Open Up a New World of 8K Shooting

A New Landmark in Broadcasting in 8K
The world’s first 8K television channel is already on air in Japan. And Sony is proud to be supporting this broadcasting landmark with the UHC-8300 system camera that enables an entire 8K Ultra HD workflow – from image capture to storage, editing, display, and playout. The worldwide 8K trend is expanding not only in the broadcast industry but also in OTT service-based applications while utilizing the penetration of 5G telecommunication network infrastructure.

Perfection in Every Detail
The core of the UHC-8300 is the world’s first 1.25-type 8K 3CMOS sensor, capturing pristine images with a resolution of 7680x4320 pixels and a signal-to-noise ratio of -62 dB (at 1080/59.94i). It realizes 8K pictures, capturing at a high speed of 120p HDR. Along with this new-generation sensor, the newly developed F1.6 prism system achieves the BT.2020 wide color space, allowing content creators to realize 8K images with unprecedented clarity, color, and realism.

8K Adding More Value to 4K Production
8K Ultra HD images captured with the UHC-8300 camera system can be down-converted to produce spectacular 4K UHD images bursting with fine detail and color. This allows content creators to add value to every production, ensuring premium footage captured in 8K can be enjoyed by consumers on today’s 4K HDR televisions and display devices. 8K images captured with the UHC-8300 can be enjoyed with native 7680x4320 pixel resolution on Sony’s Crystal LED large-scale display system.

Advanced 8K Interface
Weighing just 7 kg (approx. 15.43 lb), the compact UHC-8300 camera head connects via an SMPTE fiber connection to the UHCU-8300 Camera Control Unit. The CCU outputs 8K 120p baseband signals over octal 12G-SDI based on SMPTE ST.2082-12. In-parallel, simultaneous 4K and HD outputs are available over 12G/3G-SDI. The 8K 12G SDI output consists of 2SI (2 sample interleaved) mapping.
Simultaneous 8K/4K/HD Production in HDR and SDR

Teamed with the UHCU-8300 Camera Control Unit, the UHC-8300 enables HDR production workflows with a choice of S-Log3, HLG Live, and HLG BT.2100. Broadcasters can also enjoy the benefits of Sony’s SR Live operation with simultaneous output of 8K and 4K signals in HDR, and HD signals in SDR, to suit a wide range of live production requirements.

Real-time 4K Cutout

The extraordinary resolution of the 8K UHD signal allows production teams to output the down-converted high quality 4K signal simultaneously with 8K signal output. Also, a 4K cutout from a portion of images captured with the UHC-8300 can be displayed on a 4K monitor by the dot-by-dot output from the 8K UHD signal. This allows critical adjustment and confirmation of focus.

Compatibility with Current Live Production Elements

The UHC-8300 is compatible with current Sony live production system components including remote controllers, multi camera system units, and viewfinders including the RCP/MSU Series, HDVF Series, VCT-14, fiber cables, and more. This means broadcasters and program makers are able to realize fresh value from their current 4K/HD investments today and tomorrow.

New 8K Lens Mount

A new 1.25-type lens mount system offers direct compatibility with specially developed 8K lenses from lens vendors. Current 4K lenses can also be used with a 1.25-type B4 lens mount adapter*.

*Note: The B4 lens mount adapter is not a Sony product but is supplied by lens vendors.

Made for Tomorrow’s Workflows

You’re covered for today’s production workflows as well as those of tomorrow. 8K Ultra HD images captured with the UHC-8300 can be stored and replayed as XAVC files using Sony’s PWS-4500 live server. And with a growing choice of display, switching, and editing solutions already available from Sony and other manufacturers, the 8K Ultra HD ecosystem is growing fast.
## UHC-8300 Specifications

### General
- **Power Requirement and Consumption Current**
  - 240Vdc, 1.0A (max.), 12Vdc, 9.5A (max.)
- **Operating Temperature**
  - 20°C to +45°C (4°F to +113°F)
- **Storage Temperature**
  - 20°C to +60°C (4°F to +140°F)
- **Dimensions (W x H x D)**
  - 167 x 299 x 396 mm (6 5/8 x 11 7/8 x 11 3/4 inches)
- **Mass**
  - Approx. 7.0 kg (Approx. 15 lb 7 oz)

### Camera section

### Input/Output
- **CCU**
  - Optical/electrical multi-connector (x1)
- **Lens**
  - 12-pin (x1)
- **Viewfinder**
  - Belt, Lens mount cap (x1)
- **Operation manual CD-ROM** (x1), JP, GB, CS, Cable clamp belt (x1), Camera number label (x1), Screws +B3 (x2) for cable clamp belt, Lens mount cap (x1)

### USH-8300 Specifications

### Camera
- **Input/Program/Tally**
  - D-sub 50-pin, female (x1)
  - INTERCOM (PROD/ENG), 4Wire/RTS/Clear-Com, 0 dBu
  - PGM 2 systems, -20/0/+4 dBu
  - TALLY (R, G, Y)
  - FLAG
- **RCP/CNU**
  - B-pin multi connector, female (x1)
- **Trunk**
  - 12-pin, female (x1), RS-232C or RS-422A, 1 system
- **LAN**
  - 8-pin (x1), RJ-45
- **Network Trunk**
  - 8-pin (x1), RJ-45
- **Focus Demand**
  - 20-pin (x1), female (x1)
- **MAG Control**
  - 14-pin, female (x1)
- **NRM-LAN (Option: TBD)**
  - GFS&P (x2), 40G Base-SR (by transceiver module)
- **USB**
  - USB 2.0 type-A, 4-pin (x1) for USB Memory

### Power Requirement and Consumption Current
- **AC**
  - AC 100 to 127 V, 200 V to 240 V (x2)
  - **4K Return**
  - BNC (x8), 12G-SDI, SMPTE ST2082-10, 3G-SDI, SMPTE ST424/425-5, 2 systems
  - **HD Return**
  - BNC (x4), 3G-SDI, SMPTE ST424/425-1, 4 systems
  - **Reference**
  - BNC (x2), In: HD: SMPTE ST274, Tri-Level Sync, 0.6 Vp-p, 75 Ω, SD: Black Burst (NTSC: 0.286 Vp-p, 75 Ω, PAL: 0.3 Vp-p, 75 Ω), Out: Loop-Through Prompter
  - BNC (x1), In: VBS, 1.0 Vp-p, 75 Ω, 1 system
  - **HD Prompter**
  - BNC (x1), HD: SMPTE ST292-1
  - **Output**
  - **6K (SLOT-1)**
    - BNC (x16), 12G-SDI, SMPTE ST2082-10/12, 2 systems for 59.94p/50p, 1 system for 119.88p/100p, 3G-SDI, SMPTE ST424/425-1, 1 system
  - **4K MAG (SLOT-2)**
    - BNC (x4), 12G-SDI, SMPTE ST2082-10, 3G-SDI, SMPTE ST424/425-5
  - **4K MAG (SLOT-3)**
    - BNC (x8), 12G-SDI, SMPTE ST2082-10, 3G-SDI, SMPTE ST424/425-5, 2 systems
  - **4K Monitor (SLOT-4)**
    - BNC (x4), 12G-SDI, SMPTE ST2082-10, 3G-SDI, SMPTE ST424/425-5
  - **HD (SLOT-5)**
    - BNC (x4), 3G-SDI, SMPTE ST424/425-1, HD-SDI, SMPTE ST292-1, 2 systems
  - **Sync**
    - BNC (x1), HD SYNCE: SMPTE ST274, 3-level sync, 0.6 Vp-p, 75 Ω, SD SYNCE/SD Sync selectable, 0.3 Vp-p, 75 Ω, HD SYNCE/SD Sync selectable
  - **Audio CH-1, CH-2**
    - XLR 3-pin, male (x2), Ω/-20/+4 dBu

### UKCU-IP01F Specifications

### General
- **Power Requirement**
  - DC 12V
- **Power consumption (Max.)**
  - 70 W
- **Operating Temperature**
  - 5°C to +40°C (41°F to +104°F)
- **Storage Temperature**
  - -20°C to +60°C (-4°F to +140°F)
- **Dimensions (W x D) x³**
  - 340 x 237 mm (13 1/2 x 9 3/8 inches)
- **Mass**
  - Approx. 2 kg (Approx. 4 lb 6.5 oz)

### Output
- **Output**
  - GFS&P, conforms to 40GBASE-SR1R

### Supplied Accessories
- Operation manual CD-ROM (x1), JP, GB, CS

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1. *The values for dimensions are approximate and excluding the protrusions.
2. *May be limited, depending on load and input conditions.
3. *Transceivers, GSFSP+, are not included.