#### **Product data sheet**



## ES2402-8P-2C

### 8-Port Fast Ethernet Web Smart Switch POE-AT with 2 x Gig Uplinks

#### Overview

The UTC Fire & Security IFS ES Series of Web Smart PoE+ Switches are designed to be a cost-effective network switch solution for small to mid sized IP camera surveillance systems. The switches are available in 8-, 16- or 24-port Fast Ethernet PoE+ configurations with all versions having two additional GigE RJ45/SFP ports. Allowing for basic management and PoE functionality, the switches meet the basic need of providing Fast Ethernet ports for IP cameras with GigE ports for NVR/Server connections.

The IFS ES Series of Web Smart Switches support basic Layer 2 features, such as VLANs, QoS, Link Aggregation, Port Mirroring, Spanning Tree, IGMP Snooping and basic security. In addition, these switches provide both IEEE802.3-af/at power on each port (up to the maximum total power budget) and offer full PoE management features. With a unique PoE usage LED meter on the front panel, these switches allow users to monitor total power budget usage without having to connect to a PC.



#### **Details**

- 8-Port 10/100Mbps Fast Ethernet ports with PoE-AT
- 2x 10/100/1000Mbps TP combo interfaces and 2 mini-GBIC/SFP slots
- Easy web-based management
- Supports auto-negotiation and half-duplex/full-duplex modes for all 10Base-T/100Base-TX and 1000Base-T ports
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause-frame flow control (full-duplex)
- Security Control: MAC Address binding and TCP & UDP Filtering
- QOS support: Allows to assign low / high priority on each port
- IGMP snooping for better control of multicast streams
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Complies with IEEE 802.3at Power over Ethernet
- Supports up to 8 POE-af devices or 4 POE-at devices at full power
- Up to 125W total POE Power

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## 8-Port Fast Ethernet Web Smart Switch POE-AT with 2 x Gig Uplinks

#### **Technical specifications**

Category			
Category	Commercial		
Management	Web Smart		
Managed	Yes (Layer 2)		
PoE	Yes		
Physical ports			
No. of ports	8		
Port type	8 Fast 2 Gig (shared with SFP)		
Speed	Fast		
PoE/PoE+	8 Port PoE/4 Port PoE+		
Fiber port	2 (shared)		
Supported SFPs	S30/S35 series		
Switch Performance	ie.		
Switch fabric	5.6 Gbps		
Throughput (Mpps)	4.16		
Mac table	4 K		
Layer 2 Functions			
Management interface	Weh		
IGMP snooping	32 Group, Snooping v1, v2		
IGMP query	Without Query supported		
VLAN, QoS	30, yes		
General			
Fast ring	No		
Security	MAC address binding, TCP/UDP filtering		
DHCP snooping	No		
Fault relay output	No		
Physical dimensions	330 x 152 x 44 mm		
Net weight	1.6 kg		
Colour	Black		
Material	Metal		
Mounting type	19" rack		
Stackable	No		
Environmental			
Operating temperature	0 to +50°C		
Storage temperature	-20 to +70°C		
Relative humidity	20 to 95% (non-condensing)		
Environment	Indoor		
Operating :	Temperature 0 to 50°C; Relative Humidity 20 to		
Storage :	95% (non-condensing)  Temperature -20 to +70°C; Relative Humidity 20 to 95% (non-condensing)		

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PoE power budget	125 W
Redundant power	No
Power supply type	100 to 240 VAC
Power consumption	176 W
Power Requirement :	100~240V AC, 50 to 60 Hz
Power Consumption :	176 Watts maximum

Hardware Specifications		
Ports:	$8 \times 10/100$ Base-TX RJ-45 with Auto-MDI/MDI-X function for each port	
Uplink Ports:	(RJ45) 2x 10/100/1000Base-TX RJ-45 ports (sharedwith SFP interfaces)	
Uplink Ports (SFP):	2x 1000Base-SX/LX/BX SFP/Mini-GBIC interfaces, shared with port-25~Port-26	
Switch Architecture :	Store-and-Forward	
Switch Fabric :	5.6Gbps/non-blocking	
Switch Throughput :	4.16Mpps @64Bytes	
Address Table :	4K entries	
Share Data Buffer :	2.75Mb embedded memory for packet buffers	
Maximum Frame Size :	1536Bytes	
Flow Control :	Back pressure for Half-Duplex and IEEE 802.3x Pause Frame for Full-Duplex	
LED Indicators :	Per unit: Power (Green), FAN Alarm, 16x 10/100: Link/Activity (Green), PoE In-Use (Amber)	
Dimensions (W) x (D) x (H):	330 x 153 x 44.5mm, 1U height	
Weight :	1.6kg	
Reset Button :	< 5 sec.: System reboot, > 5 sec.: Factory Default	

#### **Power over Ethernet**

PoE Standard :	IEEE 802.3at PSE (Power Sourcing Equipment)
PoE Power Supply Type :	: End-Span
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Per port 56V DC, Max. 30.8 watts Power Pin Assignment: 1/2(+), 3/6(-) Max. number of Class 2 8 / 4 PD/ class 3 PD:

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## 8-Port Fast Ethernet Web Smart Switch POE-AT with 2 x Gig Uplinks

#### **Layer 2 Function**

Layer 2 Function	
Management Interface :	
Port Configuration :	Port disable/enable. Auto-negotiation 10/100Mbps full- and half-duplex mode selection. Flow control disable/enable. Bandwidth control on each port.
Port Status :	Display each port's speed duplex mode, link status, Flow control status, Auto negotiation status, trunk status
VLAN:	802.1Q tagged-based VLAN, up to 30 VLAN groups, out of 4094 VLAN IDs, Port-based VLAN, up to 18 VLAN groups, MTU VLAN
Spanning Tree :	IEEE 802.1d Spanning Tree, IEEE 802.1w Rapid Spanning Tree
Link Aggregation :	1 group of 2-Port 10/100/1000Base-T trunk supported
QoS :	Traffic classification based on:- Allow to assign low / high priority on each port. First-In-First-Out, All-High-before-Low, Weight-Round-Robin QoS policy
IGMP Snooping :	IGMP (v1/v2) Snooping, up to 32 multicast groups. Without Query supported
Port Mirror :	TX/RX/Both; Many to 1 monitoring
Security :	MAC address binding, TCP/UDP filtering
Standards Conform	nance
	IEEE 802.3 10Base-T
	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX
	IEEE 802.3u 100Base-TX
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T IEEE 802.3at Power over Ethernet
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T IEEE 802.3at Power over Ethernet IEEE 802.3x Flow Control and Back Pressure
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T IEEE 802.3at Power over Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3ad: Port trunk with LACP
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T IEEE 802.3at Power over Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3ad: Port trunk with LACP IEEE 802.1d Spanning Tree Protocol
	IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000Base-T IEEE 802.3at Power over Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3ad: Port trunk with LACP IEEE 802.1d Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol

#### **Regulation Compliance:**

FCC Part 15 Class A, CE



