

CD53-E-F Government-Grade Outdoor Dome Camera

Reliable 5MP Coverage for Extensive Visibility in Outdoor Government Environments



Overview

The CD53-E-F FIPS-validated dome camera provides flexible 5MP coverage in a range of outdoor environments. With a 1 / 2.8" progressive CMOS image sensor, 2.86x optical zoom, and 30 meters / 98 feet of IR range, the CD53-E-F offers detailed and consistent image quality in inclement weather and varying lighting conditions. The CD53-E-F also includes FIPS 140-validated encryption, has FedRAMP Ready status at the Moderate impact level, and is both TAA and FY2019 NDAA compliant – essential compliance criteria for government-grade deployments. The CD53-E-F is compatible with the standard Verkada Command platform, as well as Command hosted in AWS GovCloud.

The CD53-E-F includes an onboard CV75S Ambarella processor to support advanced analytics like AI-powered search, line crossing, loitering, and person of interest (POI) alerts. The CD53-E-F is optimal for covering outdoor areas of interest such as parking lot entrances and exits, loading docks, and alleyways where detailed face and vehicle capture is required at longer distances.

Engineered for challenging outdoor environments, the CD53-E-F's IP66/67 weather and IK10 impact ratings enable the device to withstand harsh conditions. Its in-house design promotes a seamless installation experience, featuring captive screws that remain attached to the mounting plate, a latch-based cable gland for easy PoE threading, a three-LED status light indicator, and a built-in bubble level to help ensure precise alignment.

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 CV75S Ambarella processor enables people and vehicle analytics
- Person of interest (POI) alerts for proactive monitoring

Durability and weather protection

- IP66/67 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-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	2.8-8mm	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-E-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, IK10 impact rating, IP66/67 weather 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: 1137g / 40.1oz Mount plate: 193g / 6.81oz	Body	Aluminum, plastic dome trim
Dimensions	Ø: 155.0mm / 6.10in, H: 111.4mm / 4.39in with mount plate Ø: 155.0mm / 6.10in, H: 104.4mm / 4.11in 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		



Ordering Information

CD53-E-F pricing

Model Number	MP ¹	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention ¹	People/Vehicle Analytics	Cost (MSRP) ^{USD}
CD53-256E-HW-F	5MP	✓	Zoom	30m / 98ft	256GB	30 Days	✓	\$1,699
CD53-512E-HW-F	5MP	✓	Zoom	30m / 98ft	512GB	60 Days	✓	\$2,099
CD53-768E-HW-F	5MP	✓	Zoom	30m / 98ft	768GB	90 Days	✓	\$2,499
CD53-1TBE-HW-F	5MP	✓	Zoom	30m / 98ft	1TB	120 Days	✓	\$2,899
CD53-2TBE-HW-F	5MP	✓	Zoom	30m / 98ft	2TB	365 Days	✓	\$4,199

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	Cost (MSRP) USD
LIC-CAM-1Y-CAP	1-Year Camera License, Capacity Increase	\$219
LIC-CAM-3Y-CAP	3-Year Camera License, Capacity Increase	\$599
LIC-CAM-5Y-CAP	5-Year Camera License, Capacity Increase	\$999
LIC-CAM-10Y-CAP	10-Year Camera License, Capacity Increase	\$1,999
LIC-CAM-1Y-CAP-G	1-Year Camera License for Government, Capacity Increase	\$329
LIC-CAM-3Y-CAP-G	3-Year Camera License for Government, Capacity Increase	\$899
LIC-CAM-5Y-CAP-G	5-Year Camera License for Government, Capacity Increase	\$1,499
LIC-CAM-10Y-CAP-G	10-Year Camera License for Government, Capacity Increase	\$2,999

Video Security Cloud License pricing (Renewal)

Model Number	Description	Cost (MSRP) USD
LIC-CAM-1Y-RNW	1-Year Camera License, Renewal	\$219
LIC-CAM-3Y-RNW	3-Year Camera License, Renewal	\$599
LIC-CAM-5Y-RNW	5-Year Camera License, Renewal	\$999
LIC-CAM-10Y-RNW	10-Year Camera License, Renewal	\$1,999
LIC-CAM-1Y-RNW-G	1-Year Camera License for Government, Renewal	\$329
LIC-CAM-3Y-RNW-G	3-Year Camera License for Government, Renewal	\$899
LIC-CAM-5Y-RNW-G	5-Year Camera License for Government, Renewal	\$1,499
LIC-CAM-10Y-RNW-G	10-Year Camera License for Government, Renewal	\$2,999



Ordering Information

Accessories pricing

Model Number	Description	Cost (MSRP) USD
ACC-CAM-SHIELD-1	Camera Weather Shield	\$79
ACC-MNT-ANGLE-1	Angle Mount	\$149
ACC-MNT-ARM-1	Arm Mount	\$99
ACC-MNT-CJBOX-1	Circle Junction Box Mount	\$109
ACC-MNT-CLIP-1	Tile Clip Mount	\$99
ACC-MNT-CORNER-1	Corner Mount	\$199
ACC-MNT-LBRAC-1	L-Bracket Mount	\$129
ACC-MNT-PEND-1	Pendant Cap Mount	\$69
ACC-MNT-POLE-1	Pole Mount	\$209
ACC-MNT-UPEND-1	Umbrella Pendant Cap Mount	\$79
INJ-POE-PLUS	PoE Plus (802.3at Type 2) Injector, GigE	\$129