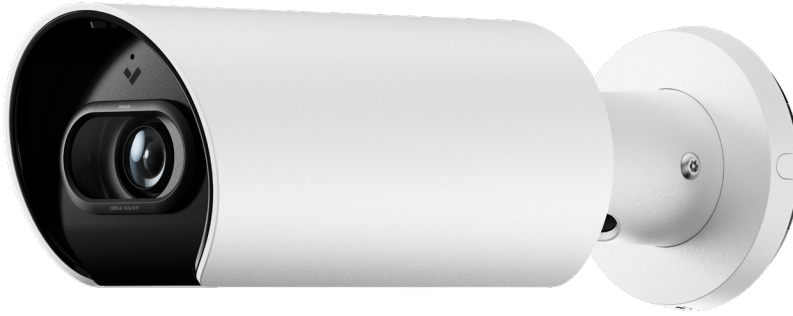


CB53-E Bullet Camera

Detailed 5MP coverage in outdoor environments



Overview

The CB53-E Bullet Camera features a 1 / 2.8" progressive CMOS image sensor, varifocal lens with 2.85x optical zoom, and IR LEDs with 50 meters / 164 feet of range for detailed 5MP coverage in a variety of lighting and weather conditions. The CB53-E includes an onboard CV75S Ambarella processor for advanced analytics like AI-powered unified timeline, AI-powered activity detection alerts, occupancy trends, and person of interest (POI) alerts. In addition, the CB53-E supports license plate recognition (LPR), enabling the device to capture license plates on vehicles traveling at speeds up to 80 mph / 128 kph across as many as three lanes of traffic. The CB53-E is ideal for exterior coverage and perimeter protection, delivering detailed coverage in a visible form factor that can withstand demanding environments. Its LPR capabilities can also grant access at vehicle gates, or be used to monitor vehicle flow and occupancy in a given area.

The CB53-E withstands demanding environments with an IP66/67 weather rating and IK10 impact rating. A built-in visor keeps precipitation out of the camera's field of view, while a proprietary internal heating mechanism combats condensation. Designed with easy and efficient installation top-of-mind, the CB53-E features a single tool install, a latch-based cable gland for easy PoE threading, and LED status light indicators.

Key features

Excellent image quality

- 1 / 2.8" progressive CMOS image sensor
- 5MP resolution
- Varifocal lens with 2.85x optical zoom
- 50 meters / 164 feet of IR range for optimal nighttime viewing

Advanced analytics

- Onboard CV75S Ambarella processor enables advanced analytics
- License plate recognition capabilities capture license plates at speeds up to 80 mph / 128 kph
- AI-powered unified timeline and AI-powered activity detection alerts
- Occupancy trends and LPR zones for operational insights

Hybrid cloud architecture

- Onboard storage and processing for reduced bandwidth consumption and coverage at scale
- 30 - 365 days (256GB - 2TB) of onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage

Streamlined installation

- Latch-based cable gland for easy PoE threading
- Mount plate, junction box adapter, and screw pack included
- Three-LED status light indicator

Durability and weather protection

- IP66/67 weather rating
- IK10 impact rating
- Operability between -40°C to 50°C / -40°F to 122°F



CB53-E

Tech specs

Camera features

Image sensor	1 / 2.8" progressive CMOS	Shutter speed	1 / 30 sec. to 1 / 10,000 sec.
Sensor resolution ¹	5MP (2688 x 1944)	Day/night	IR-cut filter for day and night function
Lens type	Varifocal; motorized zoom (2.86x)	IR-cut filter	Yes
Focal length	2.8mm - 8mm	IR range	50m / 164ft
Aperture	F1.3 - F2.4	Minimum illumination	0.009 lux @ F1.9 (color) 0 lux with onboard IR illuminators on
Iris	P-Iris	Onboard storage	Capacity: from 256GB to 2TB Card: microSD, SDXC
Field of view (after LDC ²)	Horizontal: 109° - 38° (90° - 36°) Vertical: 82° - 29° (73° - 27°) Diagonal: 117° - 47° (103° - 44°)	CPU	Ambarella CV75S88
Camera movement	Tilt: 0° to 90° Pan: 360° Rotation: 360°		

Standard video settings

Compression	H.265, H.264	Historical video settings	Adaptive quality ¹
Frame rate ³	24fps	Live streaming settings	High quality (HQ): up to 3,000 kbps (default) Standard quality (SQ): up to 600 kbps

Standard audio settings

Audio	Not supported
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Power and network

Power input ⁴	With IR: IEEE 802.3at Type 2 PoE+ Without IR: IEEE 802.3at Type 2 PoE+ Extended temperature range: IEEE 802.3at Type 2 PoE+	Connectivity	RJ-45 cable connector for network/PoE connection; 10 / 100 / 1000 Mbps
Power consumption ⁴	With IR: 37-57V, 0.50-0.33A, max 18.6W, typical 15.0W Without IR: 37-57V, 0.23-0.15A, max 8.5W, typical 5.8W Extended temperature range: 37-57V, 0.58-0.37A, max 21.3W, typical 17.8W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio: not supported

1. All our cameras record in "adaptive quality," capturing both standard (SQ) and high quality (HQ) streams. SQ video is stored up to the amount of retention specified by the customer. The amount of HQ video stored on the camera will depend on the amount of motion detected by the camera over time. To learn more, visit our website: <https://docs.verkada.com/docs/adaptive-quality-recording-whitepaper.pdf>.

2. Lens Distortion Correction (LDC) crops the sensor field of view to deliver a rectified, undistorted output image.

3. Frame rate can be adjusted by support.

4. Extended temperature range includes operating temperatures below -10°C/14°F and assumes IR will be enabled.



CB53-E

Tech specs

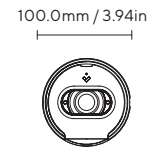
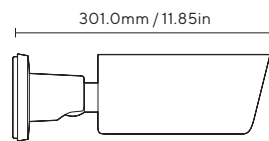
General

Operating temperature	-40°C to 50°C / -40°F to 122°F	LED indicator	System power and status indicator, debug indicator
Humidity	0 to 90%	Warranty	10 years
Certifications	FCC, ICES, CE, UKCA, RCM, VCCI, BIS, KCC, BSMI, UL/IEC62368-1, IP66/67 weather rating, IK10 impact rating	Included accessories	T25 L-key, cable glands, 4x #8 wall screws, 4x wall anchors, 4x M4 machine screws, junction box adapter cover, junction box adapter plate, conduit adapter

Mechanical

Weight	Camera: 1700g / 59.97oz Mount plate: 80g / 2.82oz	Body	Aluminum
Dimensions	L: 301.0mm / 11.85in, Ø: 100.0mm / 3.94in		

Dimensions



Software capabilities

Alerts	Camera status, motion detection, people detection, vehicle detection, person of interest detection, crowd detection, line-crossing detection, loitering detection, AI-powered alerts	Streaming and storage	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
People analytics	People search, attribute search, face search, occupancy trends, motion search, trajectory analysis, selective face blurring, AI-powered search	Sharing and privacy	Live links, live face blur, privacy regions, audit log
Vehicle analytics	Vehicle search, attribute search, motion search, trajectory analysis, selective face blurring, AI-powered search	License plate recognition	License plate of interest alerts, license plate indexing



Ordering information

CB53-E pricing

Model number	MP	WDR	Lens	IR range	Onboard storage	Maximum SQ onboard retention¹	People/ vehicle analytics	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
CB53-256E-HW	5MP	✓	Zoom	50m / 164ft	256GB	30 days	✓	\$1,899	\$1,799
CB53-512E-HW	5MP	✓	Zoom	50m / 164ft	512GB	60 days	✓	\$2,599	\$2,499
CB53-768E-HW	5MP	✓	Zoom	50m / 164ft	768GB	90 days	✓	\$3,299	\$3,199
CB53-1TB-E-HW	5MP	✓	Zoom	50m / 164ft	1TB	120 days	✓	\$3,999	\$3,899
CB53-2TB-E-HW	5MP	✓	Zoom	50m / 164ft	2TB	365 days	✓	\$6,199	\$6,099



Ordering information

Video Security Cloud License Pricing (new/capacity increase)

Model number	Description	US cost (MSRP) ^{USD}	WW cost(MSRP) ^{USD}
LIC-CAM-1Y-CAP	1-year camera license, capacity increase	\$249	\$249
LIC-CAM-3Y-CAP	3-year camera license, capacity increase	\$659	\$659
LIC-CAM-5Y-CAP	5-year camera license, capacity increase	\$1,099	\$1,099
LIC-CAM-10Y-CAP	10-year camera license, capacity increase	\$2,199	\$2,199

Video Security Cloud License Pricing (renewal)

Model number	Description	US cost (MSRP) ^{USD}	WW cost(MSRP) ^{USD}
LIC-CAM-1Y-RNW	1-year camera license, renewal	\$249	\$249
LIC-CAM-3Y-RNW	3-year camera license, renewal	\$659	\$659
LIC-CAM-5Y-RNW	5-year camera license, renewal	\$1,099	\$1,099
LIC-CAM-10Y-RNW	10-year camera license, renewal	\$2,199	\$2,199



Accessories

Recommended accessories

Model number	Description
ACC-CAM-MNT-CBPOLE-1	Bullet camera pole mount ¹
ACC-MNT-POLE-1	Pole mount
ACC-MNT-CORNER-1	Corner mount
ACC-MNT-SJBOX-1	Square junction box
INJ-POE-PLUS	PoE plus (802.3at Type 2) injector, GigE

1. The ACC-CAM-MNT-CBPOLE-1 is only compatible with the CB53-E, CB63-E, CB53-TE, and CB63-TE.