

## Anti-severe weather PTZ network camera **WV-SUD638** AeroPTZ

# **Extreme performance - under - Extreme conditions**

The AeroPTZ is an environmentally rugged camera designed to meet extreme weather conditions.

Using the latest aerodynamic technology and salt-air corrosion resistant glass fiber body, the AeroPTZ can withstand the beating from tropical storms, arctic blizzards, extreme hot and cold temperatures, and gale-force winds.

Additionally, a unique Panasonic Video Stability Augment System (SAS) delivers superior, high-class hybrid image stabilization for extreme scenes with vibration.

Making the AeroPTZ well-suited for ports, cities, highway, transit, airports and other outdoor mission critical environments where failure is not an option.

### **Key Features**

- Full HD (1080p) 60 fps, 30x zoom lens
- Built-in wiper and Auto defroster
- Wind load durability 216 km/h (135 mph)\* (operation) 288 km/h (180 mph) (non-destructive) \* Upright position
- Video SAS (Stability Augment System) for high-class image stabilization
- "Sphere vision" provides 360° 3D viewing (Pan : 360° endless, tilt : 90° to -90°)
- Temperature -50 °C to +60 °C (-58 °F to +140 °F)\* \* Natural Silver model only. Not available IR LED Unit when the temperature is over 55 °C (131 °F). Gray & Brown model : up to +55 °C (131 °F).
- IP67, IP66, IK10 certified
- Optional IR LED light (up to 150 m/500 feet, zoom interlocking)
- Anti-salt air corrosion protection ideal for seaside operations
- Smart coding mode for additional compression

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WV-SUD638 (Natural Silver) WV-SUD638-H (Gray) WV-SUD638-T (Brown)



IR LED Unit : Optional WV-SUD6FRL1 (Natural Silver) WV-SUD6FRL-H (Gray) WV-SUD6FRL-T (Brown)



Safe citv



Port facility



Critical Infrastructure



**Industry examples** 

Airport



Railwav



Traffic

#### Specifications

Camera	Image sensor	Approx. 1/3 type MOS image sensor
camera	Minimum illumination	Color: 0.06 lx (F1.6, Maximum shutter : Off(1/30 s), AGC : High)
	Winning the manual of the	0.004 lx (F1.6, Maximum shutter : max. 16/30 s, AGC : High)*
		BW : 0.02 lx (F1.6, Maximum shutter : Off(1/30 s), AGC : High)
		0.001 lx (F1.6, Maximum shutter : max. 16/30 s, AGC : High)*
		0 Ix (F1.6, Maximum shutter : Off(1/30 s), AGC : High,
		when the IR LED (Optional) is lit) * Converted value
	Super Dynamic*1	Dynamic Range 105 dB typ.
	Image settings	Gain (AGC), White balance
	Image compensation	Adaptive black stretch, Back light compensation (BLC),
		Fog compensation, High light compensation (HLC),
	Shutter speed	Digital noise reduction [2 mega pixel [16 : 9] (60 fps mode)]
		Off(1/60) to 1/10000
		Other than [2 mega pixel [16 : 9](60 fps mode)]
	Day/Night (ICR)	Off(1/30) to 1/10000 Off / On / Auto1(Normal) / Auto2(IR Light) / Auto3(SCC)
	IR LED Light (Optional)	Off / Auto (High / Mid / Low) irradiation distance : 150 m (500 feet)
	Image stabilization	On / Off *Hybrid image stabilizer
	Privacy zone	Gray / Mosaic / Off (up to 32 zones available)
	Camera title on screen	Up to 20 characters (alphanumeric characters, marks)
	Video Motion Detection (VMD)	On / Off, 4 areas available
Lens	Zoom Ratio	30x / 45x with HD extra optical zoom (at 1280 x 720)
		(Motorized zoom / Auto Focus)
	Digital (electronic) zoom	x1, x2, x4
	Focal length	4.3 mm - 129 mm {3/16 inches - 5-3/32 inches}
	Maximum Ratio Aperture	1 : 1.6 (WIDE) - 1 : 4.7 (TELE)
	Focus range	2.0 m - ∞
	Aperture range	F1.6 (WIDE) - Close
	Angular field of view	[16 : 9 mode] Horizontal : 2.3° (TELE) – 64° (WIDE)
		Vertical : 1.3° (TELE) – 38° (WIDE)
		[4 : 3 mode] Horizontal : 1.8° (TELE) – 50° (WIDE) Vertical : 1.3° (TELE) – 38° (WIDE)
Pan/tilt unit	Panning Range	360° endless
	Panning Speed	Manual : approx. 0.065°/s to 100°/s
	3 4 4 4	Preset : up to approx. 200°/s
		(Except when IR LED Unit is equipped, forward tilt mount, frozen.)
	Tilting Range	Upright : -45° to +90°
	5 5 .	Forward tilt : -90° to +90°
		Hanging : -90° to +30°
	Tilting Speed	Manual : approx. 0.065°/s to 100°/s
		Preset : up to approx. 200°/s
		(Except when IR LED Unit is equipped, forward tilt mount, frozen.)
	Preset Positions	256 positions
	Auto Mode	Auto track / Auto pan / Preset sequence / 360 map-shot / Preset map-shot / Patro
	Self Return	10 s to 60 min
	Tilt flip	On / Off
	Map Shot	360° map shot / preset map shot
Network	Network IF	10Base-T / 100Base-TX, RJ45 connector
	Image Resolution	•2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)
	H.264	H.264 : Maximum 1,920 x 1080
	JPEG (MJPEG)	JPEG : Maximum 1,920 x 1080
		•1.3 mega pixel [4 : 3] (30 fps mode)
		H.264 : Maximum 1,280 x 960
		JPEG : Maximum 1,280 x 960
	Image compression method	H.264
		Transmission Mode :
		Constant bit rate / Variable bit rate / Frame rate priority /
		Best effort / Advanced VBR
		Transmission type : Unicast / Multicast
		JPEG
		Image Quality : 10 steps
		Multiple streams individually configurable
	Intelligent compression	Smart coding, VIQS (ROI)
	Audio compression	G.726 (ADPCM) : 32 kbps / 16 kbps
		G.711:64 kbps
		AAC-LC*2 : 64 kbps,
		AAC-LC(High quality)*2 : 64 kbps / 96 kbps / 128 kbps
	Protocol	IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP,
		SNMP, DHCPv6, RTP, MLD, ICMP, ARP, DiffServ
		IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP,
		SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP,
		ARP, DiffServ
	Maximum concurrent	Up to 14 users
	access number	(Depends on network conditions)
	Mobile terminal compatibility	iPad, iPhone, iPod touch (iOS 4.2.1 or later)
	(As of September, 2016)	Android <sup>™</sup> mobile terminals

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Important

- Panasonic cannot be responsible for the performance of the network and/or other manufacturers'products used on the network.

Design and specifications are subject to change without notice.
Masses and dimensions are approximate.

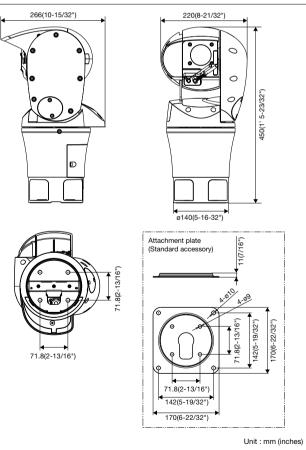
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Environment	Water and Dust Resistance	Main body : IP66, IP67, IEC60529 measuring standard compatible,
	*3	Type 4X(UL50), NEMA 4X compliant
		Waterproof RJ45 connector, Waterproof power connector,
		Waterproof I/O connector
	Shock resistance	Compliant with IK10 (IEC 62262)
	Vibration resistance	IEC60068-2-6 compliant
	Salt damage resistance	ISO14993 compliant
	Resistance to wind	Upright
		216 km/h (135 mph) (Operation) / 288 km/h (180 mph) (non-destructive)
		Forward tilt
		50 m (112 mph) (Operation) / 80 m (180 mph) (non-destructive)
General .	Power source	AC100 to 240 V, 50 Hz / 60 Hz
		Tested PoE Injector* (60 W) *with limitations
	Operating environment	Ambient operating temperature :
		-50 °C to +60 °C (-58 °F to 140 °F)* (When using AC100 to 240 V)
		-30 °C to +60 °C (-22 °F to 140 °F)* (When using tested PoE Injector)
		{Power on range : -30°C to +55 °C(-22 °F to 131 °F)}
		*Natural Silver model only.
		Not available IR LED Unit when the temperature is over 55 °C (131 °F).
		Gray & Brown model : up to +55 °C (131 °F).
		Ambient operating humidity : 10 % to 100 %
	External I/O terminals	ALARM IN 1(DAY/NIGHT IN, Auto time adjustment),
		ALARM IN 2(ALARM OUT), ALARM IN 3(AUX OUT),
		Relay connection (x1 for each)
	line input	ø3.5 mm monaural mini jack
		Input impedance : Approx. 2 kΩ (unbalanced)
	For line input	Input level : Approx. –10 dBV
	Audio output	ø3.5 mm stereo mini jack (monaural output)
		Output impedance : Approx. 600 Ω (unbalanced)
		Using Amplifier built-in external speaker
		Output level : -20 dBV
	Dimensions	220 mm (W) x 450 mm (H) x 266 mm (D)
		{8-21/32 inches (W) x 1ft 5-23/32 inches (H) x 10-15/32 inches (D)}
	Mass (approx.)	Approx. 8.5 kg {18.7 lbs}
	Finish	Main body : Glass Fiber Reinforced Plastics
		WV-SUD638 : Natural Silver
		WV-SUD638-H : Gray (N7)
		WV-SUD638-T : Brown (Environmental color)
		Front glass : Glass, Clear

Super Dynamic function is automatically set off on 60 fps mode. When "AAC-LC (HIGH QUALITY)" is selected, there are limitations about the following function. • HTTPS is not available. \*2

The maximum concurrent access number is limited to 5
 3 Only when installation work specified in Installation Guide is properly performed and appropriate waterproof treatment is performed.

#### Appearance





http://security.panasonic.com http://www.facebook.com/PanasonicNetworkCamera (2A-167HL)