

## DESCRIPTION

This is a PoE-compatible full HD network camera that uses the highly efficient H.256 image compression method. The camera is equipped with a 3x varifocal lens, so you can manually adjust the angle of view. It is equipped with a day and night function, and functions as a color camera (day mode) in bright places and a high-sensitivity black and white mode (night mode) in dark places. It is dustproof and waterproof (IP66), so it can be directly attached to outdoor it can be installed on walls and ceilings. The body is made of aluminium die-cast and the dome cover is made of polycarbonate, making it resistant to impacts. In addition, image recognition using deep learning technology can be operated as an extension of the camera body.

## SPECIFICATIONS

|                                   |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Source                      |                                       | PoE (IEEE802.3af)                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Current Consumption               |                                       | 7.1 W: PoE (DC48 V, 147.9 mA)                                                                                                                                                                                                                                                                                                                                                                                                          |
| Monitor Output                    |                                       | VBS1.0 V (p-p) 75 Ω RCA pin jack composite signal                                                                                                                                                                                                                                                                                                                                                                                      |
| Voice Input                       |                                       | 1 system unbalanced line/mic (switched by software) ø3.5 mini jack (monaural)<br>Line: -10 dB (*1), Input impedance 10 kΩ<br>Microphone: -60 dB (*1), Input impedance 2.2 kΩ<br>Power supply for microphone: +15 V/for microphone unit<br>N-MC10 (set with switch)<br>Power supply: Phantom power/microphone power line (set by switch) (*2)                                                                                           |
| Audio Output                      |                                       | 1 system -10 dB (*1), Applicable load impedance 10 kΩ or more Unbalanced ø3.5 mini jack (monaural)                                                                                                                                                                                                                                                                                                                                     |
| Contact input                     |                                       | 1 system No-voltage make contact input Open voltage: 3.3 V DC<br>Short circuit current: 10 mA or less Loop resistance: 200 Ω or less                                                                                                                                                                                                                                                                                                   |
| Contact Output                    |                                       | 1 system open collector output Withstand voltage: 30 V DC<br>Allowable current: 50 mA                                                                                                                                                                                                                                                                                                                                                  |
| Camera                            | Image Sensor                          | 1/2.8 type CMOS                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                   | Effective number of pixels            | 1945 (H) x 1097 (V) 2.13 million pixels                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | Scanning method                       | progressive                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                   | Minimum subject illuminance           | 0.03 lx (50%, color, F1.5, slow shutter off)<br>0.01 lx (20%, color, F1.5, slow shutter off)<br>0.0006 lx (20%, color, F1.5, slow shutter 15/30 seconds, converted value)<br>0.003 lx (50%, black and white, F1.5, slow shutter off)<br>0.0002 lx (50%, black and white, F1.5, slow shutter 15/30 seconds, converted value)<br>0 lx (50%, black and white, F1.5, when infrared LED is on)                                              |
|                                   | Dynamic range                         | 120 dB or more (at wide dynamic HIGH)                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                   | Slow shutter (sensitivity increased)  | Off, maximum 2/30 seconds, maximum 4/30 seconds, maximum 8/30 seconds, maximum 15/30 seconds                                                                                                                                                                                                                                                                                                                                           |
|                                   | Shutter speed                         | Automatic, flickerless (50 Hz/60 Hz), blur reduction (1/200 to 1/10000), 1/30 second fixed, 1/50 second fixed, 1/60 second fixed, 1/100 second fixed, 1/120 Second fixed, 1/200 second fixed, 1/250 second fixed, 1/400 second fixed, 1/500 second fixed, 1/800 second fixed, 1/1000 second fixed, 1/2000 second fixed, 1/2500 second fixed , 1/4000 seconds fixed, 1/5000 seconds fixed, 1/8000 seconds fixed, 1/10000 seconds fixed. |
|                                   | White balance                         | ATW1, ATW2, AWB                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                   | Backlight compensation (wide dynamic) | OFF, LOW, MID, HIGH                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Infrared LED irradiation distance |                                       | 30 m                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# SPECIFICATIONS

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| Lens                   | Function                      | Adjustment mode, brightness (9 levels), color depth (9 levels), enhancer (9 levels), AGC, contrast (9 levels), fog correction, false color suppression (purple fringe, mercury lamp), distortion correction, day/night switching (always color, auto (color priority), auto (standard), auto (black and white priority), always black and white, schedule), electric zoom, electric focus, autofocus adjustment, digital noise reduction (3 levels), peripheral illumination correction |
|                        | Focal length                  | f=3.1~10.0 mm (3.2 times)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                        | Maximum aperture ratio        | 1:1.5-2.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                        | Angle of view                 | [Shooting mode 16:9]<br>Horizontal: 113° (W) ~ 34° (T), Vertical: 59° (W) ~ 19° (T)<br>[Shooting mode 3:2]<br>Horizontal: 89° (W) ~ 28° (T), Vertical: 59° (W) ~ 19° (T)<br>[Shooting mode 4:3]<br>Horizontal: 80° (W) ~ 26° (T), Vertical: 59° (W) ~ 19° (T)                                                                                                                                                                                                                           |
| Network                | Network I/F                   | 10BASE-T/100BASE-TX automatic/fixed: RJ45                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                        | Network protocol              | TCP, UDP, RTP, RTCP, RTSP, IGMP, HTTP, HTTPS, FTP, NTP, SNMP, SMTP, SSL/TLS, RTMP                                                                                                                                                                                                                                                                                                                                                                                                       |
|                        | Image compression method      | Streams 1,2,4: H. 265, H. 264<br>Stream 3: JPEG                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                        | Image size (resolution)       | [Shooting mode 16:9]<br>Stream 1, 4: 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180<br>Stream 2: 1280 x 720, 640 x 360, 320 x 180<br>Stream 3: 1920 x 1080, 1280 x 720, 640 x 480, 640 x 360, 320 x 240, 320 x 180<br>[Shooting mode 3:2]<br>Stream 1-4: 720 x 480<br>[Shooting mode 4:3]<br>Stream 1,3,4: 1280 x 960, 640 x 480, 320 x 240<br>Stream 2: 640 x 480, 320 x 240                                                                                                            |
|                        | Image quality                 | 6 stages                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                        | Frame rate                    | H. 265, H. 264: up to 30 fps<br>JPEG: up to 15 fps                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                        | Bit rate                      | Maximum 50 Mbps (When using voice function: Maximum 30 Mbps, When using HTTPS function: Maximum 16 Mbps)<br>※1 Mbps=1024 kbps<br>Per stream H.265: 56 kbps to 5120 kbps<br>H. 264: 64 kbps to 8192 kbps<br>JPEG: 32 kbps to 33600 kbps                                                                                                                                                                                                                                                  |
|                        | Audio compression method      | G. 711 $\mu$ -law, AAC-LC                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                        | Audio sampling frequency      | G. 711 $\mu$ -law: 8 kHz<br>AAC-LC: 16 kHz, 32 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                        | Number of concurrent accesses | 14 (when using HTTPS function: 8)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ONVIF Profile          |                               | ONVIF - Profile S                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SD card recording (*3) |                               | Resolution: 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180<br>Recording rate: max 15 fps<br>Compression method: H. 264<br>Compatible SD card: SDXC (*4)                                                                                                                                                                                                                                                                                                                                  |

## SPECIFICATIONS

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| Other features                       | Access restriction function, tampering detection, motion detection (3 locations), privacy mask (20 locations), high-quality area specification function, image reversal (mirror, flip, both), image rotation (0°, 90°), screen Internal character display (alphabet, numbers, symbols, hiragana, katakana, kanji), HTTP(S) event notification function, SD card password lock, cropping zoom function, RBSS2018 standard advanced function 5.2.6 performance 2 compatible |
| Operating temperature limit          | -10 °C ~ +50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating humidity range             | 90% RH or less (no condensation)                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Place of use                         | indoors, outdoors (excluding coasts and industrial areas with strong corrosive conditions, places with a lot of dust, and high places subject to strong wind pressure)                                                                                                                                                                                                                                                                                                    |
| Dustproof/<br>Waterproof performance | IP66                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Impact resistance                    | 20 J (IK10)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Dust generation<br>performance       | No dust generated in JIS B 9926 measurements                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Finishing                            | Case/Bezel: Aluminium die-cast pearl white painted<br>Dome cover: Polycarbonate (transparent) hydrophilic coat                                                                                                                                                                                                                                                                                                                                                            |
| Dimensions                           | ø154.2 x 153 (H) mm                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Weight                               | 1.7 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Accessories                          | L-shaped wrench...1, sealing rubber...4, sealing sheet...1                                                                                                                                                                                                                                                                                                                                                                                                                |

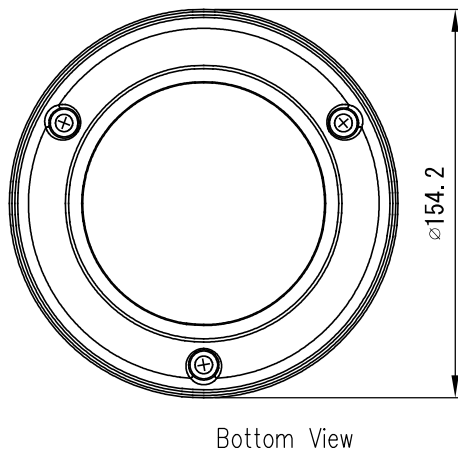
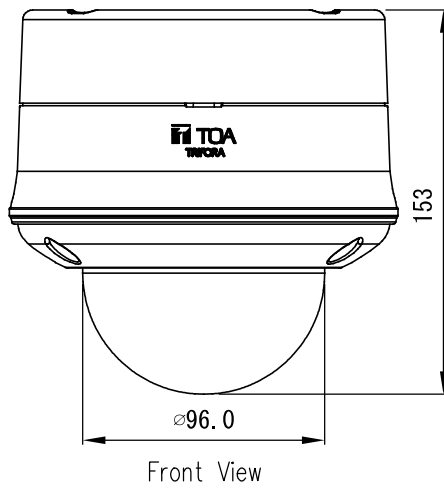
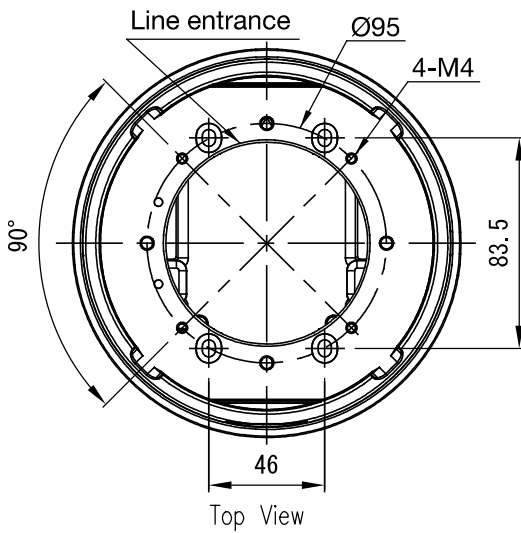
(\*1) 0 dB = 1 V

(\*2) Please use the recommended microphone.

(\*3) When recording on an SD card, stream 4 is used only for recording.

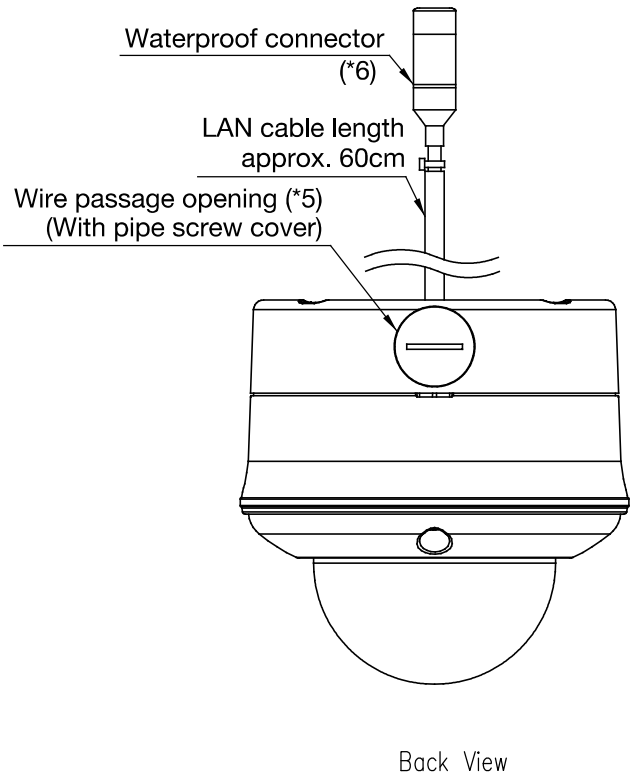
(\*4) SDXC cards of up to 256 GB formatted with this unit can be used. Please use the recommended industrial SDXC card.

## EXTERNAL VIEW

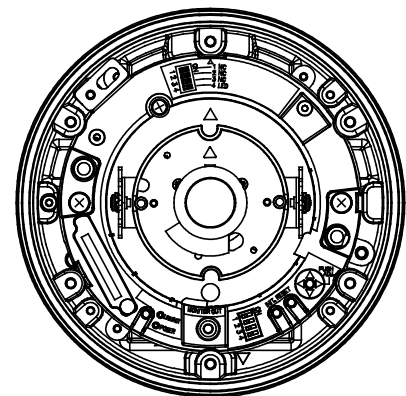


Pipe threads are JIS C8305  
It corresponds to G22 (thick steel conduit) or G3/4 of JIS B 0202 (parallel pipe thread). Thick steel conduits such as DW222K and DWZ222K manufactured by Life solutions can be installed.

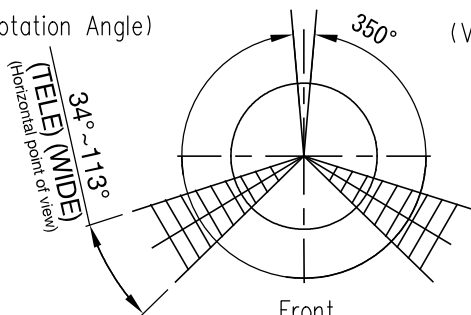
Suitable wire diameter: Ø5.4~6.0mm



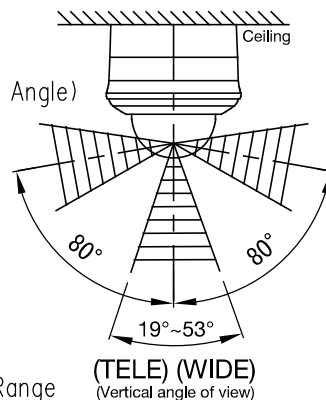
Camera body bottom view



(Horizontal Rotation Angle)



(Vertical Rotation Angle)



UNIT:mm

SCALE:1/6

Camera Angle Setting Range

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