

## BRC-X400

Premium 4K30P IP PTZ Camera with 30x (w/CIZ) zoom and NDI®|HX capability for use in a wide range of environments



### Overview

#### **Capture every point of view in 4K with excellent picture quality and efficient IP production workflow**

The versatile BRC-X400 PTZ camera is ideal for use in a wide range of environments - from broadcast studios and remote on-air suites to sports stadiums, arenas, houses of worship and lecture halls.

The camera's 1/2.5-type Exmor R™ sensor captures broadcast quality 4K images with excellent sensitivity, very low noise and rich, natural colour reproduction. It's complemented by the integrated high-resolution lens that offers a powerful zoom capability of up to 80x in Full HD\*\* (30x in 4K), with an expansive approx. 70° wide angle coverage to capture every point of view.

Efficient IP-based live production is augmented with support for NDI®|HX allowing flexible configuration with other networked NDI®-enabled devices.

Images also can be reviewing remotely via a web browser, with support for RTSP (Real Time Streaming Protocol), RTMP\*\*\* (Real Time Messaging Protocol) and SRT\*\*\* (Secure Reliable Transport) ensuring smooth, stable streaming of video plus audio (from an optional microphone, available separately) over

an IP network.

Installation and set-up is easy, with a new Picture Setting File\*\*\*\* allowing the same settings to be applied to multiple cameras through a web interface from a laptop or PC. Convenient integration in multi-camera live events is also simplified with genlock support and an 'on-air' tally lamp.

\* NDI® is a registered trademark of Vizrt NDI AB

\*\* With Clear Image Zoom and Tele Convert Mode

\*\*\* Requires firmware V3.00

\*\*\*\* Requires firmware V2.00

## Features

### **Excellent 4K images, even in low light**

The sensitive 1/2.5-type Exmor R sensor captures high-quality 4K images with very low noise, even in dimly-lit environments.

### **Up to 80x zoom**

Powerful zoom up to 80x (in FHD) allows frame-filling close-ups with fine details seen clearly. Responsive autofocus ensures that images stay clear and sharp, even at high zoom settings.

### **Wide viewing angle**

Cover the whole scene in sports arenas and lecture theatres with a horizontal viewing angle of approx. 70°.

### **Support for NDI®\*|HX**

NDI®|HX compatibility supports efficient IP-based live production, allowing flexible configuration with other networked NDI®-enabled devices.

\*NDI® is a registered trademark of Vizrt NDI AB

### **Multiple control protocols**

PTZ and other camera functions can be controlled remotely via S700PTP, CGI and VISCA protocols.

### **Flexible and efficient IP-based production**

In addition to RTSP, RTMP(S)\* and SRT\* (Secure Reliable Transport) are supported. Video can be streamed directly from camera to online streaming service, also can be transmitted more securely, with lower latency and more stably even in unstable network environment.

\* Requires firmware V3.00.

### **Simpler installation, lower costs**

A single IP cable carries camera power, video image, audio output and control signals to simplify installation and reduce cabling costs.

### **Ideal for live production**

Genlock allows seamless multi-camera switching in live events. The camera's inbuilt tally lamp is ideal for live productions and reality shows. PTZ Trace Memory makes it even easier to film programs by recalling the usual camera works.

### **Fast, fuss-free set-up**

The new Picture Setting File\* function can apply the same camera settings among multiple cameras for fast set-up.

\* Requires firmware V2.00

### **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

| Camera                                       |   |
|--|---|
| Image Sensor                                 | 1/2.5 Exmor R CMOS  |
| Image Sensor<br>(Number of Effective Pixels) | Approx. 8.5M pixels   |
| Signal System                                | 2160/29.97p, 25p, 23.98p<br>1080/59.94p, 50p, 29.97p, 25p,<br>23.98p<br>1080/59.94i, 50i<br>720/59.94p, 50p |
| 4K Capability                                | Yes (built-in 4K functions)   |
| Minimum Illumination<br>(50IRE)              | 1.6 lux (1/30s 50IRE F2 high-<br>sensitivity OFF)   |
| Horizontal Resolution                        | 1700 TV lines (Center) (4K)<br>1000 TV lines or higher (Center)<br>(FHD)                                    |
| Gain   | Auto/Manual (0 to +48 dB) (High<br>Sensitivity On)  |
|  | 1/1 to 1/10000 sec (59.94 Hz<br>system)   |

|                          |   |
|--------------------------|---|
| Shutter Speed            | 1/1 to 1/10000 sec (23.98 Hz system)<br>1/1 to 1/10000 sec (50 Hz system)   |
| Exposure Control         | Auto, Manual, Priority AE (Shutter, Iris)   |
| White Balance            | Auto1, Auto2, One Push WB Indoor, Outdoor, Manual   |
| Zoom Capability          | 30x (4K with CIZ), 40x (HD with CIZ),<br>Max. 80x (HD with CIZ* and Tele Convert Mode)<br>*CIZ = Clear Image Zoom |
| Focusing System          | Auto/Manual   |
| Horizontal Viewing Angle | Approx. 70° (Wide)  |
| Focal Length             | f=4.4 mm (Wide) to 88.0 mm (Tele)<br>F2.0 to F3.8   |
| Minimum Object Distance  | 80 mm (Wide)~<br>800 mm (Tele)  |
| Pan/Tilt Angle           | Pan: $\pm 170^\circ$<br>Tilt: $+90^\circ/-20^\circ$   |
| Pan/Tilt Speed (Max.)    | Pan: 300°/s<br>Tilt: 126°/s   |
|                          | Pan: 1.1° to 101°/s   |

|                             |  |
|-----------------------------|--|
| Pan/Tilt Speed              | Tilt: 1.1° to 91°/s  |
| Pan/Tilt Speed (Slow)       | Pan: 0.5° to 60°/s<br>Tilt: 0.5° to 60°/s                    |
| Pan/Tilt Slow Mode          | Yes  |
| Pan/Tilt Operation Noise    | NC30 or less *<br>* Sony measurement conditions              |
| Preset Position             | 256 (CGI)<br>100 (VISCA)                                     |
| Picture Freeze Preset       | Yes  |
| Preset Mode1/Mode2          | Yes  |
| PTZ Trace Memory            | Yes  |
| PTZ Motion Sync             | Yes  |
| Camera Tracking Data Output | Yes (Requires firmware V2.10)                                |
| <b>Network</b>              |  |
| IP Video Resolution         | 3840x2160, 1920x1080, 1280x720,<br>720x576, 720x480, 640x360 |
| Compression Format          | H.264: High, Main, Baseline Profile<br>H.265: Main Profile   |

|                            |  |
|----------------------------|--|
| Maximum Frame Rate         | H.264: 60fps<br>H.265: 60fps   |
| Bitrate Compression Mode   | CBR/VBR (selectable)   |
| Range of Bitrate Setting   | 512 Kbps ~50 Mbps  |
| Multi Streaming Capability | 3  |
| Maximum Number of Clients  | 5  |
| Protocols                  | IPv4, IPv6, TCP, UDP, ARP, ICMP, IGMP, HTTP, HTTPS, DHCP, DNS, RTP/RTCP, RTSP, UPnP, VISCA over IP |
| NDI® HX Capability         | Yes (requires a license sold separately)   |

## Camera Features

|  |     |
|--|-----|
| Auto ICR<br>(Auto mode of IR Cut filter Removal) | Yes |
| Day/Night  | Yes |

|                        |   |
|------------------------|---|
| Visibility Enhancer    | Yes   |
| Image Stabilization    | Yes   |
| Image Flip             | Yes   |
| Picture Setting File   | Yes   |
| Picture Profile Preset | Yes   |
| Color Gain             | Yes (15 steps)  |
| Color Hue              | Yes (15 steps)  |
| Color Matrix           | Yes (STD, HIGH SAT, FL LIGHT, MOVIE, STILL, CINEMA, PRO, ITU709, B&W) |
| Gamma                  | STD, STRAIGHT, 512 PATTERN, MOVIE, STILL, CINE1, CINE2, CINE3, CINE4  |
| Gamma Level            | Yes (15 steps)  |
| Black level            | Yes (97 steps)  |
| Black Gamma            | Yes (15 steps)  |
| Knee Point             | Yes (13 steps)  |
| Knee Slope             | Yes (15 steps)  |
| Flicker Cancel         | On/Off  |
| Color Bar              | On/Off  |



|                        |        |
|------------------------|--------|
| Color Bar Overlay Name | On/Off |
| Hide OSD Menu          | On/Off |
| Standby Mode           | Yes    |
| Remote Standby         | Yes    |

## Web UI

|        |     |
|--------|-----|
| Ver Up | Yes |
|--------|-----|

## Audio

|         |     |
|---------|-----|
| Channel | 2ch |
|---------|-----|

|             |  |
|-------------|--|
| Audio Codec | AAC LC 128kbps/ST (IP)<br>AAC LC 256kbps/ST (IP) |
|-------------|--|

|                |   |
|----------------|---|
| Setting Option | Auto Level Control (ALC): On/Off<br>Equalizer: Off, Low cut, Voice enhancement<br>Input selection: Microphone/Line<br>Mic volume: -10~+10 (21 steps)<br>Audio codec |
|----------------|---|

|                                  |                    |
|----------------------------------|--------------------|
| Embedded Audio in Baseband Video | Yes (3G-SDI, HDMI) |
|----------------------------------|--------------------|

|                      |  |
|----------------------|--|
| Embedded Audio in IP |  |
|----------------------|--|

Streaming Yes

## Interface

4K Video Output HDMI x1 and IP (streaming) x1

HD Video Output 3G-SDI x1, HDMI x1, IP (streaming) x1

Remote Video Format Switching Yes

HDMI Color Space YCbCr, 4:2:2 8 bit  
RGB, 4:4:4 8 bit

Camera Control Interface VISCA RS-422 RJ45 (In/Out)  
VISCA over IP RJ-45  
S700PTP RJ-45

IR Remote Control Yes

Microphone Input Mini-phone ( $\phi$ 3.5mm) x2 (Mic/Line Selectable)

Sync. System EXT/INT

External Sync. Input BNC, 75 $\Omega$ , HD 3-level sync, SD  
Black Burst

Tally Front x 1

|                      |   |
|----------------------|---|
| Power Connector Type | IEC60130-10 (JEITA standard RC-5320A) TYPE4 |
|----------------------|---|

## General

|                    |   |
|--------------------|---|
| Power Requirements | DC 12V (DC 10.8 to 13.2V), PoE+ (IEEE802.3at compliant) |
|--------------------|---|

|                   |             |
|-------------------|-------------|
| Power Consumption | 25.5 W Max. |
|-------------------|-------------|

|                       |                                  |
|-----------------------|----------------------------------|
| Operating Temperature | 0 °C to 40 °C<br>32 °F to 104 °F |
|-----------------------|----------------------------------|

|                     |                                      |
|---------------------|--------------------------------------|
| Storage Temperature | -20 °C to +60 °C<br>-4 °F to +140 °F |
|---------------------|--------------------------------------|

|                          |  |
|--------------------------|--|
| Dimensions (W x H x D)*1 | 158.4 x 177.5 x 200.2 mm<br>6 1/4 x 7 x 8 inch |
|--------------------------|--|

|         |                                |
|---------|--------------------------------|
| Mass *1 | Approx. 1.8 kg<br>3 lb 15.5 oz |
|---------|--------------------------------|

|                   |             |
|-------------------|-------------|
| Camera Body Color | White/Black |
|-------------------|-------------|

|                               |              |
|-------------------------------|--------------|
| Size of Screw Hole for Tripod | 1/4-20UNC x1 |
|-------------------------------|--------------|

|                 |        |
|-----------------|--------|
| Mountable Angle | < ±15° |
|-----------------|--------|

|               |     |
|---------------|-----|
| Ceiling Mount | Yes |
|---------------|-----|

AC power adaptor (1)  
IR Remote Commander Unit (1)

|                      |  |
|----------------------|--|
| Supplied Accessories | <ul style="list-style-type: none"> <li>Ceiling bracket (2)</li> <li>Wire rope (1)</li> <li>Screw M3 x 8 (9)</li> <li>Screw M2.6 x6 BLACK (1)</li> <li>HDMI cable fixing plate (1)</li> <li>Safety regulation (1)</li> <li>Download site information (1)</li> <li>Warranty (1)</li> </ul> |
|----------------------|--|

## Notes

\*1

The values for dimensions and mass are approximate

## Related products



**REA-C1000**  
**Edge Analytics Appliance**

Edge Analytics Appliance



**HXC-FB80**

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



**HXC-P70**

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



**RM-IP500**

PTZ Camera Remote Controller



**RM-IP10**

IP remote control panel for BRC cameras



**RCP-3100**

Joystick type of remote control panel



**MCX-500**

Multi-Camera Live Producer



**RCP-1500**

Joystick type of Remote Control Panel

for HDC/HSC/HXC series cameras. 5 units in 19-inch EIA rack.

for HDC/HSC/HXC series cameras. 4 units in 19-inch EIA rack.



## RCP-3500

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

## 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)



## BRC-AM7

Premium PTZ Auto Framing Camera with AI Analytics, 4K 60p, 20x optical zoom. High interoperability with other production systems

## Gallery

