Specifications

Video

Digital encoding	8-bit standard
	10-bit optional
Format	NTSC, PAL, SECAM
	S-Video, Component
Voltage/impedance	1 Vp-p, 75 ohm (composite)
Bandwidth	5 Hz to 6.8 MHz
Differential gain	<0.6%
Differential phase	<0.3 deg
SNR	>60 dB (8 bit), >67 dB (10 bit)
Connector	75 ohm BNC

Audio

Digital encoding	24 bit
I/O impedance	600 ohms, balanced
	47 kohms, unbalanced
I/O level	-8 to +8 dBm
Frequency response	10 Hz to 20 kHz
THD	<0.01%, 1 kHz @ max. modulation
SNR	>90 dB (weighted)
Connector	9-pin sub-D

Data

Format	RS-232D, RS-422A,
	RS-485, 2 wire, 4 wire,
	Manchester bi-phase, TTL,
	Up-the-coax
Data rate	DC to 1 Mb/s (depending on data format)
BER	>10^{-9}
Connector	9-pin sub-D

Contact Mapping

Contact rating	30 V AC/DC @ 300 mA

Diagnostic Indicators

Green	Power
Bi-color	Tx carrier, Laser overcurrent
Bi-color	Rx carrier present/absent
Bi-color	Rx optical signal, present/absent
Green	Sync present
Bi-color	Video present, video overload
Green	Data present

Environmental

Operating temperature range	-40°C to +75°C
Storage temperature range	-55°C to +85°C
Relative humidity	0 to 95% noncondensing

For product-specific information, see appropriate data sheets.
Specifications and features subject to change without notice.

Proven Technology
Superior video, audio, and data transmission

Interoperability
Compatibility with industry-standard switches and routers to make it easier to create a network as sophisticated as your application requires

Digital, Optical Flexibility
If you want to move up to the advantages of digital video, audio and data, there's no better choice than the DigiFlex™ system from Meridian Technologies for the

Fidelity and improved signal quality of digital transmission

Improved noise immunity of fiber

Unmatched flexibility in configuring a system to your specific needs

Applications

Homeland security

Security and surveillance

Intelligent transportation systems

Access control

Professional audio/video

Broadcast studios

Campus lecture networks

Intelligent courtrooms

SCADA networks

Video conferencing

Custom configuration with off-the-shelf simplicity: our personality cards make configuring a module fast and easy.

Selection
Choose the desired signals for transmission

Specifications
Accurate and verifiable

Speed
Short lead times and fast delivery in most cases

Service and Support
Expert technical support both before and after the sale
Free application and design assistance

Satisfaction
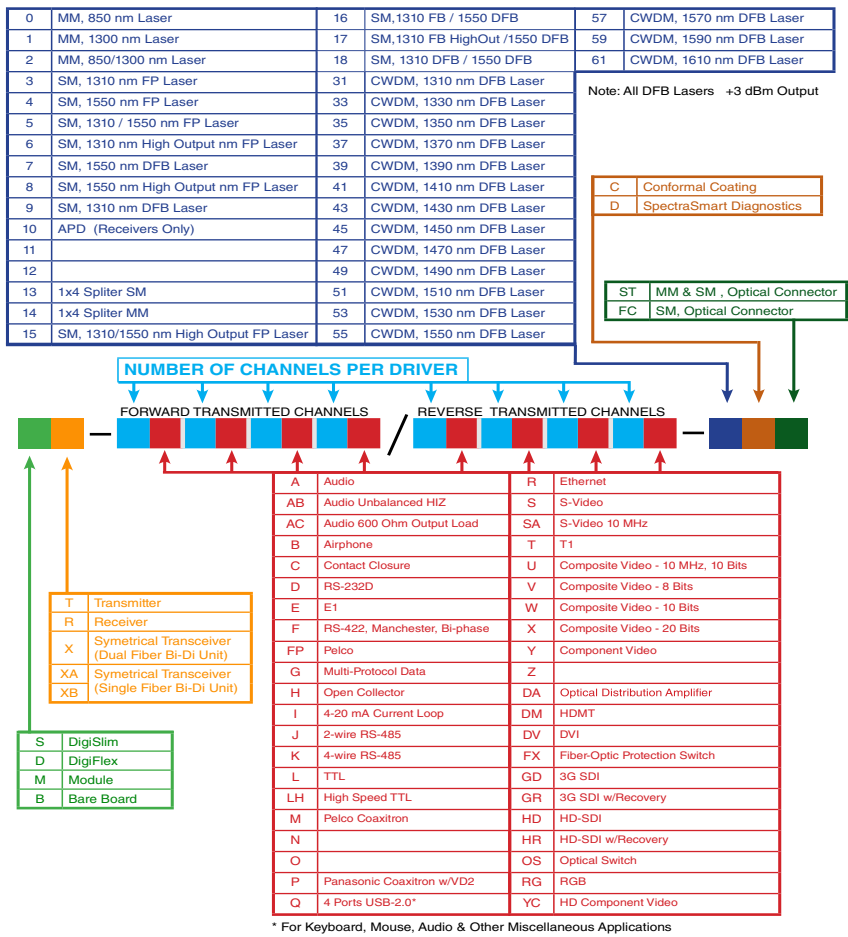Total company commitment to client satisfaction

Intuitive Part Number System
The DigiFlex product line has an intuitive part numbering system to allow the user to easily configure the exact part number he needs. No need to use a numeric system that has no relationship to the actual part required. Examples of this include:

DT-2W4D2A/2A — Digital transmitter with 2 10-bit video, 4 data, and 2 bidirectional audio channels

DT-2S2W2A — Digital transmitter with 2 S-video, 2 10-bit composite video, and 2 audio channels.

For more information, contact your local Meridian Sales Representative or Meridian directly.

0	MM, 850 nm Laser	16	SM,1310 FB / 1550 DFB	57	CWDM, 1570 nm DFB Laser
1	MM, 1300 nm Laser	17	SM,1310 FB HighOut /1550 DFB	59	CWDM, 1590 nm DFB Laser
2	MM, 850/1300 nm Laser	18	SM, 1310 DFB / 1550 DFB	61	CWDM, 1610 nm DFB Laser
3	SM, 1310 nm FP Laser	31	CWDM, 1310 nm DFB Laser		
4	SM, 1550 nm FP Laser	33	CWDM, 1330 nm DFB Laser		Note: All DFB Lasers +3 dBm Output
5	SM, 1310 / 1550 nm FP Laser	35	CWDM, 1350 nm DFB Laser		
6	SM, 1310 nm High Output nm FP Laser	37	CWDM, 1370 nm DFB Laser		
7	SM, 1550 nm DFB Laser	39	CWDM, 1390 nm DFB Laser		
8	SM, 1550 nm High Output nm FP Laser	41	CWDM, 1410 nm DFB Laser	C	Conformal Coating
9	SM, 1310 nm DFB Laser	43	CWDM, 1430 nm DFB Laser	D	SpectraSmart Diagnostics
10	APD (Receivers Only)	45	CWDM, 1450 nm DFB Laser		
11		47	CWDM, 1470 nm DFB Laser		
12		49	CWDM, 1490 nm DFB Laser		
13	1x4 Spliter SM	51	CWDM, 1510 nm DFB Laser	ST	MM & SM , Optical Connector
14	1x4 Spliter MM	53	CWDM, 1530 nm DFB Laser	FC	SM, Optical Connector
15	SM, 1310/1550 nm High Output FP Laser	55	CWDM, 1550 nm DFB Laser		

NUMBER OF CHANNELS PER DRIVER

FORWARD TRANSMITTED CHANNELS   REVERSE TRANSMITTED CHANNELS

A	Audio	R	Ethernet
AB	Audio Unbalanced HiZ	S	S-Video
AC	Audio 600 Ohm Output Load	SA	S-Video 10 MHz
B	Airphone	T	T1
C	Contact Closure	U	Composite Video - 10 MHz, 10 Bits
D	RS-232D	V	Composite Video - 8 Bits
E	E1	W	Composite Video - 10 Bits
F	RS-422, Manchester, Bi-phase	X	Composite Video - 20 Bits
FP	Pelco	Y	Component Video
G	Multi-Protocol Data	Z	
H	Open Collector	DA	Optical Distribution Amplifier
I	4-20 mA Current Loop	DM	HDMT
J	2-wire RS-485	DV	DVI
K	4-wire RS-485	FX	Fiber-Optic Protection Switch
L	TTL	GD	3G SDI
LH	High Speed TTL	GR	3G SDI w/Recovery
M	Pelco Coaxiton	HD	HD-SDI
N		HR	HD-SDI w/Recovery
O		OS	Optical Switch
P	Panasonic Coaxiton w/VD2	RG	RGB
Q	4 Ports USB-2.0*	YC	HD Component Video

T	Transmitter
R	Receiver
X	Symetrical Transceiver (Dual Fiber Bi-Di Unit)
XA	Symetrical Transceiver (Single Fiber Bi-Di Unit)
XB	

S	DigiSlim
D	DigiFlex
M	Module
B	Bare Board

* For Keyboard, Mouse, Audio & Other Miscellaneous Applications

DigiFlex™

Totally Flexible Fiber-Optic Transmission Systems

Meridian's DigiFlex systems are unmatched for flexibility in configuration, operations, and performance.

Our high-density, dual-slot, chassis-based designs slash the rack space required for multiple signals and lowers power supply requirements. And with the wide range of optical options for multimode and single-mode fiber, you can extend your system with maximum flexibility and superb signal quality. It's the one system that can grow to fit all your needs.

Take fiber-based transmission systems to a new level of flexibility and convenience.

Features

Wide variety of personality cards for flexibility

Meets RS-250C transmission specifications, with NTSC, PAL, and SECAM compatibility

Real-time uncompressed video

Up to 8 video channels in one module

Up to 128 video channels over our CWDM system

8- and 10-bit video

Multiple Up-the-Coax video/data channels per module

Support for video, audio, data, and contact mapping

24-bit audio

RS-232, -422, -485, bi-phase, Manchester data formats

Contact mapping,TTL

Local LED status indicators to monitor critical performance parameters

Hot-swappable cards eliminate need to power down system for maintenance or upgrades

SpectaSmart™ management and diagnostic software for increased security and reliability

Up to 18 single-slot or 9 dual-slot cards in standard 3U-high chassis

Single or redundant power supplies

For data sheets of popular configurations, visit www.meridian-tech.com

Optical Cards

A Wide Range of Optical Options

Multimode, 850 or 1300-nm wavelength

Single mode, 1310 or 1550-nm wavelength

Single mode, up to 16 CWDM wavelengths

Unidirectional or bidirectional

One-fiber or two-fiber transmission

PIN or APD receiver

Video Cards

High-quality Video

8 or 10-bit resolution

1 composite video (bidirectional)	← 1 →	
1 or 2 composite video (unidirectional)	2 →	
1 S-video	1 →	
1 RGB	R →	
	G →	
	B →	
Up-the-Coax	← 1-4 →	

Audio Cards

Professional-Quality 24-bit Audio

4 mono or 2 stereo unidirectional

2 mono, 1 stereo bidirectional

600-ohms balanced

47 kohms unbalanced

Personality modules give you more choice and flexibility in configuring a system. Our modular approach means that each card can be custom tailored to your requirements

SpectraSmart monitoring and diagnostic software gives you a powerful real-time tool for maintaining the integrity of your DigiFlex system.

Data Cards

Industry-Standard Protocols

RS-422	4 unidirectional	4 TX →
		← 4 RX
	2 bidirectional	← 2 →
RS-485	2-wire	← 4 →
	4-wire	← 2 →
RS-232	8 unidirectional	8 TX →
		← 8 RX
	4 bidirectional	← 4 →
Multiprotocol data		
	2 RS-232	← 2 →
	1 RS-422	← 1 →
	1 RS-485	← 1 →

Contact Mapping Card

Contact/Open Collector

7 relay contacts, programmable NC or NO	7 TX →
	← 7 RX
	← 4 →
8 open-collector outputs (+5 – 15 Vdc, 30 mA)	← 4 →

SpectraSmart Management Card

Status Monitoring and Diagnostics

SpectraSmart™ monitoring and diagnostic software combines the easy-use of a graphical user interface with powerful monitoring and control capabilities to give you a real-time look into the status and integrity of your DigiFlex system. SpectraSmart monitors

Video presence/absence

Video, video sync, and video carrier status

Video load (monitor)

Optical signal presence/absence

Addition/removal of cards to chassis (autodetection)

Power supply presence/absence

Power supply status

SpectraSmart maintains a history log of all alarms, providing valuable information for predictive maintenance, reliability planning, security upgrades, and other critical concerns.

Note: Requires SR-2000/S1-PC diagnostic chassis