### **Regulatory Approval**

- · FCC Class A
- UL 1950
- CSA C22.2 Number 950
- EN60950
- CE
  - EN55022 Class B
  - EN50082-1

#### **Canadian EMI Notice**

This Class A digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### **European Notice**

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the commission of the European Community Compliance with these directives implies conformity to the following European Norms:

- EN55022 (CISPR 22) Radio Frequency Interference
- EN50082-1 (IEC801-2, -3, -4) Electromagnetic Immunity
- EN60950 (IEC950) Product Safety

#### **Five-Year Limited Warranty**

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#### To Contact MiLAN Technology

For prompt response when calling for service information, have the following information ready:

- · Product serial number and revision
- Date of purchase
- Vendor or place of purchase

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TECHNOLOGY
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Installation Guide: MIL-C2112



The MIL-C2112 comes equipped with ST-type connectors and supports Fast Ethernet in both half and full-duplex mode. For network budget constraint, the MIL-C2112 uses 150 nanoseconds (approximately 30 meters of cable) during conversion in each direction.

To maximize the fiber cable distance, use one meter of category 5 (CAT 5) UTP cable when connecting directly to a node (subject to fiber budget of 16dBm and collision domain restrictions). In full-duplex environments, up to 100m of CAT 5 UTP and 2Km of 1300 nm multi-mode fiber cable can be used.

-Launch power: -19dB -Receive sensitivity: -30dB

### Installation

- 1. Attach a UTP cable from the network to the RJ-45 port. (Use screened UTP cabling for CISPR 22 class B installation.)
- 2. Cross-connect the fiber cables: Attach both fiber cables TX to RX and RX to TX from the fiber network cabling to the ST-type connectors on the MIL-C2112.
- 3. Apply power to the unit:
- A. Insert the power adapter's receptacle into the power plug.
- B. Insert the power adapter into a wall outlet.

# **Diagnostic LEDs and Conditions Indicated**

There are five LEDs, including power and:

- TX/ACTIVE: Receiving packets from the 100BASE-TX port.
- FX/ACTIVE: Receiving packets from the 100BASE-FX port.
- TX/LINK: An active connection on the 100BASE-TX port.
- FX/LINK: An active connection on the 100BASE-FX port.

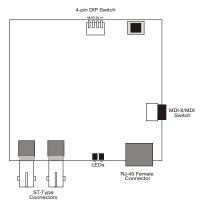
# **MDI-X/MDI Switch**

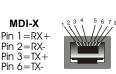
The MDI-X/MDI switch allows for quick configuration of the 100BASE-TX port. Cables used when the switch is in the MDI-X position (the "left" position):

- For a hub/repeater , use a swap cable (pins are connected 1 to 3, 2 to 6, 3 to 1, and 6 to 2)
- For a workstation/PC, use a straight-through cable (pins are connected 1 to 1, 2 to 2, 3 to 3, and 6 to 6)

Cables used when the switch is in the MDI position (the "right" position):

- For a hub/repeater , use a straight-through cable (pins are connected 1 to 1, 2 to 2, 3 to 3, and 6 to 6)
- For a workstation/PC port, use a swap cable (pins are connected 1 to 3, 2 to 6, 3 to 1, and 6 to 2)





MDI Pin 1=TX+ Pin 2=TX-Pin 3=RX+

Figure 1. Inside of the MIL-C2112

Figure 2. RJ-45 Pinouts

## **Link Sentry Configuration**

The Link Sentry feature on the MIL-C2112 is configured through a 4-position DIP switch (refer to Figure 1).

Default setting for the DIP switches: All switches are in the "up" Position.

Link Sentry allows users to add new management tools to the network. When enabled, it monitors the selected receiver port and, if the Link test signal is not seen, the unit will stop sending a signal through the selected transmit port.

The following table shows which Link Sentry feature is enabled.

Table 1. Link Sentry Features

Switch	Losing Link on RX of	Stop sending Link on TX of
1 (down)	Fiber port	Fiber port
2 (down)	UTP port	UTP port
3 (down)	UTP port	Fiber port
4 (down)	Fiber port	UTP port

Note: For two MIL-C2112s used back-to-back and UTP-to-UTP, all DIP switches must be enabled in the "down" position on the first MIL-C2112. On the second MIL-C2112, set switches 1 and 4 in the "down" position.

To enable Link Sentry with two MIL-C2112s used back-to-back and fiber-to-fiber, enable all DIP switches in the "down" position on the first MIL-C2112. On the second MIL-C2112, enable switches 2 and 3 in the "down" position.