## DVM-3000 Series 1 Ch. 12 Bit Video, 2 Bi-dir Audio & 8 Bi-dir Data Fiber Optic Multiplexer for Surveillance and Transportation



- Exceeds RS-250C Short-haul and Broadcast Video specifications.
- 12 Bit Video with a Signal to Noise ratio greater than 75 dB and a Signal to Quantizing Noise ratio of 74 dB.
- Video Bandwidth of 8 MHz for support of NTSC, PAL and SECAM (Option for 10 MHz).
- Differential Gain and Phase of 0.2% and 0.2°, respectively.
- Video Gain and up to 3000 feet cable equalization or sharpness control.
- 24 bit, Bi-directional Audio flat from 20 to 20K Hz, S/N greater than 90 dB and THD less than 0.05%.
- Supports up to 8 bi-directional, full duplex, data channels of RS-232C, RS-422, RS-485, CMOS or TTL at up to 115.2 Kbps. The data interface protocol is dipswitch configurable in banks of 4 channels. For example you can have 4 RS232 and 4 RS422 channels or 8 RS232 channels.
- Data Squelching Circuit. With the loss of link integrity or fiber disconnection, the data I/O's will not stream.
- Video, Audio and Optical front panel status indicators.
- Optical budget of up to 24 dB.
- Supports 1 video, 2 duplex audio and up to 8 bi-directional data channels over ONE optical fiber.
- AC operation for 110/220 VAC and optionally for 48 VDC.
- Available in portable, rack-mount and modular configurations with all optical wavelengths.
- Applications include distance learning, Intelligent Transportation Systems and surveillance.
- Temperature range -40° to +75°C.







In the USA and Canada call **1-(800)-4TV-TEST** 191 Forest Avenue, Locust Valley, NY 11560-2132 USA 1-(800)-488-8378, (516)-671-7278, FAX (516)-671-3362

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SPECIFICATIONS Exceeds the RS-250C Short-haul and Broadcast specification. Specifications subject to change without notice. Designed and manufactured in the U. S. A.

Video Input	1 Vp-p	Data Channel Protocol (selectable in banks of 4 ch.)	RS-232C, RS-422 or RS-485 Data
Signal to noise	> 75 dB	Data Configuration (RS422 mode supports RS485)	Data Channels 0 & 1=RS422 I/O, 2 & 3=RS232 I/O; No termination.
Differential gain	< +/- 0.2 %		Data Ch 0, 1 & 2=RS422 I/O, 3=RS422 In & RS232 Out; RS422 Termination ON.
Differential phase	< +/- 0.2 °		Data Channels 0 thru 3=RS232 I/O; No termination.
Chrominance to luminance gain	< +/- 0.5 %	Data Rate	DC to 115.2 Kbps
Chrominance to luminance delay	< +/- 5 nsec.	Data and Audio I/O's	44 pins D-Type Connector, Optional screw terminal adapter
Frequency response to 6 MHz	< +/- 0.05 dB	Bit Error Rate	< 1x10-9
3 dB Bandwidth	8 MHz	Power dissipation	< 15 Watts, per unit
Luminance non-linearity	< 0.2 %	AC operation	110 or 220 VAC (optional 48VDC)
Ringing	< +/- 0.5 %	Operating temperature	-40° to +75°C
Tilt	< +/- 0.2 %	Operating Humidity	0-95% non-condensing
Video output & input impedance	75 Ohms	Wavelength	1310/1550nm
Differential video input option	120 Ohms, part # -DIFFIN	Output Power, minimum	0 dBm Singlemode
Cable Equalizer, optional (3000 feet)	>30 dB @ 10 MHz	Receiver Sensitivity	-24 dBm Singlemode
Portable and Wall-mount:	7" L x 5 ¾" W x 1 ¾" H	Optical Loss Budget, minimum	24 dBm Singlemode
Triple Rack-mount Kit for 3 modules (Part number -RMT):	7" L x 19" W x 1 ¾" H		
UTIL-200-DVM 10 Slot Tray	13 ¾" L x 19" W x 3 ½" H		

**ORDERING INFORMATION:** 

	Fiber Optics, Surveillance & Transportation Video, Voice and Data Multiplexers, Stand-alone, Multimode: (SIN 58-6)
DVM-3000-FTX-38-ST	Standalone, 12 bit Video Fiber Optic Transmitter; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422
	and RS-485 jumper selectable, with 1310nm Multimode Laser 0 dBm and 850nm PIN with FC or ST connector, Sensitivity -24 dBm. Wall-mount 110 or 220VAC
	power supply included. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
DVM-3000-FRX-83-ST	Standalone, 12 bit Video, Fiber Optic Receiver; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422
	and RS-485 jumper selectable, 850nm Multimode Laser 0 dBm and 1310nm PIN with FC or ST connectors, Sensitivity -24 dBm. Wall-mount 110 or 220VAC power
	supply included. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
	Fiber Optics, Surveillance & Transportation Video, Voice and Data Multiplexers, Modular, Multimode: (SIN 58-6)
DVM-3000-FTX-MOD-38-ST	Modular, 12 bit Video Fiber Optic Transmitter; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422 and
	RS-485 jumper selectable, with 1310nm Multimode Laser 0 dBm and 850nm PIN with FC or ST connector, Sensitivity -24 dBm. For UTIL-200-DVM-2RU-AC Tray.
	Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE)
DVM-3000-FRX-MOD-83-ST	Modular, 12 bit Video, Fiber Optic Receiver; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422 and
	RS-485 jumper selectable, 850nm Multimode Laser 0 dBm and 1310nm PIN with FC or ST connectors, Sensitivity -24 dBm. For UTIL-200-DVM-2RU-AC Tray.
	Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
	Fiber Optics, Surveillance & Transportation Video, Voice and Data Multiplexers, Stand-alone, Singlemode: (SIN 58-6)
DVM-3000-FTX-35-ST	Standalone, 12 bit Video Fiber Optic Transmitter; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-
	422 and RS-485 jumper selectable, with 1310nm Single-mode Laser 0 dBm and 1550nm PIN with FC or ST connector, Sensitivity -24 dBm. Wall-mount 110 or
	220VAC power supply included. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
DVM-3000-FRX-53-ST	Standalone, 12 bit Video, Fiber Optic Receiver; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-
	422 and RS-485 jumper selectable, 1550nm Singlemode Laser 0 dBm and 1310nm PIN with FC or ST connectors, Sensitivity -24 dBm. Wall-mount 110 or 220VAC
	power supply included. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
	Fiber Optics, Surveillance & Transportation Video, Voice and Data Multiplexers, Modular, Singlemode: (SIN 58-6)
DVM-3000-FTX-MOD-35-ST	Modular, 12 bit Video Fiber Optic Transmitter; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422
	and RS-485 jumper selectable, with 1310nm Single-mode Laser 0 dBm and 1550nm PIN with FC or ST connector, Sensitivity -24 dBm. For UTIL-200-DVM-2RU-AC
	Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE)
DVM-3000-FRX-MOD-53-ST	Modular, 12 bit Video, Fiber Optic Receiver; exceeds RS-250C Short-haul specs, with up to 8 optional bi-directional Data Channels, Supports RS-232, RS-422
	and RS-485 jumper selectable, 1550nm Singlemode Laser 0 dBm and 1310nm PIN with FC or ST connectors, Sensitivity -24 dBm. For UTIL-200-DVM-2RU-AC
	Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO30, -4DATA, -8DATA, -VOICE, -RMT, -BLANK and -WALL)
	Options, Modular Utility Trays and Power Supplies (SIN 58-6)
-4DATA	4 bi-directional, Ful Duplex, Data Channels, Supports RS-232, RS-422 & RS-485 jumper selectable. (1) each for transmitter & receiver side.
-8DATA	8 bi-directional, Full Duplex, Data Channels, Supports RS-232, RS-422 & RS-485 jumper selectable. (1) each for transmitter & receiver side.
-VOICE	20-20KHz Digital Codec for Bi-directional Stereo Audio Ch., (1) each for transmitter and receiver side
-DIFFIN	120 Ohm Differential Video Input option
-RMT	Triple Rack-mount Kit (1 kit)
-WALL	Wall-mount Kit (1 set )
-BLANK	Blank panel for rack-mounting kit
-DVMBREAK30	Audio and Dada screw terminal break-out adapter for DVM3000
UTIL-200-DVM-2RU-AC	Analog, Digital and Fiber, 10 Slot, 2RU, Modular Utility Tray, with one 85-265 VAC Power Supply & Line Cord
PS-200-DVM-AC	Modular 85-265 VAC Power Supply & Line Cord for 200 series trays
UTIL-200-DVM-2RU-48VDC	Analog, Digital and Fiber, 10 Slot, 2 RU, Modular Utility Tray, with one 36-60 VDC Power Supply (Delivery 10 Weeks)
PS-200-DVM-48VDC	Modular 36-60 VDC Power Supply for 200 series trays (Delivery 10 Weeks)
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## Application Diagram for DVM3000 & DVM3000-MOD Video, Audio & Data Fiber Optic Transport System UTIL-200-DVM Tray

UTIL-200-DVM Tray

1 Video, Input 2 Bi-dir Audio, 4 DVM-3000-FTX-MOD or 8 Bi-dir Data Video, Audio, Data Fiber

Up to 20 KM SM. up to 5 KM MM

1 Fibers Singlemode & Multimode

DVM-3000-FRX-MOD Video, Audio, Data Fiber Receiver

2 Bi-dir Audio, 4 or 8 Bi-dir Data

1 Video, Output

UTIL-200-DVM Tray



DVM-3000-FTX Video, Audio, Data Fiber Transmitter

Transmitter

Up to 20 KM SM, up to 5 KM MM

1 Fibers Singlemode & Multimode

Long-haul & CWDM versions available



DVM-3000-FRX-MOD Video, Audio, Data Fiber Receiver

1 Video, Output

2 Bi-dir Audio, 4 or 8 Bi-dir Data



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