



IE-Giga-MiniMc

Operation Manual

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**ISO 9001:2000
REGISTERED**



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If the product's part number begins with an "8", it is compliant with the Restriction of Hazardous Substances (RoHS) directive.



FCC RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B computing device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

The use of non-shielded I/O cables may not guarantee compliance with FCC RFI limits. This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.

WARRANTY

IMC Networks warrants to the original end-user purchaser that this product, EXCLUSIVE OF SOFTWARE, shall be free from defects in materials and workmanship under normal and proper use in accordance with IMC Networks' instructions and directions for a period of six (6) years after the original date of purchase. This warranty is subject to the limitations set forth below.

At its option, IMC Networks will repair or replace at no charge the product which proves to be defective within such warranty period. This limited warranty shall not apply if the IMC Networks product has been damaged by unreasonable use, accident, negligence, service or modification by anyone other than an authorized IMC Networks Service Technician or by any other causes unrelated to defective materials or workmanship. Any replaced or repaired products or parts carry a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

To receive in-warranty service, the defective product must be received at IMC Networks no later than the end of the warranty period. The product must be accompanied by proof of purchase, satisfactory to IMC Networks, denoting product serial number and purchase date, a written description of the defect and a Return Merchandise Authorization (RMA) number issued by IMC Networks. No products will be accepted by IMC Networks which do not have an RMA number. For an RMA number, contact IMC Networks at PHONE: (800) 624-1070 (in the U.S. and Canada) or (949) 465-3000 or FAX: (949) 465-3020. The end-user shall return the defective product to IMC Networks, freight, customs and handling charges prepaid. End-user agrees to accept all liability for loss of or damages to the returned product during shipment. IMC Networks shall repair or replace the returned product, at its option, and return the repaired or new product to the end-user, freight prepaid, via method to be determined by IMC Networks. IMC Networks shall not be liable for any costs of procurement of substitute goods, loss of profits, or any incidental, consequential, and/or special damages of any kind resulting from a breach of any applicable express or implied warranty, breach of any obligation arising from breach of warranty, or otherwise with respect to the manufacture and sale of any IMC Networks product, whether or not IMC Networks has been advised of the possibility of such loss or damage.

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Every reasonable effort has been made to ensure that IMC Networks product manuals and promotional materials accurately describe IMC Networks product specifications and capabilities at the time of publication. However, because of ongoing improvements and updating of IMC Networks products, IMC Networks cannot guarantee the accuracy of printed materials after the date of publication and disclaims liability for changes, errors or omissions.

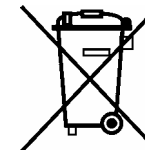
SAFETY CERTIFICATIONS

UL/CUL: Listed to Safety of Information Technology Equipment, including Electrical Business Equipment.

CE: The products described herein comply with the Council Directive on Electromagnetic Compatibility (89/336/EEC) and the Council Directive on Electrical Equipment Designed for use within Certain Voltage Limits (73/23/EEC). Certified to Safety of Information Technology Equipment, Including Electrical Business Equipment. For further details, contact IMC Networks.



European Directive 2002/96/EC (WEEE) requires that any equipment that bears this symbol on product or packaging must not be disposed of with unsorted municipal waste. This symbol indicates that the equipment should be disposed of separately from regular household waste. It is the consumer's responsibility to dispose of this and all equipment so marked through designated collection facilities appointed by government or local authorities. Following these steps through proper disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about proper disposal, please contact local authorities, waste disposal services, or the point of purchase for this equipment.



SPECIFICATIONS

Fiber Connections:

- Multi-mode 1300nm Dual Fiber
- Single-mode 1310nm 1550nm Dual Fiber
- Single-mode 1310nm 1550nm Single-Strand Fiber

Ethernet Connections:

- 10/100/1000 BaseT
- Auto-Negotiation
- Auto-Cross
- Flow Control
- 1632 MTU
- Full Line-Rate Forwarding

DC Input Voltage:

- 7 to 50 VDC on DC terminal block
- 5 VDC on DC jack

AC Wall Adapter:

- 100 to 240 \pm 10% VAC input, 5 VDC output, 2 A max.

Power Consumption

- 600 mA

Operating Temperature:

- 31° to 158° F (-35° to 70° C) DC terminal block
- 32° to 122° F (0° to 50° C) with IMC supplied AC wall adapter

Storage Temperature:

- 31° to 167° F (-35° to 75° C)

Humidity:

- 5 to 90% (non-condensing); 0 to 10,000 ft. altitude

Dimensions:

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

TABLE OF CONTENTS

FCC Radio Frequency Interference Statement	ii
Warranty.....	ii
Introduction to the IE-Giga-MiniMc.....	1
Installing the IE-Giga-MiniMc	2
Powering the IE-Giga-MiniMc	3
DC Power Supply Precautions.....	5
Operating the IE-Giga-MiniMc	5
Reading the LEDs.....	6
IMC Networks Technical Support.....	6
Specifications.....	7
Safety Certifications.....	8

INTRODUCTION TO THE IE-GIGA-MINIMC

The IE-Giga-MiniMc™ is a 10/100/1000 auto-negotiating switching miniature media converter. The fiber port always operates at 1000 Mbps Full Duplex [FDX]; the copper port auto-negotiates the connected device's speed and duplex mode: 10/100 Mbps Half Duplex [HDX]; or 10 /100/1000 Mbps Full Duplex [FDX] (including Flow Control).

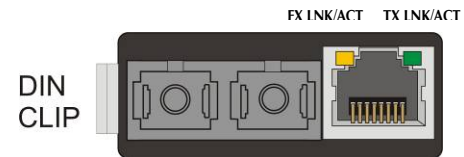
The "IE" represents the unit's use as an Industrial Ethernet device, which allows for extended temperature operation of -35° to 70° C (0°C to 50°C when using the included AC adapter).

The IE-Giga-MiniMc converter offers plug-and-play operation, including the AutoCross feature which automatically selects between a crossover work-station or straight-through repeater hub connection depending on the connected device.

The IE-Giga-MiniMc can use either the included IMC Networks universal, external power adapter with 100 to 240 ±10% VAC input or can be wired directly to the 7-50 VDC terminal block (for extended temperature configuration).

READING THE LEDS

Each Giga-MiniMc converter includes two LEDs, located on the RJ-45 connector. LED functions are as follows:



- **FX LNK/ACT:** Glows green when a link is established on the fiber port; blinks green when activity is detected on the fiber port.
- **TX LNK/ACT:** Glows amber when a link is established on the copper port; blinks amber when activity is detected on the copper port.

IMC NETWORKS TECHNICAL SUPPORT

Tel: (949) 465-3000 or (800) 624-1070 (in the U.S. and Canada);
+32-16-550880 (Europe)

Fax: (949) 465-3020

E-Mail: techsupport@imcnetworks.com

Web: www.imcnetworks.com

DC POWER SUPPLY PRECAUTIONS

The following precautions should be observed when installing chassis with DC power supplies.

1. Check nameplate ratings to assure there is no overloading of supply circuits that could have an effect on overcurrent protection and supply wiring.
2. When installing 7 – 50V DC rated equipment, it must be installed only per the following conditions:
 - a. Connect the equipment to a 7 – 50V DC supply source that is electrically isolated from the alternating current source. The 7 – 50V DC source must be connected to a 7 – 50V DC SELV source.
 - b. The maximum terminal voltage is 50 VDC.
 - c. Input wiring to terminal block must be routed and secured in such a manner that it is protected from damage and stress. Do not route wiring past sharp edges or moving parts.
 - d. A readily accessible disconnect device, with a 3mm minimum contact gap, shall be incorporated in the fixed wiring.
3. Grounding: reliable grounding of this equipment must be maintained. Particular attention should be given to supply connections when connecting to power strips, rather than direct connections to the branch circuit. The Negative Terminal is common to the grounded case.

OPERATING THE IE-GIGA-MINIMC

IE-Giga-MiniMc offers plug-and-play operation, including the AutoCross feature which automatically selects between a crossover workstation or straight-through connection depending on the connected device. IE-Giga-MiniMc also provides Flow Control, and allows jumbo packets of up to 1632 bytes.

INSTALLING THE IE-GIGA-MINIMC

IE-Giga-MiniMc installs virtually anywhere: as a standalone, table-top device or on a DIN rail. As a standalone device, install IE-Giga-MiniMc in locations with extremely limited space. Also included are Velcro strips to attach the device to most surfaces.

Installation Tip

Several models of the IE-Giga-MiniMc support single-strand fiber for operation. Since single-strand fiber products use optics that transmit and receive on two different wavelengths, single-strand fiber products must be deployed in pairs. For example, connect an IE-Giga-MiniMc, TX/SSLX-SM1310-SC (which has 1310 xmt and 1550 rcv) to a product which has 1550 xmt and 1310 rcv, e.g. iMcV-Gigabit, TX/SSLX-SM1550-SC. The two connected products must also have the same speed and distance capabilities (i.e. both are single-mode [20km] or both are single/PLUS [40km]).

DIN Rail Mounting

The IE-Giga-MiniMc ships from the factory with DIN clips, allowing installation on a DIN rail. The IE-Giga-MiniMc mounts perpendicular to the DIN rail (as shown).

You can mount the IE-Giga-MiniMc perpendicular to the DIN rail.

Use the supplied screws to attach the DIN clips to the IE-Giga-MiniMc, then snap the converter to the DIN rail.

To remove the converter from the DIN rail, use a flat-head screwdriver in the slot to gently pry the converter from the rail.



NOTE

The DIN clips are designed for use on a DIN-35 rail.

POWERING THE IE-GIGA-MINIMC

IE-Giga-MiniMc supports two powering options. You can use one of the following options, or both for redundancy:

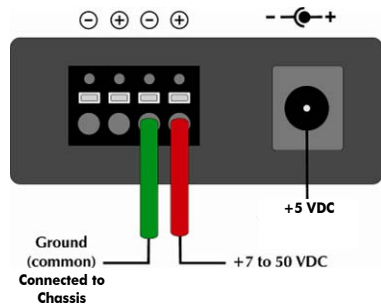
- A country-specific AC power adapter (included)
- The 4-terminal DC power block

AC Power Operation

Only connect an IMC Networks' power adapter to the adapter jack. Using a non-IMC Networks power adapter in this jack will void the warranty.

DC Terminal Block Wiring Instructions

You can also power the IE-Giga-MiniMc with the DC terminal block. From a power source, connect to any one positive and any one negative terminal on IE-Giga-MiniMc.



NOTE

When using stranded wire, the leads must be tinned, and equivalent to a 16 AWG solid conductor. The IE-Giga-MiniMc is protected against mis-wiring; if mis-wired the IE-Giga-MiniMc will not function. The IE-Giga-MiniMc body is internally connected to the negative DC power terminals.

Cascading Power

When installing multiple IE-Giga-MiniMc units on a DIN rail, you can use one DC input source and then cascade from one DC block to the next, until reaching the maximum electrical current available.

