

### A Compact, Versatile, SNMP Managed Gigabit Ethernet Module

#### Features and Benefits

##### Flexible Solution

- Four devices in one unit
- Supports 3R's (Re-amplify, Re-shape, Re-time) optical signal regeneration
- 1+1 uplink protection (< 50 mSec)
- Supports per port service VLAN
- Features RMON1 MIB-II Statistics
- Jumbo Frames support (up to 10240 bytes)
- Support for daisy chain expansion
- Modular form factor

##### Advanced Remote Monitoring/Management

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

##### SFP Support

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

##### "Industrial Ethernet" (IE) Features

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



\* SFPs sold separately

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. Among them are a 1+1 Uplink Protection Switch, a 4-Port Gigabit Switch, and a Dual Copper to Fiber SFP Media/Mode Converter (two gigabit fiber media converters in one).

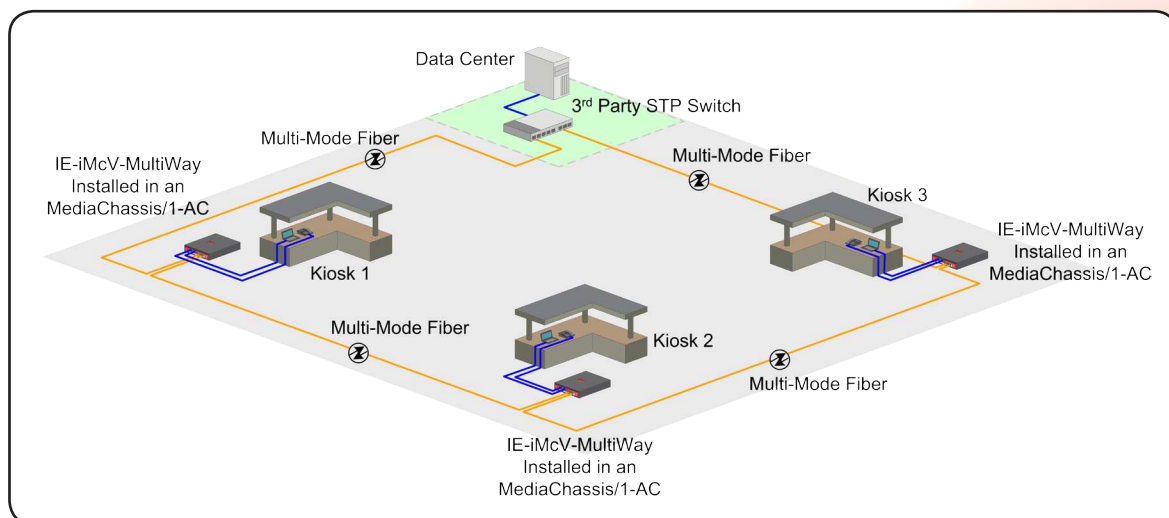
As a 4-port device, it can be deployed with fiber redundancy (with or without 1+1 uplink protection) and status monitoring with management on all ports via SNMP, which now offers OAM for mission-critical applications. It can also be installed as dual 10/100/1000 Mbps copper to fiber media converter and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

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

The IE-iMcV-MultiWay offers a full feature set including Auto Negotiation, Selective Advertising, AutoCross (on copper ports), VLANs, loopback testing and OAM. Software updates can be downloaded through TFTP or iView<sup>2</sup> (iConfig view).

## Application Example

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



## Technical Specifications

- 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
- 50/125 $\mu$ m or 62.5/125 $\mu$ m multi-mode fiber
- 9/125 $\mu$ m 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

### Shipping Weight:

0.30 lbs (.11 kg)

### Regulatory Approvals:

- FCC Class A
- UL, cUL, CE

### Standards Compliance

IEEE 802.3ah  
 IEEE 802.1ag  
 IEEE 802.1q VLAN  
 SFP-MSA SFP standard (September 14, 2000)  
 SFF-8472 DDMI standard (Revision 1.0)

### Operating Temperature:

-40° F to +185° F (-40° C to +85° C)  
 5% to 95% (non-condensing), 0 – 10,000 ft. altitude

### Storage Temperature:

-67 F to +257° F (-55° C to +125° C);  
 5% to 95% (non-condensing)

## Ordering Information

| PART #                   | DESCRIPTION                       | DISTANCE |
|--------------------------|-----------------------------------|----------|
| <b>IE-iMcV-MultiWay*</b> |                                   |          |
| 858-18121                | IE-iMcV-MultiWay Module, 2TX/2SFP | Varies   |

\* SFP modules are sold separately. Two (2) SFP transceivers are needed for full device functionality. For more information on compatible IMC Networks SFPs, go to: [www.imcnetworks.com/Products/product.cfm?family=32](http://www.imcnetworks.com/Products/product.cfm?family=32)

| PART #                                     | DESCRIPTION  |
|--|--|
| <b>IE-iMcV-MultiWay Compatible Chassis</b> |  |
| 850-13100                                  | MediaChassis/1-AC  |
| 850-13101                                  | MediaChassis/2-AC <sup>1</sup>                                     |
| 850-13106                                  | IE-MediaChassis/2-AC <sup>1</sup>                                  |
| 850-10949-2AC                              | iMediaChassis/3 (2 fixed redundant AC power supplies) <sup>1</sup> |

<sup>1</sup> SNMP Card is not required to manage IE-iMcV-MultiWay in these chassis



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