

CB52-E-F Government-Grade Bullet Camera

Prominent 5MP Coverage in Outdoor Government Environments



Overview

The CB52-E-F government-grade bullet camera features a 1 / 2.8" progressive CMOS image sensor, varifocal lens with 2.86x optical zoom, and IR LEDs with 30 meters / 98 feet of range for detailed 5MP coverage in a variety of lighting and weather conditions. The CB52-E-F also includes FIPS 140-validated encryption and is both TAA and FY2019 NDAA compliant – essential compliance criteria for government-grade deployments. The CB52-E-F is compatible with the standard Verkada Command platform, as well as Command for GovCloud, Verkada's FedRAMP® Moderate Authorized environment.

The CB52-E-F features an onboard CV25S Ambarella processor for advanced analytics like AI-powered search, line crossing, loitering, and person of interest (POI) alerts. The CB52-E-F also supports [license plate recognition](#) (LPR), which enables the device to capture license plates from vehicles traveling at speeds up to 80 mph / 128 kph across as many as three lanes of traffic. With its highly-visible form factor, the CB52-E-F also serves as a deterrent to potential threats, offering prominent coverage for facility entrances and perimeter fences.

The CB52-E-F is constructed with a robust aluminum unibody and withstands extreme conditions with an IP67 weather rating and IK10 impact rating. The camera's design includes a built-in pigtail connector that expedites PoE cabling by removing the need to disassemble the camera itself. Installation and setup are easy to track using the LED status indicator.

Key features

Superior image quality

- 1 / 2.8" progressive CMOS image sensor
- 5MP resolution
- Varifocal lens with 2.86x optical zoom
- 30 meters / 98 feet of IR range for optimal nighttime viewing

Advanced analytics

- Onboard CV25S Ambarella processor enables people and vehicle analytics
- License plate recognition capabilities capture license plates at speeds up to 80 mph / 128 kph
- Person of interest (POI) alerts for proactive monitoring

Durability and weather protection

- Factory-sealed robust aluminum unibody
- IP67 weather rating and IK10 impact rating
- Operability between -40°C to 50°C / -40°F to 122°F

Government-grade security

- Meets the FIPS 140 standard, as validated by NIST
- FedRAMP Ready status at the Moderate impact level as designated by the Federal Risk and Authorization Management Program
- TAA and FY2019 NDAA compliant

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



CB52-E-F

Tech specs

Camera features

Image Sensor	1 / 2.8" Progressive CMOS	Shutter Speed	1 / 30 sec. to 1 / 10,000 sec.
Sensor Resolution¹	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 LDC²)	Horizontal: 99° - 41° (95° - 39°) Vertical: 74° - 30° (74° - 30°) Diagonal: 125° - 50° (110° - 48°)	CPU	Ambarella CV25S88
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 Rate³	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 Input⁴	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 Consumption⁴	With IR: 37-57V, 0.38-0.25A, 14.0W Without IR: 37-57V, 0.09-0.06A, 3.5W Extended temperature range: 37-57V, 0.61-0.37A, 22.6W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: No

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.



CB52-E-F

Tech specs

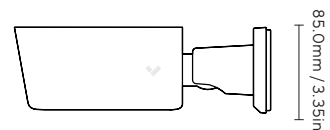
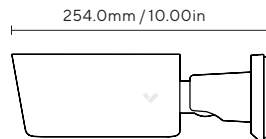
General

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	Included Accessories	4x M4x8 screws, 4x TP4x30 mount screws, mount plate, junction box adapter, junction box cover, T25 hand tool

Mechanical

Weight	Camera: 1464g / 51.64oz Mount plate: 33g / 1.16oz	Body	Aluminum
Dimensions	L: 254.0mm / 10.00in, Ø: 85.0mm / 3.35in		

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, occupancy trends, AI-powered search	License Plate Recognition	License plate of interest alerts, license plate indexing



Ordering information

CB52-E-F pricing

Model number	MP ¹	WDR	Lens	IR range	Onboard storage	Maximum SQ onboard retention ¹	People/vehicle analytics	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
CB52-256E-HW-F	5MP	✓	Zoom	30m / 98ft	256GB	30 Days	✓	\$2,199	\$2,099
CB52-512E-HW-F	5MP	✓	Zoom	30m / 98ft	512GB	60 Days	✓	\$2,899	\$2,799
CB52-768E-HW-F	5MP	✓	Zoom	30m / 98ft	768GB	90 Days	✓	\$3,599	\$3,499
CB52-2TB-E-HW-F	5MP	✓	Zoom	30m / 98ft	2TB	365 Days	✓	\$6,499	\$6,399

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://docs.verkada.com/docs/adaptive-quality-recording-whitepaper.pdf>



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
LIC-CAM-1Y-CAP-G	1-Year Camera License for Government, Capacity Increase	\$299	\$299
LIC-CAM-3Y-CAP-G	3-Year Camera License for Government, Capacity Increase	\$809	\$809
LIC-CAM-5Y-CAP-G	5-Year Camera License for Government, Capacity Increase	\$1,349	\$1,349
LIC-CAM-10Y-CAP-G	10-Year Camera License for Government, Capacity Increase	\$2,699	\$2,699

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
LIC-CAM-1Y-RNW-G	1-Year Camera License for Government, Renewal	\$299	\$299
LIC-CAM-3Y-RNW-G	3-Year Camera License for Government, Renewal	\$809	\$809
LIC-CAM-5Y-RNW-G	5-Year Camera License for Government, Renewal	\$1,349	\$1,349
LIC-CAM-10Y-RNW-G	10-Year Camera License for Government, Renewal	\$2,699	\$2,699



Accessories

Recommended accessories

Model Number	Description
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