


MEDIA CONVERTER TECHNICAL SPECIFICATIONS

Standards	IEEE 802.5, 802.5t
Delay	400ns round trip
Case dimensions	4.7" x 3.0" x 1.0" (119mm x 76mm x 25mm)
Shipping Weight	3 lbs (0.9 kg)
Environment	Temperature: 0-40°C (32° to 104° F) Humidity 10-90%, non condensing Altitude 0-10,000 feet
Maximum number media converters in series:	2
Warranty	Five years

 **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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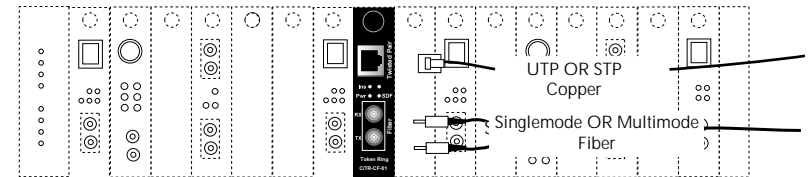
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High-Speed Token Ring Copper/Fiber Media Converter Slide-In Module C/HSTR-CF-01(SC), C/HSTR-CF-01(SM) USER'S GUIDE

The TRANSITION Networks slide-in-module media converters, designed to be installed in the TRANSITION Networks Media Conversion Center, E-MCC-1600, connect unshielded or shielded High-Speed Token Ring twisted-pair copper cable to High-Speed Token Ring *multimode* fiber-optic cable OR to High-Speed Token Ring *singlemode* fiber-optic cable.



C/HSTR-CF-01

Provides a Token Ring RJ-45 twisted-pair connector and an RX (receive) and a TX (transmit) ST connector to *multimode* fiber-optic cable for fiber network extension distances up to 2 kilometers.

C/HSTR-CF-01(SM)

Provides a Token Ring RJ-45 twisted-pair connector and an RX (receive) and a TX (transmit) ST connector to *singlemode* fiber-optic cable for fiber network extension distances up to 15 kilometers.

Status LEDs:

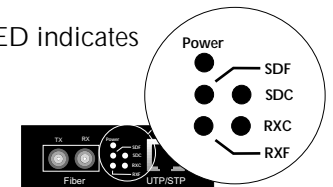
Power Illuminated green LED indicates connection to external AC power.

SDF Signal Detect/Fiber: Steady green LED indicates fiber port is connected to device.

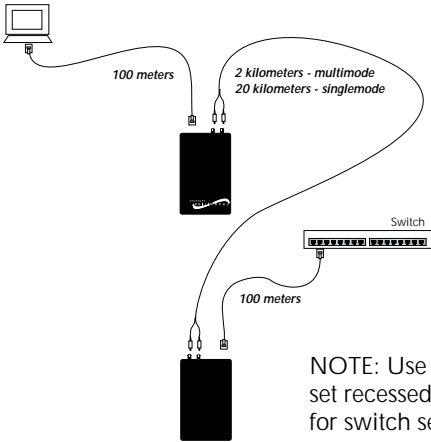
SDC Signal Detect/Copper: Steady green LED indicates RJ-45 port is connected to device.

RXC Receive/Copper: Flashing green LED indicates packets are seen on RJ-45 port.

RXF Receive/Fiber: Flashing green LED indicates packets are seen on fiber port.

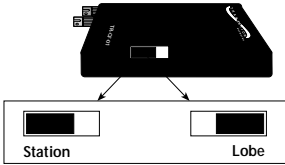


Switch Settings and Cable Requirements



Station: Selected when connecting media converter to terminal device.

Lobe: Selected when connecting media converter to switch.



NOTE: Use small flatblade screwdriver or similar device to set recessed switch. Refer to label on top of media converter for switch settings.

Token Ring Cable Specifications

The physical characteristics of the media cable must meet or exceed IEEE 802.5t specifications.

Copper Cable Specifications

Category 5 wire or better is required. Either shielded twisted pair (STP) or unshielded twisted pair (UTP) can be used. DO NOT USE FLAT OR SILVER SATIN WIRE.

Category 5:

Gauge	24 to 22 AWG
Attenuation	22 dB/100' @ 100 MHz
Differential Characteristic Impedance	100 Ω ±15%
Maximum Cable Distance:	100 meters (330 feet)

Fiber Cable Specifications

MULTIMODE

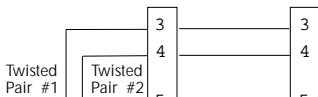
Fiber-optic Cable Recommended:	62.5 / 125 μm multimode fiber
*Optional:	100 / 140 μm multimode fiber
	85 / 125 μm multimode fiber
	50 / 125 μm multimode fiber

Fiber-optic Transmitter Power:	min: -19.0 dBm	max: -14.0 dBm
Fiber-optic Receiver Sensitivity:	min: -32.5 dBm	max: -14.0 dBm
Wavelength:	1300nm	
Bit error rate:	≤10 ⁻⁹	
Maximum Cable Distance:	2 kilometers	

SINGLEMODE

Fiber-optic Cable Recommended:	9 μm singlemode fiber	
Wavelength:	1300nm	
Bit error rate:	≤10 ⁻⁹	
Fiber-optic Transmitter Power:	min: -19.0 dBm	max: -14.0 dBm
Fiber-optic Receiver Sensitivity:	min: -32.5 dBm	max: -8.0 dBm
Maximum Cable Distance:	20 kilometers	

Straight Through Cable



Twisted pair connection requires two active pairs configured as straight through. The two active pairs in a Token Ring network are pins 4 & 5 and pins 3 & 6. Use only dedicated wire pairs (such

Installing Slide-In-Module(s)

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: 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. Ensure that switches on circuit board are set correctly for site installation.
2. 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.

3. 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.

4. Secure Slide-in-Module to E-MCC-1600 chassis by rotating captive screw attached to Slide-in-Module clockwise into chassis.

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 100BASE-TX Link LED illuminated?
 - NO**
 - Check UTP cables for proper connection and pin assignment. (See above.)
 - Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.
 - YES**
 - Proceed to step 3.
3. Is the fiber Link LED illuminated?
 - NO**
 - Check fiber cables for proper connection.
 - Verify that TX and RX cables on media converter are connected to RX and TX ports, respectively, on the other 100BASE-FX device.
 - Refer to Tech Tips available at: <http://www.transition.com>
 - Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.
 - YES**
 - Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.