MiniMc-Gigabit

USER MANUAL







Advantech B+B SmartWorx - Americas

707 Dayton Road Ottawa, IL 61350 USA **Phone** 1 (815) 433-5100 **Fax** 1 (815) 433-5105

Advantech B+B SmartWorx - Europe

Westlink Commercial Park
Oranmore, Co. Galway, Ireland
Phone +353 91-792444
Fax +353 91-792445

www.advantech-bb.com support@advantech-bb.com





CONTENTS

About the MiniMc-Gigabit	4
Installation	.4
LED Operation	.4
Specifications	.5
B+B SmartWorx Technical Support	5
Statements, Precautions, Guidelines, Regulatory	6
FCC Radio Frequency Interference Statement	.6
Electrostatic Discharge (ESD) Precautions	.7
Fiber Optic Cleaning Guidelines	.7
Regulatory, Standards, Compliances	8



ABOUT THE MINIMC-GIGABIT

The MiniMc-Gigabit is a Gigabit Ethernet, miniature media converter. This device converts 1000Base-SX (multi-mode) or LX (single-mode) fiber to 1000Base-T copper, and always operates at full-duplex. Single-strand fiber versions are also available.

The MiniMc-Gigabit offers plug-and-play operation, including the AutoCross feature that automatically selects between a crossover workstation or straight-through repeater hub connection, depending on the connected device.

The MiniMc-Gigabit installs in a B+B SmartWorx IE-PowerTray/18 or can be used as a standalone media converter. As a standalone, the MiniMc-Gigabit uses a universal external switching power cube with 100 to 240 ±10% VAC input and 5VDC output.

NOTE: Some options require items that are sold separately, available from B+B SmartWorx.

NOTE: Use only the supplied B+B SmartWorx power supply. Using a non-B+B SmartWorx power source will void the warranty.

INSTALLATION

Several MiniMc-Gigabit mdoels 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. The two connected products must also have the same speed and distance capabilities.

LED OPERATION

The MiniMc-Gigabit includes two LEDs, located on the RJ45 connector LED with functions are as follows:

FX LNK

Glows green when a link is established 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.



SPECIFICATIONS

AC Wall Adapter:

100 to 240 ±10% V AC Input; 5V DC Output, 2A (maximum)

Power Consumption (typical):

600 mA @ 5V

Operating Temperature:

0 to +50 °C (+32 to +122 °F)

Storage Temperature:

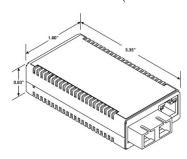
-20 to +70 °C (-4° to +158 °F)

Humidity:

5 to 90% (non-condensing); 0 to 10000 ft. altitude

Dimensions:

2.1H x 4.6W x 8.5D cm (0.83H x 1.80W x 3.35D in)



B+B SMARTWORX TECHNICAL SUPPORT

USA/Canada: 1 (800) 346-3119 (Ottawa IL USA)

Europe: +353 91 792444 (Ireland / Europe)

Email: support@advantech-bb.com

Web: www.advantech-bb.com



STATEMENTS, PRECAUTIONS, GUIDELINES, REGULATORY

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.



ELECTROSTATIC DISCHARGE (ESD) 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.
- 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 units by the edges; do not touch the electronic components or gold connectors.
- After removal, always place 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.

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.

- 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.
- Dust caps are installed at the factory 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.
- 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.
- 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.



REGULATORY, STANDARDS, COMPLIANCES

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



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

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 SmartWorx.

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.



© 2018 B+B SmartWorx – powered by Advantech. All rights reserved. The information in this document is subject to change without notice. B+B SmartWorx assumes no responsibility for any errors that may appear in this document. MiniMc-Gigabit is a trademark of B+B SmartWorx. Other brands or product names may be trademarks and are the property of their respective companies.

Documentation Number: MiniMc-Gigabit 4718m