



CHARACTERISTICS

- Video inputs:
 - 1 x SDI
 - 1 x Analog (PAL/NTSC)
- Audio inputs:
 - 4 or 8 SDI embedded channels
 - 4 or 8 analog channels
 - 2 or 4 AES/EBU channels
- Transport outputs:
 - 1 x IP (RTP/UDP) with COP3 FEC SMPTE 2022
 - 1 x DVB-ASI
 - 1 x PDH (E3/DS3)
- Profiles:
 - MP@ML
 - 422P@ML
- Resolutions:
 - 352x480 to 720x480 (NTSC)
 - 352x576 to 720x576 (PAL)
- Processing of video blanking interval information: VITS, teletext, aspect ratio (AFD, WSS)
- Low encoding/decoding delay. Possibility of extra delay in order to work with mid range and low end decoders
- Internal video and audio pattern generator
- Support the standards:
 - DVB-T
 - DVB-S
 - ATSC
- Support for SI information services
- Firmware upgradable
- Multiple management and configuration interfaces:
 - Front panel with display
 - Web browser
 - SNMP-based alarms
 - Centralized management with SIVAC NMS
 - local RS-232
- Contact-closure alarms

SDTV MPEG-2 ENCODER

SIVAC 1000 MVE is SAPEC's family of professional MPEG-2 SDTV (*ISO/IEC 13181*) 1 RU video and audio encoders with front panel and transmission over DVB-ASI, IP (RTP/UDP with COP3 FEC SMPTE 2022) and PDH (E3/DS3).

SIVAC 1000 MVE supports analog (PAL/NTSC) and digital (SDI) video inputs and it is capable of encoding up to 8 channels (4 stereo pairs) of embedded audio, AES/EBU or analog audio. Analog inputs can be equalized and adjusted.

SIVAC 1000 MVE allows video and audio to be encoded from different inputs, what gives great flexibility and avoids the need for external converters or embedders.

SIVAC 1000 MVE processes the vertical blanking interval inserting teletext, test signals (VITS) and aspect ratio (AFD, WSS). Teletext source may be different from video input, providing maximum flexibility and no need for external embedders.

SIVAC 1000 MVE has been designed with an internal multiplexer that can create one PMT with video, audio and VBI data, and up to other three PMT's for audio channels (radio broadcasting).

SIVAC 1000 MVE supports MP@ML (**MVE 10x0**) as well as 422P@ML (**MVE 12x0**) profiles, enabling the user to select GOP size and structure, encoding resolutions (NTSC: 352x480 to 720x480; PAL: 352x576 to 720x480) and bitrates for audio (64 kbps to 384 kbps per stereo channel) and video (MP@ML: 1 to 15 Mbps; 422P@ML: 2 to 50 Mbps) in order to meet different needs.

SIVAC 1000 MVE uses the latest breakthroughs in MPEG-2 compression technology to deliver the best image quality with minimum encoding-decoding delay (less than 180 ms over ASI and PDH in combination with **SIVAC 1000 MVD**) and due to the patented technology **FastIP_{Sync}**®, it is able to reduce jitter in IP networks, as it uses an exclusive algorithm that adapts dynamically itself to IP network conditions. It is possible, nevertheless, to add an extra-delay in order to be interoperable with mid-range and low end decoders (usually consumer set-up boxes).

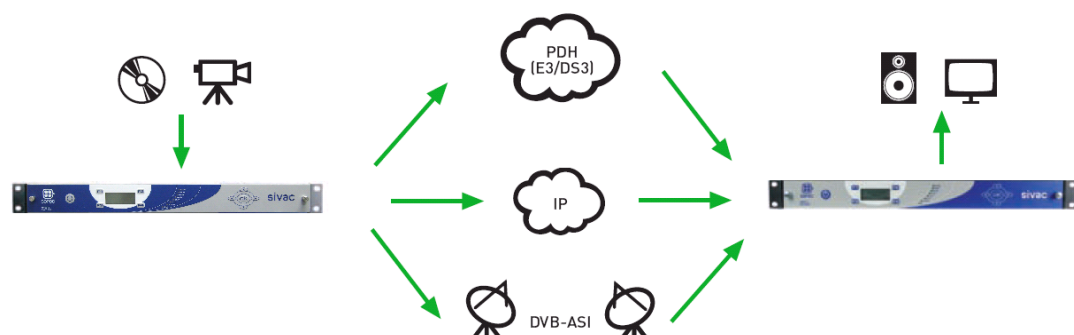
SIVAC 1000 MVE supports configuration via web browser and front panel, and also provides an SNMP agent for external monitoring. The equipment can also be managed centrally and simultaneously with **SIVAC-NMS** management system.

SIVAC 1000 MVE offers a build-in 1+1 autonomous redundancy system that provides a reliable audio and video signal transport.

SIVAC 1000 MVE power supply is AC + DC, and it has a DC output, what allows to feed another unit with only one power supply.

SIVAC 1000 MVE has low power consumption (less than 20 W), making electrical installations easier.

TYPICAL APPLICATION



TECHNICAL SPECIFICATIONS

MVE 1000 MVE 1010 MVE 1020 MVE 1200 MVE 1210 MVE 1220

Video Input

Digital Inputs

Number of inputs:	1 x BNC					
Formats:	SDI (SMPTE 259M): 625/25Hz, 525/29.97Hz	●	●	○	●	●
Impedance:	75 Ω					○
Automatic cable equalization:	> 250m Belden 8281					

Analog Inputs

Number of inputs:	1 x BNC					
Formats:	PAL (ITU624-4), NTSC (SMPTE 170M)	●	○	●	●	○
Impedance / Nominal Level:	75 Ω / 1 Vpp					●
Cable eq / level adjustment:	> 100m					

Video Input Features

Video pattern generator:	Color bars	●	●	●	●	●
Vertical interval processor:	VITS and Teletext	●	●	●	●	●
Aspect ratio:	4:3, 16:9, AFD, WSS					

Monitor Outputs

Loop:	1 x BNC Analog video input	●	●	●	●	●
AV Monitor:	1 x BNC Analog video					

Audio Input

SDI Embedded

Number of inputs:	4 or 8 channels	●	●	○	●	●
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Analog Inputs

Number of inputs:	4 or 8 channels (1 x Phoenix)	●	○	●	●	○
Format:	Balanced analog audio					●
Sample frequency:	32 Khz, 44.1 Khz or 48 Khz					
Impedance:	600 Ω or High impedance (> 22 KΩ)					

Digital Inputs

Number of inputs:	2 or 4 AES/EBU channels (1 x Phoenix)	●	○	○	●	○
Format:	AES / EBU					○
Sample frequency:	32 Khz, 44.1 Khz or 48 Khz					
Impedance:	110 Ω, balanced					

Audio Input Features

Audio pattern generator:	1 kHz tone	●	●	●	●	●
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Video Encoding

Encoding Standard

Standard and profile/level:	MPEG-2 MP@ML; 1 to 15 Mbps MPEG-2 422P@ML; 2 to 50 Mbps	●	●	●	●	●
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Encoding Features

Configurable GOP settings:	Open and Close GOP; GOP size; I,P,B Images					
Encoding resolutions:	525 (NTSC): 720 x 480, 704 x 480, 640 x 480, 544x480, 528 x 480, 480 x 480, 352 x 480 625 (PAL): 720 x 576, 704 x 576, 640 x 576, 544 x 576, 528 x 576, 480 x 576, 352 x 576	●	●	●	●	●

Delay Features

Delay:	< 180 ms encoding and decoding with MVD (over ASI)					
Extra delay:	Selectable extra delay feature in order to work with mid-range and low end decoders	●	●	●	●	●

Audio Encoding

Formats:	MPEG-1 Layer II (ISO/IEC 11172-3)					
Encoding bitrates:	From 64 kbps to 384 kbps (per stereo channel)	●	●	●	●	●
Operating modes:	Stereo, Joint Stereo, Mono and Dual Mono					

Internal Multiplexer

PMT:	Up to 4 PMT (only one PMT will include video service)	●	●	●	●	●
PMT tables:	PID, Service Type, Service Name					

Transport Outputs

Ethernet

Number of outputs:	1 x RJ-45
Number of video IP streams:	2
Interface:	10/100 Mbps
Encapsulation:	TS over IP: UDP, RTP and RTP with COP3 FEC (SMPTE 2022) (Multicast / Unicast)

All units can be configured with one, two or three different transport outputs

ASI

Number of outputs:	1 x BNC
Encapsulation:	188 byte TS

PDH

Number of inputs:	1 x BNC
Number of outputs:	1 x BNC
System specifications:	E3 (G.751), DS-3 (C-bit parity)

Management

Web browser:	Web browser access					
NMS:	SIVAC NMS (optional SAPEC NMS software)					
SNMP:	Support for SNMP v2	●	●	●	●	●
Front panel:	Front panel controls with display					
RS-232:	Connection link (1 x DB9) for remote control					

Environmental

Power

Input voltage range:	AC 105 - 240 V or DC 36 - 72 V					
Typical consumption:	< 20W	●	●	●	●	●
Operating temperature:	0°C to 50°C					

Physical

Dimensions (L x H x W) (cm):	27 x 5 x 48; 18,9" wide x 1RU high	●	●	●	●	●
Weight:	4 Kg					

● Standard ○ Optional

Local Distributor:

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