



# **U series PTZ camera**

# 2MP (1080p) 21x Indoor PTZ Network Camera

U-Series launch gives customers PTZ's that meet top security certifications (FIPS 140-2 level 3) while also providing a unique blend of imaging performance, reliability and affordability.

## Highly durable pan-tilt drive unit Reduced maintenance costs

- High durability gear drive achieves PAN and TILT drive durability (3.7 million movements). Low failure rate even with high frequency drive and reduced maintenance cost by minimizing the maintenance cycle.

#### **Easy installation**

- U-series compact PTZ cameras can be installed discreetly and easily on low ceilings.
- Easy kitting packaging allows the camera to be set up without removing it from the box during kitting prior to installation.
- The addition of a diverse lineup of mounting brackets and optional PoE injectors enables flexible installation regardless of the location of new or existing installations.

#### High security standard

- Highest level of security. In addition to digital certificates issued by a third-party organization (GlobalSign®), FIPS 140-2 level3-certified hardware is installed.

#### Key i-PRO Spec.

- 2MP (1080p) 1920x1080
- 21x optical zoom
- Intelligent Auto
- Super Dynamic 144dB
- Color night vision (0.001 to 0.015 lx)
- Durable Pan/Tilt gear mechanism
- ONVIF<sup>®</sup> Profile G / S / T \*ONVIF is a trademark of ONVIF, Inc.
- FIPS 140-2 level3 certified

#### **Industry examples**

- Retail (Shopping mall) / Logistics
- Transportation (Airport / Train, Subway station)
- Bank
- Building





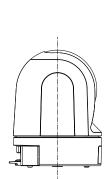
### Specifications

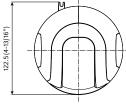
| spec      | incations                             |   |
|-----------|---------------------------------------|---|
| Camera    | Image Sensor                          | Approx. 1/2.8 type CMOS image sensor  |
|           | Minimum Illumination                  | Color: 0.015 lx (50IRE, F1.6, 1/30s)  |
|           |                                       | Color: 0.001 lx (50IRE, F1.6, 16/30s)*1   |
|           |                                       | BW : 0.006 lx (50IRE, F1.6, 1/30s)  |
|           |                                       | BW : 0.0004 lx (50IRE, F1.6, 16/30s)  |
|           | White Balance                         | ATW1 / ATW2 / AWC   |
|           | Shutter Speed                         | [60 fps Mode] 1/60 Fix to 1/10000 Fix,  |
|           | Shatter speed                         | [30 fps/15 fps mode] 1/30 Fix to 1/10000 Fix  |
|           |                                       |   |
|           |                                       | [50 fps Mode] 1/50 Fix to 1/10000 Fix,  |
|           |                                       | [25 fps/12.5 fps mode] 1/25 Fix to 1/10000 Fix  |
|           | Intelligent Auto                      | On / Off  |
|           | Super Dynamic <sup>*2</sup>           | On / Off, The level can be set in the range of 0 to 31.   |
|           | Dynamic Range                         | Max.144 dB (Super Dynamic : On, Level 31)   |
|           | Adaptive Black Stretch                | The level can be set in the range of 0 to 255.  |
|           | Back light compensation /             | BLC (Back light compensation) / HLC (High light compensation) / Off                             |
|           | High light compensation               | The level can be set in the range of 0 to 31 (only when Super dynamic / Intelligent Auto : Off) |
|           | Fog compensation                      | On / Off, The level can be set in the range of 0 to 8   |
|           |                                       | (only when Intelligent auto / auto contrast adjust : Off)                                       |
|           | Maximum gain (AGC)                    | The level can be set in the range of 0 to 11.   |
|           | Color/BW (ICR)                        | Off / On / Auto1 / Auto2 / Auto3 (SCC)  |
|           | Digital Noise Reduction               | The level can be set in the range of 0 to 255.  |
|           | Video Motion Detection (VMD)          | On / Off, 4 areas available   |
|           | Scene Change Detection (SCD)          | On / Off, 1 areas available   |
|           |                                       |   |
|           | Audio Detection                       | On / Off  |
|           | AI Sound Classification               | -   |
|           | AI Analytics                          | -   |
|           | Privacy Zone                          | On / Off, Up to 32 zones available  |
|           | VIQS                                  | On / Off, Up to 8 zones available   |
|           | Image Stabilizer                      | On / Off  |
|           | Camera Title (OSD)                    | On / Off, Up to 40 characters (alphanumeric characters, marks)                                  |
|           | Focus Adjustment                      | Auto focus  |
| Lens      | Optical zoom                          | 21x (Motorized zoom / Motorized Focus)  |
|           | Extra zoom                            | Max. 31x (21 to 31x : When resolution is 1280 x 720)  |
|           | Focal length                          | 4.0 - 84.6 mm {5/32 inches - 3-21/64 inches}  |
|           | Angular Field of View                 | [16 : 9 mode]   |
|           | · · · · g = · = · · · · = · · · · · · | Horizontal : 3.7° (TELE) - 77° (WIDE), Vertical : 2.2° (TELE) - 44° (WIDE)                      |
|           |                                       | [ 4:3 mode]   |
|           |                                       |   |
|           |                                       | Horizontal : 2.8° (TELE) - 58° (WIDE), Vertical : 2.2° (TELE) - 44° (WIDE)                      |
|           | Maximum Aperture Ratio                | 1:1.6 (WIDE) - 1:4.5 (TELE)   |
|           | Focus range                           | 1.5 m {50-1/16 inches} - ∞  |
| DORI      | Detect (25ppm / 8ppf)                 | Wide: 51.9 m / 170.3 ft, Tele: 1293.8 m / 4244.9 ft   |
|           | Observe (62.5ppm / 19ppf)             | Wide: 20.8 m / 68.1 ft, Tele: 517.5 m / 1697.9 ft   |
|           | Recognize (125ppm / 38ppf)            | Wide: 10.4 m / 34.1 ft, Tele: 258.8 m / 849.0 ft  |
|           | Identify (250ppm / 76ppf)             | Wide: 5.2 m / 17.0 ft, Tele: 129.4 m / 424.5 ft   |
| System o  | n Chip (SoC)                          | Ambarella CV25M   |
| Adjusting |                                       | Horizontal : 0 to +350°, Vertical : -30 to +90°, Yaw : 0°                                       |
| Pan/tilt  | Panning Range                         | 0 - +350°   |
|           | Panning Speed                         | Manual: Approx. 0.065°/s – 150°/s   |
|           | 5                                     | Preset: Up to approx. 500°/s  |
|           | Tilting Range                         | Operational -30° - +90°   |
|           | Tilting Speed                         | Manual: Approx. 0.065°/s –150°/s Preset: Up to approx. 350°/s                                   |
|           | Preset Positions                      | 256 positions   |
|           | Auto Mode                             | Auto pan/ Preset sequence/ Patrol   |
|           |                                       |   |
| Browser   | Self Return                           | 10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min                    |
| GUI       | Camera Control                        | Brightness, AUX On / Off  |
| GOI       | Audio                                 | Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High                             |
|           |                                       | Audio Output : On / Off Volume adjustment : Low / Middle / High                                 |
|           | GUI / Setup Menu Language             | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese               |
|           | Browser*3                             | Microsoft Edge, Firefox, Google Chrome  |
| Network   | Network IF                            | 10Base-T / 100Base-TX, RJ45 connector   |
|           | Resolution                            | [16 : 9 mode (60 fps mode)] <sup>*2</sup> , [16 : 9 mode (30 fps mode)],                        |
|           | H.265/ H.264/ JPEG (MJPEG)            | [16 : 9 mode (50 fps mode)] <sup>1</sup> <sup>2</sup> , [16 : 9 mode (25 fps mode)]             |
|           |                                       | 1920x1080, 1280x720, 640x360, 320x180   |
|           |                                       | [4 : 3 mode (30 fps mode)], [4 : 3 mode (25 fps mode)]  |
|           |                                       | 1280x960, VGA, QVGA   |
|           |                                       | [4 : 3 mode (15 fps mode)], [4 : 3 mode (12.5 fps mode)]  |
|           |                                       | 2048x1536 <sup>*4</sup> , 1280x960, VGA, QVGA   |
|           | H.265/ Transmission Mode              | Constant bit rate / VBR / Frame rate / Best effort  |
|           |                                       | Unicast port (AUTO) / Unicast port (MANUAL) / Multicast   |
|           | H.264 *5 Transmission Type            |   |
|           | JPEG Image Quality                    | 10 steps  |
|           |                                       |   |

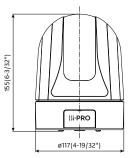
| Network    | Smart Coding                  | GOP (Group of pictures) control:  |
|------------|-------------------------------|---|
|            |                               | Off/ Low (Variable GOP 1s-8s) / Mid (Variable GOP 4s-16s) /                                   |
|            |                               | Advanced (Fixed GOP 60s w/1s key-frame)/  |
|            |                               | Frame rate control (Variable GOP 4s-16s with frame rate control)                              |
|            |                               | *Advanced and Frame rate control are only available with H.265.                               |
|            |                               | Smart Coding: Auto VIQS: On/Off   |
|            | Audio Compression             | G.726 (ADPCM) : 16 kbps / 32 kbps   |
|            |                               | G.711 : 64 kbps   |
|            |                               | AAC-LC <sup>*6</sup> : 64 kbps / 96 kbps / 128 kbps   |
|            | Audio transmission mode       | Off / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex) |
|            | Supported Protocol            | IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, SMTP, DNS, NTP, SNMPv1/v2/v3,                    |
|            |                               | DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ  |
|            |                               | IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP,                       |
|            |                               | DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP,                                    |
|            |                               | IEEE 802.1X, DiffServ, SRTP, MQTT, NTCIP  |
|            | No. of Simultaneous Users     | Up to 14 users (Depends on network conditions)  |
|            | Secure                        | FIPS 140-2 level3, Device Certificate GlobalSign® pre-installed                               |
|            | SDXC/SDHC/SD                  | H.265 / H.264 recording :   |
|            | Memory Card                   | Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure                |
|            |                               | JPEG recording :  |
|            |                               | Manual REC / Alarm REC (Pre/Post) / Backup upon network failure                               |
|            |                               | Compatible SDXC/SDHC/SD Memory Card :   |
|            |                               | microSDXC memory card : 64 GB, 128 GB, 256 GB, 512 GB   |
|            |                               | microSDHC memory card : 4 GB, 8 GB, 16 GB, 32 GB  |
|            |                               | microSD memory card : 2 GB  |
|            | Mobile Terminal Compatibility | iPad, iPhone (iOS 8.0 or later), Android™ terminals   |
|            | ONVIF <sup>®</sup> Profile    | G/S/T   |
| Alarm      | Alarm Source                  | 3 terminals input, VMD alarm, Command alarm, Audio detection alarm                            |
|            | Alarm Actions                 | SDXC/SDHC/SD memory recording, E-mail notification,   |
|            |                               | HTTP alarm notification Indication on browser, TCP alarm notification output                  |
| Input/     | Audio input                   | ø3.5 mm stereo mini jack  |
| Output     | For microphone input :        |   |
| Sacput     |                               | (Sensitivity of microphone : -51 dB to -38 dB (0 dB=1 V/Pa, 1 kHz))                           |
|            |                               | Input impedance : Approx. 2 k $\Omega$ (unbalanced)   |
|            |                               | Supply voltage : 2.5 V ±0.5 V   |
|            | For line input :              |   |
|            | Audio Output                  | ø3.5 mm stereo mini jack (monaural output)  |
|            |                               | Output impedance : Approx. $600 \Omega$ (unbalanced)  |
|            |                               | Output level : -20 dBV  |
|            | External I/O Terminals        | ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)              |
|            | External 1/0 Terminals        | ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1), ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)          |
| General    | Safety                        | UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1                                   |
| General    | EMC                           | FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035                         |
|            | Power Source and              | DC12 V, PoE (IEEE802.3af)   |
|            |                               |   |
|            | Power Consumption             | DC12 V: 970 mA / Approx. 11.6 W   |
|            | Archingt On conting           | PoE DC 48 V: 270 mA / Approx.12.95 W (Class Odevice)  |
|            | Ambient Operating             | -10 °C to +50 °C (+14 °F to +122 °F)  |
|            | Temperature                   | (Power On range : 0 °C to +50 °C {+32 °F to +122 °F})   |
|            | Ambient Operating Humidity    | 10 to 90 % (no condensation)  |
|            | Anti-Condensation System      |   |
|            | Dimensions                    | Ø117 mm x 155 mm (H) {Ø4-19/32 inches x 6-3/32 inches (H)}                                    |
|            | Mass (approx.)                | Approx. 1.2 kg {2.65 lbs}   |
|            | Finish                        | Main body : Resin, i-PRO white  |
| l Converte | Finish                        | Main body : Resin, i-PRO white  |

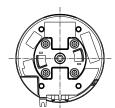
Converted value
 \*2 When 60 fps or 50 fps is selected, the Super Dynamic function is automatically set to off.
 \*3 For information on the operation verification of the supported web browsers, refer to our support website <Control No.: C0132>.
 \*4 Used by super resolution techniques
 \*5 Transmission for 4 streams can be individually set.
 \*6 When recording audio on an microSD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).

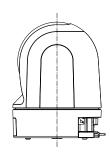
# Appearance

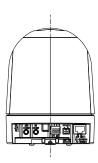












Unit : mm (inches)

#### **Optional Accessories**

#### Mount Bracket / Other WALL CORNER HANGING POLE 1 2 1 1 1 Wall Mount Brackets WV-QWD100G-W(Smoke) WV-QWD100C-W(Clear) Wall Mount Bracket WV-QWL500-W Ceiling Mount Bracket WV-QCL100-W Pole Mount Bracket Corner Mount Bracket (i-PRO white) (i-PRO white) (i-PRO white) (i-PRO white) (i-PRO white) combination (Clear) (Smoke) Wall Mount Brackets WV-QWD100G-W(Smoke) Adapter Box Wall Mount Brackets WV-QJB500-W WV-QWD100G-W(Smoke) (i-PRO white) WV-QWD100C-W(Clear) WV-QWD100C-W(Clear) (i-PRO white) (i-PRO white) (Clear) (Clear) • (Smoke) (Smoke) If needed

"1: It's possible to be used on the camera side and ceiling side. If used on both side, 2pieces are required.



#### Inner Cover



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#### Important

- Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
- i-PRO Co., Ltd. cannot be held responsible for the performance
- of the network and/or other manufacturers' products used on the network.
- Masses and dimensions are approximate. 
   Specifications are subject to change without notice.



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