

# EL100 Series

## 10/100Base-TX to 100Base-FX Media Converter



### Overview

EtherWAN offers its Media Converter Series as a concrete and affordable answer in response to an increase in fiber optics cabling deployment. EtherWAN's EL100 Series is one of the most complete solutions in media conversion. The EL100 Series are available in all varieties of fiber connectors and modes. EL100 is the most functional media converter on the market. The RJ-45 port on this unit is dual speed 10/100Mbps with half/full duplex auto sensing. Better than a regular converter, EL100 has switching capabilities that are able to filter traffic and record MAC addresses.

\*The whole series comes in desktop kits, which are wall mountable, and also mountable in EMC1600 chassis.

### Features

- ▶ DIP switch configuration for "Link-Fault-Pass-Through", speed, duplex mode
- ▶ 2048 MAC addresses
- ▶ 768K bits buffer memory
- ▶ 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- ▶ Full wire-speed forwarding rate
- ▶ 0.8A 12VDC external universal PSU
- ▶ 0°C to 45°C (32°F to 113°F) operating temperature range
- ▶ Aluminum case
- ▶ Supports Wall Mounting installation or expansion use with EMC1600 media converter chassis system

### Specifications

#### Technology

##### Standards:

- IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/100Base-FX, IEEE802.3x

##### Forward and Filtering Rate:

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

##### Packet Buffer Memory:

- 768K bits

##### Processing Type:

- Store-and-Forward
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control

##### Address Table Size:

- 2048 MAC addresses

##### Latency:

- Less than 128.9 $\mu$ s

#### Power

##### Input:

- Input Voltage: 12VDC
- Input Current: 0.16A

##### Power Consumption:

- 1.92W Max.

#### Mechanical

##### Casing:

- Aluminum case

##### Dimensions:

- 80.3mm (W) x 109mm (D) x 24mm (H)  
(3.17" (W) x 4.30" (D) x 0.95" (H))

##### Weight:

- 150g (0.33lb.)

##### Installation:

- Wall Mounting or expansion use with EMC1600 media converter chassis system

#### Environment

##### Operating Temperature:

- 0°C to 45°C (32°F to 113°F)

##### Storage Temperature:

- -10°C to 70°C (14°F to 158°F)

##### Ambient Relative Humidity:

- 10% to 90% (non-condensing)

#### Interface

##### LED Indicators:

- Per Unit: Power Status (Power)
- Per Port: 10/100TX: Link/Activity, Full-duplex/Collision, Speed  
100FX: Link/Activity, Full-duplex/Collision

Designation	Typical Distance*	Nominal Wavelength	Cable Type	Connector	Optical Budget
100Base-FX	2 Km	1310 nm	62.5/125 MM	ST	12 dB
100Base-FX	2 Km	1310 nm	62.5/125 MM	SC	12 dB
100Base-FX	20 Km	1310 nm	10/125 SM	ST	19 dB
100Base-FX	20 Km	1310 nm	10/125 SM	SC	17 dB
100Base-FX	75 Km	1310 nm	10/125 SM	SC	34 dB
100Base-FX	100 Km	1550 nm	10/125 SM	SC	34 dB
100Base-FX	20 Km	TX: 1310 nm RX: 1550 nm	10/125 SM	SC	17 dB

# Single Channel Media Converters

Ethernet  
Switches

1

Serial  
Servers

2

Media  
Converters

3

Others

4

Designation	Typical Distance*	Nominal Wavelength	Cable Type	Connector	Optical Budget
100Base-FX	40 Km	TX: 1310 nm RX: 1550 nm	10/125 SM	SC	25 dB
100Base-FX	20 Km	TX: 1550 nm RX: 1310 nm	10/125 SM	SC	17 dB
100Base-FX	40 Km	TX: 1550 nm RX: 1310 nm	10/125 SM	SC	25 dB

## Regulatory Approvals:

### ISO:

- Manufactured in an ISO9001 facility.

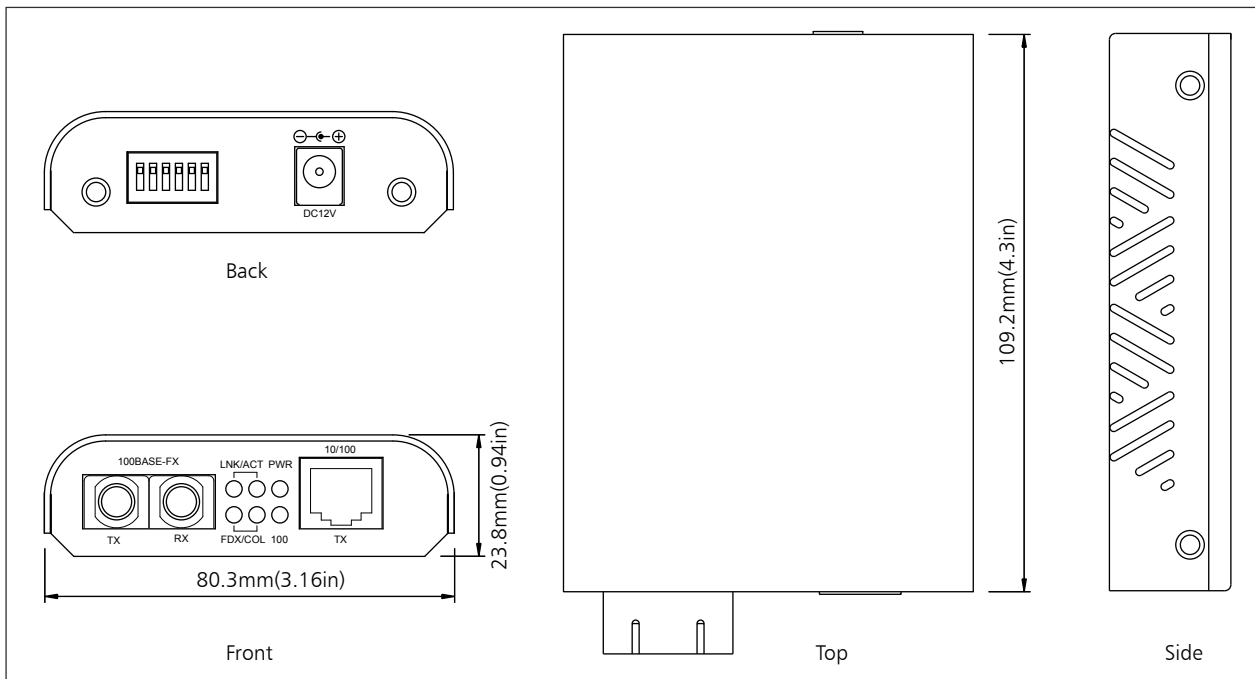
### Emission Compliance:

- CE Mark Class A, FCC Part 15 Class A

### Safety:

- UL

## Diagrams



## Ordering Information

EL100C	10/100Base-TX to 100Base-FX Multi Mode (SC) Media Converter
EL100T	10/100Base-TX to 100Base-FX Multi Mode (ST) Media Converter
EL100C-20	10/100Base-TX to 100Base-FX Single Mode (SC) -20Km Media Converter
EL100T-20	10/100Base-TX to 100Base-FX Single Mode (ST) -20Km Media Converter
EL100C-40	10/100Base-TX to 100Base-FX Single Mode (SC) -40Km Media Converter

EL110C	100Base-TX to 100Base-FX Multi Mode (SC) Media Converter
EL110T	100Base-TX to 100Base-FX Multi Mode (ST) Media Converter
EL110C-20	100Base-TX to 100Base-FX Single Mode (SC) -20Km Media Converter
EL110T-20	100Base-TX to 100Base-FX Single Mode (ST) -20Km Media Converter
EL110C-40	100Base-TX to 100Base-FX Single Mode (SC) -40Km Media Converter

### NOTES:

EL200/EL210 WDM version converters series are also available.  
The chassis is purchased separately.