



## Optical DVI/ USB/ RS232 Extender, M5-1003-TR

### Description

M5-1003 offers extremely long extension of DVI, USB, serial control data and audio up to 2 km (6,560ft) over single-mode fiber cables with two (2) duplex LC connectors. It is tremendously long over the limits of copper extensions like a few of meter of DVI and USB.

Designed for high resolution performance, it guarantees lossless image quality and no frame dropping to deliver perfect graphic data transmission up to WUXGA (1920x1200) at 60Hz refresh rate. It is designed to multiplex and de-multiplex DVI, USB, RS232 and stereo audio so as to be linked over four (4) single-mode LC fibers at 1310nm/1550nm. It provides self EDID programming feature that makes the installation of M5-1003-TR more easy and flexible at any variable resolution.

Optionally, we could include convenient remote console switch and indicator for selecting local control or remote control.

### Specification

- Extends DVI, USB, RS232 and Audio with both single and multi-mode fibers.
  - up to 2km (6,560ft) over two (2) duplex LC single-mode fibers.
  - up to 500m (1,640ft) over two (2) duplex LC multi-mode fibers.
- Supports DVI up to resolution of 1,920X1,200, 24bit color and 60Hz refresh rate.
- Offers DVI and USB ports for Local Display and Keyboard/Mouse.
- Lossless Image Quality, with no Frame Dropping.
- Complies with USB2.0 (480Mbps).
- Provides Serial Control Data: RS232 through 9 pin D-sub connector.
- Supports one-directional analog stereo audio.
- Self-EDID features
- Interconnection between TX and RX module: two(2) duplex LC patch cords of single or multi-mode fiber.
- Offers remote console switch and indicators.
- Rack mountable 1U half rack width metal enclosures
- Certifications: CE / FCC, Class 1 Laser Eye Safety

### Application

- Medical
- Education
- Military and aerospace
- Factory automation and traffic control platforms
- Conference rooms, auditoriums and kiosk systems
- Large scale information display and stadiums

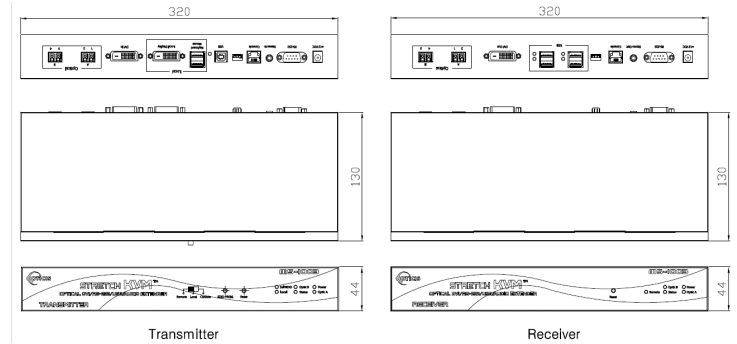
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## Technical Features

OPTICAL INTERCONNECTION	
Number	Four (4) fibers
Connectors	Four (4) LC connector
Wavelength	Up to 2km(6,560ft) over two (2) duplex single-mode fibers
Transmitter Power	One (1) +12V DC power
Receiver	One (1) +12V DC power
Operating Distance	Up to 500m(1,680ft) over two (2) duplex multi-mode fibers
VIDEO	
Supported Resolution	WUXGA (1920x1200)
Pixel data bit depth	8 bits per channel, 3 channels (RGB)
Connectors (Tx)	One (1) female DVI-D for input
Connector (Rx)	One (1) female DVI-D for local display One (1) female DVI-D for output
USB	
Supported Standard	Complies with USB 2.0
Data Rate	480Mbps
Connectors (Tx)	Two (2) female USB-A for local KM
Connector (Rx)	One (1) female USB-B for connection with PCs Four (4) female USB-A for remote KM
AUDIO	
Connector for Input	One (1) Stereo input
Connector for Output	One (1) Stereo output
Sampling Rate	48KHz
Input Impedance	25 kΩ
Output Impedance	100 Ω
SERIAL DATA COMMUNICATION	
Connector (Tx)	One (1) female 9-pin Dsub
Connector (Rx)	One (1) female 9-pin Dsub
Supported Protocol	RS-232C

## Dimension

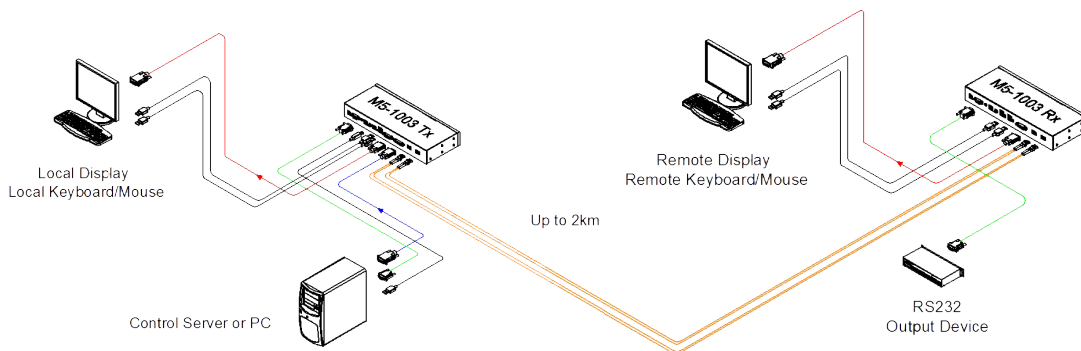
320mm x 130mm x 44mm (WDH)



## Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Temp.	T <sub>A</sub>	0	25	+ 50	°C
Storage Temp.	T <sub>s</sub>	-30		+ 70	°C
Operating Humidity	H <sub>s</sub>	10		85	RH%

## Connection Diagram



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All contents are subject to be changed without prior notice.