

# TNU-X6320A\* series

Cvnmqgm l +Npmmd Positioning A\_ k cp\_ Qr\_rgm l



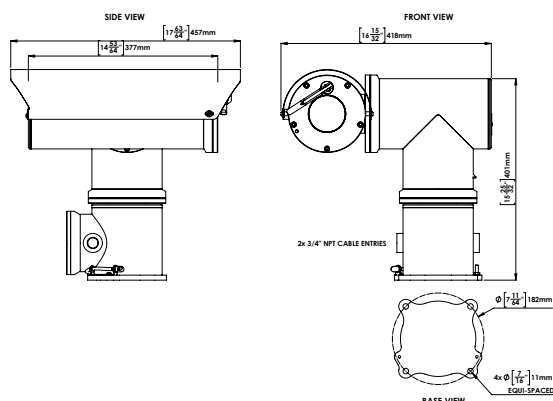
The TNU-X6320A series is an explosion-protected PTZ camera station for use in hazardous areas in onshore, offshore, marine, and heavy industrial environments. The base unit carries dual NPT cable entries with easy access for cable termination during installation as standard, maximizing compatibility and ease of use with existing fixed conduit installations.

## 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 (120dB)
- Video Analytics, dual SDXC memory slots
- DIS with built-in Gyro sensor
- cLCus C1/D1/INMETRO / cLC CSA Certified, depending on model
- 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

Unit : mm



## Accessories (Optional)



HT-E-BPW6800



HTE-E-XWP10UL

## TNU-X6320A\* series

### 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)<br>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), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRT |

### 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 (Duplex 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 M25 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 33Kg (73lb)                                                                                                                                                                                                                        |

Model Number:

# TNU-X6320A2F2WT1-Z

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

**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)<br>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 : 64.66°(Wide) ~ 2.29°(Tele) / V : 38.08°(Wide) ~ 1.30°(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)<br>- English / International / Numeric / Special characters<br>- 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          | 120dB                                                                                                                                                                                                                       |
| 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)<br>- Color : Grey / Green / Red / Blue / Black / White<br>- 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, Handover/Preset                                                                     |
| Pixel counter               | Support                                                                                                                                                                                                                     |

**TNU-X6320E\***

|                                          |                                                                                                                                                                                                                                                                   |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NETWORK</b>                           |                                                                                                                                                                                                                                                                   |
| <b>Ethernet</b>                          | RJ-45 (10/100BASE-T) / Duplex single mode 9/125μm module (F2 models)                                                                                                                                                                                              |
| <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<br>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<br>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, LLDP, SRTSP                                                                      |
| <b>Security</b>                          | HTTPS (SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1X Authentication (EAP-TLS, EAP-LEAP), Device certificate                                                                                               |
| <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)<br>- Continuous recording(1st slot to 2nd slot)<br>- Motion Images recorded in the Micro SD/SDHC/SDXC memory card can be downloaded.<br>NAS (Network Attached Storage)<br>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, 11 Mac OS X 10.10, 10.11, 10.12<br>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                                                                                                                                                                                                                                                      |

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

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

\* Wisenet is the proprietary brand of **Hanwha Vision**