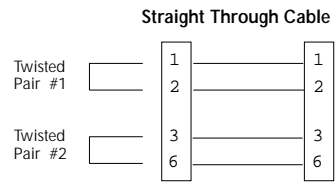


MEDIA CONVERTER TECHNICAL SPECIFICATIONS

Standards	IEEE 802.3	
Environment	Temperature:	0-40°C (32° to 104° F)
	Humidity	10-90%, non condensing
	Altitude	0-10,000 feet
Warranty	Five years	

Straight-through Cable Configuration

Straight-through/crossover 10BASE-T requirements are satisfied using the MDI/MDI-X switch with straight-through cable.



The two active pairs in a 10BASE-T network are pins 1 & 2 and pins 3 & 6. Use only dedicated wire pairs (such as blue/white & white/blue, orange/white & white/orange) for the active pins.



CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentliches Telekommunikationsnetz in den EG-Mitgliedstaaten verstößt gegen die jeweiligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

Compliance Information

UL Listed
C-UL Listed (Canada)
CISPR/EN55022 Class A

FCC Regulations

This equipment has been tested and found to comply with the limits for a class A digital 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 case the user will be required to correct the interference at the user's own expense.

Canadian Regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

European Regulations

Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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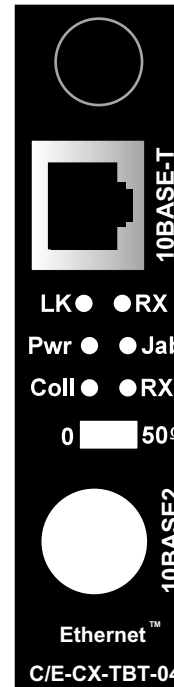
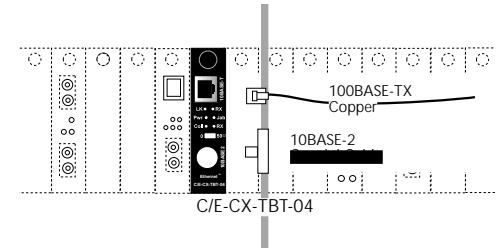
Minneapolis, MN 55344 USA

10BASE-2/10BASE-T Slide-In-Module Media Converters C/E-CX-TBT-04 USER'S GUIDE

The TRANSITION Networks slide-in-module media converter, C/E-CX-TBT-04, designed to be installed in the TRANSITION Networks Media Conversion Center, E-MCC-1600, connects 10BASE-2 coaxial cable to 10BASE-T unshielded twisted pair cable. The media converters function in half-duplex mode.

C/E-CX-TBT-04

Provides an RJ-45 connector to unshielded twisted pair 10BASE-T cable and a coax connector to 10BASE-2 coaxial "thin-net" Ethernet™ cable.



Status LEDs

- L(in)K** Steady green LED indicates port is receiving link signal.
- RX** (Receive) Flashing green LED indicates port is receiving data.
- P(o)w(er)** Steady green LED indicates connection to external AC power.
- Jab(ber)** Steady green LED indicates a jabber condition.
- Coll(ision)** Flashing green LED indicates port is in a collision state. NOTE: Steady illumination indicates an excessive number of collisions are occurring on the port.

Coax Switch

A Coax configuration switch sets an internal 10BASE-2 terminator to EITHER 50 ohms OR 0 ohms.

- 0 ohm switch position is used when connecting to the middle or in line of a thin coax segment.
- 50 ohm switch position is used when connecting end of coax segment DIRECTLY to the media converter's BNC port.

10BASE-2 CABLE CONNECTIONS

- Ground EACH coax segment to earth ground at one end.
- Set coax configuration switch:

Use 50 ohm switch position when connecting the end of a coax segment DIRECTLY to the media converter's BNC port.

Use 0 ohm switch position when connecting to the middle or in line of a thin coax segment. (For this position a BNC "T" must be connected to the media converter's BNC port).

10BASE-T CABLE CONNECTIONS

- Be certain that the MDI/MDI-X switch located *ON the Slide-In-Module circuit board* is set correctly BEFORE INSTALLING SLIDE-IN-MODULE IN MEDIA CONVERSION CENTER. Cable connections between a hub and the media converter require the MDI/MDI-X switch to be set to MDI. Cable connections between the media converter and a terminal, transceiver or NIC require the switch to be set to MDI-X.
- Using small flatblade screwdriver or similar tool, set MDI/MDI-X switch position for site installation.



ETHERNET CABLE SPECIFICATIONS

The physical characteristics of the media cable must meet or exceed IEEE 802.3 10BASE-T and 10BASE-CX specifications.

10BASE-T CABLE SPECIFICATIONS

Category 3 wire or better is required; category 5 wire is recommended. Shielded twisted pair (STP) or unshielded twisted pair (UTP) can be used. DO NOT USE FLAT OR SILVER SATIN WIRE.

Category 3:	
Gauge	24 to 22 AWG
Attenuation	28 dB/1000' @ 10 MHz
Differential Characteristic Impedance	100 Ω \pm 10% @ 10 MHz

Category 5:	
Gauge	24 to 22 AWG
Attenuation	20 dB/1000' @ 10 MHz
Differential Characteristic Impedance	100 Ω \pm 10% @ 10 MHz
Maximum Cable Distance:	100 meters (330 feet)

10BASE-2 CABLE SPECIFICATIONS

Cable type:	Stranded Coaxial RG58
Impedance:	50 Ω @ 10 MHz
Mutual Capacitance:	24 pF/ft \pm 20% @ 10 MHz

Maximum Cable Distance: 185 meters (610 feet)

Maximum number connections: 30

Minimum distance/connection: 0.5 meters (1.6 feet)

Installing Slide-In-Module(s)

C/E-CX-TBT-04

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when installing Media Converter Slide-in-Module(s) in the 16-Slot Media Conversion Center. Failure to observe this caution could result in damage to, and subsequent failure of, the Media Converter Slide-in-Module(s).

NOTE: Media Converter Slide-in-Modules can be installed in any installation slot, in any order.

To install the Media Converter Slide-in-Module in the E-MCC-1600 chassis:

1. Remove Media Converter Slide-in-Module protective plate from selected installation slot by removing two screws that secure plate to front of E-MCC-1600. Retain one installation screw.
2. Carefully slide Media Converter Slide-in-Module into installation slot, aligning Media Converter Slide-in-Module with installation guides.

NOTE: Ensure that the Media Converter Slide-in-Module is firmly seated against the backplane.

3. Secure Slide-in-Module by installing retained installation screw.

Troubleshooting

1. Is the power LED on the media converter illuminated?

NO

- Is the Slide-In-Module properly connected to the Media Conversion Center chassis backplane?
- Is the Power Supply Module properly connected both to the Media Conversion Center chassis backplane and to the AC outlet?
- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.

YES

- Proceed to step 2.

2. Is the 10BASE-2 link able to receive signals?

NO

- Check coax cables for proper connection.
- Check coax cable for opens or shorts. Check and/or replace each BNC "T" connector on the segment, making sure each "T" is attached firmly.
- Verify that coax cables on media converter are terminated properly at both ends. NOTE: In a coax thinned installation, the first and last device in a daisy-chain are terminated.
- Verify that each 10BASE-2 segment is grounded to earth ground.
- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.

YES

- Proceed to step 3.

3. Is the 10BASE-T Link LED illuminated?

NO

- Check copper cables for proper connection.
- Be certain that the 10BASE-T cable is configured correctly for site installation (straight through or crossover)
- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.

YES

- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.