TOA OUTDOOR IR FULLHD NETWORK CAMERA   Z-NC5450R-AS

■DESCRIPTION

This is PoE-compatible full HD network camera that uses the highly efficient H.265 image compression method. The camera is equipped with a 3.2x motorized varifocal lens with autofocus, so the zoom and focus can be remotely controlled from a computer or network recorder, making installation and adjusment easy. It is equipped with a day and night function, and function as a color camera (day mode) in bright places and a high-sensitivity black and white (night mode) in dark places. In night mode, the built-in infrared LED lighting turns on, allowing you to shoot in places without lighting. It has audio input and output terminals, allowing two-way audio communication. You can choose to supply power with phantom power (matching the microphone power supply) or with a microphone power line (separate line from the audio input terminal). It is possible to supply power to the microphone, and sound can be collected by connecting the microphone directly to the camera. It has an SD card slot, so the camera's images can be recorded on an SD card. It is dustproof and waterproof (IP66), so it can be installed directly on an outdoor wall or ceiling. The front surface of the cover is coated with a hydrophilic coating, ensuring good visibility even in the rain. In addition, image recognition using deep learning technology can be used as extension of the camera body.

■SPECIFICATIONS

Power Source		PoE (IEEE802.3af)
Current Consumption		10.5 W: PoE (DC48 V, 218.8 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) Line: −10 dB (*1), Input impedance 10 kΩ Microphone: −60 dB (*1), Input impedance 2.2 kΩ Power supply for microphone: +15 V/for microphone unit N-MC10 (set with switch) Power supply: Phantom power/microphone power line (set with 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 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 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) 0.01 lx (20%, color, F1.5, slow shutter off) 0.0006 lx (20%, color, F1.5, slow shutter 15/30 seconds, converted value) 0.003 lx (50%, black and white, F1.5, slow shutter off) 0.0002 lx (50%, black and white, F1.5, slow shutter 15/30 seconds, converted value) 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.

■SPECIFICATIONS

	White balance	ATW1, ATW2, AWB
	Backlight compensation (wide dynamic)	OFF, LOW, MID, HIGH
	Infrared LED irradiation distance	50 m
	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
Lens	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] Horizontal: 113° (W) ~ 34° (T), Vertical: 59° (W) ~ 19° (T) [Shooting mode 3:2] Horizontal: 89° (W) ~ 28° (T), Vertical: 59° (W) ~ 19° (T) [Shooting mode 4:3] 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 Stream 3: JPEG
	Image size (resolution)	[Shooting mode 16:9] Stream 1,4: 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 Stream 2: 1280 x 720, 640 x 360, 320 x 180 Stream 3: 1920 x 1080, 1280 x 720, 640 x 480, 640 x 360, 320 x 240, 320 x 180 [Shooting mode 3:2] Stream 1-4: 720 x 480 [Shooting mode 4:3] Stream 1,3,4: 1280 x 960, 640 x 480, 320 x 240 Stream 2: 640 x 480, 320 x 240
	Image quality	6 stages
	Frame rate	H. 265, H. 264: up to 30 fps JPEG: up to 15 fps
	Bit rate	Maximum 50 Mbps (When using voice function: Maximum 30 Mbps, When using HTTPS function: Maximum 16 Mbps) *1 Mbps=1024 kbps Per stream H.265: 56 kbps to 5120 kbps H. 264:64 kbps to 8192 kbps JPEG: 32 kbps to 33600 kbps
	Audio compression method	G. 711 μ-law, AAC-LC
	Audio sampling frequency	G. 711 μ-law: 8 kHz AAC-LC: 16 kHz, 32 kHz
	Number of concurrent accesses	14 (when using HTTPS function: 8)

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SD card recording (*3)	Resolution: 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 Recording rate: max 15 fps Compression method: H. 264 Compatible SD card: SDXC (*4)
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 ℃ ~ +50 ℃
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/ Waterproof perfomance	IP66
Impact Resistance	1 J (IK06)
Finishing	Case/base/sunshide : Aluminium pearl white painted Base cover: ASA resin pearl white painting Front panel: PC resin (transparent, hydrolic coat), Acrylic resin (transparent), PC resin (black)
Dimensions	120 (W) x 214 (H) x 354.5 (D) mm
Weight	1.9 kg
Accessories	Safety wire...1, Hole cover... 1 set, Cable clamp...1, Hexagonal wrench...1, Sunshade mounting screw...2, Safety wire mounting screw...1, Pan-tilt bracket mounting screw...3

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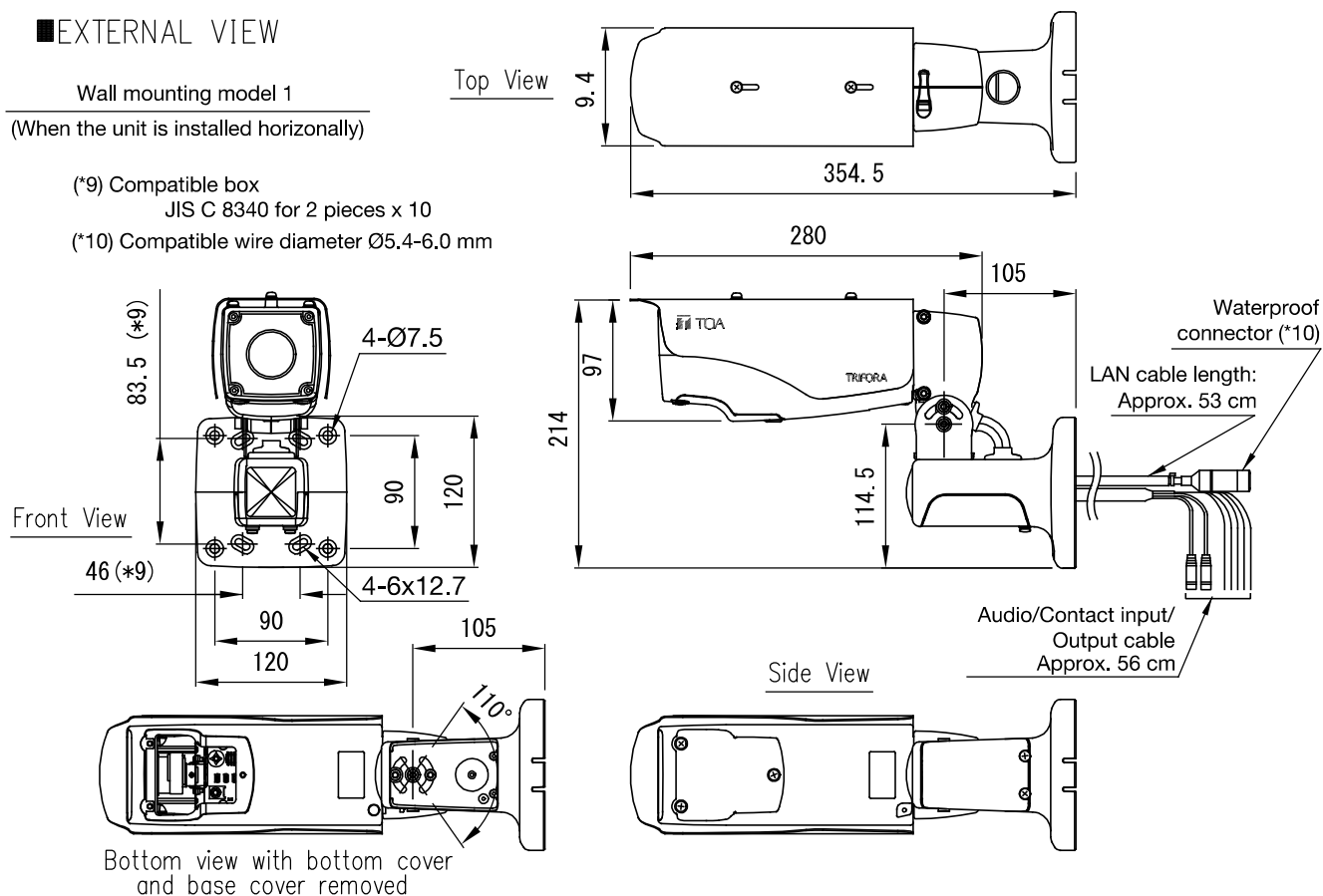(*4) SDXC cards of up to 256 GB formatted with this unit can be used. Please use the recommended industrial SDXC card.

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■APPEARANCE
*The personal computer requirements do not guarantee operation on all PCs.
*Windows and Microsoft Edge are registered trademarks of Microsoft Corporation in the United States and other countries.
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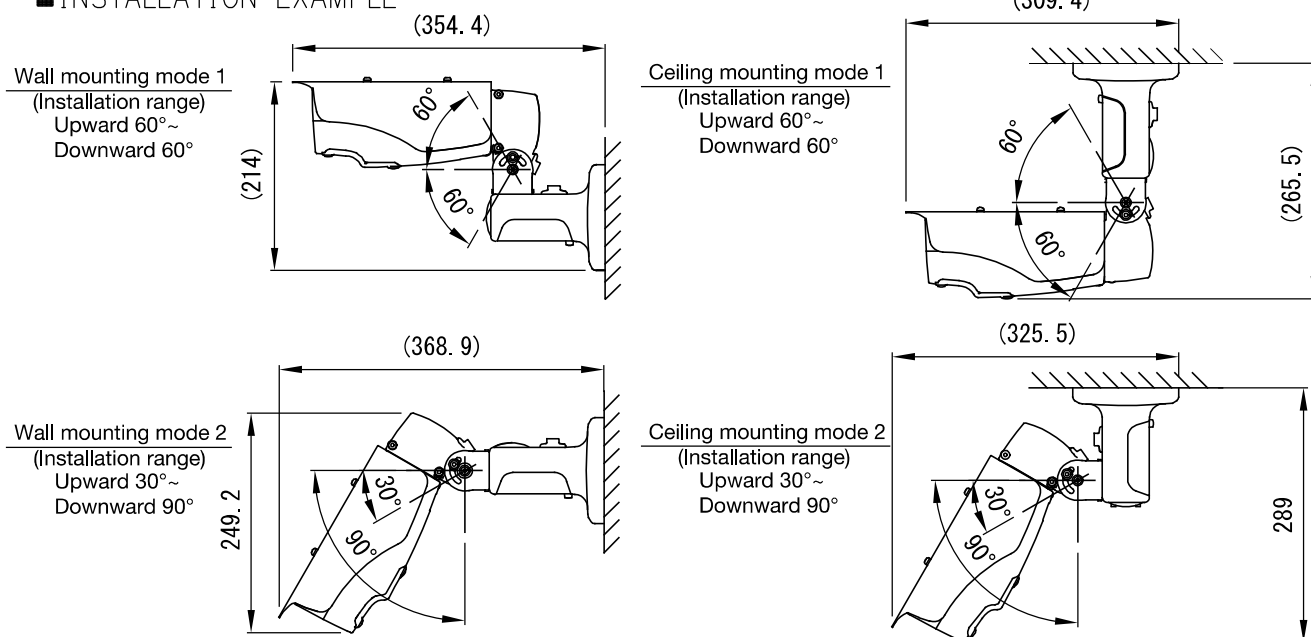*Other company and product names are trademarks of the respective companies.

■EXTERNAL VIEW

Wall mounting model 1
(When the unit is installed horizonally)

(*9) Compatible box
     JIS C 8340 for 2 pieces x 10
(*10) Compatible wire diameter Ø5.4-6.0 mm

Top View
9.4
354.5

280
105
97
214
114.5

Waterproof connector (*10)
LAN cable length: Approx. 53 cm
Audio/Contact input/ Output cable Approx. 56 cm

Side View

Front View
83.5 (*9)
4-Ø7.5
90
120
46 (*9)
4-6x12.7
90
120
105
110°

Bottom view with bottom cover and base cover removed

Bottom View
(309.4)

■INSTALLATION EXAMPLE

Wall mounting mode 1
(Installation range)
Upward 60°~
Downward 60°
(354.4)
(214)
60°
60°

Ceiling mounting mode 1
(Installation range)
Upward 60°~
Downward 60°
60°
60°
(265.5)

Wall mounting mode 2
(Installation range)
Upward 30°~
Downward 90°
(368.9)
249.2
30°
90°

Ceiling mounting mode 2
(Installation range)
Upward 30°~
Downward 90°
(325.5)
30°
90°
289

*( ) The values inside are reference dimensions

UNIT:mm   SCALE:1/6