

# EM1100 EM2100 Series

## 10/100/1000Base-TX to 1000Base-SX/LX Media Converter



### Overview

EtherWAN offers the market a complete selection of Gigabit media converters. From 10/100/1000Base-TX to fiber Gigabit in multi-mode or single-mode, fiber optic interfaces. Flexible and easy to use, EM1100 Series is one of the most versatile media converters in the world. It has a stand-alone kit ideal for desktop use, and is also wall mountable. EM1100 is available in a 19" rack mountable chassis that may hold up to 16 units of any of EtherWAN's media converters for central control purposes.

EM1100 Series features easy to understand diagnostic LEDs. These LEDs shows details for Link/Activity, 100, 1000, Full/Half duplex, and power status.

### Features

- ▶ 4096 MAC addresses
- ▶ 2M bits buffer memory
- ▶ 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- ▶ Full wire-speed forwarding rate
- ▶ 0.6A 12VDC external 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, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-SX/1000Base-LX, IEEE802.3x

##### Forward and Filtering Rate:

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

##### Packet Buffer Memory:

- 2M bits

##### Processing Type:

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

##### Address Table Size:

- 4096 MAC addresses

##### Latency:

- Less than 286.1μs

#### Power

##### Input:

- Input Voltage: 12VDC
- Input Current: 0.37A

##### Power Consumption:

- 4.25W 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: 10/100/1000TX: Link/Activity, Speed, Full-duplex/Collision  
1000SX/LX: Link/Activity

Designation	Typical Distance*	Nominal Wavelength	Cable Type	Connector	Optical Budget
1000Base-SX	550 m	850 nm	50/125 MM	SC	7.5 dB
1000Base-LX	10 Km	1310 nm	10/125 SM	SC	14.5 dB
1000Base-LX	20 Km	1310 nm	10/125 SM	SC	17 dB

## Regulatory Approvals:

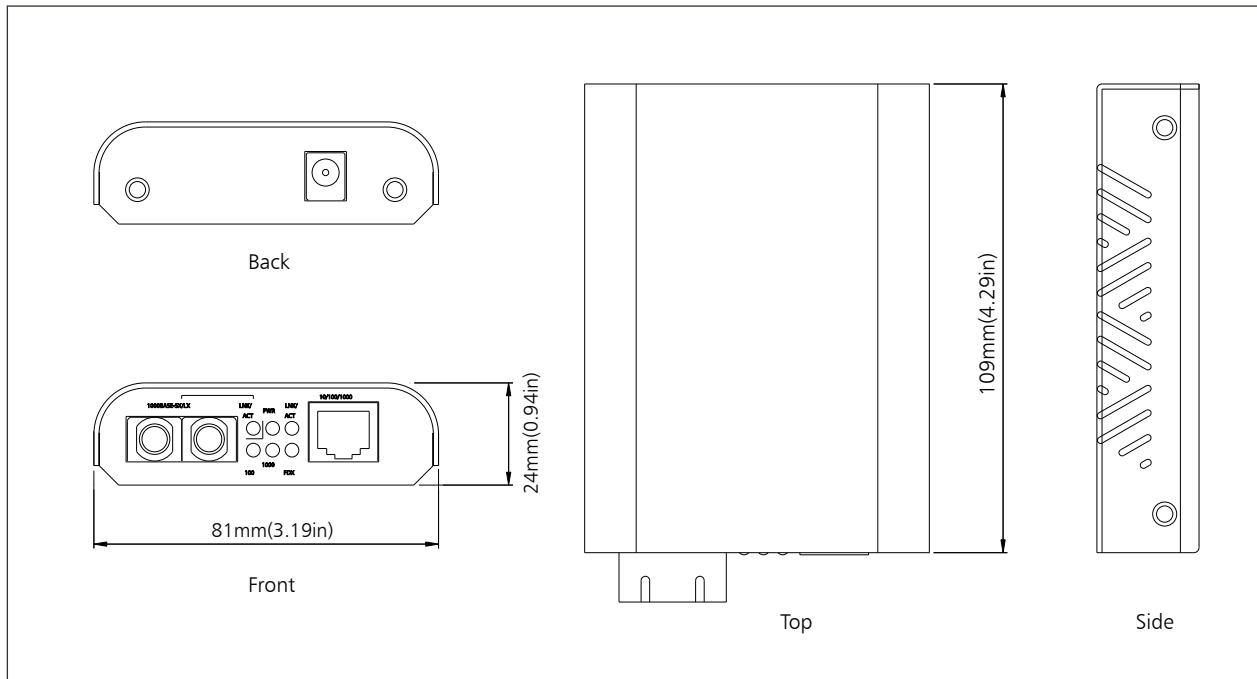
### ISO:

- Manufactured in an ISO9001 facility.

### Emission Compliance:

- CE Mark Class A, FCC Part 15 Class A

## Diagrams



## Ordering Information

EM1100TSC	10/100/1000Base-TX to 1000Base-SX Multi Mode (SC) -550m Media Converter
EM1100TLC-10	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) -10Km Media Converter
EM1100TLC-20	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) -20Km Media Converter
EM1100TLC-50	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) -50Km Media Converter
EM2100TLCA-10	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1310nm/RX:1550nm -10Km Media Converter
EM2100TLCB-10	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1550nm/RX:1310nm -10Km Media Converter
EM2100TLCA-20	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1310nm/RX:1550nm -20Km Media Converter
EM2100TLCB-20	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1550nm/RX:1310nm -20Km Media Converter
EM2100TLCA-50	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1310nm/RX:1550nm -50Km Media Converter
EM2100TLCB-50	10/100/1000Base-TX to 1000Base-LX Single Mode (SC) WDM -TX:1550nm/RX:1310nm -50Km Media Converter

\*Proprietary 19" system chassis can house up to 16 EM1100/EM2100 Series Converters.

\*Chassis is to be ordered separately.

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