

CH52-E Four-Camera Multisensor

Expansive 5MP visibility
from a single install point



Overview

The CH52-E four-camera multisensor features four independent sensors, providing expansive coverage from a single install point. Each sensor includes a 1 / 2.8" progressive CMOS image sensor, varifocal lens with 2.08x optical zoom, and 98 feet / 30 meters of IR range to provide clear and consistent image quality in any lighting condition. The CH52-E includes four onboard CV25S Ambarella processors to support advanced analytics like AI-powered search, [occupancy trends](#), line crossing, loitering, and person of interest (POI) alerts. The CH52-E excels at covering hallway intersections and exterior corners of buildings, providing comprehensive visibility and eliminating blind spots while only requiring a single PoE++ cable.

With sealed interior components and IP66 weather and IK10 impact ratings, the CH52-E withstands extreme temperatures and excessive precipitation, allowing it to be deployed in a variety of interior or exterior environments. Installation and setup are easy to track using the LED status indicator, while the need for a single cable run minimizes port use.

Key features

Excellent image quality

- Four 1 / 2.8" progressive CMOS image sensors
- 20MP (4 x 5MP) of collective resolution
- Four varifocal lenses with 2.08x optical zoom each
- 98 feet / 30 meters of IR range for nighttime viewing

Expansive coverage

- Individually adjustable and repositionable sensor heads
- Total field of view up to 328°

Advanced analytics

- Four onboard CV25S Ambarella processors enable people and vehicle analytics
- AI-powered search and AI-powered alerts
- Occupancy trends for operational insights

Durability and weather protection

- Sealed interior components
- IP66 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 (1TB - 8TB) of onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage

Easy installation

- Single PoE++ cable required
- Mounting template and screws included
- LED light status indicator



CH52-E

Tech specs

Camera features

Image sensor	4 x 1 / 2.8" progressive CMOS	Shutter speed	1 / 5 sec. to 1 / 32,000 sec.
Sensor resolution¹	4 x 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	3.7mm - 7.7mm	IR range	98ft / 30m; non-adjustable
Aperture	F1.9 - F2.9	Minimum illumination	0.009 lux @ F1.9 (color) 0 lux with IR illuminators on
Iris	N/A	Onboard storage	Capacity: from 1TB to 8TB Card: microSD, SDXC
Field of view (after LDC²)	Horizontal: 89° - 37° (82° - 35°) Vertical: 65° - 29° (60° - 26°) Diagonal: 99° - 46° (92° - 43°)	CPU	4 x Ambarella CV25S88
Sensor movement	Tilt: +0°-105° for each lens from horizon 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 rate³	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	Not supported
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Power and network

Power input⁴	With IR: IEEE 802.3bt Type 3 PoE++ Without IR: IEEE 802.3at Type 2 PoE+ Extended temperature range: IEEE 802.3bt Type 3 PoE++	Connectivity	RJ-45 cable connector for network/PoE connection; 10 / 100 Mbps
Power consumption⁴	With IR: 43-57V, 0.65-0.49A, 27.7W Without IR: 43-57V, 0.46-0.34A, 19.5W Extended temperature range: 43-57V, 0.91-0.68A, 38.7W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 8 (2 per camera head) Audio: not 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.



CH52-E

Tech specs

General

Operating temperature	-40°F to 122°F / -40°C to 50°C	LED indicator	System power and status indicator
Humidity	0 to 90%	Warranty	10 years
Certifications	FCC, ICES, CE, UKCA, RCM, VCCI, KCC, NOM, CB, NTRA, ICASA, UL/cUL/IEC 62368-1, IK10 impact rating, IP66 weather rating, FY2019 NDAA compliant	Included accessories	IR cover, mounting template, 3 mounting screws, 3 wall anchors, 2 desiccants, T10 security screwdriver, offset wrench

Mechanical

Weight	Camera: 102.29oz / 2900g Mount plate: 18.91oz / 536g	Body	Aluminum, plastic dome trim
Dimensions	Ø: 10.82in / 275.0mm, H: 4.65in / 118.0mm with mount plate Ø: 10.51in / 267.0mm, H: 4.49in / 114.0mm without mount plate		

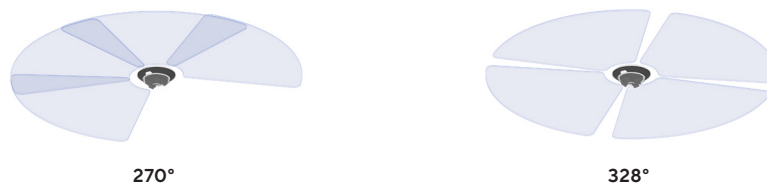
Dimensions



Software capabilities

Alerts⁵	Camera status, motion detection, people detection, vehicle detection, person of interest detection, crowd detection, line-crossing detection, loitering detection, AI-powered alerts	Streaming and storage⁵	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
People analytics⁵	People search, attribute search, face search, occupancy trends, motion search, trajectory analysis, selective face blurring, AI-powered search	Sharing and privacy⁵	Live links, live face blur, privacy regions, audit log
Vehicle analytics⁵	Vehicle search, attribute search, motion search, trajectory analysis, occupancy trends, AI-powered search		

Coverage examples



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



Ordering information

CH52-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}
CH52-1TBE-HW	4 x 5MP	✓	Zoom	98ft / 30m	1TB	30 Days	✓	\$4,099	\$3,849
CH52-2TBE-HW	4 x 5MP	✓	Zoom	98ft / 30m	2TB	60 Days	✓	\$6,299	\$6,049
CH52-4TBE-HW	4 x 5MP	✓	Zoom	98ft / 30m	4TB	120 Days	✓	\$10,699	\$10,449
CH52-8TBE-HW	4 x 5MP	✓	Zoom	98ft / 30m	8TB	365 Days	✓	\$19,499	\$19,249

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-MLT4-1Y-CAP	Verkada 1-Year Four-Camera Multisensor License, Capacity Increase	\$699	\$699
LIC-CAM-MLT4-3Y-CAP	Verkada 3-Year Four-Camera Multisensor License, Capacity Increase	\$1,949	\$1,949
LIC-CAM-MLT4-5Y-CAP	Verkada 5-Year Four-Camera Multisensor License, Capacity Increase	\$3,249	\$3,249
LIC-CAM-MLT4-10Y-CAP	Verkada 10-Year Four-Camera Multisensor License, Capacity Increase	\$6,499	\$6,499

Video Security software license pricing (renewal)²

Model number	Description	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
LIC-CAM-MLT4-1Y-RNW	Verkada 1-Year Four-Camera Multisensor License, Renewal	\$699	\$699
LIC-CAM-MLT4-3Y-RNW	Verkada 3-Year Four-Camera Multisensor License, Renewal	\$1,949	\$1,949
LIC-CAM-MLT4-5Y-RNW	Verkada 5-Year Four-Camera Multisensor License, Renewal	\$3,249	\$3,249
LIC-CAM-MLT4-10Y-RNW	Verkada 10-Year Four-Camera Multisensor License, Renewal	\$6,499	\$6,499

2. Four-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-PEND-1	Verkada Pendant Cap Mount
ACC-MNT-POLE-1	Verkada Pole Mount
ACC-MNT-XLARM-1	Verkada Large Arm 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