

HVS-Q12 Datasheet

1. Specifications

Basic specifications

Temperature / Humidity	0°C to 40°C/10% to 90% (no condensation) 0°C to 35°C (two or more HVS-100DI-A cards installed)
Power	AC 100 V to 240 V ±10% 50/60 Hz
Consumption	HVS-Q12 : 346 W (at 100-120 V), 340 W (at 220-240 V) HVS-Q12 (With all options): 862 W (at 100-120 V), 859W (at 220-240 V)
Dimensions	430(W)×176(H)×480(D)mm EIA 4RU 482 (W) (Including rack mount brackets)
Weight	HVS-Q12: 20 kg (With all options: 30 kg)
Consumables (at 24-hour operation)	HVS-Q12 Power supply unit: Replace every 5 years. Cooling fans: Replace every 4 years.

Technical specifications

Item	HD mode	4K mode *Optional
Video formats	3G-SDI (SMPTE424M) 1.5G(HD)-SDI (SMPTE292M) 1.5G-SDI : 1080i / 59.94, 50 1080PsF / 29.97, 25, 24, 23.98 1080p / 29.97, 25, 24, 23.98 720p / 59.94, 50 3G-SDI : 1080p / 59.94, 50 (Input: Level-A/B, Output: Level-A) (ANC data not pass-through for Level-B)	12G-SDI (SMPTE2082) 6G-SDI (SMPTE2081) 12G-SDI : 2160p / 59.94, 50 6G-SDI : 2160p / 29.97, 25, 24p, 23.98p
SDI input	Std inputs: 12 (W/ FS for all) Max inputs: 60 (With FS)	Std inputs: 12 (W/ FS for all) Max inputs: 42 (W/ FS for all)
(Standard)	1.5G/3G-SDI BNC x 12	6G/12G-SDI BNC x 12
(HVS-Q12IO)	1.5G/3G-SDI BNC x 36 (Max.)	6G/12G-SDI BNC x 30 (Max.)
(HVS-100DI-A)	1.5G/3G-SDI BNC x 4 (INPUT1-2 can accept SD-SDI and up-resize them to HD)	
(HVS-DNT)	1.5G/3G-SDI BNC x 4 (Input / Output switchable)	1.5G/3G-SDI BNC x 2 (Max.) *Audio only available (Input / Output switchable)
NDI input (HVS-NIF)	NDI x 4 Image compression methods: NDI HX (H.264) NDI HX (HEVC) High Bandwidth NDI Resolution: 1920 x 1080, 1280 x 720	

	Audio sample rate: 32 kHz, 44.1 kHz, 48 kHz recommended	
SDI/HDMI output	Std outputs: 8 (incl. HDMI x 2) Max outputs:32 (incl. HDMI x 2)	Std outputs: 8 (incl. HDMI x 2) Max outputs:23 (incl. HDMI x 2)
(Standard SDI)	1.5G/3G-SDI BNC x 6	6G/12G-SDI BNC x 6
(Standard HDMI)	2 *HDMI2.0 Level-B (TYPE-A) AUDIO support	
(HVS-Q12IO)	1.5G/3G-SDI BNC x 18 (Max)	6G/12G-SDI BNC x 15 (Max)
(HVS-100DO)	1.5G/3G-SDI BNC x 2 SD-SDI (Down-resized output) BNC x 2 (Available only when HD format selected)	1.5G/3G-SDI BNC x 2 (For monitoring)
(HVS-DNT)	1.5G/3G-SDI BNC x 2 (Max) (Input / Output switchable)	1.5G/3G-SDI BNC x 2 (Max) (For monitoring) (Input / Output switchable)
NDI output (HVS-NIF)	NDI x 2 Image compression methods: NDI HX (H.264) NDI HX (HEVC) High Bandwidth NDI Resolution: 1920 x 1080, 1280 x 720 Audio sample rate: 32 kHz, 44.1 kHz, 48 kHz recommended	NDI x 2 Image compression methods: NDI HX (H.264) NDI HX (HEVC) High Bandwidth NDI Resolution: 1920 x 1080 Audio sample rate: 32 kHz, 44.1 kHz, 48 kHz recommended
Number of M/Es	1 to 2M/E	1 to 2M/E
Number of MELites	2 (4)	1 (2)
AUX bus	4 (28)	4 (19)
Color sampling	YCbCr Key 4 : 2 : 2 : 4, digital component, 10-bit	
Proc Amp	Included on all inputs	
Color corrector	4	2
Chroma key	2 (4)	1 (2)
KEYER	4 channels (Max. 8) (Each M/E) Luminance, Full, and Bus keys Edge, Box and Pattern masks Displayed on: ME	4 channels (Each M/E) Luminance, Full, and Bus keys Box and Pattern masks Displayed on: ME
FLEXaKEY (HVS-Q12FLX)	8 channels Luminance, Full, and Bus keys Box mask Displayed on: ME, MELite	4 channels Luminance, Full, and Bus keys Box mask Displayed on: ME, MELite
2.5D DVE	6 channels (Max. 10) (Each M/E) * 4 channels in 3G-SDI (Each M/E)	2 channels (Each M/E)
2D DVE (HVS-Q12FLX)	8 channels (for FLEAaKEY)	4 channels (for FLEAaKEY)
Transition	MIX, WIPE(DVE), FAM or NAM	
Multi viewer	2 (4)	2 (4) * HD size resolution

STILL	STILL: 6 (V/K) CLIP: 4 (V/K) (STILL1-4 and CLIP1-4 are shared)	STILL: 3 (V/K) CLIP: 3 (V/K) (STILLS and CLIPs are shared)
VRAM	16GB * Clip video/still image management available	
Macros	100 Macros No. 00-89: Max. 30 actions No. 90-99: Max. 300 actions	
Genlock input	•Tri-level sync or BB •75Ω BNC x 1, loop-through	
Genlock output	•Tri-level sync or BB •75Ω BNC x 1	
System phase adjustment	Horizontal: -1/2H to 1/2H	
Video I/O delay	HD mode :Minimum delay (Approx. 1.4H) * 1080/59.94p, 59.94i, 29.97PsF(Approx. 1.5H), 720/59.94p (Approx. 1.8H), 720/50p (Approx. 1.6H) 4K mode: Minimum delay (Approx. 1.0H) * 2160/59.94p, 29.97p (Approx. 1.2H), 0-1 frame plus Min. delay (w/ FS or Input up-resizer) 1-2 frames plus Min. delay (w/ FS or Input up-resizer plus DVE) 2-3 frames plus Min. delay (w/ FS or Input up-resizer plus Output resizer plus DVE)	
SDI embedded audio	Embedded audio on each SDI input: 1-16 channels 48 kHz 16/24-bit PCM	
Dante Audio input (HVS-DNT)	64 channels, 16/24-bit PCM, 44.1kHz (input only) or 48kHz RJ-45 x 2 (Primary / Secondary) 1000BASE-T Redundant or daisy-chain connection available	
LAN port	(HVS-LAN) 10/100/1000BASE-T RJ-45 (For HVS connection) (EXT-LAN) 10/100/1000BASE-T RJ-45 (For PC and external device connection)	
GPI IN/TALLY	Standard: 25-pin D-sub (female) x1 (20 input/output) HVS-Q12EXTIF: 25-pin D-sub (female) x1 (24 input/output) Max. 2 cards. Pin function assignments are set by the menu.	
RS-422	HVS-Q12EXTIF: 9-pin D-sub (female) x 2 Max. 2 cards	

Hardware Option

HVS-Q12IO	12-input and 6-output (SDI) expansion card (Max. 3 cards)
HVS-100DI-A	Digital input card
HVS-100DO	Digital output card
HVS-NIF	NDI input/output card
HVS-DNT	Dante I/F card
HVS-Q12ME	M/E expansion card
HVS-Q12FLX	FLEXaKEY expansion card
HVS-Q12SSD	SSD option
HVS-Q12EXTIF	External I/F expansion card (Max. 2)
HVS-Q12PSM	Power supply unit for HVS-Q12 (1 set)

Software Option

HVS-Q12UHD	4K(UHD) option
HVS-Q12MV1	Multi-Viewer control software for CH3
HVS-Q12MV2	Multi-Viewer control software for CH4
HVS-Q12CNV	Dynamic range and color space converter for 4K

External module option (for HVS series switchers)

HVS-AUX16A/32A/ 64A/16B/16C/16D	Auxiliary Unit (Ethernet LAN connection)
HVS-TALR32	Tally Control Unit (Relay type) (RS-422 connection) (Common option of Hanabi series)
HVS-TALOC32	Open-collector type tally unit (RS-422 connection) (Common option of Hanabi series)
HVS-GPIO128	GPIO unit (Ethernet LAN connection)
HVS-492OU/491OU/ 492WOU/492ROU	HVS-490 Series control panels

2. External Dimensions

(All dimensions in mm)

