

# TNF-9010

12MP sensor Fisheye Camera - For parking guidance



FC | UL LISTED | CE | ENEC

## Key Features

- Up to 30fps @ 3,008 x 3,008 resolution
- Stereographic type lens enhances images on the edges
- 360° monitoring with onboard dewarping
- AI based parking detection identifies up to 16 lots
- Various LED colors & single/split mode
- Central/side raceway installations
- Defocus/audio detection and tampering
- Integrated to emergency alerts with alarm & audio I/O

Video	
Imaging Device	1/2.3" 12MP CMOS
Resolution	Original view(1:1): 3008x3008~480x480, Quad view: 3584x2688~640x480, Q1/Q2/Q3/Q4(4:3): 1792x1344~640x480
Max. Framerate	H.265/H.264: Max.30fps/25fps@3008x3008(60Hz/50Hz), MJPEG: Max.30fps/25fps@1080x1080(60Hz/50Hz)
Min. Illumination	Color: 0.39 Lux(F2.2, 1/30sec), BW : 0.039Lux(F2.2, 1/30sec)
Video Out	CVBS : 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P), for Installation
Lens	
Focal Length (Zoom Ratio)	1.08mm fixed focal
Max. Aperture Ratio	F2.2
Angular Field of View	H: 187° / V: 187° / D: 187°
Min. Object Distance	0.5m(1.64ft)
Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	Rotate : +/- 180
Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(Electrical)
Backlight Compensation	BLC, HLC, WDR, SSSDR
Wide Dynamic Range	extremeWDR (120dB)
Digital Noise Reduction	SSNR V
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, polygonal zones - Color: Grey/Green/Red/Blue/Black/White - Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)
Video Rotation	Flip, Mirror
Analytics	Parking detection based on AI engine - LED color: Green/Red/Blue/Pink/Yellow/Skyblue/Purple - LED Integrated(1ea)/Separated(2ea) mode Analytics events : Defocus detection, Motion detection, Tampering
Alarm I/O	1/1
Alarm Triggers	Analytics, Network disconnect, Alarm input
Alarm Events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output PTZ Preset Handover Audio clip playback LED status

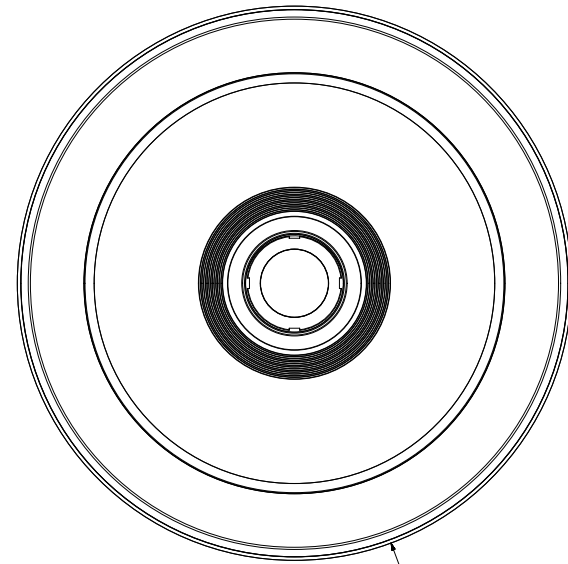
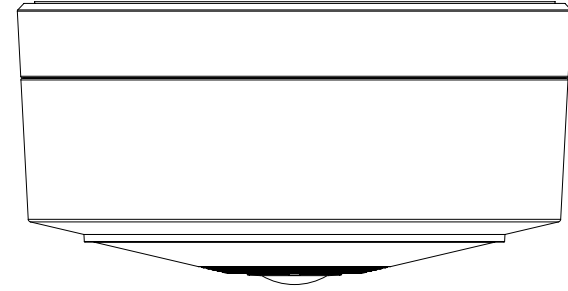
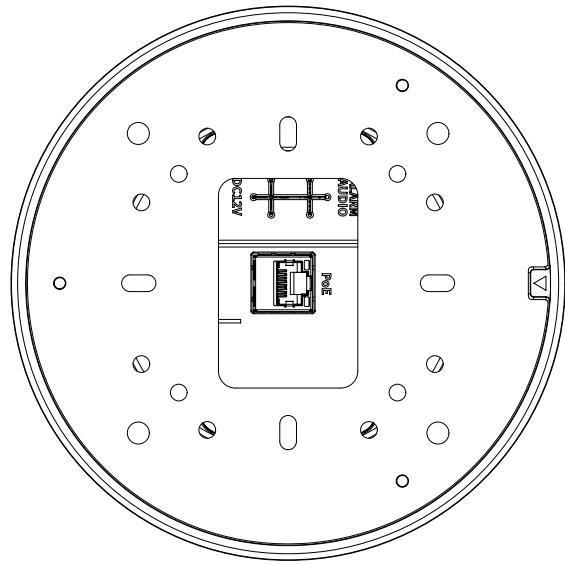
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
Audio Out	Line out, Max. output level: 1Vrms
<b>Network</b>	
Ethernet	Metal shielded RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Smart Codec	Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast 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, UPnP, Bonjour, LLDP, SRTP (TCP, UDP Unicast)
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, pre-installed) Secure by default certificate HTPM (Hanwha Trusted platform module) Secure OS/Boot/Storage, Verify firmware forgery
Application Programming Interface	ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform(TBD)
<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 1slot 512GB
Memory	4096MB RAM, 512MB Flash
<b>Environmental &amp; Electrical</b>	
Operating Temperature / Humidity	-10°C ~ +50°C (14°F ~ +122°F) / Less than 95% RH
Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 95% RH
Input Voltage	PoE(IEEE802.3af, Class3), 12VDC
Power Consumption	PoE : Max 12.95W, Typical 10W 12VDC: Max 10W, Typical 8.3W
<b>Mechanical</b>	
Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	Ø158x80.5mm(6.22x"3.17), 1,280g(2.82lb)

**DORI (EN62676-4 standard)**

<b>Detect (25PPM/ 8PPF)</b>	34.9m(114.49ft)
<b>Observe (63PPM/ 19PPF)</b>	13.9m(45.60ft)
<b>Recognize (125PPM/ 38PPF)</b>	7.0m(22.96ft)
<b>Identify (250PPM/ 76PPF)</b>	3.5m(11.48ft)

- The latest product information / specification can be found at [hanwha-security.com](http://hanwha-security.com)
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of Hanwha Techwin, formerly known as Samsung Techwin.

Unit : mm [inch]



Ø 157.71 [6.21"]