TP-TX/FX-MM1300-ST, 2 km |
| 856-19733 | IE-MiniFiberLinX-II Module, TP-TX/FX-MM1300-SC, 2 km |
| 856-19734 | IE-MiniFiberLinX-II Module, TP-TX/FX-SM1310/PLUS-ST, 30 km |
| 856-19735 | IE-MiniFiberLinX-II Module, TP-TX/FX-SM1310/PLUS-SC, 30 km |
| 856-19736 | IE-MiniFiberLinX-II Module, TP-TX/FX-SM1310/LONG-ST, 80 km |
| 856-19737 | IE-MiniFiberLinX-II Module, TP-TX/FX-SM1310/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 856-19760 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-MM1310-SC (1310xmt/1550rcv), 2 km |
| 856-19761 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-MM1550-SC (1550xmt/1310rcv), 2 km |
| 856-19762 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 856-19763 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 856-19764 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-19765 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-19766 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 856-19767 | IE-MiniFiberLinX-II Module, TP-TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

**CWDM versions available,
See website for details**

IE-MiniFiberLinX-II/Telco



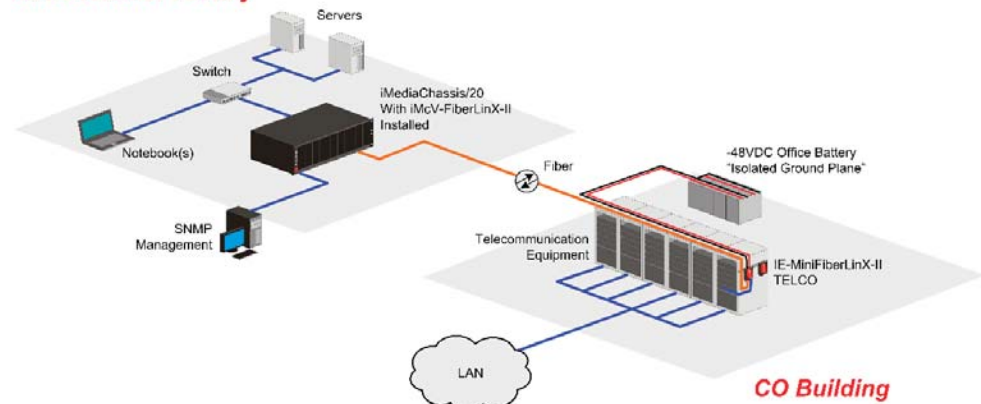
Compact fiber optic CPE for industrial-grade delivery over fiber, with media conversion, carrier grade management and line provisioning capabilities.

Product Overview
The compact IE-MiniFiberLinX-II/Telco is one of the most versatile fiber optic NID devices available on the market today. It provides point-to-point fiber optic connections with a unique management tool to monitor the entire link between two locations. IE-MiniFiberLinX-II/Telco was designed to work with -48 VDC power that is compliant with the Bellcore GR-499 specification, supporting the minimum and maximum transient voltages, typically required by transport equipment used in Telco environments. Other key features include; carrier grade remote SNMP management, extra tagging using Q-in-Q, and PoE (Power over Ethernet).

As a copper-to-fiber converter, the IE-MiniFiberLinX-II/Telco supports multiple fiber types including multimode, single-mode, single-strand fiber (SSF), and Course Wavelength Division Multiplexing (CWDM) functionality to increase the capacity of existing fiber. It allows for remote configuration, provides vital alerts to network administrators, and can manage the CPE and fiber link as a single entity.

Equipped with one 100 Mbps fiber data port, one 10/100 twisted pair port for data and management, as well as an auxiliary port designed to function as a serial port (when used with the included adapter), the IE-MiniFiberLinX-II/Telco also offers multiple powering options: AC power (with included adapter), DC (through a 4-terminal power block), as well as Power over Ethernet, acting as a Powered Device (PD) to draw power when connected to 802.3af compliant Power Sourcing Equipment (PSE).

Application Example
ISP/Customer Facility



- Features**
- Loopback troubleshooting
 - Power options: AC, DC and 802.3af Power over Ethernet (PoE)
 - Preserves complete end-to-end fiber connection integrity
 - Includes bi-directional bandwidth control
 - Read/write IEEE 802.1Q VLAN-tags
 - QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
 - Layer 2 packet switching, store and forward operation
 - Forwarding rate: 14,880pps for 10 Mbps; 148,800pps for 100 Mbps;
 - MTU: Supports over-sized packets up to 1536 bytes
 - SNMP V1 and V2c compatible
 - Managed via Telnet
 - IEEE 802.3x Flow Control
 - Includes DHCP and TFTP clients
 - Supports the Unified Management Agent (UMA)
 - IEEE 802.3 10Base-T twisted pair
 - IEEE 802.3u 100Base-TX twisted pair
 - IEEE 802.3u 100Base-FX or SX fiber
 - Supports passive 802.3ah OAM (Operation, Administration & Management)

Ordering Information

* Modular versions without AC adapter change the first Part Number to 854 (i.e. 856-17620 becomes 854-17620).

CWDM versions available,
See website for details



Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber, CWDM fiber

Connectors:
RJ-45, ST and SC

Regulatory Approvals:
FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:
-49° to +185° F (-45° to +85° C) Telco DC Configuration
+32° to +122°F (0° to +50°C) with AC wall adapter

Storage Temperature:
-49° to +185°F (-45° to +85°C)

Humidity:
5 to 95% (non-condensing)

Altitude:
0 to 10,000 ft.

Dimensions
0.85"H x 1.83"W x 3.38"D (2.15 x 4.64 x 8.58 cm)

Power Rating:
AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz 5V DC output at 10W, 2.0A
DC Input: 12 to 48 VDC *, 1 to .02A,
* Telco compatible 48 VDC allows for an absolute maximum voltage of 56.5 VDC

Shipping Weight:
0.30 lbs (0.11 kg)

| IE-MiniFiberLinX-II/Telco | |
|---------------------------|--|
| 856-17620 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-MM850-ST, (-20°C to +70°C), 2 km |
| 856-17621 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-MM850-SC, (-20°C to +70°C), 2 km |
| 856-17622 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-MM1300-ST, 5 km |
| 856-17623 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-MM1300-SC, 5 km |
| 856-17624 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310-ST, 10 km |
| 856-17625 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310-SC, 10 km |
| 856-17626 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310/PLUS-ST, 30 km |
| 856-17627 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310/PLUS-SC, 30 km |
| 856-17628 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310/LONG-ST, 80 km |
| 856-17629 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310/LONG-SC, 80 km |
| 856-17630 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1310/XLONG-SC, 100 km |
| 856-17631 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1550/LONG-SC, 80 km |
| 856-17632 | IE-MiniFiberLinX-II/Telco, TP-TX/FX-SM1550/XLONG-SC, 100 km |
| Single-Strand Fiber | |
| 856-17640 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-MM1310-SC (1310xmt/1550rcv), 2 km |
| 856-17641 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-MM1550-SC (1550xmt/1310rcv), 2 km |
| 856-17642 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1310-SC (1310xmt/1550rcv), 20 km |
| 856-17643 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1550-SC (1550xmt/1310rcv), 20 km |
| 856-17644 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-17645 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-17646 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 856-17647 | IE-MiniFiberLinX-II/Telco, TP-TX/SSF-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

IE-MiniFiberLinX-II/LastGasp



Compact fiber optic CPE for industrial-grade delivery over fiber, with media conversion, carrier grade management and line provisioning capabilities.

Product Overview

The compact IE-MiniFiberLinX-II/LastGasp is one of the most versatile fiber optic NID devices available on the market today. It provides point-to-point fiber optic connections with a unique management tool to monitor the entire link between two locations. IE-MiniFiberLinX-II/LastGasp was designed to work with -48 VDC power that is compliant with the Bellcore GR-499 specification, supporting the minimum and maximum transient voltages, typically required by transport equipment used in Telco environments. Additionally, the product offers Last Gasp, a Trap notification feature that identifies when the power lines are down or of a possible power supply failure. Other key features include; carrier grade remote SNMP management, extra tagging using Q-in-Q, and PoE (Power over Ethernet).

As a copper-to-fiber converter, the IE-MiniFiberLinX-II/LastGasp supports multiple fiber types including multimode, single-mode, single-strand fiber (SSF), and Course Wavelength Division Multiplexing (CWDM) functionality to increase the capacity of existing fiber. It allows for remote configuration, provides vital alerts to network administrators, and can manage the CPE and fiber link as a single entity.

Equipped with one 100 Mbps fiber data port, one 10/100 twisted pair port for data and management, as well as an auxiliary port designed to function as a serial port (when used with the included adapter), the IE-MiniFiberLinX-II/LastGasp also offers multiple powering options: AC power (with included adapter), DC (through a 4-terminal power block), as well as Power over Ethernet, acting as a Powered Device (PD) to draw power when connected to 802.3af compliant Power Sourcing Equipment (PSE).

Features

- Loopback troubleshooting
- Power options: AC, DC and 802.3af Power over Ethernet (PoE)
- Preserves complete end-to-end fiber connection integrity
- Includes bi-directional bandwidth control
- Read/write IEEE 802.1Q VLAN-tags
- QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,880pps for 10 Mbps; 148,800pps for 100 Mbps;
- MTU: Supports over-sized packets up to 1536 bytes
- SNMP V1 and V2c compatible
- Managed via Telnet
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports the Unified Management Agent (UMA)
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber
- Supports passive 802.3ah OAM (Operation, Administration & Management)

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber, CWDM fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:

-49° to +185° F (-45° to +85° C) Telco DC Configuration
+32° to +122°F (0° to +50°C) with AC wall adapter

Storage Temperature:

-49° to +185°F (-45° to +85°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.85"H x 1.83"W x 3.38"D (2.15 x 4.64 x 8.58 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz
5V DC output at 10W, 2.0A

DC Input: 12 to 48 VDC *, 1 to .02A,
* Telco compatible 48 VDC allows for an
absolute maximum voltage of 56.5 VDC

Shipping Weight:

0.30 lbs (0.11 kg)

Ordering Information

* Modular versions without AC adapter change the first Part Number to 854 (i.e. 856-17720 becomes 854-17720).

**CWDM versions available,
See website for details**



IE-MiniFiberLinX-II/LastGasp

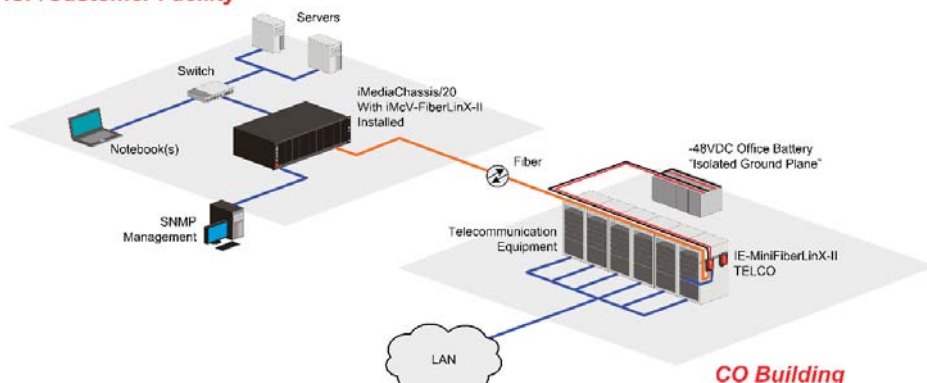
| | |
|-----------|---|
| 856-17720 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-MM850-ST, (-20°C to +70°C), 2 km |
| 856-17721 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-MM850-SC, (-20°C to +70°C), 2 km |
| 856-17722 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-MM1300-ST, 5 km |
| 856-17723 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-MM1300-SC, 5 km |
| 856-17724 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310-ST, 10 km |
| 856-17726 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310/PLUS-ST, 30 km |
| 856-17727 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310/PLUS-SC, 30 km |
| 856-17728 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310/LONG-ST, 80 km |
| 856-17729 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310/LONG-SC, 80 km |
| 856-17730 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1310/XLONG-SC, 100 km |
| 856-17731 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1550/LONG-SC, 80 km |
| 856-17732 | IE-MiniFiberLinX-II/LastGasp, TP-TX/FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 856-17740 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-MM1310-SC (1310xmt/1550rcv), 2 km |
| 856-17741 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-MM1550-SC (1550xmt/1310rcv), 2 km |
| 856-17742 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 856-17743 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 856-17744 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-17745 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-17746 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 856-17747 | IE-MiniFiberLinX-II/LastGasp, TP-TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Application Example

ISP/Customer Facility



MiniMc, MiniMc SFP and IE-PowerTray/18-AC



* SFPs Sold Separately

The smallest, most reliable and most cost effective switching and Gigabit-only media converters in the industry.

Product Overview

Media conversion is the most cost-effective solution for extending the productive life of legacy wiring plants and equipment while allowing implementation of new technologies. Media conversion's greatest benefits are flexibility and cost savings.

Measuring less than 3.5 inches deep and 2 inches wide, the MiniMc is the industry's smallest media converter with both data connections on the same side of the unit, and at a fraction of the cost of other alternatives. Plug-and-play operation with a variety of model types and powering options make the MiniMc series easy and convenient to use.

MiniMc SFP includes:

- One SFP fiber port
- One 10/100 Base-TX twisted pair port that auto-senses the connected device's rate and duplex mode (Half-Duplex/Full-Duplex)

MiniMc includes:

- One 100 Mbps FDX fiber port
- One 10/100 Base-TX twisted pair port that auto-senses the connected device's rate and duplex mode (Half-Duplex/Full-Duplex)



Features

Perfect for a variety of applications

- Low Cost media converter
- Standalone converter includes country specific, high-reliability power adapter or use converter with USB-power cord (10/100 Mbps only)

Space saving alternative

- Standalone unit has small, rugged enclosure with compact, external power supply
- 18 connections in the 1.5U high IE-PowerTray/18-AC rackmountable enclosure
- Can be ordered without AC adapter for IE-PowerTray/18-AC installation

All versions include:

- Auto-Cross automatic selection between crossover or straight-through cable
- Status LEDs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST, SC and SFP (only on MiniMc SFP version)

Regulatory Approvals:

FCC Class B, UL/cUL, CE, CSA

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz 5V DC output at 10W, 2.0A

Shipping Weight:

0.7 lbs (0.3 kg)

Physical Specifications IE-PowerTray/18-AC

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA

Operating Temperature:

-4° to +158°F (-20° to +70°C)

Storage Temperature:

-40° to +185°F (-40° to +85°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

2.30"H x 16.97"W x 9.25"D (5.80 x 43.10 x 23.5 cm)

Power Rating:

AC input Load: 100-240VAC ±10%, 50/60Hz, 1.5 - 0.75A

Shipping Weight:

10 lbs (4.5 kg)

Ordering Information

* **MiniMc: TP-TX/SFP

855-10619 MiniMc, TP-TX/SFP (requires one IE-SFP/155 Module)

** MiniMc: TP-TX/FX and TP-TX/SX

855-10620 MiniMc, TP-TX/FX-MM850-ST, 2 km

855-10621 MiniMc, TP-TX/FX-MM850-SC, 2 km

855-10622 MiniMc, TP-TX/FX-MM1300-ST, 5 km

855-10623 MiniMc, TP-TX/FX-MM1300-SC, 5 km

855-10624 MiniMc, TP-TX/FX-SM1310/PLUS-ST, 40 km

855-10625 MiniMc, TP-TX/FX-SM1310/PLUS-SC, 40 km

855-10626 MiniMc, TP-TX/FX-SM1310/LONG-ST, 80 km

855-10627 MiniMc, TP-TX/FX-SM1310/LONG-SC, 80 km

855-10641 MiniMc, TP-TX/FX-SM1550/LONG-SC, 80 km

Single-Strand Fiber

855-10650 MiniMc, TP-TX/SSFx-MM1300-SC (1300xmt/1550rcv), 2 km

855-10651 MiniMc, TP-TX/SSFx-MM1550-SC (1550xmt/1300rcv), 2 km

855-10652 MiniMc, TP-TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km

855-10653 MiniMc, TP-TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km

855-10654 MiniMc, TP-TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

855-10655 MiniMc, TP-TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

855-10656 MiniMc, TP-TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km

855-10657 MiniMc, TP-TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km

Available Accessories

806-39720 AC Power Adapter for MiniMc products (10 watt, -10°C to +50°C), (FranMar)

806-00720-00 Power Adapter Clip (USA), (FranMar)

806-00720-01 Power Adapter Clip (UK), (FranMar)

806-00720-02 Power Adapter Clip (Europe), (FranMar)

806-00720-03 Power Adapter Clip (Australia/New Zealand), (FranMar)

806-39753 IE-Power/5V, AC to DC (DIN Rail) Power Adapter (-20° to +70° C)

806-39628 36" USB Power Cable (for MiniMc only)

806-39629 12" USB Power Cable (for MiniMc only)

806-39638 Double-USB Power Cable 36"

806-39650 12" Barrel-Connector Power Cable

806-39105 DIN Rail Clip

895-39229 Wall Mount Bracket

IE-PowerTray/18-AC Chassis

850-13086 IE-PowerTray/18-AC (1.5U high, rackmountable enclosure)

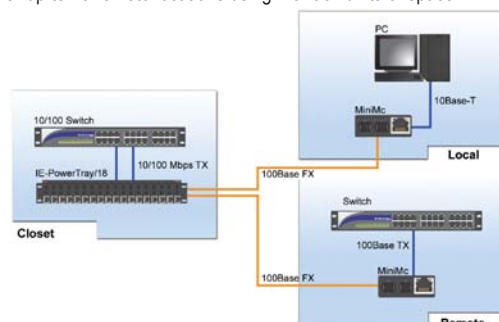


CWDM versions available, See website for details

** Modular versions without AC adapter change the first Part Number to 854 (i.e. 855-10620 becomes 854-10620).

Application Example

Connect up to 18 MiniMcS in an IE-PowerTray/18-AC and network with up to 18 remote locations using 1.5 rack units of space.



MiniMc-Gigabit, Giga-MiniMc, Giga-MiniMc SFP, Giga-MiniMc/LFPT



* SFPs Sold Separately



The smallest, most reliable and most cost effective switching and Gigabit-only media converters in the industry.

Product Overview

Media conversion is the most cost-effective solution for extending the productive life of legacy wiring plants and equipment while allowing implementation of new technologies. Media conversion's greatest benefits are flexibility and cost savings.

Measuring less than 3.5 inches deep and 2 inches wide, the MiniMc is the industry's smallest media converter with both data connections on the same side of the unit, and at a fraction of the cost of other alternatives. Plug-and-play operation with a variety of model types and powering options make the MiniMc series easy and convenient to use.

MiniMc-Gigabit includes:

- One 1000Base-SX or 1000Base-LX fiber port
- One 1000Base-T twisted pair port

Giga-MiniMc includes:

- One 1000Base-SX or 1000Base-LX fiber port
- One 10/100/1000 Mbps twisted pair port that auto-senses the connected device's speed and duplex mode (Half-Duplex/Full-Duplex)

Giga-MiniMc SFP includes:

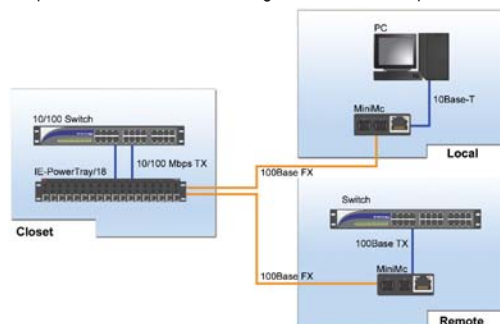
- One 1000Base-SFP Slot (SFP Sold Separately)
- One 10/100/1000 Mbps twisted pair port that auto-senses the connected device's speed and duplex mode (Half-Duplex/Full-Duplex)

Giga-MiniMc LFPT includes:

- One 1000Base-SX or 1000Base-LX fiber port
- One 10/100/1000 Mbps twisted pair port that auto-senses the connected device's speed and duplex mode (Half-Duplex/Full-Duplex)
- Link Fault Pass-Through (LFPT)

Application Example

Connect up to 18 MiniMcS in an IE-PowerTray/18-AC and network with up to 18 remote locations using 1.5 rack units of space.



Features

Perfect for a variety of applications

- Low Cost media converter
- Standalone converter includes country specific, high-reliability power adapter or use converter with USB-power cord (10/100 Mbps only)

Space saving alternative

- Standalone unit has small, rugged enclosure with compact, external power supply
- 18 connections in the 1.5U high IE-PowerTray/18-AC rackmountable enclosure
- Can be ordered without AC adapter for IE-PowerTray/18-AC installation

All versions include:

- Auto-Cross automatic selection between crossover or straight-through cable
- Status LEDs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST, SC and SFP (only on MiniMc SFP version)

Regulatory Approvals:

FCC Class B, UL/cUL, CE, CSA

Giga-MiniMc FCC Class A

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz 5V DC output at 10W, 2.0A

Shipping Weight:

0.7 lbs (0.3 kg)

** Giga-MiniMc/LFPT: TX/LX

856-11700 Giga-MiniMc/LFPT TX/SFP, (requires 1 IE-SFP/1250 module), Various

** Giga-MiniMc/LFPT: TX/SX

856-11701 Giga-MiniMc/LFPT TX/SX-MM850-SC, 220/550 m

Available Accessories

See Page 12

Use with Chassis Platform

IE-PowerTray/18-AC, See Page 12

CWDM versions available,
See website for details

Ordering Information

** MiniMc-Gigabit: TX/SX and TX/LX

| | |
|----------------------------|---|
| 855-10730 | MiniMc-Gigabit, TX/SX-MM850-SC, 220/550 m |
| 855-10731 | MiniMc-Gigabit, TX/LX-SM1310-SC, 10 km |
| 855-10732 | MiniMc-Gigabit, TX/LX-SM1310/PLUS-SC, 40 km |
| 855-10733 | MiniMc-Gigabit, TX/LX-SM1550/LONG-SC, 80 km |
| Single-Strand Fiber | |
| 855-10734 | MiniMc-Gigabit, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 855-10735 | MiniMc-Gigabit, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 855-10742 | MiniMc-Gigabit, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 855-10743 | MiniMc-Gigabit, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 855-10736 | MiniMc-Gigabit, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-10737 | MiniMc-Gigabit, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-10744 | MiniMc-Gigabit, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 855-10745 | MiniMc-Gigabit, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 855-10738 | MiniMc-Gigabit, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 855-10739 | MiniMc-Gigabit, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

** Giga-MiniMc: TX/SX and TX/LX

| | |
|----------------------------|---|
| 856-10747 | Giga-MiniMc, TX/SFP, (requires 1 IE-SFP/1250 module), Various |
| 856-10730 | Giga-MiniMc, TX/SX-MM850-SC, 220/550 m |
| 856-10728 | Giga-MiniMc, TX/LX-MM1300-SC, 2 km |
| 856-10731 | Giga-MiniMc, TX/LX-SM1310-SC, 10 km |
| 856-10732 | Giga-MiniMc, TX/LX-SM1310/PLUS-SC, 40 km |
| 856-10733 | Giga-MiniMc, TX/LX-SM1550/LONG-SC, 80 km |
| 856-10729 | Giga-MiniMc, TX/LX-SM1550/XLONG-SC, 100 km |
| Single-Strand Fiber | |
| 856-10734 | Giga-MiniMc, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 856-10735 | Giga-MiniMc, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 856-10742 | Giga-MiniMc, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 856-10743 | Giga-MiniMc, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 856-10736 | Giga-MiniMc, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-10737 | Giga-MiniMc, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-10744 | Giga-MiniMc, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 856-10745 | Giga-MiniMc, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 856-10738 | Giga-MiniMc, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 856-10739 | Giga-MiniMc, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

** Giga-MiniMc Modular versions without AC adapter change the first Part Number to 854 (i.e., 856-10747 becomes 854-10747).

IE-MiniMc & IE-Giga-MiniMc



The fast-growing MiniMc series includes an Industrial Ethernet model, allowing operation in extreme temperatures, with additional power and mounting options.

Product Overview

Equipped with all the features of the original — copper-to-fiber conversion, plug-and-play operation, miniature size and multiple power options — the IE-MiniMc also supports the IEEE 802.3af Power Over Ethernet (PoE) standard to function as a powered device.

All versions include:

- Extended operating temperature of -25 to +85° C
- Auto-Cross automatic selection between crossover or straight-through cable
- Status LEDs

IE-MiniMc includes:

- One 100 Mbps Full-Duplex fiber port
- One 10/100 Base-TX twisted-pair port that auto-senses the connected device's rate and duplex mode (Half-Duplex/Full-Duplex)
- Twisted pair port also functions as a Powered Device port, supporting Power Over Ethernet (PoE)

IE-Giga-MiniMc includes:

- One 1000Base-SX or 1000Base-LX fiber port
- One 10/100/1000 Mbps twisted-pair port that auto-senses the connected device's speed and duplex mode (Half-Duplex/Full-Duplex)

Features

Most cost-effective fiber converter available today

- Low cost, high flexibility — connects 10/100 Mbps copper to 100 Mbps fiber
- Install for use in extreme temperatures

Multiple powering options for a variety of applications

- Includes 4-terminal DC power block
- Includes country-specific, AC power adapter (0° to +50°C)
- IE-MiniMc supports IEEE 802.3af Power over Ethernet standard; draws power from power sourcing equipment (10/100 version only)
- Powering options can be combined for AC/DC redundancy

Space saving alternative

- Standalone unit has small, rugged enclosure with compact, external power supply
- 18 connections in the 1.5U high IE-PowerTray/18-AC rackmountable enclosure
- Can be ordered without AC adapter for IE-PowerTray/18-AC installation
- Mounts on DIN rail

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class A (using DC terminal power or Power Over Ethernet (PoE)), Class B (using any DC jack optional), UL/cUL, CE, CSA, CB

Operating Temperature:

-13° to +185°F (-25° to +85°C) Without AC Adapter
+14° to +122°F (-10° to +50°C) With AC Adapter

Storage Temperature:

-31° to +167°F (-35° to +75°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz
5V DC output at 10W, 2.0A
7-50V DC, 1A-0.1A

Shipping Weight:

0.7 lbs (0.3 kg)

Ordering Information

IE-MiniMc: TP-TX/FX

| | |
|-----------|---|
| 855-19720 | IE-MiniMc, TP-TX/FX-MM850-ST, 2 km |
| 855-19721 | IE-MiniMc, TP-TX/FX-MM850-SC, 2 km |
| 855-19722 | IE-MiniMc, TP-TX/FX-MM1300-ST, 5 km |
| 855-19723 | IE-MiniMc, TP-TX/FX-MM1300-SC, 5 km |
| 855-19724 | IE-MiniMc, TP-TX/FX-SM1310/PLUS-ST, 30 km |
| 855-19725 | IE-MiniMc, TP-TX/FX-SM1310/PLUS-SC, 30 km |
| 855-19726 | IE-MiniMc, TP-TX/FX-SM1310/LONG-ST, 80 km |
| 855-19727 | IE-MiniMc, TP-TX/FX-SM1310/LONG-SC, 80 km |
| 855-19730 | IE-MiniMc, TP-TX/FX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|---|
| 855-19750 | IE-MiniMc, TP-TX/SSFx-MM1310-SC (1310xmt/1550rcv), 2 km |
| 855-19751 | IE-MiniMc, TP-TX/SSFx-MM1550-SC (1550xmt/1310rcv), 2 km |
| 855-19752 | IE-MiniMc, TP-TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 855-19753 | IE-MiniMc, TP-TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 855-19754 | IE-MiniMc, TP-TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-19755 | IE-MiniMc, TP-TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-19756 | IE-MiniMc, TP-TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 855-19757 | IE-MiniMc, TP-TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

IE-Giga-MiniMc: TX/SX and TX/LX

| | |
|-----------|---|
| 856-18830 | IE-Giga-MiniMc, TX/SX-MM850-SC, 220/550 m |
| 856-18831 | IE-Giga-MiniMc, TX/LX-SM1310-SC, 15 km |
| 856-18832 | IE-Giga-MiniMc, TX/LX-SM1310/PLUS-SC, 40 km |
| 856-18833 | IE-Giga-MiniMc, TX/LX-SM1550/LONG-SC, 80 km |
| 856-18834 | IE-Giga-MiniMc, TX/LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

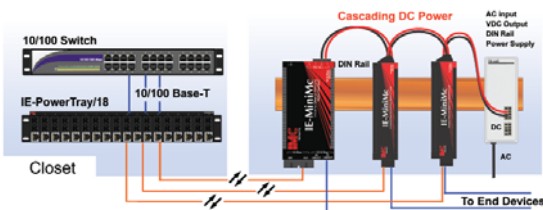
| | |
|-----------|--|
| 856-18835 | IE-Giga-MiniMc, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 856-18836 | IE-Giga-MiniMc, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 856-18825 | IE-Giga-MiniMc, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 856-18826 | IE-Giga-MiniMc, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 856-18837 | IE-Giga-MiniMc, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 856-18838 | IE-Giga-MiniMc, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 856-18827 | IE-Giga-MiniMc, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 856-18828 | IE-Giga-MiniMc, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 856-18839 | IE-Giga-MiniMc, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 856-18840 | IE-Giga-MiniMc, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |
| 856-18841 | IE-Giga-MiniMc, TX/SSLX-SM1490/XLONG-SC (1490xmt/1550rcv), 80 km |
| 856-18842 | IE-Giga-MiniMc, TX/SSLX-SM1550/XLONG-SC (1550xmt/1490rcv), 80 km |

* Modular versions without AC adapter change the first Part Number to 854 (i.e. 855-10620 becomes 854-10620).

CWDM versions available,
See website for details

Application Examples

DIN Rail clips are optional with the IE MiniMc, allowing installation on a DIN rail. When installing multiple IE-MiniMc units on a DIN rail, one DC input source can cascade from one DC block to the next, until reaching the maximum electrical current available.



Available Accessories

See Page 12

Use with Chassis Platform

IE-PowerTray/18-AC, See Page 12

IE-MiniMc/Telco & IE-MiniMc/Telco-LFPT

6-YEAR
Comprehensive
Warranty



The IE-MiniMc Series are Industrial Equipment (IE) versions of the popular MiniMc Series, offering a wide range of transmission speeds, extended temperature, and multiple powering and mounting options.

Product Overview

Equipped with all the features of the original — copper-to-fiber conversion, plug-and-play operation, miniature size and multiple power options — the IE-MiniMc/Telco and IE-MiniMc/Telco LFPT also support the IEEE 802.3af Power Over Ethernet (PoE) standard to function as a powered device.

All versions include:

- Extended operating temperature of -25 to +85° C
- Auto-Cross automatic selection between crossover or straight-through cable
- Status LEDs

IE-MiniMc/Telco includes:

- One 100 Mbps Full-Duplex fiber port
- One 10/100 Base-TX twisted-pair port that auto-senses the connected device's rate and duplex mode (Half-Duplex/Full-Duplex)
- Twisted pair port also functions as a Powered Device port, supporting Power Over Ethernet (PoE)

IE-MiniMc/Telco-LFPT includes:

- One 1000Base-SX or 1000Base-LX fiber port
- One 10/100/1000 Mbps twisted-pair port that auto-senses the connected device's speed and duplex mode (Half-Duplex/Full-Duplex)
- Link Fault Pass-Through (LFPT)

Features

The most cost-effective fiber converter available

- Low cost and feature rich
- Value add industrial grade extended temperature performance

Versatile Solution

- Stand-alone unit with small, rugged metal enclosure with compact, external power supply
- Also available in Gigabit Switching models (IE-Giga-MiniMc)¹
- 48 VDC terminal for Telco applications²
- Available for a variety of fiber types and connectors, including single-strand fiber

More power options than other converters, for a variety of applications

- Includes country-specific AC power adapter
- Terminal DC power block (non-Telco) with extended voltage range (7 to 50 VDC)
- Installs in the IE-PowerTray/18-AC
- IEEE 802.3af Power Over Ethernet
- Powering options can be combined for AC/DC redundancy
- USB power

Plug-and-Play Operation

- User-friendly Auto Negotiation
- Auto-Cross feature for twisted pair connection on all converters

"Industrial Equipment" (IE) features for operation in difficult environments

- Extended temperature functionality, up to -25° to +85° C
- DIN Rail mountable (DIN clips sold separately)

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class A (using DC terminal power or Power Over Ethernet (PoE)), Class B (using any DC jack optional), UL/cUL, CE, CSA, CB

Operating Temperature:

-40° to +185°F (-40° to +85°C) Without AC Adapter
+14° to +122°F (-10° to +50°C) With AC Adapter

Storage Temperature:

-31° to +167°F (-35° to +75°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz
5V DC output at 10W, 2.0A

7-50V DC, 1A-0.1A

Shipping Weight:

0.7 lbs (0.3 kg)

Ordering Information

IE-MiniMc/LFPT: TP-TX/FX

| | |
|-----------|--|
| 855-19822 | IE-MiniMc/LFPT, TP-TX/FX-MM850-SC, 2 km |
| 855-19824 | IE-MiniMc/LFPT, TP-TX/FX-MM1300-SC, 5 km |
| 855-19830 | IE-MiniMc/LFPT, TP-TX/FX-SM1310/PLUS-SC, 30 km |
| 855-19832 | IE-MiniMc/LFPT, TP-TX/FX-SM1310/LONG-SC, 80 km |
| 855-19833 | IE-MiniMc/LFPT, TP-TX/FX-SM1550/LONG-SC, 80 km |

IE-MiniMc/Telco-LFPT: TP-TX/FX

| | |
|-----------|---|
| 855-19202 | IE-MiniMc/Telco-LFPT, TX/FX-MM850-SC, 2 km |
| 855-19204 | IE-MiniMc/Telco-LFPT, TX/FX-MM1300-SC, 5 km |
| 855-19210 | IE-MiniMc/Telco-LFPT, TX/FX-SM1310/PLUS-SC, 30 km |
| 855-19212 | IE-MiniMc/Telco-LFPT, TX/FX-SM1310/LONG-SC, 80 km |
| 855-19213 | IE-MiniMc/Telco-LFPT, TX/FX-SM1550/LONG-SC, 80 km |

Available Accessories

See Page 12

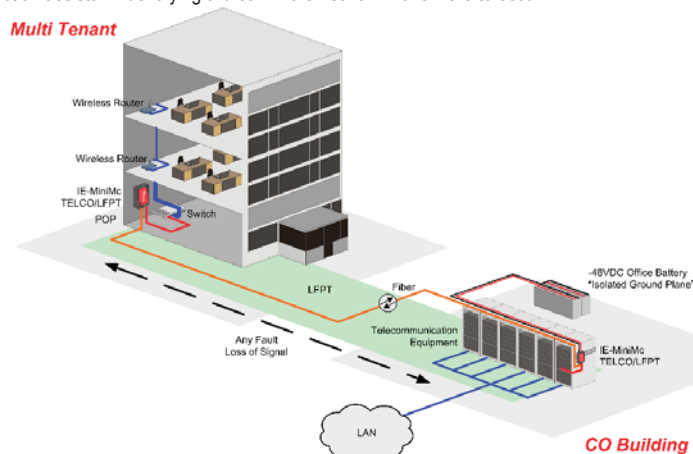
Use with Chassis Platform

IE-PowerTray/18-AC, See Page 12

* Modular versions without AC adapter change the first Part Number to 854 (i.e. 855-10620 becomes 854-10620).

Application Examples

Here we see one IE-MiniMc TELCO/LFPT installed at a Telco (powered by a -48 VDC office battery) and one installed at an MTU. The LFPT function assists in identifying a break in the network if one were to occur.



PoE and PoE+ Giga-MiniMc



6-YEAR
Comprehensive
Warranty

NEW!

* SFPs Sold Separately

The PoE and PoE+ Giga-MiniMc is targeted for Gigabit and 100 Mbps applications that require power over Ethernet to locations where PoE is needed to power the unit.

Product Overview

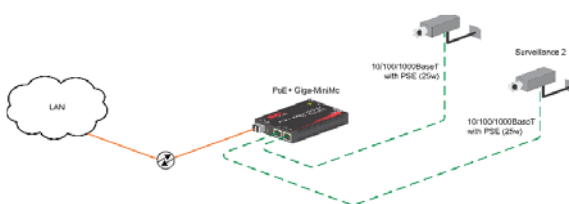
The PoE and PoE+ Giga-MiniMc are low-cost, compact, multi-port media converters that support both PoE and PoE+ standards. Utilizing their flexibility and compact size, interior private network applications can further benefit from the ever-expanding versatility of the MiniMc product line.

Featuring 2 10/100/1000Base-T copper UTP ports and one SFP uplink port that supports either a copper or fiber SFP, the PoE and PoE+ Giga-MiniMc are Power Source Equipment (PSE) devices. The PoE+ Giga-MiniMc is capable of powering up to two Powered Devices (PD) over standard CAT5 cable or better, whereas the PoE Giga-MiniMc can power one PD device via a copper port while delivering data over the other copper port. The PoE+ Giga-MiniMc is able to power high-power devices such as touch panels, PTZ (pan-tilt-zoom) IP surveillance cameras, and RFID readers that require more power than the typical 15.4 W provided by standard PSE devices such as the PoE Giga-MiniMc.

The PoE and PoE+ Giga-MiniMc models are fully compatible with the IEEE 802.3af/at standards to ensure a seamless integration into your network. Enhanced features include store-and-forward, Autocross and PoE reset on fiber loss of signal. PoE reset is an advanced function that, when enabled, will force the PSE output power to reset when LINK state is lost on the SFP port.

Application Examples

In the following example, the PoE+ Giga-MiniMc is shown powering two separate pan/tilt/zoom (PTZ) IP surveillance cameras at a remote location. The PoE+ Giga-MiniMc is powered via AC or 48 VDC, while it can be mounted up to 100 m from the cameras that are being driven via PoE.



Features

Flexible Solution

- Connects 10/100/1000 Mbps copper to 100/1000 Mbps fiber SFP or 10/100/1000 Mbps copper SFP
- Supports Jumbo Frames (up to 10240 bytes)
- Rugged stand-alone metal enclosure with compact external power supply
- Multiple mounting options (Desktop, DIN Rail or Wall-mount)
- For multimode, single-mode, single-strand and CWDM fiber
- Features configurable PoE Reset on Fiber LOS
- Packet prioritization

Power Options:

- Supports IEEE 802.3af PoE (15.4W) and IEEE 802.3at PoE+ (25.5W) standards
- 4-terminal DC power with a pair of input terminals and a pair of output terminals for cascading power on DIN installation
- External AC power supply

SFP Support

- Auto negotiate speed and flow control for 10/100/1000 copper SFPs with SGMII
- Supports fixed speed 1 Gbps full-duplex copper SFPs
- Auto detect for 100 or 1000 optical SFPs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST, SC and SFP

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA

Operating Temperature:

+32° F to +158° F (0° C to +70° C) DC terminal Block

+32° F to +122° F (0° C to +50° C) w/ AC Adapter

Storage Temperature:

-40° to +185° F (-40° to +85° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.80" H x 3.645" W x 3.82" D
(2.032 cm x 9.258 cm x 9.7028 cm)

Power Rating:

AC Wall adapter:

PoE+ Giga-MiniMc

Input: 100 to 240 ±10% VAC, 50/60Hz, 2A *, Output: 48 VDC, 0.62A

PoE Giga-MiniMc

Input: 100 to 240 ±10% VAC, 50/60Hz, 0.7A *, Output: 48 VDC, 0.62A

DC Input Voltage:

PoE+ Giga-MiniMc

51 to 57 VDC on DC terminal block, 51 to 57 VDC on DC jack

PoE Giga-MiniMc

45 to 57 VDC on DC terminal block, 48 VDC on DC jack

Shipping Weight:

0.7 lbs (0.3 kg)

Ordering Information

* PoE Giga-MiniMc

| | |
|-----------|---|
| 857-10811 | PoE Giga-MiniMc, 2TX/SFP, Various |
| 857-10812 | PoE Giga-MiniMc, 2TX/SX-MM850-SC, 220/550 m |
| 857-10813 | PoE Giga-MiniMc, 2TX/LX-MM1300-SC, 2 km |
| 857-10814 | PoE Giga-MiniMc, 2TX/LX-SM1310-SC, 15 km |
| 857-10815 | PoE Giga-MiniMc, 2TX/LX-SM1310/PLUS-SC, 40 km |
| 857-10816 | PoE Giga-MiniMc, 2TX/LX-SM1550/LONG-SC, 80 km |
| 857-10817 | PoE Giga-MiniMc, 2TX/LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 857-10820 | PoE Giga-MiniMc, 2TX/SSLX-SM1310-SC (1310xmt/1550 rcv), 10 km |
| 857-10821 | PoE Giga-MiniMc, 2TX/SSLX-SM1550-SC (1550xmt/1310 rcv), 10 km |
| 857-10822 | PoE Giga-MiniMc, 2TX/SSBX-SM1310-SC (1310xmt/1490 rcv), 20 km |
| 857-10823 | PoE Giga-MiniMc, 2TX/SSBX-SM1490-SC (1490xmt/1310 rcv), 20 km |
| 857-10824 | PoE Giga-MiniMc, 2TX/SSLX-SM1310/PLUS-SC (1310xmt/1550 rcv), 40 km |
| 857-10825 | PoE Giga-MiniMc, 2TX/SSLX-SM1550/PLUS-SC (1550xmt/1310 rcv), 40 km |
| 857-10826 | PoE Giga-MiniMc, 2TX/SSBX-SM1310/PLUS-SC (1310xmt/1490 rcv), 30 km |
| 857-10827 | PoE Giga-MiniMc, 2TX/SSBX-SM1490/PLUS-SC (1490xmt/1310 rcv), 30 km |
| 857-10828 | PoE Giga-MiniMc, 2TX/SSLX-SM1490/LONG-SC (1490xmt/1550 rcv), 70 km |
| 857-10829 | PoE Giga-MiniMc, 2TX/SSLX-SM1550/LONG-SC (1550xmt/1490 rcv), 70 km |

* PoE+ Giga-MiniMc

| | |
|-----------|--|
| 857-10911 | PoE+ Giga-MiniMc, 2TX/SFP, Various |
| 857-10912 | PoE+ Giga-MiniMc, 2TX/SX-MM850-SC, 220/550 m |
| 857-10913 | PoE+ Giga-MiniMc, 2TX/LX-MM1300-SC, 2 km |
| 857-10914 | PoE+ Giga-MiniMc, 2TX/LX-SM1310-SC, 15 km |
| 857-10915 | PoE+ Giga-MiniMc, 2TX/LX-SM1310/PLUS-SC, 40 km |
| 857-10916 | PoE+ Giga-MiniMc, 2TX/LX-SM1550/LONG-SC, 80 km |
| 857-10917 | PoE+ Giga-MiniMc, 2TX/LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|---|
| 857-10920 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1310-SC (1310xmt/1550 rcv), 10 km |
| 857-10921 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1550-SC (1550xmt/1310 rcv), 10 km |
| 857-10922 | PoE+ Giga-MiniMc, 2TX/SSBX-SM1310-SC (1310xmt/1490 rcv), 20 km |
| 857-10923 | PoE+ Giga-MiniMc, 2TX/SSBX-SM1490-SC (1490xmt/1310 rcv), 20 km |
| 857-10924 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1310/PLUS-SC (1310xmt/1550 rcv), 40 km |
| 857-10925 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1550/PLUS-SC (1550xmt/1310 rcv), 40 km |
| 857-10926 | PoE+ Giga-MiniMc, 2TX/SSBX-SM1310/PLUS-SC (1310xmt/1490 rcv), 30 km |
| 857-10927 | PoE+ Giga-MiniMc, 2TX/SSBX-SM1490/PLUS-SC (1490xmt/1310 rcv), 30 km |
| 857-10928 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1490/LONG-SC (1490xmt/1550 rcv), 70 km |
| 857-10929 | PoE+ Giga-MiniMc, 2TX/SSLX-SM1550/LONG-SC (1550xmt/1490 rcv), 70 km |

Available Accessories

| | |
|--------------|---|
| 806-00720-00 | Power Adapter Clip (USA), (FranMar) |
| 806-00720-01 | Power Adapter Clip (UK), (FranMar) |
| 806-00720-02 | Power Adapter Clip (Europe), (FranMar) |
| 806-00720-03 | Power Adapter Clip (Australia/New Zealand), (FranMar) |
| 806-39105 | DIN Rail Clip |
| 806-39800 | PoE Power Adapter for PoE Giga-MiniMc |
| 806-39900 | PoE+ Power Adapter for PoE+ Giga-MiniMc |
| 806-39910 | PoE+ Isolated Power Adapter |

PD-Switch



* SFPs Sold Separately

The PD-Switch combines flexible copper and fiber interface options with port and packet-based traffic prioritization while extending network range by utilizing Power over Ethernet (PoE) technology.

Product Overview

The (PoE) PD-Switch is a full-featured, 5-port MAC layer 10/100Base-T switch that extends the range of Ethernet networks, and increases port density, while being powered via IEEE 802.3af compliant PoE through its "PD-port" (eliminating the need to run a separate power line for the device). Ethernet cabling typically runs only 100 meters; the PD-Switch, extends the outer range of an ethernet network by an additional 100 meters.

With multiple port configurations, the PD-Switch provides a variety of port options while increasing port density. PD-Switches come equipped with one "PD" RJ-45 port and either:

- Four 10/100Base-T RJ-45 data ports
- Three 10/100Base-T RJ-45 data ports and one SFP data port (rate depends on SFP)
- Two 10/100Base-T RJ-45 data ports and one 100Base-FX fiber data port

Features

Multi-port switch powered by the IEEE 802.3af Power Over Ethernet Standard

- PD accepts power from any network device providing PoE
- Multiple ports increase network port density

Meets a multitude of installation requirements

- SFP and fiber port configurations (optional) for different network environments
- All RJ-45 ports feature Auto-Cross and Auto Negotiation
- Port for High Priority traffic
- Available with ST or SC fiber connectors
- Optional single-strand fiber model

Full-Featured Switch

- Broadcast Storm Protection helps control excessive broadcast traffic
- DiffServ on all ports provides Quality of Service prioritization
- Far End Fault provides notification of Link Loss on all fiber ports
- Supports 1916 byte Packet Size

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber and SFP

Connectors:

RJ-45, ST, SC and SFP

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.55"H x 4.75"L x 7.31"D (3.94 x 12.07 x 18.57 cm)

Power Rating:

36V DC-50V DC, 56mA-40mA

Shipping Weight:

1.8 lbs (0.82 kg)

Ordering Information

* PD-Switch

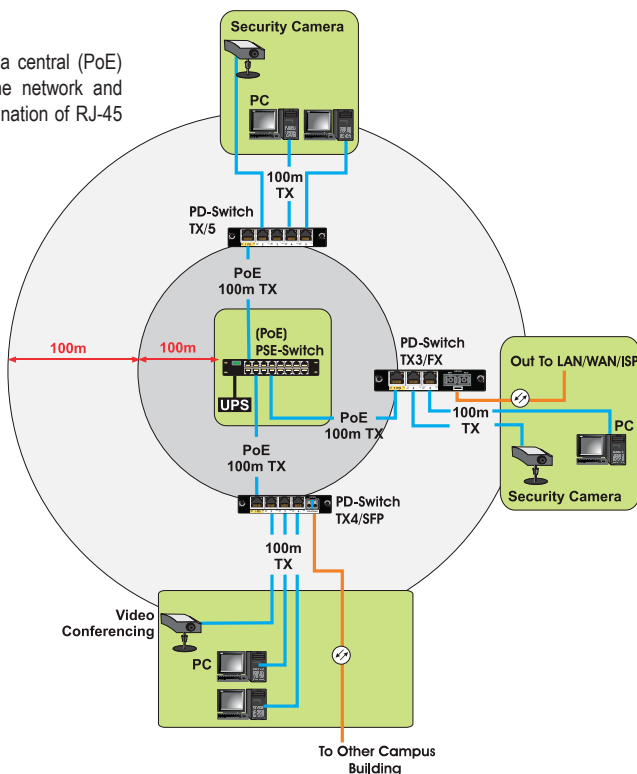
| | |
|-----------|--|
| 852-16440 | PD-Switch, TX/5, 100 m |
| 852-16441 | PD-Switch, TX/4 + SFP, Various |
| 852-16442 | PD-Switch, TX/3 + FX-MM850-ST, 2 km |
| 852-16443 | PD-Switch, TX/3 + FX-MM850-SC, 2 km |
| 852-16444 | PD-Switch, TX/3 + FX-MM1300-ST, 5 km |
| 852-16445 | PD-Switch, TX/3 + FX-MM1300-SC, 5 km |
| 852-16446 | PD-Switch, TX/3 + FX-SM1310/PLUS-ST, 40 km |
| 852-16447 | PD-Switch, TX/3 + FX-SM1310/PLUS-SC, 40 km |
| 852-16448 | PD-Switch, TX/3 + FX-SM1310/LONG-ST, 80 km |
| 852-16449 | PD-Switch, TX/3 + FX-SM1310/LONG-SC, 80 km |
| 852-16450 | PD-Switch, TX/3 + FX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-16470 | PD-Switch, TX/3 + SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 852-16471 | PD-Switch, TX/3 + SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 852-16472 | PD-Switch, TX/3 + SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-16473 | PD-Switch, TX/3 + SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-16474 | PD-Switch, TX/3 + SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 852-16475 | PD-Switch, TX/3 + SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Application Example

The PD-Switch has been connected to a central (PoE) PSE-Switch, extending the range of the network and increasing port density by using a combination of RJ-45 ports and fiber ports.





10, 100, 10/100 Mbps and 1000 Mbps Compact Media Converters

McBasic Series



6-YEAR
Comprehensive
Warranty

With its small yet rugged design, internal AC power supply and troubleshooting features, the McBasic is the best standalone media converter in the industry.

Product Overview

When simple, individual, copper-to-fiber conversions are required, along with advanced troubleshooting features, installing McBasic Series standalone media converters is the perfect, cost-effective solution. The McBasic's small, table-top design and durability make it perfect for installation anywhere space is limited.

The McBasic helps make isolating fiber breaks easier with such features as LinkLoss, FiberAlert, Transparency and Link Fault Detection. The McBasic also features either AutoCross or switch-selectable crossover/pass-through on twisted pair connections ports. The McBasic-Gigabit offers all the benefits of the McBasic in addition to Link Fault Pass-Through, but with gigabit speeds.

McBasic 10 Mbps Converters:

- Convert 10 Mbps twisted pair to 10 Mbps fiber.

McBasic 100 Mbps Converters:

- Convert 100 Mbps twisted pair to 100 Mbps fiber.

McBasic 10/100, Auto Sensing

Dual-Speed Converters:

- Convert 10 Mbps twisted pair to 10 Mbps fiber OR convert 100 Mbps twisted pair to 100 Mbps fiber.

McBasic-Gigabit 1000 Mbps Converters:

- Convert 1000 Mbps twisted pair to 1000 Mbps fiber.

Features

Perfect for a variety of applications

- Small, rugged design offers many advanced features

Meets a multitude of installation requirements

- McBasic: available in 10 Mbps, 100 Mbps and auto-sensing 10/100 Mbps versions
- McBasic-Gigabit: available in 1000 Mbps version

Converts 10 Mbps twisted pair to fiber today, and 100 Mbps twisted pair to fiber tomorrow

- McBasic 10/100 provides transparent end-to-end 10/100 Auto Negotiation for easy upgrade; no user intervention or visits to remote locations required
- McBasic Gigabit also features LFTP

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST, SC (McBasic-Gigabit has SC fiber only)

Regulatory Approvals McBasic:

McBasic: FCC Class B, CE, UL/cUL, CSA

McBasic-Gigabit: FCC Class A, CE, UL/cUL, CSA

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

0° to +160°F (-20° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.64"H x 4.75"W x 4.95"D (4.2 x 12.1 x 12.6 cm)

McBasic Gigabit Dimensions:

1.64"H x 4.75"W x 7.3"D (4.2 x 12.1 x 18.6 cm)

Power Rating:

100-240V AC, 50/60Hz, 1.0A

Shipping Weight:

1.7 lbs (0.77 kg) McBasic Gigabit Only

1.3 lbs (0.58 kg) All others

McBasic TX/SX and TX/FX

| | |
|-----------|--------------------------------------|
| 855-10929 | McBasic, TX/SX-MM850-ST, 2 km |
| 855-10930 | McBasic, TX/SX-MM850-SC, 2 km |
| 855-10927 | McBasic, TX/FX-MM1300-ST, 5 km |
| 855-10928 | McBasic, TX/FX-MM1300-SC, 5 km |
| 855-10931 | McBasic, TX/FX-SM1310/PLUS-ST, 40 km |
| 855-10932 | McBasic, TX/FX-SM1310/PLUS-SC, 40 km |
| 855-10933 | McBasic, TX/FX-SM1310/LONG-ST, 80 km |
| 855-10934 | McBasic, TX/FX-SM1310/LONG-SC, 80 km |
| 855-10937 | McBasic, TX/FX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 855-10949 | McBasic, TX/SSFx-MM1310-SC (1310xmt/1550rcv), 2 km |
| 855-10950 | McBasic, TX/SSFx-MM1550-SC (1550xmt/1310rcv), 2 km |
| 855-10951 | McBasic, TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 855-10952 | McBasic, TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 855-10953 | McBasic, TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-10954 | McBasic, TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-10955 | McBasic, TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 855-10957 | McBasic, TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

McBasic 10/100 TX/SX and TX/FX

| | |
|-----------|---|
| 855-10260 | McBasic, TX/SX 10/100-MM850-ST, 2 km |
| 855-10261 | McBasic, TX/SX 10/100-MM850-SC, 2 km |
| 855-10262 | McBasic, TX/FX 10/100-MM1300-ST, 5 km |
| 855-10263 | McBasic, TX/FX 10/100-MM1300-SC, 5 km |
| 855-10267 | McBasic, TX/FX 10/100-SM1310/PLUS-ST, 40 km |
| 855-10268 | McBasic, TX/FX 10/100-SM1310/PLUS-SC, 40 km |
| 855-10269 | McBasic, TX/FX 10/100-SM1310/LONG-ST, 80 km |
| 855-10270 | McBasic, TX/FX 10/100-SM1310/LONG-SC, 80 km |
| 855-10274 | McBasic, TX/FX 10/100-SM1550/LONG-SC, 80 km |

McBasic-Gigabit Ethernet (LFTP)

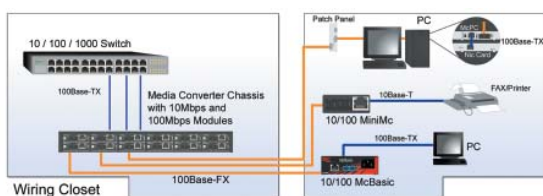
| | |
|-----------|--|
| 855-11913 | McBasic-Gigabit, TX/SX-MM850-SC, 220/550 m |
| 855-11914 | McBasic-Gigabit, TX/LX-SM1310-SC, 15 km |
| 855-11915 | McBasic-Gigabit, TX/LX-SM1310/PLUS-SC, 40 km |
| 855-11917 | McBasic-Gigabit, TX/LX-SM1550/LONG-SC, 80 km |
| 855-11918 | McBasic-Gigabit, TX/LX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|---|
| 855-11844 | McBasic-Gigabit, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 855-11845 | McBasic-Gigabit, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 855-11824 | McBasic-Gigabit, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 855-11825 | McBasic-Gigabit, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 855-11846 | McBasic-Gigabit, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-11847 | McBasic-Gigabit, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-11826 | McBasic-Gigabit, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 855-11827 | McBasic-Gigabit, TX/SSBX-SM1450/PLUS-SC (1490xmt/1310rcv), 30 km |
| 855-11850 | McBasic-Gigabit, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 855-11851 | McBasic-Gigabit, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |
| 855-11852 | McBasic-Gigabit, TX/SSLX-SM1490/XLONG-SC (1490xmt/1550rcv), 80 km |
| 855-11853 | McBasic-Gigabit, TX/SSLX-SM1550/XLONG-SC (1550xmt/1490rcv), 80 km |

Application Example

The diagram illustrates the wide variety of media converters available from IMC Networks including the 10/100 McBasic.



Ordering Information

McBasic TP/FO

| | |
|-----------|--------------------------------------|
| 855-10230 | McBasic, TP/FO-MM850-ST, 2 km |
| 855-10231 | McBasic, TP/FO-MM850-SC, 2 km |
| 855-10232 | McBasic, TP/FO-MM1300-ST, 2 km |
| 855-10233 | McBasic, TP/FO-MM1300-SC, 2 km |
| 855-10234 | McBasic, TP/FO-SM1310/PLUS-ST, 40 km |
| 855-10235 | McBasic, TP/FO-SM1310/PLUS-SC, 40 km |
| 855-10237 | McBasic, TP/FO-SM1310/LONG-ST, 80 km |
| 855-10238 | McBasic, TP/FO-SM1310/LONG-SC, 80 km |
| 855-10240 | McBasic, TP/FO-SM1550/LONG-SC, 80 km |

Accessories See page 46

PSE-McBasic



Supporting the IEEE 802.3af PoE standard, the standalone PSE-McBasic media converter offers unparalleled installation flexibility and cost-savings.

Product Overview

Equipped with all the features that have made the McBasic series one of IMC Networks' most popular brands — copper-to-fiber conversion, troubleshooting capability, a small yet rugged design, and an internal AC power supply — the PSE-McBasic uses the IEEE 802.3af Power over Ethernet (PoE) standard to create the ideal solution for installing devices such as IP security cameras and Wi-Fi access points at remote locations miles away from the central office. The PSE-McBasic series performs media conversion while providing power to the end-device at the remote site.

Power Over Ethernet technology allows the PSE-McBasic to be the Power Source Equipment (PSE) by distributing an electrical current across existing twisted pair data cabling. LEDs indicate the amount of power being supplied to the "Powered Device" (PD) as well as if the PSE-McBasic is over temperature or over current or has an open circuit.

Features

- 100Base-TX twisted pair
- 100Base-FX or SX fiber
- IEEE 802.3af compliant
- Includes fixed, internal AC power
- Switch for manual configuration
- Small, rugged design
- Supports Half and Full-Duplex operation
- Includes diagnostic LEDs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE, UL/cUL, CSA

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.45"H x 4.73"W x 7.30"D (3.68 x 12.01 x 18.54 cm)

Power Rating:

100-240V AC, 50/60Hz, 1A

Shipping Weight:

1.8 lbs (0.82 kg)

Ordering Information

PSE-McBasic: TX/SX and TX/FX

| | |
|-----------|--|
| 855-16929 | PSE-McBasic, TX/SX-MM850-ST, 2 km |
| 855-16930 | PSE-McBasic, TX/SX-MM850-SC, 2 km |
| 855-16927 | PSE-McBasic, TX/FX-MM1300-ST, 5 km |
| 855-16928 | PSE-McBasic, TX/FX-MM1300-SC, 5 km |
| 855-16931 | PSE-McBasic, TX/FX-SM1310/PLUS-ST, 40 km |
| 855-16932 | PSE-McBasic, TX/FX-SM1310/PLUS-SC, 40 km |
| 855-16933 | PSE-McBasic, TX/FX-SM1310/LONG-ST, 80 km |
| 855-16934 | PSE-McBasic, TX/FX-SM1310/LONG-SC, 80 km |
| 855-16935 | PSE-McBasic, TX/FX-SM1550/LONG-SC, 80 km |

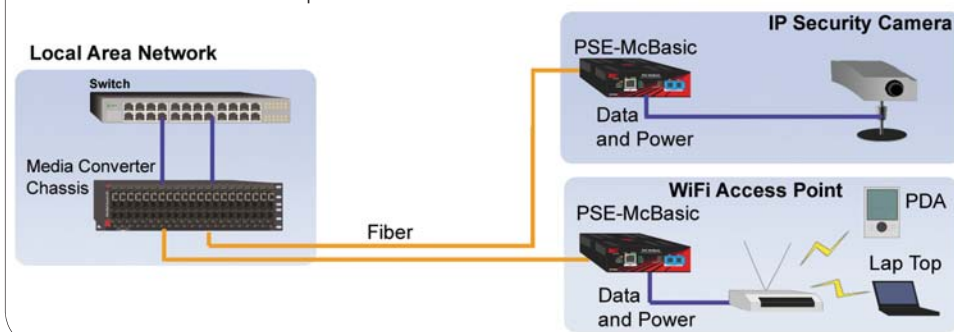
Single-Strand Fiber

| | |
|-----------|--|
| 855-16951 | PSE-McBasic, TX/SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 855-16952 | PSE-McBasic, TX/SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 855-16953 | PSE-McBasic, TX/SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-16954 | PSE-McBasic, TX/SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-16955 | PSE-McBasic, TX/SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 855-16957 | PSE-McBasic, TX/SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Accessories See page 46

Application Example

By combining media conversion and PoE sourcing capabilities, PSE-McBasic can easily power remote network devices such as IP cameras and WiFi access points.



AccessConverter



Terminate fiber and connect multiple Ethernet devices — PCs, webcams, printers — at a remote location with the AccessConverter.

Product Overview

The AccessConverter is a multi-port media converter, aggregating three 10/100 Ethernet twisted pair ports into a single 100Base-FX uplink. While typical media converters perform a conversion between one twisted pair interface and one fiber optic interface, the AccessConverter has three 10/100 ports to significantly increase the application flexibility while reducing the cost per conversion.

The AccessConverter is an ideal solution for LAN workgroups and Fiber-to-the-Premises applications, connecting and aggregating multiple devices — such as PCs, servers, printers, and VoIP phones — into a fiber optic cabling infrastructure. Providing plug-and-play operation, the AccessConverter/3 features 10/100 Auto Negotiation and AutoCross on the twisted pair ports. The 100Base-FX uplink port supports ST and SC connectors for multi-mode, single-mode and single-strand fiber types, providing fiber connectivity from 2 km up to 80 km distances. Every unit ships with a country-specific power cord.

Features

Most cost-effective fiber converter available today

- Low cost, high flexibility— same small unit performs media conversion and switching functions
- Offers three downlink connections

Perfect for a variety of applications

- Device includes high-reliability power adapter with country-specific clip
- Uplink available on rear or front of unit
- Compact size allows for flexible installation configurations

Space saving alternative

- Device has small, rugged enclosure with compact external power supply
- Table-top or wall-mount installation

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE, UL/cUL, CSA

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +18°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.92"H x 3.50"W x 4.38"D (2.34 x 8.89 x 11.13 cm)

Power Rating:

AC Wall adapter: 100/240 ±10% VAC input, 50/60 Hz 5V DC output at 10W, 2.0A

Shipping Weight:

1.1 lbs (0.50 kg)

Ordering Information

AccessConverter

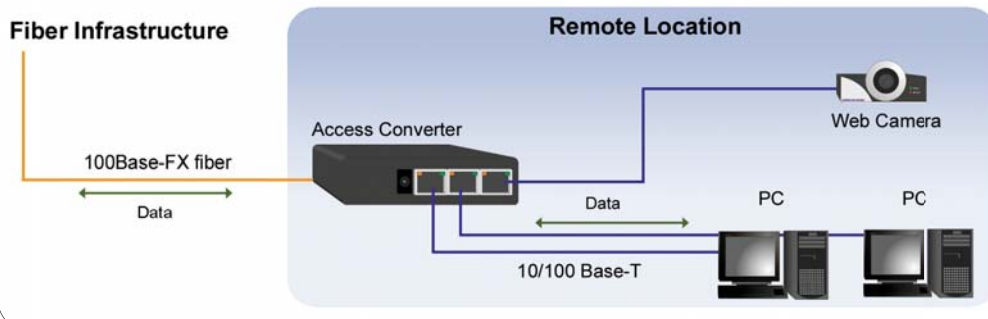
| | |
|--------------|--|
| 852-10140 | AccessConverter, TX/3 + TX, 100 m |
| 852-10150 | AccessConverter, TX/3 + FX-MM850-ST, 2 km |
| 852-10151 | AccessConverter, TX/3 + FX-MM850-SC, 2 km |
| 852-10141 | AccessConverter, TX/3 + FX-MM1300-ST, 5 km |
| 852-10142 | AccessConverter, TX/3 + FX-MM1300-SC, 5 km |
| 852-10141-MT | AccessConverter, TX/3 + FX-MM1300-MT, 5 km |
| 852-10143 | AccessConverter, TX/3 + FX-SM1310/PLUS-ST, 40 km |
| 852-10144 | AccessConverter, TX/3 + FX-SM1310/PLUS-SC, 40 km |
| 852-10145 | AccessConverter, TX/3 + FX-SM1310/LONG-ST, 80 km |
| 852-10146 | AccessConverter, TX/3 + FX-SM1310/LONG-SC, 80 km |
| 852-10147 | AccessConverter, TX/3 + FX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-10153 | AccessConverter, TX/3 + SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 852-10154 | AccessConverter, TX/3 + SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 852-10155 | AccessConverter, TX/3 + SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-10156 | AccessConverter, TX/3 + SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-10157 | AccessConverter, TX/3 + SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 852-10158 | AccessConverter, TX/3 + SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Application Example

Provide media conversion capabilities for multiple network devices.





10, 100, Switching 10/100 Mbps and 1000 Mbps Ethernet Modular Media Converters

Mc Modules for MediaConverter Series

(McPIM, McLIM, McGigabit)



6-YEAR
Comprehensive
Warranty

A cost-effective solution for extending the life of legacy equipment and bringing fiber-to-the-desktop.

Product Overview

When copper-to-fiber or fiber-to-fiber conversions are required for network growth, the MediaConverter Module Series is the perfect solution.

IMC Networks' MediaConverter Module Series enables easy and cost-effective connection of one type of media to other dissimilar media or networking products. This series extends the functionality and production life of both legacy cabling infrastructure and networking equipment when adding fiber to a network.

The MediaConverter Module Series includes:

McPIM:

- One 10 Mbps twisted pair port with an RJ-45 connector
- One 10 Mbps fiber port with ST, SC or MT-RJ connectors

McLIM:

- One 100 Mbps twisted pair port with an RJ-45 connector
- One 100 Mbps fiber port with ST, SC or MT-RJ connectors

Switching McLIM TP-TX/FX:

- One 10/100 Mbps twisted pair port with an RJ-45 connector
- One 100 Mbps fiber port with ST or SC connectors
- Plug-and-play operation

McGigabit:

- One 1000 Mbps twisted pair port with an RJ-45 connector
- One 1000 Mbps fiber port with SC connectors
- Plug-and-play operation

Features

Modules meet a variety of installation requirements

- Supports Ethernet, Fast Ethernet, and Gigabit Ethernet
- Supports very long fiber distances

A variety of chassis options

- Table-top or rackmountable
- 1, 4, 8 and 12-slot chassis
- 12-slot chassis is only 1U high
- AC power

Maximizes network uptime

- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

McPIM TP/FO: FCC Class A, CE

McLIM TX/FX: FCC Class B, CE

McGigabit: FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Shipping Weight:

0.7 lbs (0.3 kg)

Dimensions

0.75" H x 2.5" W x 4"D (2.20 x 6.41 x 10.25 cm)

Ordering Information

McPIM: TP/FO

| | |
|-----------|-------------------------------------|
| 855-12840 | McPIM, TP/FO-MM850, ST, 2 km |
| 855-12841 | McPIM, TP/FO-MM850, SC, 2 km |
| 855-12842 | McPIM, TP/FO-MM1300, ST, 2 km |
| 855-12843 | McPIM, TP/FO-MM1300, SC, 2 km |
| 855-12844 | McPIM, TP/FO-SM1310/PLUS, ST, 40 km |
| 855-12845 | McPIM, TP/FO-SM1310/PLUS, SC, 40 km |
| 855-12846 | McPIM, TP/FO-SM1310/LONG, ST, 40 km |
| 855-12847 | McPIM, TP/FO-SM1310/LONG, SC, 40 km |
| 855-12848 | McPIM, TP/FO-SM1550/LONG, ST, 80 km |
| 855-12849 | McPIM, TP/FO-SM1550/LONG, SC, 80 km |

McLIM: TX/FX

| | |
|-----------|-------------------------------------|
| 855-12662 | McLIM, TX/SX-MM850, ST, 2 km |
| 855-12663 | McLIM, TX/SX-MM850, SC, 2 km |
| 855-12660 | McLIM, TX/FX-MM1300, ST, 5 km |
| 855-12661 | McLIM, TX/FX-MM1300, SC, 5 km |
| 855-12664 | McLIM, TX/FX-SM1310/PLUS, ST, 40 km |
| 855-12665 | McLIM, TX/FX-SM1310/PLUS, SC, 40 km |
| 855-12668 | McLIM, TX/FX-SM1310/LONG, SC, 80 km |
| 855-12669 | McLIM, TX/FX-SM1550/LONG, SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 855-12680 | McLIM, TX/SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 855-12681 | McLIM, TX/SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 855-12682 | McLIM, TX/SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-12683 | McLIM, TX/SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-12684 | McLIM, TX/SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 855-12685 | McLIM, TX/SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

McLIM: TP-TX/FX and TP-TX/SX

| | |
|-----------|---------------------------------------|
| 855-12620 | McLIM, TP-TX/SX-MM850-ST, 220/550 m |
| 855-12621 | McLIM, TP-TX/SX-MM850-SC, 220/550 m |
| 855-12622 | McLIM, TP-TX/FX-MM1300-ST, 5 km |
| 855-12623 | McLIM, TP-TX/FX-MM1300-SC, 5 km |
| 855-12624 | McLIM, TP-TX/FX-SM1310/PLUS-ST, 40 km |
| 855-12625 | McLIM, TP-TX/FX-SM1310/PLUS-SC, 40 km |

Single-Strand Fiber

| | |
|-----------|---|
| 855-12642 | McLIM, TP-TX/SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 855-12643 | McLIM, TP-TX/SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 855-12644 | McLIM, TP-TX/SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-12645 | McLIM, TP-TX/SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |

McGigabit: TX/SX and TX/LX

| | |
|-----------|--|
| 855-12670 | McGigabit, TX/SX-MM850-SC, 220/550 m |
| 855-12691 | McGigabit, TX/SX-MM1300-SC, 2 km |
| 855-12671 | McGigabit, TX/LX-SM1310-SC, 15 km |
| 855-12672 | McGigabit, TX/LX-SM1310/PLUS-SC, 40 km |
| 855-12673 | McGigabit, TX/LX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

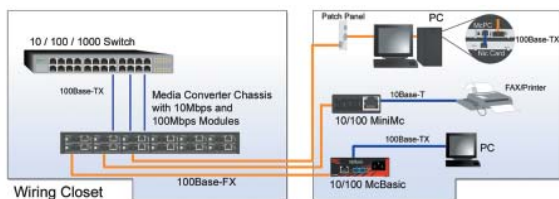
| | |
|-----------|---|
| 855-12674 | McGigabit, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 855-12675 | McGigabit, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 855-12694 | McGigabit, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 855-12695 | McGigabit, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 855-12676 | McGigabit, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-12677 | McGigabit, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 855-12696 | McGigabit, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km |
| 855-12697 | McGigabit, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km |
| 855-12686 | McGigabit, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 855-12687 | McGigabit, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |
| 855-12688 | McGigabit, TX/SSLX-SM1490/XLONG-SC (1490xmt/1550rcv), 80 km |
| 855-12689 | McGigabit, TX/SSLX-SM1550/XLONG-SC (1550xmt/1490rcv), 80 km |

Use with Chassis Platform

MediaConverter Series, See Page 46

Application Example

Install modules in any MediaConverter chassis. If the number of required conversions is high but rackmount space is limited, choose the 1U high, 12-slot chassis.



McPC Series

6-YEAR
Comprehensive
Warranty



Ideal for fiber-to-the-desktop applications, the McPC installs directly inside a PC.

Product Overview

Easily connect fiber to a PC or server with the McPC series of media converters. Installing inside the PC or server, McPC converters are the perfect, low cost alternative to fiber NICs or external media converters.

The McPC series includes:

- **McPC 100 Mbps**, converting copper to fiber at 100 Mbps
- **McPC 10/100 Mbps**, converting 10 Mbps copper to 10 Mbps fiber or 100 Mbps copper to 100 Mbps fiber

The McPC series supports 10, 100 & 10/100 protocols and is available for virtually any fiber type, from short-haul multi-mode to long-haul single-mode, with standard ST or SC connectors.

Ease of installation and a variety of Ethernet speed options make the McPC series the perfect solution for FTTD applications and for enterprises with changing requirements such as adding new employees and frequently changing workstation locations.

Features

- Save money by keeping the existing copper NIC and converting inside PC
- No drivers to install; McPC mounts inside any PC or workstation with a standard PCI or ISA slot
- Includes a standard 4-pin peripheral power connector
- Supports Half and Full-Duplex operation
- Includes diagnostic LEDs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, UL/cUL, CSA, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-4° to +158°F (-20° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Shipping Weight:

0.60 lbs (0.22 kg)

Ordering Information

ISA

McPC TX/FX 100 Mbps

| | |
|-----------|--|
| 855-13127 | McPC/ISA, TX/FX-MM1300, ST, 5 km |
| 855-13128 | McPC/ISA, TX/FX-MM1300, SC, 5 km |
| 855-13328 | McPC/ISA, TX/FX-SM1310/PLUS, SC, 40 km |

McPC 10/100 Mbps

| | |
|-----------|-----------------------------------|
| 855-13260 | McPC/ISA, 10/100-MM850, ST, 2 km |
| 855-13261 | McPC/ISA, 10/100-MM850, SC, 2 km |
| 855-13263 | McPC/ISA, 10/100-MM1300, SC, 5 km |

PCI

McPC TX/FX 100 Mbps

| | |
|-----------|--|
| 855-12127 | McPC/PCI, TX/FX-MM1300, ST, 5 km |
| 855-12128 | McPC/PCI, TX/FX-MM1300, SC, 5 km |
| 855-12328 | McPC/PCI, TX/FX-SM1310/PLUS, SC, 40 km |

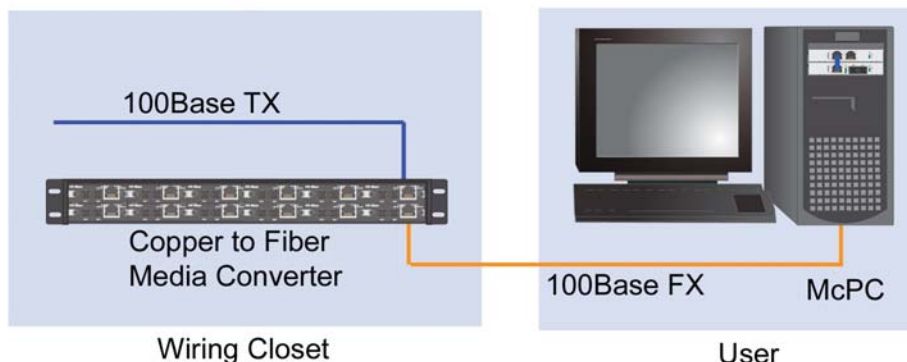
McPC 10/100 Mbps

| | |
|-----------|-----------------------------------|
| 855-12260 | McPC/PCI, 10/100-MM850, ST, 2 km |
| 855-12261 | McPC/PCI, 10/100-MM850, SC, 2 km |
| 855-12263 | McPC/PCI, 10/100-MM1300, SC, 5 km |

Available Accessories

| | |
|-----------|---------------------|
| 806-39230 | SATA Cable for McPC |
|-----------|---------------------|

Application Example





Switching 10/100 and Switching 10/100/1000 Mbps PC Card Ethernet Media Converters

McPC-MediaLinX Series

6-YEAR
Comprehensive
Warranty



Ideal for fiber-to-the-desktop applications, the McPC installs directly inside a PC.

Product Overview

Easily connect fiber to a PC or server with the McPC series of converters. Installing inside the PC or server, McPC converters are the perfect, low cost alternative to fiber NICs or external media converters.

The McPC-MediaLinX Series includes:

- **McPC MediaLinX Switching Ethernet**
- A rate converter as well as a media converter, the McPC MediaLinX Switching Ethernet converts 10 or 100 Mbps over copper to 100 Mbps over fiber
- **McPC-Giga-MediaLinX Switching Gigabit Ethernet**
- A rate converter as well as a media converter, the McPC-Giga-MediaLinX Switching converts 10, 100 or 1000 Mbps over copper to 1000 Mbps over fiber

The McPC-MediaLinX series supports 10/100 & 10/100/1000 protocols and is available for virtually any fiber type, from short-haul multi-mode to long-haul single-mode, with standard ST or SC connectors.

Ease of installation and a variety of Ethernet speed options make the McPC-MediaLinX series the perfect solution for FTTH applications and for enterprises with changing requirements such as adding new employees and frequently changing workstation locations.

Features

- Save money by keeping the existing copper NIC and converting inside PC
- No drivers to install; McPC-MediaLinX and McPC-Giga-MediaLinX mounts inside any PC or workstation with a standard PCI or ISA slot
- Includes a standard 4-pin peripheral power connector
- Supports Half and Full-Duplex operation
- Includes diagnostic LEDs

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-4° to +158°F (-20° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Shipping Weight:

0.60 lbs (0.22 kg)

Ordering Information

PCI

McPC-MediaLinX Switching Ethernet (10/100 Mbps)

| | |
|-----------|--|
| 855-12731 | McPC/PCI-MediaLinX, MM850, SC, 2 km |
| 855-12733 | McPC/PCI-MediaLinX, MM1300, SC, 5 km |
| 855-12735 | McPC/PCI-MediaLinX, SM1310/PLUS, SC, 40 km |

LowPCI

McPC-MediaLinX Switching Ethernet (10/100 Mbps)

| | |
|-----------|---|
| 855-15733 | McPC/LowPCI-MediaLinX, MM1300, SC, 5 km |
| 855-15735 | McPC/LowPCI-MediaLinX, SM1310/PLUS, SC, 40 km |

PCI

McPC-Giga-MediaLinX Switching Ethernet (10/100/1000 Mbps)

| | |
|----------------------------|---|
| 855-12920 | McPC/PCI-Giga-MediaLinX, TX/SX-MM850, SC 220/550 m |
| 855-12921 | McPC/PCI-Giga-MediaLinX, TX/LX-SM1300, SC 15 km |
| 855-12922 | McPC/PCI-Giga-MediaLinX, TX/LX-SM1310/PLUS, SC 40 km |
| 855-12924 | McPC/PCI-Giga-MediaLinX, TX/LX-SM1550/LONG, SC, 80 km |
| Single-Strand Fiber | |
| 855-12927 | McPC/PCI-Giga-MediaLinX, TX/SSLX-SM1310, SC, 15 km |
| 855-12928 | McPC/PCI-Giga-MediaLinX, TX/SSLX-SM1550, SC, 15 km |
| 855-12929 | McPC/PCI-Giga-MediaLinX, TX/SSLX-SM1310/PLUS, SC, 40 km |
| 855-12930 | McPC/PCI-Giga-MediaLinX, TX/SSLX-SM1550/LONG, SC, 40 km |

LowPCI

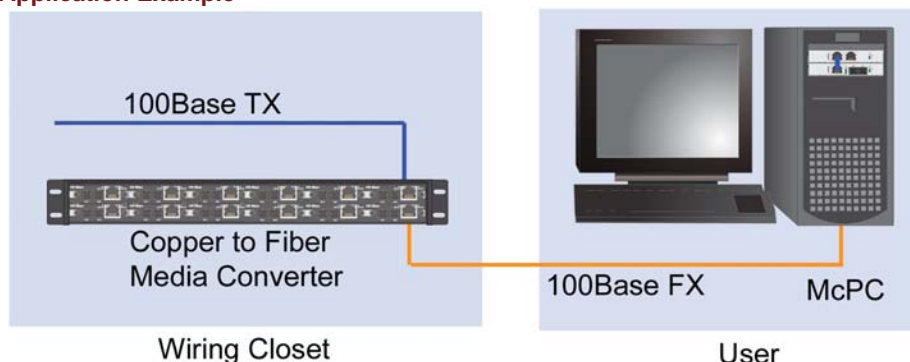
McPC-Giga-MediaLinX Switching Ethernet (10/100/1000 Mbps)

| | |
|-----------|--|
| 855-15919 | McPC/LowPCI-Giga-MediaLinX, TX/SFP, Various |
| 855-15920 | McPC/LowPCI-Giga-MediaLinX, TX/SX-MM850, SC, 220/550 m |
| 855-15921 | McPC/LowPCI-Giga-MediaLinX, TX/LX-SM1310-SC, 15 km |

Available Accessories

| | |
|-----------|---------------------|
| 806-39230 | SATA Cable for McPC |
|-----------|---------------------|

Application Example



McPC-Gigabit Series



Ideal for fiber-to-the-desktop applications, the McPC installs directly inside a PC.

Product Overview

Easily connect fiber to a PC or server with the McPC series of converters. Installing inside the PC or server, McPC converters are the perfect, low cost alternative to fiber NICs or external media converters.

The McPC-Gigabit series includes:

- **McPC-Gigabit**, converting copper to fiber at 1.25 Gbps

The McPC-Gigabit series supports Gigabit protocols and is available for virtually any fiber type, from short-haul multi-mode to long-haul single-mode, with standard SC connectors.

Ease of installation and a variety of distance options make the McPC-Gigabit series the perfect solution for FTTD applications and for enterprises with changing requirements such as adding new employees and frequently changing workstation locations.

Features

- Save money by keeping the existing copper NIC and converting inside PC
- No drivers to install; McPC-Gigabit mounts inside any PC or workstation with a standard PCI slot
- Includes a standard 4-pin peripheral power connector
- Supports Half and Full-Duplex operation
- Includes diagnostic LEDs

Ordering Information

PCI

McPC-Gigabit

| | |
|-----------|---|
| 855-12900 | McPC/PCI-Gigabit, TX/SX-MM850-SC, 220/550 m |
| 855-12901 | McPC/PCI-Gigabit, TX/LX-SM1310-SC, 15 km |
| 855-12902 | McPC/PCI-Gigabit, TX/LX-SM1310/PLUS-SC, 40 km |
| 855-12903 | McPC/PCI-Gigabit, TX/LX-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|---|
| 855-12904 | McPC/PCI-Gigabit, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 15 km |
| 855-12905 | McPC/PCI-Gigabit, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 15 km |
| 855-12906 | McPC/PCI-Gigabit, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 855-12907 | McPC/PCI-Gigabit, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |

Available Accessories

| | |
|-----------|---------------------|
| 806-39230 | SATA Cable for McPC |
|-----------|---------------------|

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-4° to +158°F (-20° to +70°C)

Humidity:

5 to 95% (non-condensing)

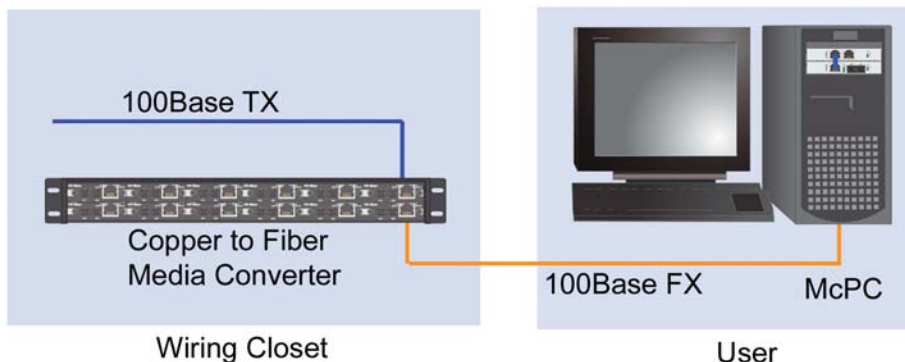
Altitude:

0 to 10,000 ft.

Shipping Weight:

0.60 lbs (0.22 kg)

Application Example





WDM/2 Series



With WDM products, service providers and enterprise network managers can easily double fiber capacity and integrate multiple protocols.

Product Overview

Wavelength Division Multiplexing (WDM) is a technology that enables the transmitting of multiple, optical signals on different wavelengths over one strand of fiber. The series is designed for installations where fiber is limited in terms of availability. Service providers and enterprise network managers can easily double their fiber capacity without incurring the costs associated with installing new fiber. Campus area network managers can deploy the IMC Networks WDM solution, for example, to combine voice and data traffic over the same duplex fiber between company facilities.

Protocol and speed-independent; available in standalone and modular versions

The WDM/2 and iMcV-WDM are two-channel, passive, protocol and speed-independent Wavelength Division Multiplexers that allow two individual wavelengths to share one fiber pair; Full-Duplex data travels on 1310 nm and 1550 nm to virtually double the capacity of installed fiber. Deploy WDM products in pairs so that the host site will multiplex 1310 nm and 1550 nm onto the fiber and the remote site will then separate the signals by the wavelength. Available in standalone and modular versions, protocol-independent WDM products enable the transmitting of any protocol and any speed over 1310 nm or 1550 nm single-mode fiber.

Supports a variety of protocols; easy installation

As passive, protocol-independent Wavelength Division Multiplexers, WDM/2 and iMcV-WDM comply with a wide range of communications protocols including Ethernet (10/100/1000 Mbps), SONET/SDH (OC-3, OC-12, OC-48), FDDI, ATM, ESCON, T1/E1, E3, DS3 and Fibre Channel. Installing WDM products is easy — the standalone WDM/2 chassis comes ready to install and iMcV-WDM modules slide into any IMC Networks iMediaChassis or MediaChassis/2. No configuration is required for either version.

Features

Leverages investment on existing fiber infrastructure

- Doubles the capacity of installed fiber by transmitting two wavelengths on one strand of fiber

Supports multiple protocols

- Speed and protocol-independent, supporting 1310 nm and 1550 nm single-mode fiber

Easy to install - no configuration

- Just slide the iMcV-WDM/2 into a chassis and match the fiber connectors with the 1310 nm and 1550 nm wavelengths
- WDM/2 chassis performs multiplexing with NO outside power requirement
- Requires two slots in a chassis; modules are double-wide

Maximizes network uptime

- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

SC

Regulatory Approvals:

FCC Class A, UL/cUL, CSA, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Shipping Weight:

0.9 lbs (0.34 kg) Module

1.1 lbs (0.50 kg) Standalone Chassis

Ordering Information

iMcV-WDM/2 (Double Wide Module)

849-14100 iMcV-WDM/2-SM1310-SC

WDM/2 (Stand Alone Chassis)

849-10100 WDM/2-SM1310-SC

Use with Chassis Platform

iMediaChassis Series, See Page 45

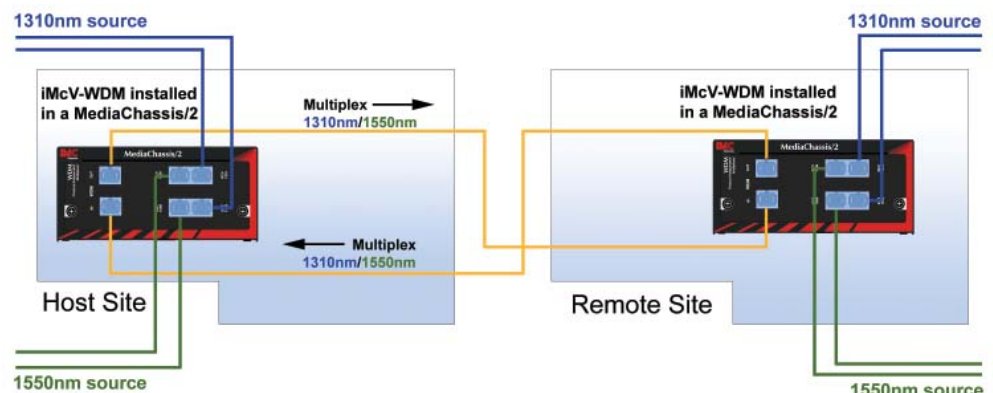
MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46



Application Example

Connect two fiber network segments using a single strand.



IE-iMcV-MuxDemux/4



6-YEAR
Comprehensive
Warranty

NEW!

The IE-iMcV-MuxDemux/4 is a CWDM Passive Multiplexing/Demultiplexing Module

Product Overview

Coarse Wavelength Division Multiplexing (CWDM) is a technology that enables the transmission of multiple optical signals on different wavelengths over one strand of fiber. Suited for installations where fiber is limited in terms of availability, service providers and enterprise network managers can easily multiply their fiber capacity without incurring the costs associated with installing new fiber. For customers deploying high-end gigabit switches, the IE-iMcV-MuxDemux/4 is ideal for supplying the growing need for greater bandwidth over fiber.

The IE-iMcV-MuxDemux/4 is a dual-wide module that provides 4 channels (8 channels using two modules) of CWDM, a network port for connecting two modules back-to-back, and an expansion port that can accommodate an existing 1310nm fiber network and for cascading a second unit.

The IE-iMcV-MuxDemux/4 modules are entirely passive, requiring no external power to function. The IE-MuxDemuxChassis/2 is an unpowered, 1U high chassis, specially designed to house the IE-iMcV-MuxDemux/4, although it can be installed in compatible MediaChassis and iMediaChassis.

Features

Leverages Investment on Existing Fiber Infrastructure

- Add up to 8 CWDM channels to an existing 1310nm network
- Speed and protocol independent (up to 10 Gbps)
- Low insertion loss

Easy to install; no configuration

- Install the IE-iMcV-MuxDemux/4 into a compatible chassis and match the fiber connectors with the 1470nm through 1610nm wavelengths
- Module performs multiplexing with no external power requirement
- Requires two slots in a compatible chassis

Perfect for a variety of applications

- Daisy chain 2 modules together for 8 CWDM channels + one 1310nm over duplex fiber
- Designed with industry standard LC fiber connectors
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- IE model supports extended temperature

Physical Specifications

Connectors:

LC

Operating Temperature:

-40° F to +185° F (-40° C to +85° C)

Storage Temperature:

-40° F to +185° F (-40° C to +85° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

Double-wide, two slot chassis module

Shipping Weight:

0.9 lbs (0.34 kg)



Use with Other Chassis Platforms

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

Ordering Information

IE-iMcV-MuxDemux/4

844-18147 IE-iMcV-MuxDemux/4, 1470-1530-LC

844-18155 IE-iMcV-MuxDemux/4, 1550-1610-LC

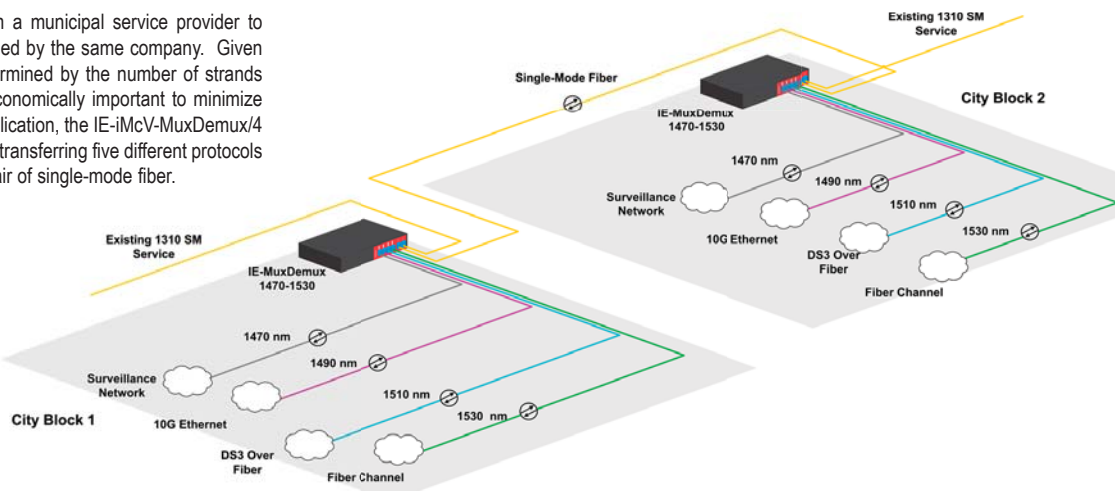
Chassis

IE-MuxDemuxChassis/2

850-36102 IE-MuxDemuxChassis/2

Application Example

Often a company will rent fiber from a municipal service provider to connect two buildings that are occupied by the same company. Given that the cost of fiber is typically determined by the number of strands leased and distance traveled, it is economically important to minimize the number of fibers used. In this application, the IE-iMcV-MuxDemux/4 is an ideal cost-saving solution that is transferring five different protocols and varying speeds over the same pair of single-mode fiber.





Dual Port, Extended Temperature (IE), 100 Mbps Ethernet SNMP-Manageable Media Converter

IE-iMcV-2xLIM



* SFPs Sold Separately

Double your media conversion capacity with the IE-iMcV-2xLIM SNMP-manageable media converter modules.

Product Overview

The IE-iMcV-2xLIM, TX/SFP is a Fast Ethernet module which provides two conversions of 100Base-TX twisted pair to 100Base-FX/SX single-mode or multi-mode fiber. There are two sets of ports, RJ-45 (copper) and SFP (fiber). The SFP port supports all MSA and Cisco compliant, SC, LC and single-fiber 155 Mbps SFPs. Designed as a Layer 1 device, the IE-iMcV-2xLIM is entirely transparent to both Layer 2 and Layer 3 protocols. The IE-iMcV-2xLIM is SNMP-manageable and can be installed into the modular, SNMP-manageable iMediaChassis or the MediaChassis series.

Easily configure and manage converters with the GUI-based iView². As an SNMP management application, iView² gives network managers the ability to monitor and control IMC Networks' products. iView² runs standalone on Windows NT/XP/2000 or as a Web Server running under IIS. For assistance in selecting the right version of iView² for your operating system, visit our web site at: <http://www.imcnetworks.com/Products/iView2.cfm>



Features

Cost-effective and flexible

- Functions as two independent copper to fiber media converters, thus doubling port density in the iMediaChassis and MediaChassis product lines

Maximizes network uptime

- 100 Mbps SFPs and 2xLIM modules are hot-swappable; no need to power-down chassis when upgrading or troubleshooting a single module

Eases Troubleshooting

- Far End Fault provides notification of Far End Link Loss on the fiber port.
- Link Fault Pass-Through (LFPT) is a troubleshooting feature that monitors the copper (TXLL) and fiber (FXLL) ports of the unit; if a port loses LINK, the unit disables the transmitting signal on the other port and notifies the user via LED
- Config Control retains the latest module configuration if it's replaced, regardless of how the initial configuration was setup; whether by DIP Switch or SNMP Management Module

Physical Specifications

Connectors:

2 x RJ-45 and 2 x SFP ports (SFPs sold separately)

Regulatory Approvals:

FCC Class B

UL, CSA, CE

TUV

Operating Temperature:

-40° F to +176° F (-40° C to +80° C)

Storage Temperature:

-40° F to +176° F (-40° C to +80° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)



Configuration Control

Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.

** Notes: Modules with the Config Control Feature

- iView² v.1.8.9 and SNMP Firmware v.C4 must be installed to use IMC's Configuration Control Feature
- iMcV-Modules that offer Configuration Control are identified by the label on the front faceplate and reference a different part number.
- New replacement products are **NOT** backwards compatible with the iMediaChassis/18

Ordering Information

* ** IE-iMcV-2xLIM, TX/SFP

850-18610

IE-iMcV-2xLIM, TX/SFP (requires IE-SFP/155 module(s)), Various

Use with Chassis Platform

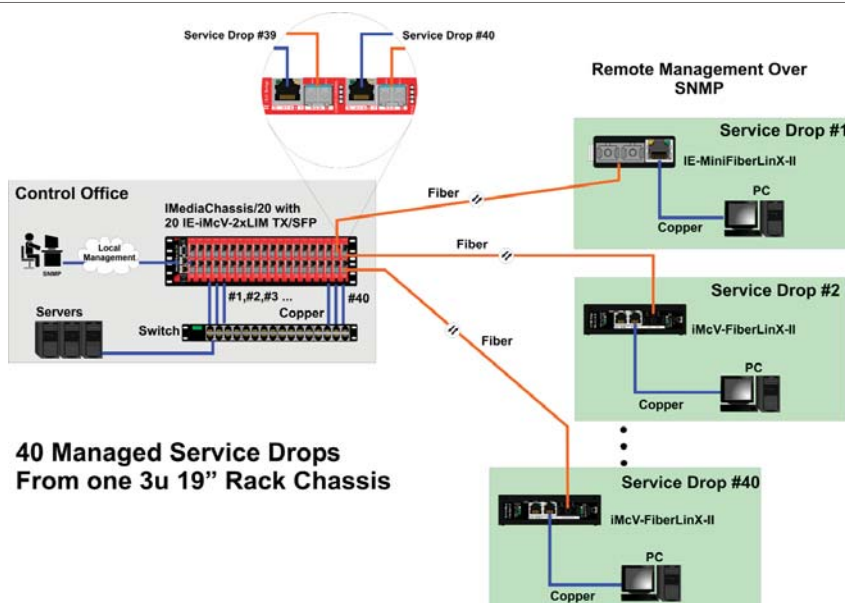
iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

Application Example

Populating a iMediaChassis/20 with 20 IE-iMcV-2xLIM modules doubles the number of lines that can be served in an ISP network environment at a lower cost. Additionally, it improves remote management through the use of the FEF and LFPT functions and through DDML on select SFPs.





10, 100, 10/100 Mbps Modular Converters

iMcV-PIM, iMcV-LIM Modules



6-YEAR
Comprehensive
Warranty

Monitor and control all connections from a central site with SNMP-manageable "iMcV-" media conversion modules.

Product Overview

Satisfying today's networking needs while preparing for tomorrow's cabling requirements can make designing and installing the physical layer of networks a daunting task. The decreasing cost of fiber optic cabling and switching equipment makes all-optical LANs the obvious choice when future-proofing network equipment. Replacing legacy equipment and wiring infrastructure is a costly choice. Managed media conversion allows implementation of new technologies on existing networks, while monitoring all connections, to keep networks running and up-to-date.

IMC Networks offers a wide range of SNMP-managed Ethernet copper to fiber media converters, with a choice of fixed rate or rate conversion capabilities. The "iMcV-" modules also include troubleshooting features and LEDs to assist in network diagnostics as well as make isolating cable breaks easier. The 100 Mbps iMcV-Lim also features Link Fault Pass-Through. In addition, replacing the hot-swappable modules won't disable other modules services running within the same chassis during product upgrades or maintenance and troubleshooting.

All converters feature an RJ-45 copper port and a fiber port, with a choice of SC or ST connectors.

"iMcV-" media converters include:

- iMcV-PIM - convert 10 Mbps copper to 10 Mbps fiber
- iMcV-LIM - convert 100 Mbps copper to 100 Mbps fiber
- iMcV-LIM 10/100 - convert 10 Mbps copper to 10 Mbps fiber or 100 Mbps copper to 100 Mbps fiber



Configuration Control

Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.

* Notes: Modules with the Config Control Feature

- iView² v.1.8.9 and SNMP Firmware v.C4 must be installed to use IMC's Configuration Control Feature
- iMcV-Modules that offer Configuration Control are identified by the label on the front faceplate and reference a different part number.
- New replacement products are **NOT** backwards compatible with the iMediaChassis/18

Features

Meets a variety of installation requirements

- Choose from a wide range of speeds up to Fast Ethernet
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Supports very long fiber distances

Easy to configure and manage with GUI-based iView²

- Up and running in less than five minutes
- Monitor links and receive vital traffic and health information and notification should problems occur

Maximizes network uptime

- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

Configuration Control

- Retains the latest configuration

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)

Use with Chassis Platform

iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46

CWDM versions available,
See website for details



Ordering Information

iMcV-PIM 10 Mbps

| | |
|-----------|---------------------------------------|
| 850-14940 | iMcV-PIM, TP/FO-MM850-ST, 2 km |
| 850-14941 | iMcV-PIM, TP/FO-MM850-SC, 2 km |
| 850-14942 | iMcV-PIM, TP/FO-MM1300-ST, 2 km |
| 850-14943 | iMcV-PIM, TP/FO-MM1300-SC, 2 km |
| 850-14944 | iMcV-PIM, TP/FO-SM1310/PLUS-ST, 40 km |
| 850-14945 | iMcV-PIM, TP/FO-SM1310/PLUS-SC, 40 km |
| 850-14946 | iMcV-PIM, TP/FO-SM1310/LONG-ST, 40 km |
| 850-14947 | iMcV-PIM, TP/FO-SM1310/LONG-SC, 40 km |
| 850-14949 | iMcV-PIM, TP/FO-SM1550/LONG-SC, 80 km |

iMcV-LIM TX/FX 100 Mbps with (LFPT) and Config Control *

| | |
|-----------|---|
| 850-15611 | iMcV-LIM, TX/SX-MM850-ST, 2 km |
| 850-15612 | iMcV-LIM, TX/SX-MM850-SC, 2 km |
| 850-15613 | iMcV-LIM, TX/FX-MM1300-ST, 5 km |
| 850-15614 | iMcV-LIM, TX/FX-MM1300-SC, 5 km |
| 850-15617 | iMcV-LIM, TX/FX-SM1310/PLUS-ST, 40 km |
| 850-15618 | iMcV-LIM, TX/FX-SM1310/PLUS-SC, 40 km |
| 850-15619 | iMcV-LIM, TX/FX-SM1310/LONG-ST, 80 km |
| 850-15620 | iMcV-LIM, TX/FX-SM1310/LONG-SC, 80 km |
| 850-15622 | iMcV-LIM, TX/FX-SM1550/LONG-SC, 80 km |
| 850-15623 | iMcV-LIM, TX/FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|---|
| 850-15631 | iMcV-LIM, TX/SSFX-MM1310-SC (1310xmt/1550rcv), 2 km |
| 850-15632 | iMcV-LIM, TX/SSFX-MM1550-SC (1550xmt/1310rcv), 2 km |
| 850-15633 | iMcV-LIM, TX/SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 850-15634 | iMcV-LIM, TX/SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 850-15635 | iMcV-LIM, TX/SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 850-15636 | iMcV-LIM, TX/SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 850-15637 | iMcV-LIM, TX/SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 850-15638 | iMcV-LIM, TX/SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

iMcV-LIM TX/FX 10/100 Mbps

| | |
|-----------|--|
| 850-14260 | iMcV-LIM, 10/100-MM850-ST, 2 km |
| 850-14261 | iMcV-LIM, 10/100-MM850-SC, 2 km |
| 850-14262 | iMcV-LIM, 10/100-MM1300-ST, 5 km |
| 850-14263 | iMcV-LIM, 10/100-MM1300-SC, 5 km |
| 850-14267 | iMcV-LIM, 10/100-SM1310/PLUS-ST, 40 km |
| 850-14268 | iMcV-LIM, 10/100-SM1310/PLUS-SC, 40 km |
| 850-14269 | iMcV-LIM, 10/100-SM1310/LONG-ST, 80 km |
| 850-14270 | iMcV-LIM, 10/100-SM1310/LONG-SC, 80 km |
| 850-14274 | iMcV-LIM, 10/100-SM1550/LONG-SC, 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 850-14240 | 10/100-SSFX-MM1310-SC (1550 rcv), 2 km |
| 850-14243 | 10/100-SSFX-MM1550-SC (1310 rcv), 2 km |
| 850-14244 | 10/100-SSFX-SM1310-SC (1550 rcv), 20 km |
| 850-14245 | 10/100-SSFX-SM1550-SC (1310 rcv), 20 km |
| 850-14246 | 10/100-SSFX-SM1310/PLUS-SC (1550 rcv), 40 km |
| 850-14247 | 10/100-SSFX-SM1550/PLUS-SC (1310 rcv), 40 km |
| 850-14248 | 10/100-SSFX-SM1310/LONG-SC (1550 rcv), 60 km |
| 850-14249 | 10/100-SSFX-SM1550/LONG-SC (1310 rcv), 60 km |



iMcV-Gigabit Modules



* SFPs Sold Separately

Monitor and control all connections from a central site with SNMP-manageable "iMcV-" media conversion modules.

Product Overview

Satisfying today's networking needs while preparing for tomorrow's cabling requirements can make designing and installing the physical layer of networks a daunting task. The decreasing cost of fiber optic cabling and switching equipment makes all-optical LANs the obvious choice when future-proofing network equipment. Replacing legacy equipment and wiring infrastructure is a costly choice. Managed media conversion allows implementation of new technologies on existing networks, while monitoring all connections, to keep networks running and up-to-date.

IMC Networks offers a range of SNMP-managed Ethernet copper to fiber media converters, with a choice of fixed rate or rate conversion capabilities. The "iMcV-" modules also include troubleshooting features and LEDs to assist in network diagnostics as well as make isolating cable breaks easier. In addition, replacing the hot-swappable modules won't disable other modules services running within the same chassis, during product upgrades or maintenance and troubleshooting.

All converters feature an RJ-45 copper port and a fiber port with SC connectors.

"iMcV-" media converters include:

- iMcV-Gigabit - convert copper to fiber at a data rate of up to 1.25 Gbps

Features

Meets a variety of installation requirements

- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Supports very long fiber distances

Easy to configure and manage with GUI-based iView²

- Up and running in less than five minutes
- Monitor links and receive vital traffic and health information and notification should problems occur

Maximizes network uptime

- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

Configuration Control

- Retains the latest configuration

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class A, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

IE Operating Temperature:

-40° to +185°F (-40° to +85°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)

Ordering Information

* **IE-iMcV-Gigabit TX/SFP 1000 Mbps with Link Fault Pass-Through (LFPT) and Config Control

850-18510 IE-iMcV-Gigabit, TX/SFP (requires one IE-SFP/1250 module)

** iMcV-Gigabit TX/FX 1000 Mbps with Link Fault Pass-Through (LFPT) and Config Control

850-15511 iMcV-Gigabit, TX/SX-MM850-SC, 220/550 m

850-15512 iMcV-Gigabit, TX/LX-SM1310-SC, 10 km

850-15513 iMcV-Gigabit, TX/LX-SM1310/PLUS-SC, 40 km

850-15514 iMcV-Gigabit, TX/LX-SM1550/LONG-SC, 80 km

850-15515 iMcV-Gigabit, TX/LX-SM1550/XLONG-SC, 100 km

Single-Strand Fiber

850-15521 iMcV-Gigabit, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 10 km

850-15522 iMcV-Gigabit, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 10 km

850-15523 iMcV-Gigabit, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km

850-15524 iMcV-Gigabit, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km

850-15525 iMcV-Gigabit, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

850-15526 iMcV-Gigabit, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

850-15527 iMcV-Gigabit, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km

850-15528 iMcV-Gigabit, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km

850-15529 iMcV-Gigabit, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km

850-15530 iMcV-Gigabit, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km

CWDM versions available, See website for details

Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46



Configuration Control

Is available on select models of the iMcV-Gigabit and IE-iMcV-Gigabit SFP with LFPT. Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.

** Notes: Modules with the Config Control Feature

- iView² v.1.8.9 and SNMP Firmware v.C4 must be installed to use IMC's Configuration Control Feature
- iMcV-Modules that offer Configuration Control are identified by the label on the front faceplate and reference a different part number.
- New replacement products are **NOT** backwards compatible with the iMediaChassis/18





Rate Converting 10/100 Mbps and 10/100/1000 Mbps Modular Converters

iMcV-MediaLinX, iMcV-Giga-MediaLinX Modules



* SFPs Sold Separately

Monitor and control all connections from a central site with SNMP-manageable "iMcV-" media conversion modules.

Product Overview

Satisfying today's networking needs while preparing for tomorrow's cabling requirements can make designing and installing the physical layer of networks a daunting task. The decreasing cost of fiber optic cabling and switching equipment makes all-optical LANs the obvious choice when future-proofing network equipment. Replacing legacy equipment and wiring infrastructure is a costly choice. Managed media conversion allows implementation of new technologies on existing networks, while monitoring all connections, to keep networks running and up-to-date.

IMC Networks offers a wide range of SNMP-managed Ethernet copper to fiber media converters, with a choice of fixed rate or rate conversion capabilities. The "iMcV-" modules also include troubleshooting features and LEDs to assist in network diagnostics as well as make isolating cable breaks easier. The iMcV-MediaLinX and iMcV-Giga-MediaLinX also features Link Fault Pass-Through. In addition, replacing the hot-swappable modules won't disable other modules services running within the same chassis, during product upgrades or maintenance and troubleshooting.

All converters feature an RJ-45 copper port and a fiber port, with a choice of SC or ST (non-Gigabit only) connectors.

"iMcV-" media and rate converters include:

- iMcV-MediaLinX – convert 10 Mbps or 100 Mbps copper to 100 Mbps fiber
- iMcV-Giga-MediaLinX – convert 10 Mbps, 100 Mbps or 1000 Mbps copper to 1000 Mbps fiber

Rate converters employ Auto Negotiation functionality on the twisted pair port for plug-and-play operation, or they can be manually configured for the desired speed and duplex mode.



Configuration Control

Is available on select models of the iMcV-MediaLinX and IE-iMcV-MediaLinX TX/SFP. Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.

** Notes: Modules with the Config Control Feature

- iView² v1.8.9 and SNMP Firmware v.C4 must be installed to use IMC's Configuration Control Feature
- iMcV-Modules that offer Configuration Control are identified by the label on the front faceplate and reference a different part number.
- New replacement products are **NOT** backwards compatible with the iMediaChassis/18

Features

Meets a variety of installation requirements

- Choose from a range of speeds up to Gigabit Ethernet
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Supports very long fiber distances

Easy to configure and manage with GUI-based iView²

- Up and running in less than five minutes
- Monitor links and receive vital traffic and health information and notification should problems occur

Maximizes network uptime

- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

Configuration Control

- Retains the latest configuration

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45, ST and SC

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

IE Operating Temperature:

-40° to +185°F (-40° to +85°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)



Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

CWDM versions available,
See website for details

Ordering Information

* **IE-iMcV-MediaLinX TX/SFP

10/100 Mbps with Link Fault Pass-Through (LFPT) and Config Control

856-18700 IE-iMcV-MediaLinX, TX/SFP (requires one SFP/155-ED Module required)

iMcV-MediaLinX TX/FX

10/100 Mbps with Link Fault Pass-Through (LFPT) and Config Control **

856-15711 iMcV-MediaLinX, TX/FX-MM850-ST, 2 km

856-15712 iMcV-MediaLinX, TX/FX-MM850-SC, 2 km

856-15713 iMcV-MediaLinX, TX/FX-MM1300-ST, 5 km

856-15714 iMcV-MediaLinX, TX/FX-MM1300-SC, 5 km

856-15717 iMcV-MediaLinX, TX/FX-SM1310/PLUS-ST, 40 km

856-15718 iMcV-MediaLinX, TX/FX-SM1310/PLUS-SC, 40 km

856-15719 iMcV-MediaLinX, TX/FX-SM1310/LONG-ST, 80 km

856-15720 iMcV-MediaLinX, TX/FX-SM1310/LONG-SC, 80 km

856-15723 iMcV-MediaLinX, TX/FX-SM1550/LONG-SC, 80 km

Single-Strand Fiber

856-15731 iMcV-MediaLinX, TX/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km

856-15732 iMcV-MediaLinX, TX/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km

856-15733 iMcV-MediaLinX, TX/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

856-15734 iMcV-MediaLinX, TX/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

856-15735 iMcV-MediaLinX, TX/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km

856-15736 iMcV-MediaLinX, TX/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km

iMcV-Giga-MediaLinX TX/LX

10/100/1000 Mbps with Link Fault Pass-Through (LFPT)

856-11959 iMcV-Giga-MediaLinX, TX/SX-MM850-ST, 220/550 m

856-11950 iMcV-Giga-MediaLinX, TX/SX-MM850-SC, 220/550 m

856-11951 iMcV-Giga-MediaLinX, TX/LX-SM1310-SC, 15 km

856-11952 iMcV-Giga-MediaLinX, TX/LX-SM1310/PLUS-SC, 40 km

856-11953 iMcV-Giga-MediaLinX, TX/LX-SM1550/LONG-SC, 80 km

856-11958 iMcV-Giga-MediaLinX, TX/LX-SM1550/XLONG-SC, 100 km

Single-Strand Fiber

856-11940 iMcV-Giga-MediaLinX, TX/SSLX-SM1310-SC (1310xmt/1550rcv), 10 km

856-11941 iMcV-Giga-MediaLinX, TX/SSLX-SM1550-SC (1550xmt/1310rcv), 10 km

856-11933 iMcV-Giga-MediaLinX, TX/SSBX-SM1310-SC (1310xmt/1490rcv), 10 km

856-11935 iMcV-Giga-MediaLinX, TX/SSBX-SM1490-SC (1490xmt/1310rcv), 10 km

856-11942 iMcV-Giga-MediaLinX, TX/SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

856-11943 iMcV-Giga-MediaLinX, TX/SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

856-11937 iMcV-Giga-MediaLinX, TX/SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 30 km

856-11939 iMcV-Giga-MediaLinX, TX/SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 30 km

856-11954 iMcV-Giga-MediaLinX, TX/SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km

856-11955 iMcV-Giga-MediaLinX, TX/SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km

iMcV-T1/E1/J1 and IE-iMcV-T1/E1/J1-LineTerm with Config Control



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

The ideal solution for extending PBX or legacy Telco circuits over fiber optics in the local loop and or long-haul applications.

Product Overview

SNMP-manageable, the iMcV-T1/E1/J1 converter series of modules extend 1.544 Mbps T1/J1 and 2.048 Mbps E1 copper-based PBX, router and switch circuits over regular duplex fiber or single-strand fiber optics. Supporting fiber distances of up to 80 km, the iMcV-T1/E1/J1 series of converters include built-in jitter removal, line integrity testing, diagnostic tools (Loopback mode and Transmit Data Source) and remote management features.

Select from the iMcV-T1/E1/J1, offering standard repeater-like functionality, or the IE-iMcV-T1/E1/J1-LineTerm which incorporates advanced features such as Line Terminating functionality and config control, support for both Alarm Indication Signals (AIS) and Remote Alarm Indications (RAI). Both versions are designed to be installed in pairs.

The IE-iMcV-T1/E1/J1 LineTerm modules are installed as a HOST-REMOTE pair and can be remotely managed when the HOST is installed in an iMediaChassis with an SNMP-Management Module. This enables network managers to conduct loopback testing, to monitor, and to manage units located up to 80 km away.

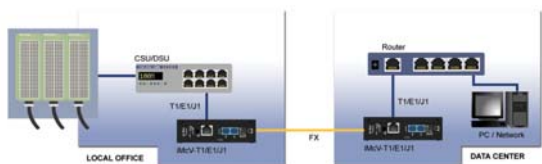


Configuration Control

Is available on select models of the IE-iMcV-T1/E1/J1 Line Term and IE-iMcV-T1/E1/J1 TP/SFP. Its main function is to assist the end-user by retaining the latest configuration regardless of how the initial configuration was setup, whether through DIP Switch settings or the SNMP Management Module's configuration.

Application Example

Extend T1/E1/J1 signals up to 80 km over fiber using point to point iMcV-T1/E1/J1 modules. In the example below, PBX traffic from a local office is sent over fiber to a remote data center.



Features

Switch Selectable Protocol

- Operates at (T1/J1 1.544 Mbps) and (E1 2.048 Mbps)

Two versions to choose from:

- Standard version – offers repeater-like functionality
- Line Terminating version – supports “Telco-like” features, including Alarm Indication Signals (AIS) and Remote Alarm Indications (RAI)

Management

- Conduct Loopback tests, monitor/manage units via GUI-based iView2
- Remote unit supports secure, out-of-band management
- Diagnostic LEDs

Offers more fiber choices

- Available for multi-mode or single-mode fiber
- Single-strand fiber versions
- Supports distances up to 80 km

Eases troubleshooting

- Loopback testing modes, plus SNMP management and LEDs, assist in diagnosing problems on fiber optic or copper networks
- Supports fiber and coax remote loopback control
- Transmit Data Source diagnostic tool sends data as unframed all ones, a pattern of alternating ones and zeros, or a Pseudorandom Bit Sequence (PRBS). A built-in PRBS signal detector makes testing even easier.
- LED display for monitoring of line diagnostics

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-48, ST and SC

Regulatory Approvals:

FCC Class A, UL/cUL, CE, CSA, CB

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Power Rating:

5V

Shipping Weight:

0.30 lbs (0.11 kg)



Ordering Information

* IE-iMcV-T1/E1/J1-LineTerm, With Config Control TP/SFP

850-18100 IE-iMcV-T1/E1/J1-LineTerm, TP/SFP (requires one SFP/155-ED Module required)

iMcV-T1/E1/J1 Repeater Modules

850-14198 iMcV-T1/E1/J1, TP/Fiber-MM850-ST, 2 km

850-14199 iMcV-T1/E1/J1, TP/Fiber-MM850-SC, 2 km

850-14200 iMcV-T1/E1/J1, TP/Fiber-MM1300-ST, 5 km

850-14201 iMcV-T1/E1/J1, TP/Fiber-MM1300-SC, 5 km

850-14202 iMcV-T1/E1/J1, TP/Fiber-SM1310/PLUS-ST, 40 km

850-14203 iMcV-T1/E1/J1, TP/Fiber-SM1310/PLUS-SC, 40 km

850-14204 iMcV-T1/E1/J1, TP/Fiber-SM1310/LONG-ST, 80 km

850-14205 iMcV-T1/E1/J1, TP/Fiber-SM1310/LONG-SC, 80 km

850-14206 iMcV-T1/E1/J1, TP/Fiber-SM1550/LONG-SC, 80 km

Single-Strand Fiber

850-14288 iMcV-T1/E1/J1, TP/SSFiber-MM1310-SC (1310xmt/1550rcv), 2 km

850-14289 iMcV-T1/E1/J1, TP/SSFiber-MM1550-SC (1550xmt/1310rcv), 2 km

850-14290 iMcV-T1/E1/J1, TP/SSFiber-SM1310-SC (1310xmt/1550rcv), 20 km

850-14291 iMcV-T1/E1/J1, TP/SSFiber-SM1550-SC (1550xmt/1310rcv), 20 km

850-14292 iMcV-T1/E1/J1, TP/SSFiber-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

850-14293 iMcV-T1/E1/J1, TP/SSFiber-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

850-14294 iMcV-T1/E1/J1, TP/SSFiber-SM1310/LONG-SC (1310xmt/1550rcv), 60 km

850-14295 iMcV-T1/E1/J1, TP/SSFiber-SM1550/LONG-SC (1550xmt/1310rcv), 60 km

IE-iMcV-T1/E1/J1 Line Terminating with Config Control Modules **NEW!**

850-18101 iMcV-T1/E1/J1-LineTerm TP/Fiber-MM850-ST, 2 km

850-18102 iMcV-T1/E1/J1-LineTerm TP/Fiber-MM850-SC, 2 km

850-18103 iMcV-T1/E1/J1-LineTerm TP/Fiber-MM1300-ST, 5 km

850-18104 iMcV-T1/E1/J1-LineTerm TP/Fiber-MM1300-SC, 5 km

850-18105 iMcV-T1/E1/J1-LineTerm TP/Fiber-SM1310/PLUS-ST, 40 km

850-18106 iMcV-T1/E1/J1-LineTerm TP/Fiber-SM1310/PLUS-SC, 40 km

* 850-18107 iMcV-T1/E1/J1-LineTerm TP/Fiber-SM1310/LONG-ST, 80 km

* 850-18108 iMcV-T1/E1/J1-LineTerm TP/Fiber-SM1310/LONG-SC, 80 km

850-18111 iMcV-T1/E1/J1-LineTerm TP/Fiber-SM1550/LONG-ST, 80 km

850-18120 iMcV-T1/E1/J1-LineTerm TP/SSFiber-MM1310-SC (1310xmt/1550rcv), 2 km

850-18121 iMcV-T1/E1/J1-LineTerm TP/SSFiber-MM1550-SC (1550xmt/1310rcv), 2 km

850-18122 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1310-SC (1310xmt/1550rcv), 20 km

850-18123 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1550-SC (1550xmt/1310rcv), 20 km

850-18124 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km

850-18125 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km

850-18126 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1310/LONG-SC (1310xmt/1550rcv), 60 km

850-18127 iMcV-T1/E1/J1-LineTerm TP/SSFiber-SM1550/LONG-SC (1550xmt/1310rcv), 60 km

*Certified at 40 km, 80 km is achievable

CWDM versions available, See website for details Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

iMcV-DS3/E3/STS



Protocol-selectable DS3/E3/STS Coax-to-Fiber media converters extend transmission distances over fiber optics and reduces operational costs with remote end management.

Product Overview

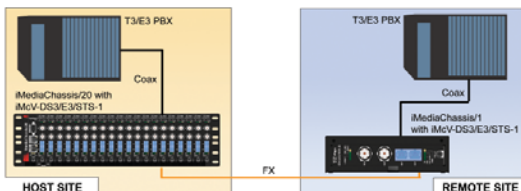
iMcV-DS3/E3/STS converters are perfect for service providers and enterprise campus networks utilizing DS3/E3/STS coaxial circuits. The modules enable users to convert coax media to single-mode fiber and extend the distance of data transmissions over MAN access networks up to 80 km. The modules support premises networking applications to convert the incoming circuit to fiber for distribution into the structured cabling system.

Choose from versions offering repeater-like functionality or Line-Terminating functionality, including standards compliant Alarm Indication Signals (AIS) for signal loss condition propagation.

The iMcV-DS3/E3/STS LineTerm modules are installed as a HOST-REMOTE pair and can be remotely managed when the HOST is installed in an iMediaChassis with an SNMP-Management Module. This enables network managers to conduct loopback testing, to monitor, and to manage units located up to 80 km away. Since IMC Networks' management technology functions transparently to the user data, real-time, end-to-end management is provided at all times.

Application Example

Extend DS3 signals up to 80 km over fiber optics using iMcV-DS3/E3/STS converters



* For Telco environments, it is not recommended that the iMcV-DS3/E3/STS converters be installed in an iE-MediaChassis/1-DC. The power source in this chassis is not isolated, and cannot support positive reference ground systems typically used in Telco environments. The MediaChassis/2-DC and the iMediaChassis/6-DC are suitable alternatives.

Features

Switch Selectable Protocol

- Operates at 45 Mbps (DS3), 34 Mbps (E3) or 52 Mbps (STS-1)
- Two versions to choose from:
 - Standard Version - offers repeater-like functionality
 - Line Terminating Version - supports "Telco" features, including Alarm Indication Signals (AIS)

Management

- Conduct loopback tests, monitor/manage units via GUI-Based iView² or Web Server
- based iView² V.3.0
- Remote unit supports secure, out-of-band management
- Diagnostic LEDs

Supports more fiber choices

- Available for multi-mode or single-mode fiber
- Single-strand fiber versions
- Supports very long fiber distances

Eases Troubleshooting

- Loopback testing modes, plus SNMP management and LEDs, assist in diagnosing problems on fiber optic networks
- Supports fiber and coax remote loopback control
- Internal test-head function for transmitting and detecting PRBS test patterns.
- LED Line Diagnostics
- Supports Far End Fault (FEF)* - (LineTerm version only)

*FEF provides a local LED indication when a fault exists at the equipment at the far end of the optical link.

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

BNC, ST and SC

Regulatory Approvals:

FCC Class B, UL/cUL, CE, CSA, CB

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Power Rating:

5V

Shipping Weight:

0.30 lbs (0.11 kg)

**CWDM versions available,
See website for details**

Ordering Information

iMcV-DS3/E3/STS Repeater Modules

| | |
|----------------------------|---|
| 850-14338 | iMcV-DS3/E3/STS, BNC/FX-MM850-ST, 2 km |
| 850-14339 | iMcV-DS3/E3/STS, BNC/FX-MM850-SC, 2 km |
| 850-14300 | iMcV-DS3/E3/STS, BNC/FX-MM1300-ST, 5 km |
| 850-14301 | iMcV-DS3/E3/STS, BNC/FX-MM1300-SC, 5 km |
| 850-14302 | iMcV-DS3/E3/STS, BNC/FX-SM1310/PLUS-ST, 40 km |
| 850-14303 | iMcV-DS3/E3/STS, BNC/FX-SM1310/PLUS-SC, 40 km |
| 850-14304 | iMcV-DS3/E3/STS, BNC/FX-SM1310/LONG-ST, 80 km |
| 850-14305 | iMcV-DS3/E3/STS, BNC/FX-SM1310/LONG-SC, 80 km |
| 850-14306 | iMcV-DS3/E3/STS, BNC/FX-SM1550/LONG-SC, 80 km |
| Single-Strand Fiber | |
| 850-14310 | iMcV-DS3/E3/STS, BNC/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 850-14311 | iMcV-DS3/E3/STS, BNC/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 850-14312 | iMcV-DS3/E3/STS, BNC/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 850-14313 | iMcV-DS3/E3/STS, BNC/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 850-14314 | iMcV-DS3/E3/STS, BNC/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 850-14315 | iMcV-DS3/E3/STS, BNC/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

iMcV-DS3/E3/STS Line Term Modules

| | |
|----------------------------|--|
| 850-14438 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-MM850-ST, 2 km |
| 850-14439 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-MM850-SC, 2 km |
| 850-14400 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-MM1300-ST, 5 km |
| 850-14401 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-MM1300-SC, 5 km |
| 850-14402 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-SM1310/PLUS-ST, 40 km |
| 850-14403 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-SM1310/PLUS-SC, 40 km |
| 850-14404 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-SM1310/LONG-ST, 80 km |
| 850-14405 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-SM1310/LONG-SC, 80 km |
| 850-14406 | iMcV-DS3/E3/STS-LineTerm, BNC/FX-SM1550/LONG-SC, 80 km |
| Single-Strand Fiber | |
| 850-14410 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1310-SC (1310xmt/1550rcv), 20 km |
| 850-14411 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1550-SC (1550xmt/1310rcv), 20 km |
| 850-14412 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 850-14413 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 850-14414 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 850-14415 | iMcV-DS3/E3/STS-LineTerm, BNC/SSFx-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46



iMcV-E1-Mux/4+Ethernet (Enhanced)



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

The IE-iMcV-E1-Mux/4 Transports Four E1 Extensions and One RS-232 Serial Link Over a Fiber Optic Line With Optional 1+1 Protection and Full-Bandwidth 10/100 Ethernet Support.

Product Overview

The IE-iMcV-E1-Mux/4 is a managed modular media converter, installed as a Host/Remote pair, that transports four independent E1 lines over a single or dual fiber optic line. The module is ideal for applications requiring TDM extension, such as remote office PABX connectivity, with support for a full bandwidth 10/100BaseT Ethernet connection over the same optical link.

The IE-iMcV-E1-Mux/4 allows for Bandwidth Limiting control in 32 Kbps increments up to 100 Mbps. It also detects Ethernet, AIS, E1 and fiber LOS events as well as degraded lines with full LED indications including a Remote Alarm Indicator (RAI) over the fiber link. E1 ports can also be enabled or disabled via the CLI, Telnet or SNMP management software, allowing the user to perform maintenance on a particular line without affecting others.

Fiber redundancy (1+1) on removable SFP modules offers the enhanced reliability of a protected fiber link while supporting the complete range of optical types and distances. The 1+1 protection system automatically switches to the best fiber line within 50 milliseconds, should one line become impaired or fail.

The module also features an independent serial link (RS-232) which is carried over the same fiber link(s), and can be used for transporting serial traffic from other equipment located at the remote point of presence (POP) back to the central office. This unit also supports an independent RS-232 console port for local monitoring and configuration of the unit by technical support personnel.

Features

- Four independent E1 ports on RJ-48 connectors with surge protection
- AIS generation on signal loss on all E1 and fiber interfaces
- AIS Detection
- Supports local and remote loopback functions
- Dual SFP fiber ports with 1+1 protection switching
- One optional full bandwidth, Ethernet 10/100BaseT port
- User defined bandwidth limiting on Ethernet port
- Auto Negotiation or forced modes on the Ethernet port
- E1 ports can be remotely disabled by user
- Supports Jumbo Ethernet frames to 1916
- Supports "Pause" Frames
- AutoCross MDI/MDI-X on Ethernet port
- Supports the Link Fault Pass-Through Function (LFPT)
- DDMI register retrieval supported on SFP port
- One end-to-end serial RS-232 port to 120 Kbps on an RJ-45 connector
- Both Host/Remote are managed from the Host unit
- Command Line Interface (CLI) management provided via one MiniJack RS-232 console port
- Remote Graphical User Interface (GUI) management through a managed iMediaChassis
- SNMP Alarm TRAP reporting in managed chassis, including Last Gasp
- Full LED diagnostics on front panel
- IE model supports extended temperature



Use with Chassis Platform
iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46

Physical Specifications

Fiber Types Supported

- SFP

Connectors:

Four E1 (RJ-48) copper ports
Two SFP slots
One RS-232 on MiniJack
One 10/100BaseT on RJ-45
One RS-232 on RJ-45

Regulatory Approvals:

IEEE-802.3u, ITU G.775 (AIS, LOS), GR-820-CORE

Operating Temperature:

-40°F to 158°F (-40°C to +70°C)

Storage Temperature:

-40°F to +160°F (-40° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

Double-wide chassis module

Power Consumption (Typical):

0.96A @ +5 VDC

Shipping Weight:

1.1 lbs (0.50 kg)

Ordering Information

* **iMcV-E1-Mux/4+Ethernet (Enhanced) Module (doublewide)**

857-18111 iMcV-E1-Mux/4+Ethernet, SFP (requires one or two SFP/155 Modules), Various

** **iMcV-E1-Mux/4+Ethernet Module (doublewide)**

857-14400 iMcV-E1-Mux/4+Ethernet, SFP (requires one or two SFP/155 Modules), Various

** **IE-iMcV-E1-Mux/4+Ethernet Module (doublewide)**

857-18400 IE-iMcV-E1-Mux/4+Ethernet, SFP (requires one or two SFP/155 Modules), Various

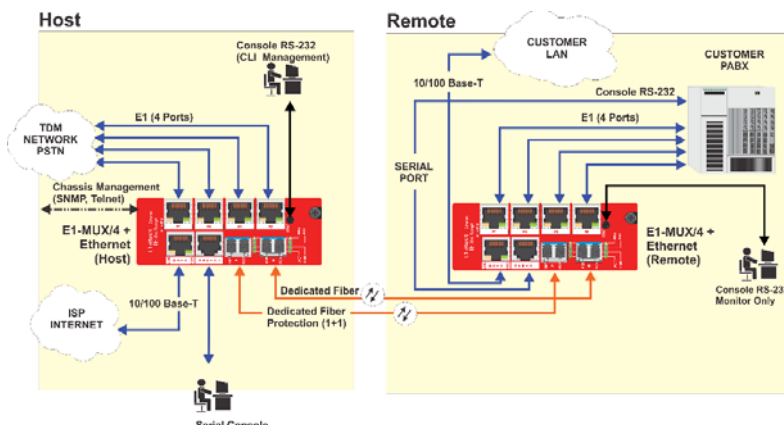
** For more information call IMC Networks sales or visit www.imcnetworks.com

Available Accessories

825-39951 Serial Cable MiniJack to DB9(Female)

Application Example

In a typical application, a Customer PABX is provided with up to four E1 lines from the Public Switch Telephone Network (PSTN) over a protected optical link. In addition, the customer location can receive a full bandwidth, 100BaseT Ethernet connection to the Internet from the local Internet Service Provider (ISP) over the same, protected, optical link. Operation Administration and Management (OAM) functions for the link are provided from the Host location through either a "Console" RS-232 connection on the Host unit or a SNMP connection through the management interface at the Host chassis. In this example, the RS-232 "Console" port of the remote PABX is also carried back to the Host location for remote management of the customer located PABX, using the end-to-end serial RS-232 port on the iMcV-E1-Mux/4.



IE-iMcV-T1-Mux/4 + Ethernet



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

The IE-iMcV-T1-Mux/4 Transports Four T1 Extensions and One RS-232 Serial Link Over a Fiber Optic Line With Optional 1+1 Protection and Full-Bandwidth 10/100 Ethernet Support.

Product Overview

The IE-iMcV-T1-Mux/4 is a managed modular media converter, installed as a Host/Remote pair, that transports four independent T1 lines over a single or dual fiber optic line. The module is ideal for applications requiring TDM extension, such as remote office PABX connectivity, with support for a full bandwidth 10/100BaseT Ethernet connection over the same optical link.

The iMcV-T1-Mux/4 detects, Ethernet, T1 and fiber LOS events as well as degraded lines with full LED indications including a Remote Alarm Indicator (RAI) over the fiber link.

Fiber redundancy (1+1) on removable SFP modules offers the enhanced reliability of a protected fiber link while supporting the complete range of optical types and distances. The 1+1 protection system automatically switches to the best fiber line within 50 milliseconds, should one line become impaired or fail.

The IE-iMcV-T1-Mux/4 features an independent serial link (RS-232) which is carried over the same fiber link(s), and can be used for transporting serial traffic from other equipment located at the remote point of presence (POP) back to the central office. The unit also supports an independent RS-232 console port for local monitoring and configuration of the unit by technical support personnel. unit also supports an independent RS-232 console port for local monitoring and configuration of the unit by technical support personnel.

Features

- Four independent T1 ports on RJ-48 connectors
- T1 ports can be remotely disabled by user
- AIS generation on signal loss on all T1 and fiber interfaces
- Supports local and remote loopback functions
- One full bandwidth, 10/100BaseT Ethernet port
- Auto Negotiation or forced modes on the Ethernet port
- Supports Jumbo Ethernet frames to 1916
- Supports "Pause" Frames
- User defined bandwidth limiting on Ethernet port
- AutoCross MDI/MDIX on Ethernet port
- Supports the Link Fault Pass-Through Function (LFPT) on the Ethernet port
- Dual SFP fiber ports with 1+1 protection switching
- DDMI register retrieval supported on SFP ports for enhanced OAM
- B8ZS or AMI T1 line code (T1 ports)
- One end-to-end serial RS-232 port to 125 Kbps on an RJ-45 connector
- Both Host/Remote are managed from the Host unit
- Command Line Interface (CLI) management provided via one MiniJack RS-232 console port
- Remote Graphical User Interface (GUI) management through a managed iMediaChassis
- SNMP Alarm TRAP reporting in managed chassis, including Last Gasp
- Full LED diagnostics on front panel

Physical Specifications

Fiber Types Supported

- SFP

Connectors:

Four RJ-48 T1 ports DTE, 120 Ω

Two SFP slots

One RS-232 on MiniJack

One 10/100BaseT on RJ-45

One RS-232 on RJ-45

Regulatory Approvals:

FCC Class B, CE, IEEE-802.3u, ITU-T G.703 (Pulse Shape), ITU-T G.824 (Jitter), ITU-T G.775 (AIS, LOS)

Operating Temperature:

32° to 160°F (0° to +70°C)

Storage Temperature:

-40° to +160°F (-40° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

Double-wide chassis module

Power Rating:

4.2W Typical 5.5W Max.

Shipping Weight:

1.1 lbs (0.50 kg)



Use with Chassis Platform
iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46

Ordering Information

*** IE-iMcV-T1-Mux/4 + Ethernet Module (double wide)**

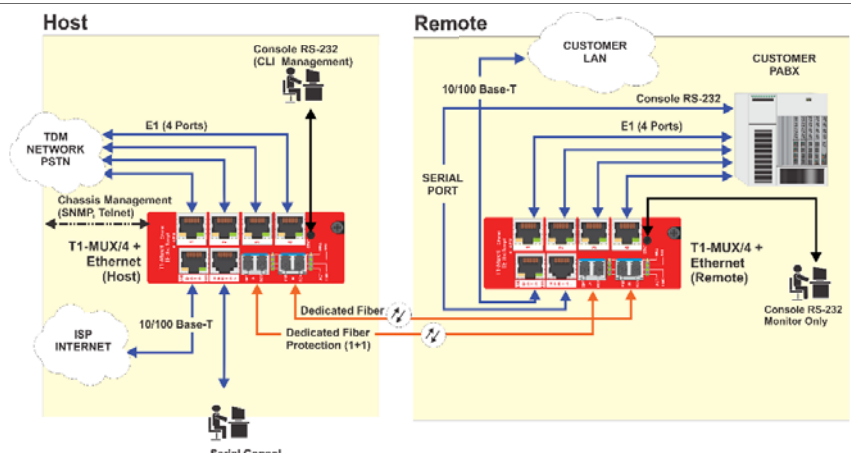
857-18110 IE-iMcV-T1-Mux/4, SFP (requires one or two SFP/155 Module), Various

IE-iMcV-T1-Mux/4 Accessories

825-39951 Serial Cable, MiniJack to DB9 (female)

Application Example

In a typical application, a Customer PABX is provided with up to four E1 lines from the Public Switch Telephone Network (PSTN). In a typical application, a Customer PABX is provided with up to four T1 lines from the Public Switch Telephone Network (PSTN) over a protected optical link. In addition, the customer location can receive a full bandwidth, 100BaseT Ethernet connection to the Internet from the local Internet Service Provider (ISP) over the same, protected, optical link. Operation Administration and Management (OAM) functions for the link are provided from the Host location through either a "Console" RS-232 connection on the Host unit or a SNMP connection through the management interface at the Host chassis. In this example, the RS-232 "Console" port of the remote PABX is also carried back to the Host location for remote management of the customer located PABX, using the end-to-end serial RS-232 port on the IE-iMcV-T1-Mux/4.



iMcV-Switch Modules



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

Monitor all connections from a central site with iMcV Series multi-port switch modules.

Product Overview

The iMcV-Switch is a multi-port, 10/100 Ethernet module that allows the user to increase port density and the service area of Ethernet networks. The store and forward switch function allows the end user to extend Ethernet service to locations for a total of 100 meters from the Ethernet source. All RJ-45 ports Auto Negotiate 10/100Base-T, half/full duplex, and automatically configure for MDI or MDIX operation. Each port allows a maximum frame size of up to 1916 bytes and supports Flow Control and priority queuing.

Easily view the status of the iMcV-Switch with IMC Networks' GUI-based iView². iView² runs standalone on Windows NT/XP/2000/Vista, as a standalone Java Application for other operating systems, as a snap-in module for HP OpenView, as a Web Server running under IIS or as a Java Web Servlet. For assistance in selecting the right version of iView² for your operating system, visit our web site at: <http://www.imcnetworks.com/products/iView2installers.cfm>

Features

- Multi-port 10/100Base-T MAC switch
- Available with 1 or 2 SFP ports, or 1 SC, ST or single-strand fiber port
- Supports up to 1000 MAC address learning
- Supports standard MAC address aging
- Transparent to VLAN tags
- Grants priority for all frames with PRI>4 or DSCP>32
- Supports Auto Cross and Auto Negotiation on all Tx ports
- Supports Flow Control
- Features Collision Detection

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

RJ-45 and SC, ST, LC or SFP

Regulatory Approvals:

FCC Class B, UL/cUL, CE

Operating Temperature:

+32° to +122° F (0° to +50° C)

Storage Temperature:

-4° to +158° F (-20° to +70° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)

Ordering Information

* iMcV-Switch

| | |
|-----------|--|
| 852-14440 | iMcV-Switch, TX/5, 100 m |
| 852-14441 | iMcV-Switch, TX/4 + SFP (requires one SFP/155 module), |
| 852-14442 | iMcV-Switch, TX/3 + 2SFP (requires SFP/155 module(s)) |
| 852-14443 | iMcV-Switch, TX/3 + FX-MM850-ST, 2 km |
| 852-14444 | iMcV-Switch, TX/3 + FX-MM850-SC, 2 km |
| 852-14445 | iMcV-Switch, TX/3 + FX-MM1300-ST, 5 km |
| 852-14446 | iMcV-Switch, TX/3 + FX-MM1300-SC, 5 km |
| 852-14449 | iMcV-Switch, TX/3 + FX-SM1310/PLUS-ST, 40 km |
| 852-14450 | iMcV-Switch, TX/3 + FX-SM1310/PLUS-SC, 40 km |
| 852-14451 | iMcV-Switch, TX/3 + FX-SM1310/LONG-ST, 80 km |
| 852-14452 | iMcV-Switch, TX/3 + FX-SM1310/LONG-SC, 80 km |
| 852-14453 | iMcV-Switch, TX/3 + FX-SM1550/LONG-SC, 80 km |
| 852-14454 | iMcV-Switch, TX/3 + FX-SM1550/XLONG-SC, 100 km |

Single-Strand Fiber

| | |
|-----------|--|
| 852-14470 | iMcV-Switch, TX/3 + SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 852-14471 | iMcV-Switch, TX/3 + SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 852-14472 | iMcV-Switch, TX/3 + SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 852-14473 | iMcV-Switch, TX/3 + SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 852-14474 | iMcV-Switch, TX/3 + SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 852-14475 | iMcV-Switch, TX/3 + SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |

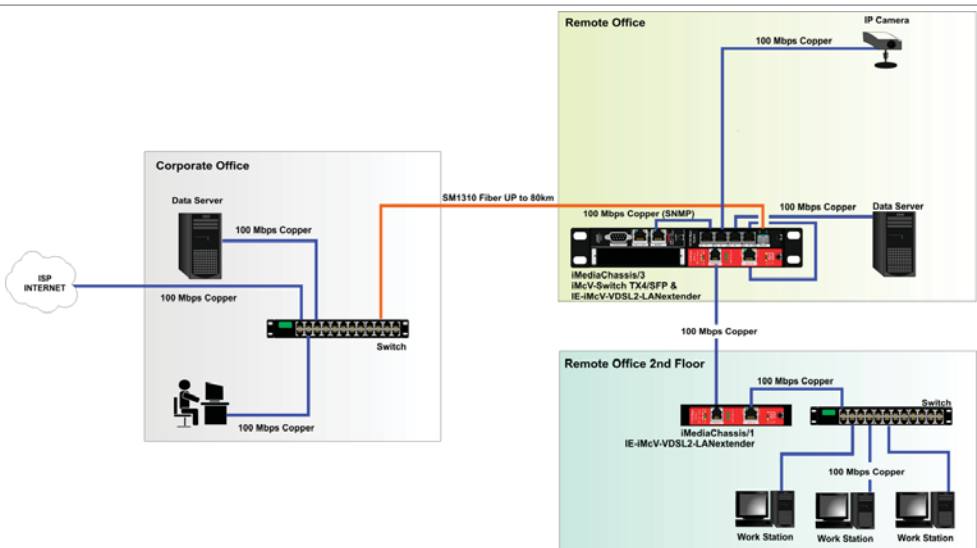
Use with Chassis Platform

iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46



Application Example

The iMcV-Switch allows the user to increase port density and service area of Ethernet networks when installed in an iMediaChassis or MediaChassis. In this example, the iMediaChassis/3-2AC already has an iMcV-VDSL2-LANextender that provides VDSL connectivity while using existing telephone cabling between destinations such as different floors in the same building over a 100 meter range. With the addition of the iMcV-Switch TX/4 + SFP, one now has five more ports, four copper and one fiber, to accommodate varying applications such as UDP video broadcast, data transmission, data access/archiving and SNMP that can be transmitted at a distance via fiber.



IE-iMcV-MultiWay



* SFPs Sold Separately

A Compact, Versatile, SNMP Manageable Gigabit Ethernet Device That Offers internal and redundant powering options.

Product Overview

The IE-iMcV-MultiWay is a modular, CPE device providing two fixed 10/100/1000Base-T copper ports and 2 SFP ports. The SFP ports support fiber or copper SFPs. A console port and on-board DIP Switches provide configuration and mode options for the module. The IE-iMcV-MultiWay provides OAM functionality with 802.3ah and 802.1ag support on each port. As an Industrial Ethernet device, it supports an extended temperature range of -40° to +85° C.

There are four distinct DIP Switch selectable configurations that the IE-MultiWay supports. Among them are a 1+1 Uplink Protection Switch, a 4-Port Gigabit Switch, and a Dual Copper to Fiber SFP Media/Mode Converter (two gigabit fiber media converters in one).

As a 4-port device, it can be deployed with fiber redundancy (with or without 1+1 uplink protection) and status monitoring with management on all ports via SNMP, which offers OAM for mission-critical applications. It can also be installed as dual 10/100/1000 Mbps copper to fiber media converter and be utilized as two separate converters.

The IE-iMcV-MultiWay supports 10/100/1000 Mbps and 1 Gbps copper and 100 Mbps and 1 Gbps optical SFP modules, to provide greater flexibility in the network environment. The hot-swappable nature of SFPs and the numerous fiber modes and types that are available allow for easy configuration and future upgrading as network demands evolve.

The IE-iMcV-MultiWay offers a full feature set including Auto Negotiation, Selective Advertising, AutoCross (on copper ports), VLANs, loopback testing and OAM. Software updates can be downloaded through TFTP or iView2 (iConfig view).

Features

Flexible Solution

- Copper to fiber SFP media converter
- Dual-independent copper to fiber SFP media converter(s)
- Fiber repeater
- SFP to SFP mode converter with copper drops (Re-amplify, Re-shape, Re-time)
- 4-Port Gigabit Switch
- 1+1 uplink protection (<50 mSec)
- Supports per port service VLAN
- Supports daisy chain expansion
- Supports RMON Statistics
- Supports Jumbo Frames (up to 10240 bytes)
- Modular form factor

Advanced Remote Monitoring/Management

- Supports IEEE 802.3ah OAM (active/passive), and 802.1ag CFM (Connectivity Fault Management) and Y.1731 on all ports
- Discovery, Link Monitoring, Performance Monitoring and Remote Loopback
- Bandwidth Limiting with burst capability and priority queuing
- Rate Limiting can be done at Layer 1, 2 or 3
- Via UMA, can act as a Remote when connected to a Host iMcV-Giga-FiberLinX-II
- Generates SNMP TRAPs based on events
- RS-232 CLI (Command Line Interface) console port

SFP Support

- Auto negotiate speed and flow control for 10/100/1000 copper SFPs with SGMII
- Supports fixed speed 1 Gbps full-duplex copper SFPs
- Auto detect for 100 or 1000 optical SFPs

"Industrial Ethernet" (IE) Features

- Extended temperature functionality, up to -40° to +85° C
- Powering options include redundant internal AC powered chassis

Physical Specifications

Fiber Types Supported

- SFP

Connectors:

RJ-45, 2 SFP

Regulatory Approvals:

- FCC Class A
- UL, cUL, CE

Operating Temperature:

-40° F to +185° F (-40° C to +85° C)

Storage Temperature:

-67 F to +257° F (-55° C to +125° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (.11 kg)



Ordering Information

* IE-iMcV-MultiWay

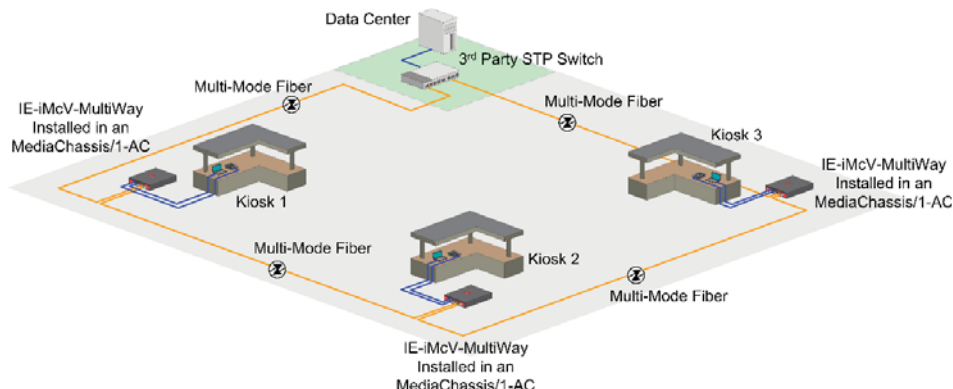
858-18121 IE-iMcV-MultiWay Module, 2TX/2SFP, Various

Use with Chassis Platform

iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46

Application Example

In the following example, three separate IE-iMcV-MultiWay's installed in single-slot AC chassis are connecting multiple kiosks in a ring-type network utilizing a Spanning Tree enabled switch. The ring topology provides redundancy to the network. If a fiber break were to occur somewhere along any segment, the spanning tree protocol provides an automatic backup link.



iMcV-PSE-MidSpan



IEEE 802.3af (PoE) compatible, the iMcV-PSE-MidSpan power injector offers unparalleled installation flexibility and cost-savings.

Product Overview

Connecting and powering small devices at the edge of a wired network infrastructure becomes increasingly important to LANs/MANs as they add Wi-Fi access points, webcams, entry control systems and other IP devices. Sometimes, the most optimal location for one of these devices is too far from an AC or DC power source.

IMC Networks' iMcV-PSE-MidSpan provides an important and cost-effective solution. The PSE-MidSpan delivers data and power to Ethernet devices over a single Ethernet cable, using Power over Ethernet (PoE), compliant with IEEE 802.3af. It removes the burden of needing a nearby power outlet and affords greater network flexibility.

The iMcV-PSE-MidSpan can be installed in a multi-port, managed IMC Networks iMediaChassis chassis, when SNMP management is required. The module's compact size is also ideal for installation in a single slot chassis, when space is a consideration and management is not required.

Features

The most cost-effective power injector solution available today

- Provides power to remote network devices
- Quality product Made in America
- Supports Class 1, 2, and 3 powered devices
- Compliant with IEEE 802.3af (Power over Ethernet)

Low Installation Cost

- Avoid separate power and data cable infrastructure and costly AC outlets
- Simple installation means the IT department can do the job - no electrical permits required

Physical Specifications

Fiber Types Supported

- None

Connectors:

RJ-45

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Power Rating:

3.2A@5V DC Maximum

PoE Output 4, 7 or 15W

Shipping Weight:

0.30 lbs (0.11 kg)



Ordering Information

iMcV-PSE-MidSpan Module

857-14910 iMcV-PSE-MidSpan, 100 m

Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

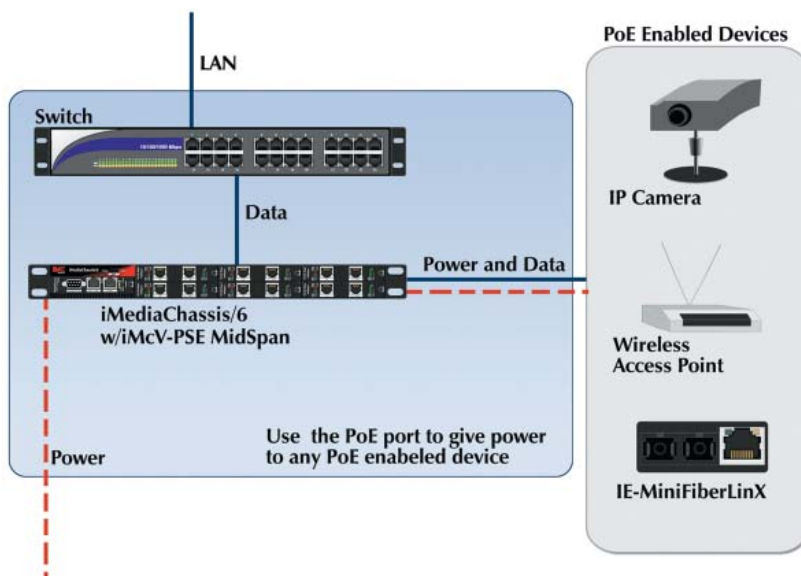
* Chassis Restrictions:

A 20-slot iMediaChassis supports up to 11 PSE-MidSpans (with AC power) or 9 PSE-MidSpans (with DC power). This applies only to the 20-slot chassis.

For more information contact IMC Networks sales.

Application Example

The iMcV-PSE-Midspan is ideal for delivering PoE to remote network devices, from a compact rackmountable chassis.



IE-iMcV-VDSL2-LANextender



Extend Ethernet services to remote locations or between buildings with Ethernet over Second Generation VDSL.

Product Overview

VDSL Ethernet LAN extenders enable LAN and campus network managers and service providers to use an existing phone-grade wiring plant to extend 10 Mbps and 100 Mbps Ethernet twisted pair interfaces by using Ethernet over VDSL; the 100 meter distance limitation of twisted pair data cabling is no longer a challenge.

Designed with Second Generation VDSL (Very high-bit-rate Digital Subscriber Line) technology, the IE-iMcV-VDSL2-LANextender allows the transmission of data over sub-standard CAT3 and other telephone cabling to achieve higher data rates than comparable VDSL converters at short distances (less than 100 meters), while supporting asymmetrical data rates on substantially longer lines (greater than 2 km).

IE-iMcV-VDSL2-LANextender module includes:

- One VDSL port with an RJ-11 connector
- One 10/100 twisted pair Ethernet port with a RJ-45 connector
- Auto MDI/MDIX, Auto Negotiation and Selective Advertising with Flow Control on the 10/100 port

Features

Flexible Solution

- Media and protocol converter - converts 10/100BaseT to VDSL
- Operates over existing CAT3 or other telephone cabling
- Supports VDSL2 for Band Plan 997/998, symmetrical and asymmetrical transmission per ITU-T G.993.2 standard

Easy to configure and manage with GUI-based iView²

- Automatically adjusts to reach best bandwidth performance for the physical line in use
- Monitor and control all connections
- Displays maximum VDSL bandwidth
- User selectable Trap on VDSL bandwidth level

Eases Troubleshooting

- Link Quality LED displays maximum supported bandwidth
- Overflow LED to display congestion on the VDSL line

Physical Specifications

Fiber Types Supported

- N/A

Connectors:

RJ-45 and RJ-11

Regulatory Approvals:

FCC Class B, UL/cUL, CSA, CE

Operating Temperature:

-40° F to 185° F (-40° C to +85° C)

Storage Temperature:

-67° to 257° F (-55° to +125° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)



Ordering Information

IE-iMcV-VDSL2 LANextender

851-18200 IE-iMcV-VDSL2-LANextender, Refer to Matrix

Use with Chassis Platform

iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

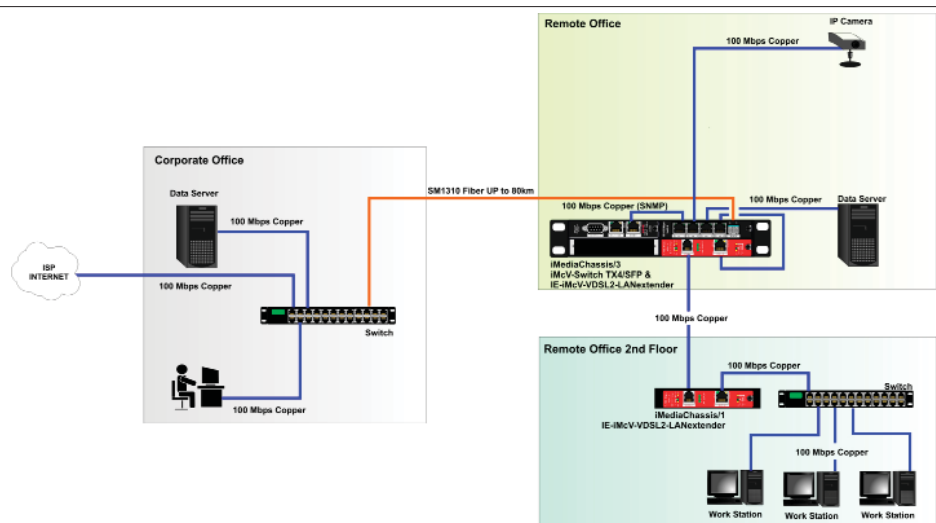
| Distance | Upstream Data Rate* | Downstream Data Rate* | Upstream Data Rate* | Downstream Data Rate* |
|-----------|---------------------|-----------------------|---------------------|-----------------------|
| | Asymmetrical | | Symmetrical | |
| 300 ft. | 58 Mbps | 100 Mbps | 84 Mbps | 98 Mbps |
| 1,000 ft. | 43 Mbps | 85 Mbps | 61 Mbps | 63 Mbps |
| 2,000 ft. | 14 Mbps | 50 Mbps | 25 Mbps | 37 Mbps |
| 5,000 ft. | 0.3 Mbps | 16 Mbps | 0.3 Mbps | 16 Mbps |

* Distances and speeds are approximate; actual distances depend on wiring quality and gauge. The distances are less than or equal to the values listed.

* The actual Ethernet speeds are lower than the speeds listed above due to VDSL overhead.

Application Example

In this application the IE-iMcV-VDSL2-LANextender provides data transmission using existing phone-grade wiring such as sub-standard CAT3 or other telephone cabling at a distance greater than 100 m when fiber is either too expensive or unavailable. By utilizing existing cabling to transmit data between floors and with the unit's built-in auto adjusting link quality (throughput), and improved fault isolation with Remote Alarm Indicator, Flow Control, and Link Fault Pass-Through, the unit ensures the connection is maintained as well as the ability to quickly troubleshoot when problems do arise.



iMcV-Fiber Mode Converters (iMcV-S2MM, M2MM, S2SM)



The industry's first protocol-independent fiber mode conversion modules convert between dissimilar fiber modes and wavelengths.

Product Overview

The iMcV-S2MM series of fiber mode converters allows easy network extension to remote locations by converting to single-mode fiber— without having to replace existing multi-mode fiber equipment.

Protocol-independent operation means the S2MM series gets the job done: from Ethernet to Fast Ethernet and ATM/OC-3 choose the S2MM/155 series; for OC-12, Gigabit Ethernet and Fibre Channel, choose the S2MM/1250 series. This series also includes multi-mode to multi-mode (M2MM) and single-mode to long-haul single-mode (S2SM) converters for specialty data networking applications.

The iMcV Fiber Mode Converter series is SNMP-manageable to aid in network troubleshooting with modular architecture for flexibility. This series is available with single-strand fiber technology, transmitting two-channel, full duplex data on just one strand of fiber.

Ordering Information

iMcV-S2MM/155 (Single-mode to Multi-mode)

| | |
|-----------|---|
| 850-14520 | iMcV-S2MM/155, SM1310/PLUS-ST + MM1300-ST, 40 km + 5 km |
| 850-14530 | iMcV-S2MM/155, SM1310/PLUS-SC + MM1300-SC, 40 km + 5 km |
| 850-14540 | iMcV-S2MM/155, SM1310/LONG-ST + MM1300-ST, 40 km + 5 km |
| 850-14550 | iMcV-S2MM/155, SM1310/LONG-SC + MM1300-SC, 40 km + 5 km |
| 850-14555 | iMcV-S2MM/155, SM1550/LONG-SC + MM1300-SC, 80 km + 5 km |
| 850-14560 | iMcV-S2MM/155, SM1310/PLUS-ST + MM850-ST, 40 km + 2 km |
| 850-14570 | iMcV-S2MM/155, SM1310/PLUS-SC + MM850-SC, 40 km + 2 km |
| 850-14580 | iMcV-S2MM/155, SM1310/LONG-ST + MM850-ST, 40 km + 2 km |
| 850-14590 | iMcV-S2MM/155, SM1310/LONG-SC + MM850-SC, 40 km + 2 km |
| 850-14595 | iMcV-S2MM/155, SM1550/LONG-SC + MM850-SC, 80 km + 2 km |

Single-Strand Fiber

| | |
|-----------|--|
| 850-14532 | iMcV-S2MM/155, SSFX-SM1310-SC (1310xmt/1550rcv) + MM1300-SC, 20 km + 5 km |
| 850-14533 | iMcV-S2MM/155, SSFX-SM1550-SC (1550xmt/1310rcv) + MM1300-SC, 20 km + 5 km |
| 850-14535 | iMcV-S2MM/155, SSFX-SM1310/PLUS-SC (1310xmt/1550rcv) + MM1300-SC, 40 km + 5 km |
| 850-14536 | iMcV-S2MM/155, SSFX-SM1550/PLUS-SC (1550xmt/1310rcv) + MM1300-SC, 40 km + 5 km |

iMcV-S2MM/1250 (Single-mode to Multi-mode)

| | |
|-----------|--|
| 859-14799 | iMcV-S2MM/1250, LX-SM1310-SC + SX-MM850-SC, 15 km + 220/550 m |
| 859-14800 | iMcV-S2MM/1250, LX-SM1310/PLUS-SC + SX-MM850-SC, 40 km + 220/550 m |
| 859-14801 | iMcV-S2MM/1250, LX-SM1550/LONG-SC + SX-MM850-SC, 80 km + 220/550 m |

Single-Strand Fiber

| | |
|-----------|--|
| 859-14806 | iMcV-S2MM/1250, SSLX-SM1310-SC (1310xmt/1550rcv) + SX-MM850-SC, 15 km + 220/550 m |
| 859-14807 | iMcV-S2MM/1250, SSLX-SM1550-SC (1550xmt/1310rcv) + SX-MM850-SC, 15 km + 220/550 m |
| 859-14808 | iMcV-S2MM/1250, SSLX-SM1310/PLUS-SC (1310xmt/1550rcv) + SX-MM850-SC, 40 km + 220/550 m |
| 859-14809 | iMcV-S2MM/1250, SSLX-SM1550/PLUS-SC (1550xmt/1310rcv) + SX-MM850-SC, 40 km + 220/550 m |

Features

- Includes protocol-independent operation
- Converts between dissimilar fiber modes and wavelengths

Three Types of Mode Conversions:

- Single-mode to Multi-mode (S2MM)
- Single-mode to Single-mode (S2SM)
- Multi-mode to Multi-mode (M2MM)

Two Categories of Transmission Speeds:

- /155: Ethernet, Fast Ethernet and ATM/OC-3
- /1250: OC-12, Gigabit Ethernet and Fibre Channel

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

Connectors:

ST, SC, LC

Regulatory Approvals:

FCC Class B, CE

Operating Temperature:

+32° to +122°F (0° to +50°C)

Storage Temperature:

-13° to +158°F (-25° to +70°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19"H x 0.78"W x 2.75"D (10.74 x 2 x 7.05 cm)

Shipping Weight:

0.30 lbs (0.11 kg)

iMcV-S2SM (Single-mode to Single-mode)

| | |
|--------------|---|
| 850-14519 | iMcV-S2SM/155, SM1310/PLUS-SC + SM1310/PLUS-SC, 40 km + 40 km |
| 850-14505 | iMcV-S2SM/155, SM1310/LONG-SC + SM1310/LONG-SC, 40 km + 40 km |
| 850-14513 | iMcV-S2SM/155, SM1550/LONG-SC + SM1310/PLUS-SC, 80 km + 40 km |
| 850-14514-LC | iMcV-S2SM/155, SM1550/LONG-SC + SM1310/LONG-LC, 80 km + 40 km |

Single-Strand Fiber

| | |
|-----------|--|
| 850-14515 | iMcV-S2SM/155, SSFX-SM1310-SC (1310xmt/1550rcv) + SM1310/PLUS-SC, 20 km + 40 km |
| 850-14516 | iMcV-S2SM/155, SSFX-SM1550-SC (1550xmt/1310rcv) + SM1310/PLUS-SC, 20 km + 40 km |
| 850-14517 | iMcV-S2SM/155, SSFX-SM1310/PLUS-SC (1310xmt/1550rcv) + SM1310/LONG-SC, 40 km + 80 km |
| 850-14518 | iMcV-S2SM/155, SSFX-SM1550/PLUS-SC (1550xmt/1310rcv) + SM1310/LONG-SC, 40 km + 80 km |

iMcV-S2SM/1250 (Single-mode to Single mode)

| | |
|-----------|--|
| 859-14803 | iMcV-S2SM/1250, LX-SM1310/PLUS-SC + LX-SM1310/PLUS-SC, 40 km + 40 km |
| 859-14804 | iMcV-S2SM/1250, LX-SM1310/PLUS-SC + LX-SM1550/LONG-SC, 40 km + 80 km |

Single-Strand Fiber

| | |
|-----------|--|
| 859-14820 | iMcV-S2SM/1250, SSLX-SM1310-SC (1310xmt/1550rcv) + LX-SM1310/PLUS-SC, 15 km + 40 km |
| 859-14821 | iMcV-S2SM/1250, SSLX-SM1550-SC (1550xmt/1310rcv) + LX-SM1310/PLUS-SC, 15 km + 40 km |
| 859-14822 | iMcV-S2SM/1250, SSLX-SM1310/PLUS-SC (1310xmt/1550rcv) + LX-SM1310/PLUS-SC, 40 km + 40 km |
| 859-14823 | iMcV-S2SM/1250, SSLX-SM1550/PLUS-SC (1550xmt/1310rcv) + LX-SM1310/PLUS-SC, 40 km + 40 km |

iMcV-M2MM/155 (Multi-mode to Multi-mode)

| | |
|-----------|--|
| 850-14510 | iMcV-M2MM/155, MM1300-ST + MM850-ST, 5 km + 2 km |
| 850-14511 | iMcV-M2MM/155, MM1300-SC + MM850-SC, 5 km + 2 km |

Use with Chassis Platform

iMediaChassis Series, See Page 45
MediaChassis Series, See Page 46
IE-MediaChassis Series, See Page 46



IE-ModeConverter SFP/SFP



* SFPs Sold Separately

Connect network segments running different fiber types using interchangeable SFP modules.

Product Overview

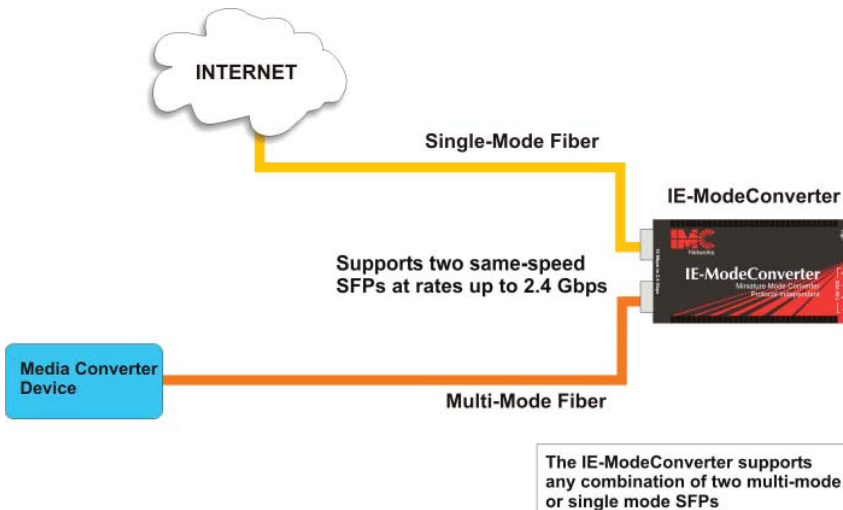
Mode converters allow network operators to incorporate multiple fiber types within a network. The IE-ModeConverter provides the ability to accomplish this by working with existing equipment and thus, eliminating replacement costs. By converting between single-mode and multi-mode fiber, one can easily extend network range to reach more remote locations. Additionally, since the IE-ModeConverter is an Industrial Ethernet device (IE), the unit operates in environments that demand extended operating temperatures.

The IE-ModeConverter uses SFP modules to provide greater fiber flexibility in the network environment. The hot-swappable nature of the SFPs and the numerous fiber modes and types available in SFPs allow for easy configuration and future upgrading as network demands evolve.

The IE-ModeConverter requires two fiber optic SFP modules to operate. The SFP modules must be MSA compliant and support the same speed range. The IE-ModeConverter operates as a mode converter only and not as a rate converter.

Application Examples

In this example, the IE-ModeConverter converts a local multi-mode fiber signal to a single-mode fiber signal to integrate into an area of the network that supports this type of fiber. The IE-ModeConverter has been equipped with a multi-mode fiber SFP and a single-mode fiber SFP.



Features

Cost-effective and flexible

- Interchangeable SFP modules allow for multiple fiber mode/type conversion options (single mode, multi-mode, long haul, short haul, etc.)
- Extended operating temperatures
- Multiple mounting options (desktop, DIN rail, IE-PowerTray/18-AC (for high density installations))
- Compact size conserves space
- AC or DC powering options
- Ideal for use with IMC Networks' SFPs

Protocol-Independent

- Supports a full range of SFP Modules offering various transmission speeds, from 10 Mbps to 2.4 Gbps
- Supports OC3, OC12, OC48

Maximizes network uptime

- SFP Modules are hot-swappable; no need to power-down chassis when upgrading or trouble-shooting a single module

Physical Specifications

Fiber Types Supported

SFP

Connectors:

SFP Slots

Regulatory Approvals:

FCC Class B, UL/cUL, CSA, CE, CB

Operating Temperature:

-13° to +185°F (-25° to +85°C) DC Configuration
-4° to 158°F (-20° to +70°C) W/IE-Power 5V
+14° to +122°F (-10° to +50°C) W/AC Wall Adapter

Storage Temperature:

-49° to +185°F (-45° to +85°C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Power Rating:

AC Wall Adapter: 100-240V AC input, 5V DC output @ 10W, 2.0A

DC Input Voltage: 7 to 50V DC @ 2.5W Chassis grounded to negative terminal

Maximum 3.3W of combined power to both SFPs

Shipping Weight:

0.25 lbs (0.11 kg)

Ordering Information

* IE-ModeConverter SFP/SFP with AC Adapter

855-19619 IE-ModeConverter, SFP/SFP

* IE-ModeConverter SFP/SFP without AC Adapter

854-19619 IE-ModeConverter, SFP/SFP

Available Accessories & IE-PowerTray/18 Chassis

See Page 12

IE-iMcV-ModeConverter SFP/SFP



6-YEAR
Comprehensive
Warranty

* SFPs Sold Separately

Connect network segments running different fiber types using IMC Networks' interchangeable SFP modules.

Product Overview

The IE-iMcV-ModeConverter is an SNMP manageable module that allows network operators to incorporate multiple fiber types and wavelengths within a network. It installs in the modular, SNMP-manageable iMediaChassis series and in the unmanaged MediaChassis series.

The IE-iMcV-ModeConverters are protocol-independent with dual SFP ports which can provide a single conversion between different wavelengths or single-mode and multimode fiber, single-mode to single-mode fiber or multimode to single-strand single-mode fiber. The IE-iMcV-ModeConverter modules support a variety of user configurable features such as LinkLoss and variable speed SFPs. Additionally, since the IE-iMcV-ModeConverter is an Industrial Equipment (IE) device, the unit operates in environments that demand extended operating temperatures.

The IE-iMcV-ModeConverter uses MSA Compliant SFP modules to provide greater fiber flexibility in the network environment. The hot-swappable nature of SFPs and the numerous fiber modes and types that are available allow for easy configuration and future upgrading as network demands evolve.

Features

Cost-effective and flexible

- Interchangeable SFP modules allow for multiple fiber mode/type conversion options (single-mode, multi-mode, single-strand, long haul, short haul, etc.)
- Extended operating temperatures
- DDMI enabled SFPs support SNMP when installed in a compatible managed chassis
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- Ideal for use with IMC Networks' SFPs

Protocol-Independent

- Supports a full range of SFP modules offering various transmission speeds, from 10 Mbps up to 2.4 Gbps*

Maximizes network uptime

- Modules are hot-swappable; no need to power-down chassis when upgrading or trouble-shooting a single module
- User selectable FX LinkLoss enables the operator to identify a cable fault/failure to isolate the fault to the specific fiber that has failed

Physical Specifications

Fiber Types Supported

- SFP

Connectors:

SFP Slots

Regulatory Approvals:

FCC Class A, UL/cUL, CE

Operating Temperature:

-40° to +185° F (-40° to +85° C)

Storage Temperature:

-40° to +185° F (-40° to +85° C)

Humidity:

5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

4.19" x 0.78" x 2.75" (10.6 cm x 1.98 cm x 6.99 cm)

Power Rating:

Maximum 3.3W of combined power to both SFPs

Shipping Weight:

0.25 lbs (0.11 kg)



Ordering Information

* IE-iMcV-ModeConverter SFP/SFP

850-19500

IE-iMcV-ModeConverter, SFP/SFP

Use with Chassis Platform

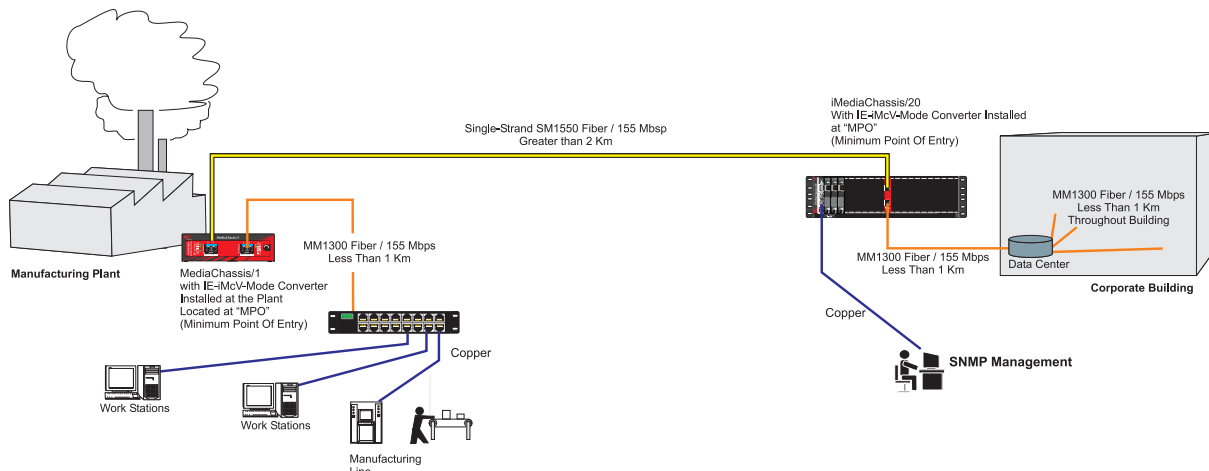
iMediaChassis Series, See Page 45

MediaChassis Series, See Page 46

IE-MediaChassis Series, See Page 46

Application Examples

In this example, both single-mode and multi-mode fiber are deployed with the IE-iMcV-ModeConverter conveniently and seamlessly located at the origin and destination. The extended temperature range is ideal for the manufacturing location, housed in the unmanaged MediaChassis/1 converting between single-mode and multi-mode fiber for transmission at a distance to another IE-iMcV-ModeConverter, housed in a SNMP-managed iMediaChassis/20 along with other modules.



IE-SFP 100 to 155 Mbps (OC-3) Modules



Plug in more fiber types and maximize network hardware.



Ordering Information

With DDMI

IE-SFP/155-ED

| | |
|----------------------------|--|
| 808-38101 | IE-SFP/155-ED, MM850-LC, 2 km |
| 808-38102 | IE-SFP/155-ED, MM1300-LC, 2 km |
| 808-38103 | IE-SFP/155-ED, SM1310-LC, 20 km |
| 808-38104 | IE-SFP/155-ED, SM1310/PLUS-LC, 40 km |
| 808-38105 | IE-SFP/155-ED, SM1550/LONG-LC, 80 km |
| Single-Strand Fiber | |
| 808-38121 | IE-SFP/155-ED, SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 808-38122 | IE-SFP/155-ED, SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 808-38123 | IE-SFP/155-ED, SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 808-38124 | IE-SFP/155-ED, SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 808-38125 | IE-SFP/155-ED, SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 808-38126 | IE-SFP/155-ED, SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |
| 808-38127 | IE-SFP/155-ED, SSFX-SM1490/XLONG-SC (1490xmt/1550rcv), 80 km |
| 808-38128 | IE-SFP/155-ED, SSFX-SM1550/XLONG-SC (1550xmt/1490rcv), 80 km |

Without DDMI

IE-SFP/155

| | |
|----------------------------|---|
| 808-38111 | IE-SFP/155, MM850-LC, 2 km |
| 808-38112 | IE-SFP/155, MM1300-LC, 2 km |
| 808-38113 | IE-SFP/155, SM1310-LC, 20 km |
| 808-38114 | IE-SFP/155, SM1310/PLUS-LC, 40 km |
| 808-38115 | IE-SFP/155, SM1550/LONG-LC, 80 km |
| Single-Strand Fiber | |
| 808-38131 | IE-SFP/155, SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 808-38132 | IE-SFP/155, SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 808-38133 | IE-SFP/155, SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 808-38134 | IE-SFP/155, SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 808-38135 | IE-SFP/155, SSFX-SM1310/LONG-SC (1310xmt/1550rcv), 60 km |
| 808-38136 | IE-SFP/155, SSFX-SM1550/LONG-SC (1550xmt/1310rcv), 60 km |
| 808-38137 | IE-SFP/155, SSFX-SM1490/XLONG-SC (1490xmt/1550rcv), 80 km |
| 808-38138 | IE-SFP/155, SSFX-SM1550/XLONG-SC (1550xmt/1490rcv), 80 km |

Operating temperature:

-40°C to +85°C (-40° F to +185° F)

155 Mbps Ethernet SFP Modules

1.25 Gbps Ethernet SFP Modules

2.4 Gbps Ethernet SFP Modules

Copper

Operating temperature:

0°C to +85°C (+32° F to +185° F)

10/100/1000 Mbps SFP Modules

1000 Mbps SFP Modules

Product Overview

The use of IE-SFP modules makes changing fiber requirements within the locations of the network environment easy. IE-SFPs offer the flexibility of choosing fiber types, and also provide diagnostic information to assist the end user in the identification and troubleshooting of the pluggable modules.

All IE-SFPs are compliant with the Multi-Source Agreement (MSA), ensuring compatibility with a wide range of networking equipment.

All products are made in the USA except SFP products.

Features

Fiber or copper versions available

All SFP Modules

- Multi-source package with Duplex LC connector
- Eye Safety designed to meet Laser Class 1 compliance with IEC 60825-1
- Compliant with ITU-T-G.957, G.958, IEEE 802.3u and 802.3z
- Single +3.3V power supply
- Hot-pluggable
- Complies with Telcordia GR-468-CORE
- All SFP modules report standard information such as:
 - » SFP Type
 - » Fiber Link Length
 - » Wavelength
 - » Bit Rate
 - » Date Code
 - » Serial Number

Extended Diagnostics (DDMI)

- Complying with SFF-8472, IE-SFP modules that include Extended Diagnostics also report information such as:
 - » Temperature
 - » Voltage
 - » Bias Current
 - » TX Power
 - » RX Power

With LC Connector

| | |
|-----------|--|
| 808-38521 | IE-SFP/155-ED, SSFX-SM1310-LC (1310xmt/1550rcv), 20 km |
| 808-38522 | IE-SFP/155-ED, SSFX-SM1550-LC (1550xmt/1310rcv), 20 km |
| 808-38523 | IE-SFP/155-ED, SSFX-SM1310/PLUS-LC (1310xmt/1550rcv), 40 km |
| 808-38524 | IE-SFP/155-ED, SSFX-SM1550/PLUS-LC (1550xmt/1310rcv), 40 km |
| 808-38529 | IE-SFP/155-ED, SSFX-SM1310/LONG-LC (1310xmt/1550rcv), 60 km |
| 808-38530 | IE-SFP/155-ED, SSFX-SM1550/LONG-LC (1550xmt/1310rcv), 60 km |
| 808-38527 | IE-SFP/155-ED, SSFX-SM1490/XLONG-LC (1490xmt/1550rcv), 80 km |
| 808-38528 | IE-SFP/155-ED, SSFX-SM1550/XLONG-LC (1550xmt/1490rcv), 80 km |

Copper (Twisted Pair) Modules

Cisco Compatible

| | | |
|-----------|-------------|------------------------|
| 808-39001 | 808-39001CC | SFP/10-1250, TX, 100 m |
| 808-39010 | 808-39010CC | SFP/1250, TX, 100 m |

With LC Connector

| | |
|-----------|---|
| 808-38531 | IE-SFP/155, SSFX-SM1310-LC (1310xmt/1550rcv), 20 km |
| 808-38532 | IE-SFP/155, SSFX-SM1550-LC (1550xmt/1310rcv), 20 km |
| 808-38533 | IE-SFP/155, SSFX-SM1310/PLUS-LC (1310xmt/1550rcv), 40 km |
| 808-38534 | IE-SFP/155, SSFX-SM1550/PLUS-LC (1550xmt/1310rcv), 40 km |
| 808-38539 | IE-SFP/155, SSFX-SM1310/LONG-LC (1310xmt/1550rcv), 60 km |
| 808-38540 | IE-SFP/155, SSFX-SM1550/LONG-LC (1550xmt/1310rcv), 60 km |
| 808-38537 | IE-SFP/155, SSFX-SM1490/XLONG-LC (1490xmt/1550rcv), 80 km |
| 808-38538 | IE-SFP/155, SSFX-SM1550/XLONG-LC (1550xmt/1490rcv), 80 km |

CWDM versions available,
See website for details

IE-SFP 1250 Mbps/1.25 Gbps (OC-24) Modules



Fiber

Operating temperature:

-40°C to +85°C (-40° F to +185° F)

155 Mbps Ethernet SFP Modules

1.25 Gbps Ethernet SFP Modules

2.4 Gbps Ethernet SFP Modules

Plug in more fiber types and maximize network hardware.

Product Overview

The use of IE-SFP modules makes changing fiber requirements within the locations of the network environment easy. IE-SFPs offer the flexibility of choosing fiber types, and also provide diagnostic information to assist the end user in the identification and troubleshooting of the pluggable modules.

All IE-SFPs are compliant with the Multi-Source Agreement (MSA), ensuring compatibility with a wide range of networking equipment.

All products are made in the USA except SFP products.

Ordering Information

With DDMI

IE-SFP/1250-ED

Cisco Compatible

| | | |
|-----------|-------------|--|
| 808-38201 | 808-38201CC | IE-SFP/1250-ED, MM850-LC, 220/550 m |
| 808-38206 | | IE-SFP/1250-ED, MM1300-LC, 2 km |
| 808-38200 | 808-38200CC | IE-SFP/1250-ED, SM1310-LC, 20 km |
| 808-38203 | 808-38203CC | IE-SFP/1250-ED, SM1310/PLUS-LC, 30 km |
| 808-38204 | | IE-SFP/1250-ED, SM1550/LONG-LC, 40 km |
| 808-38205 | | IE-SFP/1250-ED, SM1550/XLONG-LC, 70 km |
| 808-38208 | | IE-SFP/1250-ED, SM1550/XXLONG-LC (IE = -20°C to +85°C), 120 km |

Single-Strand Fiber

| | | |
|-----------|-------------|--|
| 808-38221 | | IE-SFP/1250-ED, SSLX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 808-38222 | | IE-SFP/1250-ED, SSLX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 808-38227 | 808-38227CC | IE-SFP/1250-ED, SSBX-SM1310-SC (1310xmt/1490rcv), 10 km |
| 808-38228 | 808-38228CC | IE-SFP/1250-ED, SSBX-SM1490-SC (1490xmt/1310rcv), 10 km |
| 808-38223 | | IE-SFP/1250-ED, SSLX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 808-38224 | | IE-SFP/1250-ED, SSLX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 808-38229 | | IE-SFP/1250-ED, SSBX-SM1310/PLUS-SC (1310xmt/1490rcv), 40 km |
| 808-38230 | | IE-SFP/1250-ED, SSBX-SM1490/PLUS-SC (1490xmt/1310rcv), 40 km |
| 808-38225 | | IE-SFP/1250-ED, SSLX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 808-38226 | | IE-SFP/1250-ED, SSLX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

with LC connectors

| | | |
|-----------|-------------|--|
| 808-38721 | | IE-SFP/1250-ED, SSLX-SM1310-LC (1310xmt/1550rcv), 20 km |
| 808-38722 | | IE-SFP/1250-ED, SSLX-SM1550-LC (1550xmt/1310rcv), 20 km |
| 808-38727 | 808-38727CC | IE-SFP/1250-ED, SSBX-SM1310-LC (1310xmt/1490rcv), 15 km |
| 808-38728 | 808-38728CC | IE-SFP/1250-ED, SSBX-SM1490-LC (1490xmt/1310rcv), 15 km |
| 808-38723 | | IE-SFP/1250-ED, SSLX-SM1310/PLUS-LC (1310xmt/1550rcv), 40 km |
| 808-38724 | | IE-SFP/1250-ED, SSLX-SM1550/PLUS-LC (1550xmt/1310rcv), 40 km |
| 808-38729 | | IE-SFP/1250-ED, SSBX-SM1310/PLUS-LC (1310xmt/1490rcv), 30 km |
| 808-38730 | | IE-SFP/1250-ED, SSBX-SM1490/PLUS-LC (1490xmt/1310rcv), 30 km |
| 808-38725 | | IE-SFP/1250-ED, SSLX-SM1490/LONG-LC (1490xmt/1550rcv), 70 km |
| 808-38726 | | IE-SFP/1250-ED, SSLX-SM1550/LONG-LC (1550xmt/1490rcv), 70 km |

Without DDMI

IE-SFP/1250

| | |
|-----------|--|
| 808-38211 | IE-SFP/1250, MM850-LC, 220/550 m |
| 808-38212 | IE-SFP/1250, SM1310-LC, 10 km |
| 808-38213 | IE-SFP/1250, SM1310/PLUS-LC, 30 km |
| 808-38214 | IE-SFP/1250, SM1550/LONG-LC, 40 km |
| 808-38215 | IE-SFP/1250, SM1550/XLONG-LC, 70 km |
| 808-38218 | IE-SFP/1250c SM1550/XXLONG-LC (IE = -20° C to + 85° C), 120 km |

Single-Strand Fiber

| | |
|-----------|---|
| 808-38231 | IE-SFP/1250, SSFX-SM1310-SC (1310xmt/1550rcv), 20 km |
| 808-38232 | IE-SFP/1250D, SSFX-SM1550-SC (1550xmt/1310rcv), 20 km |
| 808-38233 | IE-SFP/1250, SSFX-SM1310/PLUS-SC (1310xmt/1550rcv), 40 km |
| 808-38234 | IE-SFP/1250, SSFX-SM1550/PLUS-SC (1550xmt/1310rcv), 40 km |
| 808-38235 | IE-SFP/1250, SSFX-SM1490/LONG-SC (1490xmt/1550rcv), 70 km |
| 808-38236 | IE-SFP/1250, SSFX-SM1550/LONG-SC (1550xmt/1490rcv), 70 km |

CWDM versions available, See website for details

Features

All SFP Modules

- Multi-source package with Duplex LC connector
- Eye Safety designed to meet Laser Class 1 compliance with IEC 60825-1
- Compliant with ITU-T-G.957, G.958, IEEE 802.3u and 802.3z
- Single +3.3V power supply
- Hot-pluggable
- Complies with Telcordia GR-468-CORE
- All SFP modules report standard information such as:
 - » SFP Type
 - » Fiber Link Length
 - » Wavelength
 - » Bit Rate
 - » Date Code
 - » Serial Number

Extended Diagnostics (DDMI)

- Complying with SFF-8472, IE-SFP modules that include Extended Diagnostics also report information such as:
 - » Temperature
 - » Voltage
 - » Bias Current
 - » TX Power
 - » RX Power

IE-SFP 2.4 Gbps (OC-48) and 10 Gbps (OC-192) Modules



Plug in more fiber types and maximize network hardware.

Product Overview

The use of IE-SFP modules makes changing fiber requirements within the locations of the network environment easy. IE-SFPs offer the flexibility of choosing fiber types, and also provide diagnostic information to assist the end user in the identification and troubleshooting of the pluggable modules.

All IE-SFPs are compliant with the Multi-Source Agreement (MSA), ensuring compatibility with a wide range of networking equipment.

All products are made in the USA except SFP products.



Ordering Information

With DDMI

IE-SFP/2.4-ED

| | |
|-----------|--------------------------------------|
| 808-38301 | IE-SFP/2.4-ED, MM850-LC, 300 m |
| 808-38302 | IE-SFP/2.4-ED, SM1310-LC, 2 km |
| 808-38303 | IE-SFP/2.4-ED, SM1310/PLUS-LC, 15 km |
| 808-38304 | IE-SFP/2.4-ED, SM1550/LONG-LC, 40 km |

Single-Strand Fiber

| | |
|-----------|---|
| 808-38311 | IE-SFP/2.4-ED, SSLX-SM1310-LC (1310xmt/1550rcv), 10 km |
| 808-38312 | IE-SFP/2.4-ED, SSLX-SM1550-LC (1550xmt/1310rcv), 10 km |
| 808-38313 | IE-SFP/2.4-ED, SSLX-SM1310/PLUS-LC (1310xmt/1550rcv), 20 km |
| 808-38314 | IE-SFP/2.4-ED, SSLX-SM1550/PLUS-LC (1550xmt/1310rcv), 20 km |
| 808-38315 | IE-SFP/2.4-ED, SSLX-SM1310/LONG-LC (1310xmt/1550rcv), 40 km |
| 808-38316 | IE-SFP/2.4-ED, SSLX-SM1550/LONG-LC (1550xmt/1310rcv), 40 km |

Without DDMI

IE-SFP/2.4

| | |
|-----------|-----------------------------------|
| 808-38321 | IE-SFP/2.4, MM850-LC, 300 m |
| 808-38322 | IE-SFP/2.4, SM1310-LC, 2 km |
| 808-38323 | IE-SFP/2.4, SM1310/PLUS-LC, 15 km |
| 808-38324 | IE-SFP/2.4, SM1550/LONG-LC, 40 km |

Single-Strand Fiber

| | |
|-----------|--|
| 808-38331 | IE-SFP/2.4, SSLX-SM1310-LC (1310xmt/1550rcv), 10 km |
| 808-38332 | IE-SFP/2.4, SSLX-SM1550-LC (1550xmt/1310rcv), 10 km |
| 808-38333 | IE-SFP/2.4, SSLX-SM1310/PLUS-LC (1310xmt/1550rcv), 20 km |
| 808-38334 | IE-SFP/2.4, SSLX-SM1550/PLUS-LC (1550xmt/1310rcv), 20 km |
| 808-38335 | IE-SFP/2.4, SSLX-SM1310/LONG-LC (1310xmt/1550rcv), 40 km |
| 808-38336 | IE-SFP/2.4, SSLX-SM1550/LONG-LC (1550xmt/1310rcv), 40 km |

With DDMI

IE-SFP/10 Gbps

| | |
|-----------|-------------------------------------|
| 808-38600 | IE-SFP+ SR/10G-ED, MM850-LC, 33 m |
| 808-38601 | IE-SFP+ LR/10G-ED, SM1310-LC, 10 km |

With DDMI

IE-XFP/10 Gbps

| | |
|-----------|---|
| 808-38610 | IE-XFP SR/10G-ED, MM850-LC, 33 m |
| 808-38611 | IE-XFP LR/10G-ED, SM1310-LC, 10 km |
| 808-38612 | IE-XFP ER/10G-ED, SM1550-LC, 40 km |
| 808-38613 | IE-XFP ZR/10G-ED, SM1550/PLUS-LC, 80 km |

Fiber

Operating temperature:

-40°C to +85°C (-40° F to +185° F)
155 Mbps Ethernet SFP Modules
1.25 Gbps Ethernet SFP Modules
2.4 Gbps Ethernet SFP Modules

Features

All SFP Modules

- Multi-source package with Duplex LC connector
- Eye Safety designed to meet Laser Class 1 compliance with IEC 60825-1
- Compliant with ITU-T-G.957, G.958, IEEE 802.3u and 802.3z
- Single +3.3V power supply
- Hot-pluggable
- Complies with Telcordia GR-468-CORE
- All SFP modules report standard information such as:
 - » SFP Type
 - » Fiber Link Length
 - » Wavelength
 - » Bit Rate
 - » Date Code
 - » Serial Number

Extended Diagnostics (DDMI)

- Complying with SFF-8472, IE-SFP modules that include Extended Diagnostics also report information such as:
 - » Temperature
 - » Voltage
 - » Bias Current
 - » TX Power
 - » RX Power

CWDM versions available,
See website for details

Managed Chassis

iMediaChassis

The iMediaChassis line provides SNMP management capabilities when used in conjunction with the SNMP Module.



| Version | iMediaChassis/20 | iMediaChassis/6 | iMediaChassis/3 |
|----------------|--|--|--|
| # of Slots | 20 + 1 SNMP | 6 + 1 SNMP | 3 + 1 SNMP |
| Power Specs | Redundant AC and DC Field replaceable AC Power Supply: 100-240V AC, 50/60Hz, 3A/1.5A DC power Supply: -48V DC, 5A ACDC Power: 100-240V AC, 50/60Hz, 2A, -48V DC, 4.4A | Redundant AC and DC Field replaceable AC Power Supply: 100-240V AC, 50/60Hz, 1A DC power Supply: -48V DC, 2A | AC and DC Not field replaceable AC Power Supply: 100-240V AC, 50/60Hz, 0.75A DC power Supply: 35V DC to 75V DC, 1.6A |
| Operating Temp | +32° to +122°F (0° to +50°C) | AC Temp: -130° to +122°F (-25° to +50°C) DC Temp: -40° to +212°F (-40° to +100°C) | AC Temp: +32° to +122°F (0° to +50°C) DC Temp: -67° to +122°F (-40° to +50°C) |
| Storage Temp | Dual AC & ACDC Temp: -4° to +176°F (-20° to +80°C) Dual DC Temp: -4° to +140°F (-20° to +60°C) | AC Temp: -40° to +185°F (-40° to +85°C) DC Temp: -55° to +257°F (-55° to +125°C) | AC Temp: -40° to +185°F (-40° to +85°C) DC Temp: -40° to +212°F (-55° to +125°C) |
| Humidity | 5% to 95%, non-condensing, 0 – 10,000 ft altitude | | |
| Dimensions | 5.20"H x 19"W x 13.80"D (13.21 cm x 48.26 cm x 35.05 cm) | 1.75"H x 17.35"W x 10.65"D (4.45 cm x 44.07 cm x 27.05 cm) | 1.73"H x 7.50"W x 8.74"D (4.44 cm x 19.0 cm x 22.0 cm) |

Regulatory UL/cUL, CSA, CE, CB

| Product Description | Version | FCC Class A | FCC Class B |
|---------------------|---------|-------------|-------------|
| iMediaChassis/20 | Dual AC | | X |
| | Dual DC | | X |
| | ACDC | | X |
| iMediaChassis/6 | AC | X | |
| | Dual AC | X | |
| | DC | | X |
| iMediaChassis/3 | Dual DC | | X |
| | AC | | X |
| | 2AC | | X |
| | DC | | X |
| | 2DC | | X |
| | ACDC | | X |

| iMediaChassis/3 | |
|-----------------|--|
| 850-10949-AC | 1 fixed AC power supply |
| 850-10949-2AC | 2 fixed AC power supplies |
| 850-10949-DC | 1 fixed DC power supply |
| 850-10949-2DC | 2 fixed DC power supplies |
| 850-10949-ACDC | 1 fixed AC and 1 fixed DC power supply |

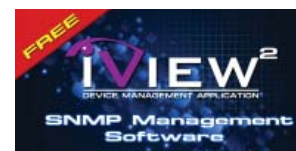
| iMediaChassis/6 | |
|-----------------|--|
| 850-10953-AC | Includes 1 AC power supply module with option for 2nd power supply |
| 850-10953-2AC | Includes 2 AC power supply modules |
| 850-10953-DC | Includes 1 DC power supply module with option for 2nd power supply |
| 850-10953-2DC | Includes 2 power supply modules |

| iMediaChassis/20 | |
|------------------|--|
| 850-10960-2AC | Includes 2 AC power supply modules |
| 850-10952-AC | Includes single fixed AC power supply module |
| 850-10960-2DC | Includes 2 DC power supply modules |
| 850-10960-ACDC | Includes 1 AC, 1 DC power module |

The iMediaChassis lines operate with the following IMC Modules:

iMcV-FiberLinX-II: Pg 7
iMcV-Giga-FiberLinX-II: Pg 8
iMcV-WDM: Pg 24
IE-iMcV-2xLIM: Pg 25
iMcV-PIM: Pg 26
iMcV-LIM: Pg 26
iMcV-LIM 10/100: Pg 26
iMcV-Gigabit: Pg 27
IE-iMcV-Gigabit: Pg 27
iMcV-MediaLinX: Pg 28
IE-iMcV-MediaLinX: Pg 28
iMcV-Giga-MediaLinX: Pg 28
iMcV-T1/E1/J1: Pg 29
iMcV-DS3/E3/STS: Pg 30
iMcV-E1 Mux/4: Pg 31
iMcV-E1 Mux/4 + Ethernet: Pg 31
IE-iMcV-T1 Mux/4+Ethernet: Pg 32
iMcV-Switch: Pg 33

IE-iMcV-MultiWay: Pg 34
iMcV-PSE-Midspan: Pg 35
IE-iMcV-VDSL2 LANextender: Pg 36
IE-iMcV-Mode Converters: Pg 39
SNMP Management Module: Pg 43



Accessories

| SNMP Module | |
|-------------|--------------------------------------|
| 850-39950 | iMediaChassis SNMP Management Module |

*An SNMP module is required to utilize full SNMP functionality in the iMediaChassis family.

| Serial Cable and Adapters | | | |
|---------------------------|--|-----------|--------------------------------|
| 825-39950 | Serial Cable, DB9 (Male) to DB9 (Female) | 825-39500 | Adapter, RJ-45 to DB9 (Female) |

| Power Supplies for iMediaChassis/6 | |
|------------------------------------|--|
| 806-39125-AC | PS/125-AC Module, for iMediaChassis/6-AC (125 watt, 100-240 VAC) |
| 806-39125-DC | PS/125-DC Module, for iMediaChassis/6-DC (125 watt, -48 V DC) |

| Power Supplies for iMediaChassis/20 | |
|-------------------------------------|---|
| 806-39400-AC | PS/400-AC Module, for p/n 50-10954-AC, iMediaChassis/20-AC (400 watt, 100-240 VAC) |
| 806-39401-AC | PS/401-Dual-AC Module, for p/n 850-10956-AC, iMediaChassis/20-2AC |
| 806-39960-AC | PS/960-AC Power Module, for p/n 850-10960-2AC, iMediaChassis/20-2AC (100-240 VAC) |
| 806-39960-DC | PS/960-DC Power Module, for p/n 850-10960-2DC, iMediaChassis/20-2DC (300 watt, -48 VDC) |

| IE-Power/5V | |
|-------------|--|
| 806-39753 | IE-Power/5V Module, AC to DC DIN Rail Power Adapter (-20° to +70°C) , for IE-Multiway, MiniMc Family, IE-MiniMc Family and IE-Mode Converter |

SNMP Management Module

The SNMP Management Module allows users to utilize the full SNMP functionality of all manageable "iMcV" modules when installed concurrently in an iMediaChassis. Employing managed media converters in your network allows for troubleshooting at remote sites without the initial need for a costly truck roll.

MediaConverter









The MediaConverter lines operate with the following IMC Modules:

McPIM TP/FO
McLIM TX/FX and TX/SX
McLIM TP-TX/FX and TP TX/SX
McGigabit TX/SX and TX/LX

| Version | 1-Slot | 4-Slot | 8-Slot | 12-Slot AC |
|----------------|---|---|--|---|
| Part Number | 851-10901 | 851-10904 | 851-10908 | 851-10912 |
| AC/DC | AC | AC | AC | AC |
| Power Supply | 115-230V AC, 50/60Hz, 0.3/0.15A | 120-240V AC, 50/60Hz, 1.0/0.5A | 100-250V AC, 50/60Hz, 1.6A | 115-230V AC, 50/60Hz, 1.2/0.6A |
| Regulatory | FCC Class A, UL/CUL, CE, CSA | | | |
| Operating Temp | +32° to +122°F (0° to +50°C) | | | |
| Storage Temp | -13° to +158°F (-25° to +70°C); 5 to 95% (non-condensing) | | | |
| Humidity | 5% to 95%, non-condensing, 0 – 10,000 ft altitude | | | |
| Dimensions | 1.60"H x 4.75"W x 5.20"D (4.06 x 12.07 x 13.21 cm) | 1.75"H x 8.60"W x 4.73"D (8.3 x 21.84 x 12.01 cm) | 1.75"H x 17.4"W x 4.70"D (4.45 x 44.20 x 11.94 cm) | 1.75"H x 17.40"W x 8.76"D (4.45 x 44.20 x 22.25 cm) |
| Weight | 2 lbs (0.9 kg) | 3.5 lbs (1.6 kg) | 6.25 lbs (2.8 kg) | 11.0 lbs (5 kg) |
| Mounting | NA | Shelf (Sold Separately) | Brackets Included | Brackets Included |

The MediaChassis and IE-MediaChassis lines operate with all the iMcV-Modules

| | MediaChassis | | IE-MediaChassis (extended operating temperature) | | | |
|----------------|---|---|---|--|--|---|
| |  |  |  |  |  |  |
| Version | /1-AC | /2-AC | /1-AC | /1-DC | /2-AC | /2-DC |
| Part Number | 850-13100 | 850-13101 | 850-33100 | 850-32105 | 850-13106 | 850-32106 |
| AC/DC | AC | AC | AC/DC | DC | AC | DC |
| Power Supply | 100-240V AC, 50/60Hz, 1A Internal AC Power Supply | | DC Terminal: 7-50V DC, 3A-0.1A (Negative ground referenced) | 35-75V DC, 500mA, Internal DC Power Supply | 100-240V AC, 50/60Hz, 1A Internal AC Power Supply | 35-75V DC, 1.5A (Negative ground referenced) Internal DC Power Supply |
| Regulatory | FCC Class A, UL/cUL, CE, CSA, CB | FCC Class B, UL/cUL, CE, CSA | FCC Class B, UL/cUL, CE, CSA | FCC Class B, UL/cUL, CE, CSA, CB | FCC Class A, UL/cUL, CE, CSA, CB | |
| Operating Temp | +32° to +122°F (0° to +50°C) | | -40° to +158°F (-40° to +70°C) with AC wall adapter +14° to +122°F (-10° to +50°C) | -31° to +176°F (-35° to +80°C) | | |
| Storage Temp | -40° to 185°F (-40° to 85°C) | | | | | |
| Humidity | 5% to 95%, non-condensing, 0 – 10,000 ft altitude | | | | | |
| Dimensions | 1.55"H x 4.75"W x 7.31"D (3.94 cm H x 12.07 cm W x 18.57 cm D) | 2.2"H x 4.75" W x 7.3"D (5.6 cm H x 12.1 cm W x 18.5 cm D) | 0.90"H x 4.30" W x 4.00"D (2.29 cm H x 10.92 cm W x 10.16 cm D) | 1.55"H x 4.75"W x 7.31"D (3.94 cm H x 12.07 cm W x 18.57 cm D) | 2.2"H x 4.75" W x 7.3"D (5.6 cm H x 12.1 cm W x 18.5 cm D) 2.2"H x 4.75" W x 7.3"D (5.6 cm H x 12.1 cm W x 18.5 cm D) | |
| Weight | 1.6 lbs (0.73 kg) | 1.9 lbs (0.86 kg) | 0.6 lbs (0.27 kg) | 1.6 lbs (0.73 kg) | 1.9 lbs (0.86 kg) | |

Accessories

| Part Number | Accessories for MediaChassis |
|--|---|
| 895-39226 | McBasic/MediaChassis Rackmount Brackets |
| 895-39227 | McBasic/MediaChassis Wallmount Brackets |
| 895-39949 | Rackmount shelf for iMediaChassis/3, McBasic, MediaChassis, AccessEtherLinX |
| Accessories for MediaConverter Chassis | |
| 806-39040 | PS/40x-AC (40 watt, 100 to 240 VAC input) |



Types of Fiber Connectors



The ST Connector

Which uses a bayonet locking system is the most common connector.



The SC Connector

Has a molded body and a push-pull system.



The LC Connector

Is a small-form-factor connector, features a ceramic ferrule and looks like a mini SC connector.



The MT-RJ Connector

Is a small-form RJ-style connector, features a molded body and uses a cleave-and-leave splicing.



The FC Connector

Is a threaded connector used in high-vibration environments.



The MTO Connector

Is a connector that uses high-fiber-count ribbon cable. Used in high-density fiber applications.



The MTP Connector

Is a connector that uses high-fiber-count ribbon cable. Used in high-density fiber applications.



The MU Connector

Resembles the larger SC connector, but it's much smaller. It uses the simple push-pull latching connection. Used in high-density fiber applications.

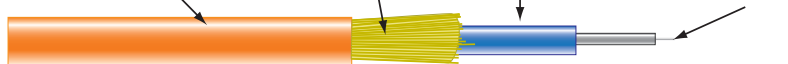
Fiber Optic Cable Construction

Jacket: Usually constructed of extruded PVC. Protects fiber, allows easy handling.

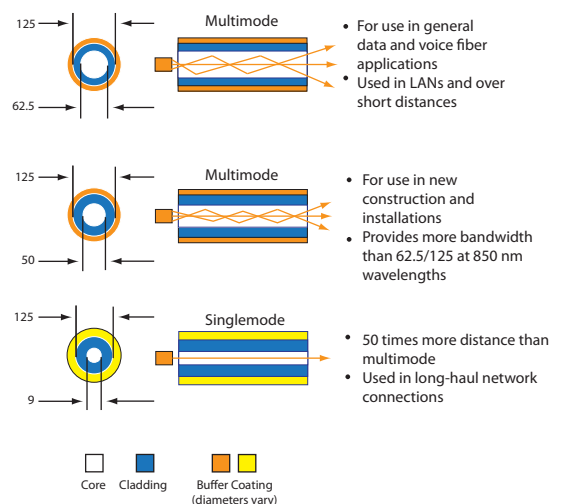
Strengthening fibers: Aramid yarn (Kevlar)

Coating: 900 μ m plastic, coats and protects the fiber.

Fiber



Multimode vs. Singlemode Total Internal Reflection

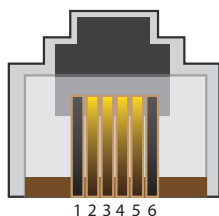


Fiber Performance Standards

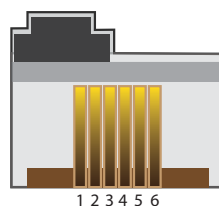
| Fiber Type | Wavelength | Attenuation (dB/km) Max. | Bandwidth (MHz/km) |
|-------------------|------------|--------------------------|--------------------|
| Multimode | | | |
| 50-/125-Micron | 850 nm | 3.5 | 500 |
| | 1300 nm | 1.5 | 500 |
| 62.5-/125-Micron | 850 nm | 3.5 | 160 |
| | 1300 nm | 1.5 | 500 |
| Singlemode | | | |
| Premises | 1310 nm | 1.0 | — |
| | 1550 nm | 1.0 | — |
| Outside Plant | 1310 nm | 0.5 | — |
| | 1550 nm | 0.5 | — |

Types of Modular Jacks

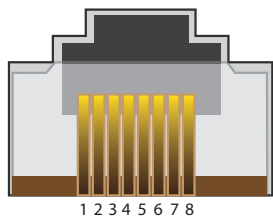
6-Position 4 Contact (RJ-11)



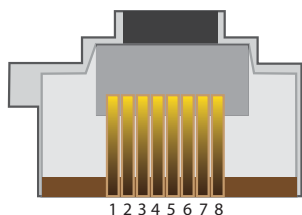
6-Position 6 Contact (MMJ)



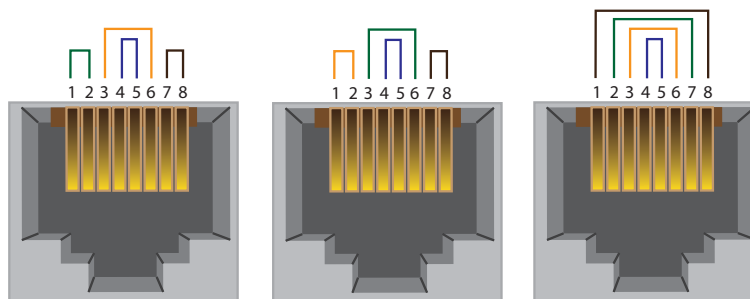
8-Position 8 Contact (RJ-45)



8-Position 8 Contact Keyed (RJ-45)



T568A, T568B and USOC Wiring



T568A

T568B

USOC

Pair 1 ———
Pair 2 ———

Pair 3 ———
Pair 4 ———

Straight-Pinned and Crossover Cable

Straight-pinned cable has the most common type of pinning. The send and receive pairs are wired straight through on either end of the cable.

Crossover cable is generally used for peer-to-peer connections. The send and receive pairs are crossed between Connector A to Connector B on either end of the cable.

| T568A and T568B Crossover Cable | | | USOC Crossover Cable | | |
|---------------------------------|---|---------------|----------------------|---|---------------|
| Connector (A) | | Connector (B) | Connector (A) | | Connector (B) |
| 1 | — | 3 | 1 | — | 8 |
| 2 | — | 6 | 2 | — | 7 |
| 3 | — | 1 | 3 | — | 6 |
| 4 | — | 2 | 4 | — | 5 |
| 5 | — | 4 | 5 | — | 4 |
| 6 | — | 5 | 6 | — | 3 |
| 7 | — | 8 | 7 | — | 2 |
| 8 | — | 7 | 8 | — | 1 |

Balanced Twisted-Pair Cable Specifications

| | CAT5 | CAT5e | CAT6 | CAT6a | CAT7 |
|-------------------------------|--------------------|--------------------|--------------------|-----------|--------------------|
| Frequency | 100 MHz | 100 MHz | 250 MHz | 500 MHz | 600 MHz |
| Attenuation (Min. at 100 MHz) | 22.0 dB | 22.0 dB | 19.8 dB | — | 20.8 dB |
| Characteristic Impedance | 100 ohms \pm 15% | 100 ohms \pm 15% | 100 ohms \pm 15% | — | 100 ohms \pm 15% |
| NEXT (Min. at 100 MHz) | 32.3 dB | 35.3 dB | 44.3 dB | 27.9 dB | 60.7 dB |
| PS-NEXT (Min. at 100 MHz) | — | 32.3 dB | 42.3 dB | — | 57.7 dB |
| EL-FEXT (Min. at 100 MHz) | — | 23.8 dB | 27.8 dB | 9.3 dB | 38.4 dB |
| PS-ELFEXT (Min. at 100 MHz) | — | 20.8 dB | 24.8 dB | — | 35.4 dB |
| PS-ANEXT (Min. at 500 MHz) | — | — | — | 49.5 dB | — |
| PS-AELFEXT (Min. at 500 MHz) | 16.0 dB | 20.1 dB | 20.1 dB | 23.0 dB | 14.1 dB |
| Return Loss (Min. at 100 MHz) | 16.0 dB | 20.1 dB | 20.1 dB | 8.0 dB | 17.3 dB |
| Delay Skew (Max. per 100 m) | — | 45 ns | 45 ns | — | 20 ns |
| Networks Supported | 100BASE-TX | 1000BASE-T | 1000BASE-T | 10GBASE-T | 10GBASE-T |

NOTE: The ISO currently has Class F (Category 7a) requirements under development. They are based on Class F requirements and the Category 7 non-RJ style plug. They specify a bandwidth of 600 to 1000 MHz.



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