POC2502-16CXP-2T-2S

16-PORT BNC IP & POWER OVER COAX POE-AT MANAGED SWITCH

Overview

The IFS® Power over Coax Network Switches and media convertors by Interlogix® are designed to transmit both Ethernet data and PoE over coax cable up to 1km (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 solution contains the following modules: • 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.

Details

- 16 BNC ports
- IEEE 1901 standard for power compliant
- Wavelet-OFDM modulation
- 128-bit AES security encryption
- 2 x Gigabit RJ-45 Ports
- Auto-negotiation and auto-MDI/MDI-X
- Half-duplex back pressure and IEEE802.3x full-duplex pause-frame flow control
- 2 x Gigabit SFP fiber ports
- Power over coax
- Up to 36W insertion power per coax port
- 380W PoE Power
- Remote power up to 1km
- Full PoE management
- PD Alive Checking

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Technical Specifications

General

Technology	IEEE1901
IGMP snooping	256 Group, Snooping v2, v3
IGMP query	Yes
Compatible with MCR rack	No
Managed	Yes (Layer 2)
Management interface	Web browser, Telnet, SNMP v1 & v2c, 1 x RS323-to-RJ45 serial port (1115200, 8, N, 1)
Jumbo frame support	10 K
Mac table	8 K
VLAN, QoS	256, yes

Connections

Coax Ports	16
Connector	BNC
RJ-45 ports	2
Port type	10/100/1000
Fiber port	2
SFP speed	100/1000
Supported SFP's	S2x and S3x series
Fault relay output	No

Physical

Physical dimensions	440 x 300 x 45 mm
Net weight	4.430 kg
Colour	Black
Switch fabric	11.2Gbps
Mounting type	19" rack

Environmental

Operating temperature	0 to +50°C
Storage temperature	-10 to 70°C
Relative humidity	0 to 95% noncondensing
Operating Temperature	0 to +50°C
Storage Temperature	-10 to +70°C
Relative Humidity	0 to 95% (non-condensing)

Electrical

Power supply type	100 to 240 VAC
Power consumption	36 W
PoE/PoE+	PoE-at (Power over Coax)
PoE power budget	380 W
Redundant power	No

Physical Ports

10/100Base-T(x) Ports	BNC (16)
GigE Uplink Ports	RJ-45 (2) & SFP (2)
Port Configuration	AUTO MDI/MDI-X (RJ-45)
Port Speed	Auto-negotiate (RJ-45)

Switch Performance

Switch Architecture	Store-and-Forward
Switch Fabric	11.2 Gbps (non-blocking)
MAC Address Table	8K entries, automatic source address learning and ageing
Share Data Buffer	4.1Mb embedded memory for packet buffers
Maximum Frame Size	10KBytes on Gig Uplink Ports
Flow Control	Back pressure for Half-Duplex; IEEE 802.3x Pause Frame for Full-Duplex

Layer 2 Functions

Management Interface	Web browser, Telnet, SNMP v1 & v2c, 1 x RS323-to-RJ45 serial port (1115200, 8, N, 1)
Port Configuration	Port enable/disable; Auto-negotiation; 10/100/1000Mbps full-and-half duplex mode selection; Flow control
Port Status	Display each port's speed duplex mode, link status and flow control status. Auto negotiation status, trunk status
Port Mirroring	TX/RX/Both; Many to 1 monitoring
VLAN	802.1Q tagged-based VLAN, Up to 256 VLAN groups, out of 4094 VLAN IDs, 802.1ad Q-in-Q tunneling, Voice VLAN, Protocol VLAN, Private VLAN (Protected port), GVRP
Link Aggregation	IEEE 802.3ad LACP and static trunk, Supports 4 groups of 4-port trunk
Quality of Service (QoS)	8 mapping ID to 8 level priority queues, Port number, 802.1p priority, 802.1Q VLAN tag, DSCP field in IP packet, Traffic classification based, strict priority and WRR
Multicasting/IGMP	IGMP (v2/v3) Snooping, IGMP Querier, Up to 256 multicast groups

LED Indicators & Switch

Reset Button	< 5 sec: System reboot, > 5 sec: Factory default

Electrical and Mechanical

Power Input	100 to 240 VAC, 50/60Hz
Power Consumption (Full PoE load)	Max. 495 W / 1091 BTU
Dimensions (W x D x H)	440 x 300 x 44.5 mm, 1U height
Weight	4.43kg

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IP Over Coax Interface

Cabling	Coaxial cable: 75 ohm, RG-6/U cable (improved performance)
Communication Standard	IEEE1901
Modulation Type	Wavelet-OFDM
Security	128-bit AES encryption
Frequency Band	2 to 28 MHz

Data Rate (Upload/Download)*

200m	93 / 93 Mbps
400m	93 / 92 Mbps
600m	92 / 88 Mbps
800m	83 / 75 Mbps
1000m	74 / 55 Mbps

Typical Power Over Coax*

200m	23.2W
400m	20.1W
600m	16.2W
800m	12.8W
1000m	10W
* Based on RG-59 Bare Copper (BC) cable	Data rate and power performance is subject to the quality of Coax cable used and is subject to external environmental factors

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