

HDRC-4000

HDR Production Converter Unit



Overview

Simultaneous real-time 4K* HDR and HD SDR streams for SR Live for HDR workflows

The HDRC-4000 HDR production converter unit provides simultaneous real-time streams for multi-purpose 4K HDR (High Dynamic Range) live production as part of powerful Sony SR Live for HDR workflows. The unit can output a variety of video signals, including 4K HDR (S-Log3, BT.2020), HD HDR, 4K SDR and HD SDR, without loss. The compact 1.5RU chassis is ideal for operation in an outside broadcast environment. The AIR (Artistic Intent Rendering) Matching function faithfully retains the producer's artistic intent to any distribution format while achieving greater workflow efficiency. The unit can also be controlled by the MSU-1000/1500 and RCP-1500 series remote controllers.

* 4K QFHD (3840 x 2160) 59.94p/50p supported by Version 1.0 software. Other 4K formats supported in future software updates.

Real-time conversion of both 4K HDR and HD HDR

Simultaneous output of 4K HDR (S-Log3, BT.2020), HD HDR, 4K SDR and HD SDR.

AIR Matching function to retain artistic intent across distribution platforms

AIR (Artistic Intent Rendering) Matching function retains the producer's artistic intent while converting the intermediate production format to any desired distribution format.

Enables powerful SR Live for HDR workflows

Compact unit forms part of Sony's powerful SR Live for HDR production environment controllable with existing MSU-1000/1500 and RCP-1500 series remote controllers.

Features

Real-time conversion of both 4K HDR and HD HDR

The HDRC-4000 offers multiple signal conversion capabilities to accommodate various distribution standards - spatial conversion, HDR/SDR conversion, colour space conversion, and OETF (opto-electronic transfer function) conversion. The unit supports HD (1920 x 1080) 59.94p/50p/59.94i/50i and 4K (3840 x 2160) 59.94p/50p input formats with Version 1.0 software. Other 4K formats will be supported in future software updates.

AIR Matching function to retain artistic intent across distribution platforms

AIR (Artistic Intent Rendering) Matching function enables conversion of the intermediate production master (Sony recommends using 4K UHD resolution, S-Log3 OETF and BT.2020 colour space for HDR production) to any desired distribution format,

such as HLG (Hybrid Log-Gamma), PQ (Perceptual Quantizer), or SDR on an “as-seen” basis. With this feature turned on, the HDRC-4000 faithfully retains the producer’s creative/artistic intent – in other words, the final look and feel of the picture – onto the master monitor in the OB truck/master control room in the process of converting the intermediate production master to any desired distribution master format for broadcast.

Compact design ideal for outside broadcast operations

The compact 1.5RU chassis provides four 3G-SDI inputs/outputs, switchable either to 4K or HD, as well as supporting 16-channel embedded audio.

Specifications

General

Power requirements	100 V to 240 V AC, 50/60 Hz
Current consumption	1.4 A (max.)
Operating temperature	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Mass	Approx. 6.8 kg (15 lb)

Input/output connectors

I/O PORT	D-Sub 15-pin connector
REMOTE A, B	8-pin multi-connector (2)
LAN	RJ-45 (8-pin) (1) (for MSU/RCP connection)

Input connectors

AC IN	100 V to 240 V AC (1)
4K INPUT-A, 4K INPUT-B (3G/HD-SDI INPUT)	BNC (4+4) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
HD INPUT-A, HD INPUT-B (3G/HD-SDI INPUT)	BNC (1+1) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
REFERENCE IN	BNC (1) HD: SMPTE ST274, tri-level sync, 0.6 Vp-p, 75 ohms SD: Black burst (NTSC: 0.286 Vp-p, 75 ohms/PAL: 0.3 Vp-p, 75 ohms)

Output connectors

4K OUT-A, 4K OUT-B (3G/HD-SDI OUTPUT)	BNC (8+8) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
HD OUT-A MAIN, HD OUT-B MAIN (3G/HD-SDI OUTPUT)	BNC (1+1) 3G-SDI: SMPTE ST424/425 Level-A/B, 0.8 Vp-p, 75 ohms, 2.970 Gbps/2.967 Gbps HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps 3G-SDI/HD-SDI selectable
HD OUT-A MONITOR, HD OUT-B MONITOR (HD-SDI OUTPUT)	BNC (1+1) HD-SDI: SMPTE ST292, 0.8 Vp-p, 75 ohms, 1.485 Gbps/1.4835 Gbps
REFERENCE OUT	BNC (1) HD: SMPTE ST274, tri-level sync, 0.6 Vp-p, 75 ohms SD: Composite sync, 0.3 Vp-p, 75 ohms HD SYNC/SD SYNC selectable

Supplied accessories

Supplied accessories	Number plates (1 set) Operation Guide (1) Operation Manual (CD-ROM) (1)
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Related products

 <p>BVM-X300 V2 30-inch 4K TRIMASTER EL™ OLED critical reference monitor</p>	 <p>HDCU-2000 Full-rack-size Camera Control Unit for HDC Series cameras</p>	 <p>HXC-FB80 Three 2/3-inch Exmor™ CMOS sensor HD colour studio camera</p>	 <p>HDC-4300 4K/HD System Camera</p>
 <p>BPU-4500 4K / HD baseband processor unit for IP network</p>	 <p>BPU-4000 4K base band processor unit</p>		

Gallery

