

# Giga-MiniMc TX/FX

## Giga-MiniMc TX/SFP

Operation Manual



## **FCC Radio Frequency Interference Statement**

---

This equipment has been tested and found to comply with the limits for a Class A 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 A 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 A prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.

## **LIMITED LIFETIME WARRANTY**

---

Effective for products of B&B Electronics shipped on or after May 1, 2013, B&B Electronics warrants that each such product shall be free from defects in material and workmanship for its lifetime. This limited lifetime warranty is applicable solely to the original user and is not transferable.

This warranty is expressly conditioned upon proper storage, installation, connection, operation and maintenance of products in accordance with their written specifications.

Pursuant to the warranty, within the warranty period, B&B Electronics, at its option will:

1. Replace the product with a functional equivalent;
2. Repair the product; or
3. Provide a partial refund of purchase price based on a depreciated value.

Products of other manufacturers sold by B&B Electronics are not subject to any warranty or indemnity offered by B&B Electronics, but may be subject to the warranties of the other manufacturers.

Notwithstanding the foregoing, under no circumstances shall B&B Electronics have any warranty obligations or any other liability for: (i) any defects resulting from wear and tear, accident, improper use by the buyer or use by any third party except in accordance with the written instructions or advice of the B&B Electronics or the manufacturer of the products, including without limitation surge and overvoltage conditions that exceed specified ratings, (ii) any products which have been adjusted, modified or repaired by any party other than B&B Electronics or (iii) any descriptions, illustrations, figures as to performance, drawings and particulars of weights and dimensions contained in the B&B Electronics' catalogs, price lists, marketing materials or elsewhere since they are merely intended to represent a general idea of the products and do not form part of this price quote and do not constitute a warranty of any kind, whether express or implied, as to any of the B&B Electronics' products.

THE REPAIR OR REPLACEMENT OF THE DEFECTIVE ITEMS IN ACCORDANCE WITH THE EXPRESS WARRANTY SET FORTH ABOVE IS B&B ELECTRONIC' SOLE OBLIGATION UNDER THIS WARRANTY. THE WARRANTY CONTAINED IN THIS SECTION SHALL EXTEND TO THE ORIGINAL USER ONLY, IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL SUCH WARRANTIES AND INDEMNITIES ARE EXPRESSLY DISCLAIMED, INCLUDING WITHOUT LIMITATION (I) THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY AND (II) ANY WARRANTY THAT THE PRODUCTS ARE DO NOT INFRINGE OR VIOLATE THE INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY. IN NO EVENT SHALL B&B ELECTRONICS BE LIABLE FOR LOSS OF BUSINESS, LOSS OF USE OR OF DATA INTERRUPTION OF BUSINESS, LOST PROFITS OR GOODWILL OR OTHER SPECIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES. B&B ELECTRONIC SHALL DISREGARD AND NOT BE BOUND BY ANY REPRESENTATIONS, WARRANTIES OR INDEMNITIES MADE BY ANY OTHER PERSON, INCLUDING WITHOUT LIMITATION EMPLOYEES, DISTRIBUTORS, RESELLERS OR DEALERS OF B&B ELECTRONIC WHICH ARE INCONSISTENT WITH THE WARRANTY, SET FORTH ABOVE.

**Table of Contents**

---

FCC Radio Frequency Interference Statement..... i  
Warranty ..... **Error! Bookmark not defined.**  
About the Giga-MiniMc.....1  
Installing the Giga-MiniMc.....1  
Powering the Giga-MiniMc.....1  
LED Operation .....1  
B&B Electronics Technical Support.....2  
Specifications.....2  
Fiber Optic Cleaning Guidelines .....4  
Electrostatic Discharge Precautions.....4  
Safety Certifications.....6

## About the Giga-MiniMc

---

### NOTE

Unless noted otherwise, all reference to the Giga-MiniMc in this manual are also applicable to the Giga-MiniMc TX/SFP.

The Giga-MiniMc is a 10/100/1000 Auto Negotiating, switching miniature media converter. The fiber port available in one pair of SC fiber connectors and/or an SFP port which can support any fiber type; dual strand available in LC connectors, and single strand fiber SFPs available in SC connectors. The Giga-MiniMc always operates at 1000 Mbps FDX; the copper port Auto Negotiates the connected device's speed and duplex mode: 10 Mbps, 100 Mbps or 1000 Mbps, and HDX or FDX (including Flow Control).

The Giga-MiniMc TX/SFP requires a \*Gigabit SFP, with or without DDMI. (sold separately through B&B Electronics). SFPs must be MSA-compliant and meet the Class 1 Laser Safety Standard.

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

\*SFP's have a 1 year warranty

### Installing the Giga-MiniMc

---

The Giga-MiniMc installs in an B&B Electronics PowerTray/18 or can be used as a standalone media converter. As a standalone, the Giga-MiniMc/SFP uses a universal external switching power cube with 100 – 240  $\pm$ 10% VAC input and 5 VDC output.

### Powering the Giga-MiniMc

---

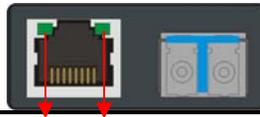
The Giga-MiniMc includes multiple powering options:

- A country-specific, high-reliability AC power adapter (included)
- IE-PowerTray/18 for Rack Mounting

### LED Operation

---

Each Giga-MiniMc includes two LEDs, located on the RJ-45 connector.



LED functions are as follows (above illustration is representative):

<b>FX LNK/ACT</b>	Glows green when a link is established on the fiber port; blinks green when activity is detected on the fiber port.
<b>TX LNK/ACT</b>	Glows amber when a link is established on the copper port; blinks amber when activity is detected on the copper port.

---

**B&B Electronics 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](mailto:techsupport@imcnetworks.com)

**Web:** [www.imcnetworks.com](http://www.imcnetworks.com)

---

**Specifications**

**Ethernet Connections - Fixed Fiber Port**

10/100/1000 BaseT, Auto Negotiation, Auto-Cross, Flow Control, 1,536 MTU, Full Line-Rate Forwarding.

**Ethernet Connections - SFP Fiber Port**

10/100/1000 BaseT, Auto Negotiation, Auto-Cross, Flow Control, 10,240 MTU, Full Line-Rate Forwarding.

**AC Wall Adapter**

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

**Operating Temperature**

+32°F to +122° F (0°C to +50°C )

**Storage Temperature**

-31°F to 167° F (-35°C to 75°C)

**Humidity**

5 to 95% (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)

\*SFP has a 1 year warranty

## **Fiber Optic Cleaning Guidelines**

---

Fiber Optic transmitters and receivers are extremely susceptible to contamination by particles of dirt or dust, which can obstruct the optic path and cause performance degradation. Good system performance requires clean optics and connector ferrules.

1. Use fiber patch cords (or connectors, if you terminate your own fiber) only from a reputable supplier; low-quality components can cause many hard-to-diagnose problems in an installation.
2. Dust caps are installed at B&B Electronics to ensure factory-clean optical devices. These protective caps should not be removed until the moment of connecting the fiber cable to the device. Should it be necessary to disconnect the fiber device, reinstall the protective dust caps.
3. Store spare caps in a dust-free environment such as a sealed plastic bag or box so that when reinstalled they do not introduce any contamination to the optics.
4. If you suspect that the optics have been contaminated, alternate between blasting with clean, dry, compressed air and flushing with methanol to remove particles of dirt.

## **Electrostatic Discharge Precautions**

---

Electrostatic discharge (ESD) can cause damage to any product, add-in modules or stand alone units, containing electronic components. Always observe the following precautions when installing or handling these kinds of products

1. Do not remove unit from its protective packaging until ready to install.
2. Wear an ESD wrist grounding strap before handling any module or component. If the wrist strap is not available, maintain grounded contact with the system unit throughout any procedure requiring ESD protection.
3. Hold the units by the edges; do not touch the electronic components or gold connectors.
4. After removal, always place the boards on a grounded, static-free surface, ESD pad or in a proper ESD bag. Do not slide the modules or stand alone units over any surface.



**WARNING!** Integrated circuits and fiber optic components are extremely susceptible to electrostatic discharge damage. Do not handle these components directly unless you are a qualified service technician and use tools and techniques that conform to accepted industry practices.

---

## 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 (2004/108/EC) and the Council Directive on Electrical Equipment Designed for use within Certain Voltage Limits (2006/95/EC). Certified to Safety of Information Technology Equipment, Including Electrical Business Equipment. For further details, contact B&B Electronics.



**Class 1 Laser product, Luokan 1 Laserlaite,  
Laser Klasse 1, Appareil A' Laser de Classe 1**

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.





## International Headquarters

B&B Electronics  
707 Dayton Road  
Ottawa, IL 61350 USA

**Phone** (815) 433-5100 — **General Fax** (815) 433-5105

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

## European Headquarters

B&B Electronics  
Westlink Commercial Park  
Oranmore, Co. Galway, Ireland

**Phone** +353 91-792444 — **Fax** +353 91-792445

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

**ISO 9001:2008  
REGISTERED**



© 2013 B&B Electronics. All rights reserved.

The information in this document is subject to change without notice. B&B Electronics assumes no responsibility for any errors that may appear in this document. Giga-MiniMc/SFP is a trademark of B&B Electronics. Other brands or product names may be trademarks and are the property of their respective companies.

**Document Number 56-80630-00 B1**

**February 2013**