

# Vitec VM Family Hybrid Encoders

Vitec VM2-2ex



Vitec VM4-2ex



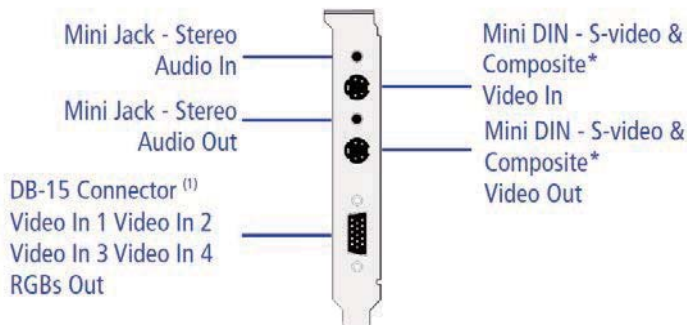
# Vitec VM Family Hybrid Encoders

## TECHNICAL SPECIFICATIONS

6 Boards	VM2-1 VM2-1ex MPEG-1 SIF, QSIF	VM2-2 VM2-2ex MPEG-2-1 FD1, SIF	VM4-2 VM4-2ex MPEG-4-2-1 FD1, SIF
<b>VIDEO SPECIFICATIONS</b>			
Inputs	4x Composite or 2x S-video	4x Composite or 2x S-video	4x Composite or 2x S-video
Outputs	Composite, S-video, RGBs	Composite, S-video, RGBs	Composite, S-video, RGBs
<b>Compression</b>			
MPEG-4 MPEG-2 (4:2:0) MPEG-1	128 Kbit/s to 3 Mbit/s	1 to 15 Mbit/s 128 Kbit/s to 3 Mbit/s	64 Kbit/s to 6 Mbit/s 1 to 15 Mbit/s 128 Kbit/s to 3 Mbit/s
MPEG-4 Compression ISMA Level 1 MPEG-4 profile System stream Bitrate regulation mode			64 Kbit/s to 6 Mbit/s Yes ASP / level 0-5 (1 object) Yes CBR / VBR / CFR
MPEG-2 (4:2:0) Compression Elementary streams Mux DVD, SVCD compliance Bitrate regulation mode		1 to 15 Mbit/s Yes PS / TS Yes CBR / VBR	1 to 15 Mbit/s Yes PS / TS Yes CBR / VBR
MPEG-1 Compression Elementary / System streams VCD 2.0, XVCD compliance Bitrate regulation mode	128 Kbit/s to 3 Mbit/s Yes Yes CBR / VBR	128 Kbit/s to 3 Mbit/s Yes Yes CBR / VBR	128 Kbit/s to 3 Mbit/s Yes Yes CBR / VBR
Aspect ratios	4/3 & 16/9	4/3 & 16/9	4/3 & 16/9
Preview on VGA	Yes	Yes	Yes
Frame rate	29.97 (NTSC) / 25 (PAL/SECAM)	29.97 (NTSC) / 25 (PAL/SECAM)	29.97 (NTSC) / 25 (PAL/SECAM)
VBR with Average and Max settings	Yes	Yes	Yes
VBR with Fixed Quantizer	Yes	Yes	Yes
GOP definition	I, IP, IBP, IBBP, ...	I, IP, IBP, IBBP, ...	I, IP, IBP, IBBP, ...
IBP distance setting, closed GOP	Yes	Yes	Yes
Scene Change Detection	Yes	Yes	Yes
<b>DEVELOPERS RESSOURCES</b>			
Operating systems	Windows 7 (32 & 64 bit) / XP / 2000 Linux Kernel 2.4 / 2.6 (RedHat, SuSE, ...)	Windows 7 (32 & 64 bit) / XP / 2000 Linux Kernel 2.4 / 2.6 (RedHat, SuSE, ...)	Windows 7 (32 & 64 bit) / XP / 2000
Development kits	LiveWire framework Demo appli. source code	LiveWire framework Demo appli. source code	LiveWire framework Demo appli. source code
<b>SYSTEM CONFIGURATION</b>			
Minimum configuration	PIII - 500 MHz 128 MB RAM (PC133)	P4 - 1.8 GHz 256 MB RAM	P4 - 3 GHz 256 MB RAM
PCI compliance	PCI rev2.3 (32 bits 33 MHz) (Automatic detection: 5V and 3.3V) or PCIe (1 lane)		
Dimensions of the board	120 x 96 mm (4.72" x 3.78")	120 x 96 mm (4.72" x 3.78")	120 x 96 mm (4.72" x 3.78")
Power consumption	3 W (PCI) / 4.8 W (PCIe)	3 W (PCI) / 4.8 W (PCIe)	3 W (PCI) / 4.8 W (PCIe)

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<b>AUDIO SPECIFICATIONS</b>			
Inputs	1x Mini Jack Stereo	1x Mini Jack Stereo	1x Mini Jack Stereo
Outputs	1x Mini Jack Stereo	1x Mini Jack Stereo	1x Mini Jack Stereo
Formats	MPEG-1 Layer 2 AC-3, PCM	MPEG-1 Layer 2 AC-3, PCM	MPEG-1 Layer 2 AC-3, PCM AAC-LC
Encoding parameters			
Operating modes	Mono, Stereo, Dual Stereo, JointStereo	Mono, Stereo, Dual Stereo, JointStereo	Mono, Stereo, Dual Stereo, JointStereo
MPEG-1 Layer 2 Bitrate	128 to 384 Kbit/s	128 to 384 Kbit/s	128 to 384 Kbit/s
AC-3 Bitrate	96 to 648 Kbit/s	96 to 648 Kbit/s	96 to 648 Kbit/s
AAC-LC Bitrate			96 to 384 Kbit/s (96 Kbit/s for CD quality)
Sampling Frequencies	32, 44.1, 48 KHz	32, 44.1, 48 KHz	32, 44.1, 48 KHz
Bits per sample	16 bits	16 bits	16 bits
<b>STILL IMAGE WHILE ENCODING</b>			
Resolution	SIF	FD1 / SIF	FD1 / SIF
Field or Frame (2 fields) Capture		Yes	Yes
<b>ADVANCED FEATURES</b>			
Brightness, Contrast, Saturation, Hue adjustments	Yes	Yes	Yes
Audio level adjustment	Yes	Yes	Yes
Audiometer overlaid on preview	Yes	Yes	Yes
Status overlaid on preview	Yes	Yes	Yes
Pause / Resume mode	Yes	Yes	Yes
Split mode (back to back files)	Yes	Yes	Yes
Skip frame mode (reduced frame rate & regular playback)	Yes	Yes	Yes
Drop frame mode (reduced frame rate & accelerated playback)	Yes	Yes	Yes
24/7 Very Long Encoding	Yes	Yes	Yes
Append (open a closed file and continue recording)	Yes	Yes	Yes
Rewind (open a closed file, seek overwrite and continue recording)	Yes	Yes	Yes
Multiboarding	Yes	Yes	Yes
On Screen Display (OSD)	Yes	Yes	Yes



\*Available through Mini DIN adaptor.

<sup>(1)</sup> Up to 4 Composite Video (or 2 S-video) inputs can be handled through the DB-15 connector. Switching from one to the other is made by software.

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