First 4K 60p/50p<sup>1</sup> PTZ Camera supporting NDI<sup>2</sup> and SRT<sup>3</sup> in the world<sup>4</sup>

Supports high bandwidth NDI for low latency transmission of high-quality 4K 60p/50p<sup>1</sup> video, and SRT<sup>3</sup> for high-quality and stable transmission, and also compatible with 12G-SDI output for use in a wide range of situations, from live streaming of events to studio production.

Supports a wide variety of IP transmission protocols, including NDI<sup>2</sup>, NDI|HX<sup>5</sup>, and SRT<sup>3</sup>

High bandwidth NDI that can transmit 4K video at speeds of up to 250 Mbps and full HD video up to 100 Mbps is included to provide high-quality low latency live video transmission with a single LAN cable. High efficiency low bandwidth NDI|HX is also included to enable video transmission at low bitrates. SRT<sup>3</sup> is also supported to maintain stability while transmitting high-quality video, even in unstable network environments. RTMP/RTMPS<sup>6</sup> provides direct streaming to live broadcasting services such as YouTube Live and Facebook Live from the camera.

Supports 4K 60p/50p<sup>1</sup> shooting and 12G-SDI output

Supports 4K 60p/50p<sup>1</sup> video at 3840 x 2160 to provide smooth and high-quality shooting of moving images, and a wide variety of output interfaces such as 12G-SDI, 3G-SDI, HDMI, and IP.

Includes a wide-angle lens with a 74.1° field of view and 24x optical zoom

A wide angle lens with a horizontal angle of view of 74.1 degrees enables a wide area to be shot from a limited installation space, and 24x optical zoom maintains high image quality at high zoom ratios. This allows shooting in large indoor spaces.

<sup>1</sup>Actual output format is UHD (3840 x 2160) 59.94p/50p.<br/><sup>2</sup>NDI: High bandwidth NDI.<br/><sup>3</sup>SRT: Secure Reliable Transport<br/><sup>4</sup>Scheduled for release in the third quarter of CY2020<br/><sup>5</sup>NDI|HX: High efficiency low bandwidth NDI<br/><sup>6</sup>RTMP (Real-Time Messaging Protocol) and RTMPS (Real-Time Messaging Protocol Secure)
Supports FreeD*1 for building AR/VR*2 systems

FreeD*1 command output enables connection with AR/VR*2 systems. This allows the camera tracking information (pan/tilt/zoom/focus/iris) to be output together with a synchronization signal to easily build systems without an encoder.

Adopts new mechanical pan/tilt for improved responsiveness and quietness

The inclusion of a Direct Drive mechanism improves the responsiveness of pan/tilt and quietness during pan/tilt operations. In addition to Optical Image Stabilization (OIS), Electronic Image Stabilization (EIS) has been added for the roll direction. This provides stable video shooting even at locations utilizing robotics and rail systems, etc.


<Specifications>

General
- Power Requirements: Main unit: DC 12 V ±10% (10.8 V to 13.2 V), AC adaptor: AC 100 V to 240 V
- PoE++: Complies with IEEE802.3at (DC 42 V to 57 V) (complies with industry-standard 802.3af PoE++)
- Current Consumption: Main unit: 3.0 A (DC jack input), 1.2 A (PoE++ power supply), AC adaptor (included): 3.0 A
- Weight: Approx. 2.2 kg (4.85lbs) (excluding cable cover, direct ceiling mount bracket)
- Dimensions: 170.6 mm x 204.6 mm x 204.6 mm (6.72 inches x 8.06 inches x 8.06 inches) (excluding protrusions, cable cover, and direct ceiling mount bracket)

Camera Unit
- Image Sensor: 1/2.5-type 4K MOS x 1
- Lens: Electric powered 24x optical zoom (f/1.8 to f/4.0) + 4.1 mm to 88.3 mm, converted to 35 mm: 25.0 mm to 600.0 mm
- Focal Length: 1.2mm (HD: 2.0, FHD: 3.6) (Switches from optical 24x to 30x digitally zoom)
- Field of View Range: Horizontal field of view: 174° (wide) to 3.3° (tele), vertical field of view: 46.0° (wide) to 1.9° (tele), diagonal field of view: 81.8° (wide) to 3.8° (tele)
- Horizontal Resolution: 1,400 TV lines typ (center area)
  [HD formats] 1080/59.94p, 1080/50p, 1080/29.97p (native), 1080/25p (native), 1080/24p (native), 1080/23.98p (native), 1080/24p (native)
- Sampling Frequency: 48 kHz
- Quantified Bit Count: 24bit (SDI, HDMI), 16bit (IP)
- Mic/Line Input: Supports (SDI, HDMI) (IP, A/C compatible (IP only) Ø3.5 mm stereo mini jack) (for line input, input level: -40 dBV (0 dB = 1 V/Pa). Input volume variable range: -36 dB to 12 dB (3 dB step)
- Embedded Audio Output Level: -12 dBFS

Input/Output
- LAN: LAN for IP control and video transmission/PoE+ terminal (RJ-45)
- RS-422: CONTROL IN/OUT (RJ-45)
- Mic/Line Input: Supported (SDI, HDMI, IP), A/C compatible (IP only) Ø3.5 mm stereo mini jack (for line input, input level: -10 dBV, input volume variable range: -36 dB to 12 dB (3 dB step)
- Sampling Frequency: 48 kHz
- Quantified Bit Count: 24bit (SDI, HDMI), 16bit (IP)

Pan Tilt Head Unit
- Panning Range: ±175°
- Tilting Range: -30° to 210°

IP Streaming
- Resolution: 3840 x 2160, 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180
- Video Compression Format: JPEG (MJPEG), H.264, H.265, NDI|HX, High bandwidth NDI

New Functions
- NDI Support: NDI, NDI|HX: Included as standard*7*8
- Mechanical Pan/Tilt: Direct Drive system

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For more information, please visit Panasonic web site
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