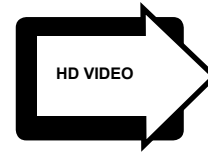


**Digitally Encoded Multi-rate  
HD-SDI Video****FEATURES:**

- Transmission of Multi-Rate SDI & HD-SDI (19 Mbps to 1.5 Gbps)
- Real-Time, Uncompressed Video Transmission
- Supports Both Singlemode And Multimode Fiber
- Supports The Following Formats :
  - 19.4 Mbps (SMPTE 310M)
  - 143 To 540 Mbps SMPTE 259M/344M
  - 1.5 Gbps SMPTE 292M HDTV
  - DVB/ASI at 270 Mbps
  - SMPTE 305M SDTI Rates
- Error Free Pathological Pattern Performance
- Small Tx Easily Mounts on Back of Cameras
- Supports Embedded Audio and Metadata
- Transmission Distances in excess of 60 km
- Power via 5VDC Power Supply
- Led Indicators for :
  - Power
  - Rx Optical Power
  - Tx Video Signal Present
  - Laser Over Current
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- Optional Rack Mount Card Unit
- Available with ST or FC Optical Connectors
- Requires No User Adjustments
- CWDM Lasers are available
- Class 1 Laser Safety Rating

**DESCRIPTION:**

Meridian's HD-SDI fiber product is part of our expanding DigiView product family. These units are robust, miniature serial digital video transmitters & receivers that provide broadcast quality transmission of the industry standard range of digital video data rates. All units transmit and receive real-time video. No video compression is utilized. The standard MT/MR product supports one channel of SMPTE 292M, 310M, 259M, and 344M compliant digital video data rates over one multimode or singlemode fiber. Using high-performance digital transmission technologies, no user adjustments are needed thus ensuring fast deployment and setup with broadcast quality results. Other available options include two channel rack mount units ST/SR-1HD-x with 3R (Retiming, Reshaping, Regenerate) functions and dual buffered outputs. This feature ensures maximum performance over long distances.

**CONFIGURATIONS:**

The MT/MR-1HD-x micro modules easily mounted on the camera (Tx unit) and monitor (Rx unit) via BNC connector. Other product configurations include individual Transmitter/Receiver modules and one & two channel rack mount cards that can be installed in either Meridian desk/shelf mount chassis or in 19", 3RU racking frames.

**MARKETS:**

- √ Remote broadcast camera links
- √ Sporting events, concerts, etc.
- √ Media feeds
- √ Video production
- √ Studio to studio & head end feeds
- √ Military information displays

# SPECIFICATIONS:

## Video

Formats .....	19.4 Mbps (SMPTE 310M) 143 To 540 Mbps SMPTE 259M/344M 1.5 Gbps SMPTE 292M HDTV DVB/ASI at 270 Mbps SMPTE 305M SDTI Rates
Nominal Level .....	0.8 Vp-p, 1.0 Vp-p max.
Data Rate .....	19Mb/s - 1.5Gb/s
Impedance .....	75 Ohm
Gain .....	Unity
Input Coupling .....	AC
Return Loss .....	>15 dB
Jitter (Pattological Data Pattern) ..	< 0.2 UI
Cable Equalization .....	Automatic 0-200m @ 1.5 Gb/s
Bit-Error Rate (0 to -20dBm).....	10 <sup>-11</sup>

## Connectors

Video .....	75 Ohm BNC (Gold Center Pin)
Optical .....	ST - MM(default), FC - SM(default)
Power .....	0.65 mm DC Power Jack

## Quality

MTBF .....	>170,000 hours @ Ground Fix 35°C per MIL217F
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## Power

Power Consumption .....	500 mW
Input Power.....	5 VDC

## Indicators (LEDs)

1 - Green .....	Power On ( TX & RX )
4 - Green .....	Signal Power Level ( RX )
1 - Bi-color .....	Green - Signal Present ( TX ) Red - Laser Over Current ( TX )

## Physical

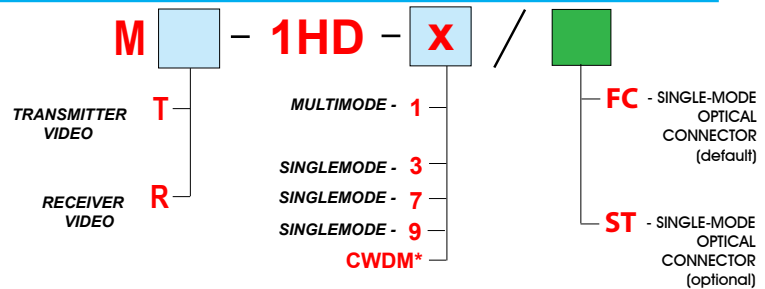
Dimensions (Module) .....	76 mm (3") L, 20 mm (0.8") W 15 mm (0.60") H
Weight (Module) .....	40 gms (0.1 lb.)

## Environmental

Operating Temperature ...	-25°C to +60°C
Storage Temperature .....	-55°C to +85°C
Relative Humidity .....	0 to 95% Non-condensing

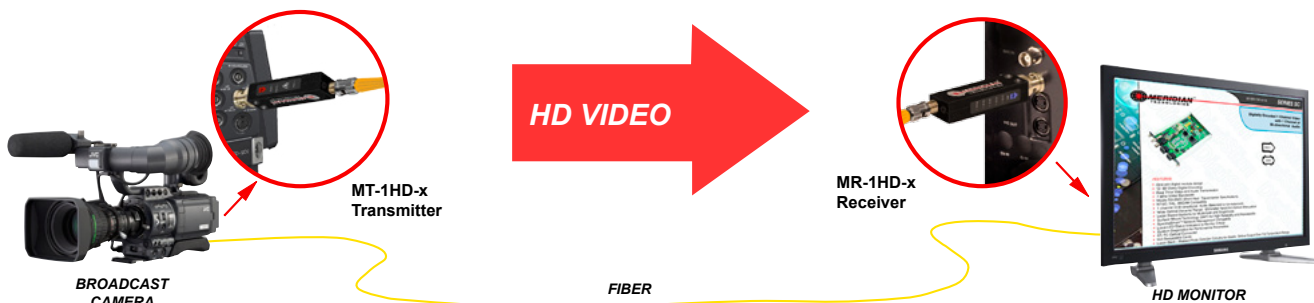
## Part Numbers:

CWDM LASER GUIDE	
REFERENCE NUMBER	WAVELENGTH
27	CWDM, 1270 nm DFB Laser
29	CWDM, 1290 nm DFB Laser
31	CWDM, 1310 nm DFB Laser
33	CWDM, 1330 nm DFB Laser
35	CWDM, 1350 nm DFB Laser
37	CWDM, 1370 nm DFB Laser
39	CWDM, 1390 nm DFB Laser
41	CWDM, 1410 nm DFB Laser
47	CWDM, 1470 nm DFB Laser
49	CWDM, 1490 nm DFB Laser
51	CWDM, 1510 nm DFB Laser
53	CWDM, 1530 nm DFB Laser
55	CWDM, 1550 nm DFB Laser
57	CWDM, 1570 nm DFB Laser
59	CWDM, 1590 nm DFB Laser
61	CWDM, 1610 nm DFB Laser



STANDARD PART NUMBERS	
PART NUMBER	DESCRIPTION
MT-1HD-1	Transmitter, multimode 1300nm
MR-1HD-1	Receiver, multimode 1300nm
MT-1HD-3	Transmitter, singlemode 1310nm FP laser
MT-1HD-7	Transmitter, singlemode 1550nm DFB laser
MT-1HD-9	Transmitter, singlemode 1310nm DFB laser
MR-1HD-3	Receiver, singlemode, wide band, 1270-1610nm

\* See CWDM Laser Guide table for CWDM Lasers details



## OPTICAL:

Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
1	Multimode (FP Laser) 62.5 / 125	-3	-22	19	1300	ST	22	1.3
3	Singlemode (FP Laser) 9 / 125	-3	-22	19	1310	ST, FC	22	30
7, 9, CWDM	Singlemode (DFB Laser) 9 / 125	+1	-22	23	1310, 1550, 1270-1610	ST, FC	22	60