Impeccable Detail at
Distance and in Any Conditions

Overview

Verkada's Bullet Series is designed to withstand harsh conditions and its visible form factor helps deter potential threats. There are two CB52 models: the CB52-E, which has a wide-angle field of view and the CB52-TE, which has a powerful zoom. Additionally, the cameras feature powerful long-range IR LEDs that enable them to produce clear images even at a distance of up to 50 meters at anytime of day.

Bullet cameras are designed for use in exposed outdoor environments. They are constructed with a robust aluminum unibody that encloses hermetically sealed internal electrical components. The camera's design includes a built-in pigtail connector that allows for easy insertion of an ethernet cable without needing to remove the outer body. The external housing offers IP67 protection against dust and heavy rain and IK10 protection against damage from vandals, hail and flying debris.

All 2nd generation Bullet cameras are outfitted with a cutting-edge system on a chip (SOC) which features a dedicated computer vision co-processor. Powered by Ambarella CV25 chipsets, these cameras can accurately capture license plates from vehicles traveling at speeds of up to 80mph / 128kph and do so simultaneously across three lanes. The Bullet Series is the single line of Verkada cameras that supports our License Plate Recognition feature, enabling users to capture and search for specific vehicles by their license plate numbers.

In addition, the Bullet Series has powerful edge processing capabilities that enable advanced computer vision features, including Verkada's People and Vehicle Analytics. These cameras also offer standard capabilities such as data encryption, onboard storage and motion detection, which help organizations rapidly scale their security coverage and enhance situational awareness across multiple locations.

Key features

Enterprise-grade performance

- High-resolution sensors up to 5MP
- License Plate Recognition available only on Bullet cameras
- Advanced edge processing for motion, people and vehicle analytics

Storage and processing

- 256GB–2TB of onboard storage
- Up to 365 days of retention in standard quality
- Low-bandwidth impact, only using 20–50 kbps per camera at rest

Certifications

- IP67 weather rating
- IK10 impact rating
- NDAA compliant

Verkada's hybrid cloud architecture

No NVR or DVRs
Industrial–grade onboard storage saves up to 365 days of continuous video[1]

Easy to scale
Bandwidth friendly and supports thousands of cameras across unlimited locations

Centralized management
Modern platform enables secure access on any device from anywhere in the world

The Reliability of Onboard Storage, With the Accessibility of the Cloud

Simple to install
- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

Easy to use
- Centralized management for secure remote access on any device nearly anywhere
- No training required to access footage and features
- Find, download and share footage from any device

Advantages of cloud–managed solution
- Real–time alerts if cameras fall offline
- SAML–based integration with single–sign on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on unusual activity

Ready for scale
- Bandwidth–friendly, operating at just 20–50 kbps
- Scale to thousands of cameras per location
- No added equipment needed to support additional cameras

No hidden costs
- Hardware includes an industry–leading 10–year warranty
- Automatic firmware updates keep systems secure
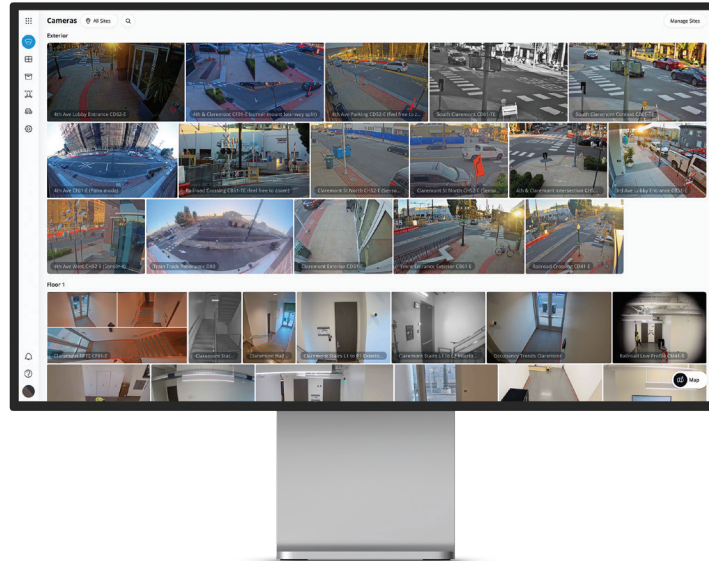- New features and enhancements are added at no additional costs

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1. All our cameras record in "adaptive quality," capturing both standard and high quality streams. Standard quality (SQ) video is stored up to the amount of retention specified by the customer. The amount of high quality 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://www.verkada.com/blog/recording-in-adaptive-quality/

All-in-one Cloud-based Management Software for Verkada Security Cameras

Command, Verkada's cloud-based management software, is designed to deliver simple access and management for all cameras and users across all sites from virtually anywhere in the world. From Command, users can set up new cameras, create sites, manage settings, access live and archived footage, manage users and access the advanced features powered by Verkada's edge-based analytics.

Manage from anywhere

- Remotely access footage and manage sites from any browser or device
- Native apps for iOS, Android and Verkada's VX52 Viewing Station
- Receive alerts for offline cameras, tampering and motion detection

Effortlessly archive and share

- Command licenses include unlimited cloud archiving and 30-days of cloud backup
- Easily export any footage in a shareable MP4 format
- Share Live Links and floorplans with first responders

Scale with simplicity

- Add more devices and sites without complicating the user experience
- Leverage granular roles and permissions to manage users at scale
- Bring cameras online without 3rd party plugins, thick clients or downloads

Stay secure from the ground up

- Stay secure with data encrypted in transit (AES 128) and at rest (AES 256)
- Access cameras securely without port-forwarding, VPNs, or complicated configurations
- Receive automatic firmware updates to stay a step ahead of emerging threats
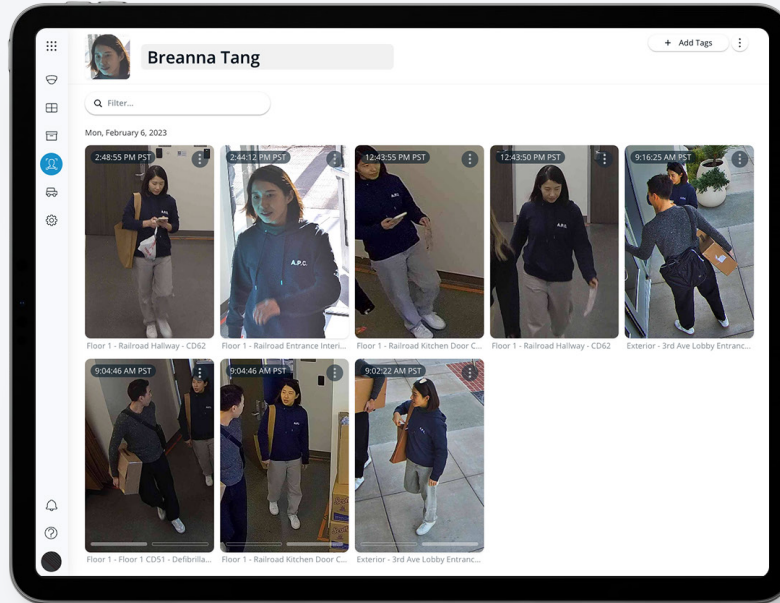
Quickly detect and respond to threats

- Stay informed with customizable, intelligent alerts
- Speed up investigations with intelligent people and face detection
- Search and filter to find vehicles of interest and detected license plates

Verkada's People Analytics

Simplify and Speed Up Investigations
With Intelligent People and Face Detection

Available for all Verkada camera models, People Analytics combines intelligent edge–based video processing with computer vision in the cloud to give users high–quality images of all individuals identified in the scene. Using People Analytics, customers can filter people by various attributes and expedite investigations.

Bring Intelligence to Investigations

Face search

- Quickly search for matching people by selecting an existing face from your organization or by uploading an image

Person history

- Browse through high–resolution snapshots of people detected
- Save snapshots or easily access associated full–res video
- Search for matched people across your entire organization with cross–camera search
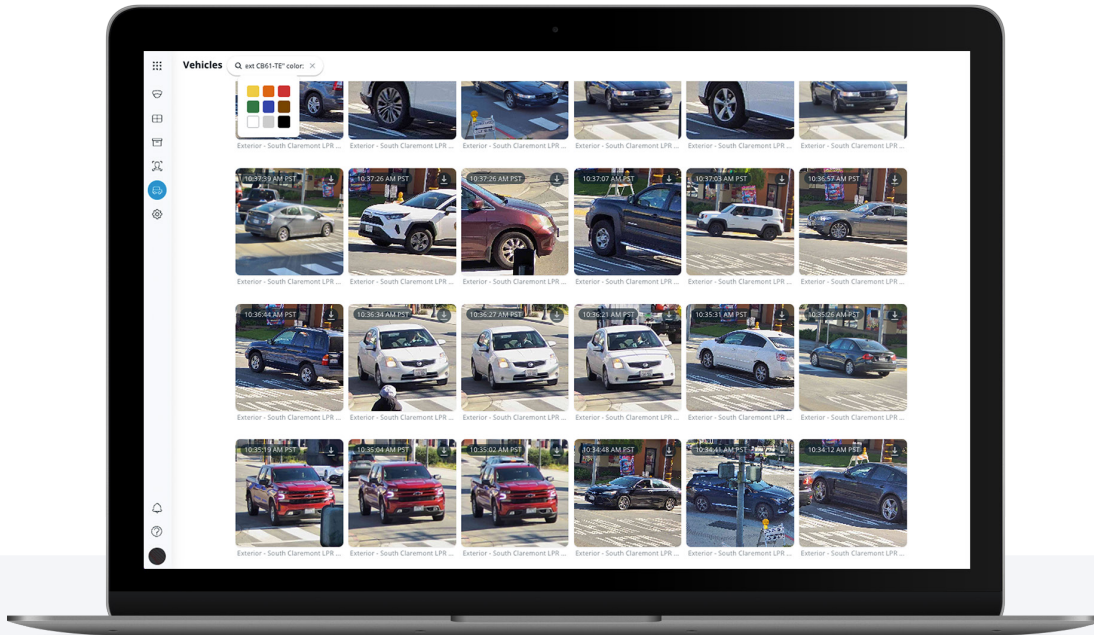
Attribute filters

- Filter based on a range of attributes, including clothing color, gender appearance and facial matches

Person of Interest notifications

- Set up proactive SMS/email notifications for alerting when a matching face is detected by a camera
- Create a Person of Interest by using an uploaded image or an existing face from your organization

Verkada's Vehicle Analytics
Quickly Search and Filter To Find Vehicles of Interest

Vehicle Analytics is a powerful edge–based feature that gives users high–quality images of all vehicles identified in a scene. With Verkada's centralized management platform, customers can filter vehicles by date, time, color and body type.

Find and Filter Vehicles With Ease

Vehicle history

- Browse through high-resolution snapshots of vehicles detected in frame
- Save snapshots or easily access associated full-res video

Investigate anywhere

- Vehicle Analytics is available from any compatible device and can be accessed from virtually anywhere in the world

Cross–camera search

- Easily find similar vehicles of interest across all cameras deployed across all sites
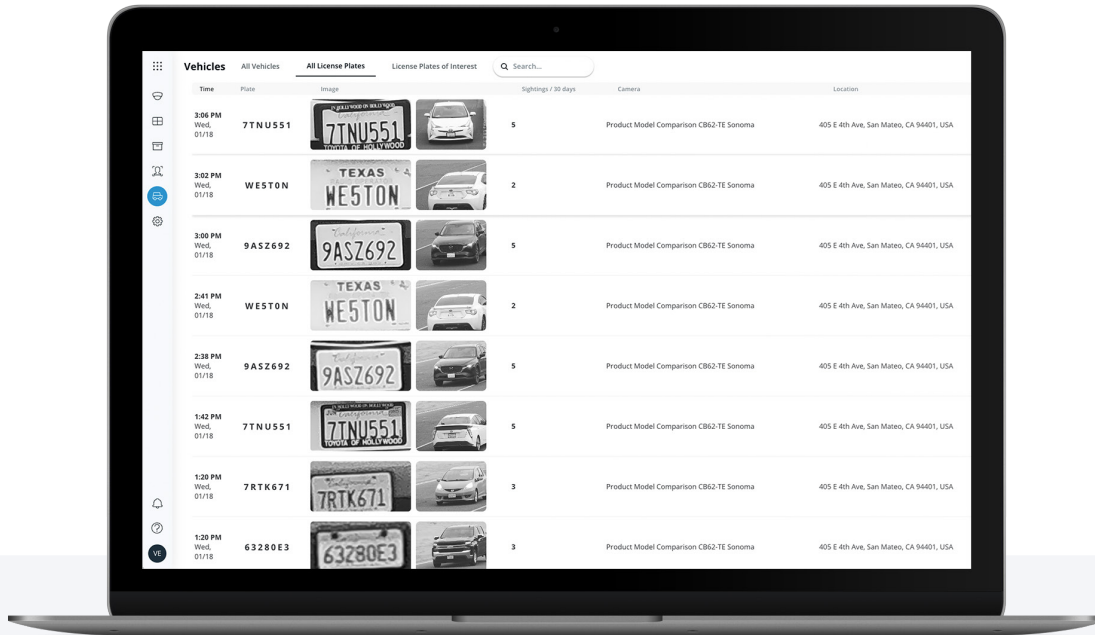- Create and export playback of multiple angles of a vehicle to quickly provide evidence

Attribute filters

- Filter based on a range of attributes, including vehicle color and body type

License Plate Recognition

Enhanced Vehicle Insights with Verkada's Powerful LPR Camera Solution

Verkada's License Plate Recognition (LPR) solution offers intelligent software that allows organizations to monitor license plates in real-time and streamline vehicle investigations. The solution uses Verkada's edge-based processing and computer vision technology to capture license plate images and provide users with a readable and searchable list of license plate numbers. These captures are connected to live or recorded video for added context.

Automatic License Plate Detection

Track fast-moving vehicles and broaden your coverage

Capture license plate characters at speeds of up to 80 mph / 128 kph, cover up to three lanes and recognize international license plates – all with high precision and nearly instant recall*

Maximize your video security capabilities with our LPR cameras

Retain key camera functionality in LPR mode. Easily conduct motion searches, review recorded history and archive footage

Streamline investigations with our user-friendly LPR system

Improve security and control access by adding custom descriptions to each license plate

Find License Plates - even with incorrect or incomplete input

Get more comprehensive search results with our system that provides approximate license plate matches even if the inputted characters are incorrect or if the system is unable to capture all characters

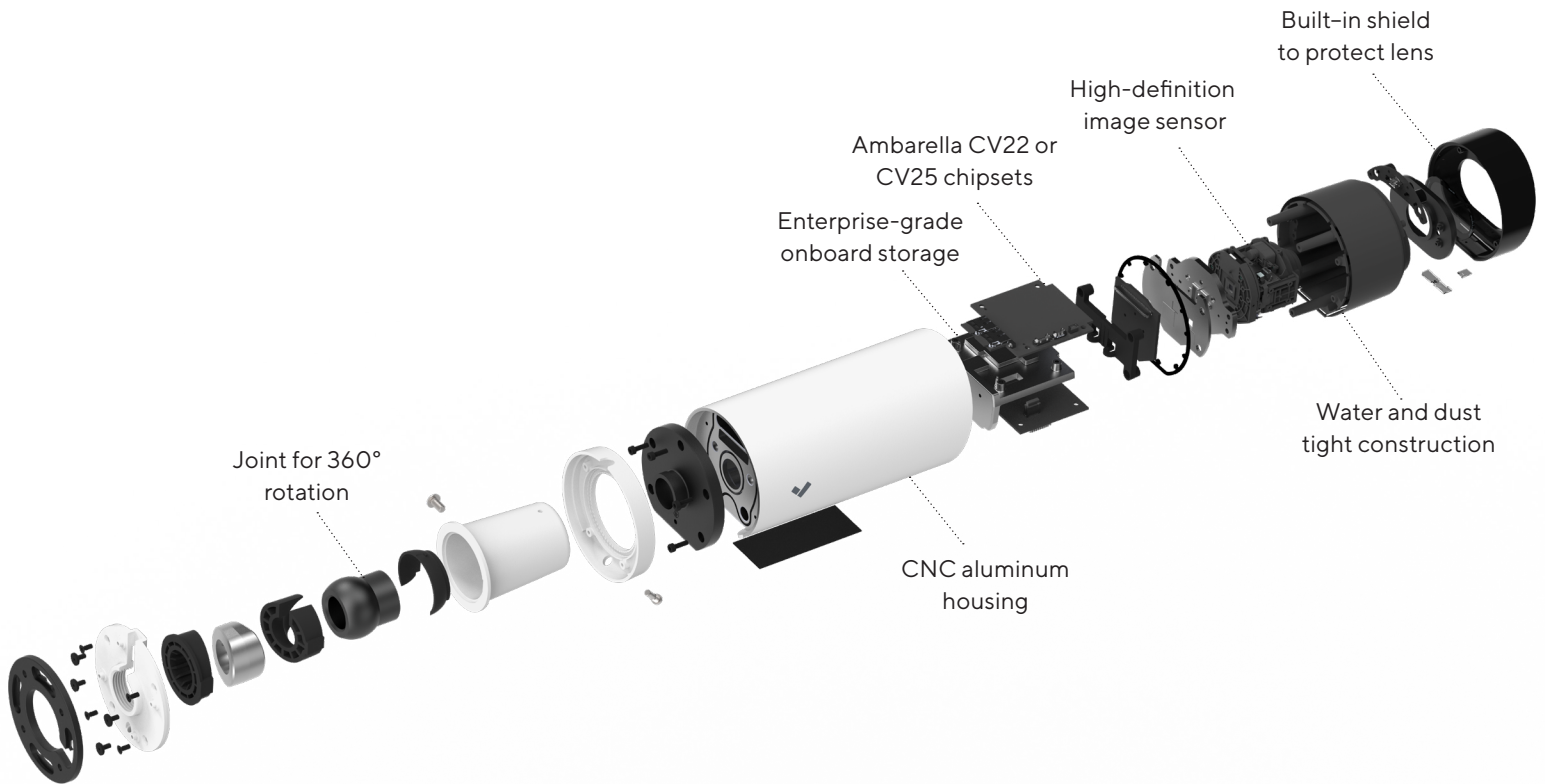**Receive custom License Plate of Interest Alerts**

Send alerts to specific individuals or entire teams when designated license plates are detected across your LPR-enabled cameras

*For best results, install cameras as outlined in the User Guide for License Plate Recognition.

Verkada's Bullet Series hardware

Designed and Constructed With the Highest Level of Precision and Quality

Built–in shield to protect lens

High-definition image sensor

Ambarella CV22 or CV25 chipsets

Enterprise-grade onboard storage

Water and dust tight construction

Joint for 360° rotation

CNC aluminum housing

Protective housing

- Durable CNC aluminum housing able to withstand impacts up to IK10 rating
- Water and dust tight construction with IP67 rating to protect the lens assembly
- Built–in shield to protect lens from obstruction

High-performance hardware

- High-definition image sensor with 5MP ultra-HD resolution and 3x optical zoom
- Advanced processing capabilities with Ambarella CV22 or CV25 chipsets

System functionality

- Enterprise-grade onboard storage capacity for up to 365 days of standard quality footage
- Flexible installation with a rotating joint for 360° rotation

Comparison: wide angle and telephoto
Lens Options for the Bullet Series

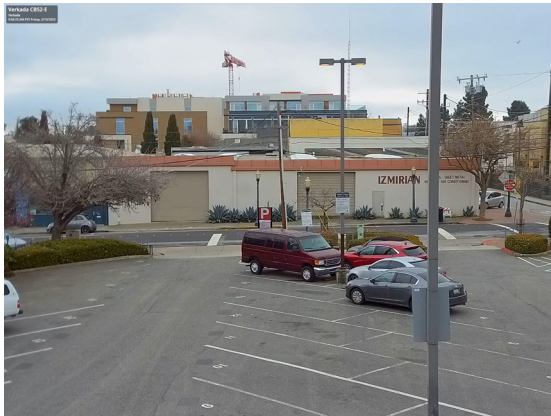|	**Wide Angle**	**Telephoto**
Focal Length	2.8mm–8mm	8mm–20mm

Image at No Zoom

CB52-E at 2.8mm

CB52-TE at 8mm

Image at Full Zoom

CB52-E at 8mm

CB52-TE at 20mm

Bullet Series
Tech Specs

CB52-E

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	**IR Cut Filter**	Yes
Focal Length	2.8mm–8mm	**IR Range**	30m / 98ft
Aperture	F1.3–F2.4	**Minimum Illumination**	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
Iris	P–Iris	**Onboard Storage**	Capacity: From 256GB to 2TB Card: MicroSD, SDXC
Field of View (after LDC[2])	Horizontal: 37° – 95° (36° – 82°) Vertical: 29° – 73° (27° – 63°) Diagonal: 46° – 105° (44° – 95°)	**CPU**	Ambarella CV25S88
Camera Movement	Tilt: 0° to 90° Pan: 360° Rotation: 360°		

Standard video settings

Compression	H.264	**Historical Video Settings**	Adaptive quality[1]
Frame Rate[3]	24fps	**Video Streaming Settings**	High quality (HQ) – 1,500 Kbps Standard quality (SQ) - 300 Kbps

Standard audio settings

Audio	Not supported

Power and network

Power Input[4]	With IR: IEEE 802.3at Type 2 PoE+ Without IR: IEEE 802.3af Type 1 PoE Extended temperature range: IEEE 802.3at Type 2 PoE+	**Connectivity**	RJ-45 cable connector for network/PoE connection; 10/100 Mbps
Power Consumption[4]	With IR: 37-57V, 0.38-0.25A, 14W Without IR: 37-57V, 0.09-0.06A, 3.46W Extended temperature range:37-57V, 0.61-0.37A, 22.57W	**RTSP**	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: No

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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. In temperatures below -8.5°C / 16.7°F, a IEEE 802.3bt Type 3 PoE++ power source is required; even if IR is off.

Bullet Series
Tech Specs

CB52-E

General

Operating Temperature	-40°C to 50°C / -40°F to 122°F	**LED Indicator**	System power and status indicator
Humidity	0 to 90%	**Warranty**	10 Years
Certifications	FCC, ICES, CE, UKCA, RCM, VCCI, BIS, UL/IEC62368-1, IP67 weather rating, IK10 impact rating, NDAA	**Included Accessories**	4x M4x8 screws, 4x TP4x30 mount screws, mount plate, junction box adapter, junction box cover, T25 hand tool

Mechanical

Weight	Camera: 1464g / 51.6oz Mount plate: 33g / 1.16oz	**Body**	Aluminum
Dimensions	Ø: 85 L: 254mm		

Software capabilities

Alerts	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection	**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	**Sharing and Privacy**	Live Link, privacy regions, audit log
Vehicle Analytics	Vehicle search, attribute search	**License Plate Recognition**	License Plate of Interest alerts, license plate indexing

Bullet Series
Tech Specs

Camera features

CB52-TE

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	**IR Cut Filter**	Yes
Focal Length	8mm–20mm	**IR Range**	50m / 164ft
Aperture	F1.5–F2.8	**Minimum Illumination**	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
Iris	P–Iris	**Onboard Storage**	Capacity: From 256GB to 2TB Card: MicroSD, SDXC
Field of View (after LDC[2])	Horizontal: 16° – 35° (15° – 33°) Vertical: 12° – 26° (11° – 25°) Diagonal: 18° – 43° (17° – 41°)	**CPU**	Ambarella CV25S88
Camera Movement	Tilt: 0° to 90° Pan: 360° Rotation: 360°		

Standard video settings

Compression	H.264	**Historical Video Settings**	Adaptive quality[1]
Frame Rate[3]	24fps	**Video Streaming Settings**	High quality (HQ) - 1,500 Kbps Standard quality (SQ) - 300 Kbps

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Audio	Not supported

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Bullet Series
Tech Specs

CB52-TE

General

Operating Temperature	-40°C to 50°C / -40°F to 122°F	**LED Indicator**	System power and status indicator
Humidity	0 to 90%	**Warranty**	10 Years
Certifications	FCC, ICES, CE, UKCA, RCM, VCCI, BIS, UL/IEC62368-1, IP67 weather rating, IK10 impact rating, NDAA	**Included Accessories**	4x M4x8 screws, 4x TP4x30 mount screws, mount plate, junction box adapter, junction box cover, T25 hand tool

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Vehicle Analytics	Vehicle search, attribute search	**License Plate Recognition**	License Plate of Interest alerts, license plate indexing

Professional Video Monitoring for Verkada Cameras

Meet your Virtual Guard

Verkada offers a 24/7 professional monitoring service to review and respond to events from your Verkada cameras

Monitoring is provided by three fully redundant, U.S.–based, UL listed central stations with Five Diamond Certification from The Monitoring Association.

Assess the situation
- While your site is armed, our agents will review video in real time when any camera detects a person
- If the person is deemed a threat to people or property, an alarm will be raised

Make contact
- When an alarm is raised, agents will call and send SMS messages to the predetermined contact list
- If there's a visible emergency in progress, agents will contact local emergency services immediately

Take action
- If a threat is confirmed by someone on the contact list, or if no one can be reached, agents will dispatch local first responders to the site address
- All events can be reviewed, archived and accessed from Command for incident investigation

Alarm license pricing

Professional monitoring of Verkada cameras is included in the Alarm license. The Alarm license includes access to the cloud–managed Verkada Alarms platform and unlimited video review of person detection events. One Alarm license is required for each unique site address, with no limit on monitored cameras.

Alarm License pricing

Model Number	Description	Cost (MSRP) USD
LIC–BA–1Y	1–Year Alarm License	$1,500
LIC–BA–3Y	3–Year Alarm License	$4,500
LIC–BA–5Y	5–Year Alarm License	$7,500
LIC–BA–10Y	10–Year Alarm License	$15,000

Ordering Information

Bullet Series pricing

Model Number	MP[1]	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention[1]	People/ Vehicle Analytics	Cost (MSRP) USD
CB52-256E-HW	5.0MP	✓	Zoom	30m / 98ft	256GB	30 Days	✓	$1,399
CB52-512E-HW	5.0MP	✓	Zoom	30m / 98ft	512GB	60 Days	✓	$1,799
CB52-768E-HW	5.0MP	✓	Zoom	30m / 98ft	768GB	90 Days	✓	$2,199
CB52-2TBE-HW	5.0MP	✓	Zoom	30m / 98ft	2TB	365 Days	✓	$3,899
CB52-256TE-HW	5.0MP	✓	Zoom	50m / 164ft	256GB	30 Days	✓	$1,499
CB52-512TE-HW	5.0MP	✓	Zoom	50m / 164ft	512GB	60 Days	✓	$1,899
CB52-768TE-HW	5.0MP	✓	Zoom	50m / 164ft	768GB	90 Days	✓	$2,299
CB52-2TBTE-HW	5.0MP	✓	Zoom	50m / 164ft	2TB	365 Days	✓	$3,999

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Ordering Information

Video Security Cloud License pricing

Model Number	Description	Cost (MSRP) USD
LIC-1Y	1–Year Camera License	$199
LIC-3Y	3–Year Camera License	$549
LIC-5Y	5–Year Camera License	$899
LIC-10Y	10–Year Camera License	$1,799

Accessories pricing

ACC-MNT-9	Verkada Pole Mount, 2nd Generation	$209
ACC-MNT-10	Verkada Corner Mount	$199
ACC-MNT-11	Verkada Square Junction Box Mount	$89
INJ-POE-PLUS	Verkada PoE Plus (802.3at) Injector, GigE	$129

Viewing Station pricing

VX52-HW	VX52 Viewing Station	$499
LIC-VX-1Y	1–Year Viewing Station License	$499
LIC-VX-3Y	3–Year Viewing Station License	$1,299
LIC-VX-5Y	5–Year Viewing Station License	$1,999
LIC-VX-10Y	10–Year Viewing Station License	$3,999