



MC01 10/100Base Media Converter



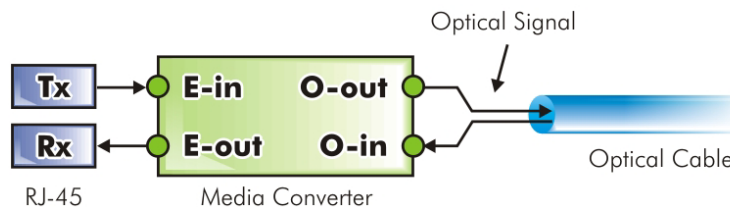
Padtec's MC01 is an Ethernet Media Converter that supports conversion from Ethernet 10/100Base-TX signal to 100Base-FX signal. It is classified in two kinds of Ethernet Media Converter, the conventional Duplex transceiver as well as WBR (WDM Bi-directional SC Receptacle) transceiver.

The conventional Duplex Media Converter is 10/100Base-TX to 100Base-FX Media Converter including 850nm VCSEL transceiver from MMF, 1310nm

LED Transceiver for MMF or 1310/1550 nm SC Duplex Optical Transceiver for SMF.

The other hand, WDM Media Converter is 10/100Base-TX to 100Base-FX Single Fiber WDM Media Converter including WBR that 1310/1550nm Bi-directional Receptacle Transceiver using WDM Technology. In case of WDM Technology combines two fiber cables into one single fiber to save greatly the installation cost and expensive fiber cable.

Functioning Mode



Applications

- Extends network distance between twisted pair ports of two switch hubs or a switch hub and a server
- Alternative to optical duplex type ethernet media converter systems
- Can be used to connect remote devices or an existing fiber interface

Physical Characteristics

	Specifications
Standard Compatibility	IEEE802.3u 100Base-TX, 100Base-FX IEEE802.3 10Base-T, 10Base-FL
Protocol Compatibility	CSMA/CD
Optical Interface	WDM Bi-directional or SC Duplex Transceiver
Electrical Interface	RJ-45 port for UTP cat.5 cable
Operating Temperature	-10 °C up to +70° C
Storage Temperature	-40 °C up to +85° C
Humidity	30% to 90%
Mechanics	Padtec's Media Converter is supplied in 19" 1U height (horizontal mechanics) or in 3U sub-rack vertical mechanics.

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Electrical Characteristics

Specifications	
TX Port	10/100Mbps Auto Negotiation, Auto MDI/MDIX, FDX/HDX flow control Max. Distance of Segment: Max. 100m at 10/100Base TX
Data Transfer Rate	148,800 PPS @ 100Mbps 14,880 PP @ 10Mbps
Power	48 VDC or 85/265 VAC 50/60Hz
LED Indicator	TX : UTP Port Link/ACT — FX : Optic Port Link/ACT — PWR : Power Input

Optical Characteristics

		Min	Typ	Max	Unit			Min	Typ	Max	Unit
Transmitter						Receiver					
Optical Power	850nm VCSEL	-10		-4	dBm	Optical Sensitivity	850nm VCSEL			-28	dBm
	1310nm LED	-19		-14			1310nm LED			-31	
	1310/1550nm FP SH	-15	-	-7			1310/1550nm			-33	
	1310nm FP LH	-5		0							
	1550nm DFB LH	-10		-6							
1550nm DFB ULH	-5		0								
Center Wavelength	850nm VCSEL	830	850	860	nm	Sensitivity Degradation	-	-	3	-	dB
	1310nm LED	1270	1310	1380							
	1310nm FP	1260	1310	1360							
	1550nm FP/DFB	1500	1550	1600							
Spectral Width(RMS)¹	850nm VCSEL			0.85	nm	Operating Wavelength	850nm VCSEL	810		860	nm
	1310nm LED			1.37			1310/1550nm	1200		1600	
	1310nm FP			7.7							
	1550nm FP			3.0							
1550nm DFB			1.0								
Extinction Ratio²	-	9	10		dB	Optical Overload	850nm VCSEL	-4			dBm
						1310/1550nm	-3				

(1). CW : P = 5mW (1310nm FP, 1550nm DFB), 3mW (1550nm FP), 8mA(850nm VCSEL) at TO CAN.

(2). Extinction Ratio is set to > 13dB SOL and room temperature.

Part Number

MC01[X][Y][Z][W]

[X]	[Y]	[Z]	[W]
Height (1) 1U (3) 3U	Optical Interfaces (1) 1310 FP SMF Short-Haul (20 Km) (2) 850 VCSEL MMF Short Haul (2 Km) (3) 1310 LED MMF Intra-Office (2 Km) (4) 1550 DFB SMF Long-Haul (60 Km) (5) 1550 DFB SMF Ultra-Long-Haul (80 Km, Especial) (6) 1310 FP SMF Long-Haul (40 Km) (7) 1550 FP Short-Haul (20 Km) (8) 1310nm FP TX/1550nm RX, SMF, Short Haul (9) 1550nm FP TX/1310nm RX, SMF, Short Haul	Power Supply (A) 85/265 VAC 50/60 Hz (D) 48 VDC (F) Full Range	Monitoring (S) Standard (C) Dry Contact (M) With Management

Note.: - Nor all combinations are available
 - Other models upon request