CD53 Indoor Dome Camera

Reliable 5MP Coverage for Detailed Monitoring of Indoor Spaces

Overview

The CD53 dome camera provides 5MP coverage in a range of indoor environments. With a 1 / 2.8" progressive CMOS image sensor, 2.86x optical zoom, and 30 meters / 98 feet of IR range, the CD53 offers consistent image quality in most lighting conditions at long distances. The CD53 includes an onboard CV75S Ambarella processor to support advanced analytics like AI-powered search, Occupancy Trends, line crossing, loitering, and Person of Interest (POI) alerts. The CD53 excels at covering large and busy spaces such as lobbies and high-ceiling atriums, retail outlets, and major transportation hubs – serving as a critical component of enterprise deployments that require detailed face and vehicle capture at distance.

Installation of the CD53 is straightforward and efficient, and setup is easy to monitor with a three-LED status indicator. The included mount plate includes captive screws and a built-in bubble level for precise wall or ceiling installations. The CD53's ground-up design and IK08 impact rating provide a premium, tamper-resistant camera that combines durability with aesthetics.

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 enhanced people and vehicle analytics
- AI-powered search and AI-powered alerts
- Occupancy Trends for operational insights

Hybrid cloud architecture

- Onboard storage and processing for reduced bandwidth consumption and coverage at scale
- 30 - 365 days (256GB - 2TB) onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage

Streamlined installation

- Captive screws in mounting plate
- Three-LED light status indicator
- Built-in bubble level
- Physical and digital mute switches to easily enable or disable audio

CD53
Tech Specs

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	2.8-8mm	**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 LDC[2])	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 Rate[3]	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 Input[4]	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 Consumption[4]	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.
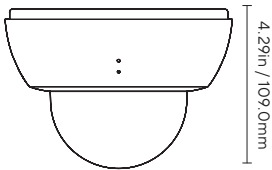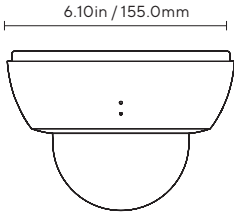
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General

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, NOM, VCCI, IK08 impact rating, Compliant to UL 2043	**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

6.10in / 155.0mm

4.29in / 109.0mm

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		