

# TNU-X6320E\*

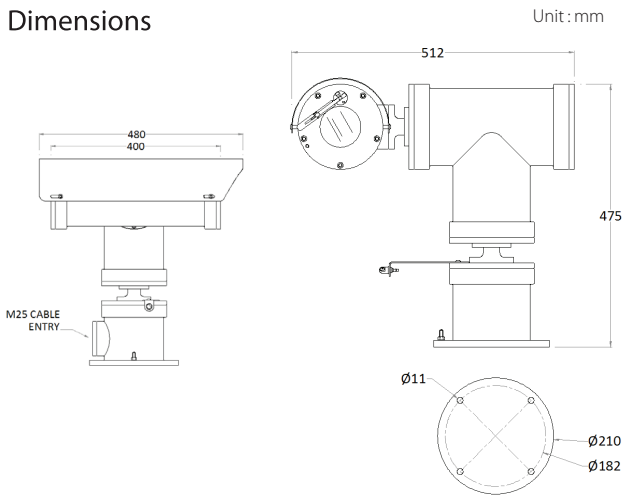
7j b'aeja` ZbaaXPositioning 5S\_ Wd EfSf[a`



## Key Features

- 2 MP (1920 x 1080) resolution
- 4.44-142.6mm (32x) optical zoom, 16x digital zoom
- H.265, H.264, MJPEG triple codec, WiseStream II
- Day & Night (ICR), WDR (150dB)
- Video Analytics, dual SDXC memory slots
- DIS with built-in Gyro sensor
- cLCus C1/D1/INMETRO / cLC CSA Certified
- Electro-polished 316L stainless steel on all welded assemblies
- Camera station window in toughened glass
- Integrated Wiper & Optional Fiber Optics
- Supply voltage (24 VAC or 110 VAC) depending on model

## Dimensions



## Accessories (Optional)



## TNU-X6320E\*

### VIDEO

Image Sensor	1/2.8" 2.4 MP CMOS
Resolution	Resolution: 1920x1080 to 320x180; 60fps at all resolutions (H.265/H.264)
Lens	32x optical 16x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 62.8° - 2.23°
Pan / Tilt Range	360° Endless / 180°
Pan / Tilt Speed	45° per second / 24° per second
Minimum Illumination	Color: 0.05Lux (1/30sec, F1.6, 50IRE) B/W: 0.005Lux (1/30sec, F1.6, 50IRE)
Streaming	H.265, H.264, MJPEG triple codec, multiple streaming, VBR/CBR, WiseStream II
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), HLC, auto focus, auto iris, AGC, SDR, SSNR III, BLC, Gyro DIS, Defog
Standards Protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour

### SPECIFICATIONS

Sun Shield	Standard stainless steel 316L mirror finish
Integral Wiper	Silicone wiper blades that are resistant and do not perish after long exposure to ozone, UV, ice, snow, heat or cold
Integral Fiber (Optional)	Built-in fiber module (Simplex single-mode 9/125µm) (F2 Models only)
Ingress Protection Rating	IP66/67
Temperature Rating	T1: -40°C ~ +60°C (-40°F ~ +140°F); T2: -60°C ~ +60°C (-76°F ~ +140°F)

### ELECTRICAL

Input Voltage	24 VAC or 110 VAC depending on model
Power Consumption	Up to 80W Maximum, depending on model
Cable Entry	2 x 3/4" NPT entries located in base
Body Material	Electro-polished 316L stainless steel on all welded assemblies
Fixings Material	A4 stainless steel
Camera Station Window	Toughened glass

### CERTIFICATIONS

INMETRO	Ex d IIC T4 (T5 On Request) Gb -60°C ≤ Ta ≤ +60°C Ex tb IIIC T135°C Db IP66/67. Certificate Number: TUV 12.1080X / TUV 12.1081X
cLCus C1/D1	Class I, Division 1, Groups B,C,D, -60°C ≤ Ta ≤ +60°C T4 / Class II, Division 1, Groups E, F, G IP67 CSA-C22.2 No:30-M1986 No:25-1966(R2009) CSA-C22.2 No:60065-03(R2012) & UL1203, UL60065(ED.7). Certificate Number: 11671-1S / 11677-1S
cLC CSA	Ex d IIC T4 (T5 On Request) LC1311396 -60°C ≤ Ta ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1-2011. Certificate Number: 11396-1S-CSA
Weight	Up to 53Kg (117lb)

Model Number:

## TNP-X6320E2F2WT1-Z

Body Style :  
Positioning : U

Power :  
24 VAC : 1  
110 VAC : 2

Temperature Rating :  
-40°C : T1  
-60°C : T2

Fiber :  
Single-Mode : F2

Wiper : W

Certification :  
cLC CSA : C  
INMETRO : M  
cLCus C1/D1 : Z

**TNU-X6320E\***

<b>VIDEO</b>	
Imaging Device	1/2.8" 2.4 MP CMOS
Total Pixels	1981(H) x 1288(V), 2.55 MP
Effective Pixels	1944(H) x 1212(V), 2.35 MP
Scanning System	Progressive scan
Minimum Illumination	Color : 0.05 Lux (1/30 sec, F1.6) B/W : 0.005 Lux (1/30 sec, F1.6)
S / N Ratio	50dB
<b>LENS</b>	
Focal Length (Zoom Ratio)	4.44 ~ 142.6mm (Optical 32x)
Maximum Aperture Ratio	F1.6 (Wide) / F4.4 (Tele)
Angular Field of View	H : 61.8°(Wide) ~ 2.19°(Tele) / V : 36.2°(Wide) ~ 1.24°(Tele)
Minimum Object Distance	Wide 1.5m (4.92ft), Tele 2m (6.56ft)
Focus Control	Auto / Manual / One shot AF
Lens Type	DC auto iris
Mount Type	Board-in type
<b>OPERATIONAL</b>	
Camera Title	Off / On (Displayed up to 85 characters) - English / International / Numeric / Special characters - Multi-line (Maximum 5), Color (Grey / Green / Red / Blue / Black / White), Transparency, Auto scale by resolution
Day & Night	Auto (ICR) / Color / B/W / Schedule
Backlight Compensation	Off / WDR / BLC / HLC
Wide Dynamic Range	150dB
Contrast Enhancement	SSDR (On / Off)
Digital Noise Reduction	SSNR5 (2D+3D noise filter) (On / Off)
Digital Image Stabilization	On / Off (Built-in gyro sensor)
Defog	Off / Manual / Auto
Motion Detection	On / Off (8ea, Polygonal)
Privacy Masking	On / Off (24 Zones of rectangle zone) - Color : Grey / Green / Red / Blue / Black / White - Mosaic
Gain Control	Off / Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor (Included Mercury & Sodium)
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (1 ~ 1 / 12,000sec)
Digital Zoom	32x
Flip / Mirror	On / Off
Video Analytics	Tampering, Loitering, Directional/Virtual Line detection, Fog detection, Enter/Exit, Appear/Disappear, Face detection, Motion detection, Shock detection
Alarm Triggers	Motion detection, Video analytics, Network disconnect
Alarm events	File upload via FTP and E-Mail, Notification via E-Mail, TCP and HTTP, Local storage (SD/SDHC/SDXC) or NAS recording at alarm triggers, Preset
Pixel counter	Support

**TNU-X6320E\***

<b>NETWORK</b>	
<b>Ethernet</b>	RJ-45 (10/100BASE-T)
<b>Video Compression Format</b>	H.264 (MPEG-4 Part 10/AVC), H.265, Motion JPEG
<b>Resolution</b>	1920 x 1080, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240
<b>Maximum Framerate</b>	H.264 / H.265 : Maximum 60fps at all resolutions Motion JPEG : Maximum 30fps at all resolutions
<b>Smart Codec</b>	Manual mode (Area-based : 5ea)
<b>WiseStream II</b>	Support
<b>Video Quality Adjustment</b>	H.264 / H.265 / MJPEG : Target bitrate level control
<b>Bitrate Control Method</b>	H.264 / H.265 : CBR or VBR Motion JPEG : VBR
<b>Streaming Capability</b>	Multiple streaming (Up to 10 profiles)
<b>IP</b>	IPv4, IPv6
<b>Protocol</b>	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
<b>Security</b>	HTTPS (SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1X Authentication (EAP-TLS, EAP-LEAP)
<b>Streaming Method</b>	Unicast / Multicast
<b>Maximum User Access</b>	20 users at Unicast mode
<b>Edge Storage</b>	Micro SD/SDHC/SDXC 2 slots (up to 512 GB total capacity) - Continuous recording(1st slot to 2nd slot) - Motion Images recorded in the Micro SD/SDHC/SDXC memory card can be downloaded. NAS (Network Attached Storage) Local PC for instant recording
<b>Application Programming Interface</b>	ONVIF Profile S/G, SUNAPI 2.0 (HTTP API), Wisenet Open Platform
<b>Webpage Language</b>	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
<b>Web Viewer</b>	Supported OS : Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Plug-in Free Webviewer supported browser : Google Chrome, Microsoft Edge, Microsoft Internet Explorer, Mozilla Firefox (Windows 64-bit only) , Apple Safari 10 (Mac OS X only)
<b>Central Management Software</b>	Wisenet WAVE, SmartViewer, SSM

\* The latest product information / specification can be found at [hanwhasecurity.com](http://hanwhasecurity.com)

\* Design and specifications are subject to change without notice.

\* Wisenet is the proprietary brand of **Hanwha Techwin**.