

CD52-E-F Government-Grade Outdoor Dome Camera

Reliable 5MP Coverage for Detailed Visibility in Outdoor Government Environments



Overview

The CD52-E-F government-grade outdoor dome camera features a 1 / 2.8" progressive CMOS image sensor, varifocal lens with 2.86x optical zoom, and 30 meters / 98 feet of IR range to provide detailed 5MP coverage in a variety of weather and lighting conditions. The CD52-E-F also includes FIPS 140-validated encryption and is both TAA and FY2019 NDAA compliant – essential compliance criteria for government-grade deployments. The CD52-E-F is compatible with the standard Verkada Command platform, as well as Command for GovCloud, Verkada’s FedRAMP® Moderate Authorized environment.

The CD52-E-F includes an onboard CV25S Ambarella processor for advanced analytics like AI-powered search, line crossing, loitering, and Person of Interest (POI) alerts. The CD52-E-F excels at covering exterior areas of interest with its optical zoom capabilities, providing clear monitoring of environments like loading zones, courtyards, and side entrances.

Certified with IP67 weather and IK10 impact ratings, the CD52-E-F is designed to withstand extreme temperatures and excessive precipitation without compromising aesthetics. Installation and setup are easy to track using the LED status indicator, while the included mount plate makes it straightforward to install the device on exterior walls or flat overhangs. The built-in microphone can also be enabled to capture audio.

Key features

Excellent 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 extensive nighttime visibility

Advanced analytics

- Onboard CV25S Ambarella processor enables people and vehicle analytics
- Person of Interest (POI) alerts for proactive monitoring

Durability and weather protection

- IP67 weather rating and IK10 impact rating
- Operability between -40°C to 50°C / -40°F to 122°F

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

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



CD53-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	2.8-8mm	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: 109° - 39° (91° - 36°) Vertical: 80° - 29° (71° - 28°) Diagonal: 140° - 48° (107° - 44°)	CPU	Ambarella CV75S88
Sensor Movement	Tilt: 60° Pan: 360° Rotation: 350°		

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	Supported	Interface	Built-in microphone
Audio Capacity	One-way audio	Effective Range	5m / 16ft

Power and network

Power Input⁴	With IR: IEEE 802.3at Type 2 PoE+ Without IR: IEEE 802.3af Type 1 PoE Extended temperature range: N/A	Connectivity	RJ-45 cable connector for network/PoE connection; 10 / 100 / 1000 Mbps
Power Consumption⁴	With IR: 37V-57V, 0.39A-0.29A, 16.8W Without IR: 37V-57V, 0.23A-0.15A, 8.5W Extended temperature range: N/A	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: Yes

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.



CD53-F Tech Specs

General

Operating Temperature	-10°C to 50°C / 14°F to 122°F	LED Indicator	System power, status indicator, and debug indicator
Humidity	0 to 90%	Warranty	10 Years
Certifications	FCC, ICES, UKCA CE, RCM, VCCI, IK08 impact rating, Compliant to UL 2043, FIPS 140-2 validated, TAA compliant, FY2019 NDAA compliant	Included Accessories	Screw packs, mount plate with leveler, T10 security driver

Mechanical

Weight	Camera: 963g / 33.97oz Mount plate: 193g / 6.81oz	Body	Aluminum, plastic dome trim
Dimensions	Ø: 155.0mm / 6.10in, H: 109.0mm / 4.29in with mount plate Ø: 155.0mm / 6.10in, H: 101.9mm / 4.01in without mount plate		

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		



Product information

CD52-E-F models

Model Number	MP ¹	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention ¹	People/ Vehicle Analytics
CD52-256E-HW-F	5MP	✓	Zoom	30m / 98ft	256GB	30 Days	✓
CD52-512E-HW-F	5MP	✓	Zoom	30m / 98ft	512GB	60 Days	✓
CD52-768E-HW-F	5MP	✓	Zoom	30m / 98ft	768GB	90 Days	✓
CD52-1TBE-HW-F	5MP	✓	Zoom	30m / 98ft	1TB	120 Days	✓
CD52-2TBE-HW-F	5MP	✓	Zoom	30m / 98ft	2TB	365 Days	✓

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