MCR200-1T/1CX

Ethernet Over Coax Media Converter

OVERVIEW

The IFS Ethernet to Coax Media Converter is a high-performance module that combines two well-proven technologies—Ethernet and VDSL2— providing a cost-effective solution for utilizing an existing coax cable infrastructure when migrating from analog to an Ethernet/IP system.

This module must be used in pairs and provides plug-and-play installation. The one box design allows for easy set-up as either a client-side (CPE) or central-side (CO) operating device. The module is IEEE 802.3 compliant and supports multiple network protocols. In addition, the module provides on-board feature-rich diagnostic LEDs and can be used with either 50 or 75 ohm coax.

The IFS Ethernet-over-Coax media converter can extend Ethernet transmission up to 1.8 miles (3km) depending on bandwidth requirements and quality of the coaxial cable used. Also, depending on distance and bandwidth, these modules can send data from multiple IP devices when used along with a network switch. These modules can be used for applications such as IP cameras, IP access control, IP intercom, or any Ethernet data transmission.

STANDARD FEATURES

VDSL2
• Cost-effective VDSL2 CO/CPE bridge solution
• One-box design, CO/CPE selectable via DIP-switch
• Selectable target data rate and target SNR margin
• Discrete Multi-Tone (DMT) line coding

Ethernet
• 10/100Mbps Ethernet
• Auto-negotiation and auto-MDI/MDI-X
• Half-duplex back pressure and IEEE802.3x full-duplex pause-frame flow control
• Supports up to 1536 bytes packet size
• 802.1Q VLAN tag transparent

Installation & Diagnostics
• Plug-and-play installation
• Compact size
• Supports 50 or 75 ohm coax
• Extensive LED indicators for network diagnostics

Rack Mountable
• Compatible with MCR-R15 rack chassis
• Easy Plug and Play installation

Warranty
• 3-year warranty

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Specifications

Ethernet	Description
Data Rate	10/100Base-TX with Auto-negotiate and Auto-MDI/MDI-X
Connector	RJ-45
Cable	10Base-T (Cat 3, 4, 5) / 100Base-T (Cat 5e) — 328 ft. (100m)

Coax (VDSL2)	
VDSL2 Transmission Mode	CO/CPE Mode; Channel; Rate Limit; SNR
VDSL-DMT Encoding	ITU-T G.993.1 VDSL; ITU-T G.997.1; ITU-T G.993.2 VDSL2 (Profile 17a support)
Connector	BNC female
Cable	50 or 75 ohm coax

| VDSL2 Distance> Data Rate*	(Down stream/Up stream) Asymmetric	(Down stream/Up stream) Symmetric
	1300 ft. (400m) - 100/64Mbps	1300 ft. (400m) - 100/100Mbps
	3200 ft. (1000m) - 94/44Mbps	3200 ft. (1000m) - 69/66Mbps
	5900 ft. (1800m) - 60/14Mbps	5900 ft. (1800m) - 40/29Mbps
	9800 ft. (3000m) - 25/5 Mbps	9800 ft. (3000m) - 17/13Mbps

LED Indicators	
Power	On - Green
10/100 Base-TX Port	LNK/ACT; 100Mbps - Green
VDSL2 (Coax) Port	LNK/ACT; CO Mode; CPE Mode - Green

Electrical & Mechanical	
Power	5V @ 2A
Enclosure	Metal
Dimensions (H x W x D)	3.82 x 2.76 x 1.02 in. (9.7 x 7.0 x 2.6 cm)
Weight	0.44 lbs/200g

Environmental	
Operating Temperature	0° ~ 50°C
Storage Temperature	-20° ~ 70°C
Relative Humidity	0% ~ 90% (non-condensing)

*The actual data rate will vary based on the quality of the coaxial cable and environmental factors.
See instruction manual for a complete listing of data rates at various coax transmission distances.

Dimensional Diagrams

3.82 in.
(97mm)

2.76 in.
(70 mm)

1.02 in.
(26 mm)

1.02 in.
(26 mm)
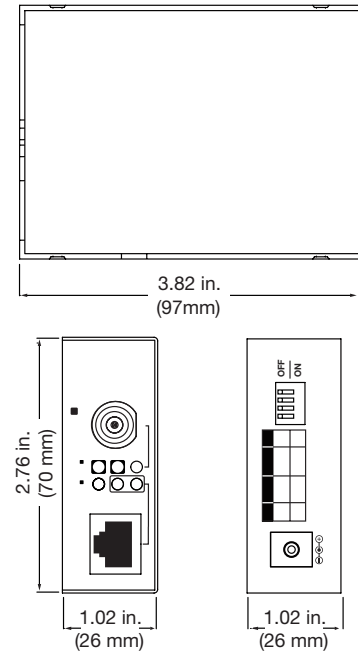
Agency Compliances
• FCC
• CE

Ordering Information

MCR200-IT/ICX	Ethernet over Coax (VDSL2)

Note: External power supply must be purchased separately. Must be in pairs. Not compatible with the MCE-COAX.

Accessories

PS5VDC2A-US	5VDC 2A Wall Mounted Power Supply
MCR-R15	Media Converter Rack w/Power Supply

Typical Application

Network Switch

IP Camera

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Up to 1.8 miles (3km)

Coax

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Cat 5e Cable

Cat 5e Cable

100m (328 ft.) Max.

100m (328 ft.) Max.

Alternate Application*

Network Switch

IP Cameras   IP Access   IP Intercom
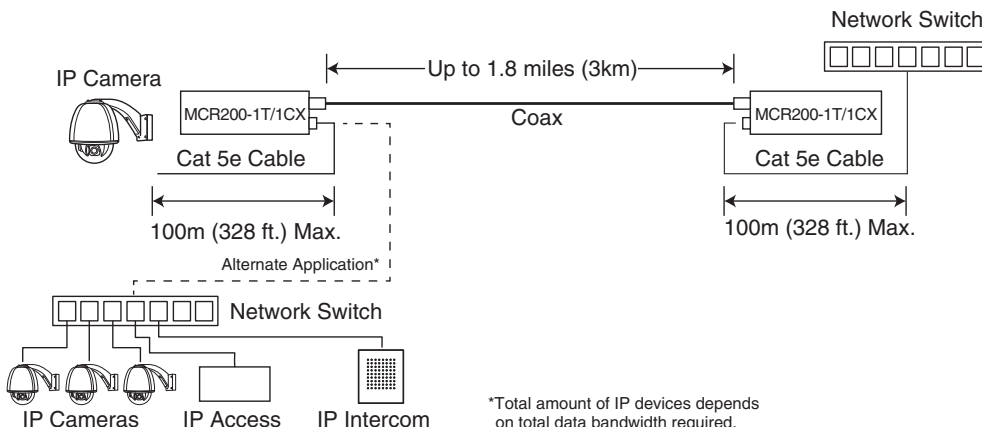
*Total amount of IP devices depends on total data bandwidth required.

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Specifications subject to change without notice.