OTDV-1250
Multimedia/Multiformat Transport Link

The world's most versatile and highest quality unidirectional or bidirectional baseband NTSC or PAL B, D, G, H or I video & audio transport link includes selectable low-speed data (RS-232 or RS-422) and auto-negotiating 10/100Mb/s Ethernet.

- Field interchangeable SFP standard interface allows the unit to instantly be adapted to transport over multimode fiber, single-mode fiber at 1310nm, 1550nm, CWDM, DWDM, or even bidirectionally on a single fiber

- Composite <u>and</u> S-Video NTSC or PAL video inputs and outputs! The receiver always presents both formats, so format conversion can be done on the fly. For instance, composite video can be put in the transmit end and S-Video can be used at the receive end

- 12-Bit Digitized Video yields Broadcast quality video

- 24-bit Stereo audio offers unexcelled performance

- Multiple LED indicators and alarms for easy setup and maintenance

- Unit accepts any DC power supply voltage from +10V$_{DC}$ to +20V$_{DC}$

The Olson OTDV-1250 Video/Stereo Audio, Data and Ethernet Fiber Optic Link provides a very high-quality system for transporting baseband NTSC or PAL video signals, stereo audio signals and bidirectional data with complete EMI immunity via multimode or single-mode optical fiber. The combination of video, stereo quality audio, data for touch screens, pan, tilt & zoom or pure data transport for communications and the addition of autonegotiating 10/100Mb/s Ethernet make these links ideal for broadcast, contribution and distribution quality V/A/A transport, teleconferencing, distance learning, and surveillance applications. Each unit is built in a rugged, shielded enclosure. Units are available with four channels of audio and unidirectional transport options.

The defining feature of the OTDV-1250 is versatility. While there are numerous fiber optic broadcast transport links available, the addition of user/field-swappable SFP modules allows the unit to be rapidly reconfigured for any conceivable fiber requirement.

All signals are handled using state-of-the-art digital techniques resulting in no degradation in performance regardless of the fiber type and distance. All signals are digitized to a single serial data stream that easily fits into Gb/s data stream. Extensive use of overhead messaging allows the two units to be aware of problems at the far end.

Ordering Information

OTDV-1250-B	NTSC Only - Bidirectional Digital Video, Audio, Data Transport Link.
OTDV-1250-TA	NTSC Only - Transmit Only Digital Video, Dual Audio, Data Transport Link.
OTDV-1250-RA	NTSC Only - Receive Only Digital Video, Dual Audio, Data Transport Link.
OTDV-1250-TAA	NTSC Only - Transmit Only Digital Video, Quad Audio, Data Transport Link.
OTDV-1250-RAA	NTSC Only - Receive Only Digital Video, Quad Audio, Data Transport Link.
OTDV-1250P-B	PAL B, D, G, H and I Only - Bidirectional Digital Video, Audio, Data Transport Link.
OTDV-1250P-TA	PAL B, D, G, H and I Only - Transmit Only Digital Video, Dual Audio, Data Transport Link.
OTDV-1250P-RA	PAL B, D, G, H and I Only - Receive Only Digital Video, Dual Audio, Data Transport Link.
OTDV-1250P-TAA	PAL B, D, G, H and I Only - Transmit Only Digital Video, Quad Audio, Data Transport Link.
OTDV-1250P-RAA	PAL B, D, G, H and I Only - Receive Only Digital Video, Quad Audio, Data Transport Link.

Order SFP Modules Separately, contact Toner Cable for Model / Configuration Options

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Specifications

Video Specifications

	Min	Typ	Max	Units	Notes
Input Signal	Composite or S-Video				1
Output Signals	Composite and S-Video				1
I/O Impedance		75		Ohm	
Input Level	0.6	1.0	1.4	V	
Output Level		1.0		V	2
Bandwidth		6		MHz	
SNR (NTC7 Lum-Weighted)	67	72.5		dB	
SNR (Unified Lum-Weighted)	67	73.0		dB	
Differential Gain		1.3		%	
Differential Phase		0.7		°	
Line Time Distortion	0	0.25	0.50	%	
Chrom-Lum Delay	-20	0	20	ns	
Chrom-Lum Gain	98	100	103	%	
Conversion	10-bit 4:2:2 per ITU-R BT.601				

Audio Specifications

	Min	Typ	Max	Units	Notes
Number of Channels	2		4		3
Frequency Response	20		20,000	Hz	
THD+N	-85		-78	dB	
Input Impedance	600		10,000	Ω	4
Input Level			10	dBu	
Gain	-1		0	dB	
Resolution		24		bits	

Data Specifications

	Min	Typ	Max	Units	Notes
Number of Channels			1		
Protocol	RS-232 or RS-422				5
Data Rate (RS-232)			155	kb/s	
Data Rate (RS-422)			1	Mb/s	

Ethernet Specifications

	Min	Typ	Max	Units	Notes
Number of Channels			1		
Auto Negotiating	10Mb/s or 100 Mb/s				

Electrical Characteristics

	Min	Typ	Max	Units	Notes
DC Input Voltage	10		20	V_{DC}	6
DC Current	0.30		0.53	A	6
Power		6		W	6

Physical Characteristics

	Min	Typ	Max	Units
Module Weight		25.4		oz
		720		g
Module Dimensions	11.0 x 6.0 x 1.25			in
	279x152x32			mm

Environmental Characteristics

	Min	Typ	Max	Units
Operating Temp. Range	0		+50	°C
Storage Temp. Range	-10		+60	°C
Humidity	5		90	%

NOTES:
1) The transmitter accepts either NTSC or PAL composite or S-Video input. If both are present, the S-Video signal will be used. The receiver always presents both composite and S-Video outputs.
2) The output level will track the input level.
3) The standard transceiver model offers two audio channels. A special unidirectional model offers four(4) audio channels.
4) Input impedance is switch selectable by the user.
5) The data protocol is switch selectable by the user.
6) The OTDV-1250 utilizes high-efficiency switching power supplies internally. The power dissipation is nearly constant as the input voltage changes. The highest current draw will occur at the lowest input voltage and vice versa. Note that excessive noise and ripple on the power supply may degrade some of the performance parameters.
7) All test results are at +25°C with a +12V to +15V power supply.