

# 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 CMOS 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. 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.

\*\* Available through future upgrade planned in early 2020

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

Note: When using RM-IP500 firmware should be updated to V2.10 and for RM-IP10, firmware should be updated to V2.17.

## 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 (Real Time Streaming Protocol).

**Simpler installation, lower costs**

A single IP cable carries camera power, video image 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.

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

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

\*Available through future upgrade planned in early 2020

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 (HDMI and IP only) 1080/59.94p, 50p, 29.97p, 25p, 23.98p 1080/59.94i, 50i 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 line (Center) (4K) 1000 TV line (Center) (FHD)
Gain	Auto/Manual (0 to +48 dB) High Sensitivity On

Shutter Speed	1/1 to 1/10000 sec (59.94 Hz system) 1/1 to 1/10000 sec (23.98 Hz system) 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) *CIZ = Clear Image Zoom
Focusing System	Auto/Manual
Horizontal Viewing Angle	Approx. 70.0° (Wide)
Focal Length	f=4.4 mm (Wide) to 88.0 mm (Tele) F2.0 to F3.8
Minimum Object Distance	80 mm (Wide)~ 800 mm (Tele)
Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-20°
Pan/Tilt Speed (Max.)	Pan: 300°/s Tilt: 126°/s
Pan/Tilt Speed	Pan: 1.1° to 101°/s Tilt: 1.1° to 91°/s
Pan/Tilt Speed (Slow)	Pan: 0.5° to 60°/s Tilt: 0.5° to 60°/s
Pan/Tilt Slow Mode	Yes
Preset Position	256 (CGI) 100 (VISCA)
Picture Freeze Preset	Yes
Preset Mode1/Mode2	Yes

## Network

IP Video resolution	3840x2160, 1920x1080, 1280x720, 720x576, 720x480, 640x360
Compression Format	H.264 High/Main/Baseline Profile H.265: Main Profile
Maximum Frame Rate	H.264: 60fps 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 Optional (requires a license)

### Camera Features

Auto ICR	Yes (available through future upgrade planned in early 2020)
Day/Night	Yes
Visibility Enhancer	Yes
Image Stabilization	Yes
Image Flip	Yes
Picture Profile Preset	Yes
Color Gain	Yes (15 step)
Color Hue	Yes (15 step)
Color Matrix	Yes (Standard, HIGH SAT, FL LIGHT, MOVIE, STILL, CINEMA, PRO, ITU709)
Gamma	Standard/Straight/512Pattern/MOVIE/STILL/CINE1/CINE2/CINE3/CINE4/
Gamma Level	Yes (15 step)
Black level	Yes (97 step)
Black Gamma	Yes (15 step)
Knee Point	Yes (15 step)
Knee Slope	Yes (15 step)
Flicker Cancel	On/Off
B&W	Yes
Color Bar	On/Off

### Web UI

Ver Up	Yes
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### Audio

Channel	2ch
	AAC LC 128kbps/ST (IP)

Audio Codec	AAC LC 256kbps/ST (IP)
Setting Option	Auto Gain Control (AGC): On/Off Equalizer: Off/Low Cut/Voice enhancement Input selection: Microphone/Line Mic volume: -10~+10 (21 steps) 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
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 (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	Approx. 1.8 kg 3 lb 15.5 oz

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 are approximate

Related products

			
<p><b>PEQ-C130</b> Vision Exchange™: Interactive presentation and active learning solution</p>	<p><b>PEQ-C100</b> Vision Exchange™: Interactive presentation and active learning solution</p>	<p><b>REA-C1000 Edge Analytics Appliance</b></p>	<p><b>RCP-1500</b> Joystick type of Remote Control Panel for HDC/HSC/HXC series cameras. 4 units in 19-inch EIA rack.</p>
			
<p><b>HXC-FB80</b> Three 2/3-inch Exmor™ CMOS sensor HD colour studio camera</p>	<p><b>RM-IP10</b> IP remote control panel for BRC cameras</p>	<p><b>RM-IP500</b> PTZ Camera Remote Controller</p>	<p><b>MCX-500</b> Multi-Camera Live Producer</p>
			
<p><b>RCP-3100</b> Joystick type of remote control panel for HDC/HSC/HXC series cameras. &lt;br&gt;5 units in 19-inch EIA rack.</p>	<p><b>HXC-P70</b> Affordable, three 2/3-inch Exmor CMOS sensor, full HD/SD compact system camera with direct optical fibre cable connection</p>		

## Gallery

