



### Digitally-Encoded DVI / RGB Video Transmission System



#### **FEATURES:**

- Digital transmission of DVI / RGBHV / RGsB over one, multimode fiber
- Supports VGA, SVGA, XGA, SXGA & UXGA (640x480x60Hz to 1600x1200x75Hz)
- HDTV resolutions of 480p, 720p, and 1080i (RGB/DVI)
- 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
- Multimode Laser Based System
- SpectraSmart™ Network Management Compatible

#### **DESCRIPTION:**

Meridian's RGB 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, multimode fiber. The supplied adapters (dongles) allow easy interface to standard RGBHV connectors on computers and monitors. 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 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, etc. As with all of Meridian's DigiView products, this unit has a 10-year warranty.

Note: Options available for Mouse, Keyboard and Audio

#### **CONFIGURATIONS:**

This RGB-T/R 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-500/S, SR-1000/s, 1 or 2 slot desk / wall mount chassis (87 VAC- 264VAC)

#### **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, RGB (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.....	640x480x60 to 1600x1200x75
HDTV Resolution supported ..	480p, 720p, 1080i (RGB/DVI)
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 .....	Multimode (62.5 or 50um)
Wavelength .....	850nm band
Operating distance .....	Up to 1km (50um fiber)* Up to 500m (62.5um fiber)*

## Connectors

Video .....	DVI-I (female) HD-15 female (on dongle)
Optical .....	ST (one)
USB .....	4-pin USB (type B)
Power .....	See SR series chassis for details

## Environmental

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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## 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

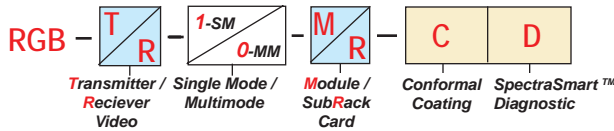
Dimensions (Card) .....	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card) .....	450 gms (16 Oz)
No. of Slots .....	1
Module .....	See SR-500 Brochure

## Power \*\*

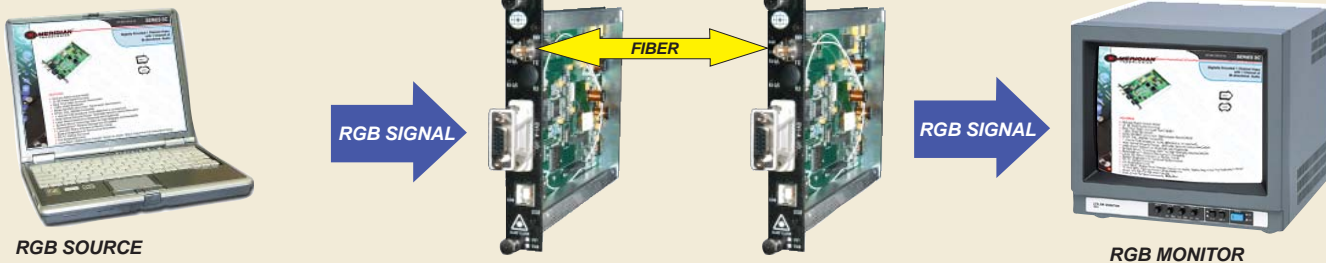
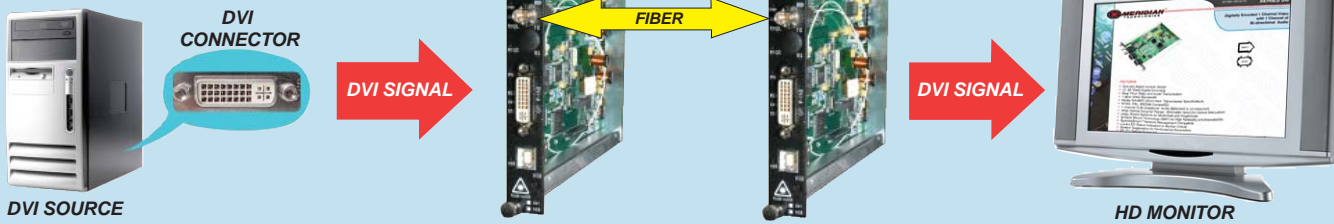
Card .....	5 Watts
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\* Based on maximum resolution & fiber bandwidth  
\*\* Due to variations of drivers and diagnostic options, power shown @ max value

## Part Numbers:



For DVI products: RGB part of Part numbers should be changed to DVI.



# OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5/125 & 50/125	+2	-8	10	850	ST	15