

CD42-F Government-Grade Indoor Dome Camera

Reliable 5MP Coverage for Extensive Visibility in Indoor Government Spaces



Overview

The CD42-F government-grade dome camera – the backbone of scalable government-grade deployments – provides reliable 5MP coverage in a variety of indoor environments. With a 1 / 2.8" progressive CMOS image sensor and 15 meters / 49 feet of IR range, the CD42-F ensures consistent image quality in various lighting conditions. The CD42-F also includes FIPS 140-validated encryption and is both TAA and FY2019 NDAA compliant – essential compliance criteria for government-grade deployments. The CD42-F is compatible with the standard Verkada Command platform, as well as Command for GovCloud, Verkada's FedRAMP® Moderate Authorized environment.

The CD42-F includes an onboard CV25S Ambarella processor to support advanced analytics like AI-powered search, line crossing, loitering, and Person of Interest (POI) alerts. The CD42-F excels at covering indoor spaces like hallways and building lobbies, providing extensive coverage with detailed people analytics without sacrificing image quality.

The CD42-F's sleek design and IK08 impact rating enable organizations to deploy a durable, tamper-resistant camera while also keeping aesthetics top-of-mind. Installation is simple and intuitive, and setup is easy to track with an LED status indicator. The included mount plate allows the camera to be mounted to a wall or ceiling without any additional hardware, while the built-in microphone can be enabled to capture audio.

Key features

Excellent image quality

- 1 / 2.8" progressive CMOS image sensor
- 5MP resolution
- 15 meters / 49 feet of IR range for well-defined nighttime viewing

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

Advanced analytics

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

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



CD42-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	Fixed	IR Cut Filter	Yes
Focal Length	2.8mm	IR Range	15m / 49ft
Aperture	F1.6	Minimum Illumination	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
Iris	Fixed	Onboard Storage	Capacity: From 256GB to 2TB Card: MicroSD, SDXC
Field of View (after LDC²)	Horizontal: 97° (78°) Vertical: 71° (63°) Diagonal: 128° (91°)	CPU	Ambarella CV25S88
Sensor Movement	Tilt: 60° Pan: 355° Rotation: 180°		

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 / 15ft

Power and network

Power Input⁴	With IR: IEEE 802.3af Type 1 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 Mbps
Power Consumption⁴	With IR: 37-57V, 0.23-0.15A, 8.6W Without IR: 37-57V, 0.11-0.07A, 4.3W 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.



CD42-F Tech Specs

General

Operating Temperature	-10°C to 50°C / 14°F to 122°F	LED Indicator	System power and status indicator
Humidity	0 to 90%	Warranty	10 Years
Certifications	UL, FCC, CB, CE, BIS, NOM, KCC, IK08 impact rating, FIPS 140-2, TAA compliant	Included Accessories	Setup guide, T10 security torx screwdriver, screw pack, mounting template

Mechanical

Weight	Camera: 608g / 21.45oz Mount plate: 140g / 4.94oz	Body	Aluminum, plastic dome trim
Dimensions	Ø: 146.0mm / 5.75in, H: 104.3mm / 4.11in with mount plate Ø: 146.0mm / 5.75in, H: 99.8mm / 3.93in 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

CD42-F models

Model Number	MP ¹	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention ¹	People/Vehicle Analytics
CD42-256-HW-F	5MP	✓	Fixed	15m / 49ft	256GB	30 Days	✓
CD42-512-HW-F	5MP	✓	Fixed	15m / 49ft	512GB	60 Days	✓
CD42-768-HW-F	5MP	✓	Fixed	15m / 49ft	768GB	90 Days	✓
CD42-1TB-HW-F	5MP	✓	Fixed	15m / 49ft	1TB	120 Days	✓
CD42-2TB-HW-F	5MP	✓	Fixed	15m / 49ft	2TB	365 Days	✓

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>