

## **Features**

- One 10/100Base-TX Fast Ethernet UTP port and one 100Base-FX Fast Ethernet fiber port with Layer 1 media converter
- Single-mode/multi-mode transceiver with simplex-SC/UPC connector
- 1550 nm laser diode transmitter
- Up to 20 km transmission over single-mode fiber
- Up to 4 km transmission over multi-mode fiber
- 0 to 70°C operating temperature range
- Single +3.3V power supply
- Class 1 laser complies with Laser Safety Standard IEC 60825-1

# Fast Ethernet Media Converter (Single-mode/Multi-mode 1550nm 100Base-FX to 10/100Base-TX)



Aurora Networks' MC1201U-1550-SF Media Converter permits network planners to connect 10 or 100 Mbps twisted pair network segments to single-mode or multi-mode fiber optic access networks with a very compact (small form factor) module.

The MC1201U-1550-SF incorporates a single-mode/multi-mode transceiver that combines low power consumption with high performance for bi-directional Fast Ethernet data communications. This module is designed for operation over both single-mode and multi-mode fiber and transmits at a nominal wavelength of 1550 nm. The transmitter section uses a multiple quantum well laser and is a Class 1 laser device that meets the safety requirements of IEC 60825-1. The receiver section uses an integrated InGaAs detector preamplifier (IDP) mounted in an optical header and a limiting post-amplifier IC for high reliability.

# MC1201U-1550-SF

## **Product Specifications**

## Physical:

· Ports:

One 10/100M RJ-45 UTP port

One 100Base-FX fiber port with simplex SC/UPC connector

· Dimensions:

2.75" L x 2.25" W x 1.0" H (7.0 cm x 5.7 cm x 2.5 cm)

• Weight: 0.2 lbs (0.1 kg)

#### General:

· LED indicators: FX Link and TP Link

Packet error rate: <10-9</li>

#### **Electrical:**

Input power: 3.3V, from external power adapter

• Power consumption: 1 Watt max

## **Environmental:**

- Operating temperature range: 0° to +70°C (32° to 158°F)
- Storage temperature range:
  -40° to +85°C (-40° to 185°F)
- Humidity: 0% to 95% non-condensing

## **Fiber Optic Port Interface:**

### Transmitter:

• Wavelength: 1480–1580 nm (1550 nm typ)

· Signaling speed: 125 Mbps

· Output power:

with 9/125μm SMF: -15 to -8 dBm with 62.5/125μm MMF: -14 to -5 dBm

Extinction Ratio: 8.2 dBOptical isolation: 30 dB

#### Receiver:

• Wavelength: 1260-1360 nm (1310 nm typ)

· Received optical power:

with 9/125μm SMF: -30 to -8 dBm with 62.5/125μm MMF: -28 to -6 dBm

• Receive LOS assert level: -30 dBm

### System:

Connector: Simplex SC/UPCOptical return loss: 50 dB

• WDM crosstalk (optical): -30 dB max

• Power budget:

with 9/125μm SMF: 15 dB with 62.5/125μm MMF: 14 dB

· Fiber span, max:

with 9/125μm SMF: 20 km with 62.5/125μm MMF: 4 km

#### **Twisted-Pair Port Interface:**

- Connector: Shielded/Unshielded RJ-45, 8-pin jack
- Impedance:  $100 \Omega$  nominal
- Signal level output (differential): 0.95 to 1.05 V (100Base-TX)
- Signal level input: 350 mV minimum (100Base-TX)
- Data transfer rate (TX port): Auto-negotiating 10/100 Mbps
- Supported link length: 100 m
- Cable type (100 Mbps segments): CAT5 UTP (100M)

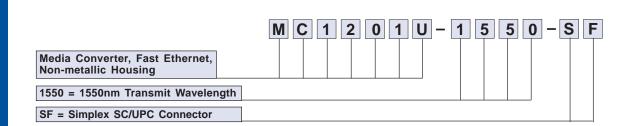
## Regulatory:

• Compliance: IEEE802.3, IEEE802.3u

• Safety: UL, IEC 60825-1

 Emissions: FCC Part 15, Class A and CE Mark

# **Ordering Information**





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