

Digitally-Encoded DVI / RGB Video over One Singlemode Fiber



FEATURES:

- Digital transmission of DVI / RGBHV / RGsB over one, singlemode fiber
- Supports VGA, SVGA, XGA, SXGA & UXGA (640x480x60Hz to 1920x1200x60Hz)
- 1080p HDTV resolution for DVI signals
- H & V Sync Frequency range of 60 to 150Hz (vertical), 30 to 130kHz (horizontal)
- Uses all-digital processing & transmission for crystal-clear signals and no color skewing
- Real-time video transmission for exceptional quality & resolution – no video compression
- Auto detects & switches resolution & sync configurations
- Requires no adjustments, equalization or de-skewing during setup
- Data throughput in excess of 6 Gbps (uncompressed)
- Most systems have 1.25 Gbps throughput with significant compression
- DDC (Data Display Channel) optional
- Standard DVI-I video connector with HD-15 dongle included for RGB interface
- USB interface for remote monitor adjustments
- Wide optical dynamic range: Eliminates need for optical attenuators
- Singlemode Laser Based System

DESCRIPTION:

Meridian's DT/DR-1RG-x product is part of Meridian's DigiView™ product family. This state-of-the-art, cost-effective, high performance video transmission system transmits fully-compliant DVI, RGsB or RGBHV signals over one, singlemode fiber.

This RGB product provides real-time, digitized transmission of DVI, RGB and H&V sync signals. Because it transmits signals in real-time, no video information is lost and is a perfect solution for dynamic video signals with crystal clear video and no color pixel skewing. Having both DVI and RGB input capability, this system offers an easy upgrade path from RGB to DVI systems with the same modules. In addition, this dual format capability allows the user to convert from one format to the other (RGB to DVI, DVI to RGB) to ensure compatibility with a wide variety of video sources and monitors. An example of this would be to supply a RGB signal at one end of the link and output a DVI signal at the other end.

The supplied adapters (dongles) allow easy interface to standard RGBHV connectors on computers and monitors.

The user can further enhance the video performance with the use of the computer USB interface. This data channel allows the user to adjust brightness, contrast, H&V position, picture sharpness, color, check temperature of the card and load voltage.

Note: Options available for Mouse, Keyboard and Audio with additional KVM card.

CONFIGURATIONS:

This DT/DR-1RG-x product is available as either a rack mount card that can be installed in either Meridian's desk chassis or in 19" racking frames. This product can also be configured as a stand-alone module by using the SR-1002, 2 slot desk / wall mount chassis.

MARKETS:

- ✓ Courtrooms
- ✓ Medical & MRI displays
- ✓ Air traffic control
- ✓ Military information displays
- ✓ Stock exchanges
- ✓ Concert & sporting event video displays
- ✓ Video walls
- ✓ CAD / CAM

SPECIFICATIONS:

Video

Number of Video Channels	1 of DVI, RGsB (sync-on-green) or RGBHV (TTL H & V sync)
Horizontal Scan Rate	30kHz to 130kHz (auto sensing)
Vertical Scan Rate	60-150Hz (auto sensing)
SNR	>60dB
Resolution Range (RGB)	640x480x60 to 1600x1200x75
Resolution Range (DVI)	640x480x60 to 1920x1200x60
HDTV Resolution support (DVI)...	480p, 720p, 1080i, 1080p
RGB Processing	24-bits, no compression or scaling
Input Impedance/Level	RGB: 75 Ω / 714 mV p-p, H&V 3-5V p-p, 1V p-p w/S.O.G

Optical

Number of fibers	1
Fiber type	Singlemode (9.0 μ m)
Wavelength 1310 Band	1270nm, 1290nm, 1310nm, 1330nm
Wavelength 1550 Band	1510nm, 1530nm, 1550nm, 1570nm
Operating distance 1310 Band	Up to 25 Km *
Operating distance 1550 Band	Up to 5 Km *

Connectors

Video	DVI-I (female) HD-15 female (on dongle)
Optical	ST - MM(default), FC - SM(default)
USB	4-pin USB (type B)
Power	See SR-1000 chassis for details

Power **

Card	7 Watts
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* Based on maximum resolution & fiber bandwidth

** Due to variations of drivers and diagnostic options, power shown @ max value

Indicators (LEDs)

Power	Green
Diagnostic	Green (OK), Red (alarm)
Tx carrier	Green (OK), Red (alarm)
Rx carrier	Green (OK), Red (alarm)
DVI active	Green
RGB active	Green
SHV (sync H&V)	Green
SOG (sync on green)	Green
USB active	Green (Rx-Data), Red (Tx-Data)

Physical

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W 44 mm (1.60") W
Weight (Card)	450 gms (16 Oz)
No. of Slots	2
Module	See SR-1000 Brochure

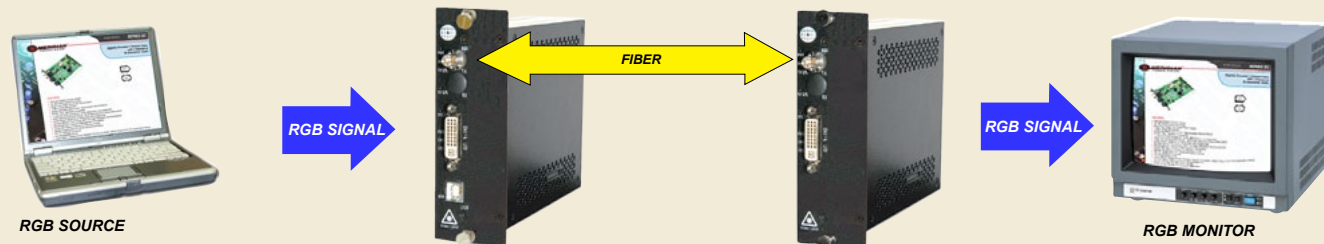
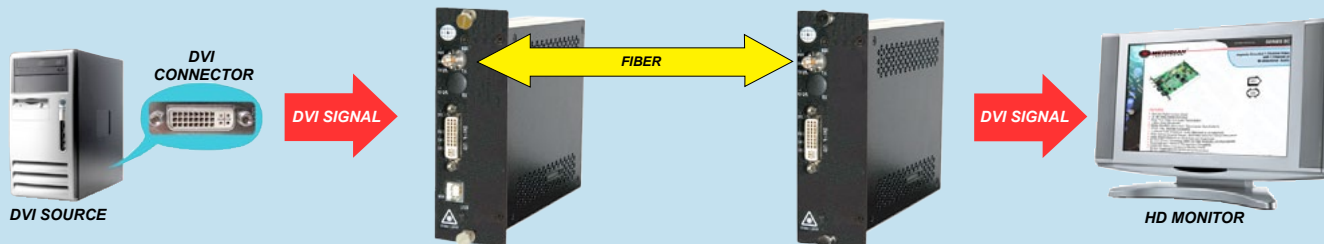
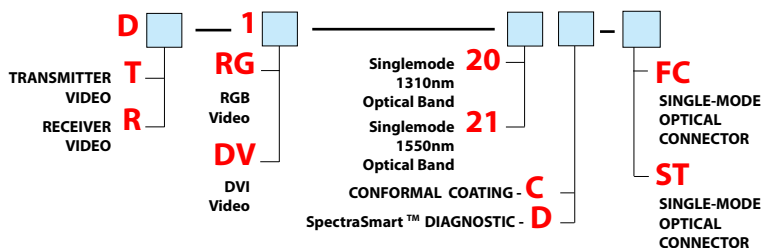
Enviromental

Operating Temperature	-10°C to +50°C
Storage Temperature	-55°C to +85°C
Relative Humidity.....	0 to 95% Non-condensing

Quality

MTBF	>150,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:



OPTICAL:

* Meridian Optical Code	Fiber Type/Size (μ m)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
20	Singlemode (FP Laser) 9 / 125	-5	-20	15	1310 Band	FC, ST	20	25
21	Singlemode (FP Laser) 9 / 125	-5	-20	15	1550 Band	FC, ST	20	5 *

Meridian Technologies Inc.

700 Elmont Road. • Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com
www.meridian-tech.com

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