SONY

BRC-X1000

4K Pan Tilt Zoom camera with 1-inch type Exmor R CMOS sensor

Overview

Remotely capture broadcast quality 4K images with smooth, silent PTZ and excellent low-light sensitivity
The BRC-X1000 is Sony's first 4K remote camera, combining uncompromising broadcast picture quality and smooth, silent PTZ operation with the flexibility of 3G-SDI and HDMI connections.

Designed for remote operation, this compact but powerful robotic camera is an ideal complement to other broadcast cameras for capturing images in hard-to-reach or unobtrusive positions. It's equally at home in TV newsrooms, remote studios and on-air suites, auditoriums, houses of worship, courtrooms or sports stadiums. It's also particularly suited to efficient multi-camera set-ups, under the control of a single operator.

The 1-inch type Exmor R CMOS image sensor captures detail-packed 4K footage at 30p with four times the pixel count of Full HD, and excellent low-light sensitivity. The large image sensor also allows the creation of beautiful 'bokeh' effects with a shallow depth of field to suit any artistic intention.

Speedy, near-silent PTZ operation with 12x optical zoom accommodates wide-angle scenes and tightly framed close-ups, with Clear Image Zoom 18x (4K), 24x(HD) extending this range even further without visible loss of resolution. Broadcast-friendly features include dual tally lamps for on-air operation, while operational flexibility is enhanced with options for ceiling, table top or tripod mounting.

There’s also a broad range of video interfacing and remote control possibilities - plus support for PoE+ and genlock - for smooth integration into any broadcast, professional or corporate AV environment.

Features

- **Enhanced Pan/Tilt/Zoom (PTZ) operation**

  Accurately re-frame shots or track moving subjects with smooth, speedy, near-silent remote control of pan, tilt and zoom functions. There's also low-speed zoom and a slow pan/tilt mode for precise, judder-free camera movements. PTZ Trace Memory* allows a sequence of camera movements to be memorised and followed whenever required. PTZ Motion Sync* smoothly blends separate pan, tilt and zoom movements for seamless, professional-looking transitions.

- **Uncompromising 4K images**

  The camera's large, back-illuminated 1-inch type Exmor R CMOS sensor delivers uncompromised broadcast quality colour pictures in detail-packed 4K 30p, with four times the resolution of Full HD. Footage can also be captured in Full HD 60p - ideal for fast-moving sports action.

- **Cinematic 24p pictures***

  The camera can also operate in 24p mode, for video footage with a rich, filmic look.

- **High quality 12x optical zoom and 18x(4K) or 24x(HD) with Clear Image Zoom**

  The high quality Zeiss Vario-Sonnar T* lens with 12x optical zoom range covers wide angle shots as well as tight close-ups. Clear Image Zoom expands this range to 18x (4K) or 24x (HD) without sacrificing detail.

- **Excellent low light sensitivity**

  The BRC-X1000 can capture crisp, low noise colour video images in light levels as low as 1.7lx, making it an ideal choice for dimly lit live hall and theater.

- **Flexible installation**

  Integration is simplified in a wide range of environments, with PoE+ (Power over Ethernet) to reduce cabling requirements and VISCA control over IP.

- **Remote operation**

  Pan/tilt/zoom and other camera settings can be controlled using the supplied IR remote commander, or with the optional RM-IP10 Remote Control Unit that can control multiple cameras.

- **Genlock**

  Genlock simplifies integration with other systems in multi-camera broadcast environments.

- **Versatile video outputs**

  Enjoy greater installation flexibility in professional broadcast and AV environments with dual link 3G-SDI (x4) and HDMI video outputs.

- **Front and rear tally lamps**

  Ideal for on-air broadcast use, the BRC-X1000 features dual tally lamps on the front and rear of the camera body. Brightness of the front tally lamp can be adjusted in two steps.

- **Always up to date**

  New camera functionality and performance improvements can be added via firmware updates over IP.

  *To be supported in 2017

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Technical Specifications

Specifications	
Image Sensor	1.0-type back-illuminated Exmor R CMOS sensor
Image Sensor (Number of Effective Pixels)	Approx. 14.2 Megapixels
Image Sensor (Total Number of Pixels)	Approx. 20.4 Megapixels
Signal System	2160/29.97p, 1080/59.94p, 1080/59.94i, 720/59,94p, 2160/25p, 1080/50p, 1080/50i, 720/50p
Minimum Illumination (50IRE)	1.7 lux (50IRE, F2.8, 1/30s, Max.Gain)
Horizontal Resolution	1800 TV line (in 3G-SDI output) (center)
Gain	Auto/Manual (-3dB to +33dB)
Shutter Speed	1/10000s to 1/8 (59.94/29.97) 1/10000s to 1/6 (50/25)
Exposure Control	Auto, Manual, Priority mode (shutter priority, iris priority, gain priority), Back light, Spot light
White Balance	Auto1/Auto2/One Push/Indoor/Outdoor/Manual
Optical Zoom	12x
Clear Image Zoom	2x *1.5x at 4K resolution
Digital Zoom	No
Focusing System	Auto/Manual
Horizontal Viewing Angle	64.6° (Wide-end)
Focal Length	f=9.3 to 111.6mm F2.8(Wide) ,F4.5(Tele)
Minimum Object Distance	1000mm(Tele) 80mm(Wide)
Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-30°
Pan/Tilt Speed	Pan: 0.3° to 60°/s Tilt: 0.3° to 60°/s
Pan/Tilt Slow Mode	Yes
Preset Position	16

Camera Features	
Day/Night	Yes
Visibility Enhancer	Yes
Image Flip	On/Off
Color Gain	Yes (15 step)
Color Hue	Yes (15 step)
Color Matrix	Off/Standard/High Saturation/FL light
Gamma	Standard/Straight/Pattern
Gamma Level	Yes (15 step)

Black Level	Yes (97 step)
Black Gamma	Yes (15 step)
Knee Point	Yes (13 step)
Knee Slope	Yes (15 step)
Flicker Cancel	On/Off

Interface	
4K Video Output	Dual Link 3G-SDI(2SI only) x2 and HDMI
HD Video Output	3G-SDI x4 and HDMI
HDMI Color Space	YCbCr, 4:2:2 RGB, 4:4:4
Camera Control Interface	VISCA RS-422 RJ45(In/Out) VISCA over IP RJ45
External Sync. Input	BNC, 75Ω, HD 3-level sync, SD Black Burst
Power Connector Type	IEC60130-10 (JEITA standard RC-5320A) TYPE4

General	
Power Requirements	DC 10.8V to 13.2V, PoE+ (IEEE802.3at compliant)
Power Consumption	DC12 V:21.5 W (Max) PoE+:25.5 W (Max)
Operating Temperature	0 °C to 40 °C 32 °F to 104 °F
Storage Temperature	-20 °C to +60 °C -4 °F to +140 °F
Dimensions (W x H x D)*1	Approx. 198 x 260 x 238mm (without projecting object) Approx. 7 7/8 x 10 1/4 x 9 3/8 inch (without projecting object)
Mass	Approx. 4.3kg Approx. 9 lb 7.7oz
Optional Card Slots	Not needed
Body Color	Black
Size of Screw Hole for Tripod	1/4-20UNC x2
Mountable Angle	<±15°
Ceiling Mount	Yes
Supplied Accessories	IR Remote Commander Unit (1) Ceiling bracket (2) Wire rope (1) Screws(M3 x 8) (7) Screws(M4 x 8) (1) HDMI cable fixing plate (1)

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