MRV Communications, Inc.

FIBER ACCESS SOLUTIONS

Datasheet

# Fiber Driver MC 102 Series


MC 102

## Features

- Autosensing 10/100 Base-Tx port Half/Full duplex traffic selection
- Choice of multimode/singlemode or single fiber operation
- Up to 130 Km fiber distances
- Different protocols support
- Wall mountable
- Plug and play design

## Overview

The MC102 product line is a copper-to-fiber or fiber-to-fiber conversion units. The fiber port has a choice of multimode or single mode fiber, single fiber operation, different wavelengths and power levels.

**MC102F/x - 10/100BaseTX to 100BaseFX converters**

MC102F/x (external power supply) and MC102FI/x (internal power supply) use switching technology for 10/100BaseTx to 100BaseFx conversion, thus providing the necessary packets buffering and error filtering. The maximum supported packet length is 1522 bytes. The copper port has the auto-negotiation feature and can be forced to work at 10Mbps or 100Mbps speeds by hardware switch set-up.

**MC102FRC -100BaseTX to 100BaseFX repeaters**

For applications with long frames (more than 1522 bytes), like some inter-router communication (e.g.MPLS) switching technology is limited. For such applications true Fast Ethernet repeaters - MC102FRC are suitable. Another important feature is ALI™ (Automatic Link Integrity), which in case of fiber link failure automatically turns the copper link down.

**MC102FR - 100BaseFX repeaters**

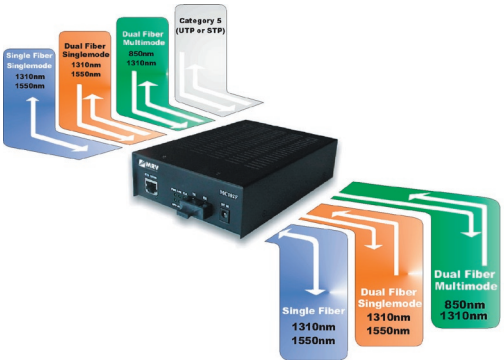
This type of repeaters is targeted for fiber type media conversion (like MM to SM) for infrastructure adaptation and longer distances communications as repeater chaining. The main advantage of repeater in comparison to a converter is the ability to perform 3R (retiming, reshaping, re-amplification) functionality that allows units to be chained without compromising signal quality.

**MC102G – 1Gbps repeaters**

For Gigabit Ethernet or Fiber Channel (1Gbps) applications MC102G units provide fiber-to-fiber conversion (like MM to SM or 850nm to 1310/1550nm) for infrastructure adaptation. Due to 3R functionality longer than 100Km distances can be reached by chaining this type of repeaters without compromising signal quality.

**MC102T – Any protocol media converters**

These types of fiber-to-fiber converters provide transparent media adaptation and fiber boosting up to 100Km for any protocol. Two types of converters are available –up to 200Mbps rates (FE, STM1, ESCON, E3, etc.) and up to 1.25Gbps (GE, FC, STM4).



## Media Converter 102 –Technical Specifications

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|---|---|
| Power input voltage | AC: 90v-240v, 50-60Hz |
| Max.Power comsuption | 12W |
| Environmental | Operating Temp.: 0 to 40˚C / 32 to 104 ˚Ft Storage Temp.: -40 to 70˚C / -58 to 158˚Ft |
| Humidity | 85% maximum, non-condensing |
| Physical Dimensions | Size (W x D x H): 120 mm x 180 mm x 45 mm (4.7 in x 7 in x 1.77 in) |
| Weight (Max) | 0.5 Kg (1Lb) |
| Standards Compliance | UL-1950; CSA-22.2 No.950; FCC part 15 Class A; CE- 89/336/EEC, 73/23/EEC |

## Ordering Info

| Product | Description |
|---|---|
| **MC102F/x** | 10/100BaseTX to 100BaseFX converter with external P.S. |
| **MC102F/MT/x** | 10/100BaseTX to 100BaseFX converter with external P.S. and MTRJ connector |
| **MC102FI/x** | 10/100BaseTX to 100BaseFX converter |
| **MC102FI/MT/x** | 10/100BaseTX to 100BaseFX converter with MTRJ connector |
| **MC102FR/x** | 100BaseFX repeater |
| **MC102FRC/x** | 100BaseTX to 100BaseFX repeater |
| **MC102FSF13/S1** | 10/100BaseTX to 100BaseFX single fiber converter with external P.S. (SM; 1310nm transmitter; 0-30km; SC) |
| **MC102FSF15/S1** | 10/100BaseTX to 100BaseFX single fiber converter with external P.S. (SM; 1550nm transmitter; 0-30km; SC) |
| **MC102FSFI13/S1** | 10/100BaseTX to 100BaseFX single fiber converter (SM; 1310nm transmitter; 0-30km; SC) |
| **MC102FSFI15/S1** | 10/100BaseTX to 100BaseFX single fiber converter (SM; 1550nm transmitter; 0-30km; SC) |
| **MC102FSFR13/M** | 100BaseFX MM to single fiber repeater (SM; 1310nm transmitter; 0-30km; SC) |
| **MC102FSFR15/M** | 100BaseFX MM to single fiber repeater (SM; 1550nm transmitter; 0-30km; SC) |
| **MC102FSSFR13/S1** | 100BaseFX SM to single fiber repeater (SM;1310nm transmitter; 0-30km; SC) |
| **MC102FSSFR15/S1** | 100BaseFX SM to single fiber repeater (SM; 1550nm transmitter; 0-30km; SC) |
| **MC102T/x/x** | 0 to 200Mbps Protocol Transparent F/O converter |
| **MC102TH/y/y** | Above 200 Mbps to 1.25 Gbps |
| **MC102G/y/y** | Gigabit Repeater |
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|---|---|---|---|
| x = M | MM, 1310nm, 0-2km, DSC | y = SX | MM,850nm,0-0.5Km, DSC |
| x = S1 | SM, 1310nm, 0-35km, DSC | y = LX | MM,1310nm,0-2Km, DSC |
| x = S2 | SM, 1310nm, 25-45km, DSC | y = S1 | SM,1310nm,0-6Km, DSC |
| x = S3 | SM, 1550nm, 35-90km, DSC | y = S2 | SM,1550nm,0-32Km, DSC |
| x = S4 | SM, 1550nm, 35-115km, DSC | y = S3 | SM,1550nm,30-60Km, DSC |
| x = S5 | SM, 1550nm, 35-135km, DSC | y = S4 | SM,1550nm,35-80Km, DSC |
| | | y = S5 | SM,1550nm,50-100Km, DSC |