

# SONY

## HDRC-4000

HDR Production Converter Unit

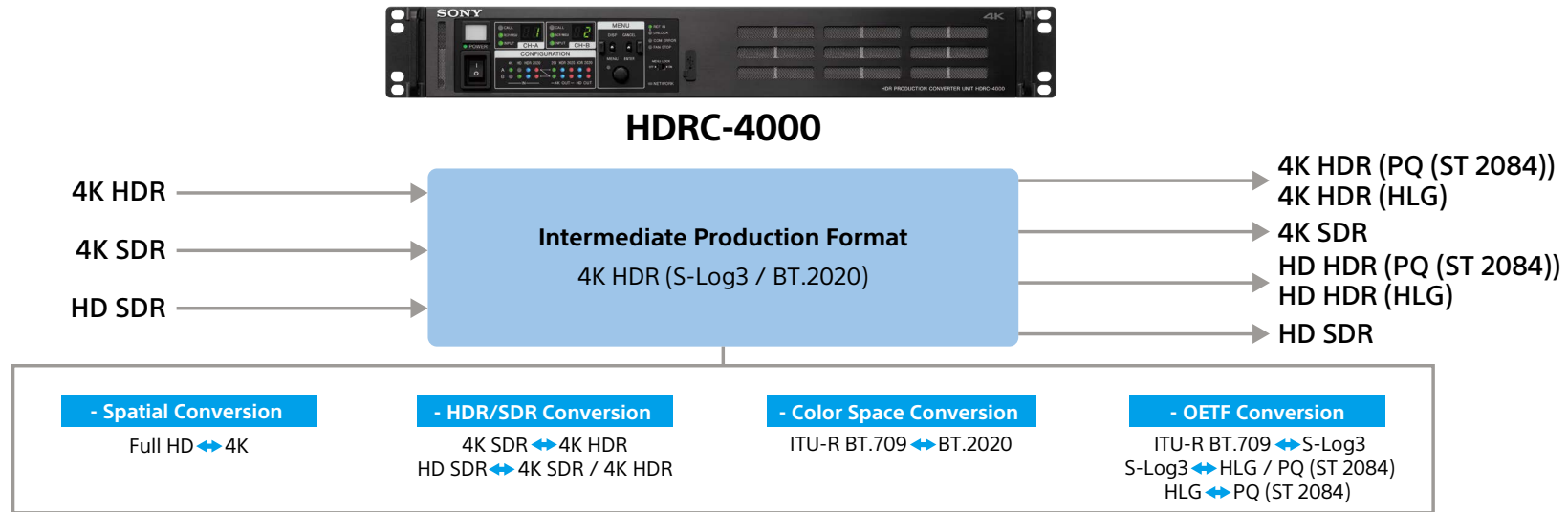


To meet today's growing interest in HDR (High Dynamic Range) production in the live environment, Sony offers a new workflow and production technique. This achieves simultaneous creation of 4K\* HDR and HD SDR (Standard Dynamic Range) in a highly efficient way – SR Live for HDR (SR is an acronym for 'scene referred' and 'super reality'). A key product to complete SR Live workflow is the HDRC-4000 HDR Production Converter Unit. This supports a real-time signal conversion capability on a range of video signals from 4K HDR to HD SDR – a capability that is essential in both the signal input and signal distribution stages of the workflow. Incorporating Sony's unique algorithm, the HDRC-4000 faithfully retains the producer's creative/artistic intent, which is the look of the picture that he or she finalized in the OB truck/master control room to any distribution format for broadcast.

\* In this brochure, 4K refers to QFHD (3840 x 2160) unless otherwise specified.

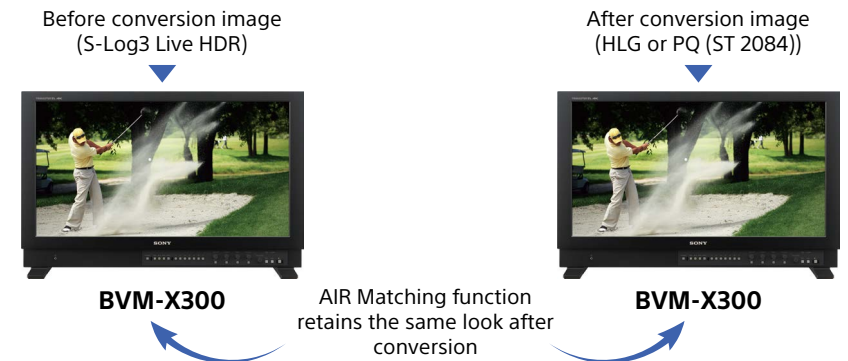
# Versatile Real-Time Conversion Functions

The HDRC-4000 offers multiple signal conversion capabilities to accommodate various distribution standards – spatial conversion, HDR/SDR conversion, color space conversion, and OETF (opto-electronic transfer function) conversion.



## AIR Matching Function

AIR stands for Artistic Intent Rendering. This feature enables conversion of the intermediate production format (Sony recommends using 4K resolution, S-Log3 OETF, and BT.2020 color space for the production main stream) to any desired distribution format, such as HLG (Hybrid Log-Gamma), PQ (Perceptual Quantization), 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 of the picture - onto the master monitor in the OB truck/master control room in the process of converting the intermediate production format to any desired distribution master format for broadcast.



\* Images are simulated.

# 4K SR Live For HDR Workflow

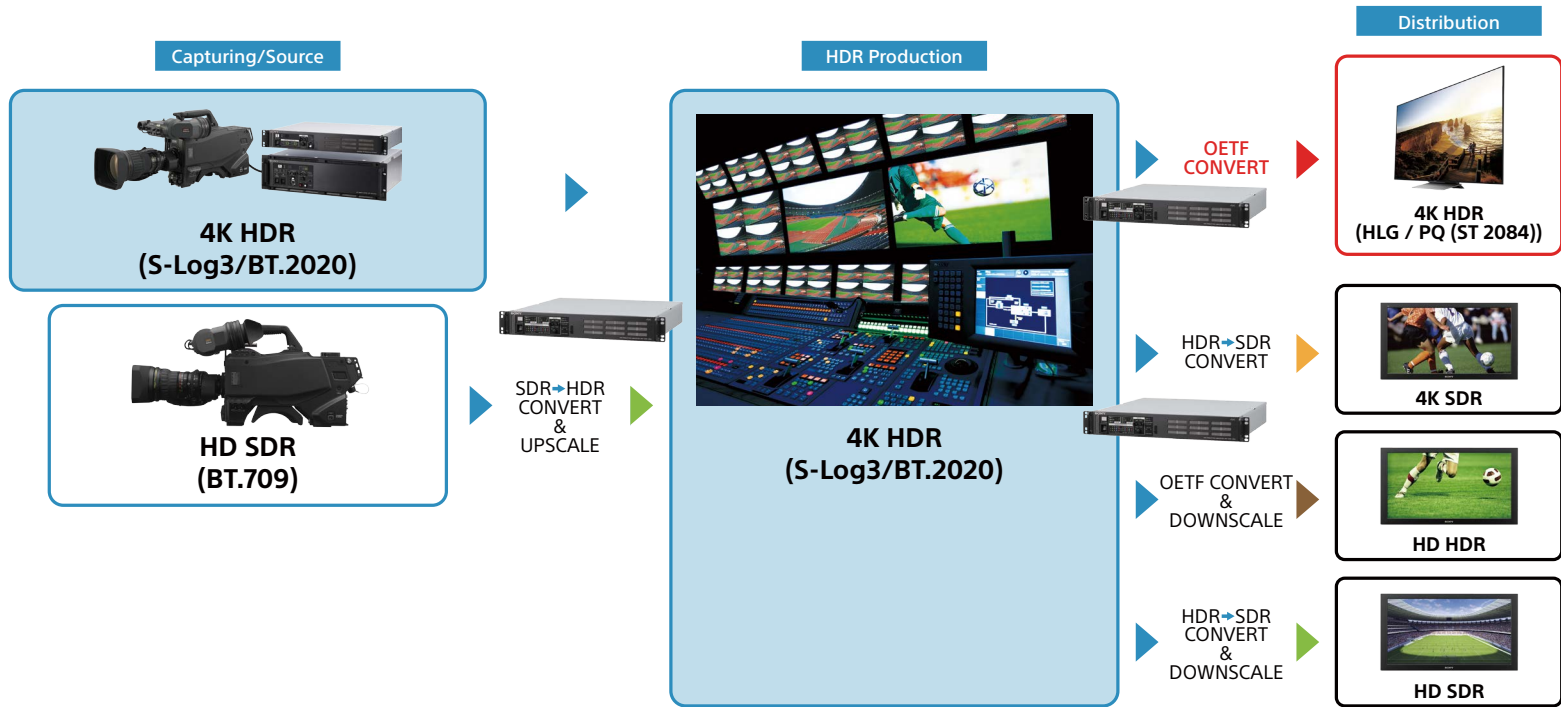
## - 4K HDR-Based Multi-Purpose Production

Sony offers 4K HDR-based multi-purpose live production. An integrated operation in single format to the 4K HDR (S-Log3, BT.2020), this system achieves greater workflow efficiency for multi-purpose distribution including 4K HDR (PQ (ST 2084) and HLG), 4K SDR, HD HDR, and HD SDR.

This system's mainstream imagery is 4K HDR which is captured with the HDC-4300 4K system camera and BPU baseband processor unit. Its 4K HDR signal (S-Log3, BT.2020) is sent to the 4K HDR production process. Other HD-based source signals are brought into the same process after being up-converted to the 4K HDR format with the HDRC-4000.

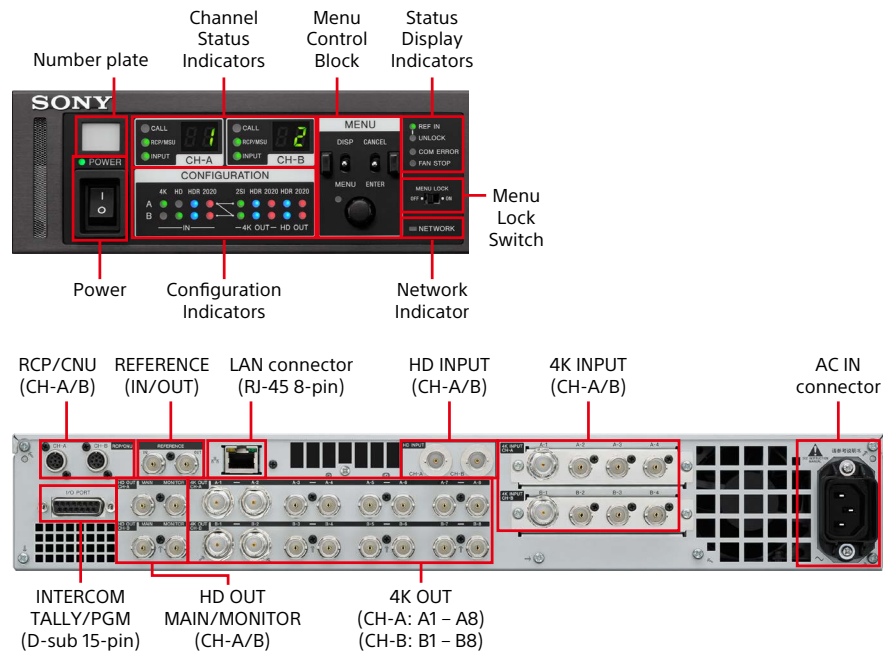
Also, by installing the HDRC-4000 in the final stage of the production process, the intermediate production format in 4K HDR signal (S-Log3, BT.2020) can be converted to a variety of distribution formats including 4K HDR (PQ (ST 2084) or HLG), 4K SDR, HD HDR, and HD SDR without loss.

Incorporating a built-in frame synchronizer, the HDRC-4000 can receive outside feed signals even without genlock.

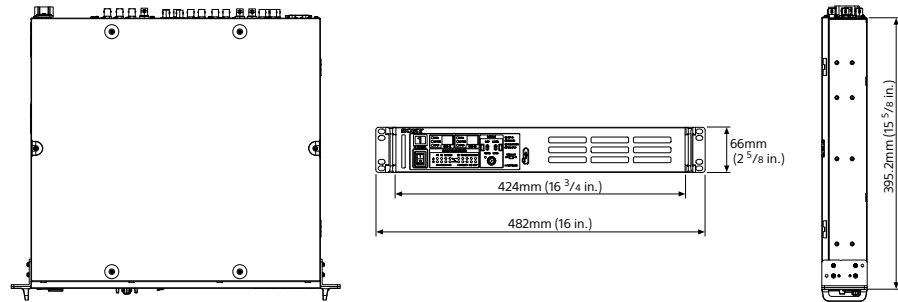


\* images are simulated.

## Front and Rear Panels



## Dimensions



## 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	
	Number plates (1 set) Operation Guide (1) Operation Manual (CD-ROM) (1)

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