CMIP7112F-SE
12 MP Hybrid Light Color 24/7 IP Camera

CMIP7112F-SE is a fisheye network camera capable of providing a 360-degree panoramic image of its scene. The progressive scan CMOS sensor provides high-resolution images of up to 3504 × 3504. Up to 20 live view display modes, designed for 3 mount types, meet various user preferences. Three independently controlled IR lights offer a range of 15 m and provide good vision in low or even zero-light environments.

- Heatmap: based on deep learning algorithms, the camera counts people and presents an intuitive map
- Multi de-warping modes: the image can be de-warped to normal image for viewing intuitively
- Built-in mic and speaker: the camera supports two-way audio for real-time audio security monitoring and communication
- Built-in IR light: an IR range of 15 meters provides good visibility in low or even zero-light environments
- High resolution 12 MP: capturing clear images even when de-warped into 4-image PTZ mode
- Each image is clear and detailed
- Panomorph lens RPL: 89VVT
- Water and dust resistant (IP67) and vandal resistant (IK10)

Specifications

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	3504 × 3504
Min. Illumination	Color: 0.03 Lux @ f 2.2, (AGC on) B&W: 0.006 Lux @ f 2.2 (AGC on), 0 Lux with IR
Shutter Speed	1 to 1/100,000 sec.
Day & Night	IR cut filter
Lens	
Lens Type	Fixed focal lens, 1.29 mm
Focal Length & FOV	1.29 mm, horizontal FOV 180°, vertical FOV 180°
Iris Type	Fixed
Aperture	F2.2
Depth of Field	0.2 m to ∞
Detect, Observe, Recognize, Identify	
Ranges	D: 91 ft (27.9 m), O: 36 ft (11.1 m), R: 18 ft (5.6 m), I: 9 ft (2.8 m)
Supplement Lighting	
Type	IR
Range	Up to 50 ft (15 m)
Number	3
Technology	Smart
IR Wavelength	850 nm
HEOP	
Open Resources	Memory: 60 MB, Smart RAM: 800 MB, eMMC: 2 GB
Computing Power	2 TOPS
Open Capability	HEOP 2.0 OpendevSDK
Deep Learning Structure	Caffe, TensorFlow, PyTorch
Programming Language	C, C++

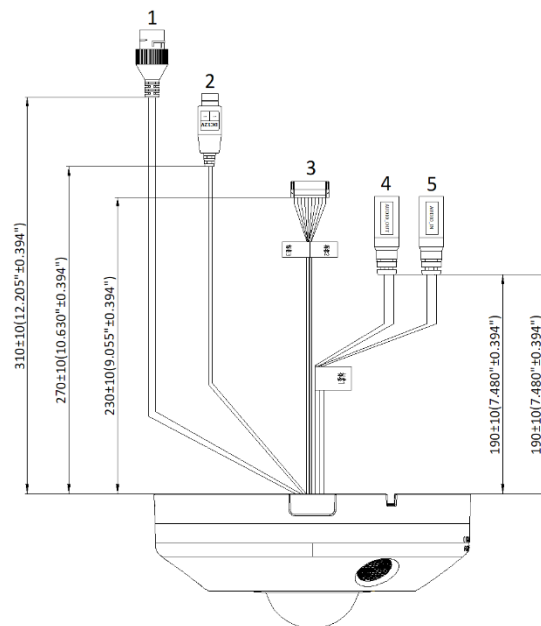| Video	
Main Stream	30 fps: Fisheye View: 3504 × 3504, 3024 × 3024, 2560 × 2560, 2048 × 2048 180 Panorama View: 3072 × 2304, 2048 × 1536 180 Dual Channel Panorama View: 3072 × 1152 Panorama View: 3072 × 2304, 2048 × 1536 4 PTZ View: Camera 01 / 02 / 03 / 04: 1600 × 1200 Fisheye + 3PTZ View: • Camera 01: 2560 × 2560, 2048 × 2048, 1280 × 1280 • Camera 02 / 03 / 04: 1600 × 1200 4 PTZ Fusion View: 3200 × 2400, 2048 × 1536
Sub-Stream	30 fps: Fisheye View: 720 × 720, 480 × 480 180 Panorama View: 640 × 480, 320 × 240 180 Dual Channel Panorama View: 640 × 480, 320 × 240 Panorama View: 640 × 360, 320 × 240 4 PTZ View: Camera 01 / 02 / 03 / 04: 640 × 480, 320 × 240 Fisheye + 3PTZ View: • Camera 01: 720 × 720 • Camera 02 / 03 / 04: 640 × 480, 320 × 240
Video Compression	Main stream: H.265+ / H.265 / H.264+ / H.264 Sub-stream: H.265 / H.264 / MJPEG
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	Main Profile
Bit Rate Control	CBR, VBR
Scalable Video Coding (SVC)	H.264 and H.265 encoding
Region of Interest (ROI)	4 fixed regions for each stream
Fisheye Display	
Mount Type	Support wall / table / ceiling mounting
Decoding Mode	Support for hardware and software decoding

Display Modes (20)	Software decoding: Fisheye view, 180 panorama view, 360 panorama view, 360 panorama + PTZ, 360 panorama + 3 PTZ, 360 panorama + 6 PTZ, 360 panorama + 8 PTZ, 2 PTZ, 4 PTZ, fisheye + 3 PTZ, fisheye + 8 PTZ, hemisphere, AR hemisphere, cylinder Hardware decoding: Fisheye view, 180 panorama view, 180 dual channel panorama, panorama view, 4 PTZ, fisheye + 3 PTZ, 4 PTZ fusion
Audio	
Audio Compressions	G.711 / G.722.1 / G.726 / MP2L2 / PCM / MP3 / AAC-LC
Audio Bit Rates	64 Kbps (G.711 ulaw / G.711 alaw) / 16 Kbps (G.722.1) / 16 Kbps (G.726) / 3 2 to 192 Kbps (MP2L2) / 8 to 320 Kbps (MP3) / 16 to 64 Kbps (AAC-LC)
Audio Sampling Rates (kHz)	8 / 16 / 32 / 48
Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, ISUP, ARP, WebSocket, WebSockets, SIP
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP, Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX
User/Host	Up to 32 users 3 levels: Administrator, operator, and user
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, host authentication (MAC address)
Network Storage	NAS (NFS, SMB / CIFS), Auto Network Replenishment (ANR) With high-end memory cards, encryption and health detection are supported.
Clients	NVMS V3, LTS Connect
Web Browsers	Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Imaging	
Image Parameters Switching	Yes
Image Settings	Saturation, brightness, contrast, sharpness, white balance, AGC, adjustable by client software or web browser
Day / Night Switching	Day, Night, Auto, Schedule, Alarm Trigger
Wide Dynamic Range (WDR)	Digital WDR
Image Enhancement	BLC, HLC, 3D DNR, Distortion Correction, Defog
Privacy Mask	8 programmable polygon privacy masks
Picture Overlay	Logo can be overlaid on video with 128 × 128 24 bit, .bmp format
Interface	
Ethernet Interface	1 x RJ45 10/100/1000 Mbps self-adapting Ethernet port
On-Board Storage	Built-in memory card slot supports MicroSD / SDHC / DXC cards up to 256 GB

Built-in Microphone	Yes, 4 built-in microphones
Built-in Speaker	Yes, 1 built-in speaker
Audio	1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium
Alarm	2 inputs, 2 outputs (max. 24 V DC, 1 A)
RS-485	1 x RS-485 (Half duplex, Pelco-P, Pelco-D, self-adaptive)
Reset Key	1 x Reset Key
Event Types	
Basic	Motion detection, video tampering alarm, alarm input and output, exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error)
Smart	Line crossing, intrusion, region entrance, region exiting, scene change, audio exception, defocus, unattended baggage, and object removal detections
Linkage	Upload to FTP / NAS / memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture
Deep Learning Functions	
People Counting	Counts people entering, exiting and passing by separately (data is stored in the flash) Supports real-time uploading and uploading by statistic cycle Sends email reports on daily, weekly, monthly or annually basis Supports up to 3 detection regions, and independent arming schedule and linkage method
Queue Management	Supports up to 8 detection regions, and independent arming schedule and linkage methods Supports 2 detection modes: Regional people queuing-up, wait times Generates reports to compare the efficiency of different queues and display the change in status of one Supports raw data export for further analysis Supports real-time data uploading and scheduled data uploading Regional people-queues: Supports 4 alarm trigger conditions, including greater than, less than, equal to, and not-equal-to thresholds Wait-time detection: Supports 1 alarm trigger condition (greater than threshold)
Heat Mapping	A graphic description of visits (by calculating amount of people or amount of dwell time) in a configured area. Two report types are available, space-based heat map and time-based heat map line chart.
Intersection Analysis	Detects and analyzes flow in an intersection-like scene, and generates reports Supports one intersection of up to 10 ways
General	
Power	12 V DC ± 20%, 1 A, max. 11.5 W, two-core terminal block, PoE: IEEE 802.3af, Class 3, max. 12.5 W
Materials	Metal
Dimensions	Ø 5.5 × 2.3" (Ø 140.3 × 59.4 mm)
Shipping Dimensions	10.2 × 9.1 × 5.3" (260 × 230 × 135 mm)

Weight	Approx. 1.58 lb (715 g)
Shipping Weight	Approx. 2.66 lb (1,206 g)
Storage Conditions	-40° to 140° F (-40° to 60° C); Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40° to 140° F (-40° to 60° C); Humidity 95% or less (non-condensing)
General Functions	Heartbeat, flash log, password reset via email, password protection, one-key reset, anti-banding
Heater	Yes
Cable Length	1.02 ft (0.31 m)
Certifications	
Protection Ratings	IP67: IEC 60529-2013; IK10: IEC 62262:2002

Physical Interface

No.	Interface Description
1	Network Interface
2	Power Interface
3	Alarm Interface, RS-485
4	Audio Output Interface
5	Audio Input Interface

Unit:mm(inch)

Dimensions

4-Ø4.5(Ø0.177")

59.4(2.339")

46(1.811")

83.5(3.287")

Ø140.3(Ø5.524")

Ø95.4(Ø3.756")

Unit:mm(inch)

3-120°

Camera Mounting Hole(mm)	Camera Mounting Hole(inch)
4xØ4.5	4xØ0.177"
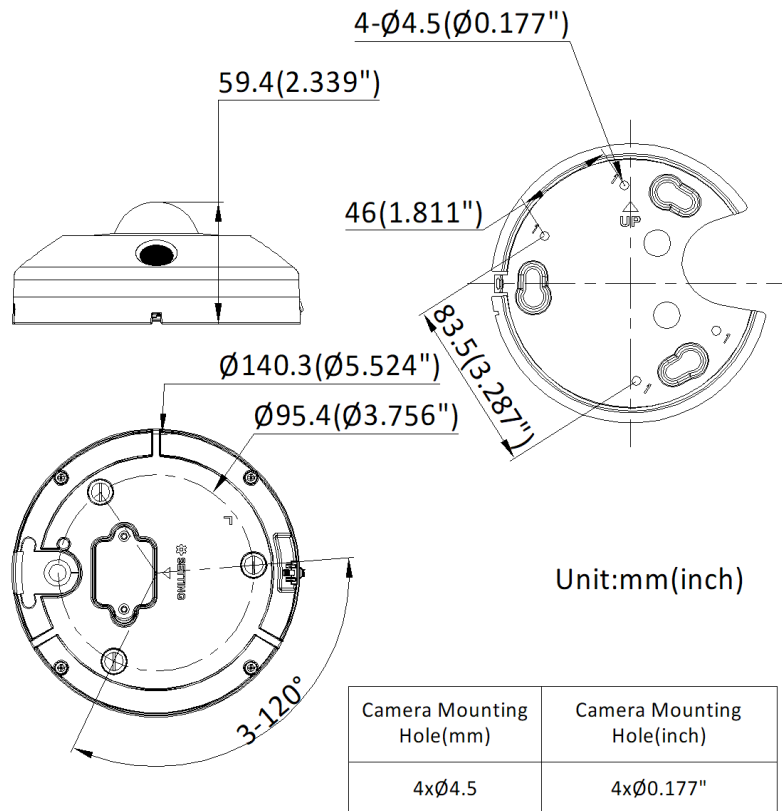
Accessories

▪ **Optional**

LTB342-140B Wall Mount	LTB379 Corner Mount	LTB378 Vertical Pole Mount	LTB701 Junction Box	LTB342 Wall Mount

LTB341 Pendant Mount

*LTS recommends using LTB379 and LTB378 with LTB342-140 or LTB342-140B.