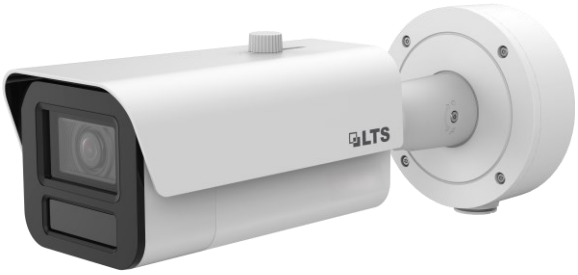
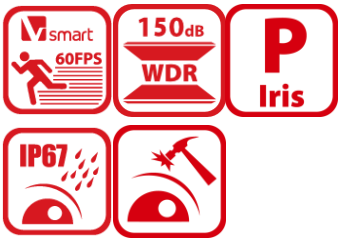
4MP ANPR Motorized Varifocal Bullet Camera
CMIP2B43LPR-32R





LTS has been dedicated to develop products with security since established.
LTS always follows security by design principle and has adopted many methods of security technologies into our product development lifecycle, including terminal security, data security, application security, network security, and privacy protection. In the meantime, the security technologies used by LTS are all in compliance with local applicable laws and safety regulations. These security measures could enhance product's cyber security protection capability and protect your devices as well as your data from malicious cyber attacks.

- High quality imaging with 4 MP resolution
- Excellent low-light performance
- Clear imaging against strong back light due to 150 dB AWDR technology
- Efficient H.265+ compression technology to save bandwidth and storage
- 5 streams to meet a wide variety of applications
- Water and dust resistant (IP67), vandal proof (IK10)
- High frame rate, up to 2MP@120fps and 4MP@60fps
- Built-in heater to ensure clear image under rainy or snowy weather
- Built-in G-sensor for vibration detection
- Built-in power meter for historical power statistics
- License plate recognition and vehicle attribution recognition

▪ Function

Perimeter Protection

With embedded deep learning based target detection and classification algorithms, the camera carries out the duty of perimeter protection, monitoring the actions of line crossing, intrusion, region entrance, and region exiting. The algorithms greatly filter out the mistaken alarm caused by the interference of leafs, lights, animal, flag, etc.

Road Traffic and Vehicle Detection

With embedded deep learning based license plate capture and recognition algorithms, the camera alone can achieve plate capture and recognition. The algorithm enjoys the high recognition accuracy of common plates and complex-structured plates, which is a great step forward comparing to traditional algorithms. Blocklist and allowlist are available for plate categorization and separate alarm triggering.

▪ Specification

Camera	
Image Sensor	1/1.8" Progressive Scan CMOS
Max. Resolution	2688 × 1520
Min. Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON), B/W: 0.0001 Lux @ (F1.2, AGC ON), 0 Lux with Supplement light
Shutter Time	1 s to 1/100,000 s
Day & Night	IR cut filter, Blue glass module (less ghost phenomenon)
Lens	
Focal Length & FOV	8 to 32 mm, horizontal FOV 42.5° to 15.2°, vertical FOV 23.4° to 8.7°, diagonal FOV 49.7° to 17.3°
Focus	Auto, Semi-auto, Manual
Iris Type	P-iris
Aperture	8 to 32 mm: F1.7 to F1.73
DORI	
OODPCVS	Wide: 8 to 32 mm: Overview: 187.9 m, Outline: 94.0 m, Discern: 47.0 m, Perceive: 30.1 m, Characterize: 15.0 m, Validate: 7.5 m, Scrutinize: 2.5 m Tele: 8 to 32 mm: Overview: 500.0 m, Outline: 250.0 m, Discern: 125.0 m, Perceive: 80.0 m, Characterize: 40.0 m, Validate: 20.0 m, Scrutinize: 6.7 m The OODPCVS values are calculated using pixel densities for different use cases as recommended by the IEC/EN 62676-4: 2025 standard. IEC 62676-4:2025 describes the planning, design, installation, testing, commissioning, and maintaining of video surveillance systems (VSS) comprising image capture device(s), interconnection(s) and image handling device(s), for use in security applications within private or public spaces.
Illuminator	
Supplement Light Type	IR
Supplement Light Range	8 to 32 mm: Monitoring: 100 m;
Smart Supplement Light	Yes
IR Wavelength	850 nm
Video	
Main Stream	Monitoring mode: 50 Hz: up to 50 fps (2688 × 1520, 1280 × 720), up to 100 fps (1920 × 1080) 60 Hz: up to 60 fps (2688 × 1520, 1280 × 720), up to 120 fps (1920 × 1080) *High frame rate is supported under monitoring mode only. smart mode: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)
Sub-Stream	50 Hz: 25 fps (1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1280 × 720, 704 × 480, 640 × 480)

Third Stream	50 Hz: 25 fps (1920 × 1080, 1280 × 720, 704 × 576, 640 × 480) 60 Hz: 30 fps (1920 × 1080, 1280 × 720, 704 × 480, 640 × 480)
Fourth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Fifth Stream	50 Hz: 25 fps (704 × 576, 640 × 480) 60 Hz: 30 fps (704 × 480, 640 × 480)
Video Compression	Main stream: H.265+/H.265/H.264+/H.264, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264, Fourth stream: H.265/H.264/MJPEG, Fifth stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 8 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
Target Cropping	Yes
e-PTZ	Support Patrol and Auto Tracking settings
Audio	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Audio Bit Rate	64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/48 kHz
Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, SRTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, WebSocket, WebSockets， MQTT/MQTTS, RTMP. Support X.509 authentication， Support802.1xEAP-GTC and MSCHAP V2； 802.1xEAP 1.2 supports a maximum 32-bit key.
Simultaneous Live View	Up to 20 channels
API	ISAPI,SDK,ISUP,OTAP,ONVIF (Profile S, Profile G, Profile T, Profile M)
User/Host	Up to 32 users 3 user levels: administrator, operator, and user
Smooth Streaming	Yes
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, TLS 1.3, TPM 2.0 (FIPS 140-2 level 2), AES128/256
Network Storage	NAS (NFS, SMB/CIFS),Auto Network Replenishment (ANR), Together with high-end memory card, memory card encryption and health detection are supported. Cloud Storage

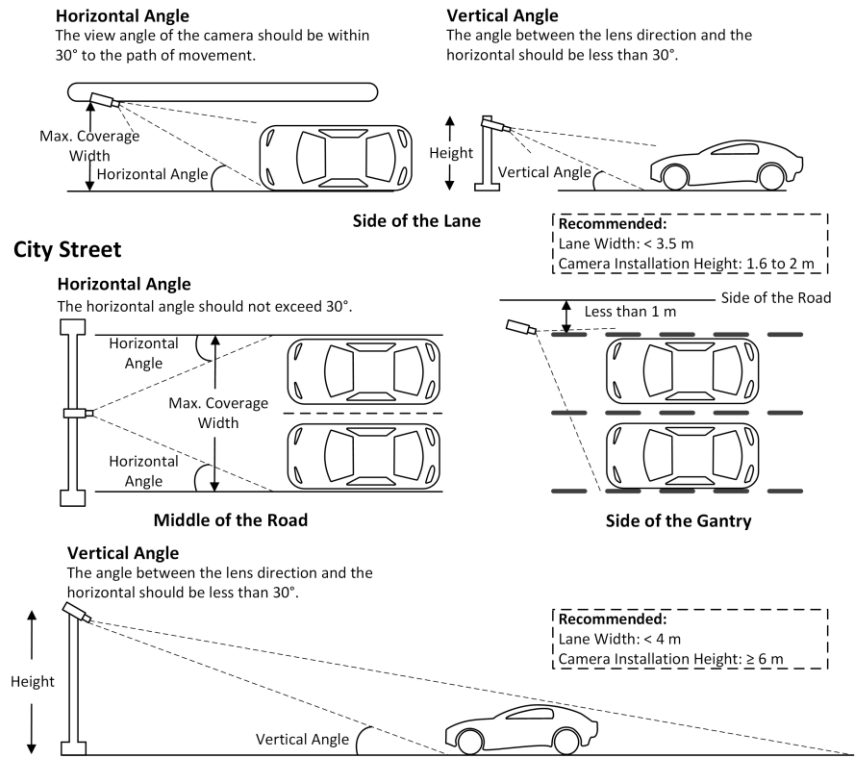
Client	NVMS V3, LTS Connect, XVMS
Web Browser	Plug-in required live view: IE 10, IE 11, Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Edge 89+, Safari 11+, Local service: Chrome 57.0+, Firefox 52.0+, Edge 89+
Mobile Communication	
Frequency	NO
SIM Card Type	NO
Image	
Image Parameters Switch	Yes
Image Settings	Rotate mode,saturation,brightness,contrast,sharpness,white balance,AGC,adjustable by client software or web browser
Day/Night Switch	Day,Night,Auto,Schedule,Alarm Trigger,Video Trigger
Wide Dynamic Range (WDR)	150 dB
Image Enhancement	BLC,HLC,3D DNR,Distortion Correction,Defog
Privacy Mask	8 programmable polygon privacy masks
SNR	≥ 52 dB
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24 bit bmp format.
Image Stabilization	EIS
Interface	
Video Output	1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging)
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 1 TB
Alarm	2 inputs, 2 outputs (max. 24 VDC/24 VAC, 1 A)
Audio	1 input (line in), 3.5 mm connector, three-contact, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), 3.5 mm connector, three-contact, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium, mono sound
RS-485	NO
Reset Key	Yes
Power Output	NO
Wiegand	NO
Event	
Basic Event	Motion detection (support alarm triggering by specified target types (human and vehicle)),video tampering alarm,exception (network disconnected, IP address conflict, illegal login, HDD full, HDD error),glass break detection,scream detection,gunshot and explosion sound detection,crying sound detection
Smart Event	Line crossing detection, intrusion detection, region entrance detection, region exiting detection
Linkage	Upload to FTP/NAS/memory card,notify surveillance center,trigger recording,trigger capture,trigger alarm output,send email,audible warning,HTTP custom alarm
Deep Learning Function	
Perimeter Protection	Line crossing, intrusion, region entrance, region exiting Support alarm triggering by specified target types (human and vehicle) Support combined event alarm triggering
Metadata	Intrusion detection,line crossing detection,region entrance detection,region exiting detection,road traffic

Road Traffic and Vehicle Detection	Smart Function: Support license plate recognition of vehicles and motorcycles (only in checkpoint scenario) Support vehicle attribute detection, including vehicle type, color, brand, driving direction, etc. Support vehicle and non-vehicle counting Blocklist and allowlist: up to 50,000 records LPR Countries/Regions: 5 areas (USA, Europe, Middle East, Asia-Pacific, Africa) and more than 124 countries/regions Accuracy (Under recommended installation and lighting conditions): License plate recognition rate ≥98% Capture rate ≥99% Driving direction accuracy rate ≥98% Vehicle Capture Speed: Front installation in checkpoint scenario: up to 120 km/h Side installation: up to 80 km/h Capture Mode: License Plate and Vehicle Mode, Vehicle Priority Mode Supports license plate recognition in detection area or lane line in the entrance and exit. Supports Reverse License Plate Secondary Detection. If the vehicle is always in the camera view, when it triggers one capture, another capture will be triggered when it backs out of parking lot.
Parking Management	Support distant view mode and close view mode Distant view mode: support status detection on up to 40 parking spaces, parking duration detection, and vacant parking space alarm Close view mode: support status detection on up to 4 parking spaces, license plate recognition, parking timeout alarm, and vacant parking space alarm
DeepVision	Support searching for humans, vehicles, non-motorized vehicles, and animals and uploading the feature information. This function requires use with DeepVision NVR/Servers.
Vehicle Event Detection	Supports Parking Detection and Congestion Detection.
General	
Power	Three-core terminal block, 12 VDC ± 20%, 1.88 A, max. 22.56 W, 24 VAC ± 20%, 1.57 A, max. 21.5 W, PoE: IEEE 802.3at, Type 2, Class 4, 42.5 V to 57 V, 0.53 A to 0.4 A, max. 22.6 W
Material	Aluminum alloy body
Dimension	Ø5.7" × 14.8" (Ø144.1 mm × 374.7 mm)
Package Dimension	16.7" × 7.5" × 7.1" (425 mm × 190 mm × 180 mm)
Weight	Approx. 5.14 lb (2330 g.)
With Package Weight	Approx. 7.42 lb (3364 g.)
Storage Conditions	-40 °C to 65 °C (-40 °F to 149 °F). Humidity 95% or less (non-condensing)
Startup and Operating Conditions	-40 °C to 65 °C (-40 °F to 149 °F). Humidity 95% or less (non-condensing)

Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
General Function	Heartbeat,anti-banding,one-key reset,mirror,password protection,flash log
Heater	Yes
Demist	Yes
Device Management	Supports adding alarm box in the LAN to expand 6 additional input and 6 output alarm interfaces. Supports adding network microphone and speaker.
Approval	
EMC	CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7, KC: KN32: 2015, KN35: 2015
Safety	CB: IEC 62368-1: 2014+A11, CE-LVD: EN 62368-1: 2014/A11: 2017, BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005, LOA: IEC/EN 60950-1
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006
Protection	IP67: IEC 60529-2013,IK10: IEC 62262:2002
Anti-Corrosion Protection	NO
Other	PVC FREE

▪ Installation Recommendation

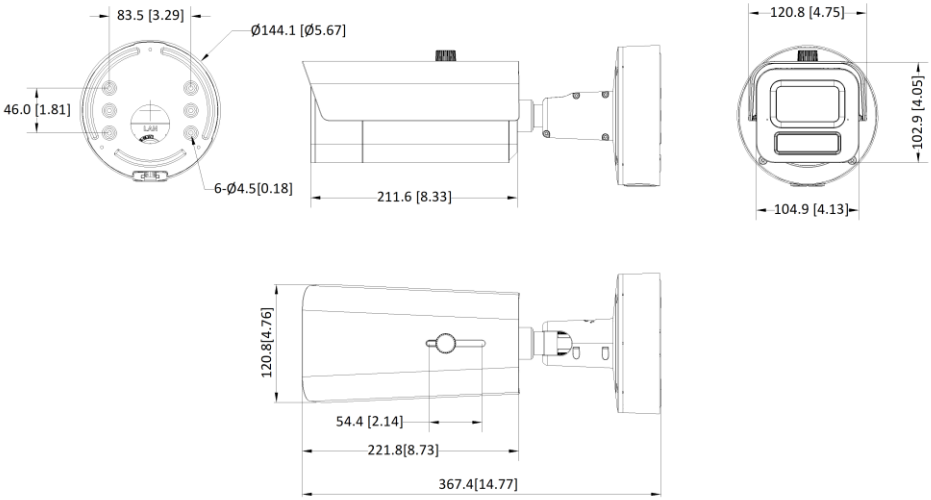
Entrance/Exit



Camera Position	Lens	Height (m)	Suggested Vertical Angle	Suggested Trigger Distance (m)	Max. Coverage Width	Max. Horizontal Angle	Vertical Angle Range	Capture Range (m)
Side of the Lane	2.8 to 12 mm	1.5	20°	4	4.5	30°	15° to 30°	2.5 to 5.5
Side of the Lane	2.8 to 12 mm	2	20°	5.5	4.5	30°	15° to 30°	3.5 to 7.5
Side of the Lane	2.8 to 12 mm	2.5	20°	6.5	4.5	30°	15° to 30°	4.5 to 9
Side of the Lane	8 to 32 mm	3	20°	8	6	30°	15° to 30°	5 to 11
Side of the Lane	8 to 32 mm	4	20°	11	6	30°	15° to 30°	6 to 14
Side of the Lane	8 to 32 mm	5	20°	13.5	6	30°	15° to 30°	8.5 to 18
Side of the Lane	8 to 32 mm	6	20°	16.5	6	30°	15° to 30°	10 to 22
Middle of the Road	8 to 32 mm	3	20°	8	12	30°	15° to 30°	5 to 11
Middle of the Road	8 to 32 mm	4	20°	11	12	30°	15° to 30°	6 to 14
Middle of the Road	8 to 32 mm	5	20°	13.5	12	30°	15° to 30°	8.5 to 18
Middle of the Road	8 to 32 mm	6	20°	16.5	12	30°	15° to 30°	10 to 22

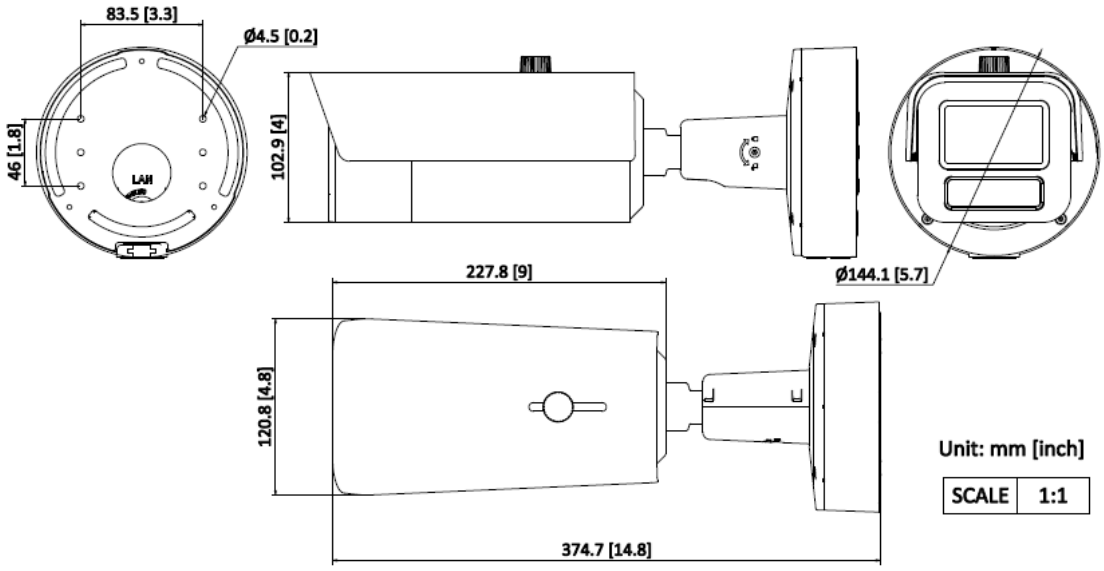
Note: The installation diagram is for reference only. The actual scenario and appearance may vary.

▪ Dimension



Unit: mm [inch]

SCALE	1:1



Unit: mm [inch]

SCALE	1:1

▪ Accessory

▪ Optional

LTB389	LTB388
	

▪ Installation Methods

Vertical Pole Mounting LTB388	Corner Mounting LTB389
