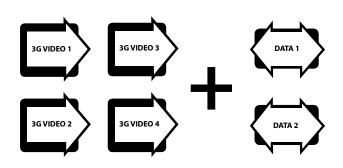




series FTFR-4HGx/x

DigiView™

Four Channels Multi-rate 3G-SDI (4K/UHD) Video with Data over One Single-mode Fiber



FEATURES:

- Transmission of Two 4K/UHD Video at 30 fps or One 4K/UHD Video at 60 fps
- Transmission of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G))
- Real-Time, Uncompressed Video Transmission
- Supports The Following Formats :
 - 19.4 Mbps (SMPTE 310M)
 - 143 To 540 Mbps SMPTE 259M/344M
 - 1.485 Gbps SMPTE 292M HDTV
 - DVB-ASI at 270 Mbps
 - 2.97Gbps (3G) SMPTE 424M
 - SMPTE 305M SDTI Rates
- Simplex or Full Duplex RS-232, RS-485 Data
- Supports Canon C500 4K dual-link Digital Cinema Camera with distances in excess of 50 Km
- Error Free Pathological Pattern Performance
- Rack Mounted Card Units
- Supports Embedded Audio and Metadata Distances in Excess of 50 km
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- Available with ST or FC Optical Connectors
- Requires No User Adjustments
- Laser Back Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range.
- Screw Terminal Type Connectors for Data

DESCRIPTION:

The FTFR-4HGx/x fiber optic transmission system takes advantage of Meridian's new digital encoding technology and transmits following signals over one singlemode fiber:

1. Four channels of real-time 3G-SDI Video (4K/UHD support) 2. Simplex or Full Duplex RS-232, RS-485 or RS-422 Data

This FT/FR-4HGx/x series will support either one 4K/UHD signal at 60 fps, or two 4K/UHD signals at 30 fps simultaneously.

Using Coarse Wavelength Division Multiplexing (CWDM) technology, the content details of each video channel are preserved by real-time transmission of each video channel in a compact card format. These serial digital video transmitters & receivers provide broadcast quality transmission of the industry standard range of digital video data rates.

Data formats are factory preconfigured on customer request. Select from variety of protocols, like RS-232, RS-485 (2-wire), RS-485 (4-wire) or RS-422.

No user adjustments are needed thus ensuring fast deployment and setup with broadcast quality results.

Please refer to the Ordering Information Table below for possible data protocol combinations.

CONFIGURATIONS:

The FTFR-4HGx/x products are available as rack mount cards that can be installed in Meridian's card chassis, desk chassis and 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be made a standalone system by using the SR-1000 series, 2 slot desk / wall mount chassis (87VAC-264VAC).

MARKETS:

- $\sqrt{}$ Remote broadcast camera links
- $\sqrt{}$ Sporting events, concerts, etc.
- √ Media feeds
- $\sqrt{}$ Video production
- $\sqrt{}$ Studio to studio & head end feeds
- Military information displays
- ✓ Video Transport Systems

SPECIFICATIONS:

Video			Data			Power				
19.4 Mbps (SMPTE 310M)			RS-232 w/ fi	RS-232 w/ full speed handshake,		Power Consumption		2.8 W		
	143 To 540 Mbps SMPTE		Formats		RS-485, RS-422, Manchester or		Indicators		2.0 11	
	259M/34	•		Bi-Phase	,	1			Power On	
ormats	1.485 Gbps SMPTE 292M HDTV		Data Rate (RS-232)	DC to 125 Kb	/s	4	Green	Signal Prese	nt (TX)	
	DVB-ASI at 270 Mbps 2.97Gbps (3G) SMPTE 424M		Data Rate			4	Green	Laser (TX)		
			(RS-422, RS-485, RS-	DC to 250 Kb/s		4	Green	Level 0/-10 dBm (RX)		
SMPTE 305M SDTI Rates		Bit Error Rate	10-9*		4			Level -10/-20 dBm (RX)		
Nominal Level	0.8 Vp-p,	1.0 Vp-p max.				2	Green		Tx Data Present	
Data Rate	19Mb/s -		Optical		4226	2 6		Rx Data Present		
mpedance	75 Ohm		Wavelengts 1310 Bar	hd hd	1290nm, 1310nm, 1330nm, 1350nm		Physical		RX Data Present	
Gain	Unity			13/0nm, 1390n	13/0nm, 1390nm		riiysicai		7(D) x // / (L)	mm
nput Coupling	AC		Wavelengts 1550 Bar	nd í	1510nm, 1530nm, 1550nm, 1570nm,		Dimensions		160(W) x 127(D) x 44 (H) mm	
Return Loss	>15 dB			1590000, 16100	1590nm, 1610nm		Weight		(6.3 x 5 x 1.7 inch)	
itter			Output power	+1 dBm per cha	+1 dBm per channel		Weight		213 gms (0.5 lb) 2	
Pattological Data Pattern)	< 0.2 UI		Connectors				No of Slots		1000 Charai	c c n o c c n
able Equailization	Automati	c 0-70m @ 3 Gb/s	Video	75 Ohm BNC (G		Module		See series Sh	-1000 Chassis	s specs.
•		c v / un (e > un / s	Optical FC (default), ST (optional)		Environmental		1000 :	0.0		
Sit-Error Rate (0 to -20dBm)	10 ⁻¹²		Data Screw Terminals			Operating Temperature		-10°C to +50		
		·		1	,		Storage Temperature			
🗧 F 📃 — 4I	IG		X			Relative Humidity		0 to 95% Non-condensing		
VIDEO				/ 🖳		Qualit	y			
F - 41 TRANSMITTI R ECEIVER	R 🖕	• • • • • •	- 22 C			MTBF		>170,000 hours @ Ground Fix		d Fix
	ALL LA AL	BER OF SIGNAL TYPE	1310nm	COATING SINGLE-M	DDE OPTICAL			35°C per MIL217F		
5 I LEIVER		INELS • D RS-232	Optical Band	CONNECTO	R (default)					
		• F RS-422	L 23	[⊥] ST						
AK		• J RS-485(2-W	IRE) 1550nm	SINGLE-M	ODE OPTICAL					
		• K RS-485(4-W	' Optical Band	CONNECTO	R (optional)					
roduct	Signals	Wavelengthe Distributio	n			Ordering	Information			
Product Signals Wavelengths Distribution						Ordering Infor				D'
Transmitter card, SM Video		ch1=1290nm, ch2=1310nm, ch3=1	330nm, cn4=1350nm	Part Numbers	Video Type	Data Type		Ch. Direction	Data Ch.	Direction
1310nm Optical Band Data ch1=1370nm, ch2=1390nm						Forwa	rd Return	Forward	Retur	
Receiver card, SM	/ideo	ch1=1290nm, ch2=1310nm, ch3=1	330nm, ch4=1350nm	FT/FR-4HG2D-x	3G-SDI Video	RS-232	4		2	
				F1/FN-4M02D-X	1000 אועכ-טכ	ñj-727	4		2	
	Data			FT/FR-4HG2F/2F->	3G-SDI Video	RS-422	4		2	2
ransmitter card, SM 🔡	/ideo	ch1=1510nm, ch2=1530nm, ch3=1	550nm, ch4=1570nm	1 1/FN-4AUZF/ZF-)	עפיסט אועניסנ	K3-422	4		2	
550nm Optical Band	Data ch1=1590nm, ch2=1610nm			FT/FR-4HG2J/2J-x	3G-SDI Video	RS-485 (2	2-wire) 4		2	2
eceiver card, SM	/ideo	ch1=1510nm, ch2=1530nm, ch3=1	550nm, ch4=1570nm	FI/FK-4HGZJ/ZJ-X 3G-SDI VIGE) כס וי -כוו	- wiic) 4		2	2
				FT/FR-4HG2K/2K-	x 3G-SDI Video	RS-485 (4	1-wire) 4		2	2
550nm Optical Band	Data	ch1=1590nm, ch2=1610nm			עסטעע איזער-אר	,) co r -cn	4		2	[_]
3G/HD-SDI/		D-SDI/SDI			TE ZC CDT/UD	CDT / CDT	CTONALO			
SOURSE 2		URSE 1	FRANSMISSION O	F FUUR SEPARA	1E 3G-SDI/HD-	201/201	SIGNALS	-	-	
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3G/HD-SDI/S		D-SDI/SDI DATA	ET_ALIC	G2J/2J-23 FR-4HG2	1/2.1-23		DATA		SDI	
SOURSE 4	SOL	JRSE 3 IN/OUT	FI-480	020/20-20 FR-4flG2	5/25-20 - (-		IN/OUT	N	NONITORS	
4K/UHD SOURSE		1	[RANSMISSION O	F TWO 4K/UHD	SIGNALS AT 30	FPS				
4K/UHD SOURSE @ 30 fps				,						
	'n	4K/UHD			2 a anti	•				
	,	SIGNAL @ 30 fps				∘ SIG	SNAL @ 30 fps		4K/UHD	
-	ካ	4K/UHD				•				
	•	SIGNAL @ 30 fps				SIG	NAL @ 30 fps		@ 30 fps	
4K/UHD SOURSE		DATA IN/OUT	FT-4HC	G2J/2J-23 FR-4HG2	J/2J-23		DATA IN/OUT	,		
@ 30 fps							11,001			
		I	FRANSMISSION O	F ONE 4K/UHD	SIGNAL AT 60	FPS				
4K/UHD SOURSE										
@ 60 fps	ካ	4K/UHD	i a .		i a at	°	4K/UHD SNAL @ 60 fps			
-		SIGNAL @ 60 fps			<u>e</u>	°			4K/UHD MONITOR	
						•	t		@ 60 fps	
	1				8	~	DATA			
	لر لر	DATA	FT-4HG	2J/2J-23 FR-4HG2	J/2J-23		DATA IN/OUT			
									ET/ED AHCOL/OL	v linkiech -
OPTICAL:									FT/FR-4HG2J/2J-2	x link is sho

OFFICAE:												
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)				
22	Singlemode (DFB Laser) 9 / 125	+1 (per channel)	-19	20	1290, 1310, 1330, 1350, 1370, 1390	FC, ST	20	50				
23	Singlemode (DFB Laser) 9 / 125	+1 (per channel)	-19	20	1510, 1530, 1550, 1570, 1590, 1610	FC, ST	20	60				

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