

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





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 city



Port facility

Industry examples



Critical Infrastructure





Railway



Traffic

## **Specifications**

| Camera        | Image sensor   | Approx. 1/3 type MOS image sensor   |
|---------------|--|---|
|               | Minimum illumination   | Color: 0.06 lx (F1.6, Maximum shutter: Off(1/30 s), AGC : High)   |
|               |  | 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.   |
|               |  | Gain (AGC), White balance   |
|               | Image settings   |   |
|               | Image compensation   | Adaptive black stretch, Back light compensation (BLC),  |
|               |  | Fog compensation, High light compensation (HLC),  |
|               |  | Digital noise reduction   |
|               | Shutter speed  | [2 mega pixel [16 : 9] (60 fps mode)]   |
|               |  | Off(1/60) to 1/10000  |
|               |  | Other than [2 mega pixel [16 : 9](60 fps mode)]   |
|               |  | Off(1/30) to 1/10000  |
|               | Day/Night (ICR)  | 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)   |
|               | 3  | 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  |
| Pan/un unit   | Panning Speed  | Manual : approx. 0.065°/s to 100°/s   |
|               | Panning Speed  |   |
|               |  | Preset : up to approx. 200°/s   |
|               |  | (Except when IR LED Unit is equipped, forward tilt mount, frozen.)  |
|               | Tilting Range  | Upright : -45° to +90°  |
|               |  | 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   |
| Network       | Network IF<br>Image Resolution   | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)   |
| Network       | Network IF<br>Image Resolution<br>H.264  | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080   |
| Network       | Network IF<br>Image Resolution   | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H_264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,920 x 1080   |
| Network       | Network IF<br>Image Resolution<br>H.264  | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,920 x 1080<br>•1.3 mega pixel [4: 3] (30 fps mode)   |
| Network       | Network IF<br>Image Resolution<br>H.264  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,920 x 1080<br>*1.3 mega pixel [4 : 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960  |
| Network       | Network IF<br>Image Resolution<br>H.264  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,920 x 1080<br>*1.3 mega pixel [4: 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960  |
| Network       | Network IF<br>Image Resolution<br>H.264  | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,820 x 1080<br>•1.3 mega pixel [4: 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector<br>•2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,820 x 1080<br>•1.3 mega pixel [4: 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>#1.3 mega pixel [4 : 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>H.264 : Transmission Mode :  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16: 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>JPEG : Maximum 1,920 x 1080<br>*1.3 mega pixel [4: 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>H.264<br>Transmission Mode :<br>Constant bit rate / Variable bit rate / Frame rate priority /   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           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           LPEG : Maximum 1,280 x 960           LPEG : Maximum 1,280 x 960           H.264           Transmission Mode :           Constant bit rate / Variable bit rate / Frame rate priority /           Best effort / Advanced VBR  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           JPEG : Maximum 1,920 x 1080           •1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           H.264 : Maximum 1,280 x 960           H.264 : Transmission Mode :           Constant bit rate / Variable bit rate / Frame rate priority /           Best effort / Advanced VBR           Transmission type : Unicast / Multicast  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T/ 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           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           H.264 : Transmission Mode :           Constant bit rate / Variable bit rate / Frame rate priority /           Best effort / Advanced VBR           Transmission type : Unicast / Multicast           JPEG   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>*1.3 mega pixel [4 : 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>H.264<br>Transmission Mode :<br>Constant bit rate / Variable bit rate / Frame rate priority /<br>Best effort / Advanced VBR<br>Transmission type : Unicast / Multicast<br>JPEG<br>Image Quality : 10 steps   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method  | 10Base-T / 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           JPEG : Maximum 1,920 x 1080           •1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           H.264 : Maximum 1,280 x 960           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   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression   | 10Base-T/ 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           •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           H.264 : Maximum 1,280 x 960           H.264 : Transmission Mode :           Constant bit rate / Variable bit rate / Frame rate priority /           Best effort / Advanced VBR           Transmission type : Unicast / Multicast           JPEG           JPEG           Image Quality : 10 steps           Multiple streams individually configurable           Smart coding, VIQS (ROI)  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method  | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>*1.3 mega pixel [4 : 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>H.264<br>Transmission Mode :<br>Constant bit rate / Variable bit rate / Frame rate priority /<br>Best effort / Advanced VBR<br>Transmission type : Unicast / Multicast<br>JPEG<br>Image Quality : 10 steps<br>Multiple streams individually configurable<br>Smart coding, VIQS (ROI)<br>G.726 (ADPCM) : 32 kbps / 16 kbps  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression   | 10Base-T/ 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           JPEG : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           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           Smart coding, VIOS (ROI)           G.711 : 64 kbps   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression   | 10Base-T / 100Base-TX, RJ45 connector<br>*2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)<br>H.264 : Maximum 1,920 x 1080<br>*1.3 mega pixel [4 : 3] (30 fps mode)<br>H.264 : Maximum 1,280 x 960<br>JPEG : Maximum 1,280 x 960<br>H.264<br>Transmission Mode :<br>Constant bit rate / Variable bit rate / Frame rate priority /<br>Best effort / Advanced VBR<br>Transmission type : Unicast / Multicast<br>JPEG<br>Image Quality : 10 steps<br>Multiple streams individually configurable<br>Smart coding, VIQS (ROI)<br>G.726 (ADPCM) : 32 kbps / 16 kbps  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression   | 10Base-T / 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           H.264 : Bast effort / Advanced VBR           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           Smart coding, VIOS (ROI)           G.726 (APCM) : 32 kbps / 16 kbps           G.711 : 64 kbps           AAC-LC/Fligh quality) <sup>2</sup> : 64 kbps / 96 kbps / 128 kbps  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression   | 10Base-T/ 100Base-TX, RJ45 connector           •2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           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           H.264 : Maximum 1,280 x 960           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           Smart coding, VIOS (ROI)           G.721 : 64 kbps           G.711 : 64 kbps           AC-LC*2 : 64 kbps,   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression  | 10Base-T/         100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)         H.264 : Maximum 1,920 x 1080           #.264 : Maximum 1,920 x 1080         *1.3 mega pixel [4: 3] (30 fps mode)           #.264 : Maximum 1,280 x 960         H.264 : Maximum 1,280 x 960           H.264 : Maximum 1,280 x 960         H.264 : Transmission Mode :           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         Smart coding, VIOS (ROI)           G.711 : 64 kbps         AAC-LC(High quality)? : 64 kbps / 96 kbps / 128 kbps           AAC-LC(High quality)? : 64 kbps / 96 kbps / 128 kbps           IPV6 : TOP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP,   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression  | 10Base-T/ 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : 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           H.264 : Maximum 1,280 x 960           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           Smart coding, VIOS (ROI)           G.7711 : 64 kbps           AAC-LC'2 : 64 kbps, 126 kbps / 128 kbps           IPv6 : TCP/IP, UDP/IP, HITTP, FTP, SMTP, DNS, NTP, SMTP, DNS, NTP, SMTP, DNS, NTP, SNMP, DHOPv6, RTP, MLD, ICMP, ARP, DiffServ  |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression  | 10Base-T / 100Base-TX, RJ45 connector           *2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *13 mega pixel [4 : 3] (30 fps mode)           H.264 : 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           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           Smart coding, VIOS (ROI)           G.726 (APCM): 32 kbps / 16 kbps           Multiple streams individually configurable           Sinter (Ligh quality)? : 64 kbps / 96 kbps / 128 kbps           IPv6 : TCP   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression  | 10Base-T/ 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           Maximum 1,280 x 960           JPEG : Image Quality : 10 steps           Multiple streams individually configurable           Smart coding, VIOS (ROI)           G.711 : 64 kbps           AAC-LC(High quality)? : 64 kbps / 96 kbps / 128 kbps           AAC-LC(High quality)? : 64 kbps / 96 kbps / 128 kbps           IPv4 :   |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression  | 10Base-T / 100Base-TX, RJ45 connector           •2 mega pixel [16 : 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           •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           JPEG : Maximum 1,280 x 960           H.264 : Maximum 1,280 x 960           H.264 : Maximum 1,280 x 960           JPEG : Maximum 1,280 x 960           H.264 Transmission Mode :           Constant bit rate / Variable bit rate / Frame rate priority /<br>Best effort / Advanced VBR           Transmission type : Unicast / Multicast           JPEG           Image Ouality : 10 steps           Multiple streams individually configurable           Smart coding, VIOS (ROI)           G.726 (ADPCM) : 32 kbps / 16 kbps           AAC-LC : 24 kbps           MURD : DHCPV6, RTP, MLD, ICMP, ARP, DHCServ           IPV4 : TCP/IP, UDP/IP, HTTP, HTTPS, FTSP, SMTP, DNS, NTP, SMMP, UPNP, IGMP, ICMP, ARP, DHCServ           IPV4 : TCP/IP, DDR, DNS, DNS, NTP, SNMP, UPNP, IGMP, ICMP, ARP, DHCServ           IPV4 : TCP/I  |
| Network       | Network IF Image Resolution H.264 JPEG (MJPEG) Image compression method Intelligent compression Audio compression Protocol Maximum concurrent  | 10Base-T / 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           H.264 : Statistical experiment of the statistic experiment of t |
| Network       | Network IF<br>Image Resolution<br>H.264<br>JPEG (MJPEG)<br>Image compression method<br>Intelligent compression<br>Audio compression<br>Protocol<br>Maximum concurrent<br>access number | 10Base-T/ 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           Hast effort / Advanced VBR           Transmission type : Unicast / Multicast           JPEG           Image Quality : 10 steps           Multiple streams individually configurable           Smart coding, VIOS (ROI)           G.712 6 (ADPCM) : 32 kbps / 16 kbps           AC-LC(High quality)' : 64 kbps / 96 kbps / 128 kbps           IPv6 : TCPIP, UDP/P, HTTP, HTTPS, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, RTP, MLD, ICMP, APP, DiffServ           IPv4 : TCP/P, UDP/P, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DNN, NTP, SNMP, UDP/R, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DNS, NTP, SNMP, UPnP, IGMP, ICMP, APP, DiffServ           Up to 14 users         (Depends on  |
| Network       | Network IF Image Resolution H.264 JPEG (MJPEG) Image compression method Intelligent compression Audio compression Protocol Maximum concurrent  | 10Base-T / 100Base-TX, RJ45 connector           *2 mega pixel [16: 9] (60 fps mode / 30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,920 x 1080           *1.3 mega pixel [4: 3] (30 fps mode)           H.264 : Maximum 1,280 x 960           H.264 : Statistical experiment of the statistic experiment of t |

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Important - Panasonic cannot be responsible for the performance of the network and/or

other manufacturers'products used on the network.

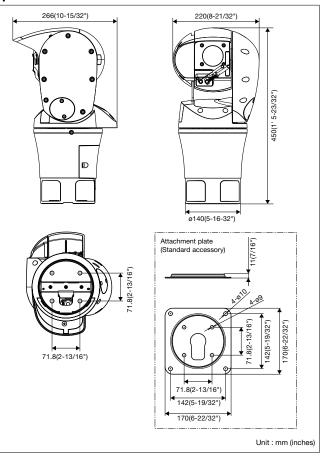
Design and specifications are subject to change without notice.
Masses and dimensions are approximate.

## **DISTRIBUTED BY :**

| 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   |

If Your Glass : Glass, Clear
 Your Glass : Glass, Clear
 Your Dynamic function is automatically set of fon 60 fps mode.
 When "AAC-LC (HIGH QUALITY)" is selected, there are limitations about the following function.
 HITTPS is not available.
 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-167HA)