

# SRG-X400

IP 4K (requires 4K optional license) Pan-Tilt-Zoom Camera with 40x HD zoom and NDI®\*|HX capability



#### Overview

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

The versatile SRG-X400 remotely controlled PTZ camera is ideal for a wide range of applications—from classrooms and meeting spaces to faith centers, lecture halls, and medical environments.

The camera's 1/2.5-type Exmor R CMOS sensor captures up to 4K resolution images (requires optional license) with excellent sensitivity, very low noise, and rich, natural color reproduction. It's complemented by the integrated high-resolution lens that offers zoom capability up to 40x in Full HD\*\*\* (30x in 4K), with an expansive wide-angle coverage of approx. 70° to capture every point of view.

High-speed movement during preset recall captures the speaker's every movement, while Picture Freeze during transitions ensures your audience isn't disturbed by rapid camera movements. PTZ Motion Sync\*\* function allows smooth blending of separate pan, tilt and zoom movements for seamless, professional-looking transition.

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 can also be reviewed 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.

- \*NDI® is a registered trademark of NewTek, Inc.
- \*\*Available through future upgrade planned in early 2020.
- \*\*\*With Clear Image Zoom.

Note 1: This product contains pre-installed software and requires the purchase of license keys to activate some functions.

Note 2: When using RM-IP500, firmware should be updated to V2.10. For RM-IP10, firmware should be updated to V2.17.

#### Features

#### Excellent images, even in low light

The sensitive 1/2.5-type Exmor R sensor captures high-quality images with very low



noise, even in dimly lit environments.

#### 4K upgrade option

Upgrade to 4K shooting via optional license (availability planned in early 2020).

#### Up to 40x zoom

Powerful zoom up to 40x (in Full HD) allows finely detailed frame-filling close-ups. Responsive autofocus ensures that images stay clear and sharp, even at high zoom settings.

#### Wide viewing angle

Cover the whole scene in meetings and lecture theaters with a horizontal viewing angle of approx. 70°.

#### Ideal for lecture capture

Use the camera in conjunction with the Al-based REA-C1000 Edge Analytics Appliance to smoothly track the speaker's movements and automatically generate a cut-out image of speaker.

#### **High-speed movement and Picture Freeze Preset**

Accurately capture the presenter's movements with maximum 300°/s pan and tilt movement during preset recall. Picture Freeze Preset maintains a steady image while the camera moves to a new preset position—with no uncomfortable transitions for your audience.

#### Smooth pan-tilt-zoom

PTZ Motion Sync function allows smooth blending of separate pan, tilt, and zoom movements for seamless, professional-looking transitions.

#### Simpler installation, lower costs

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

#### Support for NDI®\*|HX

NDI® | HX compatibility (via optional license) enables cost-effective school studio system integration, allowing flexible configuration with other networked NDI® - enabled devices.

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.

#### **Remote viewing**

View pictures remotely over the Internet from a web browser, with support for RTSP (Real Time Streaming Protocol).

#### 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



2160 (*1)/29.97p, 25p, 23.98p (HDMI and IP only)	Image Sensor (Number of Effective Pixels)	Approx. 8.5M pixels
4K capability         Yes (requires 4K Option license)           Horizontal Resolution         1700 TV line (Center) (4K(*1))           1000 TV line (Center) (FHD)         Auto/Manual (0 dB to +48 dB)           High Sensitivity On         1/1 to 1/10000 sec (59.94 Hz system)           Shutter Speed         1/1 to 1/10000 sec (23.98 Hz system)           1/1 to 1/10000 sec (50 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*1 with CIZ)/40x (HD with CIZ) *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)           Focal Length         f=4.4 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 (Max.)         Pan: 0.5° to 60°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s           Pan/Tilt Slow Mode         Yes           Preset Position         256 (CGI) 100 (VISCA)	Signal System	only) 59.94p, 50p, 29.97p, 25p, 23.98p 1080/59.94i,50i,
Horizontal Resolution 1700 TV line (Center) (4K(*1)) 1000 TV line (Center) (FHD)  Gain Auto/Manual (0 dB to +48 dB) High Sensitivity On  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 (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*1 with CIZ)/40x (HD with CIZ) *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: 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  Tilt: 0.5° to 60°/s  Tilt: 0.5° to 60°/s  Tilt: Slow Mode Yes  Preset Position 256 (CGI) 100 (VISCA)	Minimum Illumination (50IRE)	1.6 lux (1/30s 50IRE F2 high-sensitivity OFF)
1000 TV line (Center) (FHD)   Gain	4K capability	Yes (requires 4K Option license)
High Sensitivity On	Horizontal Resolution	
Shutter Speed 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 WB/Indoor/Outdoor/Manual  Zoom capability 30x (4K*1 with CIZ)/40x (HD with CIZ) *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 (Slow) Pan: 0.5° to 60°/s Tilt: 0.5° to 60°/s  Tilt: 0.5° to 60°/s  Pan/Tilt Slow Mode Yes  Preset Position 256 (CGI) 100 (VISCA)	Gain	
White Balance  Auto1/Auto2/One Push WB/Indoor/Outdoor/Manual  Zoom capability  30x (4K*1 with CIZ)/40x (HD with CIZ) *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 (Slow)  Pan: 0.5° to 60°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s Pan/Tilt Slow Mode  Yes  Preset Position  Auto/Auto2/One Push WB/Indoor/Outdoor/Manual  30x (4K*1 with CIZ)/40x (HD with CIZ) *CIZ = Clear Image Zoom  Auto/Auto2/One Push WB/Indoor/Outdoor/Manual  30x (4K*1 with CIZ)/40x (HD with CIZ) *CIZ = Clear Image Zoom  Fall 1 to 88.0 mm (Tele)  Pan: ±170° Tilt: 126°/s  Pan/Tilt Speed (Max.)  Pan: 300°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s Tilt: 0.5° to 60°/s	Shutter Speed	1/1 to 1/10000 sec (23.98 Hz system)
WB/Indoor/Outdoor/Manual  Zoom capability  30x (4K*1 with CIZ)/40x (HD with CIZ) *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 (Slow)  Pan: 0.5° to 60°/s Tilt: 0.5° to 60°/s Pan/Tilt Slow Mode  Yes  Preset Position  256 (CGI) 100 (VISCA)	Exposure Control	Auto/Manual/Priority AE (Shutter, Iris)
#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)	White Balance	
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Focal Length         f=4.4 mm (Wide) to 88.0 mm (Tele)           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)	Focusing System	Auto/Manual
Focal Length         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)	Horizontal Viewing Angle	Approx. 70.0° (Wide)
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Pan/Tilt Speed (Slow) Tilt: 0.5° to 60°/s  Pan/Tilt Slow Mode Yes  Preset Position 256 (CGI) 100 (VISCA)	Pan/Tilt Speed	
Preset Position 256 (CGI) 100 (VISCA)	Pan/Tilt Speed (Slow)	
100 (VISCA)	Pan/Tilt Slow Mode	Yes
Picture Freeze Preset Yes	Preset Position	
	Picture Freeze Preset	Yes

# Network

IP Video resolution	3840x2160 (*1), 1920x1080, 1280x720, 720x576, 720x480, 640x360
Compression Format	H.264 (High/Main/Baseline Profile), JPEG H.265: Main Profile
Maximum Frame Rate	H.264: 60 fps H.265: 60 fps
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
Flicker Cancel	On/Off
Web UI	
Ver Up	Yes
Audio	
Channel	2 ch
Audio Codec	AAC LC 128 kbps/ST (IP) AAC LC 256 kbps/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	Yes



### Streaming

Interface	
	(*1) LIDMI v1 and ID (above and in a) 1
4K Video Output	(*1) 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
IR Remote Control	Yes
Microphone Input	Mini-phone (φ3.5mm) x2 (Mic/Line Selectabe)
Sync. System	INT
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)*2	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 adapter (1) IR Remote Commander Unit (1) Ceiling bracket (2) Wire rope (1) Screw M3 x 8(8) Screw M2.6 x6 BLACK (1) HDMI cable fixing plate (1) Safety regulation (1)



#### Download site information (1) Warranty (1)

Notes	
*1	Will be available from early 2020, after an upgrade, via a 4K Option license
*2	The values for dimensions are approximate

### Related products









**PEQ-C130** 

Vision Exchange™: Interactive Vision Exchange™: Interactive presentation and active learning solution

**PEQ-C100** 

presentation and active learning solution

REA-C1000 Edge **Analytics Appliance** 

RM-IP10

IP remote control panel for BRC cameras



**RM-IP500** 

PTZ Camera Remote Controller



**MCX-500** 

Multi-Camera Live Producer



# Gallery











