

## BRC-X1000

Premium 4K30P PTZ Camera with 12x optical zoom and uncompromising broadcast picture quality



### 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, faith centers, courtrooms, or sports stadiums. It's also particularly suited to efficient multi-camera setups, under the control of a single operator.

The 1.0-type Exmor R CMOS image sensor captures detail-packed 4K footage at 30 p 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 12 × optical zoom

accommodates wide-angle scenes and tightly framed close-ups, with Clear Image Zoom 18 × (4K), 24 × (HD) extending this range even further without visible loss of resolution. In HD resolution, 24 × zoom can be doubled to 48 × with Tele Convert Mode. 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.

The BRC-X1000/1 and the BRC-X1000/WPW are the US/Canada models which are bundled with the AC-UES1230MT AC power supply and cord. In all other regions the AC power supply and cord are sold separately.

Available in black as BRC-X1000 and in white as BRC-X1000/W (color availability may vary by country).

## 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 memorized and followed whenever required. PTZ Motion Sync smoothly blends separate pan, tilt and zoom movements for seamless, professional-looking transitions. Up to 100 pre set positions for pan/tilt/zoom operations

## **Uncompromising 4K images**

The camera's large, back-illuminated 1.0-type Exmor R CMOS sensor delivers uncompromised broadcast quality color 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. In addition, the Tele Convert Mode can double this range again, up to 48x zoom while maintaining a 1920x1080 resolution.

\*Clear Image Zoom is a Sony original intelligent interpolation, which analyzes the input image and increases the resolution of the image.

## **Excellent low light sensitivity**

The BRC-X1000 can capture crisp, low noise color 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-IP500 Remote Control Unit that can control multiple cameras.

### **RCP/MSU Connectivity**

In a studio environment, BRC-X1000 can be controlled via Sony's Remote Control Panel RCP-1500/1501/1530 and MSU-1000/1500. Connection can be made over IP networks.

\*The compatibility is described in the Remote Camera System Guide.

### **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.

### **Simplified construction of VR/AR systems\***

Real-time camera tracking data (pan/tilt/zoom/focus/iris) can be output from the camera over IP network in free-d\* protocol. It can construct VR/AR system without

additional tracking system, easy and cost effective solution.

\*VR: Virtual Reality, AR: Augmented Reality

\*free-d is an industry-standard protocol for transmitting camera tracking data.

## Specifications

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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, 2160/23.98p, 1080/23.98p
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 (50/25/23.98)

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
Tele Convert Mode	Off, 2x *1920x1080 only
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	1,000 mm (Tele) 80 mm (Wide)
Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-30°
	Pan: 0.3 ° to 60 °/s*1 0.05 ° to 60 °/s*2 0.02 ° to 60 °/s*3
	Tilt: 0.3 ° to 60 °/s*1

Pan/Tilt Speed	0.05 ° to 60 °/s*2 0.02 ° to 60 °/s*3
	*1 When P/T SPEED TYPE setting is NORMAL *2 When P/T SPEED TYPE setting is Extd. RANGE (Requires firmware V2.10) *3 When P/T SPEED TYPE setting is Extd. STEP (Requires firmware V2.10)
Pan/Tilt Slow Mode	Yes
Pan/Tilt Operation Noise	NC30 or less* *Sony measurement conditions
Preset Position	100
PTZ Trace Memory	16
PTZ Motion Sync	Yes
Camera tracking data output	Yes (Requires firmware V2.10)

## Camera Features

Day/Night	Yes
Visibility Enhancer	Yes
Image Flip	On/Off
Picture	

Profile Preset	Yes
ND Filter	Off, 1/4, 1/16, 1/64 switchable in menu
Color Gain	Yes (15 step)
Color Hue	Yes (15 step)
Color Matrix	Off/Standard/High Saturation/FL light/MOVIE/STILL/CINEMA/PRO/ITU709/BW
Gamma	Standard/Straight/MOVIE/STILL/CINE1/CINE2/CIN
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 and White
Size of Screw Hole for Tripod	1/4-20UNC x2
Mountable Angle	<math>\pm 15^\circ</math>
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)

## Related products



### MCX-500

Multi-Camera Live Producer



### RM-IP500

PTZ Camera Remote Controller



### RM-IP10

IP remote control panel for BRC cameras



### AWS-750

Anycast Touch portable live content producer



### REA-C1000

#### Edge Analytics Appliance

Edge Analytics Appliance



### HXC-FB80

Three 2/3-inch Exmor™ CMOS sensor HD color studio camera



### HXC-P70

Affordable, three 2/3-inch Exmor CMOS sensor, full HD/SD compact system camera with direct optical fiber cable connection



### RCP-3500

Remote-control panel for HDC/HSC/HXC series cameras



## SRG-XP1

Compact 4K60P IP  
POV Remote  
Camera with a 101°  
wide viewing angle  
lens



## SRG-XB25

Compact 4K60P IP  
BOX-style Remote  
Camera with 25x  
optical zoom



## RCP-3501

Remote-control  
panel for  
HDC/HSC/HXC  
series cameras



## MSU-3000

Master setup unit,  
multi-camera  
remote control  
panel for system  
cameras (horizontal  
type)



## MSU-3500

Master setup unit,  
multi-camera  
remote control  
panel for system  
cameras (vertical  
type)

## Gallery



