

# POC252-1CXP-1T

## 1-Port IP over Coax Extender with PoE-AT (switch end)

### Overview

The IFS® Power over Coax Network Switches and Media Converters by Interlogix® are designed to transmit both Ethernet data and PoE over coax cable up to 1 km (3,280 ft). This solution provides a cost-effective approach by reducing installation cost and increasing ROI by utilizing existing coax to migrate an existing analog video system to an IP video surveillance system.

The PoC Network Switches also provide built-in PD-alive monitor health and status of an IP camera. In addition, this solution eliminates the need for providing local power at an IP PoE camera location.

- The POC2502-8CXP-2T-2S is an 8-port Power over Coax Managed Switch that supplies data and power transmission on coax via BNC ports. In addition, the two RJ45/SFP Gigabit combo ports provide a connection to an Ethernet network.
- The POC2502-16CXP-2T-2S is a 16-port Power over Coax Managed Switch. The switch supplies data and power transmission on coax via BNC ports as well as two RJ45/SFP Gigabit combo ports for connection to an Ethernet network.
- The POC252-1CX-1P Power over Coax Media Converter is for use at the camera end to convert the data/power from the coax. The switch provides 10/100Mbps data and POE-af/at compliant power on the RJ45 port for an IP camera.
- The POC252-1CXP-1T Power over Coax Media Converter transmits data and injects power over coax for use with the POC252-1CX-1P. This is used to deploy a single IP camera on a length of coax cable and a multi-port BNC switch is not needed. This media convertor is for use at the switch end of a system.



### Details

- 1-port (COAX) with up to 36W power output
- Auto-negotiation and auto-MDI/MDI-X
- IEEE 1901 communication Standard
- Wavelet-OFDM modulation
- 128-bit AES security encryption
- Daisy-chain (up to 3 devices on one link)
- Half-duplex back pressure and IEEE802.3x full-duplex pause-frame flow control
- Remote power up to 1 km
- Compatible with POC252-1CX-1P (Camera End) Media Converter

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### Technical specifications

#### General

|                          |          |
|--------------------------|----------|
| Technology               | IEEE1901 |
| Compatible with MCR rack | No       |

#### Connections

|                    |        |
|--------------------|--------|
| Coax ports         | 1      |
| Connector          | BNC    |
| RJ45 ports         | 1      |
| Port type          | 10/100 |
| Fault relay output | No     |

#### Electrical

|                   |                                           |
|-------------------|-------------------------------------------|
| Power supply type | 52 to 56 VDC                              |
| Power consumption | 34 W                                      |
| PoE / PoE+        | PoE-at (Power over Coax)                  |
| PoE power budget  | 30.8 W (via PoE-at switch) 36 W (via PSU) |
| Redundant power   | No                                        |

#### Physical

|                     |                 |
|---------------------|-----------------|
| Physical dimensions | 94 x 70 x 26 mm |
| Net weight          | 375 g           |
| Colour              | Black           |
| Mounting type       | Wall mount      |

#### Environmental

|                       |                        |
|-----------------------|------------------------|
| Operating temperature | -10 to +60°C           |
| Storage temperature   | -40 to 75°C            |
| Relative humidity     | 0 to 95% noncondensing |

#### Regulatory

|                      |                                       |
|----------------------|---------------------------------------|
| Regulatory Standards | FCC Part 15 Class A, CE               |
| IEEE Standards       | IEEE 802.3 Ethernet                   |
|                      | IEEE 802.3u Fast Ethernet             |
|                      | IEEE 802.3af Power over Ethernet      |
|                      | IEEE 802.3at Power over Ethernet Plus |

#### Physical Ports

|                           |                |
|---------------------------|----------------|
| Port Configuration        | Auto MDI/MDI-X |
| Port Speed                | Auto-negotiate |
| LED Indicators and Switch |                |

#### Power over Ethernet

|                                |                                                    |
|--------------------------------|----------------------------------------------------|
| PoE Standard                   | IEEE 802.3af / 802.3at PoE                         |
| PoE Power Supply Type          | End-span                                           |
| PoE Power Budget               | Up to 25 W via Coax                                |
| PoE Power Output Via Coax Port | Max. 30.8 W (via PoE Switch) 36 W (via PSU)        |
| Power Pin Assignment (RJ45)    | 1/2(+), 3/6(-)                                     |
| Power Pin Assignment (COAX)    | BNC center pole : DC+ / Hi, BNC shield : DC - / Lo |

#### IP Over Coax Interface

|                                 |                                                            |
|---------------------------------|------------------------------------------------------------|
| Cabling                         | Coaxial cable: 75 ohm, RG-6/U cable (Improved performance) |
|                                 | RG-6/U cable, less than 12 Ohm/1,000 ft.                   |
|                                 | RG59/U cable, less than 30 Ohm/1,000 ft.                   |
| Ethernet Communication Standard | IEEE1901                                                   |
| Modulation Type                 | Wavelet-OFDM                                               |
| Security                        | 128-bit AES encryption                                     |
| Frequency Band                  | 2 to 28 MHz                                                |

#### Data Rate (Upload/Download)\*

|        |              |
|--------|--------------|
| 20 m   | 93 / 93 Mbps |
| 400 m  | 93 / 92 Mbps |
| 600 m  | 92 / 88 Mbps |
| 800 m  | 83 / 75 Mbps |
| 1000 m | 74 / 55 Mbps |

#### Typical Power Over Coax\*

|        |                                   |
|--------|-----------------------------------|
| 200 m  | 29 W (5 VDC in) 16.9 W (PoE+ in)  |
| 400 m  | 22 W (56 VDC in) 14.3 W (PoE+ in) |
| 600 m  | 13 W (56 VDC in) 10.2 W (PoE+ in) |
| 800 m  | 10 W (56 VDC in) 8.3 W (PoE+ in)  |
| 1000 m | 8 W (56 VDC in) 7.1 W (PoE+ in)   |

\* Based on RG-59 Bare Copper cable: Data rate and power performance is subject to the quality of cable used and environmental factors.

#### Maximum Distance

|                         |         |
|-------------------------|---------|
| PoE+ output             | 200 m   |
| PoE output              | 600 m   |
| Without PoE (Data only) | 1,200 m |

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