

MV-3240IP Datasheet

1. Specifications

Basic specifications

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| Temperature | 0°C to 40°C |
| Humidity | 30% to 90% (no condensation) |
| Power | 100 V AC to 240 V AC \pm 10%, 50/60 Hz |
| Consumption | 245 VA (235 W) at 100V AC to 120V AC 260 VA (222 W) at 200V AC to 240V AC |
| Dimensions | 430 (W) x 44 (H) x 500 (D) mm EIA 1RU 480 (W) (Including rack mount brackets) |
| Weight | 9.55 kg |
| Consumables (at 24-hour operation) | Cooling fan: Replace every 5 years Power Supply: Replace every 5 years |

Technical specifications

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| Video format | | | |
| IP signal | ST2110-20 ST2022-7 (*9) | 2160p / 59.94, 50 1080p / 59.94, 50 1080i / 59.94, 50 720p / 59.94, 50 | |
| | ST2022-6 ST2022-7 (*9) | 1080p / 59.94, 50 1080i / 59.94, 50 720p / 59.94, 50 | |
| SDI signal | 4K | 12G-SDI (*8) | 2160p / 60, 59.94, 50 |
| | | 6G-SDI (*8) | 2160p / 30, 29.97, 25, 24, 23.98 |
| | | 3G-SDI | 1080p / 60, 59.94, 50 (Level-A/B) Quad Link (Level-A/B) 1080p / 60, 59.94, 50 Dual Link (Level-A, Level-B DS, Level-B DL) 1080p / 30, 29.97, 25, 24, 23.98 |
| | 2K | HD-SDI | 1080i / 60, 59.94, 50 1080p / 30, 29.97, 25, 24, 23.98 1080PsF / 30, 29.97, 25, 24, 23.98 720p / 60, 59.94, 50, 24, 23.98 1035i / 60, 59.94 |
| | | | SD |
| Video input | Supports IP and SDI inputs. (mixed and asynchronous inputs possible) | | |
| IP input | SFP port A/B, C/D (SFP28): 25GBASE-SR Path redundant (ST2022-7) (*9) ST2110-20: 2160p 4 streams or 1080p 16 streams or 1080i 16 streams or 720p 16 streams ST2022-6: 1080p 14 streams or 1080i 16 streams or 720p 16 streams | | |

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| SDI input (MV-1640SDI option and MV-1640SDI-12G option required) | HD-BNC x 16 (3G/HD/SD-SDI x 16 or 3G/HD/SD-SDI x 8, 12G/6G-SDI x 8 (*8)) 12G-SDI: 12.0 Gbps (Up to L-4.5CHD 50 m) 6G-SDI: 6.0 Gbps (Up to L-4.5CHD 50 m) 3G-SDI: 3.0 Gbps (Up to 5C-FB 70 m) HD-SDI: 1.5 Gbps (Up to 5C-FB 100 m) SD-SDI: 270 Mbps (Up to 5C-2V 200 m) 10-bit YCbCr 4:2:2 |
| Audio input | |
| IP | ST-2022-6 or ST2110-30 LevelB (16ch. Video synchronous) Max 16 channels for each video: 48kHz / 24-bit |
| SDI embedded | 48 kHz / 16-bit to 24-bit (Video synchronous) Max 16 channels for each SDI input (group x 4) (*1) |
| LTC input (MV-1640IF option) | BNC x1 SMPTE-compliant timecode: 1.0 Vp-p within ±6 dB |
| Video output | |
| HDMI | HDMI (Type-A): 1 output (4K in HDMI2.0 Level B mode) Frame rate: 59.94fps, 50fps 10-bit YCbCr 4:4:4, 8-bit YCbCr 4:2:0 or 8-bit RGB 4:4:4 Limited range |
| 12G/3G/HD-SDI | Up to 3840 x 2160 (12G-SDI or 3G/HD-SDI) BNC x 1 1080p, 1080i, 1035i or 720p (3G/HD-SDI) HD-BNC x 3 10-bit YCbCr 4: 2: 2 |
| IP | SFP port A/B (SFP28): 25GBASE-SR Path redundancy (ST2022-7) (*9) ST2110-20: 1080p 4 streams or 1080i 4 streams or 720p 4streams ST2022: 1080p 4 streams or 1080i 4 streams or 720p 4streams |
| Audio output | |
| SDI embedded | Max 16 channels for each video (group x 4) 48kHz / 24-bit |
| HDMI embedded | Max 8 channels for each video (stereo pair x 4) 48kHz / 24-bit |
| IP | ST-2022-6 or ST2110-30 (Video synchronous) Max 16 channels for each video 48kHz / 24-bit |
| Genlock input | -REF IN (MV-1640IF option) BB: 0.429 Vp-p (NTSC), 0.45 Vp-p (PAL) or Tri-level sync.: 0.6 Vp-p 75Ω BNC -INPUT LOCK (SDI IN1 on MV-1640SDI option) 1080/59.94p, 1080/50p(Level-A/B), 1080/59.94i, 1080/50i, 720/59.94p, 720/50p, 525/60, 625/50 -PTP LOCK (SFP port A/B) |
| Video input/output delay (*2) | HDMI/SDI output <SDI1-4/HDMI Out> 0.5 frame (Field mode) Minimum value 1 frame (Frame mode) Minimum value |

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| Video Window display | <p>4K mode: 25 windows Breakdown: 2K window x 9, 1K window x 12 Video/Clock shared 2K window x 2 Video/Clock shared 1K window x 2</p> <p>2K mode: 40 windows Breakdown: 2K window x 8, 1K window x 23, 1K mirror window x 5 Video/Clock shared 2K window x 2 Video/Clock shared 1K window x 2</p> |
| Clock Count up timer Count down timer (*3) Schedule timer | <p>Can be displayed in information window. (Internal clock or LTC is selectable for schedule timer.) Max. number: 4</p> |
| Background display | <p>Store and display background images - [3840 x 2160] x 1 (4K layout mode) - [1920 x 1080] x 4 (2K layout mode)</p> |
| Logo display | <p>Store and display logo images - Max: 1024 x 512 (Max. 8 logos can be registered. Max. 4 logos can be displayed.)</p> |
| Screen layout | <p>User customized layout - Layouts for each output can be saved on the viewer up to 16 layouts.</p> |
| Title display | <p>-Title length: Max. 16 characters x 4 lines for each input channel -Supported characters: Letters, numbers, symbols and Japanese kana/kanji (JIS 1 and 2)</p> |
| Tally display | <p>Indicated as a frame (red/green/amber) or marker (red/green/amber) on each input window.</p> |
| Audio level display (*7) | <p>Up to 16 audio channels of audio level metering per input</p> |
| Time code display | <p>- Display for 12G/6G(*8)/3G/HD/SD-SDI ancillary timecode (ATC) (*4) - Reader mode (*5)</p> |
| Video monitoring | <p>Detects video loss, frozen frames, incorrect luminance/black level, and CRC error.</p> |
| Audio monitoring | <p>Detects audio loss, silence, and excessive audio levels.</p> |
| Metadata monitoring | <p>Detects timecode loss error.</p> |
| Control interface | <p>LAN1: 100BASE-TX/1000BASE-T, RJ-45 x 1 LAN2: Same as above</p> |
| GPI-IO (MV-1640IF option) | <p>50 pin D-sub (female) x1 -Up to 45-pin for input/ 23-pin for output (selectable, and can be used for input and output)</p> |
| Layout Manager | <p>Software for customizing window sizes and positions, switching windows, and registering backgrounds and logos (Windows® software)</p> |
| Live Viewer | <p>Software for video streaming and pre-alarm recording to a PC. (Windows® software)</p> |
| Data backup | <p>Stores settings internally to the memory (rewrite capacity: approx. 100,000 times) (*6) Time information is held by a super capacitor.</p> |
| Daytime accuracy | <p>Monthly difference within ±15 seconds. Accuracy duration when power is off: 60 hours</p> |

- (*1) For 3G-SDI Level-B, only Link-A audio is supported, not Link-B.
- (*2) Using interlaced input
- (*3) Count up/down timer uses an internal crystal oscillator: ± 50 ppm within operating temperature.
(0°C to 40°C)
- (*4) Ancillary time code (ATC) is not passed through.
- (*5) Time code from LTC input is not displayed.
- (*6) Frequent setting changes may impair data retention.
- (*7) When input audio frequency is under 60Hz, audio level may not be displayed correctly.
- (*8) MV-1640-12G option required
- (*9) The frequencies of IP input and MV output are different, the input signals are not properly processed.

Options

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|-----------|------------------------|
| MV-1640PS | Redundant power supply |
| MV-1640IF | Interface option |

SFP transceivers (SFP28, up to 8) used for IP video transmission should be **prepared by users**.

Recommended SFP transceiver module: MMA2P00-AS-SP (NVIDIA)

Other Option

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| HVS-AUX16A/16B/16C/16D/32A/64A (*) | Auxiliary unit (Ethernet LAN Connection) |
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(*) Connectable max. 4 units

Accessories

AC Cord, EIA Rack Mount Brackets, Rubber Feet, HDMI Cable Lacing Bracket, and CD-ROM

2. External Dimensions

(All dimensions in mm.)

