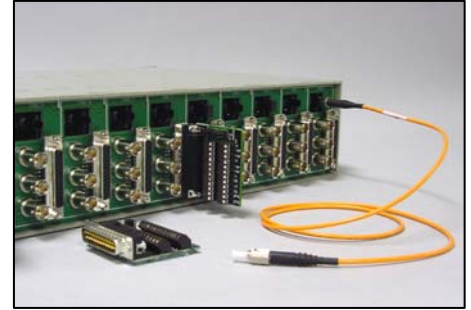# DVM-2700
2 Video & 8 Audio Fiber Optic Multiplexer

- Supports 2 video and 8 audio channels on one strand of fiber.

- All digital processing exceeds RS-250C Short haul and **Broadcast** 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, SECAM and video with diplexed audio carriers at 4.5 MHz, 5.8 MHz and 6.4 MHz (Option for 10 MHz).

- **Differential Gain** and **Phase** of **0.2%** and **0.2°**, respectively.

- Differential video and audio inputs for superior **Common-mode Hum and Noise rejection** of greater than **60 dB**.

- **24 Bit Audio** flat from **20 to 20K Hz, S/N** greater than **90 dB** and **THD** less than **0.05%.**

- Video, Audio and Optical front panel status indicators with dry alarm relay contacts.

- **Coarse Wave-division Multiplexing (CWDM)** systems are available for up to **8 wavelengths** over *ONE* **optical fiber**.

- **Optical budget** of up to **28 dB** for Single-mode.

- Supports **2 video channel** and **8 audio channels** over **one optical fiber.**

- Universal AC operation for **85-265 VAC** and Telco DC operation for **48 VDC**.

- Available in **rack-mount configurations** with all optical wavelengths, **LED Multimode** and **Laser Single-mode.**

- Applications include links from **studio to transmitter (STL)**, **studio to studio**, **studio to CATV head-end**, **common carrier**, **RBOC Telco circuits**, distance learning, **Intelligent Transportation Systems** & back-haul feeds from special events.

DESCRIPTION

The DVM-2700 is ideal for applications that require multiple video and audio to be transmitted over one fiber. Applications include back haul, studio to studio and STL. The all-digital processing,12 bit video and 24 bit audio, provides superior performance characteristics. Advanced CWDM technology allows up to 8 lengths to be put on one strand of fiber.

The DVM-2700 series supports NTSC, PAL, SECAM as well as video with diplexed audio carriers at 4.5MHz, 5.8 MHz and 6.4 MHz (Option for 10 MHz). The design features differential video and audio inputs, which greatly reduce hum and noise. Video and Optical front panel status indicators with dry alarm relay contacts. A –RMT kit allows unit to be mounted in a standard 19" equipment rack.

MULTIDYNE
Video and Fiber Optic Systems

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
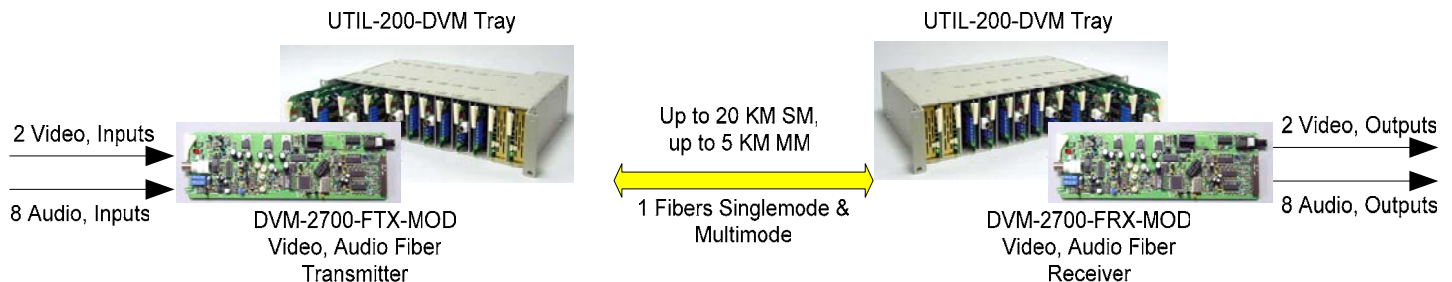**E-Mail: sales@multidyne.com**
Web Site: www.multidyne.com

SPECIFICATIONS

Exceeds the RS-250C Short-haul specification.	
Video Performance:	
Signal to noise	> 75 dB
Differential gain	< +/- 0.2 %
Differential phase	< +/- 0.2 °
Chrominance to luminance gain	< +/- 0.5%
Chrominance to luminance delay	< +/- 5 nsec.
Frequency response to 6 MHz	< +/- 0.05 dB
3 dB Bandwidth	8 MHz
Luminance non-linearity	< 0.2 %
Ringing	< +/- 0.5 %
Tilt	< +/- 0.2 %
Video output & input impedance	75 Ohms
Delay, throughput	1.24 micro sec.
Audio Performance:	
Signal to noise	> 90 dB
Frequency response to **20 Hz to 20 KHz**	< +/- 0.1 dB
Distortion	< 0.05 %
Audio output level, adjustable	Unity, +/- 6 dBm
Maximum input & output level, 600 Ohm termination	+18 dBm
Audio output impedance, balanced	50 Ohms
Audio input impedance, balanced (selectable)	600 Ohms or High
Data channels	3 RS-232C at 9600 Baud
Power dissipation	< 15 Watts, per unit
AC operation	110 or 220 VAC (optional 48VDC)
Operating temperature	0 to +50 °C
Portable and Wall-mount:	7" L x 5 ¾" W x 1 ¾" H
Triple Rack-mount Kit for 3 modules (Part number -RMT):	7" L x 19" W x 1 ¾" H

ORDERING INFORMATION:

	Two Channel, Video & Audio Fiber Optic Multiplexer, Modular, Multimode & Singlemode (SIN 58-6)
DVM-2700-FTX-MOD-50	Modular, 2 video, 8 audio channels, Fiber Optic Transmitter; exceeds RS-250C Short-haul specs. with 1310nm Multimode & Singlemode Laser -8 dBm with FC connector. For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27)
DVM-2700-FTX-MOD-52	Modular, 2 video, 8 audio channels, Fiber Optic Transmitter; exceeds RS-250C Short-haul specs. with 1310nm Multimode & Singlemode Laser -3 dBm with FC connector. For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27)
DVM-2700-FTX-MOD-53	Modular, 2 video, 8 audio channels, Fiber Optic Transmitter; exceeds RS-250C Short-haul specs. with 1310nm Multimode & Singlemode Laser +0 dBm with FC connector. For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27)
DVM-2700-FTX-MOD-6	Modular, 2 video, 8 audio channels, Fiber Optic Transmitter; exceeds RS-250C Short-haul specs. with 1550nm Multimode & Singlemode Laser +0 dBm with FC connector. For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27)
DVM-2700-FTX-MOD-7-xxxx	Modular, 2 video, 8 audio channels, Fiber Optic Transmitter; exceeds RS-250C Short-haul specs. with CWDM 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 or 1610nm Single-mode Laser 0 dBm with SC connector. Supports up to 8 wavelengths or channels per fiber optic cable. (Enter wavelength for xxxx) For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27) (May requires CWDM Mux & Demux Accessories)
DVM-2700-FRX-MOD-50	Modular, 2 video, 8 audio channels, Fiber Optic Receiver; exceeds RS-250C Short-haul specs, Multimode & Singlemode PIN with FC connectors, Sensitivity -25 dBm. For UTIL-200-DVM-2RU-AC Tray. Specify –ST or –FC for connector type (May require -DVMAUDIO27)
	Accessories (SIN 58-6)
-DVMAUDIO27	Audio screw terminal break-out adapter for DVM2700
-NOAUDIO	No Audio Option, price adjustment for units without the 10 audio channels (subtract $1000 per transmitter or receiver)
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)

Application Diagram for DVM2500 Bi-directional, Video, Audio & Data Fiber Optic Transport System

UTIL-200-DVM Tray   UTIL-200-DVM Tray

2 Video, Inputs

8 Audio, Inputs

DVM-2700-FTX-MOD
Video, Audio Fiber
Transmitter

Up to 20 KM SM,
up to 5 KM MM

1 Fibers Singlemode &
Multimode

DVM-2700-FRX-MOD
Video, Audio Fiber
Receiver

2 Video, Outputs

8 Audio, Outputs

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