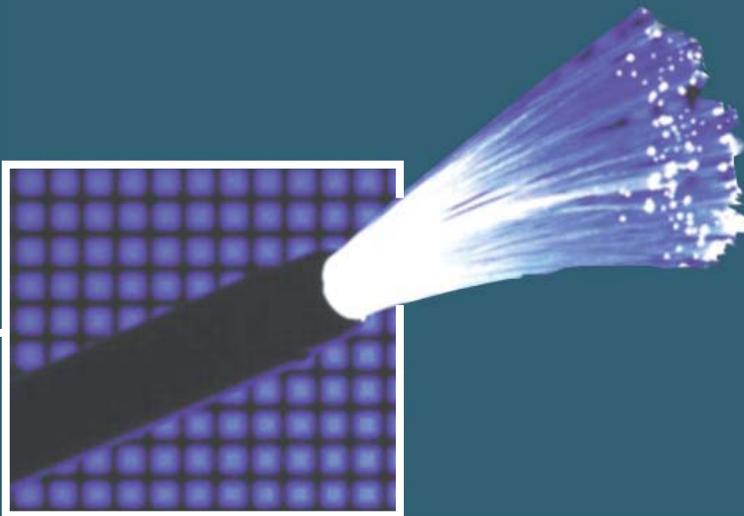


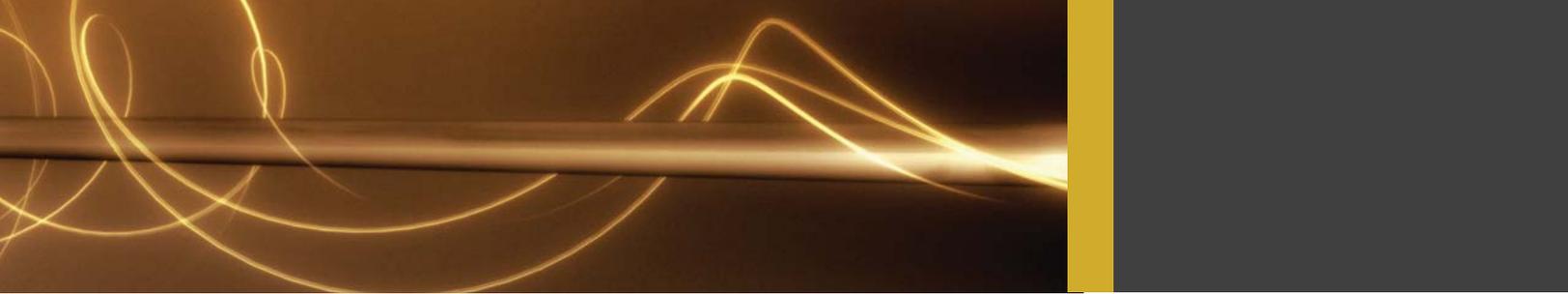
# IMC Networks

Making Your Net *Work* Better



## Media Conversion & FTTx Solutions Guide





## ABOUT MEDIA CONVERTERS

Media Converters connect different types of cabling media, extending transmission distances well beyond the capabilities of twisted pair wiring, and allowing integration of new fiber-based equipment into legacy non-fiber networks. Conversely, Media Converters also allow operators to preserve their investment in legacy copper-port hardware as more and more legacy copper networks are replaced 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 variety of form factors and configurations, ranging from standalone units (CPE), to rack-mountable modules designed for high-density applications.



## ABOUT IMC NETWORKS

IMC Networks is a leading ISO 9001:2000 registered manufacturer of optical access and media conversion solutions for LAN, MAN and FTTx applications. With millions of products shipped, IMC Networks' solutions have been deployed in Enterprise, Government, Education and Service Provider networks worldwide. IMC Networks' products and solutions are sold through a network of authorized distributor and reseller partners in more than 50 countries.

IMC Networks offers products that are RoHS compliant, and proudly Made in the USA.

### Why IMC Networks?

- » Innovation – A pioneer in Ethernet-based conversion and FTTx development, since 1988
- » Flexibility – Offering a wide range of media conversion and networking products
- » Free Consultation and Support - Pre-sales consultations are free
- » Value - Reliable, high performance networking hardware at competitive prices.

### Why Fiber Optics?

Fiber is most commonly associated with long distance connection. 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 many signals concurrently
- » It is immune to electromagnetic interference
- » It has no electromagnetic emissions, making it resistant to eavesdropping
- » It does not corrode as rapidly as copper based cabling
- » It is lightweight
- » It is virtually "future proof"





ISO 9001:2000 REGISTERED

## Target Markets



Enterprise



Government



Education



Service Providers/ISPs



Military

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# MEDIA

## What is a Media Converter?

A media converter, in its basic form, is a device that converts one cable type to another. (e.g.: Copper [RJ-45] to Fiber)

## What are the benefits of using a Media Converter?

- » **Cost effective:** The use of a media converter allows for an extended life of legacy cabling and legacy equipment that would otherwise have to be replaced. Investing in a media converter is less expensive than replacing expensive routers and switches.
- » **Flexible:** Media converters accommodate various fiber modes and bandwidths, and can be designed to operate in extreme environments.
- » **Time Saving:** With the ability to keep existing equipment in place, less time is spent replacing all network equipment. In addition, most media converters offer plug-and-play functionality for easy setup and support.
- » **Manageable:** Remote management options allow troubleshooting and configuration without physically being at the media converter.

## Who uses Media Converters?

- » Network operators who need to connect different types of media within their networks.
- » Anyone needing to increase network functionality and range without replacing existing legacy cabling and equipment
- » **Customers in a variety of industries (verticals) including:** Government, Finance, Education, Healthcare, Enterprise, Service Providers

### Standalone

## MCBASIC - SINGLE PORT SOLUTION WITH INTERNAL POWER SUPPLY



### Perfect for a variety of applications

- » Small, rugged design offers many advanced features
- » Internal power supply

### Meets a multitude of installation requirements

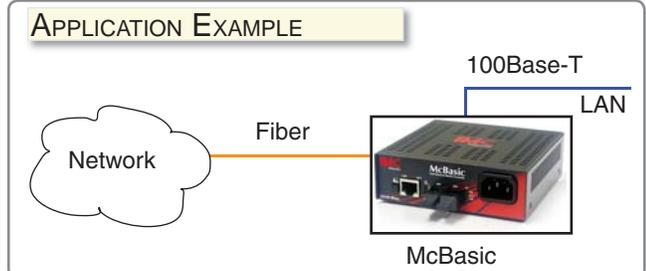
- » Available in 10 Mbps, 100 Mbps, 1000 Mbps, and auto-sensing 10/100 versions
- » Available for multi-mode fiber, single-mode fiber, and single-strand fiber
- » Available with ST or SC fiber connectors

### Easy troubleshooting

- » LinkLoss, FiberAlert, Transparency and Link Fault Detection features, along with LEDs, assist in diagnosing problems on fiber optic networks

Part #	Description	Rate	Distance
855-10929	MM850, ST	100 Mbps	300 m
855-10930	MM850, SC	100 Mbps	300 m
855-10927	MM1300, ST	100 Mbps	2 km
855-10928	MM1300, SC	100 Mbps	2 km
855-10931	SM1310/PLUS, ST	100 Mbps	40 km
855-10932	SM1310/PLUS, SC	100 Mbps	40 km

Additional Versions Available.



# CONVERSION

## Standalone

### MINIMc (SWITCHING MEDIA CONVERTERS) - SINGLE PORT SOLUTION

The most cost effective fiber converters available today!

Plug-and-Play Operation

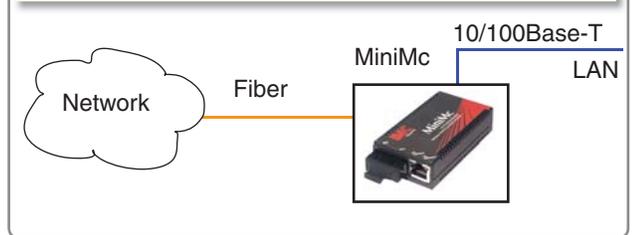
Space saving alternative

- » Small standalone with rugged enclosure with compact, external power supply
- » Can install up to 18 in a 1.5U high IE-PowerTray/18 rackmountable enclosure

Perfect for a variety of applications

- » Standalone converter includes country specific, high-reliability power adapter
- » Available for multi-mode fiber, single-mode fiber, and single-strand fiber
- » Multiple power options

#### APPLICATION EXAMPLE FOR MINIMc



#### MINIMc



THE ORIGINAL

- » 10/100 copper to 100 fiber
- » **Power Options:**
  - » External AC adapter
  - » USB
  - » IE-PowerTray/18 chassis (see page 11)
- » 10/100/1000 versions (**Giga-MiniMc**) and Gigabit-only versions (**MiniMc-Gigabit**) available.

Part #	Description	Rate	Distance
855-10622	TP-TX/FX MM1300, ST	10/100	2 km
855-10623	TP-TX/FX MM1300, SC	10/100	2 km
855-10625	TP-TX/FX SM1310/PLUS, SC	10/100	40 km
855-10641	TP-TX/FX-SM1550/LONG-SC	10/100	80 km
855-10653	1550xmt/1310rcv, SC	10/100	80 km
856-10730	TX/SX MM850, SC	10/100/1000	300 m

Part #	Description
850-13086	IE-PowerTray/18 Chassis
806-39628	USB Power Cable (MiniMc only)
806-39622	AC Power Adapter (US)
806-00322-01	AC Power Adapter Clip (Euro)

\* For more information on these Accessories, please see page 12

#### IE-MiniMc



- » 10/100 copper to 100 fiber
- » Gigabit version available (**IE Giga-MiniMc**)
- » Extended operating temperatures (-35° C to 75° C)
- » **Power Options:**
  - » DC Power Block, PoE, External AC Adapter

Part #	Description	Rate	Distance
855-19723	TP-TX/FX MM1300, SC	10/100	2 km
855-19724	TP-TX/FX SM1310/PLUS, ST	10/100	40 km
855-19725	TP-TX/FX SM1310/PLUS, SC	10/100	40 km
856-18830	TX/SX MM850, SC	10/100/1000	300m

Additional Versions Available.

## Standalone

### ACCESSCONVERTER (SWITCHING MEDIA CONVERTERS) - MULTI-PORT SOLUTION

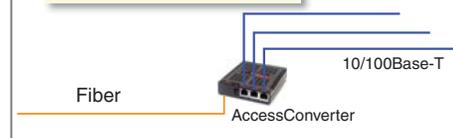


Aggregate three 10/100 Ethernet devices onto a 100 Mbps fiber or 100 Mbps copper uplink.

- » Multiple fiber types and connectors available.

Part #	Description	Connector	Distance
852-10140	TX/3 + TX (all copper)	RJ-45	100 m
852-10141	TX/3 + FX-MM1300	ST	2 km

#### APPLICATION EXAMPLE



# MEDIA

Module

## McLIM (SWITCHING 10/100)

Installs in MediaConverter chassis



### Meets a Variety of Installation Requirements

- » Supports 10/100 switching Ethernet
- » Additional versions support 10 Mbps (**McPIM**) and Gigabit Ethernet (**McGigabit**)
- » Available for multi-mode or single-mode fiber with ST, SC or FC fiber connectors
- » Supports very long fiber distances

### Maximizes Network Uptime

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

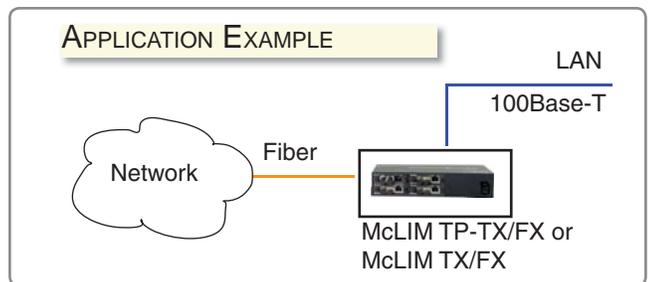
### Easy Troubleshooting

- » LinkLoss and FiberAlert features assist in diagnosing problems with fiber optic networks

Part #	Description	Fiber	Distance
855-12625	TP-TX/FX SM1310/PLUS	SC	2 km
855-12660	TX/FX MM1300	SC	2 km

ACCESSORIES	Part #	Description	Power
	851-10901	MediaConverter/1 (Chassis)	AC
	851-10904	MediaConverter/4 (Chassis)	AC
	851-10908	MediaConverter/8 (Chassis)	AC
	851-10912	MediaConverter/12 (Chassis)	AC
	851-10913	MediaConverter/12	DC

Additional Versions Available.



Module

## TDM MEDIA CONVERTERS

Installs in iMediaChassis or MediaChassis  
see page 11

### Switch Selectable Protocol

- » Remote management
- » Conduct loopback tests
- » Full bit rate for customer traffic
- » Point to Point TDM extension over fiber

### Supports More Fiber Choices

- » Available for multi-mode or single-mode fiber
- » Supports very long fiber distances

### Eases Troubleshooting

- » Three loopback testing modes, SNMP management and LEDs

## iMcV-T1/E1/J1 - T1 (1.544 MBPS)/E1 (2.048 MBPS)/J1 (1.544 MBPS) PROTOCOLS



- » **MUST BE USED IN PAIRS**
- » Connectors: RJ-48 for twisted pair, and ST or SC for fiber

Part #	Description	Fiber	Distance
850-14198	TP/Fiber-MM850	ST	300 m
850-14200	TP/Fiber-MM1300	ST	2 km
850-14202	TP/Fiber-SM1310/Plus	ST	40 km
850-14203	TP/Fiber-SM1310/Plus	SC	40 km

Additional Versions Available.

## iMcV-DS3/E3/STS-1 - DS3 (45 MBPS)/E3 (34 MBPS)/STS-1 (52 MBPS) PROTOCOLS



- » **MUST BE USED IN PAIRS**
- » Connectors: BNC, and ST or SC

Part #	Description	Fiber	Distance
850-14300	BNC/FX-MM1300	ST	2 km
850-14301	BNC/FX-MM1300	SC	2 km
850-14302	BNC/FX-SM1310/PLUS	ST	40 km
850-14303	BNC/FX-SM1310/PLUS	SC	40 km

Additional Versions Available.

# CONVERSION

Module

## iMcV-GIGA-MEDIA LINX

Installs in iMediaChassis or MediaChassis  
see page 11



### Flexible Solution

- » Same unit converts speed, media and duplex mode
- » Available in 10/100 and 10/100/1000 models
- » Configure twisted pair port for Auto-Negotiation or force the speed
- » Twisted pair and fiber ports can be individually configured for Half or Full-Duplex operation

### Meets a variety of installation requirements

- » Available for multi-mode fiber, single-mode fiber, and single-strand fiber
- » Available in fault-tolerant versions

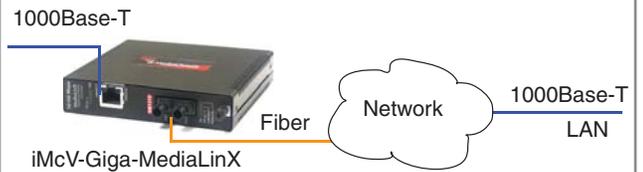
### Eases Troubleshooting

- » LinkLoss, FiberAlert, SNMP management and LEDs assist in diagnosing problems on fiber optic networks

Part #	Description	Fiber	Distance
856-14951	TX/SX SM1310/PLUS	SC	10 km

Additional Versions Available.

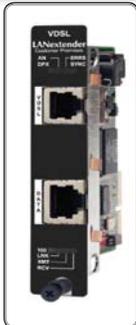
### APPLICATION EXAMPLE



Module

## iMcV-VDSL-LANEXTENDER

Installs in iMediaChassis or MediaChassis  
see page 11



### Powerful VDSL to Ethernet Converter

#### Flexible Solution

- » Allows the transmission of data over CAT3 and other telephone cabling to achieve substantially longer distances than LAN cable (up to 2 km).
- » Symmetric/Asymmetric data rates
- » Bandwidth limiting of data rate

#### Supports Various Protocols

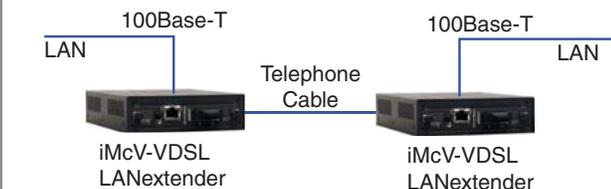
- » 10/100 Ethernet and 10Base-S

#### Eases Troubleshooting

- » Link Fault Propagate feature, SNMP management and LEDs assist in diagnosing network problems

Part #	Description	Distance
851-14101	CO Module	200 m - 2 km
851-14102	CPE Module	200 m - 2 km

### APPLICATION EXAMPLE



Distance	Data Rate Type	Upstream Data Rate	Downstream Data Rate	Approx. Total of Data Rate
500 m	Symmetric	12.5 Mbps	12.5 Mbps	25 Mbps
1.5 km	Asymmetric	2.1 Mbps	12.5 Mbps	15 Mbps
2 km	Asymmetric	2.1 Mbps	4.25 Mbps	6.5 Mbps

# MEDIA CONVERSION

## Module

### iMcV-S2MM (MODE CONVERSION)

Installs in iMediaChassis or MediaChassis  
see page 11



- » Converts single-mode fiber to multi-mode fiber
- » Allows for extension of multi-mode switch interfaces over single-mode fiber cabling up to 80 km
- » Single-mode to single-mode and multi-mode to multi-mode versions also available

Part #	Port 1	Distance	Port 2	Distance
859-14799	SM1310/SC	10 km	MM850/SC	300 m

Additional Versions Available.

#### APPLICATION EXAMPLE



## PC Card

### McPC (WORKSTATION MEDIA CONVERSION)



#### Save space & money by installing in a desktop PC and connecting to an existing copper NIC

- » No drivers to install; McPC mounts inside a desktop PC or workstation (PCI or ISA slot), connects to existing Ethernet card; Includes a standard 4-pin peripheral power connector

#### Meets a multitude of configuration requirements

- » Converts copper (RJ-45) to fiber (single or duplex)
- » 10/100 Mbps on twisted pair & 100 Mbps on fiber
- » Supports fiber connectors: ST and SC
- » Available as a 1000 Mbps twisted pair to 1000 Mbps fiber version (**McPC-Gigabit**)

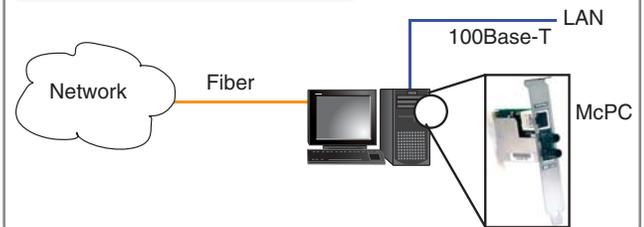
#### Easy troubleshooting

- » LinkLoss, FiberAlert, along with LEDs, assist in diagnosing problems on fiber optic networks

Part #	Description	Fiber	Distance
855-12733	TP-TX/FX MM1300	SC	2 km

Additional Versions Available.

#### APPLICATION EXAMPLE



## Standalone

### PD-SWITCH - PoE POWERED SWITCH



#### Flexibility

- » Accepts power from any network device providing PoE
- » Multiple ports increase network port density
- » SFP and fiber port configurations (optional) for different network environments
- » All RJ-45 ports feature Auto-Cross and Auto-Negotiation
- » Available with ST or SC fiber connectors
- » Optional single-strand fiber model

#### Full-Featured Switch

- » Broadcast Storm Protection helps control excessive broadcast traffic
- » Far End Fault provides notification of Link Loss on all fiber ports
- » One High-Priority Port ("VoIP" port)

Part #	Description	Fiber	Distance
852-16440	TX/5	na	---
852-16442	TX/3 + SX-MM850	ST	---
852-16445	TX/3 + FX-MM1300	SC	---
852-16450	TX/3 + FX-SM1550/LONG	SC	80 km

Additional Versions Available.

# FTTx

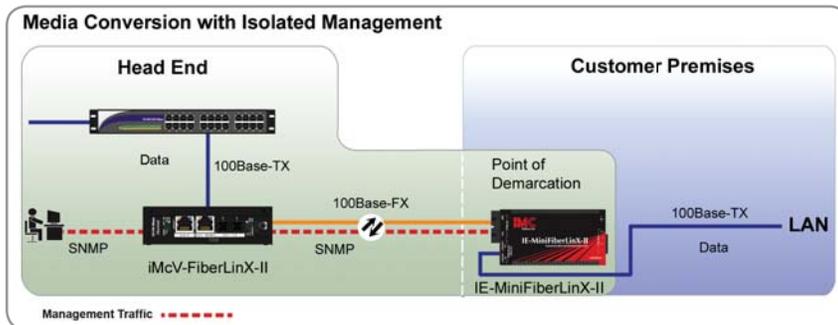
## What is Optical Access and FTTx?

Optical Access refers to the use of Fiber Optics within a network. Another common term - Optical Demarcation Device (ODD) - describes any device that connects a network to a fiber optic environment.

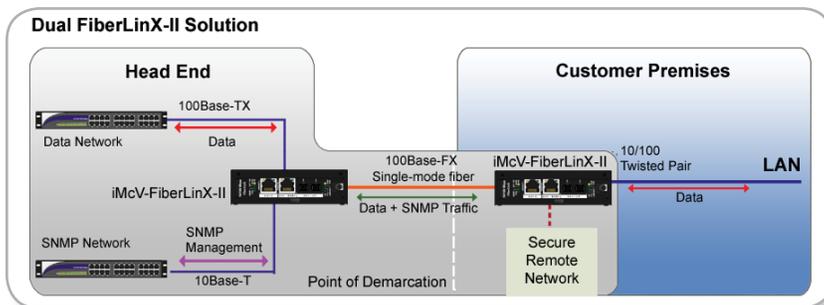
FTTx stands for FIBER-TO-THE-x (Premises, Home, Curb, Business, etc). It is the term used to generically refer to Fiber Optic cabling/networks running to/from a location. With the need for larger bandwidth and greater range, the introduction of FTTx capabilities through the use of a media converter becomes the best solution to meet these needs. As more and more advanced features are added to traditional media converters, greater functionality can be obtained in terms of management and troubleshooting.

## Which Advanced Features are Supported by Optical Access Devices?

- » Remote Management: Adding SNMP management capabilities to media converters reduces the need for a physical presence at a device to monitor and troubleshoot the network lines.
- » VLAN Tagging and Extra-Tagging (Q-in-Q): Securely and uniquely identify and route traffic within a network by applying VLAN tags to traffic. Extra Tags can be applied to already tagged traffic when routing traffic through another network.
- » Bandwidth Limiting: Bi-directional bandwidth limiting allows for the control of the data rate both up and down the network line, which allows for tighter control of QoS agreements and greater management of network congestion.
- » Security: Security is achieved on two levels. While fiber is inherently secure from EMI/RF interference and physical line taps, advanced tagging features and separate management ports isolate management traffic from customer traffic, giving the network operator operational flexibility.



The diagram illustrates a FiberLinX-II deployment with an IE-MiniFiberLinX-II acting as the CPE at the customer demarcation point. The devices are configured so that management data is isolated from customer data, and does not pass through to the customer LAN, while common media conversion functionality is performed without interruption.



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

# OPTICAL

## Standalone ACCESSETHERLINX - MULTI-PORT SOLUTIONS

### ACCESSETHERLINX/3 - 3 COPPER PORTS



- » 3-port device
- » External AC power supply

Part #	Description	Distance
852-10180	TX/3 + TX	100 m
852-10181	TX/3 + FX-MM1300-ST	2 km
852-10182	TX/3 + FX-MM1300-SC	2 km

### Small Footprint, Full-Featured

- » 10/100 Mbps copper to 100 Mbps fiber
- » Read/write 802.1Q VLAN tags on a per-port basis
- » Allows configuration via Telnet, serial port (CRAFT) or SNMP
- » Remote software upgrades
- » Set bi-directional bandwidth control
- » Available for single-strand fiber and CWDM fiber
- » Includes RMON statistics

### Integrated Solution

- » Lowers the cost of provisioning fiber services

### Secure Solution

- » VLAN-Tagging segregates customer traffic
- » Managed only through the uplink port

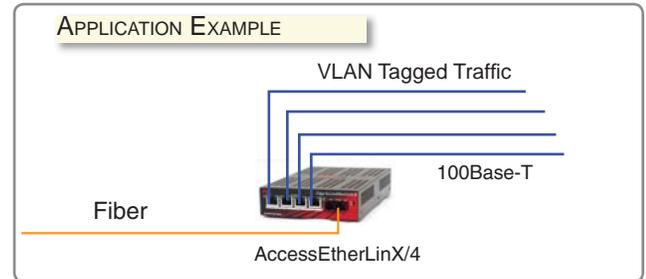
### ACCESSETHERLINX/4 - 4 COPPER PORTS



- » 4-port device
- » Integrated internal power supply

Part #	Description	Distance
852-13120	TX/4 + TX	100 m
852-13121	TX/4 + FX-MM1300-ST	2 km
852-13122	TX/4 + FX-MM1300-SC	2 km

Additional Versions Available.



## Standalone IE-MINIFIBERLINX-II - INDUSTRIAL EQUIPMENT



### End-to-End Solution

- » iMcV-FiberLinX-II (as Host) for central office applications and IE-MiniFiberLinX-II (as remote or standalone) for customer premises

### Minimizes Networking Costs

- » Avoid unnecessary service calls
- » Remotely manage/monitor through SNMP
- » LinkLoss, FiberAlert and loopback functionality for troubleshooting

### Secure and Flexible Solution

- » Preserves complete end-to-end fiber connection and data integrity via SNMP
- » All management traffic remains isolated from the remote LAN
- » IEEE 802.1Q VLAN and 802.1p compliant
- » Set bi-directional bandwidth
- » Remotely configure settings

Part #	Description	Fiber	Distance
856-19722	MM1300	ST	2 km
856-19723	MM1300	SC	2 km
856-19724	SM1310/PLUS	ST	40 km
856-19725	SM1310/PLUS	SC	40 km

Additional Versions Available.

See page 8 for application examples.

# ACCESS

Module

## iMcV-FIBERLINX-II (10/100 MBPS) - SINGLE PORT SOLUTION

Installs in iMediaChassis or MediaChassis  
see page 11



### Advanced Management and Troubleshooting Functions

- » Supports IEEE 802.1Q VLAN Tagging and Extra-Tagging (Q-in-Q)
- » Full EtherType control
- » Manage/Monitor fiber traffic with RMON statistics, LinkLoss, FiberAlert and loopback functionality
- » Transparency feature allows VLAN/non-VLAN traffic on the same port

### Secure and Flexible Solution

- » Preserves complete end-to-end fiber connection and data integrity via SNMP
- » All management traffic remains isolated from the remote LAN
- » 10/100 Mbps copper to 100 Mbps fiber
- » Standard single-slot module

### Minimizes Networking Costs

- » Avoid unnecessary service calls
- » Using the iMcV-FiberLinX-II in pairs allows the deployment of less expensive copper switches at both ends

### End-to-End Solution

- » Modular format allows host/remote deployment in high density central office applications, or as remote/standalone customer premises equipment (CPE)

Part #	Description	Distance
856-14011	TX/FX-MM1300-ST	2 km
856-14012	TX/FX-MM1300-SC	2 km
856-14015	TX/FX-SM1310/PLUS-ST	40 km
856-14016	TX/FX-SM1310/PLUS-SC	40 km
856-14017	TX/FX-SM1310/LONG-ST	80 km

Additional Versions Available.

See page 8 for application examples.

Module

## iMcV-GIGA-FIBERLINX-II (10/100/1000) - SINGLE PORT SOLUTION

Installs in iMediaChassis or MediaChassis  
see page 11



### Advanced Management and Troubleshooting Functions

- » Supports IEEE 802.1Q VLAN Tagging and Extra-Tagging (Q-in-Q)
- » Manage/Monitor fiber traffic with RMON statistics, LinkLoss, FiberAlert and loopback functionality
- » Transparency feature allows VLAN/non-VLAN traffic on the same port

### Secure and Flexible Solution

- » Preserves complete end-to-end fiber connection and data integrity via SNMP
- » All management traffic remains isolated from the remote LAN
- » 10/100/1000 Mbps copper to 1000 Mbps fiber
- » Double-wide module

### Minimizes Networking Costs

- » Avoid unnecessary service calls
- » Using the iMcV-FiberLinX-II in pairs allows the deployment of less expensive copper switches at both ends

### End-to-End Solution

- » Modular format allows host/remote deployment in high density central office applications, or as remote/standalone customer premises equipment (CPE)

Part #	Description	Distance
856-14869	TX/SX-MM850-SC	300 m
856-14870	TX/LX-SM1310-SC	10 km
856-14871	TX/LX-SM1310/PLUS-SC	40 km
856-14872	TX/LX-SM1550/LONG-SC	70 km

Additional Versions Available.

See page 8 for application examples.

# CHASSIS

## iMEDIACHASSIS - FOR iMcV Series Modules



### SNMP Management

- » **REQUIRES** use of SNMP card
- » Managed through the backplane

### Flexible Design

- » Available in 3/6/20 slots (+ SNMP slot)
- » AC or DC powering options
- » Available with redundant power
- » Mix and match AC and DC power supplies

Part #	Description	Power
850-10949-AC	iMediaChassis/3	AC
850-10953-AC	iMediaChassis/6	AC
850-10953-DC	iMediaChassis/6	DC
850-10954-2DC	iMediaChassis/20	DC
850-10956-2AC	iMediaChassis/20	AC

## SNMP CARD



### Provides Management in Chassis

- » Installs in any iMediaChassis
- » Includes SNMP V2c agent
- » Manages easily with GUI-Based iView<sup>2</sup>

Part #	Description
850-39950	SNMP Management Module

## MEDIA CHASSIS - FOR iMcV Series Modules



### Low Density Arrangement

- » Includes 1 or 2 slots for installing any iMcV module
- » Available with AC or DC power (IE version)
- » SNMP-manageable **ONLY** when module includes on-board SNMP logic (i.e. iMcV-FiberLinX-II)

Part #	Description	Power
850-13100	MediaChassis/1	AC
850-13101	MediaChassis/2	AC
850-33101	IE-MediaChassis/1	DC

## MEDIA CONVERTER CHASSIS - FOR MediaConverter Series Modules (McLIM, McPIM, and McGigabit Modules)



### UnManaged, Flexible Solution

- » Supports all types of platforms and network speeds
- » Available with 1, 4, 8 and 12 slots
- » Available with AC power
- » 12 slot: 1U high, optional DC, redundant power

Part #	Description	Power
851-10901	MediaConverter/1	AC
851-10904	MediaConverter/4	AC
851-10908	MediaConverter/8	AC
851-10912	MediaConverter/12	AC
851-10913	MediaConverter/12	DC

## IE-POWERTRAY/18 - FOR MiniMcs



### Space Saving Design

- » 18 connections in the 1.5U high IE-PowerTray/18 rackmountable enclosure
- » Small, rugged enclosure with compact, external power supply
- » Extended temperature performance

Part #	Description	Power
850-13086	IE-PowerTray/18	AC
850-32088	IE-PowerTray/18	DC

# SFPs & ACCESSORIES

## SFP MODULES - 155 MBPS, 1.25 GBPS AND 2.4 GBPS FIBER AND 1.25 GBPS COPPER



### Fiber and Copper SFPs Available

#### Performance SFPs

- » Hot-pluggable

#### Standards Compliance

- » Multi-source package with duplex LC connector (fiber versions)
- » 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
- » Complies with Telcordia GR-468-CORE

#### Extended Diagnostics (DDMI)

- » Most SFP modules report standard information such as:
  - » SFP Type
  - » Fiber Link Length
  - » Wavelength
  - » Bit Rate
  - » Date Code
  - » Serial Number
- » Complying with SFF-8472, SFP modules that include Extended Diagnostics also report information such as:
  - » Temperature
  - » Voltage
  - » Bias Current
  - » TX Power
  - » RX Power

Part #	Description	Connector	Distance
808-38211	IE-SFP/1250 MM850	LC	500 m
808-38212	IE-SFP/1250 SM1310	LC	15 km
808-38213	IE-SFP/1250, SM1310/PLUS	LC	40 km

Additional Versions Available.



## MOUNTING BRACKETS - McBASIC AND MEDIA CHASSIS



Rackmount Brackets

### Space Saving Design

- » Rackmount Brackets and shelf provide the ability to mount stand-alone units into a centralized chassis.
- » Mount units on wall to eliminate clutter.
- » Designed for McBasic, MediaChassis and AccessEtherLinX

Part #	Description
895-39226	Rackmount Brackets
895-39227	Wallmount Brackets
895-39949	Rackmount Shelf

## MINIMc ACCESSORIES

### AC POWER ADAPTER



### POWER CLIPS



USA Power Clip will be sent with AC Power Adapter unless other is specified

Operates in temperatures from 0° to 50°C

Part #	Description
806-39628	USB Power Cable (for 10/100 MiniMcs)
806-39623	AC Power Adapter
806-00322-00	USA Power Clip
806-00322-01	UK Power Clip

# PRODUCT FEATURES

## OPTIONAL DEVICE CONFIGURATIONS

### FIBER MODES: SINGLE VERSUS MULTI-MODE

Fiber cable can be single-mode or multi-mode. Single-mode fiber tends to be more expensive, but has greater range. Multi-mode is less expensive, but is better suited for shorter distances. Multi-mode cabling is more common in local area networks.

### DISTANCES

Various distances are available to match network needs. Fiber transceivers support ranges from 300m up to 100 km.

### CONNECTORS

IMC Networks offers a wide range of connectors for most networking cable types:

- » Fiber: SC, ST or LC
- » Copper: RJ-45
- » Coaxial: BNC
- » Small Form Factor Pluggable (SFP)

### FIBER WAVELENGTHS

IMC Networks' fiber conversion and FTTx products support the four primary light wavelengths used for Ethernet:

- » **850 nm multi-mode:** Used for 10, 100 or 1000 Mbps Ethernet
- » **1300 nm multi-mode:** Used for 100 Mbps Ethernet, and other high-speed protocols such as FDDI, ATM/OC-3, etc.
- » **1310 nm single-mode:** Used for 1000 Mbps Ethernet and where greater distance is required
- » **1550 nm single-mode:** Used for long-haul speeds of up to 40 Gbps (OC-768)

### CWDM

Because fiber is so versatile, multiple wavelengths can be transmitted on the same cable, increasing the cable's carrying capacity (bandwidth). Many of IMC Networks' fiber conversion and FTTx products can be purchased in one of the sixteen CWDM wavelengths, which range from 1310 nm to 1610 nm, in 20 nm increments.

### 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. Many of IMC Networks fiber conversion and FTTx products are available in single strand versions.

# @ A GLANCE

Product Cross Reference		Data Rates				Ports				Format		Mgmt	
		10 Mbps	100 Mbps	1000 Mbps	Protocol Independent	Fiber	Copper (TP)	SFP	Coaxial (enc)	Standalone	Modular	Managed	Unmanaged
FTTX & Optical Access	iMcV-FiberLinX-II	x	x			x	x	x			x	x	
	IE-MiniFiberLinX-II	x	x			x	x			x		x	
	iMcV-Giga-FiberLinX-II	x	x	x		x	x	x			x	x	
	AccessEtherLinX/3 (/4)	x	x			x	x			x		x	
Media Converter	MiniMc	x	x			x	x			x			x
	IE-MiniMc	x	x			x	x			x			x
	Giga-MiniMc	x	x	x		x	x			x			x
	AccessConverter	x	x			x	x			x			x
	McBasic	x	x			x	x		x	x			x
	McLIM	x	x			x	x				x		x
	McPC	x	x			x	x		x		x		x
	iMcV-T1/E1/J1				x	x	x				x	x	
	iMcV-DS3/E3/STS-1				x	x			x		x	x	
	iMcV-Giga-MediaLinX	x	x	x		x	x				x	x	
	iMcV-VDSL-LANextender				x		x				x	x	
	iMcV-S2MM				x	x					x	x	

\*Visit [www.imcnetworks.com](http://www.imcnetworks.com) for information about additional products from IMC Networks

## Need more information?

Most products are available in numerous configurations to meet specific networking needs.

Contact IMC Networks for more information: [sales@imcnetworks.com](mailto:sales@imcnetworks.com)

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