

HVS-490/491OU/492OU/492WOU/492ROU Datasheet

1. Specifications

Basic specifications

Temperature / Humidity	0°C to 40°C/10% to 90% (no condensation) 0°C to 35°C (With all options)
Power	AC 100 V to 240 V±10%, 50/60 Hz
Consumption	HVS-490 (standard): 508 W (at 100-120 V), 452 W (at 220-240 V) HVS-490 (full option): 780 W (at 100-120 V), 723 W (at 220-240 V) HVS-491OU: 16 W (at 100-120 V), 16 W (at 220-240 V) HVS-492OU: 27 W (at 100-120 V), 28 W (at 220-240 V) HVS-492WOU: 30 W (at 100-120 V), 28 W (at 220-240 V) HVS-492ROU: 20 W (at 100-120 V), 18 W (at 220-240 V)
Dimensions	HVS-490: 429 (W) mm x 132 (H) mm x 490 (D) mm 480 (W) mm (Including rack mount brackets) HVS-491OU: 430 (W) mm x 132 (H) mm x 376.4 (D) mm HVS-492OU: 646 (W) mm x 132 (H) mm x 510 (D) mm HVS-492WOU: 844 (W) mm x 132 (H) mm x 484 (D) mm HVS-492ROU: 430 (W) mm x 132 (H) mm x 474 (D) mm
Weight	HVS-490 : 17 kg (With all options: 23 kg) HVS-491OU : 6 kg (With redundant power supply: 7 kg) HVS-492OU : 11 kg (With redundant power supply: 11 kg) HVS-492WOU : 12 kg (With redundant power supply: 13 kg) HVS-492ROU: 7 kg (With redundant power supply: 8 kg)
Consumables (at 24-hour operation)	HVS-490 Power supply unit: Replace every 5 years. Cooling fans: Replace every 4 years. HVS-491OU Power supply unit: Replace every 5 years. HVS-492OU Power supply unit: Replace every 5 years. HVS-492WOU Power supply unit: Replace every 5 years. HVS-492ROU Power supply unit: Replace every 5 years.

Technical specifications

Number of M/E	2M/E (HD/SD), 1M/E(4K UHD)
Control panels	HVS-492WOU: 2M/E 22 buttons HVS-492OU: 2M/E 18 buttons HVS-492ROU: 2M/E 12 buttons HVS-491OU: 1M/E 12 buttons
Video formats	1.5G-SDI: 1080/59.94i, 1080/50i, 1080/29.97PsF, 1080/29.97p, 1080/25PsF, 1080/25p, 1080/24p, 1080/24PsF, 1080/23.98p, 1080/23.98PsF, 720/59.94p, 720/50p 3G-SDI : 1080/59.94p, 1080/50p (Level-A)
HVS-49SD	SD-SDI: 525/59.94i (NTSC), 625/50i (PAL)
Video inputs	HD-SDI: 1.5 Gbps or 3G-SDI : 3 Gbps 75Ω BNC x 16, (frame synchronizer x 16, scaler x 4)
Video inputs (optional)	
HVS-49SD	SD-SDI: 270 Mbps
HVS-49IO	HD-SDI: 1.5 Gbps or 3G-SDI : 3 Gbps 75Ω BNC x 16 (frame synchronizer x 16, scaler x 4)

HVS-100DI-A	HD-SDI (1.5 Gbps) or 3G-SDI : 3 Gbps 75Ω BNC x 4
HVS-100AI	HD/SD analog component or analog composite 1.0 Vp-p 2 inputs BNC
HVS-100PCI	HDMI 1.2 (TYPE A) x 2, VGA x 1 1080p: HDTV 1080i, 1080PsF: XGA to WUXGA, HDTV 720p: XGA to WXGA, HDTV SD: VGA, SVGA, SDTV
HVS-NIF	NDI input x 4 Image Compression Methods: NDI HX (H.264), NDI HX (HEVC), NDI (SHQ2) Resolution: 1920 x 1080, 1280 x 720 Audio sample rate: 32 kHz, 44.1 kHz, 48 kHz recommended
Number of video input	Standard: 16 (SDI only) / Max.: 40 (varies depending on optional configuration)
Video outputs	HD-SDI: 1.5 Gbps or 3G-SDI : 3 Gbps 75Ω BNC x 8, (PGM x 2, AUX x 6), HDMI 2.0 Level-B (TYPE A) x 1 (HDCP-incompatible. AUDIO support)
Video outputs (optional)	
HVS-49SD	SD-SDI: 270 Mbps
HVS-49IO	HD-SDI: 1.5 Gbps or 3G-SDI : 3 Gbps 75Ω BNC x 8 (PGM x 2, AUX x 6), HDMI 2.0 Level-B (TYPE A) x 1 (HDCP-incompatible. AUDIO support)
HVS-100DO	HD-SDI (1.5 Gbps) or 3G-SDI (3 Gbps), BNC x 2, 75Ω
HVS-100AO	HD/SD analog component or analog composite 1.0 Vp-p 2 outputs BNC
HVS-100PCO	HDMI 1.2 (TYPE A) x 2, VGA x 1
(HDMI)	1080p: SXGA to WUXGA (1080p/25, 29.97), HDTV 1080i, 1080PsF: SXGA to WUXGA, HDTV 720p: SXGA, WXGA, HDTV SD: SVGA, SDTV
(VGA)	1080i, 1080PsF: SXGA to WUXGA, HDTV 720p: SXGA, WXGA, HDTV SD: SVGA
HVS-NIF	NDI output x 2 Image Compression Method: NDI HX (H.264), NDI HX (HEVC), NDI (SHQ2) System format: 1080p, 1080i, 1080/29.97PsF, 1080/25PsF, 720p
Number of video outputs	Standard: 9 (SDI x 8 + HDMI x 1) / Max.: 22 (varies depending on optional configuration)
AUX	Standard: 6, Max.: 12 * Effect transitions available for all AUX signal changes
Color sampling	4:2:2, 10-bit
Multi viewer	Output channels: 3 (SD formats: 2) Split display: 2/4/5/7/9/10/11/14/15/16 (Max. 49 via HDMI 2.0 Level B) Display: Title, tally, audio level meter
Process amplifier	Equipped with all inputs
Still/clip store	4 channels

2.5D DVE	16 channels (8 channels in 1080/59.94p, 50p with bus restrictions) * 16 channels with HVS-49DVE option
Transitions	Available controller: Fader controller, AUTO button, CUT button Type: MIX or WIPE (DVE included)
Genlock input	BB: 0.429 Vp-p (NTSC)/0.45 Vp-p (PAL) or Tri-level sync: ± 0.3 Vp-p, 75 Ω , BNC x1, loop-through (to be terminated with 75 Ω terminator, if unused)
Genlock output	BB: 0.429 Vp-p (NTSC)/0.45 Vp-p (PAL) or Tri-sync: 0.6 Vp-p, 75 Ω , BNC x 1
System phase adjustment	Horizontal: -1/2H to +1/2H
Video I/O delay	Minimum delay (Approx. 1.4H) * 720/59.94p (Approx. 1.7H), 720/50p (Approx. 1.8H), SD (Approx. 2.6H) 0 to 1 frames + Minimum delay (when FS or input re-sizing engine used) 1 to 2 frames + Minimum delay (when FS or input re-sizing engine plus DVE used) 2 to 3 frames + Minimum delay (when FS or input re-sizing engine plus output re-sizing engine plus DVE used)
External memory	SD-CARD slot
Audio Input (optional)	
HVS-49AES (AES/EBU)	Balanced, 0.2-7 Vp-p, 110 Ω , 25-pin D-Sub (female) x 1, input/output, 4 stereo channel pairs, 32/44.1/48 kHz, 16-bit to 24-bit or Unbalanced, 1.0 Vp-p, 75 Ω , BNC x 4, 4 stereo channel pairs, 32/44.1/48 kHz, 16-bit to 24-bit
Audio Output (optional)	
HVS-49AES (AES/EBU)	Balanced, 3.3 Vp-p, 110 Ω , 25-pin D-Sub (female) x 1, input/output, 4 stereo channel pairs, 48 kHz, 24-bit Unbalanced, 1.0 Vp-p, 75 Ω , BNC x 4, 4 stereo channel pairs, 48 kHz, 24-bit
Audio Delay	0 - 85 ms (adjustable in 1 ms steps)
Audio Processing Functions	Sampling rate converter (SRC), Gain control
Interface	
LAN HVS (OU) LAN EXT	10/100BASE-TX, RJ-45 x 2 For OU and other external control unit connection
LAN1, LAN2	IP Control (HVS-NIF): 10/100/1000BASE-T, RJ-45 x 2
GPI IN/ALARM	25-pin D-sub (female) x 1 (inch screw) 19 inputs
GPI/TALLY OUT	25-pin D-sub (female) x 1 (inch screw) 22 outputs
RS-422	9-pin D-sub (female) x 2 (inch screw) *For router connection
HVS LAN	HVS-491OU/492OU/492WOU/492ROU: 10/100BASE-TX, RJ-45 x 1
GPI I/O	HVS-491OU/492OU/492WOU/492ROU: 15-pin D-sub (female) x 1 (inch screw), 6 inputs/6 outputs

4K Mode

4K UHD (3840 x 2160)	59.94 / 50p Quad Link 3G-SDI Level-A/B-DL (2SI/SQD) 4:2:2 YCbCr 10-bit * Level-B-DL input signals are output as Level-A signals. 29.97 / 25 / 24 / 23.98p Dual Link 3G-SDI Level-B-DS (2SI) 4:2:2 YCbCr 10-bit Quad Link 1.5G-SDI (SQD) 4:2:2 YCbCr 10-bit 29.97 / 25 / 24 / 23.98 PsF 59.94 / 50i Quad Link 1.5G-SDI (SQD) 4:2:2 YCbCr 10-bit
SDI input	8 inputs (Max 10 inputs) * Frame synchronizer on each input
SDI output	4 outputs (Max 5 outputs)
HDMI output	2 outputs HDMI2.0 Level-B (YUV 4:2:0)
WIPE pattern	Available (limited patterns)
WIPE modify	Same manner as working in normal (HD) mode (Only borders available in SQD mode)
Transition	Execution: Fader lever, AUTO or CUT button Type: MIX and WIPE
DVE	Available in 2SI mode 4 channels (2 channels for 1080/59.94p and 50p signals) * With HVS-49DVE option installed 5 channels (4 channels for 1080/59.94p and 50p signals)
KEYER	2 channels (KEY1 and KEY2) Luminance, Full, and Bus keying and Box mask Pattern mask and EDGE (Available in 2SI mode)
FLEXaKEY	One channel Luminance, Full, and Bus key Displayed on M/E or AUX
ChromaKey	1 channel
Sub Effects	1 channel Mosaic and Defocus available only in 2SI mode.
Color Corrector	1 channel
Multiviewer	3 channels (2K output) Layout patterns limited
UTILITY	1 channel
STILL	1 channel INPUT STILL available for all inputs
Event memory	100 events: Crossfade switching available during event recall * Event data in Normal mode are unavailable.
Macro	Same as in normal mode
Genlock Input	Same as in normal mode
System Phase Adjust	Same as in normal mode
Genlock Output	Same as in normal mode
I/O Delay	Same as in normal mode

Unavailable functions	Side panel MELite re-entry into M/E, KEYER or FLEXaKEY is disabled in SQD mode.
Parameters to be reset by switching to 4K mode	M/E 1, M/E 2, AUX and MELite settings KEY LINK and FLEXaKEY settings Side Panel, MV and Standard Color Corrector settings

HVS-490 Options

HVS-100DI-A	HD/SD-SDI input expansion card
HVS-100AI	Analog input card
HVS-100PCI	PC input card
HVS-100DO	HD/SD-SDI output expansion card
HVS-100AO	Analog output card
HVS-100PCO	PC output card
HVS-49IO	16-input / 9-output (SDI: 8ch, HDMI: 1ch) expansion card
HVS-49PSM	Redundant Power Supply Unit for HVS-490
HVS-49SSD240G	SSD Option (Capacity: 240 GB)
HVS-49ED	Editor Control Software
HVS-49EXP4K	4K Format Option Software
HVS-49DVE	2.5D DVE expansion card
HVS-49SD	SD Format Option Software
HVS-49AES	Digital Audio I/O Card
HVS-NIF	NDI I/F card

HVS-490 Accessories

AC cord, EIA rack mount brackets, and Quick setup guide

HVS-491OU/492OU/492WOU/492ROU Options

HVS-490PSO	Redundant Power Supply Unit for operation units
Rack Mount Brackets	Rack Mount Brackets for operation units

HVS-491OU/492OU/492WOU/492ROU Accessories

Control cable and AC cord

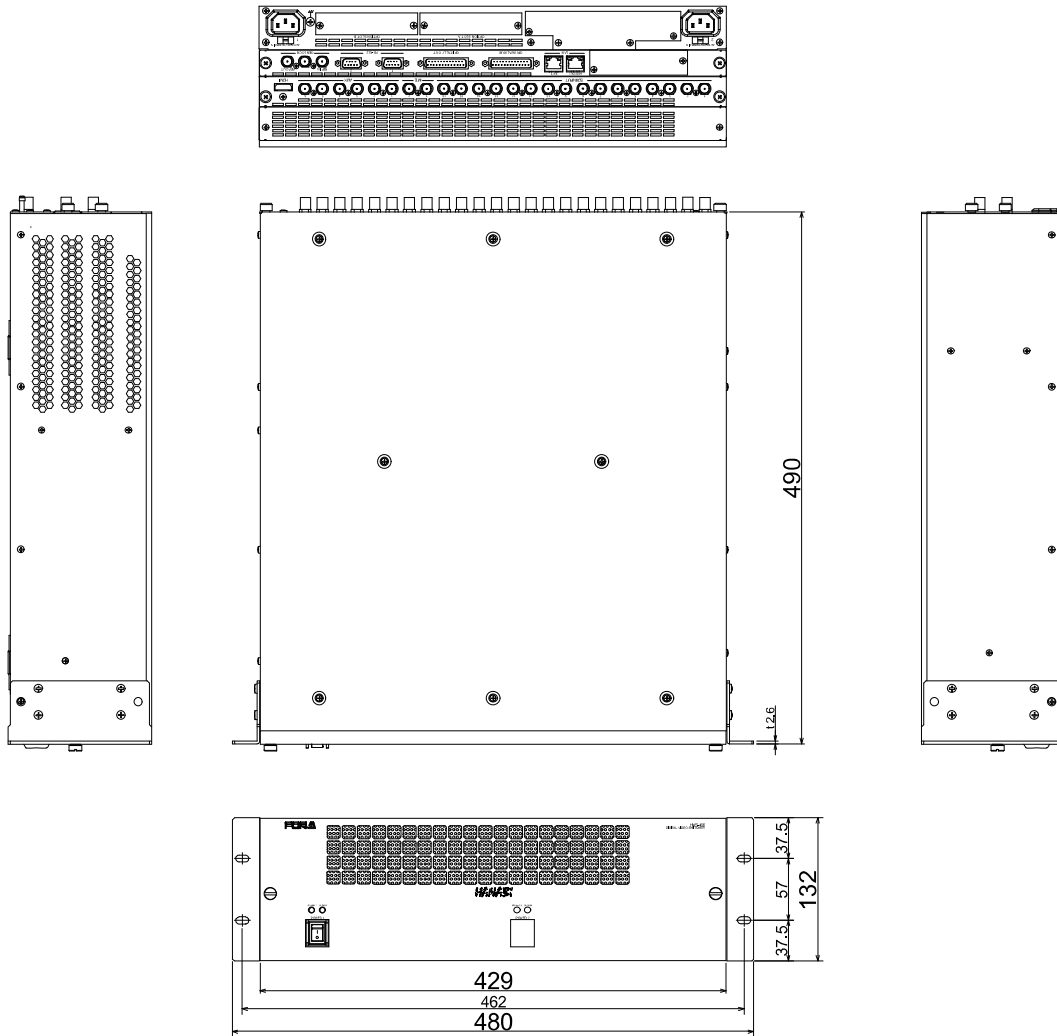
Other Options

HVS-AUX16A/16B/16C/16D/32A/64A	Auxiliary Unit (Ethernet LAN connection)
HVS-TALR32	Tally Control Unit (Relay type) (Hanabi Series Option) (RS-422 connection)
HVS-TALOC32	Tally Control Unit (Open Collector type) (Hanabi Series Option) (RS-422 connection)

2. External Dimensions

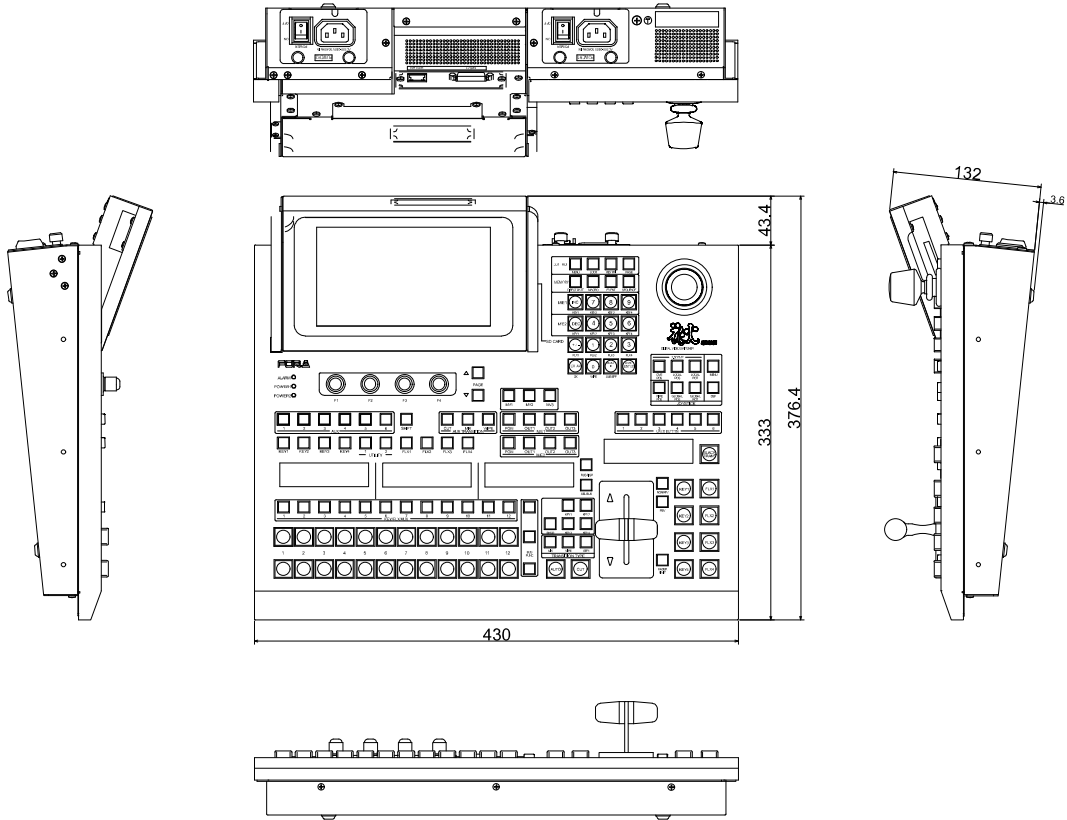
HVS-490

(All dimensions in mm.)



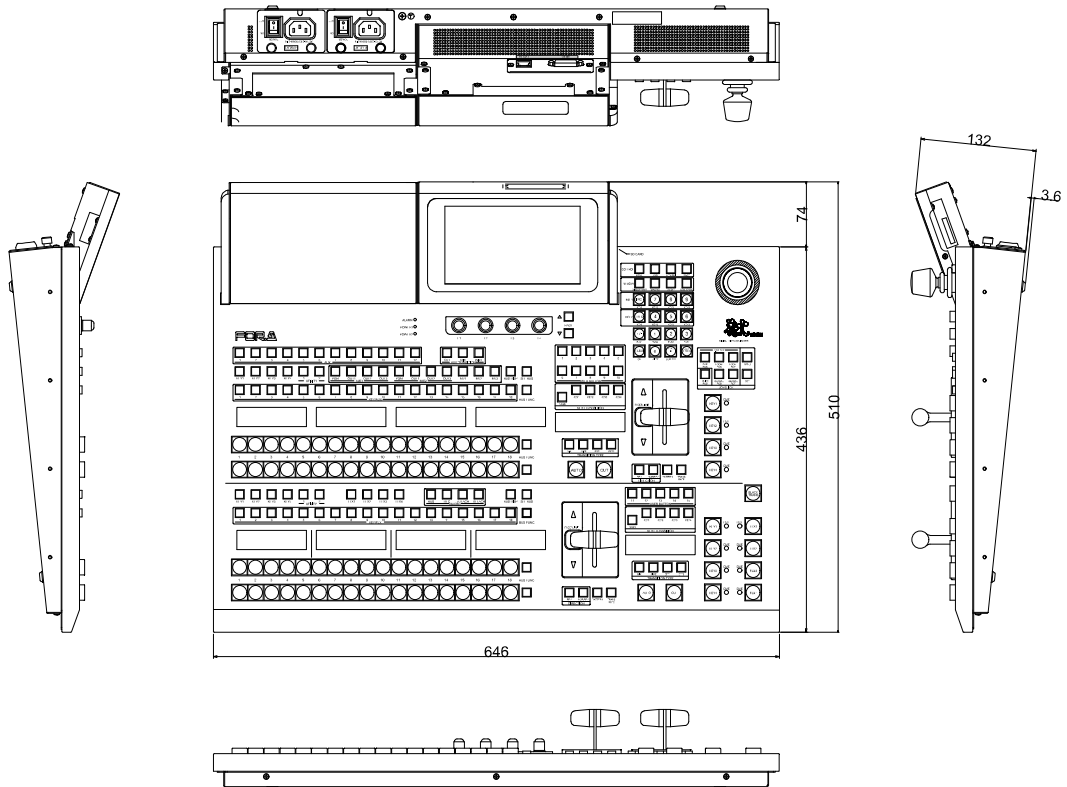
HVS-4910U

(All dimensions in mm.)



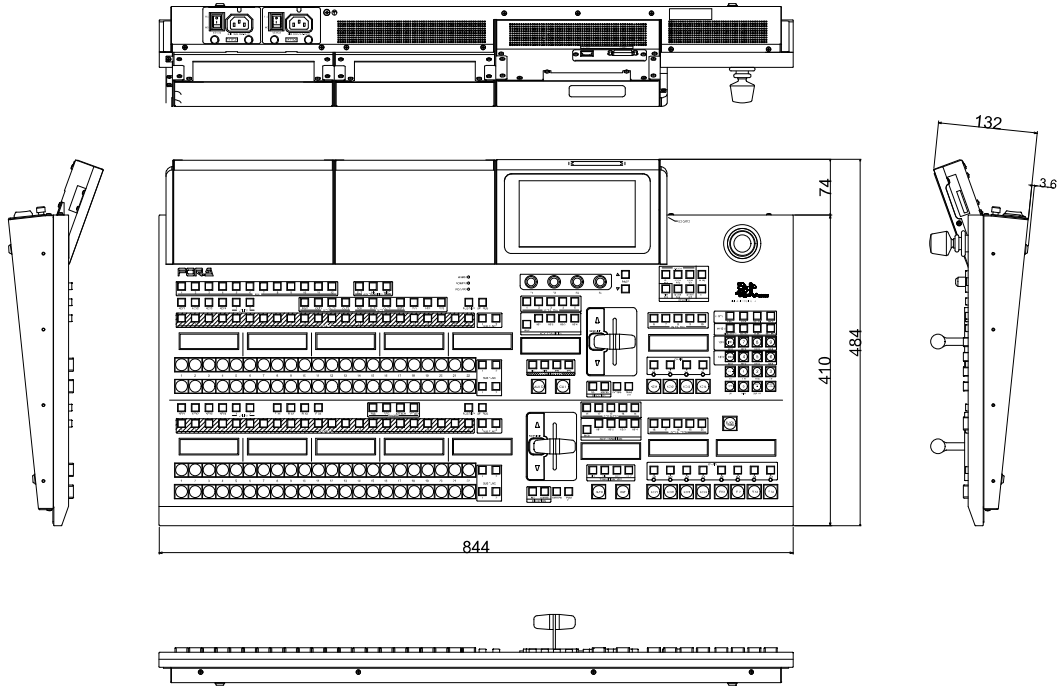
HVS-4920U

(All dimensions in mm.)



HVS-492WOU

(All dimensions in mm.)



HVS-492ROU

(All dimensions in mm.)

