Canon

CR-N300
REMOTE CAMERA

VERSATILE 4K
AT YOUR FINGERTIPS

4K

High Quality 4K 30P and FHD 60P Video Output

Smooth & Responsive Pan and Tilt Control

Seamless Integration into Canon Imaging Workflow

Easy Integration into IP Systems

Various Interfaces Supported for Multiple Environments

One-Person Operation

Three Year Warranty

Canon's CR-N300 4K UHD PTZ camera produces outstanding image quality and is equipped with powerful features and functions to be utilized in many industries including House of Worship, Education, Broadcast, Corporate, Events and more.

The CR-N300 PTZ produces incredible image quality with the combination of a 1/2.3" CMOS sensor and the DIGIC DV 6 image processor. This camera incorporates a Canon 4K lens that exhibits a 20x optical zoom ratio that maintains a high level of precision throughout the zoom range. On-air pan and tilt movement is possible thanks to the smooth and responsive pan and tilt mechanisms equipped with the CR-N300.

The CR-N300 camera supports Canon's XC Protocol as well as RTMP, NDI®|HX Live Video Production Protocol, Standard (VISCA) Protocol and more. The CR-N300 can be controlled remotely by IP, Serial, IR, USB or wirelessly via Wi-Fi.

HIGH QUALITY
4K 30P AND FHD 60P VIDEO OUTPUT

The CR-N300 features a Canon 1/2.3-inch 4K CMOS image sensor capable of 4K UHD video capture at 30P or up to 60P in Full HD, making it a strong contender for professional productions.

The CR-N300 PTZ camera incorporates Canon's DIGIC DV 6 Image Processor, which is essential in providing high image quality, advanced performance and convenient operability. This advanced core technology component provides the image-processing power and speed that enables features such as 4K UHD video acquisition and precise Hybrid AF.

The CR-N300 is equipped with *Hybrid AF,* an auto focus system that combines high-precision contrast AF technology and the high-speed phase-difference AF technology to confirm auto focus from the camera. This hybrid auto focus system achieves auto focus faster and more reliably compared to contrast auto focus alone.

SMOOTH AND RESPONSIVE
PAN AND TILT CONTROL

The CR-N300 is equipped with the PT drive mechanism that can change the pan/tilt speed in incremental steps. This allows the operator to set the speeds to their desired preference to allow for smooth PT movement. The CR-N300 exhibits a variable Pan speed of 0.2° - 300°/second and variable Tilt speed of 0.2° - 170°/second.

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REMOTE CAMERA

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SPECIFICATION		PARAMETER
CAMERA	COLOR	Satin Black / Titanium White
	IMAGE SENSOR	Type 1/2.3 (1/2.3 in.) single-plate CMOS sensor Total pixels: approx. 21.14 megapixels Effective pixels: approx. 8.29 megapixels (3840 x 2160)
	LENS	f=3.67 – 73.4 mm, F/1.8 – 2.8, 20x optical zoom, 8-bladed circular aperture 35mm equivalent focal length: [4K UHD] approx. 29.3 (W) – 601 mm (T) [Full HD] approx. 30.5 (W) – 627 mm (T)
	ZOOM	Optical: 20x Digital: 20x
	LENS CONFIGURATION	12 elements in 10 groups (including 2 aspheric elements)
	MINIMUM FOCUSING DISTANCE	1 cm (0.39 in.) at full wide angle, 60 cm (2.0 ft.) throughout the zoom range
	ANGLE OF VIEW	[4K UHD] Horizontal: 65.6 (W) – 3.6° (T) Vertical: 39.8° (W) – 2.0° (T) [Full HD] Horizontal: 63.5 (W) – 3.4° (T) Vertical: 38.4° (W) – 1.9° (T)
	SHUTTER SPEED	1/6 – 1/2000 sec. (specific values depend on the frame frequency)
	IRIS	Manual/Automatic aperture
	GAIN	0.0 dB – 36 dB
	WHITE BALANCE	AUTO (AWB), Set A, Set B, preset settings (daylight: 5,600 K*, tungsten lamp: 3,200 K*), color temperature setting (2,000 K – 15,000 K), Manual *Color temperatures are given for reference purposes only.
	FOCUS	Focus mode: Manual, Continuous AF, Face AF, Tracking AF type: Hybrid AF, Contrast AF
	GAMMA	Normal1 (Standard), Normal3 (BT.709)
	IMAGE STABILIZER	Optical-shift
	MIN. SUBJECT ILLUMINATION	Approx. 1.5 lux (shutter speed 1/30 sec., frame rate 59.947P (P (Programmed AE) shooting mode, auto slow shutter on)
	PAN AND TILT	Pan operation range: Horizontal ±170° Pan operation speed: 0.2° – 300°/sec. Tilt operation range: Vertical -30° – +100° Tilt operation speed: 0.2° – 170°/sec.

RC-IP100 REMOTE CAMERA CONTROLLER

Canon's RC-IP100 Remote Camera Controller provides IP control for up to 99 supported Canon cameras. An additional Canon camera can be controlled through the serial port. The controller is equipped with a 7" interactive touch screen and a joystick in order to pan, tilt, zoom and change camera function settings remotely. The smooth precision of the joystick allows operators to capture on-air movements with confidence.

RC-IP100 Remote Camera Controller sold separately.

SPECIFICATION		PARAMETER
VIDEO OUTPUT FORMAT	SDI	1920 x 1080: 59.94P/59.94i, 50.00P/50.00i/25.00P, 29.97P/23.98P (4:2:2 10 bit) 1280 x 720: 59.94P, 50.00P (4:2:2 10 bit) *Same video format required for SDI and HDMI (cannot select different formats for SDI and HDMI) *When 3840 x 2160 is selected for HDMI, video will not be outputted to SDI
	HDMI	3840 x 2160: 29.97P, 25.00P, 23.98P (4:2:2 10 bit) 1920 x 1080: 59.94P/59.94i, 50.00P/50.00i/25.00P, 29.97P/23.98P (4:2:2 10 bit) 1280 x 720: 59.94P, 50.00P (4:2:2 10 bit) *Same video format required for SDI and HDMI (cannot select different formats for SDI and HDMI) *When 3840 x 2160 is selected for HDMI, video will not be outputted to SDI.
	IP	3840 x 2160: 29.97 fps, 14.99 fps, 5.00 fps (4:2:0 8 bit) 1920 x 1080: 59.94 fps, 29.97 fps, 14.99 fps, 5.00 fps (4:2:0 8 bit) 1280 x 720: 59.94 fps, 29.97 fps, 14.99 fps, 5.00 fps (4:2:0 8 bit) 640 x 360: 59.94 fps, 29.97 fps, 14.99 fps, 5.00 fps (4:2:0 8 bit) *If 59.94/50.00 Hz is selected for the frame frequency, the 3840 x 2160 format cannot be selected. *A frame rate that exceeds the frame frequency cannot be selected. *JPEG has one pattern fixed depending on the frame frequency (format is fixed and cannot be selected) Resolution: 1280 x 720 When frame frequency is 59.94/50.00 Hz: 14.99 fps, when frame frequency is 23.98 Hz: 11.99 fps, when frame frequency is 29.97/25.00 Hz: 12.50 fps
	USB	Motion JPEG: **1920 x 1080** 59.94 Hz: 12.00 fps, 5.00 fps 50.00 Hz: 12.50 fps, 5.00 fps **1280 x 720** 59.94 Hz: 12.00 fps, 5.00 fps 50.00 Hz: 12.50 fps, 5.00 fps **640 x 360** 59.94 Hz: 12.00 fps, 5.00 fps 50.00 Hz: 12.50 fps, 5.00 fps
	SUPPORTED VIDEO AND CONTROL PROTOCOLS	Protocol: XC Protocol, RTSP/RTP, NDI®|HX, RTMP/RTMPS, Standard (VISCA) Communication (Serial), Standard (VISCA) Communication (IP)
	NUMBER OF PRESETS	Max. 100 (including home position)
INTERFACE	COMMUNICATION CONTROL	LAN, Wi-Fi, Serial, IR, USB
	NETWORK TERMINAL	LAN x 1, RJ45, 1000Base-T
	3G-SDI OUT TERMINAL	BNC jack (output only) x 1, 0.8 Vp-p/75 Ω, unbalanced SMPTE 424, SMPTE 425, SMPTE ST 299-2 compliant Embedded audio, Time code (VITC/LTC)
	HDMI OUT TERMINAL	HDMI connector x 1, output only
	RS-422 TERMINAL	RJ45 connector x 1
	MIC TERMINAL	φ3.5 mm stereo mini jack (unbalanced, plug-in power supported) Sensitivity (MIC): -72 dBV (Manual volume center, full scale -18 dB)/1 kΩ or more/Att.: 20 dB Sensitivity (LINE): -10 dBV (Manual volume center, full scale -18 dB)/1 kΩ or more Supply Voltage: 2.4 V DC (Bias resistance: 2.2 kΩ)
	USB TERMINAL	Type-A (USB 2.0) x 1 (future expansion) Type-C (USB 3.0) x 1
	MEDIA SLOT	microSD card slot x 1 (future expansion, recording unavailable)
OTHER	OPERATING ENVIRONMENT	Temperature: +32°F – +104°F (0°C – +40°C) Humidity: 10% – 90% (without condensation)
	STORAGE ENVIRONMENT	Temperature: +32°F – +104°F (0°C – +40°C) Humidity: 10% – 90% (without condensation)
	POWER SUPPLY	PoE: PoE+ power supply via LAN connector (IEEE802.3at compliant) – PoE cannot be used External power source: 24 V DC (using included AC adaptor)
	POWER CONSUMPTION	PoE+ Input: Approx. 16.2 W* max. (body only) DC Input: Approx. 15.0 W max. (body onl *Class 4 (25.5 W required) for power supply devices
	DIMENSIONS (W X H X D)	Approx. 6.06 x 7.01 x 6.46 in. (154 x 178 x 164 mm) (excluding protrusions)
	WEIGHT	Approx. 4.86 lb. (2.2 kg) (body only)
	SUPPORTED CONTROLLERS	Hardware: RC-IP100 Software: Remote Camera Control Application