

# Specifications

As of June, 2020

## Live Switcher AV-UHS500

### General

Power Supply	AC 100 V to 240 V, 50 Hz/60 Hz
Current Consumption	1.5 A
Ambient Operating Temperature	0°C to 40°C (32°F to 104°F)
Ambient Operating Humidity	10% to 90% (no condensation)
Storage Temperature	0°C to 40°C (32°F to 104°F)
Storage Humidity	10% to 90% (no condensation)
Weight	Approx. 7 kg ( Approx.15.4 lb)
Dimensions (W x H x D)	440 mm x 170 mm x 360 mm (17-5/16 inches x 6-11/16 inches x 14-3/16 inches) (excluding protrusions)

### Video Terminal

SDI IN 1 to SDI IN 8 Terminals	8 lines (plus another maximum of 8 lines when using the OPTION unit) <ul style="list-style-type: none"> <li>Connectors: BNC x 8</li> <li>Color space conversion function</li> <li>Frame synchronizer function</li> <li>Connectors &lt;SDI IN 1&gt; to &lt;SDI IN 4&gt; equipped with simple format converters.</li> <li>Connectors &lt;SDI IN 5&gt; to &lt;SDI IN 8&gt; equipped with up-converters.</li> <li>Connectors &lt;SDI IN 5&gt; to &lt;SDI IN 8&gt; equipped with color correctors.</li> <li>* SDI IN 1/2 excludes HDMI IN 1/2.</li> </ul>
	12G-SDI 12G-SDI, SMPTE ST 2082-10 standard complied with
	3G-SDI 3G-SDI, SMPTE292 standard complied with (Compatible with Level-A/Level-B)
	HD-SDI HD-SDI, SMPTE292M standard complied with
HDMI IN 1 to HDMI IN 2 Terminals	2 lines (plus another maximum of 6 lines when using the OPTION unit) Video format inputs: 720p/59.94 Hz, 720p/50 Hz, 1080i/59.94 Hz, 1080i/50 Hz, 1080p/59.94 Hz, 1080p/50 Hz, 1080p/25 Hz, 1080p/25 Hz, 1080p/23.98 Hz, 2160p/59.94 Hz, 2160p/50 Hz, 2160p/29.97 Hz, 2160p/25 Hz, 2160p/24 Hz, 2160p/23.98 Hz PC format inputs: 4K (3840 x 2160, 60 Hz), WQHD (2560 x 1440, 60 Hz), WUXGA (1920 x 1200, 60 Hz), UXGA (1600 x 1200, 60 Hz), WSXGA+ (1680 x 1050, 60 Hz), SXGA (1280 x 1024, 60 Hz), WXGA (1280 x 768, 60 Hz), XGA (1024 x 768, 60 Hz) Mode: Full/Fit-H/Fit-V <ul style="list-style-type: none"> <li>Scaler, Frame synchronizer and Color space conversion function</li> <li>Connectors: HDMI x 2</li> <li>This connector does not support the CPRM technologies.</li> <li>* HDMI IN 1/2 excludes SDI IN 1/2.</li> </ul>
SDI OUT 1 to SDI OUT 5 Terminals	5 lines (plus another maximum of 8 lines when using the OPTION unit) <ul style="list-style-type: none"> <li>Connectors: BNC x 5</li> <li>Down-converter to 1080p, Color space conversion function</li> <li>PGM, PVW, CLN, ME PGM, MV1 to MV2, AUX1 to AUX4, Key Out can be assigned.</li> </ul>
	12G-SDI 12G-SDI, SMPTE ST 2082-10 standard complied with
	3G-SDI 3G-SDI, SMPTE292 standard complied with (Compatible with Level-A)
	HD-SDI HD-SDI, SMPTE292M standard complied with
HDMI OUT 1 to HDMI OUT 2 Terminals	2 lines (plus another maximum of 6 lines when using the OPTION unit) <ul style="list-style-type: none"> <li>Connectors: HDMI x 2</li> <li>Down-converter to 1080p</li> <li>Color space conversion function</li> <li>PGM, PVW, CLN, ME PGM, MV1 to MV2, AUX1 to AUX4, Key Out can be assigned.</li> </ul>
Signal Formats	2160/59.94p, 50p, 29.97p, 25p, 24p, 23.98p, 1080/59.94p, 50p, 29.97p, 25p, 24p, 23.98p, 59.94i, 50i, 720/59.94p, 50p
Signal Processing	R: G: B 4: 4: 4 8 bit / 4: 2: 2 10 bit (Only for HDMI) Y: Cb: Cr 4: 2: 2 10 bit
ME Number	1ME

### Synchronous Terminal

REF Terminal Reference Input/ BB Outputs	In Genlock mode: Black burst or Tri-level Sync input signals (with loop-through) <ul style="list-style-type: none"> <li>Loop-through output is performed in external sync mode.</li> <li>If loop-through output is not going to be used, provide a 75 Ω termination.</li> <li>Connectors : BNC x 2</li> <li>Same field frequencies as those of the system formats supported.</li> <li>With the 24.00p format, Black Burst input signal is not supported.</li> <li>With the 1080/23.98PsF format, black burst with 10 Field ID (SMPTE318M standard met) or Trilevel Sync signals supported.</li> <li>BB signals are output from two connectors in the internal sync mode.</li> </ul>
Video Delay Time	1 line (H) When the frame synchronizer setting is [Off] and neither the up-converter nor the down-converter is operating 1 frame (F) When the frame synchronizer setting is [On] and the up-converter and downconverter are operating <ul style="list-style-type: none"> <li>When the signals have passed through PinP, DVE, multi view, down-converter or HDMI IN, a maximum delay of 1 frame is applied in each case.</li> </ul>

### Control Terminal

LAN Terminal	Compatible with 1000BASE-TX and AUTO-MDIX (For IP control) <ul style="list-style-type: none"> <li>Connecting cable: LAN cable (CAT5E), max. 100 m (328 ft), STP (Shielded Twisted Pair) cable recommended</li> <li>Connectors : RJ-45</li> </ul>
TALLY GPI Terminal	INPUT: 8 inputs general-purpose, photocoupler sensing OUTPUT: 19 outputs; selected from R/G tally, general-purpose ALARM: 1 output, open collector output (negative logic)

## OPTION Unit

### General

	AV-UHS5M1G	AV-UHS5M2G	AV-UHS5M3G	AV-UHS5M4G	AV-UHS5M5G
Power Supply	DC 12 V Supplied by AV-UHS500				
Power Consumption	15 W 1.2 A		16 W 1.3 A		14 W 1.1 A
Ambient Operating Temperature	0°C to 40°C (32°F to 104°F)				
Ambient Operating Humidity	10% to 90% (no condensation)				
Storage Temperature	0°C to 40°C (32°F to 104°F)				
Storage Humidity	10% to 90% (no condensation)				
Weight	Approx. 371 g (Approx. 0.82 lbs.)		Approx. 353 g (Approx. 0.78 lbs.)		Approx. 354 g (Approx. 0.78 lbs.)
Dimensions (W x H x D)	112 mm x 42 mm x 167 mm (4-13/32 inches x 1-21/32 inches x 6-9/16 inches) (excluding protrusions)		112 mm x 42 mm x 166 mm (4-13/32 inches x 1-21/32 inches x 6-17/32 inches) (excluding protrusions)		

### SDI Input Unit AV-UHS5M1G

SDI IN 1 to SDI IN 4 Terminals	4 lines <ul style="list-style-type: none"> <li>Connectors: BNC x 4</li> <li>Frame synchronizer function</li> <li>Up-converter fitted.</li> <li>Color space conversion function</li> <li>Color corrector fitted.</li> </ul>
12G-SDI	12G Serial digital, SMPTE ST 2082-10 standard complied with <ul style="list-style-type: none"> <li>0.8 V [p-p] ± 10% (75 Ω)</li> <li>Automatic equalizer 80 m (when the cable is used)</li> </ul>
3G-SDI	3G Serial digital, SMPTE292 standard complied with (Level-A/Level-B) <ul style="list-style-type: none"> <li>0.8 V [p-p] ± 10% (75 Ω)</li> <li>Automatic equalizer 100 m (when the cable is used)</li> </ul>
HD-SDI	HD Serial digital, SMPTE292M standard complied with <ul style="list-style-type: none"> <li>0.8 V [p-p] ± 10% (75 Ω)</li> <li>Automatic equalizer 100 m (when the cable is used)</li> </ul>

### SDI Output Unit AV-UHS5M2G

SDI OUT 1 to SDI OUT 4 Terminals	4 lines <ul style="list-style-type: none"> <li>Connectors: BNC x 4</li> <li>Down-converter</li> <li>Color space conversion function</li> <li>PGM, PVW, CLN, ME PGM, MV1 to MV2, AUX1 to AUX4, Key Out can be assigned.</li> </ul>
12G-SDI	12G Serial digital, SMPTE ST 2082-10 standard complied with 0.8 V [p-p] ± 10% (75 Ω)
3G-SDI	3G Serial digital, SMPTE292 standard complied with (Level-A) 0.8 V [p-p] ± 10% (75 Ω)
HD-SDI	HD Serial digital, SMPTE292M standard complied with 0.8 V [p-p] ± 10% (75 Ω)

### HDMI Input Unit AV-UHS5M3G

HDMI IN 1 to HDMI IN 3 Terminals	3 lines Video format inputs: 720p/59.94 Hz, 720p/50 Hz, 1080i/59.94 Hz, 1080i/50 Hz, 1080p/59.94 Hz, 1080p/50 Hz, 1080p/29.97 Hz, 1080p/25 Hz, 1080p/24 Hz, 1080p/23.98 Hz, 2160p/59.94 Hz, 2160p/50 Hz, 2160p/29.97 Hz, 2160p/25 Hz, 2160p/24 Hz, 2160p/23.98 Hz PC format inputs: 4K (3840 x 2160, 60 Hz), WQHD (2560 x 1440, 60 Hz), WUXGA (1920 x 1200, 60 Hz), UXGA (1600 x 1200, 60 Hz), WSXGA+ (1680 x 1050, 60 Hz), SXGA (1280 x 1024, 60 Hz), WXGA (1280 x 768, 60 Hz), XGA (1024 x 768, 60 Hz) Mode: Full/Fit-H/Fit-V <ul style="list-style-type: none"> <li>Connectors: HDMI x 3</li> <li>Frame synchronizer function</li> <li>Color corrector fitted.</li> <li>Scaler and Color space conversion function</li> <li>This connector does not support the CPRM technologies.</li> </ul>
----------------------------------	--

### HDMI Output Unit AV-UHS5M4G

HDMI OUT 1 to HDMI OUT 3 Terminals	3 lines Mode: Fit-V, Fit-H, Full, Full-90%, Full-80% Size: Auto, WQHD (2560 x 1440, 60 Hz), WUXGA (1920 x 1200, 60 Hz), UXGA (1600 x 1200, 60 Hz), WSXGA+ (1680 x 1050, 60 Hz), SXGA (1280 x 1024, 60 Hz), WXGA (1280 x 768, 60 Hz), XGA (1024 x 768, 60 Hz), Native Color: Auto, RGB, YUV444, YUV422 <ul style="list-style-type: none"> <li>Connectors: HDMI x 3</li> <li>PGM, PVW, CLN, ME PGM, MV1 to MV2, AUX1 to AUX4, Key Out can be assigned.</li> <li>Scaler and Color space conversion function</li> </ul>
------------------------------------	---