

CY53-E Two-Camera Multisensor

Bidirectional 5MP coverage
from a single install point



Overview

The CY53-E two-camera multisensor features two independent and adjustable 5MP image sensors which together support expansive coverage from a single install point. A pair of 1 / 2.8" progressive CMOS image sensors, each with 2.55x optical zoom and 98 feet / 30 meters of IR range, enable clear and consistent image quality in varied lighting conditions. The CY53-E includes a CV72S Ambarella processor to support advanced analytics like [AI-powered search](#), [AI-powered unified timeline](#), [occupancy trends](#), line crossing, loitering, and person of interest (POI) alerts. The camera is optimal for covering bidirectional hallways, warehouse aisles, wide entryways, and building lobbies – offering double the visibility of a single-sensor camera and, with configurable sensors, minimizing blind spots while only requiring a single PoE+ cable and IP address.

The CY53-E's robust metal housing, IP66/67 weather rating, and IK10 impact rating enable the device to withstand extreme temperatures and weather. Constructed with easy and efficient installation top-of-mind, the CY53-E features captive screws that remain attached to the mounting plate, a latch-based cable gland for easy PoE threading, a three-LED light status indicator, a built-in bubble level, and alignment presets that guide each lens into optimal positions for common viewing angles.

Key features

Excellent image quality

- Two 1 / 2.8" progressive CMOS image sensors
- 5MP resolution
- Two varifocal lenses with 2.55x optical zoom per lens
- 98 feet / 30 meters of IR range for nighttime viewing

Expansive coverage

- Individually adjustable and repositionable sensor heads
- Total field of view up to 180°

Streamlined installation

- Single PoE+ cable required
- Latch-based cable gland
- Alignment presets for optimal lens positioning
- Physical and digital mute switches to easily enable or disable audio

Durability and weather protection

- Robust metal housing
- IP66/67 weather rating
- IK10 impact rating
- Operability between -40°F to 122°F / -40°C to 50°C

Hybrid cloud architecture

- Onboard storage and processing for reduced bandwidth consumption and coverage at scale
- 30 - 365 days (512GB - 4TB) of onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage

Advanced analytics

- Onboard CV72S Ambarella processor enables people and vehicle analytics
- AI-powered search and AI-powered alerts
- Occupancy trends for operational insights



CY53-E

Tech specs

Camera features

Image sensor	2 x 1 / 2.8" progressive CMOS	Shutter speed	1 / 30 sec. to 1 / 10,000 sec.
Sensor resolution ¹	2 x 5MP (2592 x 1944)	Day/night	IR-cut filter for day and night function
Lens type	Varifocal; motorized zoom	IR-cut filter	Yes
Focal length	3.18mm - 8.12mm	IR range	98ft / 30m; non-adjustable
Aperture	F1.9 - F3.24	Minimum illumination	0.009 lux @ F1.9 (color) 0 lux with IR illuminators on
Iris	N/A	Onboard storage	Capacity: from 512GB to 2TB Card: microSD, SDXC
Field of view (after LDC ²)	Horizontal: 103° - 40° (93° - 38°) Vertical: 75° - 30° (72° - 29°) Diagonal: 138° - 49° (114° - 47°)	CPU	Ambarella CV72S66
Sensor movement	Tilt: +0° to 60° for each lens from upright Pan: +/- 90° for each lens Rotation: +/- 90° for each lens		

Standard video settings

Compression	H.265, H.264	Historical video settings	Adaptive quality ¹
Frame rate ³	24fps / sensor	WDR technology	True WDR, dual exposure
Live streaming settings (per head)	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	16ft / 5m

Power and network

Power Input ⁴	IEEE 802.3at Type 2 PoE+	Connectivity	RJ-45 cable connector for network/PoE connection; 10 / 100 / 1000 Mbps
Power consumption ⁴	With IR: 37-57V, 0.60-0.45A, 25.5W Without IR: 37-57V, 0.37-0.24A, 13.5W Extended temperature range: 37-57V, 0.60-0.45A, 25.5W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 4 (2 per camera head) Audio: supported

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 14°F / -10°C and assumes IR will be enabled.



CY53-E

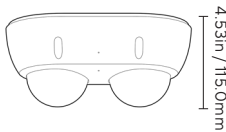
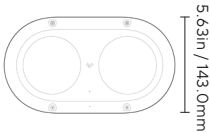
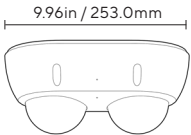
Tech specs

General

Operating temperature	-40°F to 122°F / -40°C to 50°C	LED indicators	System power and status indicator, debug indicator
Humidity	0 to 90%	Warranty	10 years
Certifications	FCC, ICES, CE, UKCA, RCM, NTRA, NOM, VCCI, KCC, UL/cUL/IEC 62368-1, IEC 62471, IP66/67 weather rating, IK10 impact rating, FY2019 NDAA compliant	Included accessories	T10 security screwdriver, mount plate with leveler, 4x wall mount screws, 4x wall anchors, desiccant, conduit adapter, large cable gland

Mechanical

Weight	Camera: 70.55oz / 2000g Mount plate: 14.11oz / 400g	Body	Aluminum
Dimensions	L: 9.96in / 253.0mm W: 5.63in / 143.0mm H: 4.53in / 115.0mm with mount plate H: 4.33in / 110.0mm without mount plate		



Software capabilities

Alerts ⁵	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 ⁵	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
People analytics ⁵	People search, attribute search, face search, occupancy trends, motion search, trajectory analysis, selective face blurring, AI-powered search	Sharing and privacy ⁵	Live links, live face blur, privacy regions, audit log
Vehicle analytics ⁵	Vehicle search, attribute search, motion search, trajectory analysis, occupancy trends, AI-powered search		

5. All the listed features can be enabled independently for each camera head.



Ordering information

CY53-E 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}
CY53-512E-HW	2 x 5MP	✓	Zoom	98ft / 30m	512GB	30 Days	✓	\$2,299	\$2,199
CY53-1TBE-HW	2 x 5MP	✓	Zoom	98ft / 30m	1TB	60 Days	✓	\$3,699	\$3,599
CY53-1P5TBE-HW	2 x 5MP	✓	Zoom	98ft / 30m	1.5TB	90 Days	✓	\$5,099	\$4,999
CY53-2TBE-HW	2 x 5MP	✓	Zoom	98ft / 30m	2TB	120 Days	✓	\$6,499	\$6,399
CY53-4TBE-HW	2 x 5MP	✓	Zoom	98ft / 30m	4TB	365 Days	✓	\$10,899	\$10,799

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 software license pricing (new/capacity increase)²

Model number	Description	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
LIC-CAM-MLT2-1Y-CAP	Verkada 1-Year Two-Camera Multisensor License, Capacity Increase	\$419	\$419
LIC-CAM-MLT2-3Y-CAP	Verkada 3-Year Two-Camera Multisensor License, Capacity Increase	\$1,199	\$1,199
LIC-CAM-MLT2-5Y-CAP	Verkada 5-Year Two-Camera Multisensor License, Capacity Increase	\$1,999	\$1,999
LIC-CAM-MLT2-10Y-CAP	Verkada 10-Year Two-Camera Multisensor License, Capacity Increase	\$3,999	\$3,999

Video Security software license pricing (renewal)²

Model number	Description	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
LIC-CAM-MLT2-1Y-RNW	Verkada 1-Year Two-Camera Multisensor License, Renewal	\$419	\$419
LIC-CAM-MLT2-3Y-RNW	Verkada 3-Year Two-Camera Multisensor License, Renewal	\$1,199	\$1,199
LIC-CAM-MLT2-5Y-RNW	Verkada 5-Year Two-Camera Multisensor License, Renewal	\$1,999	\$1,999
LIC-CAM-MLT2-10Y-RNW	Verkada 10-Year Two-Camera Multisensor License, Renewal	\$3,999	\$3,999

2. Two-camera multisensors require a separate license from other Verkada Cameras.



Accessories

Recommended accessories

Model Number	Description
ACC-MNT-ARM-1	Verkada Arm Mount
ACC-MNT-CORNER-1	Verkada Corner Mount
ACC-MNT-POLE-1	Verkada Pole Mount
ACC-MNT-XLARM-1	Verkada Large Arm Mount
ACC-MNT-YJBOX-1	Verkada Two-Camera Multisensor Junction Box Mount
ACC-MNT-YPEND-1	Verkada Two-Camera Multisensor Pendant Cap Mount
ACC-POE-90W-AU	Verkada 90W PoE++ (802.3bt Type 4) Injector, GigE, Indoor, Australia Type I Plug
ACC-POE-90W-EU	Verkada 90W PoE++ (802.3bt Type 4) Injector, GigE, Indoor, Europe Type F Plug
ACC-POE-90W-NA	Verkada 90W PoE++ (802.3bt Type 4) Injector, GigE, Indoor, North America Type B Plug
ACC-POE-90W-UK	Verkada 90W PoE++ (802.3bt Type 4) Injector, GigE, Indoor, United Kingdom Type G Plug
INJ-POE-PLUS	Verkada PoE+ (802.3at) Injector, GigE