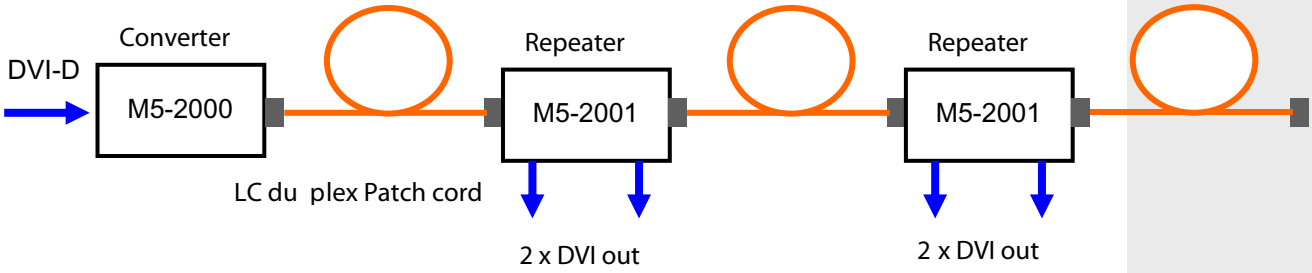
Optical DVI Daisy-chain Extender M5

Stretch your digital connection beyond copper

Model: M5-2000 / M5-2001



Descriptions

There are many applications, requiring displaying a graphic source on multi-located long-distance displays. The combination of these two products gives simple and clean solution for such applications; digital signage and multiple information displays.

Optical DVI converter, M5-2000 converts DVI of graphic cards into two channels optical data. Optical DVI repeater, M5-2001 makes such optical data distributed into 2 channels DVI signals for DVI displays and repeat to the next M5-2001. One (1) M5-2000 and multi-located M5-2001 make a daisy-chained display long-distance connection, each of which gives splitting to two (2) DVIs displays.

Between a converter and repeaters, a multimode fiber cable of duplex industrial LC connector gives a simple connection.

Considering mounting on the standard rack, we have designed to place all ports on the front-face except for a power adaptor in the rear-face.

To set right display quality for connected panels, we could program the EDID to the EEPROM on the optical DVI converter, M5-2000, so that the graphic cards read out the right EDID from it, which is so called as a virtual DDC function.

Features and Specifications

- Extends DVI upto 500meters (1,640feet) between each module over a duplex LC multi-mode fiber
- Supports graphic/Video data upto SXGA (1280X1024) 24bit color and 60Hz refresh rate with DVI-I female.
- Makes a daisy-chained connection of displays placed remotely;
  - M5-2000 converts DVI into optical two (2) channels data.
  - M5-2001 splits two (2) DVIs and repeats to the next.
- +12V 3A DC power supply to each module
- Complies with CE and FCC for electrical hazards and Class 1 Laser Eye-safety.
- Mechanical Dimension of each (W/D/H in mm): 180/130/30

Applications

- Train Information Display.
- Informs door sign and station stop.
- Brings commercial advertisements.
- Delivers daily news.
- Various digital signage fields.

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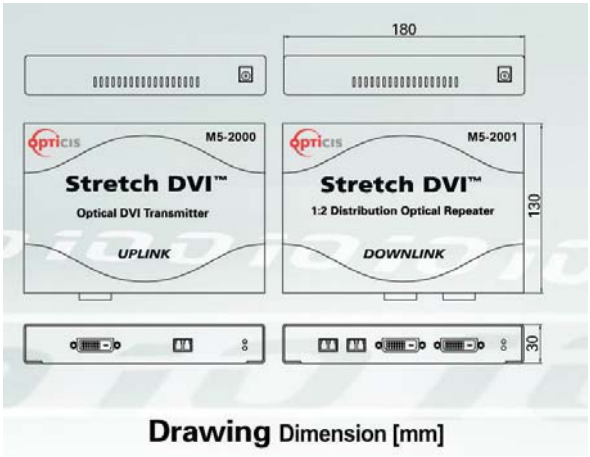
EMI and Immunity

The Opticis M5-2000 and M5-2001 extension modules have been tested and found to comply with the limits for class A device, pursuant to Part 15 of FCC-rules and EN 55022/55024/61000-3 for CE certification. These limits are designed to provide reasonable protection due normal use with other home network appliance.

Eye Safety

The Opticis M5-2000 or M5-2001 extension modules have been designed to meet Class 1 eye safety by adapting 850nm transmitter, certified by FDA/CDRH and IEC 60825-1.

[Drawing]



Drawing Dimension [mm]

M5-2000 M5-2001

Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Units
Ambient Operati ng Temperature	T_A	0	25	+ 50	℃
Storage Temperature	T_s	-20		+ 70	℃
Storage Humidity	H_s	10		85	RH%

Electrical Power Supply Characteristics

(T_A = 0 °C to +50 °C, unless otherwise noted)

Parameter		Symbol	Min	Typ	Max	Units
Supply Voltage		V_{CC}	11.4	12	12.6	V
Supply Current	M5-2000	I_{TCC}	-	700	800	mA
	M5-2001	I_{RCC}	-	2,600	3,000	mA
Power Dissipation	M5-2000	P_{TX}		8.4	10.1	W
	M5-2001	P_{RX}	-	31.2	37.8	W

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