

Video Transmission Products

L-3 Satellite Networks' line of video transmission products are built on a 30-year history of providing analog video solutions throughout the world. This product line includes modulators and excitors for both digital and analog systems.

Our digital video excitors come in a single-rack solution with four frequency band output options and data rates from 1.5 Mbps, up to 161 Mbps*, saving you both space and money.

Configuration Parameters

- RF Frequency
- RF Output Level
- RF Output On/Off
- Data Rate
- Code Rate
- Clock Source
- CW On/Off
- Spectrum Normal/Inverted

Adding a fully compliant MPEG-2/DVB encoder to the mix requires the addition of just a single rack unit that



provides a complete digital video solution. This is the only system on the market that combines both the modulator and the converter in a convenient single-rack unit package.

Our LVM series analog video modulators support both PAL and NTSC formats and are designed for rugged, mobile applications. Their small size is only one of their notable benefits; the modulators also deliver premium-quality broadcast performance.

*Depends on encoder used



Minimum & Maximum Data Rates (Kbps)

Code Rate	QPSK		8-PSK		16-QAM	
	Min	Max	Min	Max	Min	Max
1/2	653	46078	#	#	#	#
2/3	871	61437	1306	92156	#	#
3/4	980	69117	#	#	1959	138234
5/6	1088	76797	1633	115195	#	#
7/8	1143	80637	#	#	2286	161273
8/9	#	#	1742	122875	#	#

Specifications - DVE2000

DVE Modulator/Upconverter

General

Modulation	QPSK, 8-PSK, 16-QAM
Pulse Shaping	Square-root raised cosine, roll-off-factor = 0.35

FEC

Inner Code	Viterbi K=7
Rate	1/2, 2/3, 3/4, 5/6, 7/8
Outer Code	Reed Solomon (204, 108, T=8)
Interleaving	Convolutional
Depth	I=12
Data Scrambling	Per EN 300-421 & EN 301-210
Encoding	Absolute
Clocking	External

Auxiliary L-Band Input Port

Frequency	950-1525 MHz
RF Input Power	-6 dBm
Impedance	50 Ω
Connector	SMA (F)

Auxiliary L-Band Output Port

Frequency	950-1525 MHz
RF Output Power	-45 dBm
Impedance	50 Ω
Connector	SMA (F)

RF Output

Ku-Band Frequency	14.0 - 14.5 GHz
C-Band Frequency	5.850 - 6.425 GHz
L-Band	950 - 1525 MHz
IF Frequency (DVE-70)	50 - 90 MHz
Step Size	125 KHz
Output Power	+5 to -20 dBm
Output Adjust	25 dB in 0.1 dB steps
Gain Stability	+/-0.5 dB
Output Impedance	50 or 75 Ω
Return Loss	20 dB
Phase Noise	
100 Hz	-62 dBc/Hz
1 KHz	-72 dBc/Hz
10 KHz	-82 dBc/Hz
100 KHz	-92 dBc/Hz
Connector	SMA
Spurious	Below -55 dBc/4 KHz
Spectral Mask	Per ETS 300-421

Encoder

Video Specifications

Input Formats	Analog composite and component, SDI*
Analog input level	140 IRE
Input Digitizing Resolution	10 bits
Chroma Demodulator	Digital
SNR	>56 dB rms
Frequency Response	<0.3 dB @ 4.2 MHz <0.5 dB @ 5.5 MHz
Differential Gain	<+/-0.5%
Differential Phase	<+/-0.5°
Vertical Resolutions	576, 480, 288, 240
Horizontal Resolutions	720, 704, 640, 544, 480, 384, 368, 352, 320
Encoding Rate	1.5 to 25 Mbps*
Flexible GOP Structures	Dual B-frame support
Aspect Ratios	4.3 and 16.9
Repeat Field Detection	On/Off
Closed-Captioning Extractions	On/Off
Analog Composite	
Video Input Connector	75 Ω BNC (unbalanced)
Serial Digital Component	
Input Connector	75 Ω BNC (unbalanced)

Audio Specifications

Input Formats	Digital and analog
Operating Modes	Mono, dual channel, stereo, joint stereo
Encoding Bit Rate	32 to 384 kbps
Sampling Frequencies	32 kHz, 44.1 kHz or 48 kHz
Channel	Up to 2 stereo (4 mono)
Compression	MPEG Layers I and II CD Quality
Analog Input Formats	600 Ω balanced or unbalanced, DB-9
Digital Input Format, per CCIR 647-2	AES/EBU or S/PDIF, 75W unbalanced, BNC

Data Specifications

Synchronous	RS422 up to 8 Mbps
Asynchronous	RS232 up to 57.6 Kbps
TCP/IP	Up to 2 Mbps

DVE System

Environmental Specifications

Prime Power	103-132 VAC or 202-264 VAC / 47-63 Hz 275 Watts
Operating Temperature	0 to 50° C
Humidity	95% non-condensing
Storage Temperature	-20 to 80° C
Humidity	99% non-condensing
System Weight	26 lbs (12 kg)
Size	19W x 21D x 3.5H in (48.3 x 53.3 x 8.9 cm)
Shock & Vibration	Designed for DSNG Environment



ISO 9001 Registered



communications
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