EXTEND YOUR INDUSTRIAL NETWORK TO THE EDGE

Media converters provide an important role in the connectivity of network equipment in local and wide area networks (LAN, WAN). Network devices may have serial, copper or fiber interfaces. Media Converters can provide the necessary connections, and B&B Electronics offers an extensive product line. Media Converters support a number of protocols, including Ethernet, RS-232/422/485, Modbus, and Telco.

- ISPs
- Security
- Telcos
- Military Installations
- Traffic Control
- SCADA

ETHERNET MEDIA CONVERTERS

FTTx Optical Ethernet
- SNMP Manageable
- SFP Option on many models (Fiber, Copper)
- RS-232 CLI Command Line Interface) Console
- Allows Management traffic segregation from data traffic
- Multiport copper to fiber models

Unmanaged Media Converters
- Copper to Fiber Ethernet media converters
- Offers diagnostic features such as LFPT, Link Loss
- Unmanaged Plug-N-Play devices
- Supports 10, 100, 10/100, 10/100/1000 and 1000 Mbps
- Small Form factor or 1U high standalone design

Ethernet Media Converters - EIS series
- UL/CUL 60950, EN60950, IEC 609050, IEC6100-6-2
- 10/100Base models
- Multi- or single-mode, SC or ST
- Auto negotiation of data rate and duplex modes
- MDI/MDI-X (auto-cross feature)
- Desktop, wall or rack mount options

Hardened Ethernet Media Converters - EIR series
- Class 1/Division 2 listed
- NEMA TS1/TS2 rated for traffic control equipment
- IEC61000-6-2 EMC, IEC60068 (shock, vibration, free fall)
- Multi- or single-mode, SC or ST
- Wide operating temperature range
- Alarm for power or port link failure - via relay output
- Redundant 10 to 48 VDC inputs - via terminal blocks
- DIN, panel or rack mount

Gigabit SFP Ethernet Media Converters - EIS-G-SFP series
- IEEE802.3ab 1000Base-T, 1000Base-SX/LX, 802.3x
- DIP switch setup for link-fault-pass-through, fiber auto/force mode
- 1000 Mbps full-duplex, auto-negotiation, auto-MDI/MDIX
- Full wire-speed forwarding rate
- SFP socket for Gigabit fiber optic expansion

Hardened Gigabit SFP Ethernet Media Converter - EIR-G-SFP-T
- NEMA TS1/TS2 rated for traffic control equipment
- IEC61000-6-2 EMC, IEC 60068 (shock, vibration, free fall)
- DIP switch setup for link-fault-pass-through, fiber auto/force mode
- Gigabit (1000 Mbps) full-duplex, auto-negotiation, auto-MDI/MDIX
- Full wire-speed forwarding rate
- Redundant power inputs
- Wide operating temperature range
- SFP socket for Gigabit fiber optic expansion
CHASSIS PRODUCTS

Managed Media Converters
- Single or Dual-wide modules
- SNMP Manageable
- Copper to Fiber converters, including support for SFPs
- Install in single or multiport chassis
- Provides Configuration Control

Fiber Mode Converters
- Provides conversion of one fiber type to another
- Modules supporting up to 155Mbps, Gigabit or 10G
- Modular or compact form factor
- No configuration necessary
- SFP support on some models

Managed Chassis
- SNMP Manageable
- Power options: AC, DC or ACDC
- Offered in 3, 6, or 20 Slot
- Optional SNMP management Module
- Single and Dual power supply modules

Unmanaged Chassis
- 1 or 2U High standalone chassis
- Standard and wide temperature
- Supports all iMcV-Modules
- Power options: AC or DC

Certified For Hazardous Locations

Ethernet Media Converters
(#EIR-M-ST, #EIR-M-SC, #EIR-S-SC)
For applications requiring Class 1/Division 2 certification, B&B Electronics has a range of connectivity and communication solutions designed to operate in hazardous environments.
- see page 470 for a complete listing of C102 products.
# Optical Access FTTx

## Which Is Right For You?

- SNMP Management
- 10/100 or Gigabit
- Link Fault Pass Through
- Last Gasp
- Telco (-48 VDC)

## Optical Access FTTx Solutions

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UNMANAGED MEDIA CONVERTER SOLUTIONS

 WHICH IS RIGHT FOR YOU? 

- Wide Temperature
- 10/100 or Gigabit
- Link Fault Pass Through
- PoE or PoE+

<table>
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<tr>
<th>PRODUCT SERIES</th>
<th>MiniMc &amp; MiniMc SFP</th>
<th>MiniMc LFPT</th>
<th>MiniMc-Gigabit</th>
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## UNMANAGED MEDIA CONVERTER SOLUTIONS

### WHICH IS RIGHT FOR YOU?

- Compact or 1U High Form Factor
- 10 Mbps to Gigabit models
- Link Fault Pass Through
- PoE or PoE+

### UNMANAGED MEDIA CONVERTERS

<table>
<thead>
<tr>
<th>PRODUCT SERIES</th>
<th>PoE &amp; PoE+ Giga-McBasic LFPT</th>
<th>McBasic TP/FO</th>
<th>McBasic TX/FX</th>
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<th>McBasic Gigabit LFPT</th>
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**Note:** This table provides a summary of the features and specifications of different models of unmanaged media converters. Each model offers varying degrees of functionality, including speed, power supply options, fiber type, and mounting options. Choose the one that best fits your specific needs. For more detailed information, consult the manufacturer’s documentation.
## Unmanaged Media Converter Solutions

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## Which is Right for You?

- **Wide Temperature**
- **10/100 Mbps to Gigabit**
- **Link Fault Pass Through**
- **PoE or PoE+**

### Unmanaged Media Converters

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<th>McPC 10/100 Mbps PC Installed</th>
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<th>McPC MediaLinX PC Installed</th>
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# Managed Media Converter Solutions

**Which is right for you?**
- Wide Temperature
- 10 Mbps up to Gigabit
- Link Fault Pass Through
- SNMP Manageable

## Managed Media Converters

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<th>IE-IMcV-2xLIM</th>
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**Page**  
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- 276  
- 278  
- 280  
- 282
## Managed Media Converters

### Product Series
- **iMcv-MediaLinX & IE-iMcv-MediaLinX**
- **iMcv-Giga-MediaLinX**
- **iMcv-T1/E1/J1 Repeater**
- **iMcv-T1/E1/J1 LineTerm**
- **iMcv-DS3/E3/STS Repeater**
- **iMcv-DS3/E3/STS LineTerm**

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### Additional Information
- **Wide Temperature**
- **Modular**
- **Frame size**
- **SNMP Manageable**
- **Configuration Control**
- **SFP or 1X9**
- **Number of Fiber Ports**
- **Number of Ethernet Ports**
- **Power:** AC and DC
- **Chassis Based**
- **FCC Class B**
- **UL**
MANAGED MEDIA CONVERTER SOLUTIONS

WHICH IS RIGHT FOR YOU?

- Wide Temperature
- Gigabit
- Link Fault Pass Through
- SNMP Manageable

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<th>IE-IMcV-T1-Mux/4 + Ethernet</th>
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*Asynchronous Speed to 10/100*
FIBER MODE CONVERTER SOLUTIONS

WHICH IS RIGHT FOR YOU?

- Mode Conversion
- 155 Mbps, Gigabit, 10G
- SNMP Manageable
- Wide Temperature

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Page

310 312 314 316
Fiber Mode Converters provide a conversion of one fiber type to another, such as MM to SM. They can also provide an extension of the same type over a longer distance, such as SM to SM.

Fiber Mode Converters offer a less expensive solution to replacing expensive fiber-based switches.

A typical application is MM fiber installed in two buildings which are more than 2Km apart in distance. Installing an MM to SM Fiber Mode Converter is the most cost-effective solution.
### CHASSIS PRODUCT SOLUTIONS

**WHICH IS RIGHT FOR YOU?**

- 3, 6, 20 Slot Chassis
- Rack Mount Infrastructure
- SNMP Management Card, Optional
- Any Mc-Module installs in a 1,4,8 or 12 slot MediaConverter Chassis
- Any iMcV-Module installs in all iMediaChassis or MediaChassis

---

### MANAGED CHASSIS

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<td>Rack Ears, Shelf</td>
<td>DIN, Wall. Bracket</td>
<td>Shelf</td>
<td>Rack Ears</td>
<td>Rack Ears</td>
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</table>
ETHERNET MEDIA CONVERTERS

10/100/1000 Mbps Optical Ethernet Demarcation Unit
IE-Multiway

The IE-MultiWay is a value-based, Carrier-class managed Gigabit Ethernet 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 revertive mode, 1+1 Uplink Protection non-revertive mode, a 4-port Gigabit Switch, and a Dual Copper to Fiber SFP Media/Mode Converter (two gigabit fiber media converters in one).

The IE-MultiWay is an ideal solution for service providers’ fiber networks because it combines media conversion with an advanced features set for network management and trouble shooting, including port based VLAN and VLAN trunks, IEEE 802.1ad (Q-in-Q) and a user definable EtherType. Information such as interface statistics, RMON1 statistics, and OAM status and control are a few of the many accessible features from the Serial CLI, Telnet CLI and SNMP Management Software.

PRODUCT FEATURES
- Versatile 4 port device
- SNMP Manageable
- Supports SFP fibers
- Extended Temperature
- Supports OAM, VLAN, 1+1 Revertive
- RS-232 CLI (Command Line Interface) Console Port

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tr>
<td>IE-MultiWay With AC to DC Power Adapter</td>
<td>*SFP 2 2</td>
<td>RJ45</td>
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<td>858-11121</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IE-MultiWay With Out AC to DC Power Adapter</td>
<td>*SFP 2 2</td>
<td>RJ45</td>
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<tr>
<td>854-11121</td>
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<td></td>
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</table>

* SFP modules are sold separately. Two (2) SFP transceivers are needed for full device functionality.

IE-SFP MODULES: 100 TO 155 MBPS

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
<th>FIBER TYPE</th>
<th>RANGE</th>
<th>POWER BUDGET</th>
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<td>808-38103</td>
<td>SM1310</td>
<td>LC</td>
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<td>13 (db)</td>
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IE-SFP MODULES: 1 GIGABIT ETHERNET

<table>
<thead>
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<th>RANGE</th>
<th>POWER BUDGET</th>
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<td>808-38202</td>
<td>SM1310</td>
<td>LC</td>
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<td>13 (db)</td>
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<td>808-38203</td>
<td>SM1310/PLUS</td>
<td>LC</td>
<td>30 km</td>
<td>17 (db)</td>
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<tr>
<td>808-38204</td>
<td>SM1550/LONG</td>
<td>LC</td>
<td>40 km</td>
<td>17 (db)</td>
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<td>SM1550/XLONG</td>
<td>LC</td>
<td>70 km</td>
<td>23 (db)</td>
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ACCESSORIES
- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 825-39951 - Serial Cable, MiniJack to DB9 (female)
- 895-39229 - Wall Mount Bracket

IN THE FIELD: Intelligent Facilities: Controlling Access & Security
Industry: Security
Product: IE-MultiWay Ethernet Media Converter

iView: Windows 2000/XP/Vista/Win7
## Specifications
### Technical
- **Plug-and-Play Operation**: 2 x RJ-45 and 2 x SFP ports (SFPs sold separately)
- **IEEE 802.3i 10Base-T** over twisted pair
- **IEEE 802.3u 100Base-TX** over twisted pair
- **IEEE 802.3u 1000Base-T** over twisted pair
- **IEEE 802.3u 100Base-FX**
- **IEEE 802.3u 1000Base-X**
- Jumbo Frames support (up to 10240 bytes)
- Auto Negotiation, Auto-Cross for MDI/MDIX
- Includes diagnostic LEDs
- 1+1 uplink protection (< 50 mSecs)
- Extended temperature range from -40° to +85° C
- -48 VDC terminal for Telco applications
- Compatible with all standard MSA compliant SFP transceivers

### Standards Compliance
- IEEE 802.3ah
- IEEE 802.1ag
- Y.1731
- SFP-MSA SFP standard (September 14, 2000)
- SFF-8472 DDMI standard (Revision 1.0)

### Mechanical Diagram
(dimensions in inches & millimeters)

### Mechanical
- **Dimensions**: 0.86”H x 3.66”W x 3.88”D (2.2 x 9.38 x 9.94 cm)
- **Enclosure**: Metal
- **Shipping Weight**: 1.0 lbs (0.45 kg)

### 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

### Environmental
- **Operating Temperature**
  - w/ Franmar AC Wall Adapter: +14° to +122° F (-10° to +50° C)
  - w/ DC Configuration: -49° to +185° F (-45° to +85° C)
- **Storage Temperature**: -49° to +185° F (-45° to +85° C)
- **Operating Humidity**: 10 to 95% Non-condensing

### Regulatory Approvals
- FCC Class A (Using 48V Telco-type power)
- FCC Class B (Using all other power options)
- UL/cUL, CE
The AccessEtherLinX/4 enables service providers to offer differentiated, “Transparent LAN” services to multi-tenant building 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.

Featuring SNMP management, 802.1Q VLAN, 802.1p GoS, traffic prioritization, bandwidth control and multicast pruning/snooping (using IGMP v1, v2), the AccessEtherLinX/4 is perfect for a wide range of Fiber to-the-Home, Fiber-to-the-Curb and Fiber-to-the-Business (collectively “FTTx”) services, and is an ideal solution for delivering those Ethernet based services to customers quickly and cost-effectively. Designed with a small footprint, the AccessEtherLinX/4 facilitates easy installation inside the premises.

Bandwidth control and 802.1Q VLAN compatibility built-in: The AccessEtherLinX/4 accepts traffic containing VLAN tags on the Uplink port and directs traffic to the twisted pair downlink ports or to management based on VLAN ID. In addition to assigning 802.1Q VLAN-tags on a per-port basis, priority can be defined for each port and SNMP tag; traffic is divided into a hi/low level for packet prioritization in the queue. The AccessEtherLinX/4 also includes bi-directional bandwidth control, and supports IGMP multicast pruning to ensure the necessary amount of IP multicast packets are bridged.

**Product Features**
- Independent RJ45 ports for flexible configuration
- SNMP Manageable
- Read/Write IEEE 802.1Q VLAN-tags
- Bi-directional Bandwidth control
- Linkloss and FiberAlert
- Selective Advertising

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Type</th>
<th>Fiber Ports</th>
<th>Range (km)</th>
<th>Ethernet Ports</th>
<th>Ethernet Connector</th>
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<td>AccessEtherLinX/4</td>
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<td>5</td>
<td>4</td>
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<td>MM1300-SC</td>
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<td>4</td>
<td>RJ45</td>
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<td>852-13121</td>
<td>SM1310/PLUS-ST</td>
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<td>60</td>
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<td>RJ45</td>
</tr>
</tbody>
</table>

*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**Accessories**
- 895-39226 - Rackmount Bracket
- 895-39949 - Rackmount Shelf

AccessEtherLinX/4 also available in CWDM Fiber. Call for details.

**Mechanical Diagram**

(dimensions in inches)
## 10/100 Mbps Managed Multi-port Optical Demarcation Device

### AccessEtherLinX/4

#### SPECIFICATIONS

**Ethernet Types Supported**
- IEEE 802.3i Ethernet 10Base-T
- IEEE 802.3u Fast Ethernet (100Base-TX and 100Base-FX)

**Features**
- Auto Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- Includes bi-directional bandwidth control
- Read/write IEEE 802.1Q VLAN-tags
- QoS - IEEE 802.1p-based packet prioritization (two queues [high/low] with eight priority levels)
- Supports IGMP multicast pruning (v1/v2)
- Layer 2 packet switching, store and forward operation
- Includes LinkLoss and FiberAlert
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- 1024 MAC address learning
- MTU: Supports over-sized packets up to 1916 bytes

**Management**
- Includes GUI-based iView² software
- SNMP V1 and V2c compatible
- Supports Telnet and RS-232 Craft
- Managed through uplink
- IEEE 802.3x compliant for Flow Control
- Includes DHCP and TFTP clients for remote management and upgrades
- Includes diagnostic LEDs

**IMC MIB**
- Traps (Cold Start, Warm Start, Link Up, Link Down, Authentication Failure)
- Link Status of Ports
- Port Type
- Fiber Type
- User-Definable Name of Product
- User-Definable ID/Name for Ports
- Enable/Disable Ports
- Enable/Disable FiberAlert
- Set for Auto Negotiation/Selective Advertising
- Force speed and Duplex Mode for twisted pair ports

**MIB-II (RFC 1213)**
- Packets Transmitted
- Packets Received
- Octets (bytes) Transmitted
- Octets (bytes) Received
- Unicast Packets Transmitted
- Unicast Packets Received
- Non-Unicast Packets Transmitted
- Non-Unicast Packets Received
- Errors Received
- Plus All Standard MIB II Objects

**RMON Statistics**
- Drop Events
- Collisions
- Total Bytes
- Total Packets
- Fragments
- Jabbers
- Broadcast Packets
- Multicast Packets
- CRC Align Errors
- Under & oversize Packets
- Distribution of Frame Size

**Transmission DOT 3 (RFC1643)**
- Alignment Errors
- Single Collision Frames
- CRC Errors
- SQE Test Errors
- Late Collisions
- Frame Too Long
- Excessive Collisions
- Deferred Transmissions
- Multiple Collision Frames

**Mechanical**
- Dimensions: 1.5“ H x 4.75“ W x 7.25“ D (3.18 cm x 12.07 cm x 18.42 cm)
- Enclosure: Metal
- Shipping Weight: 1.6 lbs. (0.6 kg)

**Power Rating**
- 100-240 VAC, 50/60Hz, 1.0A

**Environmental**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5 to 95% Non-condensing

**Regulatory Approvals**
- FCC Class A
- UL/cUL, CSA, CE
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 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 a 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.

**PRODUCT FEATURES**
- 802.1Q VLAN-tags on per-port basis, based on DiffServ or PRI values
- SNMP Manageable
- QoS - 802.1p-based packet prioritization
- Per-port bi-directional Bandwidth control
- VLAN-tagging and Q-in-Q (double-tagging) segregates customer traffic
- Up and running in less then five minutes

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tbody>
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**SINGLE STRAND FIBER**

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<th>ETHERNET CONNECTOR</th>
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<td>SSLX-SM1550/PLUS-SC</td>
<td>1</td>
<td>70 km</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**Giga-AccessEtherLinX-II also available in CWDM Fiber. Call for details.**

**ACCESSORIES**

- 895-39226 - Rackmount Bracket
- 895-39949 - Rackmount Shelf

**iView: Windows 2000/XP/Vista/Win7**
10/100/1000 Mbps Managed Multi-port Optical Demarcation Device
Giga-AccessEtherLinX-II AC Version

SPECIFICATIONS

GENERAL
Monitors (remote) status without a physical presence or separate “IP” connection through UMA
Maintains security; all management traffic can remain isolated from the data traffic
Read/write IEEE 802.1Q VLAN-tags
0-in-Q (double-tagging) to further segregate customer VLAN traffic
Can assign different TAGS based on DiffServ or PRI values of incoming frames.
QoS: IEEE 802.1p-based or DSCP packet prioritization
(2 queues [high/low] with 8 levels of priority)
VLAN Tag-based on DSCP or priority of incoming frame (“traffic grooming”)
Layer 2 packet switching, store and forward operation
Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps
Includes per-port bi-directional bandwidth control
AutoCross for MDI/MDIX
Features Auto Negotiation and Selective Advertising
MTU: Supports packets up to 9600 bytes
Supports Half- and Full-Duplex operation
Supports IEEE 802.3x Flow Control

MANAGEMENT
Includes GUI-based iView² software, featuring
iConfig utility for rapid IP configuration
SNMP V1 and V2c compatible
Includes DHCP client for IP address assignment
Features TFTP client for remote upgrades
Supports Telnet - Includes DB-9 connector for serial configuration
Includes per port loopback test modes
Includes diagnostic LEDs

ETHERNET PROTOCOLS SUPPORTED
802.3 10Base-T twisted pair
802.3u 100Base-TX twisted pair
802.3ab 1000Base-T twisted pair
802.3z 1000Base-LX or SX fiber

MECHANICAL
Dimensions 1.64” H x 5.64” W x 8.95” D
(4.2 cm x 14.3 cm x 22.7 cm)
Enclosure Metal
Shipping Weight 1.6 lbs. (0.6 kg)

POWER RATING
100-240V AC, 50/60Hz, 0.5/0.25A

ENVIRONMENTAL
Operating Temperature +32° to 122° F (0° to +50° C)
Storage Temperature -13° to +158°F (-25° to +70°C)
Operating Humidity 5 to 95% Non-condensing

REGULATORY APPROVALS
FCC Class B
UL/cUL, CE, CB

MECHANICAL DIAGRAM
(dimensions in inches)
10/100/1000 Mbps Managed Multi-port Optical Demarcation Device
Giga-AccessEtherLinX-II DC Version

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 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 a 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.

PRODUCT FEATURES
- 802.1Q VLAN-tags on per-port basis, based on DiffServ or PRI values
- SNMP Manageable
- QoS - 802.1p-based packet prioritization
- Per-port bi-directional Bandwidth control
- VLAN-tagging and Q-in-Q (double-tagging) segregates customer traffic
- Up and running in less than five minutes

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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</thead>
<tbody>
<tr>
<td>852-32302</td>
<td>SFP</td>
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<td>Various</td>
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<tr>
<td>852-32303</td>
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<td>852-32304</td>
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<td>RJ45</td>
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<td>852-32305</td>
<td>LX-SM1310/PLUS-SC</td>
<td>1</td>
<td>40 km</td>
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<td>RJ45</td>
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<td>852-32306</td>
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<tr>
<td>852-32307</td>
<td>LX-SM1550/XLONG-SC</td>
<td>1</td>
<td>100 km</td>
<td>4</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

SINGLE STRAND FIBER *
- 852-32310 SSLX-SM1310-SC | 1 | 15 km | 4 | RJ45
- 852-32311 SSLX-SM1550-SC | 1 | 15 km | 4 | RJ45
- 852-32312 SSBX-SM1310-SC | 1 | 10 km | 4 | RJ45
- 852-32313 SSBX-SM1490-SC | 1 | 10 km | 4 | RJ45
- 852-32314 SSLX-SM1310/PLUS-SC | 1 | 40 km | 4 | RJ45
- 852-32315 SSLX-SM1550/PLUS-SC | 1 | 40 km | 4 | RJ45
- 852-32316 SSBX-SM1310/PLUS-SC | 1 | 30 km | 4 | RJ45
- 852-32317 SSBX-SM1490/PLUS-SC | 1 | 30 km | 4 | RJ45
- 852-32318 SSLX-SM1490/LONG-SC | 1 | 70 km | 4 | RJ45
- 852-32319 SSLX-SM1550/LONG-SC | 1 | 70 km | 4 | RJ45

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

Giga-AccessEtherLinX-II DC also available in CWDM Fiber. Call for details.

ACCESSORIES
895-39226 - Rackmount Bracket
895-39949 - Rackmount Shelf

iView: Windows 2000/XP/Vista/Win7
**SPECIFICATIONS**

**GENERAL**
- Monitors (remote) status without a physical presence or separate “IP” connection through UMA
- Maintains security; all management traffic can remain isolated from the data traffic
- Read/write IEEE 802.1Q VLAN-tags
- 0-in-Q (double-tagging) to further segregate customer VLAN traffic
- Can assign different TAGS based on DiffServ or PRI values of incoming frames.
- QoS: IEEE 802.1p-based or DSCP packet prioritization
  (2 queues [high/low] with 8 levels of priority)
- VLAN Tag-based on DSCP or priority of incoming frame (“traffic grooming”)
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps
- Includes per-port bi-directional bandwidth control
- AutoCross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- MTU: Supports packets up to 9600 bytes
- Supports Half- and Full-Duplex operation
- Supports IEEE 802.3x Flow Control

**MANAGEMENT**
- Includes GUI-based iView² software, featuring
  iConfig utility for rapid IP configuration
- SNMP V1 and V2c compatible
- Includes DHCP client for IP address assignment
- Features TFTP client for remote upgrades
- Supports Telnet - Includes DB-9 connector for serial configuration
- Includes per port loopback test modes
- Includes diagnostic LEDs

**ETHERNET PROTOCOLS SUPPORTED**
- 802.3 10Base-T twisted pair
- 802.3u 100Base-TX twisted pair
- 802.3ab 1000Base-T twisted pair
- 802.3z 1000Base-LX or SX fiber

**MECHANICAL**
- Dimensions: 1.64” H x 5.64” W x 8.95” D
  (4.2 cm x 14.3 cm x 22.7 cm)
- Enclosure: Metal
- Shipping Weight: 1.6 lbs. (0.6 kg)

**POWER RATING**
- 100-240V AC, 50/60Hz, 0.5/0.25A

**ENVIRONMENTAL**
- Operating Temperature: +32° to 122° F (0° to +50° C)
- Storage Temperature: -13° to +158°F (-25° to +70°C)
- Operating Humidity: 5 to 95% Non-condensing

**REGULATORY APPROVALS**
- FCC Class B
- UL/cUL, CE, CB

**MECHANICAL DIAGRAM**
(dimensions in inches)
The iMcV-FiberLinX-II intelligent media converter connects a Host/Remote Ethernet network over a fiber optic or CAT 5 copper connection. It combines media conversion with an advanced-feature set for network management and troubleshooting, including OAM (Operations, Administration and Maintenance), Extra-Tagging and EtherType control functionality. With the iMcV-FiberLinX-II, administrators can observe the end-points over the fiber segment between them, as a single management entity. Bandwidth scalability and support for MIBs II makes this modular device a cost-effective solution.

iMcV-FiberLinX-II allows for remote configuration and alerts administrators to any potential problems on the long-haul fiber run, provides vital information on link condition and reports data traffic statistics. In addition to the iMcV-FiberLinX-II’s support for Host/Remote environments, the product also has built-in support for the Unified Management Agent (UMA). With UMA, the central location can manage all Host/Remote pairs installed in an iMediaChassis with the single IP address of the chassis.

Optional single- or dual-SFP port versions or all copper (RJ-45) port versions are also available for complete network flexibility. The iMcV-FiberLinX-II SFP requires one or two MSA-compliant fiber optic SFP modules (sold separately) to operate. [Copper SFPs are not supported.]

### PRODUCT FEATURES
- Q-in-Q Extra/Tagging
- SNMP Manageable
- OAM 802.3ag/ah (Operation, Administration & Management)
- Per-port bi-directional Bandwidth control
- Features powerful LinkLoss, FiberAlert and loopback troubleshooting
- All management traffic remains isolated from the remote LAN

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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</thead>
<tbody>
<tr>
<td>iMcV-FiberLinX-II TX/SFP, TX/TX</td>
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<td>856-14501</td>
<td>SFP</td>
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<td>SM1550/LONG-ST</td>
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<td>RJ45</td>
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<td>SM1550/XLONG-SC</td>
<td>1</td>
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**SINGLE STRAND FIBER**

<table>
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<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
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<th>ETHERNET PORTS</th>
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<td>SSFX-MM1550-SC</td>
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<td>SSFX-MM1310-SC</td>
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<td>SSFX-MM1550-SC</td>
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<td>856-14045</td>
<td>SSFX-MM1310/PLUS-SC</td>
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<td>40 km</td>
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<td>856-14046</td>
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<td>856-14048</td>
<td>SSFX-MM1550/LONG-SC</td>
<td>1</td>
<td>60 km</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-FiberLinX-II also available in CWDM Fiber. Call for details.
**SPECIFICATIONS**

**GENERAL**
- Preserves complete end-to-end fiber connection integrity
- Broadcast Storm Protection
- Supports Extra Tagging (Q-in-Q) and selectable EtherTypes
- Bi-directional bandwidth control
- Supports 802.3ag/ah OAM (Operation, Administration & Management)
- ITU-T Y.1731 End-to-end service
- 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: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- AutoCross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- MTU: Supports over-sized (Jumbo) packets up to 1916 bytes per packet

**MANAGEMENT**
- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management and upgrades
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes LinkLoss and FiberAlert
- Supports the Unified Management Agent (UMA)

**ETHERNET PROTOCOLS SUPPORTED**
- IEEE 802.3i 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CE, CSA, CB

**MECHANICAL**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Standard single-slot chassis module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Weight</td>
<td>4 oz.</td>
</tr>
</tbody>
</table>

**POWER CONSUMPTION**
- 850mA at 3.3V

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: 0° to +160° F (-20° to +70° C)
- Operating Humidity: 5 to 95% Non-condensing

**MECHANICAL DIAGRAM**

(dimensions in inches)

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[Diagram of the 10/100 Mbps Managed Optical Demarcation Module iMcV-FiberLinX-II]
The iMcV-Giga-FiberLinX-II intelligent media converter connects a Host/Remote Ethernet network over a fiber optic or CAT 5 copper connection. It combines media conversion with an advanced feature set for network management and troubleshooting, including OAM (Operations, Administration and Maintenance), Extra-Tagging and EtherType control functionality. With the iMcV-Giga-FiberLinX-II, administrators can observe the end-points over the fiber segment between them, as a single management entity. Bandwidth scalability and support for MIBs II makes this modular device a versatile gigabit solution, now available as a single wide module.

iMcV-Giga-FiberLinX-II allows for remote configuration and alerts administrators to any potential problems on the long-haul fiber run, provides vital information on link condition and reports data traffic statistics. In addition to the iMcV-Giga-FiberLinX-II’s support for Host/Remote environments, the product also has built-in support for the Unified Management Agent (UMA). With UMA, the central location can manage all Host/Remote pairs installed in an iMediaChassis with the single IP address of the chassis.

Optional single- or dual-SFP port versions or all copper (RJ-45) port versions are also available for complete network flexibility. The iMcV-Giga-FiberLinX-II SFP requires one or two MSA-compliant fiber optic SFP modules (sold separately) to operate. [Copper SFPs are not supported.]
## SPECIFICATIONS

### GENERAL
- Preserves complete end-to-end fiber connection integrity
- Supports Extra Tagging (0-in-0)
- Supports 802.3ah OAM (Operation, Administration & Management)
- 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: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps
- Auto-Cross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- MTU: Supports over-sized (Jumbo) packets up to 12196 bytes

### SECURITY
- Password Control
- Multiple Access Levels: User Assigned Accounts & Access Levels

### MANAGEMENT
- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management and upgrades
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes LinkLoss and FiberAlert
- Supports the Unified Management Agent (UMA)
- Includes status LEDs

### ETHERNET PROTOCOLS SUPPORTED
- IEEE 802.3i 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3x Flow Control
- IEEE 802.3z 1000Base-X fiber
- IEEE 802.ab 1000Base-T twisted pair

### MECHANICAL
- Dimensions: Double Wide Module
- Shipping Weight: 0.8 lbs (0.36 kg)

### ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5 to 95% Non-condensing

### REGULATORY APPROVALS
- FCC Class A
- UL/cUL, CE, CSA

### MECHANICAL DIAGRAM
(dimensions in inches)

![Mechanical Diagram]
The iMcV-Giga-FiberLinX-III intelligent media converter connects a Host/Remote Ethernet network over a fiber optic or CAT 5 copper connection. It combines media conversion with an advanced-feature set for network management and troubleshooting, including OAM (Operations, Administration and Maintenance), Extra-Tagging and EtherType control functionality. With the iMcV-Giga-FiberLinX-III, administrators can observe the end-points over the fiber segment between them, as a single management entity. Bandwidth scalability and support for MiBs II makes this modular device a versatile gigabit solution, now available as a single wide module.

iMcV-Giga-FiberLinX-III allows for remote configuration and alerts administrators to any potential problems on the long-haul fiber run, provides vital information on link condition and reports data traffic statistics. In addition to the iMcV-Giga-FiberLinX-III’s support for Host/Remote environments, the product also has built-in support for the Unified Management Agent (UMA). With UMA, the central location can manage all Host/Remote pairs installed in an iMediaChassis with the single IP address of the chassis.

Optional single- or dual-SFP port versions or all copper (RJ-45) port versions are also available for complete network flexibility. The iMcV-Giga--FiberLinX-III SFP requires one or two MSA-compliant fiber optic SFP modules (sold separately) to operate. [Copper SFPs are not supported.]

### Product Features
- Single wide module, allowing maximum use of slots in multi-port chassis
- 3 mode of Operation, to ease the use of installation
- SFP port model supports both copper and fiber SFPs
- Backwards compatible with the iMcV-Giga-FiberLinX-II
- Offers up to 64 VLANs

### Ordering Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>Ethernet Ports</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>iMcV-Giga-FiberLinX-III TX/SFP</td>
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<td>Various</td>
<td>2</td>
<td>RJ45</td>
</tr>
<tr>
<td>iMcV-Giga-FiberLinX-III SX/SX, TX/LX</td>
<td>2</td>
<td>RJ45</td>
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</tr>
<tr>
<td>iMcV-Giga-FiberLinX-III LX-SM1310-SX</td>
<td>1</td>
<td>220/550 m</td>
<td>2</td>
<td>RJ45</td>
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<td>RJ45</td>
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<td>80 km</td>
<td>2</td>
<td>RJ45</td>
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<td>iMcV-Giga-FiberLinX-III LX-SM1550/XLONG-SX</td>
<td>1</td>
<td>100 km</td>
<td>2</td>
<td>RJ45</td>
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**SINGLE STRAND FIBER**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>Ethernet Ports</th>
<th>Connector</th>
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<td>15 km</td>
<td>2</td>
<td>RJ45</td>
</tr>
<tr>
<td>856-14222 SSBX-SM1310-SC (1490 rcv)</td>
<td>1</td>
<td>10 km</td>
<td>2</td>
<td>RJ45</td>
</tr>
<tr>
<td>856-14223 SSBX-SM1490-SC (1310 rcv)</td>
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<td>10 km</td>
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<td>RJ45</td>
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<td>856-14224 SSBX-SM1310/PLUS-SC (1490 rcv)</td>
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<td>856-14226 SSLX-SM1310/PLUS-SC (1550 rcv)</td>
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<td>RJ45</td>
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<tr>
<td>856-14228 SSLX-SM1490/LONG-SC (1550 rcv)</td>
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<td>856-14229 SSLX-SM1550/LONG-SC (1490 rcv)</td>
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<td>856-14231 SSLX-SM1550/XLONG-SC (1490 rcv)</td>
<td>1</td>
<td>80 km</td>
<td>2</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-Giga-FiberLinX-III also available in CWDM Fiber. Call for details.
10/100/1000 Mbps Managed Optical Demarcation Module  
iMcV-Giga-FiberLinX-III

**SPECIFICATIONS**

**GENERAL**
- Preserves complete end-to-end fiber connection integrity
- Supports Extra Tagging (Q-in-Q)
- Supports 802.3ah OAM (Operation, Administration & Management)
- Support 802.1ag
- 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: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps
- Features Auto Negotiation and Selective Advertising
- Supports up to 64 VLANs operation
- MTU: Supports over-sized (Jumbo) packets up to 10240 bytes

**SECURITY**
- Password Control
- Multiple Access Levels: User Assigned Accounts & Access Levels

**MANAGEMENT**
- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management (WIN and WebServer versions)
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes Link Fault Pass Through
- Supports Unified Management Agent (UMA)
- Includes status LEDs

**ETHERNET PROTOCOLS SUPPORTED**
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-X fiber
- IEEE 802.3x Flow Control
- IEEE 802.3i 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair

**MECHANICAL**

**Dimensions**
- Standard single-slot chassis module

**Power Consumption**
- 731mA at 5V

**Environmental**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Humidity: 5% - 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CSA, CE

**Mechanical Diagram**

(dimensions in inches)
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. As a remote, CPE device, it can be connected via the fiber segment to an iMcV-FiberLinX-II Host module to support Host/Remote management.

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), 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). Telco versions that support -48 VDC are also available.

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.

**PRODUCT FEATURES**
- Loopback troubleshooting
- SNMP Manageable
- Power options: AC, DC and 802.3af Power over Ethernet (PoE)
- Bi-directional Bandwidth control
- MTU: Supports over-sized packets up to 1916
- Supports passive 802.3ah OAM (Operation, Administration & Management)

**ORDERING INFORMATION**

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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
** For a complete list of modules without an AC Adapter, contact IMC Networks

IE-MiniFiberLinX-II also available in CWDM Fiber. Call for details.
**SPECIFICATIONS**

**GENERAL**
- Preserves complete end-to-end fiber connection integrity
- Bi-directional bandwidth control (per port, per direction, per VLAN)
- Read/write IEEE 802.1Q VLAN-tags
- Extra Tagging with Q-in-Q mode (802.1p)
- Supports passive 802.3ah OAM (Operation, Administration & Management)
- QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
- VLAN filtering up to 32 values
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- AutoCross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- MTU: Supports over-sized packets up to 1916 bytes per packet

**SECURITY**
- Password Control
- Multiple Access Levels: User Assigned Accounts & Access Levels

**MANAGEMENT**
- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management and upgrades
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes LinkLoss and FiberAlert
- Remote capabilities with built-in support for UMA (IP-less management)
- RS-232 (Craft) interface for local management
- Serial cable for direct connection to a PC's Serial Port

**MECHANICAL**

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

**POWER**
- AC Wall Adapter: 100 to 240 VAC ±10% input, 5 VDC output, 2A max.
- DC Input Voltage: 12 to 48 VDC *, 1 to .02A, 7 to 50 VDC, 1 to 0.1A
- IEEE 802.3af Power over Ethernet

**ENVIRONMENTAL**
- Operating Temperature: +14° to +122°F (-10° to +50°C) AC Adapter
- -13° to +167°F (-25° to +75°C) DC Adapter
- Storage Temperature: -49° to +185° F (-45° to +85° C)
- Operating Humidity: 5 to 95% Non-condensing

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CE, CSA, CB

---

**MECHANICAL DIAGRAM**

(dimensions in inches & millimeters)
**10/100 Mbps Managed Optical Demarcation Compact CPE Device**

IE-MiniFiberLinX-II/Telco

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. As a remote, CPE device, it can be connected via the fiber segment to an iMcV-FiberLinX-II Host module to support Host/Remote management.

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).

**PRODUCT FEATURES**

- Loopback troubleshooting
- SNMP Manageable
- Power options: AC, DC
- Bi-directional Bandwidth control
- MTU: Supports over-sized packets up to 1916
- Supports passive 802.3ah OAM (Operation, Administration & Management)

**ORDERING INFORMATION**

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**SINGLE STRAND FIBER** *

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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

IE-MiniFiberLinX-II/Telco also available in CWDM Fiber. Call for details.

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 806-39753 - IE-Power/5V Module, AC to DC DIN Rail Power Adapter

**IN THE FIELD**

Chilean Telecommunications Delivers Services Via Fiber Industry: Enterprise IT Product: Optical Ethernet Demarcation Module

www.bb-elec.com/ ChileCable

Carrier data charges may apply.
10/100 Mbps Managed Optical Demarcation Compact CPE Device
IE-MiniFiberLinX-II/Telco

SPECIFICATIONS

GENERAL
- Preserves complete end-to-end fiber connection integrity
- Bi-directional bandwidth control (per port, per direction, per VLAN)
- Read/write IEEE 802.1Q VLAN-tags
- Extra Tagging with Q-in-Q mode (802.1p)
- Supports passive 802.3ah OAM (Operation, Administration & Management)
- QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
- VLAN filtering up to 32 values
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- AutoCross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- MTU: Supports over-sized packets up to 1916 bytes per packet

SECURITY
- Password Control
- Multiple Access Levels: User Assigned Accounts & Access Levels

MANAGEMENT
- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management and upgrades
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes LinkLoss and FiberAlert
- Remote capabilities with built-in support for UMA (IP-less management)
- RS-232 (Craft) interface for local management
- Serial cable for direct connection to a PC’s Serial Port

ETHERNET PROTOCOLS SUPPORTED
- IEEE 802.3i 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber

MECHANICAL
- Dimensions 0.83”H x 1.80”W x 3.35”D
- AC Wall Adapter: 100 to 240 VAC ±10% input, 5 VDC output, 2A max.
- DC Input Voltage: 12 to 48 VDC *, 1 to .02A, 7 to 50 VDC, 1 to 0.1A

POWER
- Operating Temperature +14° to +122° F (-10° to +50° C) AC Adapter
- -13° to +167° F (-25° to +75° C) DC Adapter
- -49° to +185° F (-45° to +85° C) DC Telco
- Storage Temperature -49° to +185° F (-45° to +85° C)
- Operating Humidity 5 to 95% Non-condensing

REGULATORY APPROVALS
- FCC Class A
- UL/cUL, CE, CSA, CB

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
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 O-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. As a remote, CPE device, it can be connected via the fiber segment to an iMcV-FiberLinX-II Host module to support Host/Remote management.

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).
10/100 Mbps Managed Optical Demarcation Compact CPE Device
IE-MiniFiberLinX-II/LastGasp

SPECIFICATIONS

GENERAL
Preserves complete end-to-end fiber connection integrity
Bi-directional bandwidth control (per port, per direction, per VLAN)
Read/write IEEE 802.1Q VLAN-tags
Extra Tagging with Q-in-O mode (802.1p)
Supports passive 802.3ah OAM (Operation, Administration & Management)
QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
VLAN filtering up to 32 values
Layer 2 packet switching, store and forward operation
Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
AutoCross for MDI/MDIX
Features Auto Negotiation and Selective Advertising
Supports Half and Full-Duplex operation
MTU: Supports over-sized packets up to 1916 bytes per packet

SECURITY
Password Control
Multiple Access Levels: User Assigned Accounts & Access Levels

MANAGEMENT
SNMP V1 and V2c compatible
Includes GUI-based iView² software for remote management and upgrades
Monitors far-end (remote) status without a physical presence or separate connection
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Supports Telnet
Includes loopback test modes (MAC swap)
Includes LinkLoss and FiberAlert
Remote capabilities with built-in support for UMA (IP-less management)
RS-232 (Craft) interface for local management
Serial cable for direct connection to a PC’s Serial Port

ETHERNET PROTOCOLS SUPPORTED
IEEE 802.3i 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3u 100Base-FX or SX fiber

MECHANICAL

Dimensions 0.83”H x 1.80”W x 3.35”D (2.11 x 4.57 x 8.51 cm)
AC Wall Adapter: 100 to 240 VAC ±10% input, 5 VDC output, 2A max.
DC Input Voltage: 12 to 48 VDC *, 1 to .02A, 7 to 50 VDC, 1 to 0.1A
Operating Temperature +14° to +122° F (-10° to +50° C) AC Adapter
-13° to +167° F (-25° to +75° C) DC Adapter
-49° to +185° F (-45° to +85° C) DC Telco
Storage Temperature -49° to +185° F (-45° to +85° C)
Operating Humidity 5 to 95% Non-condensing

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

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
**Smallest, Most Reliable Switching Media Converter**

**MiniMc & MiniMc SFP**

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.

**PRODUCT FEATURES**

- One 100 Mbps FDX fiber port or 1 SFP fiber port
- One 10/100 Base-TX twisted pair port
- AutoCross automatic selection between crossover or straight-through connection
- Status LEDs
- 18 connections in the 1.5U high IE-PowerTray/18 Chassis

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39628 - USB 36"/.9m Power Cable (for MiniMc only)
- 806-39629 - USB 12"/.3m Power Cable (for MiniMc only)
- 806-39638 - Double-USB Power Cable, 36"/.9m
- 806-39650 - 12"/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket

**ORDERING INFORMATION**

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* SFP Fiber sold separately

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**SINGLE STRAND FIBER * **

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<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
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<td>1</td>
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</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

MiniMc TP-TX/FX also available in CWDM Fiber. Call for details.
Smallest, Most Reliable Switching Media Converter
MiniMc & MiniMc SFP

SPECIFICATIONS

TECHNICAL
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
Supports jumbo packets up to 1916 bytes
Plug-and-play operation
RJ45, ST or SC connectors and SFPs available
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Available with single-strand fiber support
Country-specific, high-reliability power adapter
Auto Negotiation, Auto-Cross for MDI/MDIX
Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,100 pps for 100 Mbps)
Status LEDs

MECHANICAL
Dimensions 0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)
Shipping Weight 0.7 lbs (.317 kg)

POWER
5 VDC, 500mA
AC Adapter: +32° F to +122° F (0° C to +50° C)

ENVIRONMENTAL
Operating Temperature: +32° F to +122° F (0° C to +50° C)
Storage Temperature: -31° F to +167° F (-35° C to +75° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class B
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
**Smallest, Most Reliable Switching Media Converter**

*MiniMc LFPT*

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. Measuring less than 3.5 inches deep and 2 inches wide, the MiniMc LFPT is one of the industry’s smallest media converters with both data connections on the same side of the unit. An optional fiber SFP port gives network operators the flexibility to upgrade network equipment to different fiber interfaces. Link Fault Pass Through (LFPT) can be enabled/disabled via a DIP Switch on the unit, and is a useful diagnostic feature that assists the network administrator in indicating a fault condition on a given segment between the interfaces.

Designed and manufactured in the USA, the MiniMc LFPT extends 10 and 100 Mbps twisted pair network segments up to 80 km over fiber. Both a media and data rate converter, the MiniMc LFPT features 10/100 Auto Negotiation on the copper port while the fiber port operates at 100 Mbps full duplex. MiniMc LFPT 10/100 switching fiber converters are ideal for all premises, FTTD, LAN-to-LAN or LAN-to-MAN fiber networking applications.

Multiple powering options include a country-specific AC wall adapter or USB-power cord. The unit can also be installed into the IE-PowerTray/18-AC which allows for 18 conversions in only 1.5U of rack space, DIN Rail mounted, or with a rack mount bracket.

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39628 - USB 36”/.9m Power Cable (for MiniMc only)
- 806-39629 - USB 12”/.3m Power Cable (for MiniMc only)
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket

**PRODUCT FEATURES**

- One 100 Mbps FDX fiber port or 1 SFP fiber port
- One 10/100 Base-TX twisted pair port
- AutoCross automatic selection between crossover or straight-through connection
- Supports Link Fault Pass Through

**ORDERING INFORMATION**

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<th>FIBER PORTS</th>
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* SFP Fiber sold separately

**ORDERING INFORMATION**

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**SINGLE STRAND FIBER**

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<td>RJ45</td>
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</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

MiniMc TP-TX/FX also available in CWDM Fiber. Call for details.
Smallest, Most Reliable Switching Media Converter
Minimc LFPT

Specifications

Technical
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
Supports jumbo packets up to 1916 bytes
Plug-and-play operation
RJ-45, ST or SC and SFP connectors available 50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Available with single-strand fiber support
Country-specific, high-reliability power adapter
Auto Negotiation, Auto-Cross for MDI/MDIX
Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,100 pps for 100 Mbps)
Status LEDs
Link Fault Pass Through

Mechanical
Dimensions 0.83”H x 1.80”W x 3.35”D (2.11 x 4.57 x 8.51 cm)
Shipping Weight 0.7 lbs (.317 kg)

Power
5 VDC, 500mA
AC Adapter: +32° F to +122° F (0° C to +50° C)

Environmental
Operating Temperature: +32° F to +122° F (0° C to +50° C)
Storage Temperature: -31° F to +167° F (-35° C to +75° C);
Operating Humidity 5% to 95% (non-condensing)

Regulatory Approvals
FCC Class B
UL/cUL, CSA, CE

Mechanical Diagram
(dimensions in inches & millimeters)
**Smallest, Most Reliable Gigabit Media Converter**

**MiniMc Gigabit**

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-Gigabit is the industry’s smallest gigabit 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-Gigabit easy and convenient to use.

**PRODUCT FEATURES**

- One 1000Base-SX or 1000Base-LX fiber Port
- One 1000Base-T twisted pair port
- AutoCross automatic selection between crossover or straight-through connection
- Status LEDs
- 18 connections in the 1.5U high IE-PowerTray/18 Chassis

**ORDERING INFORMATION**

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<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
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<th>ETHERNET PORTS</th>
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<td>70 km</td>
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</table>

*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket

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MiniMc-Gigabit TX/SX and TX/LX also available in CWDM Fiber. Call for details.
Smallest, Most Reliable Gigabit Media Converter
MiniMc Gigabit

SPECIFICATIONS

TECHNICAL
- Plug-and-play operation
- RJ45 and SC or SFP connectors
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- MTU: Supports Jumbo Frames up to 10,000 bytes
- Country-specific, high-reliability power adapter
- Layer 2 packet switching, store and forward (forwarding rate: 1,488,096 pps for 1000 Mbps)
- Auto-Cross for MDI/MDIX
- Status LEDs

MECHANICAL
- Dimensions: 0.83”H x 1.80”W x 3.35”D
  (2.11 x 4.57 x 8.51 cm)
- Shipping Weight: 0.7 lbs (.317 kg)

POWER
- 5 VDC, 400mA
- 120 VAC, 0.1A

ENVIRONMENTAL
- Operating Temperature: +32° F to +122° F (0° C to +50° C)
- Storage Temperature: -13° F to +158° F (-25° C to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

REGULATORY APPROVALS
- FCC Class B
- UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
**Smallest, Most Reliable Gigabit Switching Media Converter**

**Giga-MiniMc & Giga-MiniMc SFP**

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 Giga-MiniMc is the industry's smallest gigabit 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 Giga-MiniMc easy and convenient to use.

### ACCESSORIES

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket

### PRODUCT FEATURES

- One 1000Base-SC or 1000Base-LX fiber port
- One 10/100/1000 Mbps twisted pair port
- Status LEDs
- AutoCross automatic selection between crossover or straight-through connection
- 18 connections in the 1.5U high IE-PowerTray/18 Chassis
- SFP available

### ORDERING INFORMATION

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<tr>
<th>MODEL NUMBER</th>
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<th>ETHERNET PORTS</th>
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**SINGLE STRAND FIBER**

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* SFP Fiber sold separately

**These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

Giga-MiniMc also available in CWDM Fiber. Call for details.
Smallest, Most Reliable Gigabit Switching Media Converter
Giga-MiniMc & Giga-MiniMc SFP

SPECIFICATIONS

TECHNICAL
Plug-and-play operation
RJ45 and SC or SFP connectors
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3ab 1000Base-T twisted pair
IEEE 802.3z 1000Base-LX or SX fiber
MTU: Supports Jumbo Frames up to 1536 bytes
MTU: Supports Jumbo Frames up to 10240 bytes (Giga-MiniMc SFP)
Country-specific, high-reliability power adapter
Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,810 pps for 100 Mbps, 1,488,096 pps for 1000 Mbps)
Auto-Cross for MDI/MDIX
Status LEDs

MECHANICAL

Dimensions 0.83”H x 1.80”W x 3.35”D
(2.11 x 4.57 x 8.51 cm)
Shipping Weight 0.7 lbs (.317 kg)

POWER
5 VDC, 400mA
120 VAC, 0.1A

ENVIRONMENTAL
Operating Temperature: +32° F to +122° F (0° C to +50° C)
Storage Temperature: -31° F to +167° F (-35° C to +75° C);
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
Smallest, Most Reliable Gigabit Switching Media Converter

Giga-MiniMc LFPT

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, and having both data connections on the same side of the unit—the Giga-MiniMc-LFPT is the industry’s smallest media converter at a fraction of the cost of other alternatives. Link Fault Pass Through (LFPT) can be enabled/disabled via a DIP Switch on the unit, and is a useful diagnostic feature that assists the network administrator in indicating a fault condition on a given segment between the interfaces. Plug-and-play operation with a variety of model types and powering options make the Giga-MiniMc LFPT easy and convenient to use.

PRODUCT FEATURES

- One 1000Base-SX or SFP fiber port
- One 10/100/1000 Mbps twisted pair port
- AutoCross automatic selection between crossover or straight-through connection
- Status LEDs
- LFPT
- 18 connections in the 1.5U high PowerTray/18 Chassis

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>Ethernet Ports</th>
<th>Ethernet Connector</th>
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<tbody>
<tr>
<td>MiniMc-Gigabit LFPT SFP</td>
<td>SFP</td>
<td>1</td>
<td>Various</td>
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<td>RJ45</td>
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<td>856-11700</td>
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<tr>
<td>MiniMc-Gigabit LFPT</td>
<td>SX-MM850-SC</td>
<td>1</td>
<td>220/500 m</td>
<td>1</td>
<td>RJ45</td>
</tr>
</tbody>
</table>
| 856-11701 | | | | | *

* SFP Fiber sold separately

ACCESSORIES

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
## Specifications

<table>
<thead>
<tr>
<th>Technical</th>
<th>Mechanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug-and-play operation</td>
<td>Dimensions: 0.83&quot;H x 1.80&quot;W x 3.35&quot;D (2.11 x 4.57 x 8.51 cm)</td>
</tr>
<tr>
<td>RJ45 and SC or SFP connectors</td>
<td>Shipping Weight: 0.7 lbs (.317 kg)</td>
</tr>
<tr>
<td>IEEE 802.3 10Base-T twisted pair</td>
<td>Power: 5 VDC, 400mA</td>
</tr>
<tr>
<td>IEEE 802.3u 100Base-TX twisted pair</td>
<td>120 VAC, 0.1A</td>
</tr>
<tr>
<td>IEEE 802.3ab 1000Base-T twisted pair</td>
<td>Environmental: Operating Temperature: +32°F to +122°F (0°C to +50°C)</td>
</tr>
<tr>
<td>IEEE 802.3z 1000Base-LX or SX fiber</td>
<td>Storage Temperature: -31°F to +167°F (-35°C to +75°C);</td>
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<tr>
<td>MTU: Supports Jumbo Frames up to 10240 bytes</td>
<td>Operating Humidity 5% to 95% (non-condensing)</td>
</tr>
<tr>
<td>Country-specific, high-reliability power adapter</td>
<td>Regulatory Approvals: FCC Class A, UL/cUL, CSA, CE</td>
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<td>Auto-Cross for MDI/MDIX</td>
<td></td>
</tr>
<tr>
<td>Layer 2 packet switching, store and forward (forwarding rate: 1,488,096 pps for 1000 Mbps)</td>
<td></td>
</tr>
<tr>
<td>Status LEDs</td>
<td></td>
</tr>
</tbody>
</table>

### Mechanical Diagram

(dimensions in inches & millimeters)
Industrial Grade 10/100 Miniature Media Converters
IE-MiniMc

Measuring less than 3.5 inches deep and 2 inches wide, the IE-MiniMc Series converters are some of the industry’s smallest copper-to-fiber media converters, with both data connections on the same side. The IE-MiniMc family of media converters are a fraction of the cost of other industrial grade alternatives. These products provide the ease and convenience of plug-and-play operation with features including Auto Negotiation and Auto-Cross.

Multiple powering options include Power over Ethernet (PoE/PD), AC wall adapter and USB, which offers unsurpassed flexibility for a variety of installations.

PRODUCT FEATURES
- Value-add industrial grade extended temperature performance
- PNP, Auto Negotiation mode
- Auto-Cross feature for the twisted pair port cable
- Stand-alone unit in a small, rugged metal enclosure with a compact, external power supply
- IEEE 802.3af Compliant
- NEMA TS2 (select models)

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>1</td>
<td>2 km</td>
<td>RJ45</td>
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<td>855-19721</td>
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<td>2 km</td>
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<td>5 km</td>
<td>RJ45</td>
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<tr>
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<td>SM1310/PLUS-ST</td>
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<td>SM1310/PLUS-SC</td>
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<tr>
<td>855-19726</td>
<td>SM1310/LONG-ST</td>
<td>1</td>
<td>80 km</td>
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<td>SM1310/LONG-SC</td>
<td>1</td>
<td>80 km</td>
<td>RJ45</td>
</tr>
<tr>
<td>855-19730</td>
<td>SM1550/LONG-SC</td>
<td>1</td>
<td>80 km</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

IE-MiniMc also available in CWDM Fiber. Call for details.

ACCESSORIES
- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
- 806-39753 - IE-Power/5V Module, AC to DC DIN Rail Power Adapter

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

IN THE FIELD
Long Distance Connections in Airport Concourse
Industry: Transaction Management – Retail & Banking
Product: IE-MiniMc Fiber/Copper Media Converter
www.bb-elec.com/Airport

Carrier data charges may apply.
**SPECIFICATIONS**

**TECHNICAL**
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX fiber
- IEEE 802.3af Power Over Ethernet
- Supports jumbo packets up to 1916 bytes
- Plug-and-play operation
- RJ45 and ST or SC ports available
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available with single-strand fiber support
- Includes terminal DC power block
- Country-specific, high-reliability power adapter
- Auto Negotiation
  - Auto-Cross for MDI/MDIX
- Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,100 pps for 100 Mbps)
- Status LEDs

**MECHANICAL**
- Dimensions: 0.83”H x 1.80”W x 3.35”D (2.11 x 4.57 x 8.51 cm)
- Shipping Weight: 0.7 lbs (.317 kg)

**INPUT SPECIFICATIONS**
- DC Terminal: 7 - 50 VDC, 1A - 0.1A
- Barrel Connector: 5 VDC
- PoE: Maximum supply voltage is 50V

**ENVIRONMENTAL**
- Operating Temperature: DC or PoE (PD) -13° F to 185° F (-25° C to +85° C)
- Operating Temperature: AC wall adapter +14° F to +122° F (-10° C to +50° C)
- Storage Temperature: -31° F to +167° F (-35° C to +75° C)
- Operating Humidity: 5% to 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class A (using DC terminal or PoE power)
- FCC Class B (using any DC jack, optional)
- UL/cUL, CSA, CE
- NEMA TS2 (select models)

---

**MECHANICAL DIAGRAM**
(dimensions in inches & millimeters)
Industrial Grade 10/100/1000 Miniature Media Converters
IE-Giga-MiniMc

Media conversion is the most cost-effective and flexible solution for implementing new technologies on legacy wiring plants and equipment. But even reasonably-priced media converters can tack on a substantial sum to networking costs. And space constraints can also be an issue when hundreds of conversions are required.

Measuring less than 3.5 inches deep and 2 inches wide, and having both data connections on the same side of the unit — the IE-Giga-MiniMc is the industry’s smallest media converter at a fraction of the cost of other alternatives.

With Plug-and-Play, Auto Negotiation and AutoCross operation, extreme operating temperatures (-25° to +85° C), DC or AC power, the IE-Giga-MiniMc miniature media converter is easy and convenient to use.

PRODUCT FEATURES
- Connects 10/100/1000 Mbps copper to 1000 Mbps fiber
- For use in extended temperature environments
- Cascading power on DIN rail installations
- Dual USB power cable (optional)
- NEMA TS2 (select models)

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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</thead>
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<td>856-18830</td>
<td>MM850-SC</td>
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<td>220/550 m</td>
<td>1</td>
<td>RJ45</td>
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<td>15 km</td>
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<td>RJ45</td>
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<td>856-18834</td>
<td>SM1550/XLONG-SC</td>
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<td>100 km</td>
<td>1</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

IE-Giga-MiniMc also available in CWDM Fiber. Call for details.

ACCESSORIES
- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”,.9m
- 806-39650 - 12”.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
- 806-39753 - IE-Power/5V Module, AC to DC DIN Rail Power Adapter

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
**SPECIFICATIONS**

**TECHNICAL**
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- MTU: Supports Jumbo Frames up to 10240 bytes
- Extended temperature range (DC configuration)
- Plug-and-play operation
- Accepts RJ45 and SC connectors
- 50/125μm or 62.5/125μm multi-mode fiber
- 9/125μm single-mode fiber Single-strand fiber and CWDM models
- 4-terminal DC power with a pair of input terminals and a pair of output terminals for cascading power on DIN installations
- Country-specific, high-reliability power adapter
- Auto Negotiation, Auto-Cross for MDI/MDIX
- Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,810 pps for 100 Mbps, 1,488,096 pps for 1000 Mbps)
- Status LEDs
- Supports DIN Rail mounting

**MECHANICAL**
- Dimensions: 0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)
- Shipping Weight: 0.7 lbs (.317 kg)

**POWER**
- AC Adapter: 100 to 240 ±10% VAC input, 5 VDC @ 2.0 A max
- DC Input Voltage: 7 to 50 VDC @ 2.5 watts, Chassis grounded to negative terminal

**ENVIRONMENTAL**
- Operating Temperature:
  - DC terminal block: -13°F to +185°F (-25°C to +85°C)
  - AC Adapter: +14°F to +122°F (-10°C to +50°C)
- Storage Temperature: -31°F to +167°F (-35°C to +75°C)
- Operating Humidity: 5% to 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class B
- UL/cUL, CSA, CE
- NEMA TS2 (select models)

**MECHANICAL DIAGRAM**
(dimensions in inches & millimeters)
Media conversion is the most cost-effective and flexible solution for implementing new technologies on legacy wiring plants and equipment. But even reasonably-priced media converters can tack on a substantial sum to networking costs. And space constraints can also be an issue when hundreds of conversions are required.

Measuring less than 3.5 inches deep and 2 inches wide, and having both data connections on the same side of the unit—the IE-Giga-MiniMc-LFPT is the industry’s smallest media converter at a fraction of the cost of other alternatives. Link Fault Pass Through (LFPT) can be enabled/disabled via a DIP Switch on the unit, and is a useful diagnostic feature that assists the network administrator in indicating a fault condition on a given segment between the interfaces.

With Plug-and-Play, Auto Negotiation and AutoCross operation, extreme operating temperatures (-25° to +85° C), DC or AC power, the IE-Giga-MiniMc-LFPT miniature media converter is easy and convenient to use.

SFP port supports 100 Mbps or 1000 Mbps SFPs (fiber). This allows the customer to utilize the product for a Fast Ethernet circuit and later upgrade to Gigabit.

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
- 806-39753 - IE-Power/5V Module, AC to DC DIN Rail Power Adapter

**PRODUCT FEATURES**

- Connects 10/100/1000 Mbps copper to 1000 Mbps fiber
- For use in extended temperatures
- Cascading power on DIN rail installations
- Dual USB power cable (optional)
- Link Fault Pass-Through (LFPT) capability via a DIP Switch

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>220/550 m</td>
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<td>SM1550/XLONG-SC</td>
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<td>1</td>
<td>80 km</td>
<td>RJ45</td>
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</tbody>
</table>

* SFP Fiber sold separately

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

IE-Giga-MiniMc LFPT also available in CWDM Fiber. Call for details.
Industrial Grade 10/100/1000 Miniature Media Converters
IE-Giga-MiniMc (with LFPT Switch)

SPECIFICATIONS

TECHNICAL
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3ab 1000Base-T twisted pair
IEEE 802.3z 1000Base-LX or SX fiber
MTU: Supports Jumbo Frames up to 10240 bytes
Extended temperature range (DC configuration)
Plug-and-play operation
RJ45, SC and SFP connectors
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber Single-strand fiber and CWDM models
4-terminal DC power with a pair of input terminals and a pair of output terminals
for cascading power on DIN installations
Country-specific, high-reliability power adapter
Auto Negotiation, Auto-Cross for MDI/MDIX
Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,810 pps for 100 Mbps, 1,488,096 pps for 1000 Mbps)
Status LEDs
Supports DIN Rail mounting

MECHANICAL
Dimensions 0.83”H x 1.80”W x 3.35”D
(2.11 x 4.57 x 8.51 cm)
Shipping Weight 0.7 lbs (.317 kg)

POWER
AC Adapter 100 to 240 ±10% VAC input, 5 VDC @ 2.0 A max
DC Input Voltage 7 to 50 VDC @ 2.5 watts,
Chassis grounded to negative terminal

ENVIRONMENTAL
Operating Temperature:
DC terminal block -13°F to +185°F (-25°C to +85°C)
AC Adapter +14°F to +122°F (-10°C to +50°C)
Storage Temperature: -31° F to +167° F (-35° C to +75° C);
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class B
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
Industrial Grade 10/100 Miniature Media Converters
IE-MiniMc/LFPT & Telco-LFPT

Measuring less than 3.5 inches deep and 2 inches wide, the IE-MiniMc Series converters are some of the industry's smallest copper-to-fiber media converters, with both data connections on the same side. The IE-MiniMc family of media converters are a fraction of the cost of other industrial grade alternatives. These products provide the ease and convenience of plug-and-play operation with features including Auto Negotiation and Auto-Cross.

Advanced features such as Link Fault Pass-Through (LFPT) assist operators in identifying breaks in the network when using unmanaged network hardware. Multiple powering options include Power over Ethernet (PoE/PD), -48 VDC for Telco, AC wall adapter and USB, which offers unsurpassed flexibility for a variety of installations.

**PRODUCT FEATURES**

- Extended operating temperature of -25 to +85° C
- Auto-Cross automatic selection between crossover or straight-through connections
- Status LEDs
- Link Fault Pass-Through (LFPT) capability

**ACCESSORIES**

- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”/.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
- 806-39753 - IE-Power/5V Module, AC to DC DIN Rail Power Adapter

**ORDERING INFORMATION**

### IE-MiniMc/LFPT

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>PORTS</th>
<th>RANGE</th>
<th>PORTS</th>
<th>PORTS</th>
<th>CONNECTOR</th>
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<tbody>
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### IE-MiniMc/Telco-LFPT

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</table>
Industrial Grade 10/100 Miniature Media Converters
IE-MiniMc/LFPT & Telco-LFPT

**SPECIFICATIONS**

**TECHNICAL**
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX fiber
- IEEE 802.3af Power Over Ethernet
- Supports jumbo packets up to 1916 bytes
- Plug-and-play operation
- RJ45 and ST or SC ports available
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available with single-strand fiber support
- Includes terminal DC power block
- Country-specific, high-reliability power adapter
- Auto Negotiation
- Auto-Cross for MDI/MDIX
- Layer 2 packet switching, store and forward (forwarding rate: 14,881 pps for 10 Mbps, 148,100 pps for 100 Mbps)
- Status LEDs

**MECHANICAL**
- Dimensions 0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)
- Shipping Weight 0.7 lbs (.317 kg)

**INPUT SPECIFICATIONS**
- DC Terminal (Telco): 12 to 48 VDC
- Barrel Connector: 5 to 24 VDC
- PoE: Maximum supply voltage is 50V

**ENVIRONMENTAL**
- Operating Temperature: DC or PoE (PD) -13° F to 185° F (-25° C to +85° C)
- Operating Temperature: AC wall adapter +14° F to +122° F (-10° C to +50° C)
- Storage Temperature: -31° F to +167° F (-35° C to +75° C)
- Operating Humidity 5% to 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class A (using DC terminal or PoE power)
- FCC Class B (using any DC jack, optional)
- UL/cUL, CSA, CE

**MECHANICAL DIAGRAM**
(dimensions in inches & millimeters)

![Mechanical Diagram](image)
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, an LFPT DIP Switch, and PoE reset on fiber LOS. 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.

**ACCESSORIES**
- 806-39105 - DIN Rail Clip
- 806-39800 - PoE Power Adapter for PoE Giga-MiniMc
- 895-39229 - Wall Mount Bracket
- 806-39900 - PoE+ Power Adapter for PoE+ Giga-MiniMc
- 806-39910 - PoE+ Isolated Power Adapter

**ORDERING INFORMATION**

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<tr>
<th>Model Number</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>Ethernet Ports</th>
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**ORDERING INFORMATION**

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**PRODUCT FEATURES**
- Rugged stand-alone metal enclosure with compact external power supply
- Supports Jumbo Frames (up to 10240 bytes)
- Multiple mounting options (Desktop, DIN Rail or Wall-mount)
- Features configurable PoE Reset on Fiber LOS
- Supports IEEE 802.3af PoE (15.4 W) and IEEE 802.3at PoE+ (25.5 W) standards
- Link Fault Pass Through

PoE and PoE+ Giga-MiniMc also available in CWDM Fiber. Call for details.
PoE Switching Media Converter 10/100/1000 Mbps
PoE & PoE+ Giga-MiniMc LFPT

SPECIFICATIONS

TECHNICAL
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3ab 1000Base-T twisted pair
IEEE 802.3z 1000Base-LX or SX fiber
IEEE 802.3af Power over Ethernet
IEEE 802.3at Power over Ethernet Plus
IEEE 802.3u Auto-Negotiation
RFC-2474
RFC-2475 DiffServ QoS
Extreme temperature range (DC configuration)
Plug-and-play operation
Accepts RJ45, SC and SFP connectors
50/125μm or 62.5/125μm multi-mode fiber
9/125μm single-mode fiber
Single-strand fiber and CWDM models
Country-specific, high-reliability power adapter
FX and TX Auto Negotiation
AutoCross for MDI/MDIX
MTU: Supports Jumbo Frames up to 10240 bytes
Supports DIN Rail mounting (DIN clips sold separately)
Link Fault Pass Through DIP Switch

MECHANICAL

Dimensions: 0.80” H x 3.645” W x 3.82” D
(2.032 cm x 9.258 cm x 9.7028 cm)
Shipping Weight: 1.0 lbs (0.45 kg)

AC ADAPTER
PoE Giga-MiniMc: Input: 100 to 240 ±10% VAC, 50/60Hz, 0.7A *
Output: 48 VDC, 0.62A
PoE+ Giga-MiniMc: Input: 100 to 240 ±10% VAC, 50/60Hz, 2A *
Output: 52 VDC, 2.31A
* Maximum input power in Watts is calculated by multiplying the input amps by the lowest input voltage.

DC Input Voltage:
PoE Giga-MiniMc: 45 to 57 VDC on DC terminal block
PoE+ Giga-MiniMc: 48 VDC on DC jack
51 to 57 VDC on DC terminal block
51 to 57 VDC on DC jack

ENVIROMENTAL
Operating Temperature DC
Terminal Block: +32° F to +158° F (0° C to +70° C)
Operating Temperature AC Adapter:
+32° F to +122° F (0° C to +50° C)
Storage Temperature:
-31° F to +167° F (-35° C to +75° C)
Operating Humidity: 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
The PoE McBasic LFPT is the perfect solution for network applications that require Power over Ethernet for locations inside buildings where PoE is required to power an Ethernet device. The PoE McBasic LFPT offers three ports - a 100 Mbps fiber uplink for the network connection, one PoE/PSE 10/100Base-T copper port that provides Power over Ethernet, and one 10/100 Mbps copper port to connect a non-PoE unit to the same fiber uplink.

As a fiber-fed media converter, it provides both power (up to 15.4 Watts) and data to a single remote device over standard CAT5, eliminating the need for additional power to the device. The copper ports Auto Negotiate to the connected device’s speed and duplex mode: 10 Mbps or 100 Mbps, and HDX or FDX (including Flow Control). Additionally, the PoE McBasic LFPT supports jumbo frames up to 10240 bytes.

The PoE McBasic’s LFPT small, table-top design and durability makes it ideal for installation anywhere space is limited. Additionally, the PoE McBasic comes with an internal AC power supply. A Link Fault Pass Through DIP Switch is located on the bottom of the unit, to enable for link LED troubleshooting.

**PRODUCT FEATURES**

- 3 convenient ports - one 100 Mbps fixed fiber uplink port, one 10/100Base-T PoE/PSE port, and one 10/100 Mbps copper port
- Supports Jumbo Frames (up to 10240 bytes)
- Features configurable PoE reset on Fiber Loss of Signal (LOS)
- Supports LFPT, a diagnostic feature that can be enabled to assist the end user in troubleshooting a failed segment
- Supports IEEE 802.3af PoE (15.4W) standards

**ORDERING INFORMATION**

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<td>RJ45</td>
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</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**ACCESSORIES**

- 895-39226 - Rackmount Bracket
- 895-39227 - Wallmount Brackets
- 895-39949 - Rackmount Shelf

PoE McBasic LFPT also available in CWDM Fiber. Call for details.
10/100 Mbps PoE Media Converter
PoE McBasic LFPT

SPECIFICATIONS

TECHNICAL
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3af Power over Ethernet
IEEE 802.3u Auto-Negotiation
RFC-2474
RFC-2475 DiffServ QoS
Plug-and-play operation
Accepts RJ-45, SC and ST connectors
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Single-strand fiber and CWDM models
FX and TX Auto Negotiation
AutoCross for MDI/MDIX
MTU: Supports Jumbo Frames up to 10240 bytes
Link Fault Pass Through DIP Switch

MECHANICAL

Dimensions 1.46" H x 4.76" W x 7.32" D
(3.71 cm x 12.09 cm x 18.59 cm)
Shipping Weight 1.3 lbs (0.58 kg)

INPUT SPECIFICATIONS
100-240 ±10% VAC, 50/60Hz, 0.5A to 0.2A

POWER CHARACTERISTICS
Consumes less than 10 Watts (heating) plus PSE power
IEEE802.3af Power to field <15.4 Watts

ENIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: -40° to +185° F (-40° to +85° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL Diagram
(dimensions in inches)
The PoE Giga-McBasic LFPT are the perfect solutions for network applications that require Power over Ethernet for locations inside buildings where PoE is required to power an Ethernet device. Their small, table-top design and durability make them perfect for installation anywhere space is limited. Additionally, both units are manufactured with an internal AC power supply. This feature significantly increases reliability over products that use awkward, external AC/DC power transformers.

The PoE Giga-McBasic LFPT unit comes with one SFP or fixed fiber transceiver, one PoE/PSE 10/100/1000Base-T copper port that provides 15.4 Watts of power with data, and one 10/100/1000 Mbps copper port to connect a non-PoE unit to the same fiber uplink. A Link Fault Pass Through DIP Switch is available, to enable a link LED troubleshooting feature.

As a fiber-fed media converter, it provides both power and data to a remote device over standard CAT5, eliminating the need for additional power to the remote device. The copper ports Auto Negotiate to the connected device’s speed and duplex mode: 10 Mbps, 100 Mbps or 1000 Mbps, and HDX or FDX (including Flow Control). Additionally, both models support jumbo frames up to 10240 bytes.

Accessories
895-39226 - Rackmount Bracket
895-39227 - Wallmount Brackets
895-39949 - Rackmount Shelf

Ordering Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Port</th>
<th>Fiber Range</th>
<th>Ethernet Ports</th>
<th>Ethernet Connector</th>
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<td>LX-MM1300-SC</td>
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<td>RJ45</td>
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<tr>
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<td>70 km</td>
<td>2</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

** These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

PoE Giga-McBasic LFPT also available in CWDM Fiber. Call for details.
10/100/1000 Mbps PoE Switching Media Converter
PoE Giga-McBasic LFPT

SPECIFICATIONS

TECHNICAL
IEEE 802.3 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3af Power over Ethernet
IEEE 802.3at Power over Ethernet Plus
IEEE 802.3u Auto-Negotiation
RFC-2474
RFC-2475 DiffServ QoS
Plug-and-play operation
Accepts RJ-45 and SFP or SC connectors
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Single-strand fiber and CWDM models
FX and TX Auto Negotiation
AutoCross for MDI/MDIX
MTU: Supports Jumbo Frames up to 10240 bytes
Link Fault Pass Through (LFPT)

MECHANICAL
(dimensions in inches)

MECHANICAL DIAGRAM

MECHANICAL

Specifications

Dimensions 1.46"H x 4.76"W x 7.32"D
(3.71 cm x 12.09 cm x 18.59 cm)

Shipping Weight 1.3 lbs (0.58 kg)

INPUT SPECIFICATIONS
100-240 ±10% VAC, 50/60Hz, 0.5A to 0.2A

POWER CHARACTERISTICS
Consumes less than 10 watts (heating) plus PSE power
IEEE802.3af Power to field < 15.5 watts

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: -40° to +185° F (-40° to +85° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

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**ETHERNET MEDIA CONVERTERS**

# 10/100/1000 Mbps PoE+ Switching Media Converter

**PoE+ Giga-McBasic LFPT**

The PoE+ Giga-McBasic LFPT are the perfect solutions for network applications that require Power over Ethernet for locations inside buildings where PoE is required to power an Ethernet device. Their small, table-top design and durability make them perfect for installation anywhere space is limited. Additionally, both units are manufactured with an internal AC power supply. An LFPT DIP Switch is available to enable for diagnostic troubleshooting.

The PoE+ Giga-McBasic LFPT unit comes with one SFP or fixed fiber transceiver and two PoE/PSE 10/100/1000Base-T copper. Each port provides 25.5 Watts of power with data.

As a fiber-fed media converter, it provides both power and data to a remote device over standard CAT5, eliminating the need for additional power to the remote device. The copper ports Auto Negotiate to the connected device’s speed and duplex mode: 10 Mbps, 100 Mbps or 1000 Mbps, and HDX or FDX (including Flow Control). Additionally, both models support jumbo frames up to 10240 bytes.

**PRODUCT FEATURES**

- Connects 10/100/1000 Mbps copper to 100 or 1000 Mbps fiber SFP or 10/100/1000 Mbps or 1000 Mbps copper SFP
- Supports Jumbo Frames (up to 10240 bytes)
- Rugged standalone metal enclosure with internal power supply
- Features configurable PoE reset on Fiber Loss of Signal (LOS)
- Supports LFPT, a diagnostic feature that can be enabled to assist the end user in troubleshooting a failed segment
- Supports IEEE 802.3af PoE (15.4W)

## ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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</table>

* SFP Fiber sold separately

** These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**PoE+ Giga-McBasic LFPT also available in CWDM Fiber. Call for details.**

## ACCESSORIES

- **895-39226** - Rackmount Bracket
- **895-39227** - Wallmount Brackets
- **895-39949** - Rackmount Shelf
### SPECIFICATIONS

#### TECHNICAL
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet Plus
- IEEE 802.3u Auto-Negotiation
- RFC-2474
- RFC-2475 DiffServ QoS
- Plug-and-play operation
- Accepts RJ-45 and SFP or SC connectors
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Single-strand fiber and CWDM models
- FX and TX Auto Negotiation
- AutoCross for MDI/MDIX
- MTU: Supports Jumbo Frames up to 10240 bytes
- Link Fault Pass Through (LFPT)

#### MECHANICAL

**Dimensions**: 1.46”H x 4.76”W x 7.32”D (3.71 cm x 12.09 cm x 18.59 cm)
- **Shipping Weight**: 1.3 lbs (0.58 kg)

**INPUT SPECIFICATIONS**
- 100-240 ±10% VAC, 50/60Hz, 0.5A to 0.2A

**POWER CHARACTERISTICS**
- Consumes less than 10 watts (heating) plus PSE power
- IEEE802.3af Power to field < 15.5 watts

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -40° to +185° F (-40° to +85° C)
- Operating Humidity: 5% to 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CSA, CE

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### MECHANICAL DIAGRAM

(dimensions in inches)

![Mechanical Diagram](image-url)
10 Mbps Compact Media Converter
McBasic TP/FO

The McBasic’s small, table-top design and durability make it perfect for installation anywhere space is limited. Additionally, the McBasic comes with an internal AC power supply. This feature significantly increases reliability over products that use bulky, external AC/DC power transformers.

The McBasic includes troubleshooting features such as LinkLoss and FiberAlert, that make isolating fiber breaks easier should they occur. The McBasic also features a crossover/pass-through switch on the twisted pair connection for MDI/MDIX connectivity and diagnostic LEDs. The McBasic TP/FO requires a connection to a device set to Force Mode. It is available in multi-mode and single-mode fiber.

PRODUCT FEATURES
- Has a small, rugged design offering many advanced features
- Available for multi-mode or single-mode fiber
- LinkLoss and FiberAlert LEDs, assist in diagnosing problems on fiber optic networks
- Convert 10 Mbps twisted pair to 10 Mbps fiber

ORDERING INFORMATION

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<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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ACCESSORIES
895-39226 - Rackmount Bracket
895-39949 - Rackmount Shelf
10 Mbps Compact Media Converter
McBasic TP/FO

SPECIFICATIONS

TECHNICAL
Include MDI/MDIX switch
Includes fixed, internal AC power
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Includes diagnostic LEDs
IEEE 802.3 10Base-T twisted pair and 10Base-FL fiber
Features LinkLoss and FiberAlert

CONNECTORS
RJ45 and ST or SC
Supports Half- and Full-Duplex operation

MECHANICAL
Dimensions 1.64”H x 4.75”W x 4.95”D
(4.2 cm x 12.17 cm x 11.64 cm)
Shipping Weight 1.3 lbs (0.58 kg)

POWER RATING
100-240 VAC, 50/60Hz, 1.0A

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: 0° to +160° F (-20° to +70° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
100 Mbps Compact Media Converter
McBasic TX/FX

The McBasic’s small, table-top design and durability make it perfect for installation anywhere space is limited. Additionally, the McBasic comes with an internal AC power supply. This feature significantly increases reliability over products that use bulky, external AC/DC power transformers. The McBasic series includes:

- Has a small, rugged design offering many advanced features
- Available for multi-mode or single-mode fiber
- LinkLoss and FiberAlert features, along with LEDs, assist in diagnosing
- Convert 100 Mbps twisted pair to 100 Mbps fiber

**PRODUCT FEATURES**

**ORDERING INFORMATION**

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<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**ACCESSORIES**

895-39226 - Rackmount Bracket
895-39949 - Rackmount Shelf
100 Mbps Compact Media Converter
McBasic TX/FX

SPECIFICATIONS

TECHNICAL
Include MDI/MDIX switch
Includes fixed, internal AC power
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Includes diagnostic LEDs
IEEE 802.3u 100Base-TX twisted pair and 100Base-FX or -SX fiber
Features LinkLoss and FiberAlert
Features Auto Negotiation

CONNECTORS
RJ45 and ST or SC
Supports Half- and Full-Duplex operation

MECHANICAL
Dimensions 1.64"H x 4.75"W x 4.95"D (4.2 cm x 12.17 cm x 11.64 cm)
Shipping Weight 1.3 lbs (0.58 kg)

POWER RATING
100-240 VAC, 50/60Hz, 1.0A

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: 0° to +160° F (-20° to +70° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
10/100 Mbps Auto Sensing Compact Media Converter
McBasic 10/100 TX/FX

The McBasic’s small, table-top design and durability make it perfect for installation anywhere space is limited. Additionally, the McBasic comes with an internal AC power supply. This feature significantly increases reliability over products that use bulky, external AC/DC power transformers.

The McBasic includes troubleshooting features such as LinkLoss, Transparency and Link Fault Detection that make isolating fiber breaks easier should they occur. The McBasic also features a crossover/pass-through switch on the twisted pair connection for MDI/MDIX connectivity and diagnostic LEDs. Most McBasic units are available with single-strand fiber which can effectively double the capacity of fiber by allowing two individual channels to share one strand of fiber; Full-Duplex data travels on different wavelengths — 1310 nm and 1550 nm, for example.

Auto-Sensing 10/100 Mbps McBasic converters offer significant advantages over regular 10 and 100 Mbps converters. An ideal choice for both enterprise and service provider networks, 10/100 converters save time and money when deployed at the host and remote site. Enterprise networks planning a migration path from 10 Mbps to 100 Mbps often deploy Auto Sensing converters, then upgrade when ready and units will automatically adapt to increased speed. Service providers with 10 or 100 Mbps links to customer premises can sell customers more bandwidth without upgrading the converters at the POP and the customer network edge.

PRODUCT FEATURES

- Has a small, rugged design offering many advanced features
- Available for multi-mode or single-mode fiber
- LinkLoss, Transparency and Link Fault Detection features, along with LEDs, assist in diagnosing problems on fiber optic networks
- Convert 10 Mbps twisted pair to 10 Mbps fiber OR convert 100 Mbps twisted pair to 100 Mbps fiber

ORDERING INFORMATION

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ACCESSORIES

895-39226 - Rackmount Bracket
895-39949 - Rackmount Shelf
**10/100 Mbps Auto Sensing Compact Media Converter**

McBasic 10/100 TX/FX

### SPECIFICATIONS

#### TECHNICAL
- Include MDI/MDIX switch
- Includes fixed, internal AC power
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Includes diagnostic LEDs
- IEEE 802.3 10Base-T twisted pair and 10Base-FL fiber
- IEEE 802.3u 100Base-TX twisted pair and 100Base-FX or -SX fiber
- Features Link Fault Detection and Transparency
- Features Auto Negotiation

#### CONNECTORS
- RJ45 and ST or SC
- Supports Half- and Full-Duplex operation

### MECHANICAL

#### Dimensions
- 1.64"H x 4.75"W x 4.95"D
  - (4.2 cm x 12.17 cm x 11.64 cm)

#### Shipping Weight
- 1.3 lbs (0.58 kg)

### POWER RATING
- 100-240 VAC, 50/60Hz, 1.0A

### ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: 0° to +160° F (-20° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

### REGULATORY APPROVALS
- FCC Class A
- UL/cUL, CSA, CE

### MECHANICAL DIAGRAM

(dimensions in inches & millimeters)
**ETHERNET MEDIA CONVERTERS**

**1000 Mbps Compact Media Converter**

**McBasic Gigabit (LFPT)**

The McBasic’s small, table-top design and durability make it perfect for installation anywhere space is limited. Additionally, the McBasic comes with an internal AC power supply. This feature significantly increases reliability over products that use bulky, external AC/DC power transformers.

LinkLoss, FiberAlert and Link Fault Pass Through (LFPT) that make isolating fiber breaks easier should they occur. The McBasic also features AutoCross to support crossover/pass-through on the twisted pair connection and diagnostic LEDs. Most McBasic units are available with single-strand fiber which can effectively double the capacity of fiber by allowing two individual channels to share one strand of fiber; Full-Duplex data travels on different wavelengths — 1310 nm and 1550 nm, for example.

**PRODUCT FEATURES**

- Has a small, rugged design offering many advanced features
- Available for multi-mode or single-mode fiber
- LinkLoss, FiberAlert, and Link Fault Pass Through features, along with LEDs, assist in diagnosing problems on fiber optic networks
- Convert 1000 Mbps twisted pair to 1000 Mbps fiber

**ORDERING INFORMATION**

<table>
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<tr>
<th>MODEL NUMBER</th>
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<th>FIBER PORTS</th>
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</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**ACCESSORIES**

- 895-39226 - Rackmount Bracket
- 895-39949 - Rackmount Shelf
1000 Mbps Compact Media Converter
McBasic Gigabit (LFPT)

SPECIFICATIONS

TECHNICAL
Include MDI/MDIX switch
Includes fixed, internal AC power
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Includes diagnostic LEDs
IEEE 802.3ab 1000Base-T twisted pair
IEEE 802.3z 1000Base-LX or SX fiber
Features Link Fault Pass-Through (LFPT) and FiberAlert

CONNECTORS
RJ45 and SC
Supports Half- and Full-Duplex operation

MECHANICAL

Dimensions 1.64"H x 4.75"W x 7.3"D
(4.2 cm x 12.17 cm x 18.71 cm)
Shipping Weight 1.7 lbs (0.77 kg)

POWER RATING
100-240 VAC, 50/60Hz, 1.0A

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: 0° to +160° F (-20° to +70° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
The PoE PD-Switch is a full-featured, 5-port 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 usually runs only 100 meters; through the use of the PD-Switch, the outer range of an Ethernet network can be extended 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” RJ45 port and either:

- Four 10/100Base-T RJ45 data ports
- Three 10/100Base-T RJ45 data ports and one SFP data port
- Two 10/100Base-T RJ45 data ports and one 100Base-FX fiber data port

### PRODUCT FEATURES
- PD accepts power from any network device providing PoE
- Multiple ports increase network port density
- SFP and fiber port configurations (optional) for different network environments
- Broadcast Storm Protection helps control excessive broadcast traffic
- Supports 1916 byte packet size
- Far End Fault provides notification of Link Loss on all fiber ports

### ORDERING INFORMATION

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<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
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* SFP Fiber sold separately
** These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
## Specifications

### Technical
- RoHS-Compliant
- Acts as a PD – Powered Device
- IEEE 802.3x 10/100Base-T
- IEEE 802.3u Auto-Negotiation
- IEEE 802.3af Power Over Ethernet, Powered (PD)
- RFC-2474 and RFC-2475 DiffServ/ToS
- High Priority port
- AutoCross and Auto-Negotiation on all ports
- Includes diagnostic LEDs
- Maximum 1,916 byte Packet Size
- Broadcast Storm Protection
- 50/125µm or 62.5/125µm multi-mode
- 9/125µm single-mode
- Available for single-strand fiber
- Small, rugged design
- Supports Half and Full-Duplex operation

### Mechanical
- Dimensions: 1.55”H x 4.75”L x 7.31”D (3.94 cm H x 12.07 cm L x 18.57 cm D)
- Shipping Weight: 1.8 lbs (.82 kg)

### Power Rating
- 36 to 50 VDC, 56 to 40mA

### Environmental
- Operating Temperature: +32° F to +122° F (0° C to +50°C)
- Storage Temperature: -13° C to +158° F (-25° C to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

### Regulatory Approvals
- FCC Class A
- CE

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### Mechanical Diagram

(dimensions in inches & millimeters)

![Mechanical Diagram](image-url)
Multi-Port, 10/100 Mbps Switching Standalone Media Converter

AccessConverter

Terminating a fiber run while using various local, copper-based devices such as PCs, printers, VoIP, etc. is essential for the success of Fiber-to-the Business, Curb and other FTTx projects. Remote locations have similar configuration demands. Connecting the multiple copper devices to the fiber, however, typically requires the use of both a media converter and a switch—two pieces of equipment to purchase and two pieces of equipment to monitor and maintain. The AccessConverter streamlines FTTx projects as well as the connection of remote locations as a multi-port, switching media converter.

Best of all, one compact AccessConverter module reduces the amount of required equipment while providing all the features of a switch (store and forward switching mechanics, MAC address learning, protection against broadcast storms, flow control, etc.) and performing the electrical-to-optical conversion. In addition, the unit’s small size and wall-mount bracket (included) allow you to install AccessConverter virtually anywhere, including inside a network interface device (NID).

Requiring no configuration, the AccessConverter offers plug-and-play operation:

- Each copper port auto-senses the connected device’s speed and duplex mode (10 Mbps or 100 Mbps and HDX or FDX) and includes AutoCross, a feature which automatically selects between a crossover workstation (MDIX) or pass-through (MDI) connection depending on the connected device.
- The fiber port always operates at 100 Mbps FDX, and supports distances up to 80 km; single-strand fiber versions are available.

**PRODUCT FEATURES**

- Low cost, high flexibility — same small unit performs media conversion and switching functions
- Offers three downlink connections
- Compact size allows for flexible installation configurations
- Unmanaged

**ORDERING INFORMATION**

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<tr>
<th>MODEL NUMBER</th>
<th>FIBER CONVEYOR</th>
<th>FIBER PORTS RANGE</th>
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**SINGLE-STRAND FIBER**

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*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.*
Multi-Port, 10/100 Mbps Switching Standalone Media Converter

AccessConverter

SPECIFICATIONS

TECHNICAL
- Auto Negotiation of speed and duplex (HDX/FDX) on copper ports
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- 1024 MAC address learning
- MTU: Supports over-sized packets up to 1536 bytes
- Full wire speed on all ports
- Broadcast storm protection
- AutoCross for MDI/MDIX
- LinkLoss and FiberAlert
- Auto Negotiation
- Diagnostic LEDs
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Single-strand fiber
- All copper version also available (TX/3 + TX)
- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3u 100Base-FX
- IEEE 802.3x Flow Control

CONNECTORS
- RJ45, ST, SC and MT-RJ
- Supports Half- and Full-Duplex operation

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)

MECHANICAL
- Dimensions: 0.92" H x 3.50" W x 4.38" D (2.34 x 8.89 x 11.13 cm)
- Shipping Weight: 1.1 lbs. (0.50 kg)
- Power Rating: 5V DC, 1A

ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158°F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

REGULATORY APPROVALS
- FCC Class B
- UL/cUL, CSA, CE

Supports Half- and Full-Duplex operation
Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber, copper-to-coax or fiber-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter Series is the perfect solution.

MediaConverter Series enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

### PRODUCT FEATURES

- Modular, hot-swappable architecture reduces operational costs associated with product installations, upgrades and maintenance
- One 10 Mbps twisted pair port with RJ45 connector
- One 10 Mbps fiber port with ST and SC connectors
- Plug-and-play operation

### ORDERING INFORMATION

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<th>MODEL NUMBER</th>
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<th>FIBER PORTS</th>
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## SPECIFICATIONS

### TECHNICAL
- Install in any MediaConverter chassis
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Include diagnostic LEDs
- Include hot-swappable architecture
- 10Base-T twisted pair
- 10Base-FL fiber
- Includes MDI/MDIX switch
- Features LinkLoss and FiberAlert

### CONNECTORS
- RJ45, ST and SC
- Supports Half- and Full-Duplex operation

### MECHANICAL
- **Dimensions**: 0.75”H x 2.50”W x 4”D (2.20 x 6.41 x 10.25 cm)
- **Shipping Weight**: 0.7 lbs. (0.3 kg)

### ENVIRONMENTAL
- **Operating Temperature**: +32° to +122° F (0° to +50° C)
- **Storage Temperature**: -13° to +158°F (-25° to +70° C)
- **Operating Humidity**: 5% to 95% (non-condensing)

### REGULATORY APPROVALS
- FCC Class B
- UL/cUL, CSA, CE

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### MECHANICAL DIAGRAM

(dimensions in inches)
ETHERNET MEDIA CONVERTERS

100 Mbps Media Converter Module
McLIM TX/FX

Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter Series is the perfect solution.

MediaConverter Series enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

PRODUCT FEATURES
- Modular, hot-swappable architecture reduces operational costs associated with product installations, upgrades and maintenance
- One 100 Mbps twisted pair port with and RJ45 connector
- One 100 Mbps fiber port with ST and SC connectors
- Plug-and-play operation

ORDERING INFORMATION

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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
100 Mbps Media Converter Module
McLIM TX/FX

SPECIFICATIONS

TECHNICAL
Install in any MediaConverter chassis
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Include diagnostic LEDs
Include hot-swappable architecture
100Base-TX twisted pair
100Base-FX or SX fiber
AutoCross for MDI/MDIX
Features LinkLoss and FiberAlert
Features Auto Negotiation

CONNECTORS
RJ45, ST and SC
Supports Half- and Full-Duplex operation

MECHANICAL
Dimensions 0.75"H x 2.50"W x 4"D (2.20 x 6.41 x 10.25 cm)
Shipping Weight 0.7 lbs. (0.3 kg)

ENVIRONMENTAL
Operating Temperature +32°F to +122°F (0° to +50° C)
Storage Temperature: -13°F to +158°F (-25° to +70° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class B
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter Series is the perfect solution.

MediaConverter Series enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

**PRODUCT FEATURES**
- Modular, hot-swappable architecture reduces operational costs associated with product installations, upgrades and maintenance
- One 10/100 Mbps twisted pair port with and RJ45 connector
- One 100 Mbps fiber port with ST and SC connectors
- Plug-and-play operation

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
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<th>ETHERNET PORTS</th>
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**SINGLE-STRAND FIBER**

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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
## SPECIFICATIONS

### TECHNICAL
- Install in any MediaConverter chassis
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Include diagnostic LEDs
- Include hot-swappable architecture
- 10Base-T twisted pair
- 100Base-TX twisted pair
- 100Base-FX or SX fiber
- AutoCross for MDI/MDIX
- Features Auto Negotiation

### CONNECTORS
- RJ45, ST and SC
- Supports Half- and Full-Duplex operation

### MECHANICAL
- Dimensions: 0.75"H x 2.50"W x 4"D (2.20 x 6.41 x 10.25 cm)
- Shipping Weight: 0.7 lbs. (0.3 kg)

### ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158°F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

### REGULATORY APPROVALS
- FCC Class B
- UL/cUL, CSA, CE

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### MECHANICAL DIAGRAM
(dimensions in inches)
1000 Mbps Media Converter Module
McGigabit

Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter Series is the perfect solution.

MediaConverter Series enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

**PRODUCT FEATURES**

- Modular, hot-swappable architecture reduces operational costs associated with product installations, upgrades and maintenance
- One 1000 Mbps twisted pair port with and RJ45 connector
- One 1000 Mbps fiber port with SC connector
- Plug-and-play operation

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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**SINGLE-STRAND FIBER**

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* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B INC LLC single-strand fiber product.
1000 Mbps Media Converter Module

McGigabit

SPECIFICATIONS

TECHNICAL
Install in any MediaConverter chassis
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Include diagnostic LEDs
Include hot-swappable architecture
1000Base-T twisted pair
1000Base-LX or SX fiber
AutoCross for MDI/MDIX

CONNECTORS
RJ45 and SC
Supports Half- and Full-Duplex operation

MECHANICAL
Dimensions 0.75"H x 2.50"W x 4"D (2.20 x 6.41 x 10.25 cm)
Shipping Weight 0.7 lbs. (0.3 kg)

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: -13° to +158°F (-25° to +70° C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class B
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
**McPC Series 100, 10/100 & Gigabit**

McPC Series Media Converters are ideal for Fiber-to-the-Desktop (FTTD) applications and for companies with frequent workstation moves and changes. Installing inside a PC or workstation, and plugging into an adjacent network interface card (NIC), these compact units eliminate the need to place Media Converters on top of desks or computers, reducing clutter of cords and adapters at the workspace.

**The McPC Series includes**:
- **100 Mbps Fast Ethernet (TX/FX)** - Designed to connect to NIC cards running at Fast Ethernet speeds.
- **10/100 Mbps** - A media converter that auto-senses the connected device's rate (10 Mbps or 100 Mbps) and duplex mode (Half-Duplex/Full-Duplex).
- **1000 Mbps Gigabit Ethernet (TX/SX or LX)** - Converts 1000 Mbps over copper to 1000 Mbps over fiber. Ideal for bringing Gigabit speed connectivity to the desktop.

McPC converters accommodate crossover or pass through cables, with either a pushbutton MDI/MDIX switch or AutoCross, a feature which automatically selects the correct operating mode. Units also feature handy status LEDs to assist in network diagnostics and troubleshooting. In addition, McPC TX/FX and McPC 10/100 include troubleshooting features that make it easy to isolate fiber breaks.

**ACCESSORIES**

806-39230 - SATA Cable for McPC

**IN THE FIELD**

**High Bandwidth for National Archives**

Industry: Enterprise IT

Product: Mc PC Multi-mode Fiber Media Converters

[www.bb-elec.com/Archives](http://www.bb-elec.com/Archives)

**ORDERING INFORMATION**

**McPC TX/FX 100 Mbps ISA**

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<th>Model Number</th>
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<th>Fiber Ports</th>
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**McPC TX/FX 100 Mbps PCI**

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**McPC 10/100 Mbps PCI**

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**McPC-Gigabit 1.25 Gbps PCI**

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**SINGLE-STRAAND FIBER**

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*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.*
**PC Card Ethernet Media Converters**

**McPC Series 100, 10/100 & Gigabit**

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>TECHNICAL</th>
<th>MECHANICAL</th>
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<tbody>
<tr>
<td>Save money by keeping existing copper network card (NIC) and converting inside the PC</td>
<td>PCI, ISA Slot Configurations</td>
</tr>
<tr>
<td>No drivers to install; McPC mounts inside any PC or workstation with a standard PCI or ISA slot</td>
<td>Shipping Weight 0.6 lbs (0.22 kg)</td>
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<tr>
<td>Includes a standard 4-pin peripheral power connector</td>
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</tr>
<tr>
<td>AutoCross or push-button selectable MDI/MDIX, depending on the unit</td>
<td>Operating Temperature +32° to +122° F (0° to +50° C)</td>
</tr>
<tr>
<td>50/125μm or 62.5/125μm multi-mode fiber</td>
<td>Storage Temperature: -4° to +158° F (-20° to +70° C)</td>
</tr>
<tr>
<td>Includes status LEDs</td>
<td>Operating Humidity 5% to 95% (non-condensing)</td>
</tr>
<tr>
<td>RoHS-Compliant</td>
<td>REGULATORY APPROVALS</td>
</tr>
<tr>
<td>Plug-and-play operation</td>
<td>FCC Class B</td>
</tr>
<tr>
<td></td>
<td>UL/cUL, CSA, CE</td>
</tr>
</tbody>
</table>

#### MCPC 100 MBPs (TX/FX)

- 100 Mbps twisted pair copper to fiber media conversion
- IEEE 802.3u 100Base-TX twisted pair
- Features LinkLoss and FiberAlert
- Features Auto Negotiation

#### MCPC 10/100 MBPs (TP-TX/FX)

- 10 Mbps and 100 Mbps to 100 Mbps twisted pair, auto-sensing media conversion
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber
- Features Auto Negotiation

#### MCPC GIGABIT

- 1000 Mbps twisted pair to fiber media conversion
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- Optionally available for single-strand fiber

#### CONNECTORS

- RJ45, ST and SC
- Supports Half- and Full-Duplex operation

### MECHANICAL DIAGRAM

[Diagram showing the mechanical connections and components of the McPC Series 100, 10/100 & Gigabit Ethernet media converters.]
McPC MediaLinX Series Media Converters are ideal for Fiber-to-the-Desktop (FTTD) applications and for companies with frequent workstation moves and changes. Installing inside a PC or workstation, and plugging into an adjacent network interface card (NIC), these compact units eliminate the need to place Media Converters on top of desks or computers, reducing clutter of cords and adapters at the workspace.

The McPC MediaLinX series includes:

1. 10/100 Mbps Switching Ethernet (MediaLinX) - A rate converter as well as a media converter, the McPC MediaLinX converts 10 or 100 Mbps over copper to 100 Mbps over fiber.
2. 10/100/1000 Mbps Switching Ethernet (Giga-MediaLinX) - A rate converter as well as a media converter, the McPC Giga-MediaLinX converts 10, 100 or 1000 Mbps over copper to 1000 Mbps over fiber.

McPC converters accommodate crossover or pass through connections, with AutoCross, a feature which automatically selects the correct operating mode. Units also feature handy status LEDs to assist in network diagnostics and troubleshooting.

ACCESSORIES
806-39230 - SATA Cable for McPC

IN THE FIELD
Tight Security: U.S. Joint Forces Command
Industry: Security
Product: McPC TP-TX/FX Multi-Mode Fiber Media Converter
www.bb-elec.com/USJFC
Carrier data charges may apply.

McPC converters accommodate crossover or pass through connections, with AutoCross, a feature which automatically selects the correct operating mode. Units also feature handy status LEDs to assist in network diagnostics and troubleshooting.

ACCESSORIES
806-39230 - SATA Cable for McPC

IN THE FIELD
Tight Security: U.S. Joint Forces Command
Industry: Security
Product: McPC TP-TX/FX Multi-Mode Fiber Media Converter
www.bb-elec.com/USJFC
Carrier data charges may apply.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tr>
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<tr>
<td>855-12731</td>
<td>MM850-SC</td>
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<td>RJ45</td>
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<td>220/550 m</td>
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<tr>
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<td>SM1310-SC</td>
<td>1</td>
<td>15 km</td>
<td>1</td>
<td>RJ45</td>
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</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

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<tr>
<td>855-15921</td>
<td>SM1310-SC</td>
<td>1</td>
<td>15 km</td>
<td>1</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

* SFP Fiber sold separately.
## SPECIFICATIONS

**TECHNICAL**
- Save money by keeping existing copper network card (NIC) and converting inside the PC
- No drivers to install; McPC mounts inside any PC or workstation with a standard PCI or LowPCI slot
- Includes a standard 4-pin peripheral power connector
- AutoCross
- 50/125μm or 62.5/125μm multi-mode fiber
- Includes status LEDs
- RoHS Compliant

**MCPC MEDIAlINX**
- 10 Mbps to 10 Mbps, 100 Mbps to 100 Mbps twisted pair to fiber media conversion
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3 10Base-FL fiber
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber
- Features Link Fault Detection
- Features Auto Negotiation

**MCPC GIgA-MEDIAlINX**
- 10/100/1000 Mbps twisted pair copper to 1000 Mbps fiber conversion
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- Features Link Fault Detection
- Features Auto Negotiation

**CONNECTORS**
- RJ45, ST, SC and SFP (SFP only on McPC-Giga-MediaLinX LowPCI)
- Supports Half- and Full-Duplex operation

## MECHANICAL

**MECHANICAL**
- PCI and LowPCI Slot Configurations
- Shipping Weight: 0.6 lbs (0.22 kg)

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -4° to +158° F (-20° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing)

**REGULATORY APPROVALS**
- FCC Class B
- UL/cUL, CSA, CE

## MECHANICAL DIAGRAM

![Diagram of McPC MediaLinX Series](image-url)
Media converters do more than just convert copper Ethernet signals to fiber. They allow your LAN to be extended beyond the normal 100 meter limit. By using a pair of media converters, LANs can be extended up to 2km with multimode fiber and up to 20km with single-mode fiber. Since your data is traveling via fiber, it’s protected from ground loop problems and electrical interference present along the cable run.

The economical EIS series media converters are stand-alone products that come with a power supply or can be mounted in a 19 inch rack chassis. The optional rack system holds up to 16 of the EIS products and includes one power supply to power installed EIS models via the backplane.

A second power supply for the rack system is available. Two power supplies will provide a load-sharing service to add redundancy to your system. If one power supply goes down, the other takes over immediately.
10/100 Base-TX to 100Base-FX Media Converters
EIS-x-Sx Series

SPECIFICATIONS

TECHNOLOGY

- Standards: IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3x
- Processing Type: Store-and-Forward
- Forward and Filtering Rate: 14,880pps for 10Mbps; 148,810pps for 100Mbps
- Packet buffer memory: 128K bits

INTERFACE

- Ethernet Port: 10/100BASE-TX: 1 port, 100BASE-FX: 1 port
- LED Indicators:
  - Per Unit: Power Status (Power)
  - Per port, 10/100T: Link/Activity, Full-duplex/Collision, Speed
  - Per port, 100FX: Link/Activity, Full-duplex/Collision

POWER

- Input Voltage: 12VDC
- Consumption: 1.92W Max. 0.16A @ 12VDC

ENVIRONMENTAL

- Operating Temperature: 0 to 45°C (32 to 113°F)
- Storage Temperature: -10 to 70°C (14 to 158°F)
- Ambient Relative Humidity: 5 to 95% (non-condensing)

MECHANICAL

- Enclosure: Aluminum case
- Dimensions: 80.3W x 109.2D x 23.8H mm (3.16W x 4.30D x 0.94H in)
- Weight: 150g (0.33lb)
- Installation: Chassis system

REGULATORY APPROVALS

- ISO: Manufactured in an ISO9001 facility
- Safety: UL60950-1
- Emission Compliance: CE Mark Class A, FCC Part 15 Class A, VCCI Class A

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
Industrial Hardened 10/100Base-TX to 100Base-FX Media Converters
EIR-x-Sx Series

Media converters convert twisted pair copper signals to fiber optic signals. LANs can be extended beyond the normal 100 meter limit up to 2km with multimode fiber and up to 20km with single-mode fiber. Since your data is traveling via fiber, it is protected from ground loop problems and electrical interference present along the cable run.

Extension of LAN distances make it possible to communicate with remotely located Ethernet enabled devices. The application could be as simple as getting data from one end of the warehouse to the other, tying two buildings together, enabling communications on a tank farm, or monitoring a SCADA system at a waste water plant.

Extended temperature and voltage specifications allow installation in the toughest environments. Media converters are highly qualified for environmental 10/100BASE Ethernet applications and certified by UL with ISA12.12.01 Class I, Division 2 for use in hazardous locations.

PRODUCT FEATURES

- Class 1/Division 2
- NEMA TS1/TS2 requirements for traffic control equipment
- IEC61000-6-2 EMC generic standard immunity for industrial environments
- Rugged DIN rail metal cases (panel mount kit available)
- Wide temperature range (-34 to +74 °C)
- Alarm for power or port link failure via relay output (dry contact)
- Redundant 10 to 48 VDC power inputs (via terminal blocks)
- Vibration Resistance, Shock, Free Fall

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>10/100 COPPER</th>
<th>FIBER</th>
<th>DISTANCE</th>
<th>CLASS 1/ DIVISION 2</th>
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<td>Multi-mode (ST)</td>
<td>2 km</td>
<td>X</td>
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<tr>
<td>EIR-M-SC</td>
<td>1 (RJ-45)</td>
<td>Multi-mode (ST)</td>
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<td>X</td>
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<td>EIR-S-SC</td>
<td>1 (RJ-45)</td>
<td>Single-mode (SC)</td>
<td>20 km</td>
<td>X</td>
</tr>
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</table>

ACCESSORIES

- ERS35 - DIN Rail 1 Meter 35MM Steel
- CSUMB3FBG - 3 ft - Beige - Category 5e UTP Patch Cord Assemblies
- DR-30-24 - DIN rail mount power supply, 24 VDC, 1.5 A power output
- MDR-40-24 - DIN rail mount power supply 24VDC, 1.7 A output power
# Industrial Hardened 10/100Base-TX to 100Base-FX Media Converters

## EIR-x-Sx Series

### Specifications

<table>
<thead>
<tr>
<th>Technology</th>
<th>Details</th>
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<tbody>
<tr>
<td>Standards</td>
<td>IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/100Base-FX, IEEE802.3x</td>
</tr>
<tr>
<td>Processing Type</td>
<td>Store-and-Forward</td>
</tr>
<tr>
<td>Filtering Rate</td>
<td>Half-duplex back-pressure and IEEE802.3x full-duplex flow control</td>
</tr>
<tr>
<td>Dimensions</td>
<td>50W x 110D x 135H mm (1.97W x 4.33D x 5.31H inches)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.8Kg (1.76lbs.)</td>
</tr>
<tr>
<td>Installation</td>
<td>DIN rail (panel mount option)</td>
</tr>
<tr>
<td>ISO</td>
<td>Manufactured in an ISO9001 facility</td>
</tr>
<tr>
<td>Safety</td>
<td>Class 1, Division 2 group A,B,C,D</td>
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<td>EMS/EMI</td>
<td>CE Mark, FCC Part 15, Class A</td>
</tr>
<tr>
<td>Environmental</td>
<td>NEMA TS1/2</td>
</tr>
</tbody>
</table>

### Interface

| Ethernet Port       | 10/100BASE-TX: 1 port                                                  |
|                     | 100BASE-FX: 1 port                                                     |
| LED Indicators      | Per Unit: Power Status (Power 1, Power 2, Fault), Link-Fault-Pass-Through |
|                     | Per Port, 10/100TX: Link/Activity, Full-duplex/Collision, Speed       |
| Relay Contact       | Relay contact rating with current 1A @ 30VDC, 0.5A @ 120VAC           |
| Configuration       | DIP switch                                                              |

### Power

| Input Voltage       | Input Voltage: 10 to 48VDC (DC Terminal Block) or 12VDC (DC Jack) or 24VAC, 0.185A (AC Terminal Block) |
| Consumption         | 4.32W MAX. 0.36A @ 12VDC, 0.09A @ 48VDC                              |

### Environmental

| Operating Temperature| -34 to +75°C (-29 to +167°F) |
| Storage Temperature  | -40 to 85°C (-40 to 185°F)   |
| Test Temperature     | -40 to 85°C (-40 to 185°F)   |
| Ambient Relative Humidity | 5% to 95% (non-condensing) |

### Mechanical Diagram

(dimensions in inches & millimeters)

![Mechanical Diagram](image-url)
The EIS-G-SFP offers 1000Base-T to 1000Base SFP socket for Gigabit fiber optic expansion for multi-mode or single mode applications. The flexible and easy to use, EIS-G-SFP is one of the most versatile media converters in the world. It is ideal for desktop use, and is also wall mountable. Also available is a 19" rack mountable chassis that holds up to 16 units for central control purposes. The rack holds this unit and other EIS Ethernet and Gigabit Ethernet media converters.

The EIS-G-SFP features easy to understand diagnostic LEDs. These LEDs show details for Link, Transmit/Receive, Full/Half duplex, and power status.

### PRODUCT FEATURES
- DIP switch configuration for “Link-Fault-Pass-Through”
- Fiber/auto force mode
- 1000Mbps-Auto/Full-duplex, Auto-Negotiation, Auto-MDI/MDIX
- SFP socket for Gigabit fiber optic expansion
- Full wire-speed forwarding rate
- Aluminum case
- EIS-RACK-16 chassis system compatible

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>EIS-G-SFP</td>
<td>Media Converter 1000Base-T to Gigabit SFP, US Power Supply</td>
</tr>
<tr>
<td>EIS-G-SFP-EU</td>
<td>Media Converter 1000Base-T to Gigabit SFP, EU Power Supply</td>
</tr>
<tr>
<td>EIS-G-SFP-UK</td>
<td>Media Converter 1000Base-T to Gigabit SFP, UK Power Supply</td>
</tr>
</tbody>
</table>

### ACCESSORIES

- **SFP-1000LX-S-20KM-T** - SFP Module, 1000Base-Lx, SM 20Km, LC Connector, Wt
- **SFP-1000SX-M-550M-T** - SFP Module, 1000Base-Sx, MM 550M, LC Connector, Wt
- **CSUMB3FBG** - 3 ft - Beige - Category 5e UTP Patch Cord Assemblies
- **SFP-1000LX-S-10KM-T** - SFP Module, 1000Base-Lx, SM 10Km
- **EIS-RACK-16** - Media Converter 19 Inch 2U Rack Chassis - 16 Slots
- **EIS-RACK-PS** - Power Supply For EIS-Rack-16, 84 Watts
- **EIS-PS-EU** - EIS Series External Power Adapter 12V EU Plug
- **EIS-PS-UK** - EIS Series External Power Adapter 12V UK Plug
### SPECIFICATIONS

#### ETHERNET TECHNOLOGY
- **Standards**
  - IEEE802.3ab 1000Base-T
  - IEEE802.3z 1000Base-SX/1000Base-LX
  - IEEE802.3x
- **Forward & Filtering Rate**
  - 1,488,100 pps for 1000Mbps

#### INTERFACE
- **Ethernet Ports**
  - 1 - 1000Base-TX
  - 1 - Gigabit SFP
- **LED Indicators**
  - Per Unit: Power Status (Power)
  - Per Port: 1000T: Link, Full-duplex/Collision
    - Gigabit SFP: Link, Transmit, Receive

#### MECHANICAL
- **Enclosure**
  - Aluminum case
- **Dimensions**
  - 80.30 mm x 109.20 mm x 23.80 mm
    - (3.16 x 4.3 x 0.94 inches)
- **Weight**
  - 150g (0.33lb.)

### INSTALLATION
- **Wall Mounting**
- **Use with EIS-RACK-16 media converter chassis system**

### REGULATORY APPROVALS
- **Emission Compliance**
  - CE Mark Class A
  - FCC Part 15, Class A
  - VCCI Class A

### MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
The EIR-G-SFP-T, Gigabit Ethernet media converters are designed to operate in harsh environments. The EIR-G-SFP-T functions at temperatures ranging from -40°C to 75°C (-40°F to 167°F) and is tested for functional operation @ -40°C to 85°C (-40°F to 185°F). Whether on the factory floor or the street corner, the EIR-G-SFP-T will provide flawless communications when you need it most. EIR-G-SFP-T offers 1000Base SFP socket to support multi-mode/single-mode fiber optics. The RJ-45 port on this unit provides Auto-MDI and auto-negotiation. The link-fault-pass-through feature allows the network management agent on adjacent equipment to react to a broken link. Flexibility is the main feature of the EIR-G-SFP-T, it may be DIN rail or panel mounted, and comes with power options to match the applications that require a tough, environmentally hardened, Gigabit Ethernet media converter.

**PRODUCT FEATURES**

- Complies with NEMA TS1 & TS2 environmental requirements for traffic control equipment
- Complies with IEC61000-6-2 EMC generic standard immunity for Industrial environment
- DIP switch configuration for “Link-Fault-Pass-Through”, link down alarm
- Fiber/auto force mode
- 1000Mbps-Full-duplex, Auto-Negotiation, Auto-MDI/MDIX
- SFP socket for Gigabit fiber optic expansion
- Full wire-speed forwarding rate
- Alarms for power and port link failure by relay output
- Redundant power inputs with terminal block and DC Jack
- -40°C to 75°C (-40°F to 167°F) operating temperature range
- Hardened aluminum case
- Supports DIN-Rail or Panel Mounting installation

**ORDERING INFORMATION**

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</tr>
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<tbody>
<tr>
<td>EIR-G-SFP-T</td>
<td>Hardened Media Converter 1000Base-T to Gigabit SFP</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

- SFP-1000LX-S-20KM-T - SFP Module, 1000Base-Lx, SM 20Km, LC Connector, Wt
- SFP-1000LX-S-10KM-T - SFP Module, 1000Base-Lx, SM 10Km
- SFP-1000SX-M-550M-T - SFP Module, 1000Base-Sx, MM 550M, LC Connector, Wt
- C5UMB3FBG - 3 ft - Beige - Category 5e UTP Patch Cord Assemblies
- MDR-40-24 - DIN rail mount power supply 24VDC, 1.7 A output power
**SPECIFICATIONS**

**ETHERNET TECHNOLOGY**

- IEEE802.3 10Base-T
- IEEE802.3u 100Base-TX
- IEEE802.3ab 1000Base-T
- IEEE802.3z 1000Base-SX/1000Base-LX
- IEEE802.3x

**Forward & Filtering Rate** 1,488,100pps for 1000Mbps

**INTERFACE**

- Ethernet Ports: 1 - 10/100/1000Base-TX
  1 - Gigabit SFP
- LED Indicators: Per Unit: Power Status (Power1, Power2, Power3, Fault), LFPT
  Per Port: 10/100/1000TX: Link/Activity, Speed, Full-duplex/Collision Gigabit SFP: Link/Activity
- Alarm Contact: One relay output with current 1A @ 30VDC, 0.5A@120VAC

**MECHANICAL**

- Enclosure: Aluminum case, IP30
- Dimensions: 5.00 cm x 11.0 cm x 14.10 cm (1.97 x 4.33 x 5.55 inches)
- Weight: 0.8Kg (1.76lbs.)
- Installation: DIN-Rail (Top hat type 35mm), Rack Mounting (Optional)
- Operating Temperature: -40°C to 75°C (-40°F to 167°F)
  Tested @ -40°C to 85°C (-40°F to 185°F)
- Storage Temperature: -40°C to 85°C (-40°F to 185°F)
- Ambient Relative Humidity: 5% to 95% (non-condensing)
- MTBF: 348,518 Hours
- MTBF Calc. Method: Parts Count Reliability Prediction

**MECHANICAL DIAGRAM**

(dimensions in inches & millimeters)

**POWER**

- Input Voltage: Dual 12 to 48VDC (Terminal Block); 12VDC (DC Jack)
- Power Consumption: 10.56W, 0.88A @ 12VDC, 0.44A @ 24VDC, 0.22A @ 48VDC
- Overload Current Protection: Present
- Reverse Polarity Protection: Present

**REGULATORY APPROVALS**

- Safety: EN60950-1, IEC60950-1
- EMI: FCC Part 15, Class A
  VCCI, Class A
  EN61000-6-3: EN55022, EN61000-3-2, EN61000-3-3
  EN61000-6-2
  EN61000-6-4 (ESD Standards) Contact: + / - 4KV;
  Criteria B Air: + / - 8KV; Criteria B
  EN61000-6-5 (Radiated RFI Standards) 10V/m, 80 to
  1000MHz; 80% AM Criteria A
  EN61000-4-3 (Radiated RFI Standards) 10V/m,
  80% AM Criteria A
  EN61000-4-4 (Burst Standards)
  Signal Ports: + / - 4KV; Criteria B
  D.C. Power Ports: + / - 4KV; Criteria B
  EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV;
  Line-to-Line, Criteria B D.C. Power Ports: + / - 0.5KV;
  Line-to-earth, Criteria B
  EN61000-4-6 (Induced RFI Standards) Signal Ports:
  10Vrms @ 0.15~80MHz; 80% AM Criteria A D.C. Power
  Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
  EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50,
  60Hz; Criteria A

- Environmental Test Compliance:
  IEC60068-2-6 Fc (Vibration Resistance) 5g @
  10~150KHz, Amplitude 0.35mm (Operation/Storage/Transport)
  IEC60068-2-27 Ea (Shock) 25g @ 11ms (Half-Sine
  Shock Pulse: Operation) 50g @ 11ms (Half-Sine Shock
  Pulse: Storage/Transport)
  IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)

**NEMA**

NEMA TS1/2 Environmental requirements for Traffic control equipment
Dual Port, Extended Temperature (IE), 100 Mbps Ethernet SNMP-Manageable Media Converter

IE-iMcV-2xLIM

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-strand fiber (SSF), 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 products. iView² runs standalone on Windows 2000/XP/Vista/Win7 or as a Web Server running under IIS.

**PRODUCT FEATURES**

- Functions as two independent copper to fiber media converters, doubling port density in the iMediaChassis and MediaChassis product lines.
- Interchangeable SFP modules allow for multiple fiber type conversion options (single-mode, multi-mode, long haul, short haul, etc.)
- 100 Mbps SFPs and 2xLIM modules are hot-swappable; no need to power-down chassis when upgrading or troubleshooting
- Link Fault Pass-Through (LFPT)
- Config Control

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>SFP</td>
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<td>Various</td>
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*SFP Fiber sold separately

iView: Windows 2000/XP/Vista/Win7
Dual Port, Extended Temperature (IE), 100 Mbps Ethernet SNMP-Manageable Media Converter

IE-iMcV-2xLIM

SPECIFICATIONS

TECHNICAL
2 x RJ-45 and 2 x SFP ports (SFPs sold separately)
IEEE 802.3u 100Base-T over twisted pair
IEEE 802.3u 100Base-FX or SX over twisted pair
AutoCross for MDI/MDIX
LinkLoss, Far End Fault & Auto Negotiation
Link Fault Pass-Through (LFPT)
Supports Config Control
MDI/MDIX switch
DIP Switch selectable Auto Negotiation on copper port
Features low latency
Supports Half- and Full-Duplex operation
Supports Jumbo packets (No size limit)
Install in any iMediaChassis or MediaChassis
Supports GUI-Based iView²
Includes diagnostic LEDs
Hot-swappable architecture

STANDARD COMPLIANCE
SFP-MSA SFP standard (September 14, 2000)
SFF-8472 DDMI standard (Revision 1.0)
IEEE 802.3

MECHANICAL

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)

INPUT VOLTAGE
100 to 240 VAC 50/60Hz (External Power Supply) 5 VDC ± 5%

POWER
Max Current: 0.80A

ENVIRONMENTAL
Operating Temperature: -40° F to +176° F (-40° C to +80° C)
Storage Temperature: -40° F to +176° F (-40° C to +80° C)
Operating Humidity 5% to 95% (non-condensing),
0 – 10,000 ft. altitude

REGULATORY APPROVALS
FCC Class B
UL, CSA, CE
TUV

MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
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.

B&B Electronics 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. 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.

### PRODUCT FEATURES
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Monitor links and receive vital traffic and health information and notification should problems occur
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- SNMP Manageable
- Convert 10 Mbps Copper to 10 Mbps Fiber

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tbody>
<tr>
<td>850-14940</td>
<td>MM850-ST</td>
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<td>2 km</td>
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<td>80 km</td>
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</table>

iMcV-PIM also available in CWDM Fiber. Call for details.
### SPECIFICATIONS

#### TECHNICAL
- 10Base-T twisted pair
- 10Base-FL fiber
- MDI/MDIX switch
- Features LinkLoss and FiberAlert
- Connectors: RJ-45 and ST, SC
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Install in any iMediaChassis or MediaChassis
- Support GUI-Based iView²
- Support Half- and Full-Duplex operation
- Include diagnostic LEDs
- Include hot-swappable architecture

#### MECHANICAL
- 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)

#### ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

#### REGULATORY APPROVALS
- FCC Class A
- CE

### MECHANICAL DIAGRAM
(dimensions in inches & millimeters)

![Mechanical Diagram](image-url)
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.

B&B Electronics 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, the modules provide Configuration Control.

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

**PRODUCT FEATURES**
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Monitor links and receive vital traffic and health information and notification should problems occur
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- SNMP Manageable
- Convert 100 Mbps Copper to 100 Mbps Fiber
- LFPT and Config Control

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tbody>
<tr>
<td>iMcV-LIM TX/FX and TX/SX</td>
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**SINGLE STRAND FIBER**

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<th>MODEL NUMBER</th>
<th>FIBER PORTS</th>
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</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-LIM also available in CWDM Fiber. Call for details.
**SPECIFICATIONS**

**TECHNICAL**
- 100Base-TX twisted pair
- 100Base-FX or SX fiber
- AutoCross for MDI/MDIX
- Features LinkLoss, FiberAlert & Auto Negotiation
- Features Link Fault Pass-Through (LFPT)
- Supports Config Control
- Connectors: RJ-45 and ST, SC
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Install in any iMediaChassis or MediaChassis
- Support GUI-Based iView²
- Support Half- and Full-Duplex operation
- Include diagnostic LEDs
- Include hot-swappable architecture

**MECHANICAL**

**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)

**ENVIRONMENTAL**

**Operating Temperature:**
- +32° to +122° F (0° to +50° C)

**Storage Temperature:**
- -13° to +158° F (-25° to +70° C)

**Operating Humidity**
5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class B
- CE
10/100 Mbps Switching Media Converter

iMcV-LIM 10/100 Mbps

The iMcV-LIM 10/100 includes troubleshooting features such as LinkLoss, Transparency and Link Fault Detection that make isolating fiber breaks easier should they occur. The iMcV-LIM 10/100 also features a crossover/pass-through switch on the twisted pair connection for MDI/MDIX connectivity and diagnostic LEDs. Most iMcV-LIM 10/100 modules are available with single-strand fiber which can effectively double the capacity of fiber by allowing two individual channels to share one strand of fiber; Full-Duplex data travels on different wavelengths — 1310 nm and 1550 nm, for example.

Auto-Sensing 10/100 Mbps iMcV-LIM 10/100 converters offer significant advantages over regular 10 and 100 Mbps converters. An ideal choice for both enterprise and service provider networks, 10/100 converters save time and money when deployed at the host and remote site. Enterprise networks planning a migration path from 10 Mbps to 100 Mbps often deploy Auto Sensing converters, then upgrade when ready and units will automatically adapt to increased speed. Service providers with 10 or 100 Mbps links to customer premises can sell customers more bandwidth without upgrading the converters at the POP and the customer network edge.

PRODUCT FEATURES

• Has a small, rugged design offering many advanced features
• Available for multi-mode or single-mode fiber
• LinkLoss, Transparency and Link Fault Detection features, along with LEDs, assist in diagnosing problems on fiber optic networks
• Convert 10 Mbps twisted pair to 10 Mbps fiber OR convert 100 Mbps twisted pair to 100 Mbps fiber

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
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SINGLE STRAND FIBER *

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</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-LIM 10/100 Mbps also available in CWDM Fiber.
Call for details.

iView: SNMP Management Software

iView: Windows 2000/XP/Vista/Win7
**10/100 Mbps Switching Media Converter**

iMcV-LIM 10/100 Mbps

---

**SPECIFICATIONS**

### TECHNICAL

- 10Base-T twisted pair
- 10Base-FL fiber
- 100Base-TX twisted pair
- 100Base-FX or SX fiber
- MDI/MDIX switch
- Features Link Fault Detection and Transparency
- Features Auto Negotiation
- Connectors: RJ-45 and ST, SC
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Install in any iMediaChassis or MediaChassis
- Support GUI-Based iView²
- Support Half- and Full-Duplex operation
- Include diagnostic LEDs
- Include hot-swappable architecture

### MECHANICAL

**DIMENSIONS**

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<th>(inches)</th>
<th>(millimeters)</th>
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<tbody>
<tr>
<td>4.19 x 0.78 x 2.75</td>
<td>10.74 x 2 x 7.05</td>
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</tbody>
</table>

**SHIPPING WEIGHT**

0.30 lbs (.11 kg)

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### ENVIRONMENTAL

- **Operating Temperature:** +32° to +122° F (0° to +50° C)
- **Storage Temperature:** -13° to +158° F (-25° to +70° C)
- **Operating Humidity:** 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

### REGULATORY APPROVALS

- FCC Class B
- CE

---

**MECHANICAL DIAGRAM**

(dimensions in inches & millimeters)
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.

B&B Electronics 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. Configuration Control, a feature to use under SNMP is available.

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

![iView: Windows 2000/XP/Vista/Win7](image)

**PRODUCT FEATURES**
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Monitor links and receive vital traffic and health information and notification should problems occur
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- SNMP Manageable
- Converts 1000 Mbps Copper to 1000 Mbps Fiber
- Supports Configuration Control
- Features Link Fault Pass-Through (LFPT)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>850-15514</td>
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**SINGLE STRAND FIBER** *

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>850-15524</td>
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<td>850-15525</td>
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<td>850-15526</td>
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<td>850-15527</td>
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<td>850-15529</td>
<td>SSLX-SM1490/LONG-SC</td>
<td>1</td>
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<td>850-15530</td>
<td>SSLX-SM1550/LONG-SC</td>
<td>1</td>
<td>70 km</td>
<td>1</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

** SFP Fiber sold separately

iMcV-Gigabit Mbps also available in CWDM Fiber. Call for details.
1000Mbps Ethernet Media Converter
iMcV-Gigabit & IE-iMcV-Gigabit

SPECIFICATIONS

TECHNICAL
- 1000Base-T twisted pair
- 1000Base-LX or SX fiber
- AutoCross for MDI/MDIX
- Features FiberAlert, LinkLoss & Link Fault Pass-Through
- Supports Config Control
- IE-SFP 1250 Mbps/1.25 Gbps (IE-iMcV-Gigabit)
- Connectors: RJ-45 and ST, SC or SFP
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Install in any iMediaChassis or MediaChassis
- Support GUI-Based iView²
- Support Half- and Full-Duplex operation
- Include diagnostic LEDs
- Include hot-swappable architecture

MECHANICAL
(dimensions in inches)

MECHANICAL
- 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)

ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -40° to +185° F (-40° to +85° C) IE-iMcV-Gigabit
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude
- Regulatory Approvals: FCC Class A, CE
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.

B&B Electronics 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 IMC-MediaLinX and IE-iMcV-MediaLinX also features Link Fault Pass-Through. In addition, the IE-Module provides support for Config Control if using SNMP management.

All converters feature an RJ-45 copper port and a fiber port, with a choice of SC, ST or SFP (IE-iMcV-MediaLinX only) connectors, and are hot-swappable.

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.
# SPECIFICATIONS

## TECHNICAL
- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3u 100Base-FX or SX fiber
- IE-SFP 100/155 Mbps (OC-3) (IE-iMcV-MediaLinX)
- Supports jumbo packets up to 1916 bytes
- Supports Config Control
- Connectors: RJ-45 and ST, SC, LC or SFP
- IEEE 802.3x Flow Control
- AutoCross for MDI/MDIX
- Features LinkLoss and FiberAlert
- Features Link Fault Pass-Through (LFPT)
- Features Auto Negotiation and Selective Advertising
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps (Gig only)
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber
- Installs in any iMediaChassis or MediaChassis
- Supports GUI-Based iView²
- Supports Half- and Full-Duplex operation
- Includes diagnostic LEDs
- Includes hot-swappable architecture

## MECHANICAL
- 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)

## ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- -40° to +185° F (-40° to +85° C) IE-iMcV-MediaLinX
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

## REGULATORY APPROVALS
- FCC Class B
- CE

---

**MECHANICAL DIAGRAM**

(dimensions in inches)
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.

B&B Electronics 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-Giga-MediaLinX and IE-iMcV-Giga-MediaLinX also features Link Fault Pass-Through. In addition, support for Config Control is available if using SNMP management.

All converters feature an RJ-45 copper port and a fiber port, with a choice of SC or SFP (IE-iMcV-Giga-MediaLinX only) connectors, and are hot-swappable.

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.

### PRODUCT FEATURES
- Available for multi-mode or single-mode fiber
- Double fiber capacity with single-strand fiber versions
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance
- SNMP Manageable
- Converts 10,100 or 1000 Mbps Copper to 1000 Mbps Fiber
- Supports Configuration Control
- Features Link Fault Pass-Through (LFPT)

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<tr>
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<td>856-11952</td>
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<td>SINGLE STRAND FIBER *</td>
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<td>856-11942</td>
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<tr>
<td>856-11943</td>
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<td>856-11937</td>
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<td>RJ45</td>
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</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-Giga-MediaLinX 10/100/1000Mbps also available in CWDM Fiber. Call for details.
10/100/1000 Mbps Ethernet Media Converter
iMcV-Giga-MediaLinX

SPECIFICATIONS

TECHNICAL
- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- Supports packets up to 1632 bytes
- Connectors: RJ-45 and ST, SC, LC or SFP
- IEEE 802.3x Flow Control
- AutoCross for MDI/MDIX
- Features LinkLoss and FiberAlert
- Features Auto Negotiation and Selective Advertising
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps; 1,488,100 pps for 1000 Mbps (Gig only)
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber
- Installs in any iMediaChassis or MediaChassis
- Supports GUI-Based iView²
- Supports Half- and Full-Duplex operation
- Includes diagnostic LEDs
- Includes hot-swappable architecture

MECHANICAL

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)

ENVIRONMENTAL
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
- FCC Class B
- CE

MECHANICAL DIAGRAM (dimensions in inches)
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 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.

**Model Number | Fiber | Fiber Ports | Range | Ethernet Ports | Ethernet Connector**
--- | --- | --- | --- | --- | ---
850-14198 | MM850-ST | 1 | 2 km | 1 | RJ48
850-14199 | MM850-SC | 1 | 2 km | 1 | RJ48
850-14200 | MM1300-ST | 1 | 5 km | 1 | RJ48
850-14201 | MM1300-SC | 1 | 5 km | 1 | RJ48
850-14202 | SM1310/PLUS-ST | 1 | 40 km | 1 | RJ48
850-14203 | SM1310/PLUS-SC | 1 | 40 km | 1 | RJ48
850-14204 | SM1310/PLUS-LONG-ST | 1 | 80 km | 1 | RJ48
850-14205 | SM1310/PLUS-LONG-SC | 1 | 80 km | 1 | RJ48
850-14206 | SM1550/PLUS-LONG-SC | 1 | 80 km | 1 | RJ48

**SINGLE STRAND FIBER**
--- | --- | --- | --- | --- | ---
850-14288 | MM1310-SC (1310xmt/1550rcv) | 1 | 2 km | 1 | RJ48
850-14289 | MM1550-SC (1550xmt/1310rcv) | 1 | 2 km | 1 | RJ48
850-14290 | SM1310-SC (1310xmt/1550rcv) | 1 | 20 km | 1 | RJ48
850-14291 | SM1550-SC (1550xmt/1310rcv) | 1 | 20 km | 1 | RJ48
850-14292 | SM1310/PLUS-SC (1310xmt/1550rcv) | 1 | 40 km | 1 | RJ48
850-14293 | SM1550/PLUS-SC (1550xmt/1310rcv) | 1 | 40 km | 1 | RJ48
850-14294 | SM1310/LONG-SC (1310xmt/1550rcv) | 1 | 60 km | 1 | RJ48
850-14295 | SM1550/LONG-SC (1550xmt/1310rcv) | 1 | 60 km | 1 | RJ48

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

**ORDERING INFORMATION**

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**iView: Windows 2000/XP/Vista/Win7**
## T1/E1/J1 Media Converter
### iMcV-T1/E1/J1 Repeater

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>TECHNICAL</th>
<th>MECHANICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol-Selective — Operates at T1/J1 (1.544 Mbps) and E1 (2.048 Mbps) protocols</td>
<td>Dimensions 4.19&quot;H x 0.78&quot;W x 2.75&quot;D (10.74 x 2 x 7.05 cm)</td>
</tr>
<tr>
<td>Supports Alarm Indication Signals (AIS)</td>
<td>Shipping Weight 0.30 lbs (0.11 kg)</td>
</tr>
<tr>
<td>Internal Test Head Function (PRBS, 1/0, All 1’s)</td>
<td><strong>POWER</strong></td>
</tr>
<tr>
<td>Ability to manage remote unit from host end</td>
<td>0.55A @ 5V (Typical)</td>
</tr>
<tr>
<td>Supports fiber and copper Loopback</td>
<td><strong>ENVIRONMENTAL</strong></td>
</tr>
<tr>
<td>Selectable line buildout (0 - 655 ft.)</td>
<td>Operating Temperature: +32° to +122° F (0° to +50° C)</td>
</tr>
<tr>
<td>Includes DTE/DCE switch on converter</td>
<td>Storage Temperature: -13° to +158° F (-25° to +70° C)</td>
</tr>
<tr>
<td>Installs in any iMediaChassis or MediaChassis chassis*</td>
<td>Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude</td>
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<tr>
<td>Supports GUI-Based iView²</td>
<td><strong>STANDARDS COMPLIANCE:</strong></td>
</tr>
<tr>
<td>CSU Line Gain (7.5, 15, 22.5 db)</td>
<td>ANSI T1.102-1993</td>
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<tr>
<td>Monitor Boost (20, 26, 32 db)</td>
<td>ANSI T1.107-1995</td>
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<tr>
<td>Supports secondary line protection</td>
<td>GR-820-CORE</td>
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<tr>
<td>50/125µm or 62.5/125µm multi-mode fiber</td>
<td><strong>ENVIROMENTAL</strong></td>
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<tr>
<td>9/125µm single-mode fiber</td>
<td>Operating Temperature: +32° to +122° F (0° to +50° C)</td>
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<tr>
<td>Available for single-strand fiber</td>
<td>Storage Temperature: -13° to +158° F (-25° to +70° C)</td>
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<tr>
<td>Connectors: RJ-48 and ST, SC</td>
<td>Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude</td>
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</tbody>
</table>

### MECHANICAL DIAGRAM
(dimensions in inches & millimeters)

<Diagram>

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*Images of mechanical diagram and technical specifications are provided.*
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 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.

IE-iMcV-T1/E1/J1 LineTerm

**PRODUCT FEATURES**

- Operates at (T1/J1 1.544 Mbps) and (E1 2.048 Mbps)
- Conduct Loopback tests, monitor/manage units via GUI-based iView2
- Remote unit supports secure, out-of-band management
- Available for multi-mode, single-mode, or single-strand fiber
- Layer 1 modules
- Supports fiber and copper 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

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER TYPES</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>850-18100</td>
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<td>RJ48</td>
</tr>
<tr>
<td>850-18102</td>
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</tr>
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<td>850-18103</td>
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<tr>
<td>850-18104</td>
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</tr>
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<td>850-18105</td>
<td>SM1310/PLUS-ST</td>
<td>1</td>
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</tr>
<tr>
<td>850-18106</td>
<td>SM1310/PLUS-SC</td>
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<td>RJ48</td>
</tr>
<tr>
<td>850-18107</td>
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</tr>
<tr>
<td>850-18108</td>
<td>SM1310/LONG-SC</td>
<td>1</td>
<td>80 km</td>
<td>1</td>
<td>RJ48</td>
</tr>
<tr>
<td>850-18111</td>
<td>SM1550/LONG-ST</td>
<td>1</td>
<td>80 km</td>
<td>1</td>
<td>RJ48</td>
</tr>
</tbody>
</table>

**SINGLE STRAND FIBER**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER TYPES</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>850-18120</td>
<td>MM1310-SC</td>
<td>1</td>
<td>2 km</td>
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<td>MM1550-SC</td>
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<tr>
<td>850-18122</td>
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<td>20 km</td>
<td>1</td>
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<td>850-18123</td>
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<td>20 km</td>
<td>1</td>
<td>RJ48</td>
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<td>1</td>
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<td>1</td>
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<tr>
<td>850-18125</td>
<td>SM1550/PLUS-SC</td>
<td>(1550xmt/1310rcv)</td>
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<tr>
<td>850-18126</td>
<td>SM1310/LONG-SC</td>
<td>1</td>
<td>60 km</td>
<td>1</td>
<td>RJ48</td>
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<tr>
<td>850-18127</td>
<td>SM1550/LONG-SC</td>
<td>(1550xmt/1310rcv)</td>
<td>1</td>
<td>60 km</td>
<td>1</td>
</tr>
</tbody>
</table>

* Certified at 40 km, 80 km is achievable
** These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-T1/E1/J1 also available in CWDM Fiber. Call for details.
### SPECIFICATIONS

#### TECHNICAL
- Protocol-Selectable — Operates at T1/J1 (1.544 Mbps) and E1 (2.048 Mbps) protocols
- Supports Alarm Indication Signals (AIS)
- Internal Test Head Function (PRBS, 1/0, All 1’s)
- Ability to manage remote unit from host end
- Supports fiber and copper Loopback
- Selectable line buildout (0 - 655 ft.)
- Includes DTE/DCE switch on converter
- Installs in any iMediaChassis or MediaChassis chassis*
- Supports GUI-Based iView²
- CSU Line Gain (7.5, 15, 22.5 db)
- Monitor Boost (20, 26, 32 db)
- Supports secondary line protection
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber
- Connectors: RJ-48 and ST, SC
- **STANDARDS COMPLIANCE:**
  - ANSI T1.102-1993
  - ANSI T1.107-1995
  - GR-820-CORE

#### MECHANICAL
- 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)
- **POWER:**
  - 0.55A @ 5V (Typical)
- **ENVIRONMENTAL:**
  - Operating Temperature: +32° to +122° F (0° to +50° C)
  - Storage Temperature: -13° to +158° F (-25° to +70° C)
  - Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude
- **REGULATORY APPROVALS:**
  - FCC Class A
  - UL/cUL
  - CSA
  - CE

#### MECHANICAL DIAGRAM
(dimensions in inches & millimeters)
DS3/E3 Repeaters with Remote Management

iMcV-DS3/E3/STS Repeater

**Product Features**
- Operates at 45 Mbps (DS3), 34 Mbps (E3) or 52 Mbps (STS-1)
- Conduct Loopback tests, monitor/manage units via GUI-based iView2
- Remote unit supports secure, out-of-band management
- Available for multi-mode, single-mode, or single-strand fiber
- Layer 1 modules
- Supports fiber and coax remote loopback control
- LED Line Diagnostics

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; all models are Layer 1 devices.

All versions of 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 B&B Electronics’ management technology functions transparently to the user data, real-time, end-to-end management is provided at all times.

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>BNC Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>850-14338</td>
<td>MM850-ST</td>
<td>2 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14339</td>
<td>MM850-SC</td>
<td>2 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14300</td>
<td>MM1300-ST</td>
<td>5 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14301</td>
<td>MM1300-SC</td>
<td>5 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14302</td>
<td>SM1310/PLUS-ST</td>
<td>40 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14303</td>
<td>SM1310/PLUS-SC</td>
<td>40 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14304</td>
<td>SM1310/LONG-ST</td>
<td>80 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14305</td>
<td>SM1310/LONG-SC</td>
<td>80 km</td>
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<tr>
<td>850-14306</td>
<td>SM1550/LONG-SC</td>
<td>80 km</td>
<td>2</td>
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**Single Strand Fiber**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber Ports</th>
<th>Range</th>
<th>BNC Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>850-14310</td>
<td>SSFX-SM1310-SC (1310xmt/1550rcv)</td>
<td>20 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14311</td>
<td>SSFX-SM1550-SC (1550xmt/1310rcv)</td>
<td>20 km</td>
<td>2</td>
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<tr>
<td>850-14312</td>
<td>SSFX-SM1310/PLUS-SC (1310xmt/1550rcv)</td>
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<td>2</td>
</tr>
<tr>
<td>850-14313</td>
<td>SSFX-SM1550/PLUS-SC (1550xmt/1310rcv)</td>
<td>40 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14314</td>
<td>SSFX-SM1310/LONG-SC (1310xmt/1550rcv)</td>
<td>60 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14315</td>
<td>SSFX-SM1550/LONG-SC (1550xmt/1310rcv)</td>
<td>60 km</td>
<td>2</td>
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</tbody>
</table>

*These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-DS3/E3/STS also available in CWDM Fiber. Call for details.
**DS3/E3 Repeaters with Remote Management**

iMcV-DS3/E3/STS Repeater

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>TECHNICAL</th>
<th>MECHANICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol-Selectable — Operates at DS3 (45 Mbps), E3 (34 Mbps) or STS-1 (52 Mbps) protocols</td>
<td>Dimensions 4.19”H x 0.78”W x 2.75”D (10.74 x 2 x 7.05 cm)</td>
</tr>
<tr>
<td>Ability to manage remote unit</td>
<td>Shipping Weight 0.30 lbs (0.11 kg)</td>
</tr>
<tr>
<td>Two types of loopback tests</td>
<td></td>
</tr>
<tr>
<td>Full bit rate for customer traffic</td>
<td></td>
</tr>
<tr>
<td>Jitter attenuation</td>
<td></td>
</tr>
<tr>
<td>Line build out</td>
<td></td>
</tr>
<tr>
<td>Installs in iMediaChassis or MediaChassis chassis*</td>
<td></td>
</tr>
<tr>
<td>Supports GUI-Based iView²</td>
<td></td>
</tr>
<tr>
<td>50/125µm or 62.5/125µm multi-mode fiber</td>
<td></td>
</tr>
<tr>
<td>9/125µm single-mode fiber</td>
<td></td>
</tr>
<tr>
<td>Available for single-strand fiber</td>
<td></td>
</tr>
</tbody>
</table>

**MECHANICAL DIAGRAM**

(dimensions in inches)

---

**ENVIRONMENTAL**

- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**

- FCC Class A
- UL/cUL
- CE
iMcV-DS3/E3/STS repeaters with remote management

devices 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.

The Line Term modules include standards compliant for Alarm Indication Signals (AIS) for signal loss condition propagation, and are Layer 1 modules.

The 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 B&B Electronics' management technology functions transparently to the user data, real-time, end-to-end management is provided at all times.

**Product Features**

- Operates at 45 Mbps (DS3), 34 Mbps (E3) or 52 Mbps (STS-1)
- Conduct Loopback tests, monitor/manage units via GUI-based iView2
- Remote unit supports secure, out-of-band management
- Available for multi-mode, single-mode fiber, and single-strand fiber
- Layer 1 modules
- PRBS test patterns
- Supports “Telco” features, including Alarm Indication Signals (AIS)
- LED Line Diagnostics

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Fiber</th>
<th>Ports</th>
<th>Range</th>
<th>BNC Ports</th>
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</thead>
<tbody>
<tr>
<td>850-14438</td>
<td>MM850-ST</td>
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<td>2 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14439</td>
<td>MM850-SC</td>
<td>1</td>
<td>2 km</td>
<td>2</td>
</tr>
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<td>850-14400</td>
<td>MM1300-ST</td>
<td>1</td>
<td>5 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14401</td>
<td>MM1300-SC</td>
<td>1</td>
<td>5 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14402</td>
<td>SM1310/PLUS-ST</td>
<td>1</td>
<td>40 km</td>
<td>2</td>
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<td>850-14403</td>
<td>SM1310/PLUS-SC</td>
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<td>40 km</td>
<td>2</td>
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<tr>
<td>850-14404</td>
<td>SM1310/LONG-ST</td>
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<td>80 km</td>
<td>2</td>
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<td>850-14405</td>
<td>SM1310/LONG-SC</td>
<td>1</td>
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<td>2</td>
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<td>850-14406</td>
<td>SM1550/LONG-SC</td>
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<td>2</td>
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<td>SSFX-SM1310-SC (1310xmt/1550rcv)</td>
<td>1</td>
<td>20 km</td>
<td>2</td>
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<td>850-14411</td>
<td>SSFX-SM1550-SC (1550xmt/1310rcv)</td>
<td>1</td>
<td>20 km</td>
<td>2</td>
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<tr>
<td>850-14412</td>
<td>SSFX-SM1310/PLUS-SC (1310xmt/1550rcv)</td>
<td>1</td>
<td>40 km</td>
<td>2</td>
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<tr>
<td>850-14413</td>
<td>SSFX-SM1550/PLUS-SC (1550xmt/1310rcv)</td>
<td>1</td>
<td>40 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14414</td>
<td>SSFX-SM1310/LONG-SC (1310xmt/1550rcv)</td>
<td>1</td>
<td>60 km</td>
<td>2</td>
</tr>
<tr>
<td>850-14415</td>
<td>SSFX-SM1550/LONG-SC (1550xmt/1310rcv)</td>
<td>1</td>
<td>60 km</td>
<td>2</td>
</tr>
</tbody>
</table>

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.

iMcV-DS3/E3/STS also available in CWDM Fiber. Call for details.
### SPECIFICATIONS

**TECHNICAL**
- Protocol-Selectable — Operates at DS3 (45 Mbps), E3 (34 Mbps) or STS-1 (52 Mbps) protocols
- Ability to manage remote unit
- Two types of loopback tests
- Full bit rate for customer traffic
- Jitter attenuation
- Line build out
- Installs in iMediaChassis or MediaChassis chassis*
- Supports GUI-Based iView²
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber

**MECHANICAL**
- 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)

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL
- CE

### MECHANICAL DIAGRAM

(dimensions in inches & millimeters)

![Mechanical Diagram](image-url)
Modular, Managed Four E1 Plus Data Extension Over Fiber
IE-iMcV-E1-Mux/4+Ethernet (Enhanced)

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 plus one 10/100 ethernet port. 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. The RS-232 console port is useful for local monitoring and configuration of the unit by technical support personnel.

PRODUCT FEATURES
• Four independent E1 ports on RJ-48 connectors with surge protection
• AIS generation on signal loss on all E1 and fiber interfaces
• Supports local and remote loopback functions
• Supports the Link Fault Pass-Through Function (LFPT)
• Dual SFP fiber ports with 1+1 protection switching
• One RS-232 interface to support low speed data up to 120 kbps via MiniJack adapter
• 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

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>E PORTS</th>
<th>ETHERNET PORT</th>
<th>RS-232</th>
<th>RS-232 MINIJACK</th>
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<tr>
<td>857-18111</td>
<td>SFP</td>
<td>1 or 2</td>
<td>Various</td>
<td>4 - RJ48</td>
<td>1 - RJ45</td>
<td>1</td>
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<td>* 857-18400</td>
<td>SFP</td>
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<td>Various</td>
<td>4 - RJ48</td>
<td>1 - RJ45</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

* SFPs Sold Separately

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

iView: Windows 2000/XP/Vista/Win7

iView: SNMP Management Software
Modular, Managed Four E1 Plus Data Extension Over Fiber
IE-iMcV-E1-Mux/4+Ethernet (Enhanced)

SPECIFICATIONS

TECHNICAL
2 x MSA compliant optical SFP slots
4 x E1 (RJ-48) copper ports
Local RS-232 Console port
RS-232 transparent to 120 Kbps
IEEE 802.3x Flow Control
IEEE 802.3i 10Base-T twisted pair
IEEE 802.3u 100Base-TX twisted pair
IEEE 802.3u 100Base-FX or SX fiber
ITU G.775
GR-820-CORE
Supports over-sized packets up to 1916 bytes per packet
Configurable as Host/ Remote pairs (DIP Switch selection)
SNMP management via GUI-based iView2 application software
10/100BaseT Full Bandwidth (144,800 fps/FDX)
RoHS compliant
Last Gasp Trap

MECHANICAL
Dimensions Double-wide chassis module
Shipping Weight 1.1 lbs. (0.50 kg)

POWER CONSUMPTION
0.96A @ +5 VDC

ENVIRONMENTAL
Operating Temperature: -40°F to 158°F (-40°C to +70°C)
Storage Temperature: -40°F to 158°F (-40°C to +70°C)
Operating Humidity 5% to 95% (non-condensing),
0 – 10,000 ft. altitude

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

MECHANICAL DIAGRAM
(dimensions in inches)
**Modular, Managed Four T1 Plus Data Extension Over Fiber**

IE-iMcV-T1-Mux/4+Ethernet

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 RS-232 console port is useful for local monitoring and configuration of the unit by technical support personnel.

**PRODUCT 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 on the Ethernet port
- User defined bandwidth limiting on Ethernet port
- Supports the Link Fault Pass-Through Function (LFPT) on the Ethernet port
- Dual SFP fiber ports with 1+1 protection switching
- B8ZS or AMI T1 line code (T1 ports)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>T1 PORTS DTE, 120 Ω</th>
<th>ETHERNET PORT</th>
<th>RS-232</th>
<th>RS-232 MINIJACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>* IE-iMcV-T1-Mux/4 + Ethernet</td>
<td>SFP</td>
<td>1 or 2</td>
<td>Various</td>
<td>4 - RJ48</td>
<td>1 - RJ45</td>
<td>1 - RJ45</td>
<td>1</td>
</tr>
</tbody>
</table>

* SFPs Sold Separately

**ACCESSORIES**

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

**FREE**

iView: Windows 2000/XP/Vista/Win7
Modular, Managed Four T1 Plus Data Extension Over Fiber
IE-iMcV-T1-Mux/4+Ethernet

SPECIFICATIONS

TECHNICAL
Configured as Host/ Remote pairs (DIP Switch selection)
RoHS-Compliant
Double-wide module for iMediaChassis, MediaChassis and IE-MediaChassis chassis (2 slots required)
SNMP management via the GUI-based iView2 application software
Last Gasp Trap
Local RS-232 Console port
10/100BaseT Full Bandwidth (144,800 fps/FDX)
Two MSA compliant optical SFP slots
Four T1 copper ports
RS-232 (Transparent to 125 Kbps)

MECHANICAL
Dimensions Double-wide chassis module
Shipping Weight 1.1 lbs. (0.50 kg)

POWER RATING
4.2W Typical 5.5W Max

ENVIRONMENTAL
Operating Temperature: 32° to 160°F (0° to +70°C)
Storage Temperature: -40° to +160°F (-40° to +70°C)
Operating Humidity 5% to 95% (non-condensing),
0 – 10,000 ft. altitude

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)

MECHANICAL DIAGRAM
(dimensions in inches)
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.

The iMcV-Switch is available in four different models, some offering a configuration of copper and fiber ports, copper and fiber SFP ports and an all copper port version.

### PRODUCT FEATURES
- Multi-port 10/100Base-T
- Available in multi-mode, single-mode, single-strand fiber and SFPs
- Supports up to 1000 MAC address learning
- Transparent to VLAN tags
- Grants priority for all frames with PRI>4 or DSCP>32
- Supports Auto Cross and Auto Negotiation on all copper ports
- Supports Flow Control
- Features Collision Detection

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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<td>SM1550/LONG-SC</td>
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<td>RJ45</td>
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<tr>
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<td>SM1550/XLONG-SC</td>
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**SINGLE STRAND FIBER**

<table>
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<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
<th>ETHERNET PORTS</th>
<th>ETHERNET CONNECTOR</th>
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</thead>
<tbody>
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<td>852-14470</td>
<td>SSFX-SM1310-SC (1310xmt/1550rcv)</td>
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<td>852-14471</td>
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<td>SSFX-SM1310/PLUS-SC (1310xmt/1550rcv)</td>
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<td>60 km</td>
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<td>RJ45</td>
</tr>
</tbody>
</table>

* SFPs Sold Separately

* These products have single-strand fiber technology. Deploy in pairs or connect another compatible B&B IMC LLC single-strand fiber product.
10/100Base-T Multi-Port Switch Module

iMcV-Switch

**SPECIFICATIONS**

**TECHNICAL**
- IEEE 802.3x 10/100Base-T
- IEEE 802.3u Auto Negotiation
- RFC-2474 and RFC-2475 DiffServ/ToS
- Includes diagnostic LEDs
- AutoCross and Auto Negotiation on all ports
- Maximum 1916 byte packet size
- Supports Half and Full-Duplex operation
- Connectors: RJ-45 and SC, ST, LC or SFP
- Installs in any iMediaChassis, MediaChassis or IE-MediaChassis
- Supports GUI-Based iView²
- Includes diagnostic LEDs
- Includes hot-swappable architecture

**MECHANICAL**
- 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)

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -4° to +158° F (-20° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing),
- 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class B
- UL/cUL
- CE

**MECHANICAL DIAGRAM**
(dimensions in inches)
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-iMcV-MultiWay supports:

- 1+1 Uplink Protection, revertive
- 1+1 Uplink Protection, non-revertive
- A four port gigabit switch
- A dual copper to fiber SFP media/mode converter

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 now offers OAM for mission-critical applications. It can also be installed as dual 10/100/1000 Mbps copper to fiber media converter (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).
Modular 10/100/1000 Mbps Ethernet Media/Mode Converter
IE-iMcV-MultiWay

SPECIFICATIONS

TECHNICAL
- IEEE 802.3 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3ab 1000Base-T twisted pair
- IEEE 802.3z 1000Base-LX or SX fiber
- Extended temperature range
- Plug-and-play operation
- Accepts RJ-45 and SFP connectors
- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Single-strand fiber and CWDM models
- FX and TX Auto Negotiation
- AutoCross for MDI/MDIX
- Layer 2 packet switching, store and forward (forwarding rate: 14,880 pps for 10 Mbps, 148,000 pps for 100 Mbps, 1,480,000 Mbps for 1,000 Mbps)
- Jumbo Frames support (up to 10240) at Gigabit speed
- IEEE 802.3ah
- IEEE 802.1ag
- IEEE 802.1q VLAN
- SFP-MSA SFP standard (September 14, 2000)
- SFF-8472 DDMI standard (Revision 1.0)

MECHANICAL
- 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)

ENVIRONMENTAL
- Operating Temperature: -40° F to +185° F (-40° C to +85° C)
- Storage Temperature: -67 F to +257° F (-55° C to +125° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
- FCC Class A
- UL, cUL, CE

MECHANICAL DIAGRAM
(dimensions in inches)
**Modular Protocol-Independent, 10 Gbps XFP Fiber Mode Converter**

**iMcV-10G Converter XFP**

**PRODUCT FEATURES**

- Interchangeable XFP modules allow for multiple fiber mode/type conversion options (single-mode, multi-mode) as well as support for copper XFPs
- DDMI capable XFPs are supported through SNMP when installed in a compatible managed chassis
- Supports 3R’s signal regeneration - Re-amplify, Re-shape, Re-time
- Supports a wide range of XFP Modules with transmission speeds from 9.9 Gbps to 11.3 Gbps
- User selectable FX LinkLoss enables the operator to identify a cable fault/failure when the unit is not used in a managed chassis
- Supports Config Control, a feature that retains the latest configuration of a module regardless of how the initial configuration was setup; whether by DIP Switch or SNMP Management Module
- Supports XFP Loopback (Lineside & SFI) and Loss Carry Forward (XFP dependent)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>FIBER PORTS</th>
<th>RANGE</th>
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* SFPs Sold Separately

**ORDERING INFORMATION**

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<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
<th>RANGE</th>
<th>FIBER BUDGET (dB)</th>
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<td>808-38612</td>
<td>IE-XFP ZR/10G-ED, SM1550/PLUS, LC</td>
<td>80 km</td>
<td>23</td>
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</tbody>
</table>

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 B&B Electronic’s products. iView² runs standalone on Windows NT/XP/2000/7 or as a Web Server running under IIS.
Modular Protocol-Independent, 10 Gbps XFP Fiber Mode Converter
iMcV-10G Converter XFP

SPECIFICATIONS

TECHNICAL
- 2 x XFP ports
- Supports copper and fiber XFP transceivers
- Protocol-independent operation
- Converts between dissimilar fiber modes and wavelengths
- Includes diagnostic LEDs
- Hot-swappable architecture
- Modular Form Factor
- Compatible with IMC Networks’ XFPs and all standard XFP transceivers

STANDARD COMPLIANCE
- SFF-8472 DDMI standard (Revision 1.0)

MECHANICAL
- Dimensions Dual-wide iMcV-module
- Shipping Weight 0.25 lbs (0.11 kg)

ENVIRONMENTAL
- Operating Temperature: -4°F to +158°F (-20°C to +70°C)
- Storage Temperature: -40°F to +185°F (-40°C to +85°C)
- Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

POWER CONSUMPTION
- 637mA @ +70°F (Typical @ 5V)

REGULATORY APPROVALS
- FCC Class A
- UL/cUL, CE

MECHANICAL DIAGRAM
(dimensions in inches)
Modular Protocol-Independent, 10 Gbps XFP Fiber Mode Converter
iMcV-10G Converter SFP+

PRODUCT FEATURES
- Interchangeable SFP+ modules allow for multiple fiber mode/type conversion options (single mode, multi-mode)
- DDMI enabled XFPs are supported through SNMP when installed in a compatible managed chassis
- Supports 3R’s signal regeneration - Re-amplify, Re-shape, Re-time
- Supports a wide range of SFP+ Modules with transmission speeds from 9.9 Gbps to 11.3 Gbps
- 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 when the unit is not installed in a managed chassis
- Supports Config Control, a feature that retains the latest configuration of a module regardless of how the initial configuration was setup, whether by DIP Switch or SNMP Management Module
- Supports Internal Test Head functionality

The iMcV-10G-Converter SFP+ is a single-wide SNMP manageable module that allows network operators to convert an array of fiber types within a network. It installs in the modular, SNMP-manageable iMediaChassis series and in the unmanaged MediaChassis series.

The iMcV-10G-Converter SFP+ uses 10 Gbps SFP+ modules which are capable of moving large amounts of data over long distances for applications such as ISPs, Data Storage, Fiber Channel, and others. The hot-swappable nature of SFP+ and the numerous fiber protocols and types that are available allow for easy configuration and future upgrading as network demands evolve.

The iMcV-10G-Converter SFP+ is protocol-independent with dual SFP+ ports which can provide a single conversion between single-mode and multi-mode fiber, single-mode to single-mode fiber or multi-mode to single-strand single-mode fiber. The iMcV-10G-Converter SFP+ module supports a variety of user-configurable features such as Loss Carry Forward (LCF) and Internal Test Head feature.

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 B&B Electronics products. iView² runs standalone on Windows NT/XP/Vista/Win7 or as a Web Server running under IIS.

ORDERING INFORMATION

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<th>MODEL NUMBER</th>
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<td>860-12104</td>
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<td>SFP+</td>
<td>Various</td>
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* SFPs Sold Separately

ORDERING INFORMATION

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<tr>
<th>MODEL NUMBER</th>
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<td>8.4</td>
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iView: Windows 2000/XP/Vista/Win7
**Modular Protocol-Independent, 10 Gbps XFP Fiber Mode Converter**

**iMcV-10G Converter SFP+**

**SPECIFICATIONS**

**TECHNICAL**
- 2 x SFP+ ports
- Supports an array of 10G protocols
- Converts between dissimilar fiber modes and wavelengths
- Includes diagnostic LEDs
- Hot-swappable architecture
- Modular Form Factor
- Compatible with B&B Electronics SFP+ and all standard SFP+ transceivers
- Does not support Copper SFPs

**STANDARD COMPLIANCE**
- Meets MSA Standards

**MECHANICAL**
- Dimensions 4.19”H x 0.78”W x 2.75”D (10.74 x 2 x 7.05 cm)
- Shipping Weight 0.25 lbs (0.11 kg)

**ENVIRONMENTAL**
- Operating Temperature: -4° to +158° F (-20° to +70° C)
- Storage Temperature: -40° to +185° F (-40° to +85° C)
- Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**POWER CONSUMPTION**
- 637mA @ +70° C (Typical @ 5V)

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CE

**MECHANICAL DIAGRAM**
(dimensions in inches)
**ETHERNET MEDIA CONVERTERS**

10/100Base-T, Ethernet over VDSL
IE-iMcv-VDSL2 LANextender

**PRODUCT FEATURES**
- 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
- Extended operating temperature of -40°C to +85°C
- Features Flow Control, Link Loss, Link Fault Pass-Through (LFPT) & Remote Alarm Indication (RAI)
- Link Quality LED displays maximum supported bandwidth
- Overflow LED to display congestion on the VDSL line

**ORDERING INFORMATION**

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<th>DOWNSTREAM DATA RATE</th>
<th>UPSTREAM DATA RATE</th>
<th>DOWNSTREAM DATA RATE</th>
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<td>Asymmetrical</td>
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<td>84 Mbps</td>
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<td>1,000 FT.</td>
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<td>85 Mbps</td>
<td>61 Mbps</td>
<td>63 Mbps</td>
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<td>2,000 FT.</td>
<td>14 Mbps</td>
<td>50 Mbps</td>
<td>25 Mbps</td>
<td>37 Mbps</td>
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<td>5,000 FT.</td>
<td>0.3 Mbps</td>
<td>16 Mbps</td>
<td>0.3 Mbps</td>
<td>16 Mbps</td>
</tr>
</tbody>
</table>

* 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.

IE-iMcv-VDSL2 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

iView: Windows 2000/XP/Vista/Win7
## Specifications

### Technical
- Operates over existing telephone twisted pair cabling (CAT3)
- IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX
- Asymmetric/symmetric data rates (Band Plan 997/998)
- IEEE 802.3x Flow Control
- Auto Negotiation of speed and duplex (HDX/FDX) on Ethernet port
- Includes Link Fault Propagate
- Supports packets up to 1536 bytes
- Installs in any iMediaChassis or MediaChassis
- Supports GUI-Based iView²
- Connectors: RJ-45 and RJ-11
- Includes diagnostic LEDs
- Include hot-swappable architecture

### Mechanical
- 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)

### Environmental
- Operating Temperature: -40° to 185° F (-40° to +85° C)
- Storage Temperature: -67° to 257° F (-55° to +125° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

### Regulatory Approvals
- FCC Class B
- UL/cUL, CSA, CE

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### Mechanical Diagram

(Dimensions in inches)
In today’s dynamic networks, changing requirements are a fact of life. The multi-mode fiber products and cabling which were the most cost-effective and sound choice for your network yesterday may no longer give you the flexibility you require when adding remote offices today. Easily overcome the distance limitations inherent to multi-mode fiber by converting to single-mode fiber. Fiber mode converters are the solution.

Extend the reach of your network without replacing multi-mode fiber equipment. As an economical alternative to using a switch with single-mode fiber ports, simply install an IMC Networks fiber mode converter into your multi-mode fiber network. This enables you to easily connect to single-mode cabling and achieve distances up to 80 km. Our fiber mode converters also give you the flexibility to add single-mode fiber links only where needed. The iMcV-S2MM fiber mode conversion modules includes:

- Converts multi-mode to single-mode fiber
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

Hot-swappable fiber mode conversion modules significantly reduce operation costs by allowing other modules within the same chassis to remain up and running during product upgrades, maintenance and troubleshooting.

**Product Features**

- Includes protocol-independent operation
- Converts multi-mode to single-mode fiber
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

**Ordering Information**

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<thead>
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<th>Model Number</th>
<th>Description</th>
<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
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</thead>
<tbody>
<tr>
<td>iMcV-S2MM/155 (Single-mode to Multi-mode)</td>
<td>SM1310/PLUS-ST</td>
<td>40 km</td>
<td>MM1300-ST</td>
<td>5 km</td>
</tr>
<tr>
<td>850-14520</td>
<td>SM1310/PLUS-SC</td>
<td>40 km</td>
<td>MM1300-SC</td>
<td>5 km</td>
</tr>
<tr>
<td>850-14530</td>
<td>SM1310/PLUS-SC</td>
<td>40 km</td>
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<td>5 km</td>
</tr>
<tr>
<td>850-14540</td>
<td>SM1310/LONG-ST</td>
<td>40 km</td>
<td>MM1300-ST</td>
<td>5 km</td>
</tr>
<tr>
<td>850-14550</td>
<td>SM1310/LONG-SC</td>
<td>40 km</td>
<td>MM1300-SC</td>
<td>5 km</td>
</tr>
<tr>
<td>850-14555</td>
<td>SM1550/LONG-ST</td>
<td>80 km</td>
<td>MM1300-SC</td>
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<td>850-14560</td>
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<td>40 km</td>
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<td>SM1310/PLUS-SC</td>
<td>40 km</td>
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</tr>
<tr>
<td>850-14590</td>
<td>SM1310/LONG-SC</td>
<td>40 km</td>
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<td>850-14595</td>
<td>SM1550/LONG-SC</td>
<td>80 km</td>
<td>MM850-SC</td>
<td>2 km</td>
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**Single-Strand Fiber**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>iMcV-S2MM/1250 (Single-mode to Multi-mode)</td>
<td>LX-M1310-SC</td>
<td>15 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
</tr>
<tr>
<td>859-14799</td>
<td>LX-M1310/PLUS-SC</td>
<td>40 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
</tr>
<tr>
<td>859-14800</td>
<td>LX-M1310/PLUS-SC</td>
<td>40 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
</tr>
<tr>
<td>859-14801</td>
<td>LX-M1550/LONG-SC</td>
<td>80 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
</tr>
</tbody>
</table>

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSLX-SM1310-SC</td>
<td>15 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
<td></td>
</tr>
<tr>
<td>SSLX-SM1550-SC</td>
<td>15 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
<td></td>
</tr>
<tr>
<td>SSLX-SM1310/PLUS-SC</td>
<td>15 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
<td></td>
</tr>
<tr>
<td>SSLX-SM1550/PLUS-SC</td>
<td>15 km</td>
<td>SX-MM850-SC</td>
<td>220/550 m</td>
<td></td>
</tr>
</tbody>
</table>

iMcV-S2MM also available in CWDM Fiber. Call for details.
Protocol-Independent, SNMP-Manageable Fiber Mode Conversion Modules

iMcV-S2MM

SPECIFICATIONS

TECHNICAL
Includes protocol-independent operation
Converts between dissimilar fiber modes and wavelengths:
Single-Mode to Multi-Mode
Ethernet, Fast Ethernet
OC-12, Gigabit Ethernet and FibreChannel
50/125µm or 62.5/125µm multi-mode fiber
9/125µm single-mode fiber
Available for single-strand fiber
Connectors: ST, SC or MT-RJ
Installs in any iMediaChassis or MediaChassis
Supports GUI-Based iView²
Includes diagnostic LEDs
Includes hot-swappable architecture

MECHANICAL
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)

ENVIRONMENTAL
Operating Temperature: +32° to +122° F (0° to +50° C)
Storage Temperature: -13° to +158° F (-25° to +70° C)
Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
In today's dynamic networks, changing requirements are a fact of life. The multi-mode fiber products and cabling which were the most cost-effective and sound choice for your network yesterday may no longer give you the flexibility you require when adding remote offices today. Extend a single mode conversion to another single mode fiber segment, using an S2SM.

As an economical alternative to using a switch with single-mode fiber ports, simply install a fiber mode converter into your multi-mode fiber network. This enables you to easily connect to single-mode cabling and achieve distances up to 80 km. Our fiber mode converters also give you the flexibility to add single-mode fiber links only where needed. The iMcV-S2SM fiber mode conversion modules includes:

- Converts Single-Mode to Single-Mode fiber
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

Hot-swappable fiber mode conversion modules significantly reduce operation costs by allowing other modules within the same chassis to remain up and running during product upgrades, maintenance and troubleshooting.

### PRODUCT FEATURES
- Includes protocol-independent operation
- Converts single-mode to single-mode fiber
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description Port 1</th>
<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
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</thead>
<tbody>
<tr>
<td>iMcV-S2SM (Single-mode to Single-mode)</td>
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<tr>
<td>850-14519</td>
<td>SM1310/PLUS-SC</td>
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<td>SM1310/PLUS-SC</td>
<td>40 km</td>
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<td>850-14505</td>
<td>SM1310/LONG-SC</td>
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<td>850-14513</td>
<td>SM1550/LONG-SC</td>
<td>80 km</td>
<td>SM1310/PLUS-SC</td>
<td>40 km</td>
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<tr>
<td>850-14514-LC</td>
<td>SM1550/LONG-SC</td>
<td>80 km</td>
<td>SM1310/LONG-SC</td>
<td>40 km</td>
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**Single-Strand Fiber**

<table>
<thead>
<tr>
<th>Model Number</th>
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<th>Distance Port 1</th>
<th>Description Port 2</th>
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<tbody>
<tr>
<td>850-14515</td>
<td>SSFX-SM1310-SC (1310xmt/1550rcv)</td>
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<td>850-14516</td>
<td>SSFX-SM1550-SC (1550xmt/1310rcv)</td>
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<td>850-14517</td>
<td>SSFX-SM1310/PLUS-SC (1310xmt/1550rcv)</td>
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<td>850-14518</td>
<td>SSFX-SM1550/PLUS-SC (1550xmt/1310rcv)</td>
<td>40 km</td>
<td>SM1310/LONG-SC</td>
<td>40 km</td>
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### ORDERING INFORMATION

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<th>Model Number</th>
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<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>iMcV-S2SM/1250 (Single-mode to Single-mode)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>859-14803</td>
<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
</tr>
<tr>
<td>859-14804</td>
<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
<td>LX-SM1550/PLUS-SC</td>
<td>80 km</td>
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**Single-Strand Fiber**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description Port 1</th>
<th>Distance Port 1</th>
<th>Description Port 2</th>
<th>Distance Port 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>859-14820</td>
<td>SSLX-SM1310-SC (1310xmt/1550rcv)</td>
<td>15 km</td>
<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
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<tr>
<td>859-14821</td>
<td>SSLX-SM1550-SC (1550xmt/1310rcv)</td>
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<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
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<tr>
<td>859-14822</td>
<td>SSLX-SM1310/PLUS-SC (1310xmt/1550rcv)</td>
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<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
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<tr>
<td>859-14823</td>
<td>SSLX-SM1550/PLUS-SC (1550xmt/1310rcv)</td>
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<td>LX-SM1310/PLUS-SC</td>
<td>40 km</td>
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</table>

iMcV-S2SM also available in CWDM Fiber. Call for details.
Protocol-Independent, SNMP-Manageable Fiber Mode Conversion Modules

iMcV-S2SM

**SPECIFICATIONS**

**TECHNICAL**
- Includes protocol-independent operation
- Converts between dissimilar fiber modes and wavelengths:
  - Single-Mode to Single-Mode
  - Ethernet, Fast Ethernet and ATM
  - OC-12, Gigabit Ethernet and FibreChannel
  - 50/125µm or 62.5/125µm multi-mode fiber
  - 9/125µm single-mode fiber
- Available for single-strand fiber
- Connectors: ST, SC or MT-RJ
- Installs in any iMediaChassis or MediaChassis
- Supports GUI-Based iView²
- Includes diagnostic LEDs
- Includes hot-swappable architecture

**MECHANICAL**
- 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)

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CSA, CE

**MECHANICAL DIAGRAM**
(dimensions in inches)
In today’s dynamic networks, changing requirements are a fact of life. The multi-mode fiber products and cabling which were the most cost-effective and sound choice for your network yesterday may no longer give you the flexibility you require when adding remote offices today. Easily overcome the distance limitations inherent to multi-mode fiber by extending it with a fiber mode converter.

Extend the reach of your network without replacing multi-mode fiber equipment. Fiber pulled within a building is typically multi-mode. If a network device or test equipment offers 850nm multi-mode fiber ports, and has to connect to a 1300nm multi-mode NIC or router, a mode converter is required.

The iMcV-M2mm fiber mode converter includes:

- Converts multi-mode to multi-mode fiber
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

Hot-swappable fiber mode conversion modules significantly reduce operation costs by allowing other modules within the same chassis to remain up and running during product upgrades, maintenance and troubleshooting.

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### PRODUCT FEATURES

- Includes protocol-independent operation
- Converts multi-mode to multi-mode fiber
- 10 Mbps Ethernet to 155 Mbps ATM
- Supports 10 Mbps Ethernet to 155 Mbps or 1.25 Gbps Gigabit Ethernet

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION PORT 1</th>
<th>DISTANCE PORT 1</th>
<th>DESCRIPTION PORT 2</th>
<th>DISTANCE PORT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>859-14803</td>
<td>MM1300-ST</td>
<td>5 km</td>
<td>MM850-ST</td>
<td>2 km</td>
</tr>
<tr>
<td>859-14804</td>
<td>MM1300-SC</td>
<td>5 km</td>
<td>MM850-SC</td>
<td>2 km</td>
</tr>
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<td>850-14510</td>
<td>MM1300-ST</td>
<td>2 km</td>
<td>MM850-ST</td>
<td>2 km</td>
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<tr>
<td>850-14511</td>
<td>MM1300-SC</td>
<td>2 km</td>
<td>MM850-SC</td>
<td>2 km</td>
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</table>

iMcV-M2MM also available in CWDM Fiber.
Call for details.

iView: Windows 2000/XP/Vista/Win7
Protocol-Independent, SNMP-Manageable Fiber Mode Conversion Modules
iMcV-M2MM

**SPECIFICATIONS**

**TECHNICAL**
- Includes protocol-independent operation
- Converts between dissimilar fiber modes and wavelengths: Multi-Mode to Multi-Mode
- Ethernet, Fast Ethernet and ATM
- 50/125µm or 62.5/125µm multi-mode fiber
- Available for single-strand fiber
- Connectors: ST, SC or MT-RJ
- Installs in any iMediaChassis or MediaChassis
- Supports GUI-Based iView²
- Includes diagnostic LEDs
- Includes hot-swappable architecture

**MECHANICAL**
- 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)

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CSA, CE

**MECHANICAL DIAGRAM**
(dimensions in inches)
Protocol-Independent, Fiber Mode Conversion via SFP Modules

IE-ModeConverter

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. With the flexibility to convert fiber between single-mode, multi-mode, single-strand and various wavelengths, one can easily extend network range to reach more remote locations. Additionally, since the IE-ModeConverter is an Industrial Equipment 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 allow for easy configuration and future upgrading as network demands evolve.

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 or media converter.

### PRODUCT FEATURES
- 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
- Supports a full range of fiber SFP Modules in various transmission speeds, from 10 Mbps up to 2.4 Gbps*
- Wallmount Bracket

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
<th>FIBER PORTS</th>
<th>DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>855-19619</td>
<td>IE-ModeConverter SFP/SFP with AC Adapter **</td>
<td>SFP</td>
<td>2</td>
</tr>
<tr>
<td>854-19619</td>
<td>IE-ModeConverter SFP/SFP without AC Adapter **</td>
<td>SFP</td>
<td>2</td>
</tr>
</tbody>
</table>

* Certified at 1.25 Gbps, 2.4 Gbps is achievable
** SFP fibers sold separately

### ACCESSORIES
- 806-39105 - DIN Rail Clip
- 806-39638 - Double-USB Power Cable, 36”/.9m
- 806-39650 - 12”.3m Barrel-Connector Power Cable
- 850-13086 - IE-PowerTray/18-AC (-20°C to +70°C), 18-slot AC powered chassis
- 895-39229 - Wall Mount Bracket
Protocol-Independent, Fiber Mode Conversion via SFP Modules

IE-ModeConverter

SPECIFICATIONS

TECHNICAL
Two SFP ports
Protocol-independent operation
Converts between dissimilar fiber modes and wavelengths
Includes diagnostic LEDs
Hot-swappable architecture
Small Form Factor
7 VDC to 50 VDC terminal block powering option
Supports an external 5 VDC power module (not extended temperature)
Extended temperature range from -10° to +50° C
Compatible with IMC Networks SFPs and all standard MSA compliant SFP transceivers
Supports DIN Rail mounting
DC terminal block has dual inputs and supports cascading power
Standard Compliance
SFP-MSA SFP standard (September 14, 2000)
SFF-8472 DDMI standard (Revision 1.0)

MECHANICAL
(dimensions in inches)

MECHANICAL

Dimensions 0.83"H x 1.80"W x 3.35"D
(2.11 x 4.57 x 8.51 cm)
Shipping Weight 0.25 lbs (0.11 kg)

AC WALL ADAPTER
100 to240 ±10% VAC input, 5 VDC output, 2A max.

DC INPUT VOLTAGE
+7 to +50 VDC @ 2.5 Watts (chassis grounded to negative terminal)

POWER
Maximum 3.3 Watts of combined power to both SFPs

ENVIRONMENTAL
Operating Temperature: -13°F to +185°F (-25°C to +85°C)
DC configuration
-4°F to +158°F (-20°C to +70°C)
DIN Railmount power supply
+14°F to +122°F (-10°C to +50°C)
with AC wall adapter
Storage Temperature: -49°F to +185°F (-45°C to +85°C)
Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE
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-iMcVModeConverter modules support a variety of user configurable features such as LinkLoss forcing a gigabit SFP to 100Mbps. 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.

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
<th>FIBER PORTS</th>
<th>DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE-ModeConverter SFP/SFP with AC Adapter **</td>
<td>SFP</td>
<td>2</td>
<td>Various</td>
</tr>
</tbody>
</table>

* Certified at 1.25 Gbps, 2.4 Gbps is achievable

** SFP fibers sold separately
**SPECIFICATIONS**

**TECHNICAL**
- Includes two SFP ports
- Protocol-independent operation
- Converts between dissimilar fiber modes and wavelengths
- Includes diagnostic LEDs
- Hot-swappable architecture
- Modular Form Factor

**STANDARD COMPLIANCE**
- SFP-MSA SFP standard (September 14, 2000)
- SFF-8472 DDMI standard (Revision 1.0)

**MECHANICAL**
- Dimensions: 4.19" x 0.78" x 2.75" (10.6 cm x 1.98 cm x 6.99 cm)
- Shipping Weight: 0.25 lbs (0.11 kg)

**POWER**
- 422mA with SFP ports populated (Typical @ 5V)

**ENVIRONMENTAL**
- Operating Temperature: -40° to +185° F (-40° to +85° C)
- Storage Temperature: -40° to +185° F (-40° to +85° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- FCC Class A
- UL/cUL, CE

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**MECHANICAL DIAGRAM**
(dimensions in inches)
Protocol-Independent Wavelength Division Multiplexing for High Volume Optical Networking Applications
IE-iMcV-WDM/2 Series

Wavelength Division Multiplexing (WDM) is a technology that enables the transmitting 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 double their fiber capacity without incurring the costs associated with installing new fiber. Campus area network managers can deploy the WDM/2 solution, for example, to combine voice and data traffic over the same duplex fiber between company facilities.

WDM/2 and iMcV-WDM/2 are two-channel, passive, protocol and speed-independent Wavelength Division Multiplexers which 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/2 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, the protocol-independent WDM/2 products enable the transmitting of any protocol and any speed over 1310 nm or 1550 nm single-mode fiber.

Support a variety of protocols; easy installation

As passive, protocol-independent Wavelength Division Multiplexers, WDM/2 and iMcV-WDM/2 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, FibreChannel, and 10G. Installing WDM/2 products is easy—standalone WDM/2 chassis come ready to install and iMcV-WDM/2 modules slide into any iMediaChassis or MediaChassis/2. There is no configuration required for either version.

PRODUCT FEATURES

- WDM/2 and iMcV-WDM/2 double the capacity of installed fiber by transmitting two wavelengths on one strand of fiber
- WDM/2 and iMcV-WDM/2 are speed and protocol-independent, and support 1310 nm and 1550 nm single-mode fiber
- WDM/2 chassis performs multiplexing with NO outside power requirement
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER</th>
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<tbody>
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<tr>
<td>849-14100</td>
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<tr>
<td>WDM/2 Stand Alone Chassis</td>
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<td>849-10100</td>
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iView: Windows 2000/XP/Vista/Win7
Protocol-Independent Wavelength Division Multiplexing for High Volume Optical Networking Applications

IE-iMcV-WDM/2 Series

SPECIFICATIONS

TECHNICAL
Doubles the capacity of installed fiber by transmitting two wavelengths on one strand of fiber
Protocol-independent; complies 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 FibreChannel
Supports GUI-Based iView²
Connectors: SC
Supports Half- and Full-Duplex operation
IMCV-WDM/2
Requires two slots in a chassis; modules are double-wide
Installs in any iMediaChassis or MediaChassis/2
WDM/2 STANDALONE CHASSIS
iMcV-WDM/2 module ships from factory in a standalone chassis

MECHANICAL

Shipping Weight iMcV-WDM/2 0.9 lbs (0.34 kg)
Shipping Weight WDM/2 Chassis 1.1 lbs (0.50 kg)

ENVIRONMENTAL
Operating Temperature +32° to +122° F (0° to +50° C)
Storage Temperature: -13° to +158°F (-25° to +70°C)
Operating Humidity 5% to 95% (non-condensing)

REGULATORY APPROVALS
FCC Class A
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
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 is compatible with the MediaChassis and iMediaChassis chassis lines. When the IE-iMcV-MuxDemux/4 is installed in an iMediaChassis in conjunction with a SNMP Management Module, iView will identify the card allowing network operators to view its status and edit port descriptions.

**PRODUCT FEATURES**

- Add up to 8 CWDM channels to an existing 1310nm network
- Speed and protocol independent (up to 10 Gbps)
- Install the IE-iMcV-MuxDemux/4 into a compatible chassis and match the fiber connectors with the 1470nm through 1610nm wavelengths
- Daisy chain 2 modules together for 8 CWDM channels + one 1310nm over duplex fiber
- No outside power requirement

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FIBER PORT</th>
<th>FIBER PORT</th>
<th>NETWORK PORT</th>
<th>EXPANSION PORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE-iMcV-MuxDemux/4</td>
<td>1470-1530-LC</td>
<td>1-LC</td>
<td>1-LC</td>
<td></td>
</tr>
<tr>
<td>844-18147</td>
<td>1550-1610-LC</td>
<td>1-LC</td>
<td>1-LC</td>
<td></td>
</tr>
</tbody>
</table>

iView: Windows 2000/XP/Vista/Win7
Modular 4 Channel CWDM
Multiplexer/Demultiplexer
IE-iMcV-MuxDemux/4

SPECIFICATIONS

TECHNICAL
1310nm expansion port
Low insertion loss

Protocol-independent; complies with a wide range of communications protocols including Ethernet (10, 100, 1000 Mbps or 10 Gigabit), SONET/SDH (OC-3, OC-12 OC-48), FDDI, ATM, ESCON, T1/E1, E3, DS3 and FibreChannel
Supports GUI-Based iView²
Connectors: LC

INSERTION LOSS:
Expansion to network: 3 dB
Port to network: 2.5 dB

MECHANICAL

Dimensions Dual-wide, two slot chassis module
Shipping Weight WDM/2 Chassis 0.9 lbs (0.34 kg)

ENVIRONMENTAL
Operating Temperature -40°F to +185°F (-40°C to +85°C)
Storage Temperature: -40°F to +185°F (-40°C to +85°C)
Operating Humidity 5% to 95% (non-condensing)

MECHANICAL DIAGRAM
(dimensions in inches)
The iMediaChassis/20 is an intelligent, carrier-class optical access platform that supports conversion of Ethernet to fiber and a variety of other telco networking technologies, including VDSL, T1/E1, DS3/E3/STS-1 and WDM. The iMediaChassis/20 enables network operators to drastically reduce the capital and operational expenses by providing all copper-to-fiber and multi-mode to single-mode conversions, network distance extensions and Ethernet Private Line services from the same managed chassis platform. Having the highest port density in the industry - along with a robust design, hot-swappable architecture, SNMP-management, and redundant power supplies for fault tolerance - makes the iMediaChassis ideal for installing in the Central Office (CO) where a multitude of diverse applications, using a variety of protocols, is required. Pair this multi-slot chassis with a MediaChassis or other standalone B&B Electronics unmanaged device at the customer premises, for complete end-to-end management.

- An independent SNMP-management slot to isolate management data from user traffic
- Fans on the 20-slot chassis can be remotely controlled via SNMP
- Remote temperature monitoring on all chassis

### PRODUCT FEATURES

- 20-slot supporting low to high density deployment
- Install wide varieties of IMC Networks’ media conversion and optical demarcation modules
- SNMP management using optional SNMP management module
- 19” Rack or rack shelf mountable
- 20-slot chassis: Dual (redundant) AC or DC and AC/DC power supplies and fans

### ORDERING INFORMATION

**MODEL NUMBER** | **DESCRIPTION**
--- | ---
 **iMediaChassis/20** | *An SNMP module is required to utilize full SNMP functionality in the iMediaChassis family.*
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

### ACCESSORIES

- 806-39960-AC - Power Supply, 960-AC Power Module (100-240V AC)
- 806-39960-DC - Power Supply, 960-DC Power Module (300 Watt, -48V DC)
- 850-39950 - iMediaChassis SNMP Management Module
SPECIFICATIONS

TECHNICAL
SNMP-manageable with use of SNMP module
SNMP Write Lock switch protects the SNMP-configured settings
Built to NEBS-III specifications
Last Gasp feature sends notification of AC line failures and power supply failures
Available with AC or DC power
Available with redundant power
Highest port density, 20 slots
Includes fan tachometers

MIB:
Port Type
Fan speeds
Traps
Fiber Type
Module Type
Link Status of Ports
Chassis temperature
Power Supply Type/Status
User-Definable Name/ID of Product and Each Port
Enable/Disable Ports
Enable/Disable FO/FX LinkLoss, TP/TX LinkLoss
Enable/Disable FiberAlert, Auto Negotiation

MECHANICAL

Dimensions 5.17"H x 19.0"W x 14"D
(13.13cm H x 48.26cm W x 35.56cm D)
Shipping Weight 30 lbs (13.60 kg)

AC INPUT LOAD: DUAL AC
100 to 240V AC±10%, 50-60Hz, 3.5/1.5A

AC INPUT LOAD: AC/DC
100 to 240V AC±10%, 50-60Hz, 2A

DC INPUT LOAD: DUAL DC
-48V DC, 5A Max (per module)

DC INPUT LOAD: AC/DC
-48V DC, 4.4A Max, per module

ENVIRONMENTAL
Operating Temperature: +32° to +122° F (0° to +50° C)
Storage Temperature: -4° to +176° F (-20° to +80° C): Dual AC, AC/DC
-4° to +140° F (-20° to +60° C): Dual DC
Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
Dual AC: FCC Class B
Dual DC: FCC Class B
AC/DC: FCC Class B
UL/cUL, CSA, CE

MECHANICAL DIAGRAM
(dimensions in inches)
SNMP-Manageable Chassis for “iMcV” Series Modular Media Converters

iMediaChassis/6

**Product Features**

- 6-slot supporting low to high density deployment
- Install wide varieties of IMC Networks’ media conversion and optical demarcation modules
- SNMP management using optional SNMP management module
- 19” Rack or rack shelf mountable
- 6-slot chassis: Select any combination of up to two AC and DC fixed power supplies - mix and match
- Fan test featured on 6-slot chassis

The iMediaChassis/6 is an intelligent, carrier-class optical access platform that supports conversion of Ethernet to fiber and a variety of other telco networking technologies, including VDSL, T1/E1, DS3/E3/STS-1 and WDM. The iMediaChassis/6 enables network operators to drastically reduce the capital and operational expenses by providing all copper-to-fiber and multi-mode to single-mode conversions, network distance extensions and Ethernet Private Line services from the same managed chassis platform. Having the highest port density in the industry - along with a robust design, hot-swappable architecture, SNMP-management, and redundant power supplies for fault tolerance - makes the iMediaChassis ideal for installing in the Central Office (CO) where a multitude of diverse applications, using a variety of protocols, is required. Pair this multi-slot chassis with a MediaChassis or other standalone B&B Electronics unmanaged device at the customer premises, for complete end-to-end management.

- An independent SNMP-management slot to isolate management data from user traffic
- Temperature controlled fans in the 6-slot chassis activates only when chassis reaches a certain temperature, thereby extending the life of the fans

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>iMediaChassis/6</td>
<td>Includes 1 AC power supply module with option for 2nd power supply</td>
</tr>
<tr>
<td>850-10953-AC</td>
<td>Includes 2 AC power supply modules</td>
</tr>
<tr>
<td>850-10953-2AC</td>
<td>Includes 1 DC power supply module with option for 2nd power supply</td>
</tr>
<tr>
<td>850-10953-DC</td>
<td>Includes 2 power supply modules</td>
</tr>
</tbody>
</table>
| 850-10953-2DC  | *An SNMP module is required to utilize full SNMP functionality in the iMediaChassis family.

**Accessories**

- 806-39125-AC - Power Supply, 125-AC Module (125 Watt, 100-240V DC)
- 806-39125-DC - Power Supply, 125-DC Module (125 watt, -48V DC)
- 850-39950 - iMediaChassis SNMP Management Module
**SNMP-Manageable Chassis for “iMcV” Series Modular Media Converters**

**iMediaChassis/6**

**SPECIFICATIONS**

**TECHNICAL**

- SNMP-manageable with use of SNMP module
- SNMP Write Lock switch protects the SNMP-configured settings
- Built to NEBS-III specifications
- Last Gasp feature sends notification of AC line failures and power supply failures
- Available with AC or DC power
- Available with redundant power
- Only 1U high
- True load sharing with dual, end-user replaceable power supplies
- Temperature controlled fans

**SNMP:**

- Port Type
- Fan speeds
- Traps
- Fiber Type
- Module Type
- Link Status of Ports
- Chassis temperature
- Power Supply Type/Status
- User-Definable Name/ID of Product and Each Port
- Enable/Disable Ports
- Enable/Disable FO/FX LinkLoss, TP/TX LinkLoss
- Enable/Disable FiberAlert, Auto Negotiation

**MECHANICAL**

- Dimensions: 1.8”H x 19”W x 10.65”D (4.57cm H x 48.26cm W x 27.05cm D)
- Shipping Weight: 13 lbs (5.90 kg)
- AC Input Load: 100 to 240V AC, 50-60Hz, 1.0A
- DC Input Load: -48V DC, 2.0A

**ENVIRONMENTAL**

- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -4° to +176° F (-20° to +80° C): Dual AC, AC/DC
- -4° to +140° F (-20° to +60° C): Dual DC
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**

- Single AC: FCC Class A
- Dual AC: FCC Class A
- Single DC: FCC Class B
- Dual DC: FCC Class B
- UL/cUL, CSA, CE

---

**MECHANICAL DIAGRAM**

(dimensions in inches)
The iMediaChassis/3 is an intelligent, carrier-class optical access platform that supports conversion of Ethernet to fiber and a variety of other telco networking technologies, including VDSL, T1/E1, DS3/E3/STS-1 and WDM. The iMediaChassis/3 enables network operators to drastically reduce the capital and operational expenses by providing all copper-to-fiber and multi-mode to single-mode conversions, network distance extensions and Ethernet Private Line services from the same managed chassis platform. Having the highest port density in the industry - along with a robust design, hot-swappable architecture, SNMP-management, and redundant power supplies for fault tolerance - makes the iMediaChassis ideal for installing in the Central Office (CO) where a multitude of diverse applications, using a variety of protocols, is required. Pair this multi-slot chassis with a MediaChassis or other standalone B&B Electronics unmanaged device at the customer premises, for complete end-to-end management.

- An independent SNMP-management slot to isolate management data from user traffic
- Temperature controlled fans in the 3-slot chassis activates only when chassis reaches a certain temperature, thereby extending the life of the fans

### PRODUCT FEATURES

- 3-slot supporting low to high density deployment
- Install wide varieties of IMC Networks' media conversion and optical demarcation modules
- SNMP management using optional SNMP management module
- 19” Rack or rack shelf mountable
- 3-slot chassis: Select any combination of up to two AC and DC fixed power supplies - mix and match
- Fan test featured on 6-slot chassis

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iMediaChassis/3</td>
<td></td>
</tr>
<tr>
<td>850-10949-AC</td>
<td>1 fixed AC power supply</td>
</tr>
<tr>
<td>850-10949-2AC</td>
<td>2 fixed AC power supplies</td>
</tr>
<tr>
<td>850-10949-DC</td>
<td>1 fixed DC power supply</td>
</tr>
<tr>
<td>850-10949-2DC</td>
<td>2 fixed DC power supplies</td>
</tr>
<tr>
<td>850-10949-ACDC</td>
<td>1 fixed AC and 1 fixed DC power supply</td>
</tr>
</tbody>
</table>

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

### ACCESSORIES

850-39950 - iMediaChassis SNMP Management Module
**SNMP-Manageable Chassis for “iMcV” Series Modular Media Converters**

**iMediaChassis/3**

**SPECIFICATIONS**

**TECHNICAL**
- SNMP-manageable with use of SNMP module
- SNMP Write Lock switch protects the SNMP-configured settings
- Built to NEBS-III specifications
- Last Gasp feature sends notification of AC line failures and power supply failures
- Available with AC or DC power
- Available with redundant power
- Only 1U high
- Temperature controlled fans

**MIB:**
- Port Type
- Fan speeds
- Traps
- Fiber Type
- Module Type
- Link Status of Ports
- Chassis temperature
- Power Supply Type/Status
- User-Definable Name/ID of Product and Each Port
- Enable/Disable Ports
- Enable/Disable FO/FX LinkLoss, TP/TX LinkLoss
- Enable/Disable FiberAlert, Auto Negotiation

**MECHANICAL**

- Dimensions: 1.8”H x 8.74”W x 7.5”D
  (4.57cm H x 22.19cm W x 19.05cm D)
- Shipping Weight: 5 lbs (2.3 kg)

**AC INPUT LOAD:**
- 100 to 240V AC, 50-60Hz, 0.75A

**DC INPUT LOAD:**
- 35 to 75V DC, 1.6A

**ENVIRONMENTAL**
- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: -4° to +176° F (-20° to +80° C): Dual AC, AC/DC
  -4° to +140° F (-20° to +60° C): Dual DC
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
- Single AC: FCC Class B
- Dual AC: FCC Class B
- Single DC: FCC Class B
- Dual DC: FCC Class B
- AC/DC: FCC Class B
- UL/cUL, CSA, CE

**MECHANICAL DIAGRAM**

(dimensions in inches)
Chassis for “iMcV” Series Modular Media Converters

MediaChassis/1

The MediaChassis/1, flexible, table-top chassis support a variety of B&B Electronics media and mode converter modules for 10/100/1000 Ethernet, T1/E1, DS3/E3/STS-1, VDSL and CWDM networking technologies. This modular approach allows network operators to inexpensively change protocols by simply changing the module rather than the entire unit.

Networks utilizing a variety of fiber types will benefit, as well as networks operating multiple protocols such as TDM and Ethernet. With support for AC or DC powering options, the MediaChassis/1 is a cost-effective way to overcome a variety of media and mode conversion challenges.

PRODUCT FEATURES

- Rugged enclosures designed for a variety of media and mode conversion modules
- Supports a wide range of protocols
- Modular design provides future-proof upgrade path
- Flexible versions designed for a variety of environments
- Ideal for FTTx modules featuring built-in SNMP management
- AC or DC powering

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MediaChassis/1-AC</td>
<td>850-13100</td>
</tr>
<tr>
<td>IE-MediaChassis/1-DC</td>
<td>850-32105</td>
</tr>
</tbody>
</table>

ACCESSORIES

895-39227 - Wallmount Brackets
Chassis for “iMcV” Series
Modular Media Converters

MediaChassis/1

SPECIFICATIONS

TECHNICAL
Available with AC or DC power
1 Slot Chassis

MECHANICAL
Dimensions 1.5”H x 4.74” W x 7.3”D
(3.81 cm H x 12.03 cm W x 18.54 cm D)
Shipping Weight 1.6 lbs (0.73 kg)

INTERNAL AC POWER
100 to 240 VAC, 50/60Hz, 1.0A

INTERNAL DC POWER
35 to 75 VDC, 500mA

ENVIRONMENTAL
Operating Temperature:
MediaChassis/1-AC +32° F o +122° F (0° C to +50° C)
IE-MediaChassis/1-DC -31° F to +176° F (-35° C to +80° C)
Storage Temperature: -40° to +185° F (-40° to +85° C)
Operating Humidity 5% to 95% (non-condensing),
0 – 10,000 ft. altitude

REGULATORY APPROVALS MEDIA CHASSIS/1-AC
FCC Class A, UL/cUL, CE, CSA, CB
REGULATORY APPROVALS IE-MEDIA CHASSIS/1-DC
FCC Class B, UL/cUL, CE, CSA

MECHANICAL DIAGRAM
(dimensions in inches)
The MediaChassis/2 and IE-MediaChassis/2, flexible, table-top chassis support a variety of B&B Electronics media and mode converter modules for 10/100/1000 Ethernet, T1/E1, DS3/E3/STS-1, VDSL and CWDM networking technologies. This modular approach allows network operators to inexpensively change protocols by simply changing the module rather than the entire unit.

Networks utilizing a variety of fiber types will benefit, as well as networks operating multiple protocols such as TDM and Ethernet. With support for AC or DC powering options, the MediaChassis/2 is a cost-effective way to overcome a variety of media and mode conversion challenges.

**PRODUCT FEATURES**

- Rugged enclosures designed for a variety of media and mode conversion modules
- Supports a wide range of protocols
- Modular design provides future-proof upgrade path
- Flexible versions designed for a variety of environments
- Ideal for FTTx modules featuring built-in SNMP management
- AC or DC powering

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MediaChassis/2-AC</td>
<td>850-13101 2 Slot, AC</td>
</tr>
<tr>
<td>IE-MediaChassis/2-AC and DC</td>
<td>850-13106 2 Slot, AC</td>
</tr>
<tr>
<td>850-32106 2 Slot, DC</td>
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</tr>
</tbody>
</table>

**ACCESSORIES**

895-39227 - Wallmount Brackets
# Chassis for “iMcV” Series
## Modular Media Converters

### MediaChassis/2

#### Specifications

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>Available with AC or DC power</td>
</tr>
<tr>
<td></td>
<td>2 Slot Chassis</td>
</tr>
<tr>
<td>Mechanical</td>
<td>Dimensions 2.29&quot;H x 4.74&quot;W x 7.3&quot;D (5.81cm H x 12.03cm W x 18.54cm D)</td>
</tr>
<tr>
<td></td>
<td>Shipping Weight 1.9 lbs (0.86 kg)</td>
</tr>
<tr>
<td>Internal AC Power</td>
<td>100 to 240 VAC, 50/60Hz, 1.0A</td>
</tr>
<tr>
<td>Internal DC Power</td>
<td>35 to 75 VDC, 1.5A @ 75 VDC</td>
</tr>
</tbody>
</table>

#### Environmental

<table>
<thead>
<tr>
<th>Metric</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Operating Temperature:</td>
<td>MediaChassis/1-AC +32° F to +122° F (0° C to +50° C)</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>IE-MediaChassis/1-DC -31° F to +176° F (-35° C to +80° C)</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>-40° to +185° F (-40° to +85° C)</td>
</tr>
<tr>
<td>Operating Humidity:</td>
<td>5% to 95% (non-condensing), 0 – 10,000 ft. altitude</td>
</tr>
</tbody>
</table>

#### Regulatory Approvals

- MediaChassis/1-AC: FCC Class B, UL/cUL, CE, CSA
- IE-MediaChassis/2-AC and DC: FCC Class A, UL/cUL, CE, CSA, CB

### Mechanical Diagram

(dimensions in inches)
Chassis for “iMcV” Series Modular Media Converters
IE-MediaChassis/1-AC

The IE-MediaChassis/1, flexible, table-top chassis support a variety of B&B Electronics media and mode converter modules for 10/100/1000 Ethernet, T1/E1, DS3/E3/STS-1, VDSL and CWDM networking technologies. This modular approach allows network operators to inexpensively change protocols by simply changing the module rather than the entire unit.

Networks utilizing a variety of fiber types will benefit, as well as networks operating multiple protocols such as TDM and Ethernet. With support for AC or DC powering options, the MediaChassis/1 is a cost-effective way to overcome a variety of media and mode conversion challenges.

PRODUCT FEATURES
- Rugged enclosures designed for a variety of media and mode conversion modules
- Supports a wide range of protocols
- Modular design provides future-proof upgrade path
- Flexible versions designed for a variety of environments
- Ideal for FTTx modules featuring built-in SNMP management
- AC or DC powering
- 1 slot extended temperature versions (up to -40° to +80° C) for installing any “iMcV”-series modules

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE-MediaChassis/1-AC</td>
<td>1 Slot, AC</td>
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</tbody>
</table>

ACCESSORIES
806-39105 - DIN Rail Clip
**SPECIFICATIONS**

**TECHNICAL**
Available with AC or DC power

**MECHANICAL**
1 Slot Chassis
Dimensions 0.90"H x 4.30" W x 4.00"D (2.28 cm H x 10.92 cm W x 10.16 cm D)
Shipping Weight 0.6 lbs (0.27 kg)

**POWER**
DC Terminal: 7-50V DC, 3A-0.1A (Negative ground referenced)

**ENVIRONMENTAL**
Operating Temperature: -40° to +158°F (-40° to +70°C)
DC Terminal Block
Operating Temperature: +14° to +122°F (+10° to +50°C)
With AC Wall Adapter
Storage Temperature: -40° to +185°F (-40° to +85°C)
Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**REGULATORY APPROVALS**
FCC Class B, UL/cUL, CE, CSA

---

**MECHANICAL DIAGRAM**
(dimensions in inches)
Ethernet-based, Modular Media Converters Chassis

MediaConverter/1

Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter/1 is the perfect solution.

The unmanaged B&B Electronics’ MediaConverter/1 enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

**PRODUCT FEATURES**
- Supports Ethernet, Fast Ethernet and Gigabit Ethernet
- Supports McPIMs, McLIMs, and McGigabit modules
- Table-top
- 1-slot chassis
- AC power
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MediaConverter/1</td>
<td>1 Slot, AC</td>
</tr>
<tr>
<td>851-10901</td>
<td></td>
</tr>
</tbody>
</table>

**ACCESSORIES**

895-39949 - Rackmount Shelf
Ethernet-based, Modular Media Converters Chassis

MediaConverter/1

SPECIFICATIONS

TECHNICAL
Single slot AC chassis to house the following modules: McPIM, McLIM, McLIM 10/100 and McGigabit

MECHANICAL
Dimensions: 1.64"H x 4.75"W x 5.5"D
(4.16cm H x 12.06cm W x 13.97cm D)
Shipping Weight: 2 lbs (.9 kg)

POWER
115/230 or 120-240 VAC, 50/60Hz, 0.3A/0.15A

ENVIRONMENTAL
Operating Temperature: +32° to +122° F (0° to +50° C)
Storage Temperature: 13° to +158° F (-25° to +70° C)
Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS
FCC Class A, UL/CUL, CE, CSA

MECHANICAL DIAGRAM
(dimensions in inches)
Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter/4 is the perfect solution.

The unmanaged B&B Electronics’ MediaConverter/4 enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.
Ethernet-based, Modular Media Converters Chassis

MediaConverter/4

SPECIFICATIONS

TECHNICAL

4 slot chassis to house the following modules: McPIM, McLIM, McLIM 10/100, McGigabit

MECHANICAL

Dimensions 1.88”H x 8.61”W x 4.95”D
(4.77cm H x 21.86cm W x 12.57cm D)

Shipping Weight 3.5 lbs (1.6 kg)

POWER

120/240 VAC, 50/60Hz, 1A/0.5A

ENVIRONMENTAL

Operating Temperature: +32° to +122° F (0° to +50° C)

Storage Temperature: 13° to +158° F (-25° to +70° C)

Operating Humidity 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

REGULATORY APPROVALS

FCC Class A, UL/CUL, CE, CSA

MECHANICAL DIAGRAM

(dimensions in inches)
Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter/8 is the perfect solution.

The unmanaged B&B Electronics' MediaConverter/8 enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

**PRODUCT FEATURES**
- Supports Ethernet, Fast Ethernet, and Gigabit Ethernet
- Supports McPIMs, McLIMs, and McGigabit modules
- Table-top or rackmountable
- 8-slot chassis
- AC power
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>851-10908</td>
<td>8 Slot, AC</td>
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</table>
### Specifications

**Technical**

- 8 slot chassis to house the following modules: McPIM, McLIM, McLIM 10/100, McGigabit
- Fits into a 19" Rack

**Mechanical**

- Dimensions: 1.79"H x 17.4"W x 5"D (4.54cm H x 44.19cm W x 12.7cm D)
- Shipping Weight: 6.25 lbs (2.8 kg)

**Power**

- 120/240 VAC, 50/60Hz, 1A/0.5A

### Environmental

- Operating Temperature: +32° to +122° F (0° to +50° C)
- Storage Temperature: 13° to +158° F (-25° to +70° C)
- Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

### Regulatory Approvals

- FCC Class A, UL/CUL, CE, CSA

### Mechanical Diagram

(dimensions in inches)
ETHERNET MEDIA CONVERTERS

Ethernet-based, Modular Media Converters Chassis
MediaConverter/12

Your network is growing and many new access points, workstations, etc. are required. However, legacy equipment, along with your existing wiring infrastructure, must work with any new equipment you implement in your network. When copper-to-fiber conversions are required, along with advanced troubleshooting features, our MediaConverter/12 is the perfect solution.

The unmanaged B&B Electronics’ MediaConverter/12 enables you to easily and cost-effectively connect one type of media to other dissimilar media or networking products. This series increases the functionality and extends the productive life of both your legacy cabling infrastructure and networking equipment when adding fiber to your network.

PRODUCT FEATURES

- Supports Ethernet, Fast Ethernet, and Gigabit Ethernet
- Supports McPIMs, McLIMs, and McGigabit modules
- Table-top or rackmountable
- 12-slot chassis
- AC power (dual)
- Modular, hot-swappable architecture reduces operational costs associated with product installation, upgrades and maintenance

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>MediaConverter/12</td>
<td>12 Slot</td>
</tr>
</tbody>
</table>

ACCESSORIES

806-39040 - Power Supply, 40x-AC (40 Watt, 100-240V AC)
**Specifications**

**Technical**

12 slot chassis can house the following modules: McPIM, McLIM, McLIM 10/100, McGigabit

Dual AC power supplies (included)

Fits into a 19” Rack

**Mechanical**

Dimensions: 1.72”H x 17.4”W x 9”D

(4.36cm H x 44.19cm W x 22.86cm D)

Shipping Weight: 11.0 lbs (5 kg)

**Power AC**

115/230 or 120/240 VAC, 50/60Hz, 1.2A/0.6A

**Environmental**

Operating Temperature: +32° to +122° F (0° to +50° C)

Storage Temperature: 13° to +158° F (-25° to +70° C)

Operating Humidity: 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

**Regulatory Approvals**

FCC Class A, UL/CUL, CE, CSA

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**Mechanical Diagram**

(dimensions in inches)