



## 2015 Product Catalog

# Industrial Ethernet & Networking Products

- ▶ **EtherXtra™** Ethernet Extension
- ▶ Media Converters
- ▶ Network Switches
- ▶ PoE Switches





OT Systems is a global leading company in security, surveillance and communication application. Founded in early 2000s by a team of internationally experienced security industry professionals, the team commits to offer high-quality and value-based transmission devices, world-class support, technical consulting and pre- and after-sales service.

With the team's extensive experience and expertise in the industry, OT Systems' comprehensive range of products are specially designed for security, surveillance and industrial automation applications. No matter it is Network Switches, POE, POC, Media Converters, Ethernet Extensions, HD-SDI, Audio, Video and Data Transmission products, the company's in-house research and development team focuses on innovative and reliable products designed to meet the changing demands of the market.

## Industrial Ethernet & Networking Products

Whether you are starting up a new network or migrating from older analog or serial technologies to IP, OT Systems have Ethernet transmission products that fit your applications.

Our ET-Series / EC-Series Ethernet and Networking products are right fit solutions for expanding and optimizing network performance in various media, while offering the best price-to-performance ratio and suit various types of Ethernet applications requiring industrial grade products.

- ▶ ***EtherXtra™*** Ethernet Extension
- ▶ **Media Converters**
- ▶ **Network Switches**
- ▶ **PoE Switches**

## **EtherXtra™ Ethernet Extension**

### **Ethernet over Coax**

#### **EoC with Power**

4	ET1100CP	Industrial Microtype 10/100Base-TX Ethernet Over Coax Converters with PoE & PoC
6	ET1100CPp	Industrial 10/100Base-TX Ethernet Over Coax Converter with PoE+ & PoC
8	ET1200CPp-RS4	Receiver of 4-port Coax to 1-port 10/100/1000Base-TX Ethernet Switch with PoC
10	ET4200CPp-RS8	Receiver of 8-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC
12	ET4200CPp-RS16	Receiver of 16-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC

#### **EoC**

14	ET1100C2	Industrial 10/100Base-TX Ethernet plus CVBS Over Coax Converters
16	ET1100C	Industrial Microtype 10/100Base-TX Ethernet Over Coax Converters

### **Ethernet over UTP**

#### **EoUTP with Power**

18	ET1100UPp	Industrial 10/100Base-TX Ethernet over UTP Extender with PoE+ & PoW
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#### **EoUTP**

20	ET1100U	Industrial 10/100Base-TX Ethernet over UTP Extender
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## **Media Converters**

### **Fast Ethernet Media Converters**

22	ET1111	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter
24	ET1111H	Hardened Microtype 100Base-TX to 100Base-FX SFP Ethernet Media Converter
26	EC1111	Econ-line 10/100Base-TX to 100Base-FX Ethernet Media Converter

### **Gigabit Media Converters**

28	ET1212H	Hardened Microtype 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter
30	EC1212	Econ-line 10/100/1000Base-TX to 1000Base-X Ethernet Media Converter

### **PoE Media Converters**

32	ET1111P	Industrial 10/100Base-TX to 100Base-FX Ethernet Media Converter with PoE
34	ET1111PpH	Hardened 100Base-TX to 100Base-FX SFP Ethernet Media Converter with PoE+
36	ET1212PpH	Hardened 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter with PoE+

### **Multi-port Media Converters**

38	ET8181	Industrial Rack-mount 8/16-port 10/100Base-TX to 8/16-port 100Base-FX SFP Ethernet
	ET161161	Media Converter

## **Network Switches**

### **Unmanaged Switches**

40	ET2111	Industrial Unmanaged 2-port 10/100Base-TX + 1-port 100Base-FX Ethernet Switch
42	ET2281H	Hardened Unmanaged 8-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch
44	ET22161	Unmanaged 16-port 100Base-FX SFP + 2-port 10/100/1000Base-T Optical Ethernet Switch
46	ET22241	Unmanaged 24-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch
48	EC8200	Econ-line Unmanaged 8-port 10/100/1000Base-T Ethernet Switch

### Managed Switches

50	ET8242M	Industrial Managed 8-port 10/100/1000Base-T/SFP Combo + 4-port 1000Base-FX SFP Ethernet Switch
52	ET16122M	Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch
54	ET24122M	Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch

## PoE Switches

### Unmanaged Network Switches

56	ET4111Pp	Industrial Unmanaged 4-port 10/100Base-TX + 1-port 100Base-FX SFP Ethernet Switch with PoE+
58	ET8122PpH	Hardened Unmanaged 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
60	ET16122Pp	Unmanaged 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
62	ET24122Pp	Unmanaged 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
64	EC9100P	Econ-line Unmanaged 8-port 10/100Base-TX (PoE) + 1-port 1000Base-T Ethernet Switch
66	EC5100P	Econ-line Unmanaged 4-port 10/100Base-TX (PoE) + 1-port 100Base-TX Ethernet Switch

### IP CCTV Self-Configured Switch

68	ET4222PpH	Hardened IP CCTV Self-Configured 4-port 10/100/1000Base-T + 2-port 1000Base-FX SFP Ethernet Switch with PoE+
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### Managed Network Switches

70	ET8122MPp	Industrial Managed 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
72	ET16122MPp	Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
74	ET24122MPp	Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+

## Accessories

### PoE Injector & Splitter

76	ET-INJ30	Hardened Gigabit 1-port Ethernet Input + 1-port PoE+ Output Injector
78	ET-SPT12V	Hardened Gigabit 1-port PoE+ In + 1-port Ethernet Data Out PoE Splitter

### Racks & Chassis

80	MR-C10	19" Rack for Micro-type Products
81	ET-C12	12-slot 19" Rack Mount Chassis for ET Series
82	EC-C14	19" Rack Mount Chassis for EC1111 and EC1212 series units, 2U, 14 empty slots, with PSU, 110-220VAC input

### SFP Modules

83	SFP Modules	
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# ET1100CP Series

Industrial Microtype 10/100Base-TX Ethernet Over Coax Converters with PoE & PoC

Ethernet Extension



## Features

### General

- ▶ Ethernet Extension: Security Link over Coax
- ▶ Support PoE (15.4W) and Power over Coax
- ▶ Constant Data Rate: 36Mbps/21Mbps(Downlink), 11Mbps/3Mbps(Uplink)
- ▶ Maximum distance: 500m over Coax (RG-59/U)
- ▶ Dip Switch for selecting distance 500m/300m
- ▶ Support Auto MDI/MDI-X function
- ▶ Microtype fits within most camera housing
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature
- ▶ Accept 48VDC external power input or PoE power input from RJ45 port
- ▶ Built-in Surge Protection

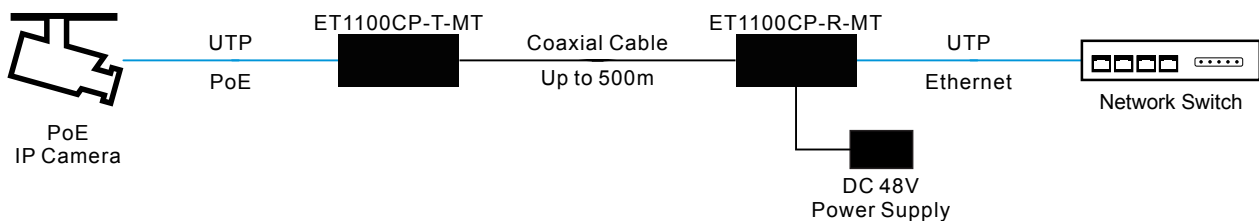
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET1100CP-T-MT	Transmitter of 10/100Base-TX Ethernet Over Coaxial with PoE & PoC
ET1100CP-R-MT	Receiver of 10/100Base-TX Ethernet Over Coaxial with PoE & PoC
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af Power over Ethernet
Cabling:	10Base-T: Cat3,4,5 or above 100Base-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45

### Coaxial

Cabling:	Coaxial cable (75ohm)	
Connector:	1 BNC (female)	
Distance:	Up to 300/500m on RG-59/U (Switch selectable)	
Data Rate:	<300m	<500m
Downlink (TX to RX)	36Mbps (Constant)	21Mbps (Constant)
Uplink (RX to TX)	11Mbps (Constant)	3Mbps (Constant)
Technology:	SLOC (Security Link over Coax)	

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 80% non-condensing

### Electrical and Mechanical

Input Power:	48-57VDC (2 pin connector) or PoE
Power Consumption:	3W (TX/RX) w/o PoE 24W (TX/RX) when PoC in use
LED Indicators:	
Power:	Power Status
CoaxLink:	Coax Connected
Act:	Data is being transferred in Coax
PoC:	Power over Coax in use
PoE:	
Standard:	IEEE 802.3af
Port:	RJ45 (PD at Rx, PSE at Tx)
Mode:	Alternative B mode Positive (VCC+): RJ45 Pin 4, 5 Negative (VCC-): RJ45 Pin 7, 8
Max. Power Per Port:	12.95W(input) at Rx (Powered Device) 15.4W(output) at Tx (Power Sourcing Equipment)
Dimensions (WxDxH):	33 x 117 x 24.5 mm
Weight:	300g
Casing:	Aluminum case

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022 Class A
EN61000-4-5 (Surge Standards)
RJ45: 1kV
Coax: 2kV
Power: 500V



OT Systems Ltd., Nov 2014

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# ET1100Cp Series

Industrial 10/100Base-TX Ethernet Over Coax Converter with PoE+ & PoC

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ PoE+ (30W) and Power over Coaxial
- ▶ 802.3af/802.3at Compliant
- ▶ Data Rate up to: 90Mbps (Downlink), 90Mbps (Uplink)
- ▶ Max. Distance: 1Km over Coax (RG-59/U)
- ▶ Compatible with 4-port standalone Receiver & Rack Mount 8/16-port Receiver
- ▶ Accept 48VDC external power input or PoE power input from RJ45 port

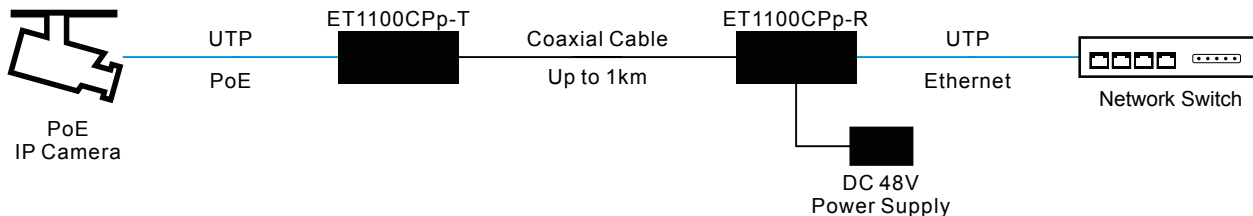
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET1100Cp-T	Transmitter of 10/100Base-TX Ethernet Over Coaxial with PoE+ & PoC
ET1100Cp-R	Receiver of 10/100Base-TX Ethernet Over Coaxial with PoE+ & PoC
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet
Cabling:	Cat5 or above
Maximum Distance:	100m
Connector	1xRJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	1 BNC (female)
Distance:	Up to 1Km on RG-59/U
Data Rate:	
Downlink:	90Mbps (max.)
Uplink:	90Mbps (max.)
Technology:	Power Line Communication(PLC)

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	48V~57VDC (Terminal Block) or IEEE802.3at PD
Power Consumption:	8W Max. (PoC not in use) 60W Max. (POC in use)
Protection:	
Reverse Polarity:	Present
PoE:	
Standard:	IEEE802.3at
Mode:	B
Port:	RJ45
Max. Power per port:	25.5W max. at RX (Powered Device) 30W max. at TX (Power Sourcing Equipment)
LED Indicators:	
Power:	Power Status
Ethernet:	SPD, LINK/ACT, PoE(Transmitter)
Coax Data:	LINK(Transmitter) / READY(Receiver) PoC(Receiver)
Dimensions (WxDxH):	114x82x31 mm
Weight:	250g
Casing:	Aluminum case
Mounting Option:	Wall Mounting

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022 Class A
EN61000-4-5 (Surge Standards)
RJ45: 1kV
Coax: 2kV
Power: 500V



OT Systems Ltd., Nov 2014

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# ET1200CPp-RS4 Series

Receiver of 4-port Coax to 1-port 10/100/1000Base-TX Ethernet Switch with PoC

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ Connecting up to 4 x ET1100CPp-T and IP Cameras
- ▶ 1000Mbps Full-duplex communication
- ▶ Power over Coaxial
- ▶ Data Rate per port up to: 40Mbps (Downlink), 10Mbps (Uplink)
- ▶ Max. Distance: 800m over Coax (RG59/U)
- ▶ Auto MDI/MDI-X for reliable detection and correction for straight-through and crossover cables
- ▶ External 48VDC power input
- ▶ Wall mount installation

### Warranty

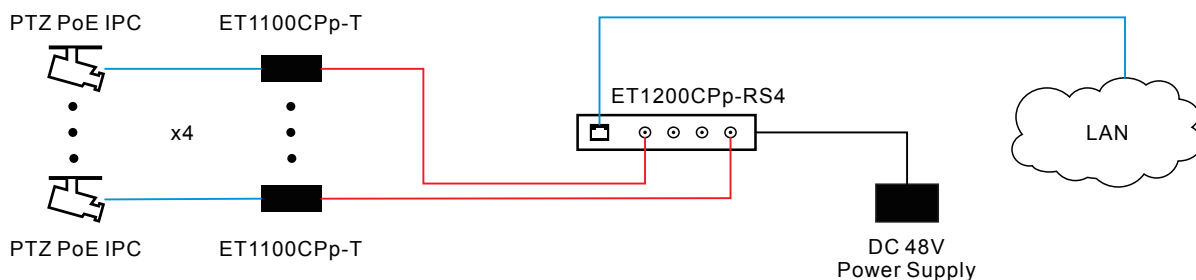
- ▶ 5-Year Warranty



## Ordering Information

Model	Description
ET1200CPp-RS4	Receiver of 4-port Coax to 1-port 10/100/1000Mbps Ethernet with PoC
Power Options	<ul style="list-style-type: none"> <li>■ GS120A48 120W/2.5A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ GS220A48 220W/4.6A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000BASE-T
Cabling:	Cat5 or above
Maximum Distance:	100m
Connector	1xRJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	4 BNC (female)
Distance:	800m
Data Rate per port:	40Mbps Max. (Downlink), 10Mbps Max. (Uplink)
Technology:	Power Line Communication (PLC)

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 90% non-condensing

### Electrical and Mechanical

Input Power:	48~57VDC (Terminal Block)
Power Consumption:	10W Max. w/o PoC 250W Max. w/ PoC
Protection:	
Reverse Polarity:	Present
Overload Protection:	Present
Dimensions (WxDxH):	156 x 120 x 31 mm
Weight:	500g
Casing:	Aluminum case
Mounting Option:	Wall Mounting

### Regulatory Approvals

ISO9001
CE EN55022 Class A, FCC part 15 Class A
Surge Protection:
RJ45: 1kV
Coax: 2kV
Power: 500V



OT Systems Ltd., Nov 2014

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# ET4200Cp-RS8 Series

Receiver of 8-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ Connecting up to 8 x ET1100Cp-T and IP Cameras
- ▶ With full switching capability
- ▶ 1000Mbps Full-duplex communication
- ▶ Power over Coaxial(Max. 400w total output)
- ▶ Data Rate per port up to:  
40Mbps (Downlink), 10Mbps (Uplink)
- ▶ Max. Distance: 800m over Coax (RG59/U)
- ▶ Auto MDI/MDI-X
- ▶ AC power input
- ▶ 19" 1U Rack-mount

### Warranty

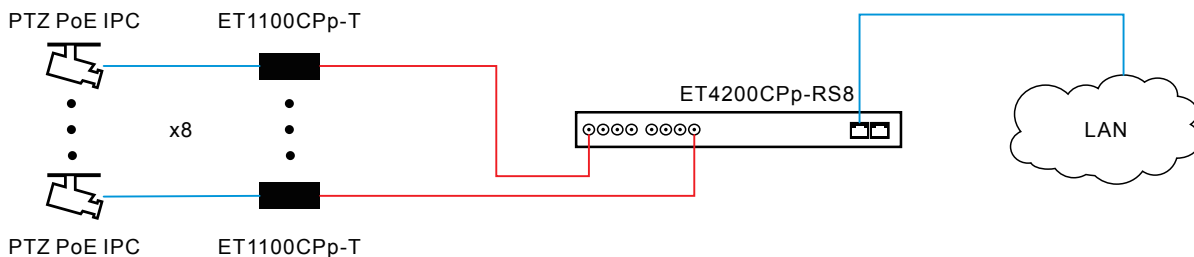
- ▶ 5-Year Warranty



## Ordering Information

Model	Description
ET4200Cp-RS8	Receiver of 8-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC
Mounting Options	■ 19" 1U Rack Mount.
Power Options	■ 100~240VAC input.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000BASE-T
Cabling:	Cat5 or above
Maximum Distance:	100m
Connector:	4xRJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	8 BNC (female)
Distance:	800m
Data Rate per port:	40Mbps Max.(Downlink), 10Mbps Max.(Uplink)
Technology:	Power Line Communication(PLC)

### Environmental

Operating Temperature:	0°C to 50°C (14°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 90% non-condensing

### Electrical and Mechanical

Input Power:	100-240VAC Input
Power Consumption:	16W Max. without PoC 500W Max. with PoC
Dimensions (WxDxH):	483 x 300 x 44mm (1RU)
Weight:	4Kg
Casing:	Aluminum case
Mounting Option:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022 Class A, FCC part 15 Class A
Surge Protection:
RJ45: 1kV
Coax: 2kV
Power: 500V



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# ET4200CPp-RS16 Series

Receiver of 16-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC

Ethernet Extension



## Features

### General

- ▶ Connecting up to 16 x ET1100CPp-T and IP Cameras
- ▶ With full switching capability
- ▶ 1000Mbps Full-duplex communication
- ▶ Power over Coaxial(Max. 800w total output)
- ▶ Data Rate per port up to:  
40Mbps (Downlink), 10Mbps (Uplink)
- ▶ Max. Distance: 800m over Coax (RG59/U)
- ▶ Auto MDI/MDI-X
- ▶ AC power input
- ▶ 19" 1U Rack-mount

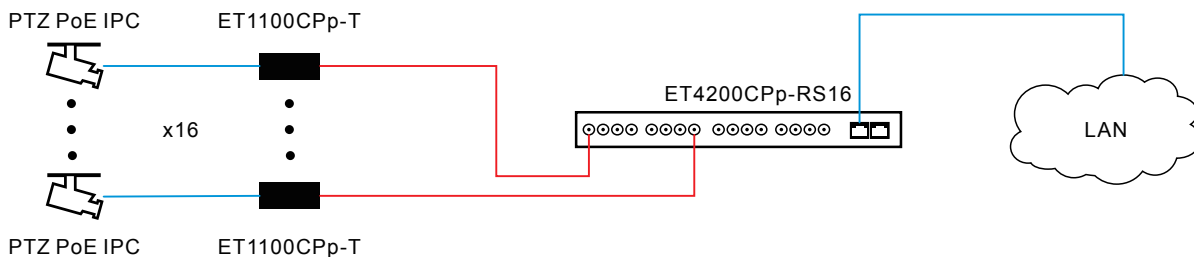
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
<b>ET4200CPp-RS16</b>	Receiver of 16-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with PoC
<b>ET4200CPp-RS16P</b>	Receiver of 16-port Coax to 4-port 10/100/1000Base-TX Ethernet Switch with High Power PoC
Mounting Options	■ 19" 1U Rack Mount.
Power Options	■ 100-240VAC input.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000BASE-T
Cabling:	Cat5 or above
Maximum Distance:	100m
Connector:	4xRJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	16 BNC (female)
Distance:	800m
Data Rate per port:	40Mbps Max. (Downlink), 10Mbps Max. (Uplink)
Technology:	Power Line Communication (PLC)

### Environmental

Operating Temperature:	0°C to 50°C (14°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 90% non-condensing

### Electrical and Mechanical

Input Power:	100-240VAC input
Power Consumption:	32W Max. without PoC
ET4200CPp-RS16:	500W Max. with PoC
ET4200CPp-RS16P:	1000W Max. with PoC
Protection:	
Overload Protection:	Present
Dimensions (WxDxH):	483x300x44mm (1RU)
Weight:	ET4200CPp-RS16: 4Kg ET4200CPp-RS16P: 4.5Kg
Casing:	Aluminum case
Mounting Option:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022 Class A, FCC part 15 Class A
Surge Protection:
RJ45: 1kV
Coax: 2kV
Power: 500V



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# ET1100C2 Series

Industrial 10/100Base-TX Ethernet plus CVBS Over Coax Converters

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ Ethernet Extension : Security Link over Coax
- ▶ Simultaneous transmission of IP and CVBS over single coaxial cable
- ▶ Constant Data Rate: 36Mbps(Downlink) / 11Mbps(Uplink)
- ▶ Maximum distance: 300m over Coax(RG-59/U)
- ▶ Support Auto MDI/MDI-X
- ▶ -10°C to 60°C Operating Temperature

### Warranty

- ▶ 5-Year Warranty

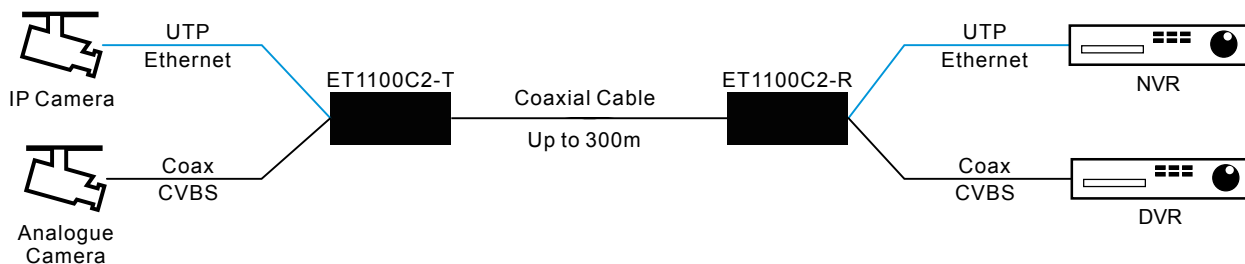
## Ordering Information

Model	Description
ET1100C2-T	Transmitter of 10/100Base-TX Ethernet plus CVBS Over Coaxial
ET1100C2-R	Receiver of 10/100Base-TX Ethernet plus CVBS Over Coaxial

Power Options

- ET-PA/12V 1.25A 12VDC Power Adaptor. Open wire for Terminal Block.
- Power Adaptor is included for all sales.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3x Flow Control
Cabling:	
10Base-T	Cat 3, 4, 5 or above
100Base-TX	Cat 5 or above
Maximum Distance:	100m
Connector	1xRJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	1 BNC (female)
Transmission Distance:	Up to 300m on RG-59/U
Data Rate:	
Downlink:	36Mbps@300m (Constant)
Uplink:	11Mbps@300m (Constant)
Technology:	SLOC (Security Link over Coax)

### Video

No. of Channel:	1
Colour Systems:	NTSC, PAL
In/Output Impedance:	75Ω
In/Output Connector:	1 BNC (female)
In/Output:	1Vp-p

### Electrical and Mechanical

Input Power:	12VDC @ 200mA Max
Power Consumption:	2.4W Max
Protection:	
Reverse Polarity:	Present
Overload:	Present
LED Indicators:	
Power:	Power Status
Ethernet:	Link/Activity, Speed
Video:	Video IN (Tx) Video OUT (Rx)
Coax:	Link, Activity
Dimensions (WxDxH):	70x97x23.6 mm
Weight:	200g
Casing:	Aluminum case
Mounting Option:	Wall Mounting

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 90% non-condensing

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022 Class A
RoHS
EN61000-4-5 (Surge Standards)
RJ45: 1kV
Coax: 2kV
Power: 500V



OT Systems Ltd., Nov 2014

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# ET1100C Series

Industrial Microtype 10/100Base-TX Ethernet Over Coax Converters

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ Ethernet Extension: Security Link over Coax
- ▶ Constant Data Rate: 20Mbps(Downlink) / 3Mbps(Uplink)
- ▶ Maximum distance: 300m over Coax(RG-59/U)
- ▶ Microtype fits within most camera housings
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature
- ▶ Built-in Surge Protection

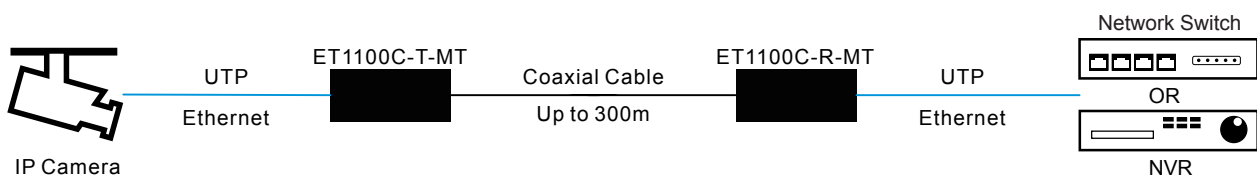
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET1100C-T-MT	Transmitter of 10/100Base-TX Ethernet Over Coaxial
ET1100C-R-MT	Receiver of 10/100Base-TX Ethernet Over Coaxial
Mounting Options	<ul style="list-style-type: none"> <li>■ Built-in Wall Mount Bracket.</li> <li>■ Rack-mountable on 1U rack MR-C10 (Purchase Separately).</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ ET-PA/12V 1.25A 12VDC Power Adaptor. Open Wire for Terminal Block.</li> <li>■ Power Adaptor is included for all sales.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX
Cabling:	10BASE-T: Cat3,4,5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45

### Coaxial

Cabling:	Coaxial Cable (75 ohm)
Connector:	1 BNC (female)
Distance:	Up to 300m on RG-59/U
Data Rate:	
Downlink (TX to RX)	20Mbps (Constant)
Uplink (RX to TX)	3Mbps (Constant)

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 90% non-condensing

### Electrical and Mechanical

Input Power:	12VDC Terminal Block
Power Consumption:	2.4W Max. 0.2A@12VDC
LED Indicators:	
Power:	PowerStatus
Coax:	CoaxLink
Data:	Activity
Dimensions (WxDxH):	36.2x24.5x101 mm
Weight:	0.1kg (0.25kg with PA)
Casing:	Aluminum case
Mounting Options:	Wall Mount / MR-C10(1U Rack)

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022 Class A



OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET1100UPp Series

Industrial 10/100Base-TX Ethernet over UTP Extender with PoE+ & PoW

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ PoE+ (30W) and Power over Wire
- ▶ 802.af/802.3at Compliant
- ▶ Data Rate up to: 90Mbps(Downlink), 90Mbps (Uplink)
- ▶ Max. Distance: 600m over Cat5e cable.
- ▶ Support Wall Mount installation
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

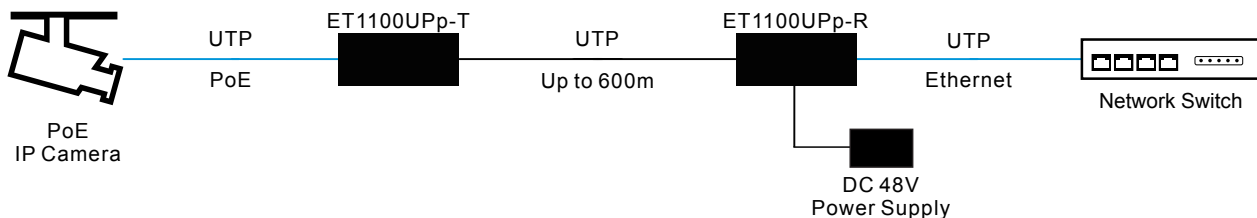


## Ordering Information

Model	Description
ET1100UPp-T	Transmitter of 10/100Base-TX Ethernet over UTP with PoE+ & PoW
ET1100UPp-R	Receiver of 10/100Base-TX Ethernet over UTP with PoE+ & PoW
Mounting Options	<ul style="list-style-type: none"> <li>■ Default Wall Mount built-in.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

NOTES: (1) Transmission distance may varies with quality and material of Cat5/UTP Cable.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet
Ethernet:	
Connector:	1xRJ45
Cabling:	Cat5 or above
Maximum Distance:	100m
UTP:	
Cabling:	Cat5 or above
Connector:	1xRJ45
Distance:	Up to 600m on Cat5e Cable
Data Rate:	
Downlink:	90Mbps(Max.)
Uplink:	90Mbps(Max.)
Technology:	Power Line Communication(PLC)

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007
Surge Protection
RJ45: 1KV
Power: 0.5KV
UTP: 2kV

### Electrical and Mechanical

Input Power:	48VDC (Terminal block)
Power Consumption:	8W Max. (PoW not in use) 60W Max. (PoW in use)
Protection:	
Reverse Polarity:	Present
Power Input Overload:	Automatic Resettable
LED Indicators:	
Power:	Power Status
Ethernet:	SPD, LINK/ACT, PoE(Transmitter)
UTP Data:	LINK(Transmitter) / READY(Receiver) PoW(Receiver) ACT
PoE:	
Standard:	IEEE802.3at
Port:	RJ45
Max. Power:	30W Max. (Alternative B mode)
Dimensions (WxDxH):	114x72x31 mm
Weight:	0.25Kg
Casing:	Mini Aluminum case
Mounting Options:	Wall Mount



OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET1100U Series

Industrial 10/100Base-TX Ethernet over UTP Extender

Ethernet Extension

**EtherXtra™**



## Features

### General

- ▶ Data Rate up to: 90Mbps(Downlink), 90Mbps (Uplink)
- ▶ Max. Distance: 600m over Cat5e cable.
- ▶ Support Auto MDI/MDI-X
- ▶ Support Wall Mount installation
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

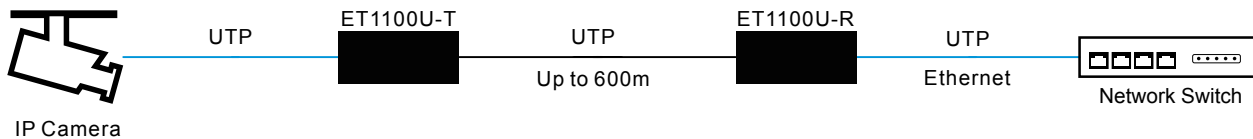
Model	Description
ET1100U-T	Transmitter of 10/100Base-TX Ethernet over UTP
ET1100U-R	Receiver of 10/100Base-TX Ethernet over UTP

Mounting Options	■ Default Wall Mount built-in.
Power Options	■ ET-PA/12V 1.25A 12VDC Power Adaptor. Open wire for Terminal Block. ■ Power Adaptor is included for all sales.

NOTES: (1) Transmission distance may varies with quality and material of Cat5/UTP Cable.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX
Ethernet:	
Connector:	1xRJ45
Cabling:	Cat5 or above
Maximum Distance:	100m
UTP:	
Cabling:	Cat5 or above
Connector:	1xRJ45
Distance:	Up to 600m on Cat5e Cable
Data Rate:	
Downlink:	90Mbps(Max.)
Uplink:	90Mbps(Max.)
Technology:	Power Line Communication(PLC)

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	12VDC (Terminal Block)
Power Consumption:	8W Max.
Protection:	
Reverse Polarity:	Present
Power Input Overload:	Present
LED Indicators:	
Power:	PowerStatus
Ethernet:	LINK/ACT
UTP Data:	SPD(Transmitter) / READY(Receiver) ACT
Dimensions (WxDxH):	114x72x31 mm
Weight:	0.2Kg
Casing:	Mini Aluminum case
Mounting Options:	Wall Mount

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007
Surge Protection
RJ45: 1kV
Power: 0.5kV
UTP: 2kV



OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET1111 Series

Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter



## Features

### General

- ▶ Converts 10/100BASE-TX to 100BASE-FX
- ▶ Full/Half duplex, Auto-Negotiation
- ▶ Singlemode or Multimode fiber operation
- ▶ Single or Dual-core fiber with SC or ST connectors
- ▶ MDI/MDI-X Auto-Crossover supported
- ▶ Sleek Microtype design, fits within most camera housing
- ▶ Plug-and-Play
- ▶ 12VDC or 24VAC Terminal Block Power inputs
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty



Media Converters

## Ordering Information

Model	Description
-------	-------------

**ET1111-X-MT** Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter

(X) =	Fiber Options	Wavelengths	Link Budget	Max. Distance
A	Multimode/2-fiber/SC	1310nm	14dB	2km
B	Singlemode/2-fiber/SC	1310nm	21dB	20km
C	Multimode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	21dB	2km
D	Multimode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	21dB	2km
E	Singlemode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	19dB	20km
F	Singlemode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	19dB	20km
G	Multimode/2-fiber/ST	1310nm	14dB	2km
H	Singlemode/2-fiber/ST	1310nm	21dB	20km
I	Multimode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	21dB	2km
J	Multimode/WDM 1-fiber/ST	TX:1550nm/RX:1310nm	21dB	2km
K	Singlemode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	19dB	20km
L	Singlemode/WDM 1-fiber/ST	TX:1550nm/RX:1310nm	19dB	20km

#### Mounting Options

- Built-in Wall Mount Bracket.
- Rack-mountable on 1U rack MR-C10 (Purchase Separately).

#### Power Options

- ET-PA/12V 1.25A 12VDC Power Adaptor. Open wire for Terminal Block.
- Power Adaptor is included for all sales.

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.

(2) Operating distance of multimode is limited by the characteristics of the fiber bandwidth.

(3) Please feel free to consult factory for any special requirement and customization

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3x Flow Control
Processing Type:	Store and forward Half-duplex, Full-duplex
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps)
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45
Address Table Size:	2048 MAC Addresses

### Optical

Cabling:	62.5/125µm (Multimode) 9/125µm (Singlemode)
Maximum Distance:	2km (Multimode) 20km (Singlemode)
Wavelength:	1310 nm 1310/1550nm
Connector:	SC/ST

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% non-condensing
MTBF:	> 100,000 hours

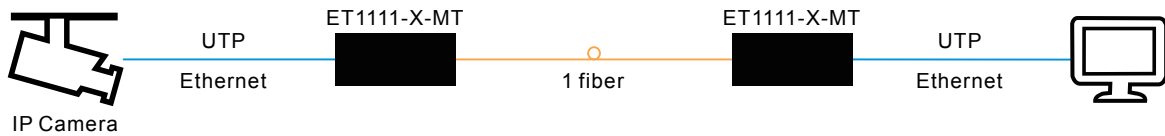
### Electrical and Mechanical

Input Power:	12VDC or 24VAC (Terminal Block)
Power Consumption:	2.4W Max. 0.2A@12VDC
LED Indicators:	
Power:	PowerStatus
10/100TX (Per Port):	Link/Activity, Speed
100FX (Per Port):	Link/Activity
Dimensions (WxDxH):	36.2x98x24.5 mm
Weight:	0.12Kg (0.22Kg with PA)
Casing:	Aluminum case
Mounting Options:	Wall-mount / MR-C10 1U Rack

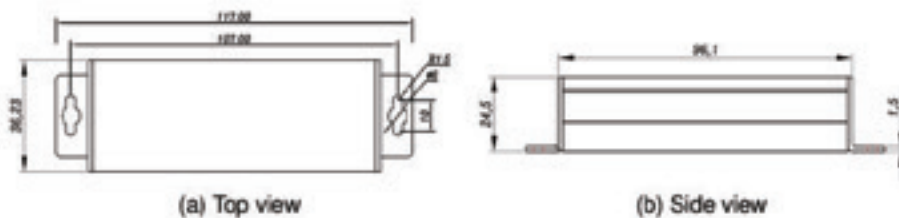
### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007 Class A
EN 61000-3-2: 2006
EN 61000-3-3: 2008
EN 55024: 1998 + A1: 2001 + A2: 2003

## Typical Application



Unit: mm



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# ET111H Series

Hardened Microtype 100Base-TX to 100Base-FX SFP Ethernet Media Converter



## Features

### General

- ▶ Converts 100BASE-TX to 100BASE SFP
- ▶ Supports Full/Half duplex
- ▶ Supports external SFP
- ▶ Supports Auto MDI/MDI-X
- ▶ Sleek Microtype design, fits within most camera housing
- ▶ Extensive LED indicators for network diagnostics
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty



Media Converters

## Ordering Information

Model	Description
ET1111H-S-MT	Hardened Microtype 100Base-TX to 100Base-FX SFP Ethernet Media Converter
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Options page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ Built-in Wall Mount Bracket.</li><li>■ Rack-mountable on 1U rack MR-C10 (Purchase Separately).</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ ET-PA/12V 1.25A 12VDC Power Adaptor. Open wire for Terminal Block.</li><li>■ Power Adaptor is included for all sales.</li></ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3u 100BASE-TX/FX IEEE802.3x Flow Control
Processing Type:	Forward
Forward Filter Rate:	148,800pps (100Mbps)
Cabling:	100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45
Optical Port:	1 x SFP 100BASE-FX

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	12VDC (Terminal Block)
Power Consumption:	2.4W Max. 0.2A@12VDC
LED Indicators:	
Power:	PowerStatus
100TX:	Link/Activity, Speed
SFP:	Link/Activity
Dimensions (WxDxH):	36.2x117x24.5 mm
Weight:	0.15Kg
Casing:	Metal Case
Mounting Options:	Wall-mount / MR-C10 1U Rack

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



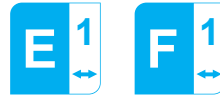
OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# EC1111 Series

Econ-line 10/100Base-TX to 100Base-FX Ethernet Media Converter



## Features

### General

- ▶ Convert 10/100BASE-TX to 100BASE-FX
- ▶ Full/Half duplex, Auto-Negotiation
- ▶ Single mode or Multi-mode fiber operation
- ▶ Single or Dual-core fiber with SC connectors
- ▶ MDI/MDI-X Auto Crossover supported
- ▶ Plug-and-Play
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 1-Year Warranty



Media Converters

## Ordering Information

Model	Description
EC1111-X	Econ-line 10/100Base-TX to 100Base-FX Ethernet Media Converter

(X) =	Fiber Options	Wavelengths	Link Budget	Max. Distance
A	Multimode/2-fiber/SC	1310nm	12dB	2km
B	Singlemode/2-fiber/SC	1310nm	19dB	20km
C	Multimode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	16dB	2km
D	Multimode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	16dB	2km
E	Singlemode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	25dB	20km
F	Singlemode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	25dB	20km

Mounting Options	<ul style="list-style-type: none"><li>■ Desktop bracket.</li><li>■ Rack-Mountable on 2U rack EC-C14 (Purchase Separately).</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ 1A/5VDC Power Adapter with DC Jack.</li><li>■ Power Adapter is included for all sales.</li></ul>

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusers, splices and the fibers within the network.

(2) Operating distance of multimode is limited by the characteristic of the fiber bandwidth.

(3) Please feel free to contact factory for any special requirement and customization.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3u 100BASE-FX
Processing Type:	Store-and-Forward Half-duplex, Full-duplex
Forward Filter Rate:	14,880pps (10Mbps) 148,810pps (100Mbps)
Cabling:	10BASE-T Cat5 or above 100BASE-TX Cat5 or above
Maximum Distance:	Cat5 Up to 100m
Connector:	1 xRJ45
Address Table Size:	1024MAC Addresses

### Optical

Cabling:	62.5/125µm (multimode) 9/125µm (Singlemode)
Maximum Distance:	2km (Multimode) 20km (Singlemode)
Wavelength:	1310nm 1310/1550nm
Connector:	SC

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-40°C to 80°C (-40°F to 176°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	5VDC (DC Socket)
Power Consumption:	2.5W Max, 0.5A@5VDC
LED Indicators:	
Power:	Power Status
10/100TX (Per Port):	Link/Activity, Speed, FDX
100FX (Per Port):	Link/Activity, SD
Dimensions (WxDxH):	71x105x27mm
Weight:	0.2Kg
Casing:	Metal Case
Mounting Options:	Desktop/EC-C14 2U Rack

### Regulatory Approvals

ISO9001  
FCC  
CE



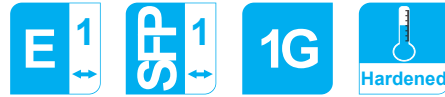
OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET1212H Series

Hardened Microtype 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter



## Features

### General

- ▶ Converts 1000BASE-T to 1000BASE SFP
- ▶ Supports Full/Half duplex
- ▶ Supports external 1000BASE SFP
- ▶ Supports Auto MDI/MDI-X
- ▶ Sleek Microtype design, fits within most camera housing
- ▶ Extensive LED indicators for network diagnostics
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

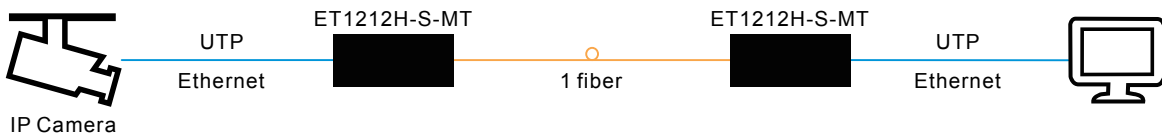


Media Converters

## Ordering Information

Model	Description
ET1212H-S-MT	Hardened Microtype 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Options page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ Built-in Wall Mount Bracket.</li><li>■ Rack-mountable on 1U rack MR-C10 (Purchase Separately).</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ ET-PA/12V 1.25A 12VDC Power Adaptor. Open wire for Terminal Block.</li><li>■ Power Adaptor is included for all sales.</li></ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3ab 1000BASE-T IEEE802.3az Gigabit Fiber IEEE802.3X Flow Control
Processing Type:	Forward
Forward Filter Rate:	1,488,000pps (1000Mbps)
Cabling:	1000BASE-T: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45
Optical Port:	1 x SFP 1000BASE-X

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	12VDC (Terminal Block)
Power Consumption:	2.4W Max. 0.2A@12VDC
LED Indicators:	
Power:	PowerStatus
1000TX:	Link/Activity, Speed
SFP:	Link/Activity
Dimensions (WxDxH):	36.2x117x24.5 mm
Weight:	0.15Kg
Casing:	Metal Case
Mounting Options:	Wall-mount / MR-C10 1U Rack

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# EC1212 Series

Econ-line 10/100/1000Base-TX to 1000Base-X Ethernet Media Converter



## Features

### General

- ▶ Convert 10/100/1000BASE-TX to 1000BASE-X
- ▶ Full/Half duplex, Auto-Negotiation
- ▶ Single mode or Multi-mode fiber operation
- ▶ Single or Dual-core fiber with SC connectors
- ▶ MDI/MDI-X Auto Crossover supported
- ▶ Plug-and-Play
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 1-Year Warranty



Media Converters

## Ordering Information

Model	Description			
EC1212-X	Econ-line 10/100/1000Base-TX to 1000Base-X Ethernet Media Converter			
(X) =	Fiber Options	Wavelengths	Link Budget	Max. Distance
A	Multimode/2-fiber/SC	1310nm	12dB	2km
B	Singlemode/2-fiber/SC	1310nm	15dB	20km
C	Multimode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	8dB	2km
D	Multimode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	8dB	2km
E	Singlemode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	16dB	20km
F	Singlemode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	16dB	20km
Mounting Options	<ul style="list-style-type: none"> <li>■ Desktop bracket.</li> <li>■ Rack-Mountable on 2U rack EC-C14 (Purchase Separately).</li> </ul>			
Power Options	<ul style="list-style-type: none"> <li>■ 1A/5VDC Power Adapter with DC Jack.</li> <li>■ Power Adapter is included for all sales.</li> </ul>			

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusers, splices and the fibers within the network.

(2) Operating distance of multimode is limited by the characteristic of the fiber bandwidth.

(3) Please feel free to contact factory for any special requirement and customization.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-X IEEE802.3x Flow Control
Processing Type:	Store-and-Forward Half-duplex, Full-duplex
Forward Filter Rate:	14,880pps (10Mbps) 148,810pps (100Mbps) 1,488,000pps (1000Mbps)
Cabling:	10BASE-T Cat5 or above 100BASE-TX Cat5 or above 1000BASE-T Cat5 or above
Maximum Distance:	Cat5 Up to 100m
Connector:	1 x RJ45
Address Table Size:	1024 MAC Addresses

### Optical

Cabling:	62.5/125µm (multimode) 9/125µm (Singlemode)
Maximum Distance:	2km (Multimode) 20km (Singlemode)
Wavelength:	1310nm 1310/1550nm
Connector:	SC

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-40°C to 80°C (-40°F to 176°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	5VDC (DC Socket)
Power Consumption:	2.5W Max, 0.5A@5VDC
LED Indicators:	
Power:	Power Status
10/100/1000TX (Per Port):	Link/Activity, Speed(100M, 1000M), FDX
1000FX (Per Port):	Link/Activity
Dimensions (WxDxH):	71x105x27mm
Weight:	0.2Kg
Casing:	Metal Case
Mounting Options:	Desktop/EC-C14 2U Rack

### Regulatory Approvals

ISO9001
FCC
CE



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# ET1111P Series

Industrial 10/100Base-TX to 100Base-FX Ethernet Media Converter with PoE



## Features

### General

- ▶ Complies with 802.3af PoE/PSE standard (15.4W)
- ▶ 10/100Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Full wire-speed forwarding rate
- ▶ 128K bits buffer memory
- ▶ Aluminum case
- ▶ Support Wall-mount installation
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

Media Converters

## Ordering Information

Model	Description			
ET1111P-X	Industrial 10/100Base-TX to 100Base-FX Ethernet Media Converter with PoE			
(X) =	Fiber Options	Wavelengths	Link Budget	Max. Distance
A	Multimode/2-fiber/SC	1310nm	11dB	2km
B	Singlemode/2-fiber/SC	1310nm	17dB	20km
C	Multimode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	8dB	2km
E	Singlemode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	17dB	20km
G	Multimode/2-fiber/ST	1310nm	11dB	2km
H	Singlemode/2-fiber/ST	1310nm	17dB	20km
I	Multimode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	8dB	2km
K	Singlemode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	17dB	20km
Power Options		<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>		

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.  
 (2) Operating distance of multimode is limited by the characteristics of the fiber bandwidth.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3af Power over Ethernet
Packet Buffer Memory:	128K bits
Processing Type:	Store and forward
Forward Filter Rate:	14,880pps (10Mbps) 148,810pps (100Mbps)
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45

### Optical

Cabling:	62.5/125µm (Multimode) 9/125µm (Singlemode)
Maximum Distance:	2km (Multimode) 20km (Singlemode)
Wavelength:	1310 nm 1310/1550nm
Connector:	SC/ST

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-20°C to 70°C (-4°F to 158°F)
Relative Humidity:	5% to 95% non-condensing

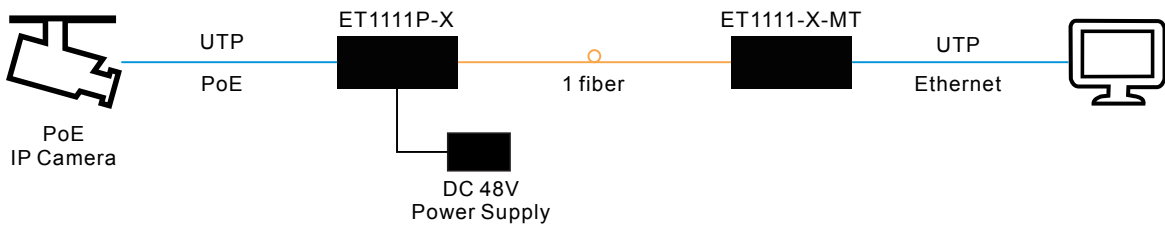
### Electrical and Mechanical

Input Power:	48VDC (2 pin terminal block)
Power Consumption:	19.2W, 0.4A@48VDC (PoE in use) 2.4W, Max. 0.05A@48VDC (PoE not in use)
Protection:	
Overload:	Present
Over Voltage:	Present
LED Indicators:	
Power:	Power Status
10/100TX (Per Port):	Link/Activity, Speed
100FX (Per Port):	Link/Activity
PoE:	PD connect/PD detection/ PD disconnect
PoE:	
Standard:	IEEE802.3af
Port:	RJ45
Max. Power:	15.4W Max (Alternative A mode)
Dimensions (WxDxH):	83x70x23.6 mm
Weight:	0.2Kg
Casing:	Aluminum case
Mounting Options:	Wall-mount

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007

## Typical Application



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET111PpH Series

Hardened 100Base-TX to 100Base-FX SFP Ethernet Media Converter with PoE+



## Features

### General

- ▶ Converts 100BASE-TX to 100BASE SFP
- ▶ Supports IEEE802.3at PoE+ (30W)
- ▶ Supports Full/Half duplex
- ▶ Supports external 100BASE SFP
- ▶ Supports Auto MDI/MDI-X
- ▶ Supports DIN-Rail & Wall-mount installation
- ▶ Extensive LED indicators for network diagnostics
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

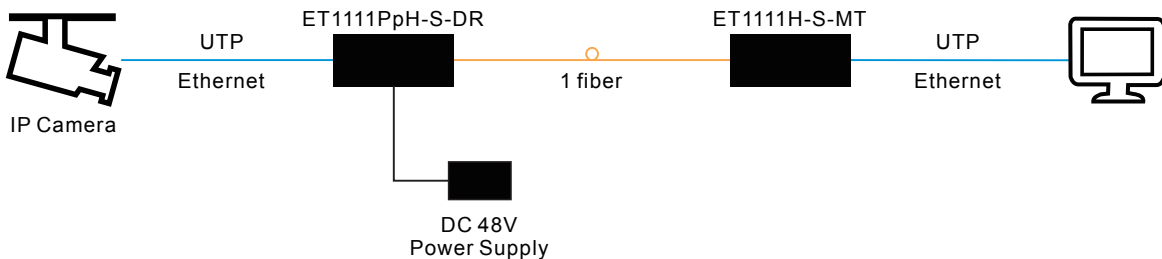
- ▶ 5-Year Warranty

Media Converters

## Ordering Information

Model	Description
ET111PpH-S-DR	Hardened 100Base-TX to 100Base-FX SFP Ethernet Media Converter with PoE+
SFP Options	<ul style="list-style-type: none"> <li>■ (S) = SFP option. Please select your SFP on our SFP Options Page.</li> <li>■ SFP module is to be purchased separately.</li> </ul>
Mounting Options	<ul style="list-style-type: none"> <li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3u 100BASE-TX/FX IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet IEEE802.3x Flow Control
Processing Type:	Forward
Forward Filter Rate:	148,800pps (100Mbps)
Cabling:	100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45
Optical Port:	1 x SFP 100BASE-FX

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing
MTBF:	> 100,000 hours

### Electrical and Mechanical

Input Power:	48VDC (Terminal Block)
Power Consumption:	36W Max. 0.75A@48VDC
PoE:	
Standard:	IEEE802.3at
Port:	RJ45
Max. Power:	30W Max per port (Alternative B Mode)
LED Indicators:	
Power:	Power Status
100TX:	Link/Activity, Speed
SFP:	Link/Activity
Dimensions (WxDxH):	96x80x31 mm
Weight:	0.25Kg
Casing:	Metal Case
Mounting Options:	DIN-Rail / Wall-mount

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007 Class A
Surge Protection
RJ45: 1kV
Power: 500V
ESD: 4kV / 8kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET1212PpH Series

Hardened 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter with PoE+



## Features

### General

- ▶ Converts 1000BASE-T to 1000BASE SFP
- ▶ Supports IEEE802.3at PoE+ (30W)
- ▶ Supports Full/Half duplex
- ▶ Supports external 1000BASE SFP
- ▶ Supports Auto MDI/MDI-X
- ▶ Supports DIN-Rail & Wall-mount installation
- ▶ Extensive LED indicators for network diagnostics
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

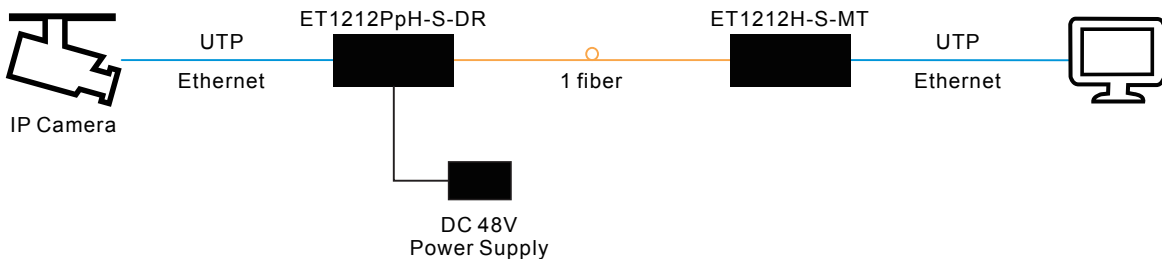


Media Converters

## Ordering Information

Model	Description
ET1212PpH-S-DR	Hardened 1000Base-TX to 1000Base-FX SFP Ethernet Media Converter with PoE+
SFP Options	<ul style="list-style-type: none"> <li>■ (S) = SFP option. Please select your SFP on our SFP Options Page.</li> <li>■ SFP module is to be purchased separately.</li> </ul>
Mounting Options	<ul style="list-style-type: none"> <li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3ab 1000BASE-T IEEE802.3az Gigabit Fiber IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet IEEE802.3x Flow Control
Processing Type:	Forward Half-duplex, Full-duplex
Forward Filter Rate:	1,488,000pps (1000Mbps)
Cabling:	1000BASE-T: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	1 x RJ45
Optical Port:	1 x SFP 1000BASE-X

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	48VDC (Terminal Block)
Power Consumption:	36W Max. 0.75A@48VDC
PoE:	
Standard:	IEEE802.3at
Port:	RJ45
Max. Power per Port:	30W Max per port (Alternative B Mode)
LED Indicators:	
Power:	Power Status
1000TX:	Link/Activity, Speed
SFP:	Link/Activity
Dimensions (WxDxH):	96x80x31 mm
Weight:	0.25Kg
Casing:	Metal Case
Mounting Options:	DIN-Rail / Wall-mount

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



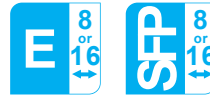
OT Systems Ltd., Nov 2014

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET8181/ET161161 Series

Industrial Rack-mount 8/16-port 10/100Base-TX to 8/16-port 100Base-FX SFP Ethernet Media Converter



## Features

### General

- ▶ 19" 1U Rack-mount
- ▶ Converts 10/100BASE-TX to 100BASE SFP
- ▶ Supports Full/Half duplex, Auto Negotiation
- ▶ Supports Auto MDI/MDI-X
- ▶ Supports external 100BASE SFP
- ▶ AC Power input
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET8181-S	Industrial Rack-mount 8-port 10/100Base-TX to 8-port 100Base-FX SFP Ethernet Media Converter
ET161161-S	Industrial Rack-mount 16-port 10/100Base-TX to 16-port 100Base-FX SFP Ethernet Media Converter
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Options Page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ 19" 1U Rack Mount.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ 100-240VAC input.</li></ul>

NOTES: (1) Please feel free to consult factory for any special requirement and customization

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX
Processing Type:	Converter mode
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps)
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Packet Buffer Memory:	128K bits
Max Packet Length:	1600 Bytes

### Interface

Connector:	
10/100TX:	8 <sup>#1</sup> /16 <sup>#2</sup> x RJ45
100FX:	8 <sup>#1</sup> /16 <sup>#2</sup> x SFP
LED Indicators:	
Power:	Power Status
10/100TX(Per Port):	Link/Activity, Speed
100FX(Per Port):	Link

### Electrical and Mechanical

Input Power:	100~240VAC, 50/60Hz
Power Consumption:	100mA <sup>#1</sup> / 200mA <sup>#2</sup> @220VAC
Dimensions (WxDxH):	433 x 250 x 44 mm
Weight:	1.5 <sup>#1</sup> /2 <sup>#2</sup> Kg
Casing:	Metal case
Mounting Options:	Rack Mount

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% (non-condensing)

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022 Class A
Surge Protection:
RJ45: 1kV
Power: 0.5kV

<sup>#1</sup> ET8181 Series

<sup>#2</sup> ET161161 Series



OT Systems Ltd., Nov 2014

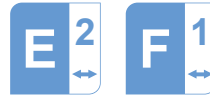
Due to continuous improvement, all product specifications are subject to change without further notice.





# ET2111 Series

Industrial Unmanaged 2-port 10/100Base-TX + 1-port 100Base-FX Ethernet Switch



## Features

### General

- ▶ Converts 10/100BASE-TX to 100BASE-FX
- ▶ Full/Half duplex, Auto-Negotiation
- ▶ Singlemode or Multimode fiber operation
- ▶ Single or Dual-core fiber with SC or ST connectors
- ▶ Store and forward switching mechanism
- ▶ MDI/MDI-X Auto-Crossover supported
- ▶ Plug-and-Play
- ▶ Wall-mount or operate in ET-C12 rack mount chassis
- ▶ -20°C to 60°C (-4°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
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**ET2111-X-YY** Industrial Unmanaged 2-port 10/100Base-TX + 1-port 100Base-FX Ethernet Switch

(X) =	Fiber Options	Wavelengths	Link Budget	Max. Distance
A	Multimode/2-fiber/SC	1310nm	14dB	2km
B	Singlemode/2-fiber/SC	1310nm	21dB	20km
C	Multimode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	21dB	2km
D	Multimode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	21dB	2km
E	Singlemode/WDM 1-fiber/SC	TX:1310nm/RX:1550nm	19dB	20km
F	Singlemode/WDM 1-fiber/SC	TX:1550nm/RX:1310nm	19dB	20km
G	Multimode/2-fiber/ST	1310nm	14dB	2km
H	Singlemode/2-fiber/ST	1310nm	21dB	20km
I	Multimode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	21dB	2km
J	Multimode/WDM 1-fiber/ST	TX:1550nm/RX:1310nm	21dB	2km
K	Singlemode/WDM 1-fiber/ST	TX:1310nm/RX:1550nm	19dB	20km
L	Singlemode/WDM 1-fiber/ST	TX:1550nm/RX:1310nm	19dB	20km

(YY) =	Installation
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**SA** Standalone Wall-Mount

**CM** Card Module

Power Options

- ET-PA/12V 1.25A 12VDC Power Adaptor. DC Jack.
- Power Adaptor is included for all sales.
- For CM Model, power from ET-C12 Chassis.

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.

(2) Operating distance of multimode is limited by the characteristics of the fiber bandwidth.

(3) Please feel free to consult factory for any special requirement and customization

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3x Flow Control
Processing Type:	Store and forward Half-duplex, Full-duplex
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps)
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	2x RJ45
Address Table Size:	2048 MAC Addresses

### Optical

Cabling:	62.5/125µm (Multimode) 9/125µm (Singlemode)
Maximum Distance:	2km (Multimode) 20km (Singlemode)
Wavelength:	1310 nm 1310/1550nm
Connector:	SC/ST

### Electrical and Mechanical

Input Power:	12VDC (DC Jack)
Power Consumption:	2.4W Max. 0.21A@12VDC
LED Indicators:	
Power:	PowerStatus
10/100TX (Per Port):	Link/Activity, Speed
100FX (Per Port):	Link/Activity
Dimensions (WxDxH):	
Standalone	122x30x103 mm
Card Module	130x31x111 mm
Weight:	
Standalone	0.33Kg (0.43Kg with PA)
Card Module	0.33Kg
Casing:	Aluminum case
Mounting Options:	Wall-mount/ET-C12 Rack Mount

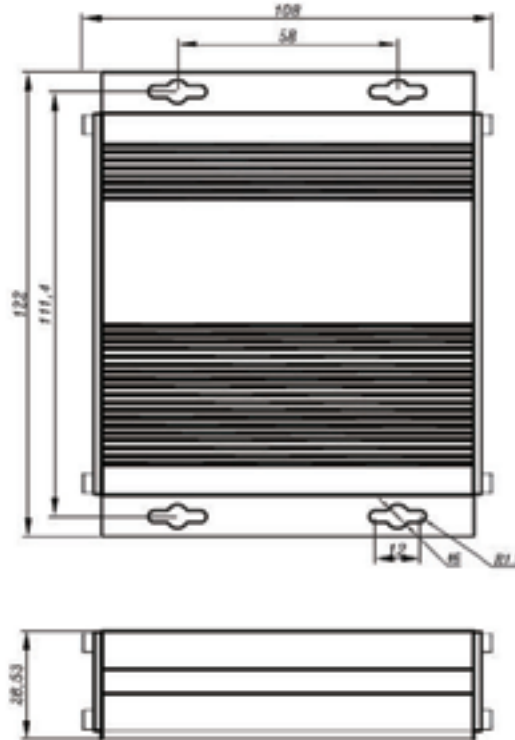
### Regulatory Approvals

ISO9001  
FCC Class A  
EN55022:2006 Class A  
EN 55024:1998 + A1:2001 + A2:2003

### Environmental

Operating Temperature: -20°C to 60°C (-4°F to 140°F)  
Storage Temperature: -40°C to 85°C (-40°F to 185°F)  
Relative Humidity: 0% to 95% non-condensing  
MTBF: > 100,000 hours

Unit: mm



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET2281H

Hardened Unmanaged 8-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch



## Features

### General

- ▶ 8 100BASE-FX SFP + 2 10/100/1000BASE-TX/SFP Combo
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports 8K MAC address
- ▶ 1M bits frame buffer memory
- ▶ Supports Relay output for Power and Port failure
- ▶ Supports DIN-Rail and Wall-mount installation
- ▶ Redundant Power Inputs
- ▶ Environmentally Hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
<b>ET2281H-S</b>	Hardened Unmanaged 8-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Option page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ DR-120-48 120W/2.5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li><li>■ DRP-240-48 240W/5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li><li>■ GS120A48 120W/2.5A 48VDC Power Supply. Open Wire for Terminal Block.</li><li>■ GS220A48 220W/4.6A 48VDC Power Supply. Open Wire for Terminal Block.</li><li>■ Power Supply is to be purchased separately.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3ab 1000BASE-T
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	1Mbit
Max. Packet Length:	1522 Bytes
Address Table Size:	8K MAC Addresses
Connector:	2xRJ45
Optical Port:	10xSFP

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	12~48VDC, Redundant Power (6-pin Terminal Block)
Power Consumption:	Max. 7W (System no-load) Max. 13W (System Full-load)
LED Indicators:	
Power:	Power Status
Ethernet (Per Port):	Link/Active, Speed
SFP (Per Port):	Link/Active
Dimensions (WxDxH):	59 x 120.5 x 165 mm
Weight:	0.9Kg
Casing:	Metal Case
Mounting Options:	DIN-Rail, Wall-mount bracket included

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET22161

Unmanaged 16-port 100Base-FX SFP + 2-port 10/100/1000Base-T Optical Ethernet Switch



## Features

### General

- ▶ Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external 100M SFP
- ▶ Supports 802.3x Flow Control
- ▶ 8K MAC address
- ▶ 1Mbits buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC power input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET22161-S	Unmanaged 16-port 100Base-FX SFP + 2-port 10/100/1000Base-T Optical Ethernet Switch
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Option page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ 19" 1U Rack Mount.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ 100~240VAC input.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX/FX
	IEEE802.3ab 1000BASE-T
	IEEE802.3x Flow Control
Packet Buffer Memory:	1M bits
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Max. Packet Length:	1522 Bytes
Address Table Size:	8K MAC Addresses
Connector:	2xRJ45 (10/100/1000BASE-TX)
Optical Port:	16x 100MSFP Slots

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	100~240VAC, 50/60Hz
Power Consumption:	210mA@220VAC
LED Indicators:	
Power:	PWR (Power Status)
Ethernet (Per Port):	Link/Activity, Speed
SFP (Per Port):	Link/Activity
Dimensions (WxDxH):	433x200x44 mm
Weight:	1.7Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET22241

Unmanaged 24-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch



## Features

### General

- ▶ 24 100BASE-FX SFP + 2 10/100/1000BASE-TX/SFP Combo
- ▶ RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports 8K MAC address
- ▶ 1M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC Power input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET22241-S	Unmanaged 24-port 100Base-FX SFP + 2-port 10/100/1000Base-T/SFP Combo Optical Ethernet Switch
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Option page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ 19" 1U Rackmount.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ 100~240VAC power input.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX/FX
	IEEE802.3ab 1000BASE-T
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Packet Buffer Memory:	1Mbit
Max. Packet Length:	1522 Bytes
Address Table Size:	8K MAC Addresses
Connector:	2xRJ45
Optical Port:	26xSFP

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	100~240VDC, 50/60Hz
Power Consumption:	Max. 10W (System no-load)
	Max. 24W (System Full-load)
LED Indicators:	
Power:	Power Status
Ethernet (Per Port):	Link/Active, Speed
SFP (Per Port):	Link/Active
Dimensions (WxDxH):	433x200x44 mm
Weight:	1.9Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

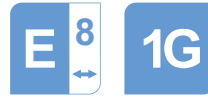
Due to continuous improvement, all product specifications are subject to change without further notice.





# EC8200

Econ-line Unmanaged 8-port 10/100/1000Base-T Ethernet Switch



## Features

### General

- ▶ Supports Auto-Negotiation and Auto MDI/MDI-X
- ▶ Supports 802.3x Flow Control
- ▶ Fan-less design (no noise) for office environment
- ▶ Support Energy Efficient Ethernet IEEE 802.3az
- ▶ Plug and Play installation

### Warranty

- ▶ 1-Year Warranty

## Ordering Information

Model	Description
EC-8200	Econ-line Unmanaged 8-port 10/100/1000Base-T Ethernet Switch
Power Options	<ul style="list-style-type: none"><li>■ 12VDC, 1.5A, Power Adaptor, DC Jack.</li><li>■ Power Adaptor is included for all sales.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000BASE-T
	IEEE802.3az Energy Efficient Ethernet
	IEEE802.3x Flow Control
Processing Type:	Store and forward
Forward Filter Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Packet Buffer Memory:	1Mbit
Connector:	8xRJ45
Address Table Size:	4K MAC Addresses

### Environmental

Operating Temperature:	0°C to 40°C (32°F to 104°F)
Storage Temperature:	-20°C to 70°C (-4°F to 158°F)
Relative Humidity:	10% to 90% non-condensing

### Electrical and Mechanical

Input Power:	12VDC, DC Socket
Power Consumption:	1A, 12W(Max.)
LED Indicators:	
Power:	PowerStatus
Ethernet(Per Port):	Link, Activity
Dimensions (WxDxH):	158x111x26 mm
Weight:	0.5Kg
Casing:	Metal Case
Mounting:	Desktop

### Regulatory Approvals

ISO9001  
 FCC  
 CE



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET8242M Series

Industrial Managed 8-port 10/100/1000Base-T/SFP Combo + 4-port 1000Base-FX SFP Ethernet Switch



## Features

### General

- ▶ Supports Jumbo Frame up to 9K Bytes
- ▶ Ring Redundancy (recovery time < 20ms over 250 units, MSTP/RSTP/STP (IEEE 802.1s/w/D) for Ethernet Redundancy
- ▶ Supports ACLs, 802.1x User Authentication for Security
- ▶ Supports SNMP v1/v2c/v3, RMON & 802.1Q VLAN Network Management
- ▶ Supports DDM(Digital Diagnostic Monitoring) Function(P1~P8)
- ▶ Supports DOS/DDOS Auto Prevention
- ▶ IGMP v2/v3 (IGMP snooping support) for Filtering Multicast Traffic
- ▶ -10°C to 60°C ( 14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

Network Switches

## Ordering Information

Model	Description
<b>ET8242M-S-DR</b>	Industrial Managed 8-port 10/100/1000Base-T/SFP Combo + 4-port 1000Base-FX SFP Ethernet Switch
SFP Options	■ (S) = SFP option. Please select your SFP on our SFP Options page. ■ SFP module is to be purchased separately.
Mounting Options	■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.
Power Options	■ GS60A48 60W/1.25A 48VDC Power Supply. Open Wire for Terminal Block. ■ Power Supply is to be purchased separately.

## Specifications

### Ethernet

Standard:	IEEE802.3 for 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3z 1000BASE-X IEEE802.3ab 1000BASE-T IEEE802.3x Flow Control IEEE802.3ad for LACP IEEE802.1D Spanning Tree IEEE802.1p Class of Service IEEE802.1Q VLAN Tag IEEE802.1w Rapid Spanning Tree IEEE802.1s Multiple Spanning Tree IEEE802.1x User Authentication IEEE802.1ab Link Layer Discovery
Processing Type:	Store-and-Forward
Address Table Size:	8K MAC Addresses
Priority Queues:	4
Jumbo Frame:	Up to 9K bytes
Interface:	
10/100/1000Base-X:	8x RJ45
Gigabit Fiber:	4x 1000BASE-X SFP Ports
RS-232 Console	1 x RJ45 (Console Cable Included)

### Electrical and Mechanical

Input Power:	Dual 12~48VDC Redundant Input
Power Consumption:	22 Watts
Protection:	
Overload Current:	Present
Reverse Polarity:	Present on Terminal Block
LED Indicators:	
Power:	Power Status (PWR, PWR1, PWR2, Fault)
Systems:	Ring (Ring) Ring Master (R.M)
Ethernet (Per Port):	Link/Activity
SFP (Per Port):	Link/Activity
Dimensions (WxDxH):	96.4 x 108.5 x 154mm
Weight:	1.42Kg
Mounting Options:	IP30 Metal Case DIN-Rail/Wall Mountable

### Software Features

Software Features:

- STP/RSTP/MSTP (IEEE802.1D/w/s)
- Redundant Ring with Recovery Time < 20ms over 250 Units
- TOS/Diffserv Supported
- Quality of Service (802.1p) for Real-Time Traffic
- VLAN (802.1Q) with VLAN Tagging and GVRP Supported
- IGMP Snooping for Multicast Filtering
- IP-Based Bandwidth Management
- Application-Based QoS Management
- DOS/DDOS Auto Prevention
- Port Configuration, Status, Statistics, Monitoring, Security
- DHCP Client/Server

Security Features:

- IP Police Security Feature
- Enable/Disable Ports, MAC Based Port Security
- Port Based Network Access Control (802.1x)
- VLAN (802.1q) to Segregate and Secure Network Traffic
- RADIUS Centralized Password Management
- SNMP v3 Encrypted Authentication and Access Security

### Environmental

Operating Temperature: -10°C to 60°C (14°F to 140°F)

Storage Temperature: -40°C to 85°C (-40°F to 185°F)

Relative Humidity: 5% to 95% non-condensing

### Regulatory Approvals

EMI	FCC Part 15, CISPR (EN55022) Class A
EMS	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8 EN61000-4-11
Stability Testing	Shock: IEC60068-2-27 Free Fall: IEC60068-2-32 Vibration: IEC60068-2-6



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Due to continuous improvement, all product specifications are subject to change without further notice.



# ET16122M

Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch



## Features

### General

- ▶ 16 100BASE-TX + 2 10/100/1000BASE-TX/SFP Combo
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports IGMP snooping V1/V2
- ▶ Supports 4K MAC address
- ▶ 2.75M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC Power Inputs
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET16122M	Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch
SFP Options	■ (S) = SFP option. Please select your SFP on our SFP Option page. ■ SFP module is to be purchased separately.
Mounting Options	■ 19" 1U Rack-mount.
Power Options	■ 100-240VAC Input.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-X
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	2.75M bit
Max. Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	18xRJ45
Optical Port:	2xSFP 1000BASE-X

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	100~240VAC 50/60Hz
Power Consumption:	Max. 7W (System no-load) Max. 12W (System Full-load)
LED Indicators:	
Power:	Power Status
Ethernet (Per Port):	Link/Active, Speed
SFP (Per Port):	Link/Active
Dimensions (WxDxH):	433x345x44 mm
Weight:	2.6Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Software Features

Management:	Web, CLI, SNMP
Port Configuration:	Port speed duplex mode selection, Bandwidth Control, Broadcast Storm Control
VLAN Setting:	32 tag based entries VLAN Groups, 18 Port based VLAN Groups, MTU VLAN
QoS Setting:	Allows to assign low/high priority on each port, First-In-First-Out, All-High-before-Low, Weight-Round-Robin QoS Policy.
Security:	MAC Address, TCP & UDP Filter
Spanning Tree:	STP, IEEE802.1D (Spanning Tree Protocol) RSTP, IEEE802.1w (Rapid Spanning Tree Protocol)
Trunking:	2 group of 4-Port 10/100BASE-TX trunk support, up to 800Mbps bandwidth per trunk, 1 group of 2-Port 10/100/1000Mbps trunk support, up to 2000Mbps bandwidth per trunk
DHCP:	DHCP Relay Agent, DHCP Server, VLAN Map Relay Agent
Miscellaneous:	Output Queue Aging Time, VLAN Striding, IGMP Snooping V1/V2

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET24122M

Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch



## Features

### General

- ▶ 24 100BASE-TX + 2 10/100/1000BASE-TX/SFP Combo
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports IGMP snooping V1/V2
- ▶ Supports 4K MAC address
- ▶ 2.75M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC Power Inputs
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty



## Ordering Information

Model	Description
ET24122M	Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch
SFP Options	■ (S) = SFP option. Please select your SFP on our SFP Option page. ■ SFP module is to be purchased separately.
Mounting Options	■ 19" 1U Rack-mount.
Power Options	■ 100-240VAC Input.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-X
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	2.75M bit
Max. Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	26 x RJ45
Optical Port:	2 x SFP 1000BASE-X

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	100~240VAC 50/60Hz
Power Consumption:	Max. 7W (System no-load) Max. 15W (System Full-load)
LED Indicators:	
Power:	Power Status
Ethernet (Per Port):	Link/Active, Speed
SFP (Per Port):	Link/Active
Dimensions (WxDxH):	433 x 345 x 44 mm
Weight:	2.6Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Software Features

Management:	Web, CLI, SNMP
Port Configuration:	Port speed duplex mode selection, Bandwidth Control, Broadcast Storm Control
VLAN Setting:	32 tag based entries VLAN Groups, 26 Port based VLAN Groups, MTU VLAN
QoS Setting:	Allows to assign low/high priority on each port, First-In-First-Out, All-High-before-Low, Weight-Round-Robin QoS Policy.
Security:	MAC Address, TCP & UDP Filter
Spanning Tree:	STP, IEEE802.1D (Spanning Tree Protocol) RSTP, IEEE802.1w (Rapid Spanning Tree Protocol)
Trunking:	2 group of 4-Port 10/100BASE-TX trunk support, up to 800Mbps bandwidth per trunk, 1 group of 2-Port 10/100/1000Mbps trunk support, up to 2000Mbps bandwidth per trunk
DHCP:	DHCP Relay Agent, DHCP Server, VLAN Map Relay Agent
Miscellaneous:	Output Queue Aging Time, VLAN Striding, IGMP Snooping V1/V2

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# ET4111Pp Series

Industrial Unmanaged 4-port 10/100Base-TX + 1-port 100Base-FX SFP Ethernet Switch with PoE+



## Features

### General

- ▶ Supports IEEE802.3at PoE+(30W per port)
- ▶ Supports external 100BASE SFP
- ▶ Supports Auto-Negotiation and Auto MDI/MDI-X
- ▶ Supports Store-and-Forward Transmission
- ▶ Support DIN -Rail & Wall-mount installation
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET4111Pp-S-DR	Industrial Unmanaged 4-port 10/100Base-TX + 1-port 100Base-FX SFP Ethernet Switch with PoE+
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Option page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ Default DIN-Rail Bracket installed. Wall Mount Bracket is included.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ DR-120-48 120W/2.5A DIN-Rail 48VDC Power Supply. Open Wire for Terminal Block.</li><li>■ DRP-240-48 240W/5A DIN-Rail 48VDC Power Supply. Open Wire for Terminal Block.</li><li>■ GS120A48 120W/2.5A 48VDC Power Supply. Open wire for Terminal Block.</li><li>■ GS220A48 220W/4.6A 48VDC Power Supply. Open wire for Terminal Block.</li><li>■ Power Supply is to be purchased separately.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10Base-T IEEE802.3u 100Base-TX/FX IEEE802.3x Flow Control IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet
Packet Buffer Memory:	512K bits
Processing Type:	Store-and-forward Half-duplex back-pressure and IEEE802.3x Full-duplex flow control
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps)
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	4x RJ45
Address Table Size:	1024 MAC Addresses

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	48V~57VDC (Terminal Block)
Power Consumption:	130W Max. 2.7A@48VDC (PoE in use) 5W Max. 0.1A@48VDC (PoE not in use)
PoE:	
Standard:	IEEE802.3at
Port:	RJ-45 Port 1 ~ Port 4
Mode:	Alternative B Mode Positive (VCC+): RJ45 Pin 4, 5 Negative (VCC-): RJ45 Pin 7, 8
Max. Power per port:	30W per Port for PSE
Protection:	
Overload:	Present
Reverse Polarity:	Present
LED Indicators:	
Power:	PWR (Power Status)
10/100TX (Per Port):	Link/Activity, PoE
SFP:	Link/Activity
Dimensions (WxDxH):	136 x 104.6 x 29.5 mm
Weight:	0.5Kg
Casing:	Metal
Mounting Options:	DIN-Rail/Wall-mount

### Regulatory Approvals

ISO9001
FCC Part 15, Class A
EN55022 Class A
EN61000-4-5 (Surge Standards)
RJ45: 1kV
Power: 500V



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET8122PpH

Hardened Unmanaged 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 8 10/100Base-TX + 2 10/100/1000Base-TX/SFP Combo with PoE+/PSE
- ▶ Supports IEEE802.3at PoE(30W per port)
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Support 8K MAC addresses
- ▶ 1M bits frame buffer memory
- ▶ Supports Relay output for Power and Port failure
- ▶ Supports DIN-Rail and Wall-mount installation
- ▶ Redundant Power Inputs
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET8122PpH	Hardened Unmanaged 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	<ul style="list-style-type: none"> <li>■ (S) = SFP option. Please select your SFP option on our SFP Option page.</li> <li>■ SFP module is to be purchased separately.</li> </ul>
Mounting Options	<ul style="list-style-type: none"> <li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ DR-120-48 120W/2.5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li> <li>■ DRP-240-48 240W/5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li> <li>■ GS120A48 120W/2.5A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ GS220A48 220W/4.6A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/FX IEEE802.3ab 1000BASE-T IEEE802.3af/at Power over Ethernet
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	1M bit
Max Packet Length:	1522 Bytes
Address Table Size:	8K MAC Addresses
Connector:	10xRJ45
Optical Port:	2xSFP

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% - 95% (non-condensing)

### Electrical and Mechanical

Input Power:	48~57VDC, Redundant Power (6-pin Terminal Block)
Power Consumption:	Max. 7W (System no-load) Max. 13W (System Full-load)
LED Indicators:	
Power:	Power Status
Ethernet(Per Port):	Link/Active, Speed
SFP:	Link, Active
Dimensions (WxDxH):	59 x 120.5 x 165 mm
Weight:	0.9Kg
Casing:	Metal case
Mounting:	DIN-Rail / Wall Mount

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET16122Pp

Unmanaged 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 16 10/100BASE-TX + 2 10/100/1000BASE-TX/SFP Combo with PoE+
- ▶ Supports IEEE802.3at PoE(30W per port)
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Support 4K MAC addresses
- ▶ 2.75 M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC Power Input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET16122Pp	Unmanaged 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	■ (S) = SFP option. Please select your SFP option on our SFP Option page.
Mounting Options	■ 19" 1U Rack-mount.
Power Options	■ 100-240VAC Input.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000Base-T
	IEEE802.3z 1000Base-X
	IEEE802.3at
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Packet Buffer Memory:	2.75M bit
Max Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	18xRJ45
Optical Port:	2xSFP 1000BASE-X

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% - 95% (non-condensing)

### Electrical and Mechanical

Input Power:	100~240VAC 50/60Hz
Power Consumption:	Max. 7W (System no-load)
	Max. 12W (System Full-load)
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port1~Port16
Per Port Power:	30W (Alternative B Mode)
Max. PoE Power:	390W (16Port share)
LED Indicators:	
Power:	PowerStatus
Ethernet(Per Port):	Link/Active, Speed
SFP:	Link, Active
Dimensions (WxDxH):	433x350x44 mm
Weight:	3.3Kg
Casing:	Metal case
Mounting:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET24122Pp Series

Unmanaged 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 24 10/100Base-TX + 2 10/100/1000Base-TX/SFP Combo with PoE+
- ▶ RJ45 10/100Mbps-Full/Half-duplex, Auto negotiation, Auto MDI/MDIX
- ▶ Combo RJ45 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDIX
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports 4K MAC address
- ▶ 2.75M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC power input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET24122Pp-S	Unmanaged 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	■ (S) = SFP option. Please select your SFP on our SFP Option page. ■ SFP module is to be purchased separately.
Mounting Options	■ 19" 1U Rack Mount.
Power Options	■ 100-240VAC input.

## Specifications

### Ethernet

Standards:	IEEE802.3 10Base-T
	IEEE802.3u 100Base-TX
	IEEE802.3ab 1000Base-T
	IEEE802.3z 1000Base-X
	IEEE802.3at
Packet Buffer Memory:	2.75Mbits
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Max. Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	26xRJ45
Optical Port:	2 x SFP 1000Base-X

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Electrical and Mechanical

Input Power:	100~240VAC, 50/60Hz
Power Consumption:	Max 7W / System no-load
	Max 15W / System Full-load
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port 1 ~ Port 24
Mode:	Alternative B Mode
Per Port Power:	30W
Max PoE Power:	390W ( 24 Port share)
LED Indicators:	
Power:	Power Status
Ethernet(Per Port):	Link/Activity, Speed
SFP(Per Port):	Link/Activity
Dimensions (WxDxH):	433 x 350 x 44 mm
Weight:	3.4Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# EC9100P

Econ-line Unmanaged 8-port 10/100Base-TX (PoE) + 1-port 1000Base-T Ethernet Switch



## Features

### General

- ▶ Supports IEEE802.3af PoE (15.4W per port)
- ▶ Supports Auto-Negotiation and Auto MDI/MDI-X
- ▶ Supports Store-and-Forward Transmission
- ▶ Supports overload protection and non-PoE device detection

### Warranty

- ▶ 1-Year Warranty

## Ordering Information

Model	Description
EC9100P	Econ-line Unmanaged 8-port 10/100Base-TX (PoE) + 1-port 1000Base-T Ethernet Switch
Power Options	<ul style="list-style-type: none"><li>■ 48VDC, 2A External Power Adapter, DC Jack.</li><li>■ Power Adapter is included in all sales.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab 1000BASE-T
	IEEE802.3x Flow Control
	IEEE802.3af Power over Ethernet
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880ppps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Switch Fabric:	3.6Gbps
Cabling:	10BASE-T: Cat5 or above
	100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	9x RJ45 (P1~P8: PoE)

### Environmental

Operating Temperature:	0°C to 40°C (32°F to 104°F)
Storage Temperature:	-10°C to 70°C (14°F to 158°F)
Relative Humidity:	10% - 90% (non-condensing)

### Electrical and Mechanical

Input Power:	48VDC, 2A, DC Socket
Power Consumption:	2A (max.)
PoE:	
Standard:	IEEE802.3af
Port:	RJ45 Port 1 ~ Port 8
Mode:	Alternative A Mode
	Positive (VCC+): RJ45 Pin 1, 2
	Negative (VCC-): RJ45 Pin 3, 6
Max. Power per port:	15.4W per Port
LED Indicators:	
Power:	PWR (Power Status)
10/100TX (Per Port):	Link, Activity, PoE Power Injected (P1-P8)
10/100/1000TX:	Link, Activity
Dimensions (WxDxH):	225 x 121 x 35 mm
Weight:	0.8Kg
Mounting:	Desktop

### Regulatory Approvals

ISO9001  
FCC  
CE



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# EC5100P

Econ-line Unmanaged 4-port 10/100Base-TX (PoE) + 1-port 100Base-TX Ethernet Switch



## Features

### General

- ▶ Supports IEEE802.3af PoE (15.4W per port)
- ▶ Supports Auto-Negotiation and Auto MDI/MDI-X
- ▶ Supports Store-and-Forward Transmission
- ▶ Supports Power Saving Technology - power down unused ports and when a connected device in standby mode

### Warranty

- ▶ 1-Year Warranty

## Ordering Information

Model	Description
EC5100P	Econ-line Unmanaged 4-port 10/100Base-TX (PoE) + 1-port 100Base-TX Ethernet Switch
Power Options	<ul style="list-style-type: none"><li>■ 48VDC, 1.25A External Power Adapter, DC Jack.</li><li>■ Power Adapter is included in all sales.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3x Flow Control IEEE802.3af Power over Ethernet
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps)
Switch Fabric:	1 Gbps
Cabling:	10BASE-T: Cat5 or above 100BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	5xRJ45 (P1~P4: PoE)

### Environmental

Operating Temperature:	0°C to 45°C (32°F to 113°F)
Storage Temperature:	-20°C to 80°C (-4°F to 176°F)
Relative Humidity:	Max. 90% (non-condensing)

### Electrical and Mechanical

Input Power:	48VDC, 1.25A (max.), DC Socket
Power Consumption:	8W Max. (Standby) 48W Max. (PoE in use)
PoE:	
Standard:	IEEE802.3af
Port:	RJ45 Port 1 ~ Port 4
Mode:	Alternative A Mode Positive (VCC+): RJ45 Pin 1, 2 Negative (VCC-): RJ45 Pin 3, 6
Max. Power per port:	15.4W per Port
LED Indicators:	
Power:	PWR (Power Status)
10/100TX (Per Port):	Link, Activity, PoE Power Injected (P1-P4)
Dimensions (WxDxH):	140 x 91 x 28 mm
Weight:	0.3Kg
Casing:	Metal Case
Mounting:	Desktop

### Regulatory Approvals

ISO9001  
FCC  
CE



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET4222PpH Series

Hardened IP CCTV Self-Configured 4-port 10/100/1000Base-T + 2-port 1000Base-FX SFP Ethernet Switch with PoE+



## Features

### General

- ▶ Automatically support IGMP (Multicasting)
- ▶ Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDI-X
- ▶ Supports external 1000BASE SFP
- ▶ Supports Daisy-Chain connection
- ▶ Supports IEEE 802.3at PoE+ (30W per port)
- ▶ Supports Light Hardware IGMP V1, V2, V3
- ▶ Supports Broadcast Storm Control
- ▶ Supports Relay output for power failure
- ▶ 1M bits frame buffer memory
- ▶ Supports 9K Bytes Jumbo Frame
- ▶ Supports Energy Efficient Ethernet IEEE802.3az
- ▶ Redundant Power Inputs
- ▶ Supports Wall-mount and DIN-Rail installation
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
<b>ET4222PpH-S-DR</b>	Hardened IP CCTV Self-Configured 4-port 10/100/1000Base-T + 2-port 1000Base-FX SFP Ethernet Switch with PoE+
SFP Options	<ul style="list-style-type: none"> <li>■ (S) = SFP option. Please select your SFP option on our SFP Option page.</li> <li>■ SFP module is to be purchased separately.</li> </ul>
Mounting Options	<ul style="list-style-type: none"> <li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ DR-120-48 120W/2.5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li> <li>■ DRP-240-48 240W/5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block.</li> <li>■ GS120A48 120W/2.5A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ GS220A48 220W/4.6A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX/FX
	IEEE802.3ab 1000BASE-T
	IEEE802.3z 1000BASE-X
	IEEE802.3af Power over Ethernet
	IEEE802.3at Power over Ethernet
Forward & Filtering Rate:	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
Packet Buffer Memory:	1M bits
Processing Type:	Store-and-Forward
Max Packet Length:	9K Bytes Jumbo Frame
Address Table Size:	2048 MAC Addresses
Connector:	4 x RJ45
Optical Port:	2 x SFP 1000BASE-X

### Regulatory Approvals

ISO9001
EN55022 Class A, FCC part 15 Class A
Surge Protection:
RJ-45: 1kV
Power: 500V

### Electrical and Mechanical

Input Power:	2x 48~57 VDC (Terminal Block)
Power Consumption:	135W Max. 2.8A@48VDC (PoE in use) 5W Max. 0.1A@48VDC (PoE not in use)
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port 1 ~ Port 4
Max. Power per Port:	30W Max per port (Alternative B mode)
Protection:	
Power Input Overload:	Automatic Resettable
Reverse Polarity:	Present
LED Indicators:	
Power:	Power Status
Ethernet(Per Port):	Link/Activity
SFP:	Link/Activity
Dimensions (WxDxH):	148 x 120 x 31 mm
Weight:	0.5Kg
Casing:	Metal Case
Mounting Options:	DIN-Rail / Wall Mount

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET8122MPp

Industrial Managed 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 8 10/100Base-TX + 2 10/100/1000Base-TX/SFP Combo with PoE+/PSE
- ▶ Support IEEE802.3 at PoE(30W per port)
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDIX
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps Full/Half-duplex, Auto-negotiation, Auto MDI/MDIX
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports IGMP snooping V1/V2
- ▶ Supports 4K MAC address
- ▶ 1M bits frame buffer memory
- ▶ Supports Wall-mount and DIN-Rail installation
- ▶ Redundant Power Inputs
- ▶ -10°C to 60°C (14°F to 140°F) operating temperature

### Warranty

- ▶ 5-Year Warranty



## Ordering Information

Model	Description
ET8122MPp	Industrial Managed 8-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	■ (S) = SFP option. Please select your SFP on our SFP Option page.
Mounting Options	■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.
Power Options	■ DR-120-48 120W/2.5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block. ■ DRP-240-48 240W/5A 48VDC DIN-Rail Power Supply. Open Wire for Terminal Block. ■ GS120A48 120W/2.5A 48VDC Power Supply. Open Wire for Terminal Block. ■ GS220A48 220W/4.6A 48VDC Power Supply. Open Wire for Terminal Block. ■ Power Supply is to be purchased separately.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-X IEEE802.3at
Processing Type:	Store-and-Forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	2.75 Mbits
Max. Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	10xRJ45
Optical Port:	2xSFP 1000BASE-X

### Environmental

Operating Temperature:	-10°C to 60°C (14°F to 140°F)
Storage Temperature:	-40°C to 85°C (-4°F to 158°F)
Relative Humidity:	5% to 95% non-condensing

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV

### Electrical and Mechanical

Input Power:	48~57VDC, Redundant Power Input (6-pin Terminal Block)
Power Consumption:	48~57 VDC (2 x Terminal Block) 8W Max. 0.17A@48VDC (PoE not in use)
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port 1 ~ Port 8
Per Port Power:	30W (Alternative B Mode)
LED Indicators:	
Power:	PowerStatus
Ethernet(PerPort):	Link/Activity, Speed
SFP(PerPort):	Link/Activity
ALM:	Power or Port Fail
Dimensions (WxDxH):	59x120.5x165mm
Weight:	1.0Kg
Casing:	Metal Case
Mounting Options:	DIN-Rail/ Wall Mount

### Software Features

Management:	Web, CLI, SNMP
PoE Management:	PoE Status, PoE Status, PoE Scheduling
Port Configuration:	Port speed duplex mode selection, Bandwidth, Broadcast Storm Control
VLAN Setting:	32 tag based entries VLAN Groups, 10 Port based VLAN Groups, MTU VLAN
QoS Setting:	Allows to assign low/high priority on each port, First-In-First-Out, All-High- before-Low, Weight-Round-Robin QoS policy
Security:	MAC Address, TCP & UDP Filter
Spanning Tree:	STP, IEEE802.1D (Spanning Tree Protocol) RSTP, IEEE802.1w (Rapid Spanning Tree Protocol)
Trunking:	2 groups of 4-Port 10/100BASE-TX trunk support, up to 800Mbps bandwidth per trunk 1 group of 2-port 10/100/1000Mbps trunk support, up to 2000Mbps bandwidth per trunk
DHCP:	DHCP Relay Agent, DHCP Server, VLAN Map Relay Agent
Miscellaneous:	Output Queue Aging Time, VLAN Striding, IGMP Snooping V1 & V2



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# ET16122MPp

Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 16 10/100BASE-TX + 2 10/100/1000BASE-TX/SFP Combo with PoE+/PSE
- ▶ Supports IEEE802.3at PoE(30W per port)
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-Negotiation, Auto MDI/MDI-X
- ▶ Supports external SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports IGMP snooping V1/V2
- ▶ Support 4K MAC addresses
- ▶ 1M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC Power Input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET16122MPp	Managed 16-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	■ (S) = SFP option. Please select your SFP option on our SFP Option page. ■ SFP module is to be purchased separately.
Mounting Options	■ 19" 1U Rack-mount.
Power Options	■ 100-240VAC Input.

## Specifications

### Ethernet

Standards:	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3at
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Packet Buffer Memory:	2.75Mbit
Max Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	18xRJ45
Optical Port:	2xSFP 1000BASE-X

### Electrical and Mechanical

Input Power:	100~240VAC 50/60Hz
Power Consumption:	Max. 7W (System no-load) Max. 12W (System Full-load)
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port1~Port16
Per Port Power:	30W (Alternative B Mode)
Max. PoE Power:	390W (16Port share)
LED Indicators:	
Power:	PowerStatus
Ethernet(Per Port):	Link/Active, Speed
SFP:	Link, Active
Dimensions (WxDxH):	433x345x44 mm
Weight:	3.3Kg
Casing:	Metal case
Mounting:	RackMount

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% - 95% (non-condensing)

### Software Features

Management:	Web, CLI, SNMP
PoE Management:	PoEStatus, PoESetting, PoEScheduling
Port Configuration:	Port speed duplex mode selection, Bandwidth Control, Broadcast Storm Control
VLAN Setting:	32 tag based entries VLAN Groups, 18 Port based VLAN Groups, MTU VLAN
QoS Setting:	Allows to assign low/high priority on each port, First-In-First-Out, All-High -before-Low, Weight-Round-Robin QoS Policy.
Security:	MAC Address, TCP & UDP Filter
Spanning Tree:	STP, IEEE802.1D (Spanning Tree Protocol) RSTP, IEEE802.1w (Rapid Spanning Tree Protocol)
Trunking:	2 group of 4-Port 10/100BASE-TX trunk support, up to 800Mbps bandwidth per trunk, 1 group of 2-Port 10/100/1000Mbps trunk support, up to 2000Mbps bandwidth per trunk
DHCP:	DHCP Relay Agent, DHCP Server, VLAN Map Relay Agent
Miscellaneous:	Output Queue Aging Time, VLAN Striding, IGMP Snooping V1/V2

### Regulatory Approvals

ISO9001
EN55022:2006+A1:2007 Class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 2kV/4kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET24122MPp

Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+



## Features

### General

- ▶ 24 10/100BASE-TX + 2 10/100/1000BASE-TX/SFP Combo with PoE+/PSE
- ▶ Supports IEEE802.3at PoE(30W per port)
- ▶ RJ45 Port Supports 10/100Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDIX
- ▶ Combo RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto MDI/MDIX
- ▶ Supports external 1000M SFP
- ▶ Supports 802.3x Flow control
- ▶ Supports IGMP snooping V1/V2
- ▶ Supports 4K MAC address
- ▶ 2.75M bits frame buffer memory
- ▶ 19" 1U Rack-mount
- ▶ AC power input
- ▶ 0°C to 50°C (32°F to 122°F) operating temperature

### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET24122MPp	Managed 24-port 10/100Base-TX + 2-port 10/100/1000Base-T/SFP Combo Ethernet Switch with PoE+
SFP Options	<ul style="list-style-type: none"><li>■ (S) = SFP option. Please select your SFP on our SFP Option page.</li><li>■ SFP module is to be purchased separately.</li></ul>
Mounting Options	<ul style="list-style-type: none"><li>■ 19" 1U Rack Mount.</li></ul>
Power Options	<ul style="list-style-type: none"><li>■ 100~240VAC input.</li></ul>

## Specifications

### Ethernet

Standards:	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3at
Packet Buffer Memory:	2.75Mbits
Processing Type:	Store-and-forward
Forward Filter Rate:	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Max. Packet Length:	1536 Bytes
Address Table Size:	4K MAC Addresses
Connector:	26xRJ45
Optical Port:	2xSFP 1000BASE-X

### Electrical and Mechanical

Input Power:	100~240VAC, 50/60Hz
Power Consumption:	Max. 7W (System no-load) Max. 15W (System Full-load)
PoE:	
Standard:	IEEE802.3at
Port:	RJ45 Port 1 ~ Port 24
Mode:	Alternative B Mode
Max. PoE Power:	390W ( 24 Port share)
Per Port Power:	30W
LED Indicators:	
Power:	Power Status
Ethernet(Per Port):	Link/Activity, Speed
SFP(Per Port):	Link/Activity
Dimensions (WxDxH):	433x345x44 mm
Weight:	3.4Kg
Casing:	Metal Case
Mounting Options:	Rack Mount

### Environmental

Operating Temperature:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-20°C to 75°C (-4°F to 167°F)
Relative Humidity:	5% to 95% non-condensing

### Software Features

Management:	Web, CLI, SNMP
PoE Management:	PoEStatus, PoESetting, PoEScheduling
Port Configuration:	Port speed duplex mode selection, Bandwidth Control, Broadcast Storm Control
VLAN Setting:	32 tag based entries VLAN Groups, 26 Port based VLAN Groups, MTU VLAN
QoS Setting:	Allows to assign low/high priority on each port, First-In-First-Out, All-High -before-Low, Weight-Round-Robin QoS Policy.
Security:	MAC Address, TCP & UDP Filter
Spanning Tree:	STP, IEEE802.1D (Spanning Tree Protocol) RSTP, IEEE802.1w (Rapid Spanning Tree Protocol)
Trunking:	2 group of 4-Port 10/100BASE-TX trunk support, up to 800Mbps bandwidth per trunk, 1 group of 2-Port 10/100/1000Mbps trunk support, up to 2000Mbps bandwidth per trunk
DHCP:	DHCP Relay Agent, DHCP Server, VLAN Map Relay Agent
Miscellaneous:	Output Queue Aging Time, VLAN Striding, IGMP Snooping V1/V2

### Regulatory Approvals

ISO9001	
EN55022:2006+A1:2007 Class A	
Surge Protection:	
RJ45: 1kV	
Power: 500V	
ESD: 2kV/4kV	



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET-INJ30 Series

Hardened Gigabit 1-port Ethernet Input + 1-port PoE+ Output Injector



## Features

### General

- ▶ 1 RJ45 Ethernet Data Input Port + 1 RJ45 Power Over Ethernet Output Port (Data + Power)
- ▶ Support IEEE802.3at Power over Ethernet (PoE+) Power Sourcing Equipment
- ▶ Support 10/100/1000Base-TX
- ▶ Support DIN-Rail & Wall-mount installation.
- ▶ Extensive LED indicators for PoE diagnostics
- ▶ Environmentally Hardened -40°C to 75°C (-40°F to 167°F) operating temperature

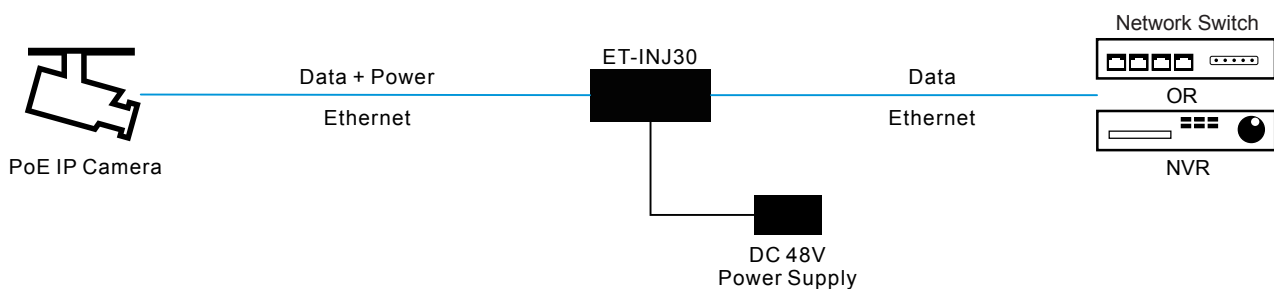
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET-INJ30	Hardened Gigabit 1-port Ethernet Input + 1-port PoE+ Output Injector
Mounting Options	<ul style="list-style-type: none"> <li>■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.</li> </ul>
Power Options	<ul style="list-style-type: none"> <li>■ GS60A48 60W/1.25A 48VDC Power Supply. Open Wire for Terminal Block.</li> <li>■ Power Supply is to be purchased separately.</li> </ul>

## Typical Application



Accessories

## Specifications

### Ethernet

Standards:	IEEE802.3af/at Power over Ethernet
Processing Type:	Forward
	Half-duplex, Full duplex
Forward Filter Rate:	1,488,000pps (1000Mbps)
Cabling:	1000BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	2xRJ45

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% non-condensing

### Electrical and Mechanical

Input Power:	48~57VDC (Terminal Block)
Power Consumption:	35W Max.
PoE:	
Standard:	IEEE802.3at
Port:	RJ45
Max. Power:	30W Max per port (Alternative B Mode)
LED Indicators:	
Power:	Power Status
PoE:	PoE Status
Dimensions (WxDxH):	95x70x30 mm
Weight:	0.2kg
Casing:	Metel case
Mounting Options:	DIN-Rail / Wall Mount

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022:2006 + A1:2007 class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



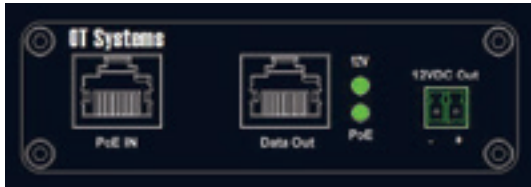
OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET-SPT12V Series

Hardened Gigabit 1-port PoE+ In + 1-port Ethernet Data Out PoE Splitter



## Features

### General

- ▶ 1 RJ45 PoE PSE Input Port(Data + Power) + 1 RJ45 Ethernet Data Output Port(Data only).
- ▶ Support IEEE802.3at Power over Ethernet(PoE+) Power Sourcing Equipment
- ▶ Support 10/100/1000Base-TX
- ▶ Support DIN-Rail & Wall-mount installation.
- ▶ Extensive LED indicators for PoE diagnostics
- ▶ Environmentally Hardened -40°C to 75°C (-40°F to 167°F) operating temperature

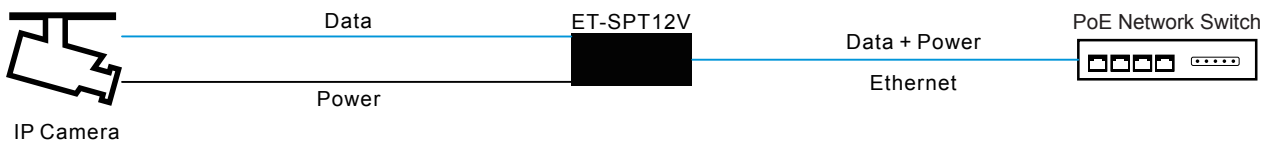
### Warranty

- ▶ 5-Year Warranty

## Ordering Information

Model	Description
ET-SPT12V	Hardened Gigabit 1-port PoE+ In + 1-port Ethernet Data Out PoE Splitter
Mounting Options	■ Default DIN-Rail Bracket installed, Wall Mount Bracket is included.
Power Options	■ 20W/12VDC output with 2-pin open wire terminal block.

## Typical Application



## Specifications

### Ethernet

Standards:	IEEE802.3af/at Power over Ethernet
Processing Type:	Forward
	Half-duplex, Full duplex
Forward Filter Rate:	1,488,000pps (1000Mbps)
Cabling:	1000BASE-TX: Cat5 or above
Maximum Distance:	Cat5 UTP up to 100m
Connector:	2xRJ45

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% non-condensing

### Electrical and Mechanical

Output Power:	20W/12VDC (Terminal Block)
Power Consumption:	25W Max.
LED Indicators:	
PoE In:	PoEPSE Power In
12V:	DC 12V Output
Dimensions (WxDxH):	95x70x30mm
Weight:	0.25kg
Casing:	Matel case
Mounting Options:	DIN-Rail / Wall Mount

### Regulatory Approvals

ISO9001
FCC Part 15 Class A
EN55022:2006 + A1:2007 class A
Surge Protection:
RJ45: 1kV
Power: 500V
ESD: 4kV/8kV



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.





# MR-C10

19" Rack for Micro-type Products



## Features

### General

- ▶ Dedicated for Microtype products from various products series
- ▶ Mount in standard 19" cabinets, occupying 1U height
- ▶ Power supply provided
- ▶ Hot-swappable design
- ▶ Environmentally hardened -40°C to 75°C (-40°F to 167°F) operating temperature
- ▶ Compatible with NHD100Micro, NHD110DRMicro, FTD100Micro, FTD110DBMicro, ET11111, ET11111H, ET11212H and ET1100C Series

### Warranty

- ▶ 2-Year Warranty

## Ordering Information

Model	Description
MR-C10	19" Rack for Micro-type Products

## Specifications

### Electrical and Mechanical

Input Power:	110~240VAC, 50/ 60Hz
Output Power:	40W Max. 3.34A@12VDC
Protections:	Short circuit, Overload, Over Voltage
Dimension (WxDxH):	483x 135x 44 mm
Weight:	0.7Kg
Mounting:	19" Rack, 1U Height

### Environmental

Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% non-condensing



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# ET-C12

12-slot 19" Rack Mount Chassis for ET Series



## Features

### General

- ▶ Supports up to 12 ET Series Card Modules
- ▶ For ET2111 Series Card Module
- ▶ Plug-and-Play / Hot-swappable
- ▶ 19" 3U Rack Mount

## Ordering Information

Model	Description
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ET-C12	12-slot 19" Rack Mount Chassis for ET Series
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## Specifications

### Electrical and Mechanical

Power (ET-PSU/5V):	
Input:	110VAC / 60Hz
	220VAC / 50Hz
Output:	5VDC
	Max. Current: 25A
No. of Empty Slots:	12
Dimension (WxDxH):	486x 191 x 134 mm
Weight:	3.1Kg
Mounting:	19" Rack, 3U Height

### Environmental

Operating Temperature:	-20°C to 60°C (-4°F to 140°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	0% to 95% non-condensing



OT Systems Ltd., Jan 2015

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# EC-C14

19" Rack Mount Chassis for EC1111 and EC1212 series units, 2U, 14 empty slots, with PSU, 110-220VAC input



## Features

### General

- ▶ Support up to 14 EC Series Module
- ▶ For EC1111 and EC1212 Series
- ▶ Plug-and-Play / Hot-swappable
- ▶ 19" Rack Mount

### Warranty

- ▶ 1-Year Warranty

## Ordering Information

Model	Description
EC-C14	19" Rack Mount Chassis for EC1111 and EC1212 series units, 2U, 14 empty slots, with PSU, 110-220VAC input

## Specifications

### Electrical and Mechanical

Power:	
Input:	100-240VAC,50/60Hz
	Maximum Current: 1.2A
Output:	5VDC
	Maximum Current: 12A
No. of Empty Slots:	14
Dimension (WxDxH):	490x230x90 mm
Weight:	3.5Kg
Mounting:	19" Rack, 2U Height

### Environmental

Operating Temperature:	-10°C to 55°C (-14°F to 131°F)
Storage Temperature:	-40°C to 70°C (-40°F to 158°F)
Relative Humidity:	5% to 95% non-condensing



OT Systems Ltd., Jan 2015

Due to continuous improvement, all product specifications are subject to change without further notice.



# SFP Options

## SFP Ordering Options

Model	Description	Wavelength	Max. Distance
SMFP3131-03-225F	100M / Multimode / 2-fiber / LC	1310nm	2km
SSFP3131-13-225F	100M / Singlemode / 2-fiber / LC	1310nm	20km
SIFP3131-13-225S	100M / Multimode / WDM 1-fiber / LC	TX:1310nm/RX:1550nm	2km
SIFP5131-13-225S	100M / Multimode / WDM 1-fiber / LC	TX:1550nm/RX:1310nm	2km
SWFP3131-13-225S	100M / Singlemode / WDM 1-fiber / LC	TX:1310nm/RX:1550nm	20km
SWFP5131-13-225S	100M / Singlemode / WDM 1-fiber / LC	TX:1550nm/RX:1310nm	20km
SMFP3151-13-225F	1G / Multimode / 2-fiber / LC	1310nm	1km
SSFP3151-13-225F	1G / Singlemode / 2-fiber / LC	1310nm	20km
SIFP3151-13-225S	1G / Multimode / WDM 1-fiber / LC	TX:1310nm/RX:1550nm	550m
SIFP5251-13-225S	1G / Multimode / WDM 1-fiber / LC	TX:1550nm/RX:1310nm	550m
SWFP3151-13-225S	1G / Singlemode / WDM 1-fiber / LC	TX:1310nm/RX:1550nm	20km
SWFP5251-13-225S	1G / Singlemode / WDM 1-fiber / LC	TX:1550nm/RX:1310nm	20km

Remarks                    ■ Operating Temperature: -40°C~75°C(-40°F~167°F)

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.  
 (2) Operating distance of multimode is limited by the characteristics of the fiber bandwidth.



## OT Systems Industrial Ethernet & Networking Products Warranty

1. Warrantee. OT Systems (herein "Seller") guarantees the integrity of the products sold to buyers or original End Users (herein "Buyers") as a whole in regards of the usages and applications as stipulated in the product manuals.
  - a) Seller warrants that all finished products manufactured under the brand name of OT Systems shall be free from defects in material and workmanship right upon the ex-factory date and the products shall conform to the Seller's specifications as published.
  - b) Ethernet & Networking products sold to Buyers are under a 5-YEAR warranty offered by Seller while EC1111, EC1212, EC5100P, EC9100P, EC8200 and all other Accessories are under a 1-YEAR warranty offered by Seller, subject to the exclusion from liability in the occurrence of misuse, abuse or improper handling, vandalism, or any acts in contravention of the instructions, rules, or guidelines as stipulated in the product manuals.
  - c) Defective products claimed for warranty will, at the discretion of Seller, be repaired or replaced in part or in whole. All repaired parts or replacements, are under warranty for the remaining period of the original warranty period.
  - d) In case that the defects cannot be rectified under the reasonable efforts of Seller, as subject to the availability of all possible resources, Seller is open to negotiation to reach for an equitable solution with the concerned parties.
2. Call for Service. To call for warrantee service, first contact Seller's Customer Service Representative. A Return Merchandise Authorization number (RMA#) will be issued if the returning of the product is deemed necessary. All claims must be in written form with all the particulars which are self-evident to support such claim.
3. Cost incurred. All freight charges for return shipments of parts or products are at Buyer's costs.
4. Exclusion. The aforesaid warranties are exclusive and in lieu of and supersede all other warranties as appropriate whether written, verbal, implied or statutory. No other implied or statutory warrantee of merchantability or fitness for particular purposes shall apply.

## OT Systems RMA Policy

1. RMA (Return Merchandise Authorization) Policy  
Should you experience any defects with our products, please complete a RMA request form on our website [http://ot-systems.com/online\\_rma.php](http://ot-systems.com/online_rma.php) or send E-mail to [techsupport@ot-systems.com](mailto:techsupport@ot-systems.com) to request RMA form prior to returning the products.
2. Copy of Purchase Order/Proforma Invoice should be enclosed with the returning RMA request form.
3. An RMA number will be given to you. This RMA number must accompany the product returned to OT systems.  
The RMA number should be displayed on the outside of the returning packaging. All returned products without an RMA number will be sent back to the buyer.
4. The purchaser is to bear all delivery charges to the returning products.
5. RMA numbers are valid for 30 days. A new RMA number must be applied if this RMA 30-days period expires.
6. All in-warranty defective items must have an RMA number and repairs are free of charge.
7. All out-of-warranty items to be repaired must have an RMA number. Charges will be applied and invoice with chargeable items, will be issued to the buyer.



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