

POC2052-4P-1CX A&E Specifications, Division 28 00 00 Electronic Safety and Security



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This A&E Specification conforms to CSI Master Format 2016 guidelines.

28 05 00 Common Work Results for Electronic Safety and Security

28 05 07 Power Sources for Electronic Safety and Security

28 05 07. 21 PoE Power Sources for Electronic Safety and Security

# Specifications

## UTC Fire & Security Model Number: **POC2052-4P-1CX**.

### The module shall comply with IEEE 802.3at/af Power over Ethernet PSE (Power Source Equipment).

# Coaxial Port for Long Reach PoE

## The module shall comply with the IEEE 1901 standard.

## The module shall utilize coaxial cable for the digital subscriber line.

## The module shall be equipped with Wavelet-OFDM schemes.

## The module shall support a coaxial distance up to 1 km with PoE output maximum.

# RJ45 Port for Long Reach PoE

## The module shall comply with the IEEE 1901 standard.

## The module shall utilize coaxial cable for the digital subscriber line.

## The module shall be equipped with Wavelet-OFDM schemes.

## The module shall support UTP distance up to 500 meters with PoE output maximum.

28 05 33 Safety and Security Network Communications Equipment

28 05 33.15 Security Data Communications Power-Over-Ethernet Switches

# System Description

## Performance Requirements: Provide one BNC/RJ45 and 4 10/100Base-TX copper port with IEEE 802.3at/af Power over Ethernet injector.

### The system shall utilize RG6/U, RG59/U BNC port for long reach PoE over coaxial PD.

### The system shall utilize RJ45 port for long reach PoE over UTP PD.

### The system shall utilize EIA568, category 5/5e, 4-pair cables for 10Base-T or 100Base-TX to transfer Ethernet data and power simultaneously.

28 05 45 Systems Integration and Interconnection Requirements

28 05 45.11 Mechanical

# Surface Mount Dimensions: 5.3” x 3.46” x 2.2” (135 mm x 87.8 mm x 56 mm)

# Finish: Module shall be constructed of a metal enclosure.

# Weight: < 1.42 lb. / 644 g

28 05 45.13 Electrical

# Power Characteristics:

## Power: 44 to 56 VDC.

## Current Protection: Automatic re-settable solid-state current limiters

## Voltage Regulation: Solid-state, independent on each board

28 05 45.15 Information

# Submittals

## Manufacturer’s Installation and Operating Manual: Printed installation and operating information for the switch.

## Warranty: Manufacturer’s Printed Warranty.

# Delivery, Storage, and Handling

## Store in original packaging in a climate controlled environment.

## Storage Temperature not to exceed: **–40 to +75˚C**

# Project/Site Conditions

## Temperature Requirements: Products shall operate in an environment with an ambient temperature range of –2**0** to **+75˚C** with the assistance of fan-forced cooling.

## Humidity Requirements: Products shall operate in an environment with relative humidity of 5 to 95% (non-condensing).

# Warranty

## Standard UTC Fire & Security Inc. Comprehensive Warranty: UTC Fire & Security warrants the product to be free of factory defects under the manufacturer’s 3 Years Warranty.

# General Specifications

## The Industrial Ethernet Extender shall be a POC2052-4P-1CX model.

## Ethernet Port

### The module features four fixed 10/100Base-TX electrical ports.

### The module shall support the Ethernet data IEEE 802.3/082.3u 10/100Base-TX protocol using auto-negotiating and auto-MDI/MDI-X features.

### The module shall comply with IEEE 802.3at/af Power over Ethernet PSE (Power Source Equipment).

### The module shall support a UTP distance up to 100 m.

# Data Specifications

## Data Interface: Ethernet IEEE 802.3u

## Data Rate: 10/100 Mbps

## Data Inputs: 4

## Operation Mode: Simplex or Duplex

# POC Specifications

## Number of POC ports: 1 (BNC/RJ45 connector)

## Cabling:

### Coaxial cable: 75 ohm

### RG-6/U cable, less than 12Ω/1000 ft.

### RG-59/U cable, less than 30Ω/1000 ft.

## LRP Maximum Distance:

### Max. 1000 m with PoE power by BNC cable (3280 ft.)

### Max. 500 m with PoE power by RJ45 cable (1640 ft.)

# Status Indicators

## System

|  |  |  |
| --- | --- | --- |
| **LED** | **Color** | **Function** |
| P1 | Green | **Lit:** indicates that power 1 has power.  **Off**: indicates that power 1 is off. |
| P2 | Green | **Lit:** indicates the power 2 has power.  **Off**: indicates that power 2 is off. |
| FAULT | Red | **Lit:** indicates the either power 1 or power 2 has no power.  **Off**: indicates that power 1 and power 2 works normally. |

## PoE Power Usage

|  |  |  |
| --- | --- | --- |
| **LED** | **Color** | **Function** |
| 10 W | Green | **Lit:** indicates that PoE power consumption has been over 10 W.  **Off**: indicates that PoE power consumption is lower than 10 W. |
| 20 W | Green | **Lit:** indicates that PoE power consumption has been over 20 W.  **Off**: indicates that PoE power consumption is lower than 20 W. |
| 30 W | Green | **Lit:** indicates that PoE power consumption has been over 30 W.  **Off**: indicates that PoE power consumption is lower than 30 W. |
| 40 W | Green | **Lit:** indicates that PoE power consumption has been over 40 W.  **Off**: indicates that PoE power consumption is lower than 40 W. |

## LRP IN (POC)

|  |  |  |
| --- | --- | --- |
| **LED** | **Color** | **Function** |
| PWR | Green | **Lit:** indicates that the power is on. |
| LNK | Green | **Lit:** indicates that the coaxial link is established.  **Off**: indicates that the coaxial link is is not established. |

## 10/100Base-TX Port with PoE

|  |  |  |
| --- | --- | --- |
| **LED** | **Color** | **Function** |
| LNK/ACT | Green | **Blink**: indicates that the extender is actively sending or receiving data over that port. |
| PoE In-Use | Orange | Lit: indicates that the port is providing PoE power. |

# Connectors

## LRP IN Connector:

### One BNC connector

### One RJ45 Port (shared with BNC port)

## Ethernet Port: Four RJ45 ports for data and PoE output.

# Environmental Specifications

## MTBF: > 100,000 Hours

## Operating Temp: –20 to +75˚C

## Storage Temp: –40 to +75˚C

## Relative Humidity: 5 to 95% (non-condensing).

# Regulatory Agencies/Approvals and Listings

## Federal Communications Commission (FCC) Part 15, Class A

## European Union Compliance (CE).

# Accessories

## DIN rail kit

## Wall-mount kit

# Execution

## Preparation

### Standalone Module (Surface Mount)

#### Shall be mounted on a properly prepared surface adequate for the size and weight of module.

#### The placement of the unit shall allow provision for cable installation and maintenance as indicated on the approved detail drawings and in compliance with the installation manual.

# Installation

## General: Locate fiber optic modules as indicated on the approved detail drawings and install module in compliance with the UTC Fire & Security user manual.

## The device is used for Point-to-Point connection only and, due to POC2052-4P-1CX being a LRP receiver device, it has to connect to a LRP injector such as POC252-1CXP-1T, POC2502-8CXP-2T-2S, or POC2502-16CXP-2T-2S.

## The device is used for Point-to-Multi-point connection and it has to connect to a LRP injector such as POC252-1CXP-1T, POC2502-8CXP-2T-2S, or POC2502-16CXP-2T-2S. However, POC-252-1CXP-1T must be connected to a 56 VDC power adapter (Master device to Slave device).

## POC2052-4P-1CX supports DC power input from a terminal block interface to resupply power for enhanced PoE power output.

## The BNC connector supports a 75 ohm cable. Depending on the quality of the coaxial cable, the maximum distance is 1.2 km with a coaxial cable.

## The distance will change according to the quality of coaxial cables.

# Cleaning

## Follow all instructions for proper use of solvents and adhesives used for termination and splicing.

## At completion of the installation, dispose of the BNC cover properly.

28 05 53 Identification for Electronic Safety and Security

# Products

## Description:

### IFS POC2502-4P-1CX 1-port Coaxial/RJ45 to 4-Port Fast Ethernet with POE-AT Extender Standalone.

## Manufacturer

### Acceptable Manufacturer:

#### IFS Brand

#### UTC Fire & Security, Inc.

#### 2955 Red Hill Avenue

#### Costa Mesa, CA 92626

#### Phone 1-855-286-8889

### Substitutions: Not Permitted

## Manufactured Units

### Model Number Descriptions: Reference Table A: Product Number Descriptions

### Model Compatibility Chart: Reference Table B: Product Compatibility Chart

### MANUFACTURED UNITS REFERENCE TABLES

#### Table A: Product Number Descriptions

|  |  |  |
| --- | --- | --- |
| **Model Name** | **DESCRIPTION** | **MAX. DISTANCE** |
| POC2052-4P-1CX | 4-Port Fast Ethernet PoE+ IP over coax Industrial Unmanaged Switch. | Max. 1000 m with PoE power by LRP IN BNC RG-6/U 75 ohm cable (3280 ft.).  Max. 500 m with PoE power by LRP IN RJ45 cable (1640 ft.) |

#### Table B: Product Compatibility Chart

| Model Name | DESCRIPTION | MAX. DISTANCE |
| --- | --- | --- |
| POC252-1CXP-1T | 1-port Power over Coax 30W Ethernet Transmitter | Max. 1000 m with PoE output (3280 ft.)  Max. 1200 m without PoE output (3937 ft.) |
| POC2502-8CXP-2T-2S | 8-port Power over Coax Switch | Max. 1000 m with PoE output (3280 ft.)  Max. 1200 m without PoE output (3937 ft.) |
| POC2502-16CXP-2T-2S | 16-port Power over Coax Switch | Max. 1000 m with PoE output (3280 ft.)  Max. 1200 m without PoE output (3937 ft.) |

28 08 00 Commissioning of Electronic Safety and Security

28 08 11 Testing for Baseline Performance Criteria

# Testing the 10/100TX Fast Ethernet Copper Link.

## Verify that the data leads and UTP ports are properly connected.

## Successful data link operation should be confirmed by communicating with other equipment.

# Test the 10/100TX PoE Copper output capability.

# Testing the coaxial cable link.

## Power on the POC252-1CXP-1T by connecting a 56 VDC power source or connecting to a POE+ injector.

## Connect a coaxial cable between the BNC ports of the POC252-1CXP-1T and POC2052-4P-1CX devices.

## PWR and LNK LEDs will go from blinking to illumination.

## Connect a RJ45 wire from the PoE OUT port of POC2052-4P-1CX to a PoE device.

## PoE IN-Use and LNK/ACT LEDs will illuminate.

## Connect a PC to POC252-1CXP-1T.

## Access the PoE device from the PC.

Contacting Support

North America:

855-286-8889

[techsupport@interlogix.com](mailto:techsupport@interlogix.com)

Latin America:

561-998-6114

[latam@interlogix.com](mailto:latam@interlogix.com)

Web site:

[www.interlogix.com/customer-support](http://www.interlogix.com/customer-support)

EMEA:

See specific country listings at:

[www.utcfssecurityproducts.com/CustomerSupport](http://www.utcfssecurityproducts.com/CustomerSupport)