

# BRC-X400

IP 4K Pan-Tilt-Zoom Camera with NDI®\*|HX capability



## 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 (via optional license), 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) 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 NewTek, Inc.

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

\*\*\* 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 (via optional license) supports efficient IP-based live production, allowing flexible configuration with other networked NDI-enabled devices.

\* NDI® is a registered trademark of NewTek, Inc. Network services, content, and the [operating system and] software of this Product may be subject to individual terms and conditions and changed, interrupted or discontinued at any time and may require fees, registration and credit card information.

**Multiple control protocols**

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

**Remote viewing**

View pictures remotely over the Internet from a web browser, with support for RTSP.

**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 (Number of Effective Pixels) | Approx. 8.5M pixels  |
| Signal System                             | 2160/29.97p, 25p, 23.98p<br>1080/59.94p, 50p, 29.97p, 25p, 23.98p<br>1080/59.94i, 50i<br>720/59.94p, 50p |
| 4K Capability                             | Yes (built-in 4K functions)  |
| Minimum Illumination (50IRE)              | 1.6 lux (1/30s 50IRE F2 high-sensitivity OFF)  |

|                             |   |
|-----------------------------|---|
| Horizontal Resolution       | 1700 TV lines (Center) (4K)<br>1000 TV lines or higher (Center) (FHD)   |
| Gain                        | Auto/Manual (0 to +48 dB) (High Sensitivity On)   |
| Shutter Speed               | 1/1 to 1/10000 sec (59.94 Hz system)<br>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), 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: ±170°<br>Tilt: +90°/-20°   |
| Pan/Tilt Speed (Max.)       | Pan: 300°/s<br>Tilt: 126°/s   |
| Pan/Tilt Speed              | Pan: 1.1° to 101°/s<br>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)   |

## Network

|                            |  |
|----------------------------|--|
| IP Video Resolution        | 3840x2160, 1920x1080, 1280x720, 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   |
| <b>Web UI</b>                    |   |
| Ver Up                           | Yes   |
| <b>Audio</b>                     |   |
| 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   |
| <b>Interface</b>                 |   |
| 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<br>RGB, 4:4:4 8 bit  |
| Camera Control Interface         | VISCA RS-422 RJ45 (In/Out)<br>VISCA over IP RJ-45<br>S700PTP RJ-45  |
| IR Remote Control                | Yes   |
| Microphone Input                 | Mini-phone (φ3.5mm) x2 (Mic/Line Selectable)  |
| Sync. System                     | EXT/INT   |
| External Sync. Input             | BNC, 75Ω, 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  
32 °F to 104 °F

Storage Temperature -20 °C to +60 °C  
-4 °F to +140 °F

Dimensions (W x H x D)\*1 158.4 x 177.5 x 200.2 mm  
6 1/4 x 7 x 8 inch

Mass \*1 Approx. 1.8 kg  
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

Supplied Accessories AC power adaptor (1)  
IR Remote Commander Unit (1)  
Ceiling bracket (2)  
Wire rope (1)  
Screw M3 x 8 (9)  
Screw M2.6 x6 BLACK (1)  
HDMI cable fixing plate (1)  
Safety regulation (1)  
Download site information (1)  
Warranty (1)

Notes

\*1 The values for dimensions and mass are approximate

Related products



**REA-C1000 Edge Analytics Appliance**

Edge Analytics Appliance



**RCP-1500**

Joystick type of Remote Control Panel for HDC/HSC/HXC series cameras. 4 units in 19-inch EIA rack.



**HXC-FB80**

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



**RM-IP500**

PTZ Camera Remote Controller



### RM-IP10

IP remote control panel for BRC cameras



### MCX-500

Multi-Camera Live Producer



### RCP-3100

Joystick type of remote control panel for HDC/HSC/HXC series cameras. >5 units in 19-inch EIA rack.



### HXC-P70

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



## Gallery

