



MVE7000/MVD7000

Compact IP Encoder/Decoder for Contribution, Enterprise and Video Surveillance



Key Features

■ Superior Quality and Performance

- Superior image quality, performance and reliability built in NTT Innovative Devices' H.265/HEVC Encoder LSI (Encoder)
- Multicast / Unicast to support IPv4 and IPv6 with Error Correction
- H.264/AVC 4:2:2 and 4:2:0 Decoding supported (Decoder)

■ Low Delay and Low Bitrate

- 1 Frame Delay supported (40ms@1080i25, 33ms@1080i29.97)
- Supported encoding at super low bitrate in down-conversion mode (Encoder)

■ Dual Channel Encoding

- Simultaneously dual channel encoding in one box (2 in 2 out)
- Two type parameter encodings for single channel input signal (1 in 2 out)

■ Compact Form Factor

- 1U Half-rack

■ IP Robustness

- Outputs four IP streams simultaneously
- SRT (Secure Reliable Transport) protocol supported
- FEC and ARQ supported
- Seamless Protection Switching supported

■ High Performance for Broadcast

- Inputs up to 8ch embedded audio and transmits up to 4PES
- Supports GENLOCK

■ Superimpose Functionality

- Subtitle indicated at top and bottom in images
- Equipment status is indicated on images
- Selectable indication for each output port (Decoder)

■ Other Functionality

- IP and bitrate real-time status indicated by graphs (Decoder)
- Auto preset referring to input signal formats
- Interlace / Progressive conversion function in accordance with the video encoding format (Encoder)
- Output SCTE104 data in SCTE35 format (Encoder)
- TIMECODE transmission in Timecode SEI or ST 2038 format (Encoder)

Front Panel

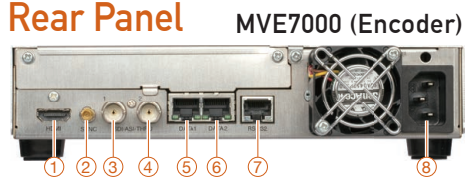


- ① POWER
- ② USB
- ③ CTRL
- ④ LEDs
- ⑤ RESET

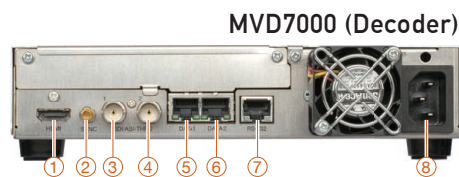


- ① POWER
- ② USB
- ③ CTRL
- ④ LEDs
- ⑤ RESET

Rear Panel



- ① HDMI Input
- ② SYNC (GENLOCK)
- ③ SDI/ASI/THRU1
- ④ SDI/ASI/THRU2
- ⑤ DATA1
- ⑥ DATA2
- ⑦ RS-232
- ⑧ AC 100-240V



- ① HDMI Output
- ② SYNC (GENLOCK)
- ③ SDI/ASI/THRU1
- ④ SDI/ASI/THRU2
- ⑤ DATA1
- ⑥ DATA2
- ⑦ RS-232
- ⑧ AC 100-240V

Specifications

Category	Encoder	Decoder	Specification
Video	Input	Output	3G-SDI (SMPTE ST 424), HD-SDI (SMPTE ST 292), SD-SDI (SMPTE ST 259) : BNCx2 HDMI (HDCP non-compliant) x1
	Encoding Format	Decoding Format	H.265/HEVC Profile : Main 10 4:2:2 ^{OP4} , Main 10, Main / Level : 4.1, 4.0, 3.1 H.264/MPEG-4 AVC (Decoder Only) Profile : High 4:2:2 (10bit), High, Main / Level : 4.1, 4.0, 3.2, 3.0
	Video Format		1080P (1920/1440/1280/960×1080) @60Hz, 59.94Hz, 50Hz, 30Hz (HEVC only) 1080P (1920/1440/1280/960×1080) @29.97Hz, 25Hz, 24Hz, 23.98Hz 1080I (1920/1440/1280/960×1080) @30Hz (HEVC only) 1080I (1920/1440/1280/960×1080) @29.97Hz, 25Hz 720P (1280×720) @59.94Hz, 50Hz 576I (720×576) @25Hz 480I (720×480) @29.97Hz
	GENLOCK		75Ω DIN 1.0/2.3
Audio	Input Format	Output Format	Embedded Audio (8ch) (SMPTE ST 299, SMPTE ST 272), HDMI (HDCP non-compliant)
	Encoding Format	Decoding Format	MPEG-1 Layer II (1ch, 2ch); max. 4PES MPEG-2 AAC-LC (2ch, 4ch, 5.1ch, 6ch); max. 2PES ^{OP5, OP21} MPEG-4 AAC-ELD (2ch, 5.1ch); 1PES ^{OP5, OP21} SMPTE ST 302 (2ch); max. 4PES
Ancillary	Data Type	—	TIMECODE (Timecode SEI or ST 2038 format) ^{OP11/OP12} SCTE104 (SCTE35 format) ^{OP11/OP12}
Transport Stream (TS)	Output Stream Type	Input Stream Type	MPEG-2 TS (188/204byte) For IP : Advanced TS (192byte)
	Output Interface	Input Interface	IP, DVB-ASI
	Max. Output TS Rate	Max. Input TS Rate	Encoder : 50Mbps, Decoder : 80Mbps
Network	IP Transmission Interface		DATA1 : 100BASE-TX/1000BASE-T (RJ-45) DATA2 : 100BASE-TX/1000BASE-T (RJ-45)
	Transmission		RTP/UDP/IP (SMPTE ST 2022-2:2007, RFC2250, RFC3550), Unicast/Multicast, SRT ^{OP9, OP24}
	Network Features		IPv4 : IGMP v3, NTP, DHCP, Ping, PPPoE IPv6 : MLDv2
	Error Correction		FEC (SMPTE ST 2022-1:2007 / Pro-MPEG COP#3 R2), ARQ, SRT ^{OP9, OP24}
Other Features			Seamless Protection ^{OP23} , Superimpose, Preset Parameters (max. 64), Low Bitrate ^{OP1} , Seamless Bitrate Change ^{OP7} , Camellia Encryption ^{OP6, OP22} , Dual Encoding ^{OP8} , Serial Pass Through, TS Pass Through ^{OP10, OP25}
Control	Interface		Power ON/OFF Key, RESET Button, 100BASE-TX (RJ-45)
	Remote Control		Web GUI, SNMP v1/v2c, Ping
Dimensions / Weight			W:208.7 x H:42.1 x D:360 (mm) (w/o Connector, Foot, Rack mount bracket) / max. 2.6kg
Power Consumption			Max. 65W
Operating Environment ^{*1}			-10 to 50°C (excluding low-temperature startup ^{*2}), 20 to 90% (non condensing)
Supply Voltage			AC100V to 240V, 50/60Hz
Compliance			RoHS, VCCI, FCC, ICES, CE, UL, CSA

*1 It is not the given devices of measures such as waterproofing, protection against dust, damage from salt breeze. Thus, life of equipment may shorten remarkably, and it is not possible for the normal movement security under using environmental condition.

*2 low-temperature = under 0 degrees Celsius

- Our company may change specifications and the appearance for improvement that are incidental to the product without providing prior notice.
At the purchase and the use of the product, please confirm the latest information.
- Exporting our products or technologies may be subject to the Foreign Exchange and Foreign Trade Law of Japan and export control acts and regulations of other related countries.
- All other brand or product names are trademarks or registered trademarks of their respective companies or organizations.

Caution Please use our products in accordance with the instructions provided in the manual, user's guide or specifications attached.



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Option Table: **MVE7000 (Encoder)**

	Suffix	Option Name	Description
Software	OP1	MVE7000_OP_LOWRATE	Low Bitrate Mode
	OP2	MVE7000_OP_SLDELAY	Super Low Delay Mode (3 frames)
	OP3	MVE7000_OP_ULDELAY	Ultra Low Delay Mode (1 frame)
	OP4	MVE7000_OP_HEVC_422	Main10 4:2:2 Encode
	OP5	MVE7000_OP_AAC	MPEG-2 AAC-LC/ MPEG-4 AAC-ELD Encode
	OP6	MVE7000_OP_CAMELLIA	Camellia Encryption
	OP7	MVE7000_OP_SBRC	Seamless Bitrate Change
	OP8	MVE7000_OP_2CHENC	Dual Encoding
	OP9	MVE7000_OP_SRT	SRT Sending
	OP10	MVE7000_OP_TS_PASS	TS Pass Through
	OP11 / OP12	MVE7000_OP_SCTE35 & TIMECODE	SCTE, TIMECODE Transmission

Option Table: **MVD7000 (Decoder)**

	Suffix	Option Name	Description
Software	OP21	MVD7000_OP_AAC	MPEG-2 AAC-LC/ MPEG-4 AAC-ELD Decode
	OP22	MVD7000_OP_CAMELLIA	Camellia Decryption
	OP23	MVD7000_OP_SEAMLESS	Seamless Protection
	OP24	MVD7000_OP_SRT	SRT Receiving
	OP25	MVD7000_OP_TS_PASS	TS Pass Through