

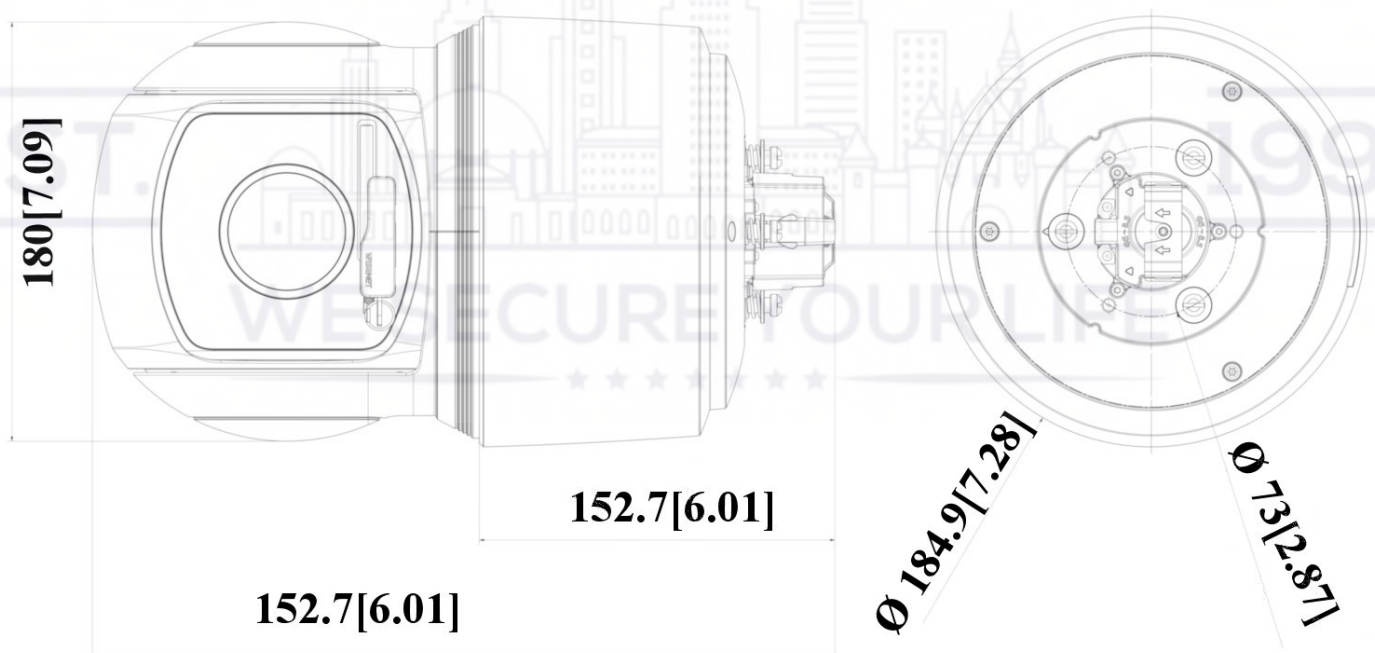


### Key Features

- 4K resolution
- 5~150mm (30x) optical zoom
- Maximum IR viewable length 200m
- Day and night (ICR), extreme WDR, DIS (Built-in gyro sensor)
- Intelligent Analytics, Object auto tracking (Person/Vehicle), Target lock tracking
- H.264, H.265, MJPEG codec, WiseStreamII
- IP66, IK10, NEMA4X, NEMA TS-2 2.2.8 (Vibration) and 2.2.9 (Shock)
- PTZ PLUS Design applied (Compact, Lighter, Simple cabling)
- -20° tilt look-up capability to see above the horizon.

### Dimensions

Unit:mm [inch]



<b>Video</b>	
Imaging Device	1/2.8" CMOS
Resolution	3840x2160, 2592x1944, 2592x1464, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Maximum Framerate	H.265/H.264: Maximum 30fps MJPEG: Maximum 30fps
Minimum Illumination	Color: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
<b>Lens</b>	
Focal Length (Zoom Ratio)	5~150mm(30x) zoom
Maximum Aperture Ratio	F1.6(Wide) - F4.56(Tele)
Angular Field of View	H: 57.42°(Wide)~2.19°(Tele) / V: 33.54°(Wide)~1.25°(Tele)
Minimum Object Distance	3m(9.84ft)
Focus Control	Oneshot AF, Focus save
Lens Type	DC auto iris
<b>Pan / Tilt / Rotate</b>	
Pan Range	360° Endless
Pan Speed	Maximum 500°/sec, Manual: 0.024°/sec~250°/sec
Tilt Range	110°(-20°~90°) -20° tilt look-up capability to see above the horizon.
Tilt Speed	Maximum 350°/sec, Manual: 0.024°/sec~250°/sec
Sequence	Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule±0.1°
Preset Accuracy	Pan/Tilt correction
<b>Operational</b>	
Camera Title	Displayed up to 85 characters
Direction Indicator	Support
Day and Night	Auto(ICR)/Color/BW/Schedule
Backlight Compensation	BLC, HLC, WDR, SDR
Wide Dynamic Range	Extreme WDR(120dB)
Digital Noise Reduction	SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)
Defog	Support
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, rectangular Support - Color: Grey/Green/Red/Blue/Black/White - Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Video Rotation	Flip, Mirror
Analytics	Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Shock detection * Audio detection, Sound classification(with NW I/O Box)

Alarm Triggers	Analytics, Network disconnect * Alarm input(with NW I/O Box)
Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers PTZ Preset Handover * Alarm output(with NW I/O Box)
IR Viewable Length	200m(656.17ft), Wise IR
Water Removal	Support (with wiper and lens heater)
Auto Tracking	Object auto tracking(Person/Vehicle), Target lock tracking
<b>Network</b>	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec	Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast (128 user) Multiple streaming(Up to 10 profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTSP
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device certificate(Hanwha Techwin Root CA)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
<b>General</b>	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 2 slots 1TB total maximum capacity
Memory	4GB RAM, 512MB Flash
<b>Environmental and Electrical</b>	
Operating Temperature / Humidity	Normal : -40 °F (-40 °C) ~ 131 °F (55 °C) / Intermittent : -40 °F (-40 °C) ~ 140 °F (60 °C) Maximum Temperature based on NEMA-TS 2(2.2.7) : 165 °F (73.89 °C) Less than 95% RH(Non-condensing)
Storage Temperature / Humidity	-58 °F (-50 °C)~ +140°F / Less than 95% RH(Non-condensing)
Certification	IP66, IK10(Camera body only), NEMA4X, UL CAP, NEMA TS-2 2.2.8 (Vibration) and 2.2.9 (Shock)
Input Voltage	HPoE(IEEE802.3bt, Class6, Type3, Injector included)
Power Consumption	HPoE(Camera only): Maximum 42W, typical 20W
<b>Mechanical</b>	
Color / Material	White, Black / Aluminum+Polycarbontate
RAL Code	White: RAL9003 / Black: RAL9005
Product dimensions / weight	Ø 7.28 inches (18.49 cm) x 12.55 inch (31.88 cm) 11.90lb (5.4 kg)