

MEDIA CONVERTER TECHNICAL SPECIFICATIONS

Standards	ATM UNI 3.1 #AF-PHY-0015	
Environment	Temperature:	0-40°C (32° to 104° F)
	Humidity	10-90%, non condensing
	Altitude	0-10,000 feet
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
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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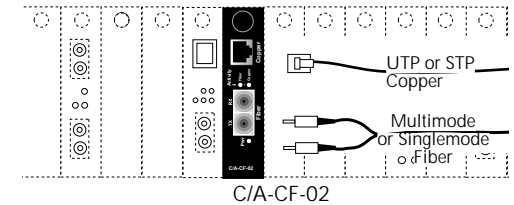


Minneapolis, MN 55344 USA

25/155 Mb/s ATM Copper-to-Fiber Media Converter C/A-CF-02, C/A-CF-02(SM) USER'S GUIDE

The TRANSITION Networks ATM (Asynchronous Transfer Mode) C/A-CF-02 series Slide-In-Module media converters, designed to be installed in the TRANSITION Networks Media Conversion Center, E-MCC-1600, connect twisted-pair copper cable to multimode OR to singlemode fiber optic cable.

NOTE: Effective cable distances are determined by ambient RF noise and by signal loss in the cable. The fiber connection, with low signal loss and high resistance to radio frequency noise, allows extended distances between ATM devices. Twisted-pair runs are best kept as short as possible to preserve signal integrity.



C/A-CF-02

The ATM media converters provide network connection using an RJ-45 twisted-pair ATM connector and a set of RX (receive) and TX (transmit) **SC** connector to **multimode fiber-optic cable**.

C/A-CF-02(SM)

The ATM media converters provide network connection using an RJ-45 twisted-pair ATM connector and a set of RX (receive) and TX (transmit) **SC** connector to **singlemode fiber-optic cable**.

Status LEDs

Pwr

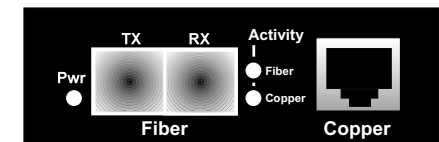
(Power)
Illuminated green LED indicates connection to external AC power.

Activity (Fiber)

Steady green LED indicates the fiber port is active.

Activity (Copper)

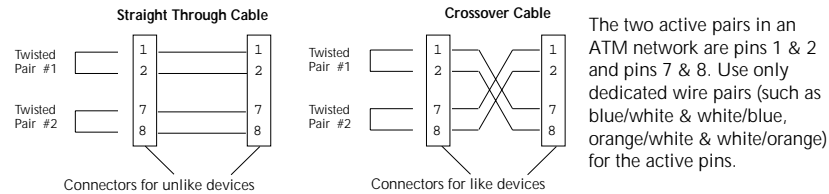
Steady green LED indicates the twisted-pair port is active.



Installation Notes

- **KEEP twisted-pair RUNS AS SHORT AS POSSIBLE.**
- Install no more than two (2) media converters in series.

Be certain that the twisted-pair cable is configured correctly (**straight through** or **crossover**) for site. Cable connections between an ATM switch and the media converter must be configured as **straight through**. Cable connections between the media converter and a NIC must be configured as **crossover**.



ATM Cable Specifications

The physical characteristics of the media cable must meet or exceed the specifications: ATM UNI 3.1 #AF-PHY-0015

Maximum number of media converters in series: 2

Copper Cable Specifications

Category 5 wire or better is required. Either shielded twisted-pair (STP) or unshielded twisted-pair (UTP) can be used.

Category 5:

Gauge	24 to 22 AWG
Attenuation	20 dB/1000' @ 10 MHz
Impedance	100 Ω \pm 10% @ 10 MHz

Maximum Cable Distance: 100 meters (330 feet)

Fiber Cable Specifications

Singlemode

Fiber Optic Cable Recommended:	9 μ m singlemode fiber
Fiber Optic Transmitter Power:	min: -15.0 dBm max: -8.0 dBm
Fiber Optic Receiver Sensitivity:	min: -31.0 dBm max: -8.0 dBm
Wavelength:	1300nm
Bit error rate:	$\leq 10^{-9}$
Maximum Cable Distance:	20 kilometers

multimode

Fiber Optic Cable Recommended:	62.5 / 125 μ m multimode fiber
Optional:	100 / 140 μ m multimode fiber 85 / 125 μ m multimode fiber 50 / 125 μ m multimode fiber
Fiber Optic Transmitter Power:	min: -19.0 dBm max: -14.0 dBm
Fiber Optic Receiver Sensitivity:	min: -30.0 dBm max: -14.0 dBm
Wavelength:	1300nm
Bit error rate:	$\leq 10^{-9}$
Maximum Cable Distance:	2 kilometers

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. 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 seated firmly against the backplane.

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

Troubleshooting the Media Converter

If the ATM media converter fails, determine the answers to the following questions:

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 *Copper Activity* 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 Activity* 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.