

# Bi-Spectral Thermal Network Camera

MADE IN TAIWAN  
台灣製造

TC-2280-L13  
(4G LTE/RJ-45)

TC-2280-E13(PoE)

Visual Res. : 5MP

Thermal Res. :  
640(H) x 512(V)



LTE  
transmission



Through fog  
and haze



Two Lens



Thermal  
Image



Alarm  
notification



Power over  
Ethernet



- Combines thermal and visual (5MP) video streams
- Thermal sensitivity:  $\leq 60$  mK @ f#1.0
- Palette
- One IP, bispectral video with temperature information in one stream
- H.264 / H.265 compression video streams
- 4G LTE / RJ-45 or PoE
- Over temperature / Motion detection / Electric fence / Alarm zone / Push notification
- Cloud monitoring and storage
- Two-way audio
- App / Management / Push notification
- IP66 outdoor protection
- SD card storage

TC-2280 is an outdoor bispectral thermal network camera, which can capture clear color image at a resolution up to 5MP in low lux environment, and built-in IR illumination provides black and white optical surveillance in zero-light conditions up to 10m.

TC-2280 can be used for surveillance of wide range and long distance with thermal vision ability in total darkness. TC-2280 is suitable for border security, devices temperature monitoring, abnormal temperature, etc.

TC-2280-L13 supports 4G LTE technology, which can be installed at anywhere with 4G LTE network coverage.

# Bi-Spectral Thermal Network Camera — Specification

<b>Model</b>	TC-2280-L13 TC-2280-E13
<b>Thermal Sensor and Optics</b>	
Image Sensor	Uncooled VOx Microbolometer
Resolution	640(H) x 512(V)
Thermal Frame Rate	NTSC: 30 fps or PAL: 25 fps
Pixel Size	12μm
Spectral Range	8 ~ 14 μm
Sensitivity	NETD ≤ 60mK
Color Palettes	10
Focal Length	Fixed-focal 13mm
Aperture	F1.0
Field of View	32.9° (Horizontal) / 22.9° (Vertical)
Detect temperature range	-20 to 120°C ± 3.0% / 100 to 500°C ± 3%
<b>Visible Sensor and Optics</b>	
Image Sensor	1/2.8" 5M CMOS
Resolution	2592(H) x 1944(V)
Visible Frame Rate	15 fps
Shutter Speed (Seconds)	1/8~1/10,000
Minimum Illumination	1.0 Lux (Color); 0.5 lux (B/W), 0 Lux (IR on)
IR LED (Illumination Range)	IR 10m
Focal Length	6mm
Aperture	F2.0
Field of View	51.9° (Horizontal) / 30.6 (Vertical)
<b>Video</b>	
Video Compression	H.265, H.264, MJPEG
Main Stream Thermal and Visible Frame Rate (60Hz)*	1920x1080@30 fps, 1280x720@ 30fps, 1024x576@ 30fps (The actual setting depends on the UI interface.)
Sub Stream Visible Frame Rate (60Hz)*	2592x1944@15 fps , 1920x1080@30 fps, 1280x720@30 fps, 1024x576@ 30fps (The actual setting depends on the UI interface.)
Bit Rate Control	CBR / VBR
Bit Rate	128kbps ~ 8Mbps
Day/Night Mode	Auto(ICR) / Color / B / W
Wide Dynamic Range (WDR)	DWDR
Image Setting	Auto White Balance (AWB) Noise Reduction Flip Mirror Privacy Mask Temperature Rendering and Overlay
<b>Audio</b>	
Compression	G.711

<b>Alarm and Event</b>	
Event Trigger	Video Motion Detection Periodic System Boot Network Lost Digital In Temperature Detection
Event Action	File Upload Via Email, HTTP, FTP, NAS Server, SD Card
<b>Network</b>	
Ethernet	RJ-45 (10 / 100Base-T) - TC-2280-L13 PoE (IEEE 802.3af) - TC-2280-E13
Protocol	DDNS, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IPv4, IPv6, 802.1x, NTP, QoS, PPPoE, SNMP SMTP, TCP/IP, UPnP, RTSP, ONVIF (Profiles S)
Max. User Access	5
Storage Card Slot	micro SD SDXC (Max 128GB)
Web Viewer	> IE10 / 11, Chrome version58 or above
Smart Phone	Android, iOS
<b>4G (TC-2280-L13)</b>	
4G Frequency	LTE-FDD : B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B18 / B19 / B20 / B25 / B26 / B28 LTE-TDD : B38 / B39 / B40 / B41
4G Standard	LTE-TDD / LTE-FDD
SIM slot	Micro SIM
<b>Interface</b>	
Connectors	Built-in Microphone Audio Line out RS-485 1 Digital Input / 1 Digital Output
<b>Power</b>	
Input	DC 12V ± 10%
Max. Power Consumptions	< 10W
<b>Environmental</b>	
Operating Temperature	-20 to 60°C
Storage Temperature	-40 to 85°C
Humidity	≤ 90%
Outdoor Usage	IP66
<b>Dimension and Weight</b>	
Casing	Metal
Dimension (W x D x H)	244.1 x 127 x 211.3 mm (TC-2280-L13)  214.5 x 127 x 103 mm (TC-2280-E13)
Net Weight	1.6 KG
<b>Safety</b>	
Certification	CE, FCC, NCC ,BSMI