

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

### Features and Benefits

- Four independent E1 ports on RJ-48 connectors
- AIS generation on signal loss on all E1 and fiber interfaces
- Supports local and remote loopback functions
- One optional full bandwidth, Ethernet 10/100BaseT port
- Auto Negotiation or forced modes on the Ethernet port
- Supports Jumbo Ethernet frames to 1916
- Supports "Pause" Frames
- AutoCross MDI/MDI-X on Ethernet port
- Supports the Link Fault Pass-Through Function (LFPT)
- Choice of single SFP fiber port, or dual SFP fiber ports with 1+1 protection switching
- DDMI register retrieval supported on SFP ports for enhanced OAM
- One end-to-end serial RS-232 port to 250 Kbps on an RJ-45 connector
- Both Host/Remote are managed from the Host unit
- Command Line Interface (CLI) management provided via one Mini Jack RS-232 console port
- Remote Graphical User Interface (GUI) management through a managed iMediaChassis
- SNMP Alarm TRAP reporting in managed chassis
- Full LED diagnostics on front panel



*\* SFPs sold separately*

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

There are two different versions to choose from:

- iMcV-E1-Mux/4: standard version offering one RS-232 port and four E1 extensions over fiber, via a single SFP port (SFP not included)
- iMcV-E1-Mux/4+Ethernet: advanced version offering one RS-232 port and four E1 extensions along with one Ethernet extension over fiber. Dual SFP ports offer 1+1 protection switching on the fiber link

The iMcV-E1-Mux/4 system provides full Operation Administration and Management (OAM) support for the E1, Ethernet, and fiber links from the Host end of the link. The equipment detects, Ethernet, E1 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.

Both product versions feature 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. Each unit also supports an independent RS-232 console port for local monitoring and configuration of the unit by technical support personnel.

# Technical Specifications

- 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 iView<sup>2</sup> application software
- Local RS-232 Console port
- 10/100BaseT Full Bandwidth (144,800 fps/FDX)
- Two MSA compliant optical SFP slots
- Four E1 copper ports
- RS-232 (Transparent to 250 Kbps)

## Connectors:

- Four RJ-48 E1 ports DTE, 120 Ω
- Two SFP slots
- One RS-232 on Mini Jack
- One 10/100BaseT on RJ-45
- One RS-232 on RJ-45

## Regulatory Approvals:

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

## Dimensions:

Double-wide chassis module

## Shipping Weight:

1.1 lbs. (0.50 kg)

## Operating Temp:

32° to 122°F (0° to +50°C);  
5% to 95% (non-condensing),  
0 – 10,000 ft. altitude

## Storage Temp:

-40° to +160°F (-40° to +70°C);  
5 to 95% (non-condensing)

## Power Rating (Dual SFP Configuration):

4.2 W Typical, 5.5W Max.

# Fiber Optics Specifications

The unit supports any MSA compliant SFP with a 155 Mbps bandwidth rating. DDMI capabilities are supported through the iView<sup>2</sup> management software when the unit is installed in a managed chassis. IMC Networks provides a complete range of SFP units in both Single and Dual fiber versions with a full range of wavelengths and distance ratings. For complete power budgets and information on calculating specific distances, visit [www.imcnetworks.com/go/fcs](http://www.imcnetworks.com/go/fcs) or contact IMC Networks Fiber Consulting Services at 949-465-3000 for a free consultation.

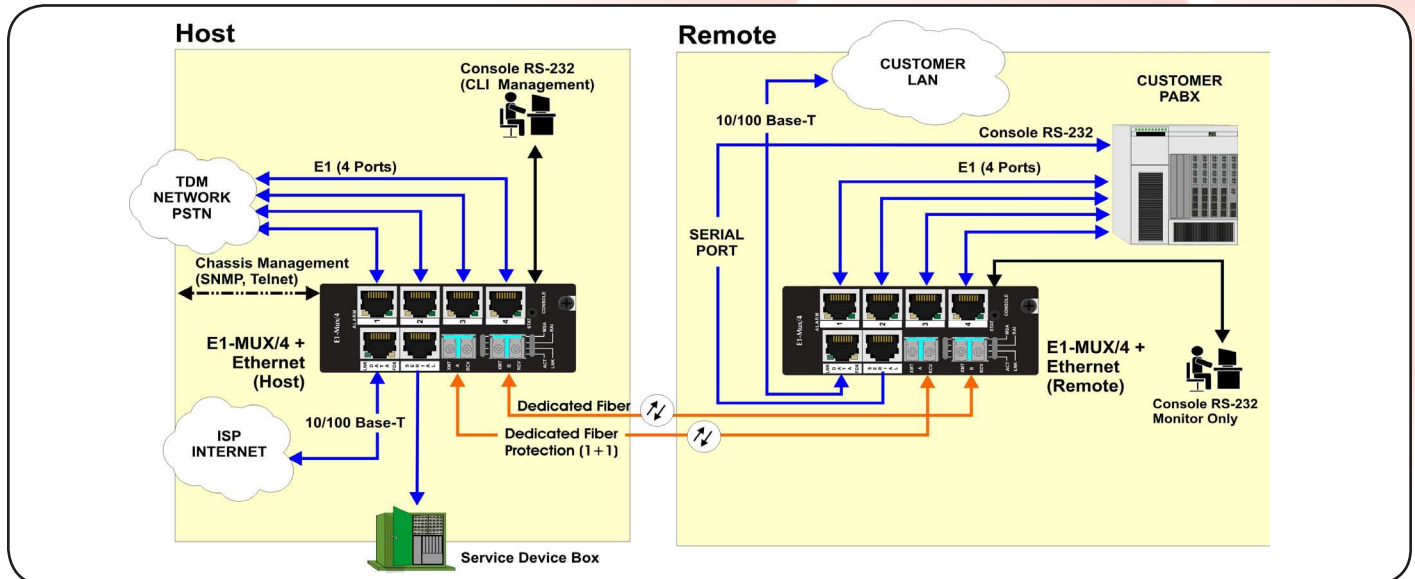
# Ordering Information

PART NUMBER	DESCRIPTION	DISTANCE
<b>iMcV-E1-Mux/4</b>		
857-14300	iMcV-E1-Mux/4, SFP (requires one SFP/155 Module) <sup>§</sup>	2 km to 80 km
857-14400	iMcV-E1-Mux/4+Ethernet, 2 x SFP (requires one or two SFP/155 Modules) <sup>§</sup>	2 km to 80 km
<b>iMcV-E1-Mux/4 Accessories</b>		
825-39951	Serial Cable, MiniJack to DB9 (female)	

<sup>§</sup> SFP modules are sold separately. For more information on IMC Networks' SFPs, go to: [www.imcnetworks.com/Products/product.cfm?family=32](http://www.imcnetworks.com/Products/product.cfm?family=32)

# Application Example

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



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