



## MC252-1T-1CXP

Power over Coax - PoE-at Media Converter - Switch End

### OVERVIEW

The IFS Power over Coax - PoE-at Media Converters are designed to extend both Ethernet data and PoE over existing coax cable up to 1Km. This Power over Coax solution consists of a transmitter and receiver set, which works as a pair with or without a power adaptor depending on the installation configuration and power requirements needed.

The solution contains two modules:

- MC252-1T-1CXP: This unit is designed for the head-end/switch end. The module transmits Power over Coax and is powered by an external power adaptor or can be powered directly from a port on a PoE switch\*
- MC252-1P-1CX: This unit is designed for the IP PoE Camera end. The module receives Power over Coax and outputs PoE on the R-J45 port. This unit is self-powered via the Power over the Coax or can be powered with an external power adaptor when used with the MCR200-1T-1CXT that may be rack mounted in the MCR-R15 at the head-end.

These modules are compliant with IEEE 802.3at High Power over Ethernet (PoE+) and provide up to 25 watts of power output. This solution eliminates the need for providing local power at an IP PoE camera location thus reducing additional material and labor installation costs. In addition, these modules provide on-board feature-rich diagnostic LEDs and can be used with either 50 or 75 ohm coax.

The modules are also environmentally hardened with an operating temperature range of -40° ~ 75°C making them ideal for use in extended distance in harsh environments such as warehouses, parking garages, campuses and other difficult environments where commercial-grade equipment may be stressed.



### Standard Features

- Cost-effective VDSL2 CO/CPE bridge solution
- CO/CPE selectable via DIP-switch
- Selectable target data rate and target SNR margin
- 10/100Mbps Ethernet
- Half-duplex back pressure and IEEE802.3x full-duplex
- Supports up to 1536 bytes packet size
- 802.1Q VLAN tag transparent
- Complies with IEEE 802.3at
- Backwards compatible with IEEE802.3af
- Protects non-PoE devices if accidentally connected
- Flexible power source either external DC or PoE power input
- Plug-and-play installation
- Supports 50 or 75 ohm coax
- Extensive LED indicators for network diagnostics
- IP30 metal enclosure
- Wall-mountable
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of up to -40°C ~ +75°C
- 3-year warranty

# MC252-1T-1CXP

## Power over Coax - PoE-at Media Converter - Switch End

### 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 5) — 328 ft. (100m)

#### Coax (VDSL2)

VDSL2 Transmission Mode	CO/CPE Mode; Channel; Rate Limit; SNR
VDSL2-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\*

Asymmetric Mode (Down/Up)	6,56 ft. (200m) - 100/60Mbps
	1,312 ft. (400m) - 95/55Mbps
	1,968 ft. (600m) - 90/50Mbps
	2,625 ft. (800m) - 85/45Mbps
	3,281 ft. (1000m) - 70/35Mbps
Symmetric Mode (Down/Up)	3,937 ft. (1200m) - 60/25Mbps
	6,56 ft. (200m) - 90/100Mbps
	1,312 ft. (400m) - 85/100Mbps
	1,968 ft. (600m) - 70/80Mbps
	2,625 ft. (800m) - 65/70Mbps
	3,281 ft. (1000m) - 70/55Mbps
	3,937 ft. (1200m) - 45/40Mbps

#### Power Over Ethernet

PoE Standard	IEEE 802.3at Type 2, IEEE802.3af
PSE Interface	RJ-45, 44~56V DC, 600mA max., End-Span, Pin 1/2(+), 3/6(-)
PD Interface	BNC, Input Range: 44~57V DC, 24V DC, 1A max.
Max. PoE Budget via PoE+	25 watts @ BNC
Max. PoE Budget via PSU	30 watts @ BNC

#### Max. MC252-1P-1CX power output (PSU/PoE+)

656 ft. (200m)	20W / 13W
1,312 ft. (400m)	16W / 11W
1,968 ft. (600m)	12W / 10W
2,625 ft. (800m)	7W / 6W
3,281 ft. (1000m)	5W / 4W
3,937 ft. (1200m)	— / —

#### LED Indicators

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

#### Electrical & Mechanical

Power	52 ~ 56VDC or PoE+ In
Enclosure	Metal
Dimensions (H x W x D)	3.7 x 2.76 x 1.54 in. (94 x 70.3 x 39.2 mm)
Weight	0.66 lbs/302g

#### Environmental

Operating Temperature	-40° ~ 75°C
Storage Temperature	-40° ~ 75°C
Relative Humidity	0% ~ 95% (non-condensing)

### Ordering Information

Part No.	Description
MC252-1T-1CXP	Power over Coax - PoE-at Media Converter - Switch End
MC252-1P-1CX	Power over Coax - PoE-at Media Converter - Camera End

