

**DV6000 VIDEO TRANSPORT SYSTEM**
**Baseband Video/Audio/Serial Data Interface Cards**
**Features**

- Plugs into any DV6000 Product Family equipment shelf
- One card solution for transport of video, audio, and serial data
- 10-bit encoding resolution of NTSC/PAL baseband video signals
- Options available for transporting four channels of baseband analog audio, or two channels of baseband analog audio and two channels of RS-232/422/485 serial data, along with the baseband video signal
- Transparent transport of RS-232/422/485 serial data rates without processing stop bits, parity check, or higher protocol layers
- Selected 8-bit mode on 2-audio versions provides compatibility with legacy 8-bit cards
- Differential (Balanced) Mode option prevents ground loop noise



With the Baseband Video/Audio/Serial Data Interface cards, the DV6000 Product Family lives up to its reputation for providing universal digital transport with the flexibility for practically all video, audio, and serial data applications.

Together in one encoder card the Baseband Video/Audio/Serial Data Interface card interfaces one NTSC/PAL baseband video signal, and up to four channels of baseband analog audio, or two channels of baseband analog audio and two channels of RS-232/422/485 serial data to the DV6000's multiplexed datastream. Once encoded, the signals can be transported along with any of the other signal types that the DV interfaces (NTSC, PAL, IF, QAM, DS3, etc.) to matching decoders at one or more locations throughout a network. The Baseband Video/Audio/Serial Data Interface cards are ideal for use in pan-tilt-zoom (PTZ) control for remote CCTV cameras, remote terminal connections, or any of countless other communication applications that require RS-232/422/485 serial data links.

## Baseband Video/Audio/Serial Data Interface Cards

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### Specifications

#### Video

Number of Channels	1
Level	1V p-p, $\pm 3$ dB
Impedance	75 Ohms, unbalanced
Video Loop-Thru	4 kOhms, min.
Baseband Input Signal Formats	NTSC/PAL video, baseband scrambled video, wideband telemetry signals
Sampling Rate	13.524MHz
Encoding Resolution (Note 1)	10-bit
Common Mode Rejection Ratio (Note 2)	> 65dB (50–60Hz)
Common Mode Voltage (Note 2)	$\pm 10$ V, max.

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#### Video Performance

SNR (weighted) via Shallow Ramp	67dB, min.
Frequency Response (multiburst)	
4.2MHz	$\pm 0.10$ dB
6.1MHz	+3/–1.0dB
6.2MHz	$\pm 3.0$ dB
Chrominance to Luminance	
Gain Inequality	$\pm 2$ IRE
Delay Inequality	15ns
Intermodulation	1 IRE
Chrominance Non-Linear	
Gain	2 IRE, max.
Phase	1°, max.
Luminance Nonlinearity	1.2%, max.
Differential	
Gain	1.2%, max.
Phase	0.5°, max.
0.5° Short-Time Waveform Distortion (Note 3)	1.0%, max.
Waveform Distortion	
Line-Time	0.5%, max.
Field-Time	2 IRE, max.
Long-Time	3 IRE/1s, max.

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#### Notes:

1. DV6101VEx2M03/DV6102VDx2M01 modules can be configured to use 8-bit resolution so as to be backwards compatible with DV6082VDx2/DV6081VEx2 modules, respectively.
2. Applicable for differential input mode only.
3. Per IEEE Standard, 511-1979

Specifications subject to change without notice.

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**Specifications (cont'd)****Baseband Audio**

Number of Channels	0 for DV61014RS232/DV61024RS232 2 for DV6101VEx22M/DV6102VDx22M, DV6101VEx2M03/ DV6102VDx2M01 4 for DV6101VEN4M02/DV6101VEP4M/DV6102VDx4M Note that x=N for NTSC, P for PAL
Peak Level	5dBm min. and 18dBm max. (@ 600ohms)
Impedance	600ohms, balanced option Encoders: 20k ohms or 150ohms Decoders: 20k ohms or 150ohms
Encoding Resolution	16 bits per channel
Sampling Frequency	42.261kHz
Signal to Idle Channel Noise Ratio	80dB min. (10Hz to 19.2kHz)
SINAD	70dB min. (10Hz to 19.2kHz)
Total Harmonic Distortion	0.035%
Frequency Response (ref. 400Hz)	
30Hz to 15.8kHz	±0.3dB
20Hz to 19.2kHz	+3/-1.0dB
10Hz to 19.8kHz	±3.0dB
Full Scale Level	18dBm; 600ohms 12dBm; 150ohms
Channel Separation	>90dB @ 1kHz >75dB @ 19.2kHz
Delay Match (dual channel option)	0.7µs (4° @ 15kHz)
Amplitude Linearity	±0.25dB (60 to 0dBr)
Audio/Video Delay	2.272ms max.
Intermodulation Distortion	<0.15%

**Serial Data**

Number of Channels	0 for DV6101VEx2M03/DV6102VDx2M01, DV6101VEN4M02/DV6101VEP4M/DV6102VEx4M 2 for DV6101VEx22M/DV6102VDx22M Note that x=N for NTSC, P for PAL
Interface Signal Formats	RS-232/422/485 (RIA/TIA-232E plus V.28/V.24 compliant)
Data Rates	All RS-232 supported data rates RS-422/485 data rates up to 80kbps

**Power**

Power Dissipation	< 37.4W
Voltage Requirements	+5V, -5V, +12V, -12V

**Physical and Environmental**

Dimensions (W x H x D)	1.35 x 8.75 x 10.5in (3.43 x 22.23 x 26.67cm)
Weight	4.0lbs (1.8kg) max.
Operating Temperature	0 to 50°C, external ambient
Storage Temperature	-40 to 70°C
Cooling	As required by the DV shelf or assembly in which it is installed
Relative Humidity	10 to 95%, noncondensing

## Ordering Information

Part Number	Description
DV6101VEN2M03	Baseband NTSC video with 2-channel audio encoder
DV6102VDN2M01	Baseband NTSC video with 2-channel audio decoder
DV6101VEP2M03	Baseband PAL video with 2-channel audio encoder
DV6102VDP2M01	Baseband PAL video with 2-channel audio decoder
DV6101VEN4M02	Baseband NTSC video with 4-channel audio encoder
DV6102VDN4M	Baseband NTSC video with 4-channel audio decoder
DV6101VEP4M	Baseband PAL video with 4-channel audio encoder
DV6102VDP4M	Baseband PAL video with 4-channel audio decoder
DV6101VEN22M	Baseband NTSC video with 2-channel audio and 2-channel RS-232/422/485 encoder
DV6102VDN22M	Baseband NTSC video with 2-channel audio and 2-channel RS-232/422/485 decoder
DV6101VEP22M	Baseband PAL video with 2-channel audio and 2-channel RS-232/422/485 encoder
DV6102VDP22M	Baseband PAL video with 2-channel audio and 2-channel RS-232/422/485 decoder



ISO2000:9001

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