

## 4 Independent Cameras From a Single Install Point



### Overview

Verkada's CH52-E multisensor camera features four camera heads, providing unrivaled coverage from a single install point. The four 5MP sensors collectively capture 20MP of resolution. Each camera head can be repositioned and each lens can be zoomed up to 2.5x, allowing for comprehensive coverage while maintaining image detail. Each camera head is powered by a dedicated computer vision processor to provide the image quality, stability and analytics performance of four independent cameras.

The CH52-E is built to withstand extreme conditions. Sealed interior components have full IP66 rated protection against dust particles and heavy rain. The robust exterior housing provides IK10 rated protection against direct impacts from vandals, hail and flying debris. Like all Verkada cameras, the CH52-E works out-of-the-box without any additional configurations. The CH52-E only requires a single PoE++ network port, making it the most efficient choice for scaling coverage while minimizing cable runs and port use.

### Key features

#### Coverage

- 4 x 5MP image sensors to capture every detail
- 2.5x motorized zoom
- 30m / 98ft IR illuminators for nighttime visibility
- Individually adjustable and repositionable heads

#### Storage and processing

- 1TB-8TB of onboard storage
- Up to 365 days of retention in standard quality
- Four next generation computer vision processors for edge analytics
- Low-bandwidth impact, only using 80-200 kbps (20-50 kbps per head)
- Edge processing for motion, people and vehicle analytics

#### Certifications

- IK10 impact rating
- IP66 weather rating
- NDAA compliant

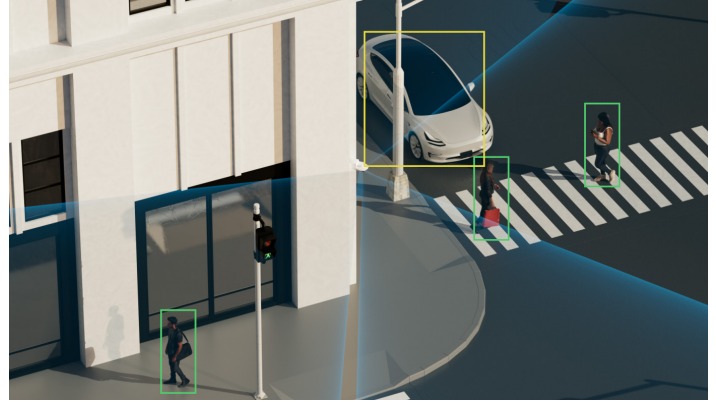


## Key use cases



### Interiors

Offices, hotel lobbies, retail centers, grocery stores, manufacturing floors, stadiums



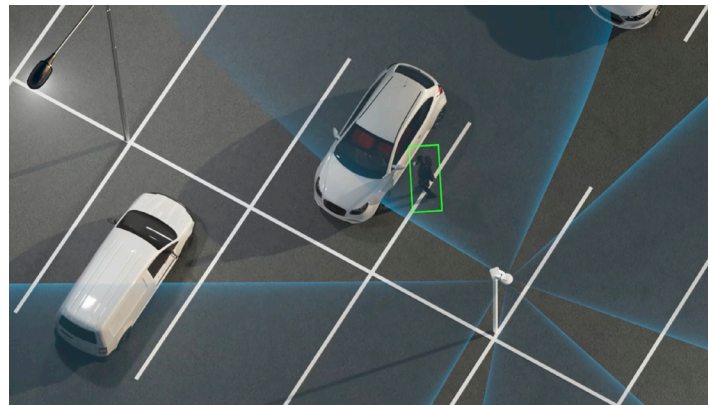
### Intersections

Roadways, hallways, warehouse traffic monitoring



### Corners

Campuses, airports, police departments, building exteriors



### Open spaces

Garages, car dealerships, parking lots, parks



## Verkada's hybrid cloud architecture



### No NVR or DVRs

Industrial-grade onboard storage saves up to 365 days of continuous video<sup>1</sup>

### Easy to scale

Bandwidth friendly and supports thousands of cameras across unlimited locations

### Centralized management

Modern platform enables secure access on any device from anywhere in the world

## The Reliability of Onboard Storage, With the Accessibility of the Cloud

### Simple to install

- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

### Easy to use

- Centralized management for secure remote access on any device nearly anywhere
- No training required to access footage and features
- Find, download and share footage from any device

### Advantages of cloud-managed solution

- Real-time alerts if cameras fall offline
- SAML-based integration with single-sign on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on unusual activity

### Ready for scale

- Bandwidth-friendly, operating at just 20–50 kbps per head
- Scale to thousands of cameras per location
- No added equipment needed to support additional cameras

### No hidden costs

- Hardware includes a 10-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs

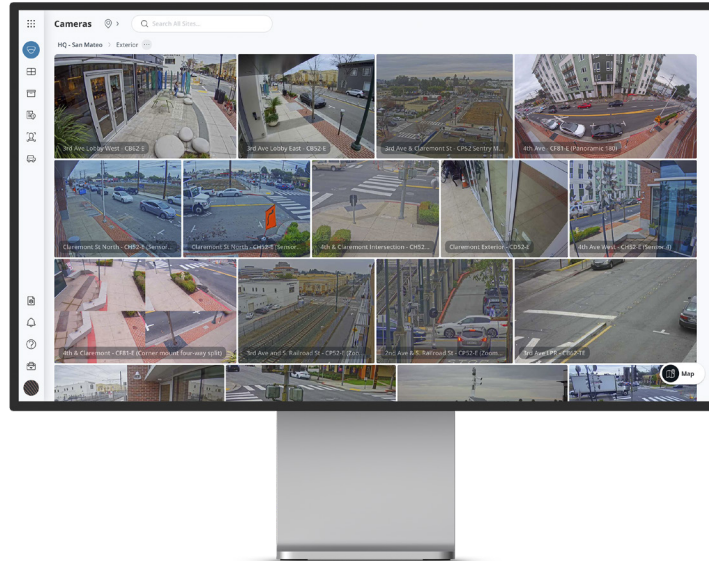


1. All our cameras record in "adaptive quality," capturing both standard and high quality streams. Standard quality (SQ) video is stored up to the amount of retention specified by the customer. The amount of high quality video stored on the camera will depend on the amount of motion detected by the camera over time. To learn more, visit our website: <https://docs.verkada.com/docs/adaptive-quality-recording-whitepaper.pdf>



## Verkada Command overview

# All-in-one Cloud-based Management Software for Verkada Security Cameras



Command, Verkada’s cloud-based management software, is designed to deliver simple access and management for all cameras and users across all sites from virtually anywhere in the world. From Command, users can set up new cameras, create sites, manage settings, access live and archived footage, manage users and access the advanced features powered by Verkada’s edge-based analytics.

### Manage from anywhere

- Remotely access footage and manage sites from any supported browser or device
- Native apps for iOS, Android and Verkada’s VX52 Viewing Station
- Receive alerts for offline cameras, tampering and motion detection

### Effortlessly archive and share

- Command licenses include unlimited cloud archiving and 30-days of cloud backup
- Easily export any footage in MP4 format and allow recipients to verify its authenticity
- Share Live Links and floorplans with first responders

### Scale with simplicity

- Add more devices and sites without complicating the user experience
- Leverage granular roles and permissions to manage users at scale
- Bring cameras online without 3rd party plugins, thick clients or downloads

### Stay secure from the ground up

- Stay secure with data encrypted in transit (AES 128) and at rest (AES 256)
- Access cameras securely without port-forwarding, VPNs, or complicated configurations
- Receive automatic firmware updates to stay a step ahead of emerging threats

### Quickly detect and respond to threats

- Stay informed with customizable, intelligent alerts
- Speed up investigations with intelligent people and face detection
- Search and filter to find vehicles of interest and detected license plates

### Streamline incident management

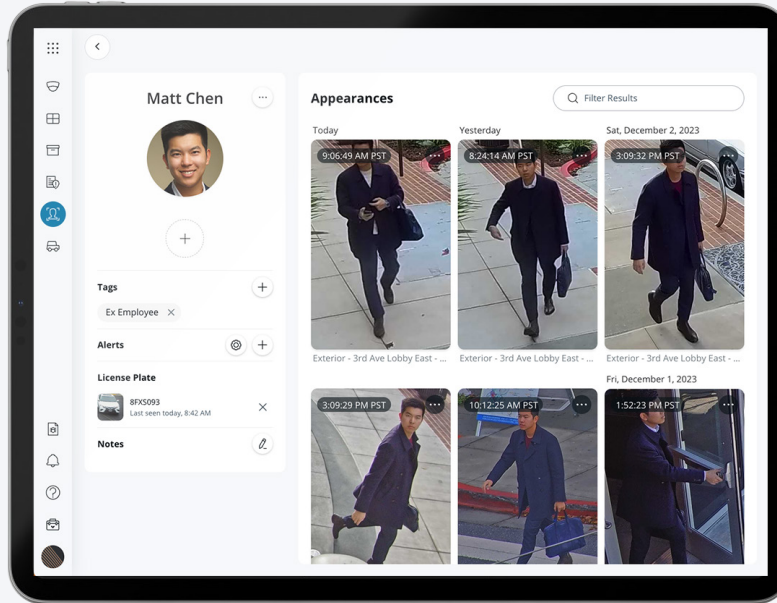
- Consolidate relevant footage to easily review and annotate
- Share incidents while controlling permissions and retaining audit logs
- Export incidents in a zip file and auto-generate incident reports



# Verkada's People Analytics

## Simplify and Speed Up Investigations

### With Intelligent People and Face Detection



People Analytics combines intelligent edge-based video processing with computer vision in the cloud to give users high-quality images of all individuals identified in the scene. Using People Analytics, customers can filter people by various attributes and expedite investigations.

## Bring Intelligence to Investigations

### Face search

- Quickly search for matching people by selecting an existing face from your organization or by uploading an image

### Person history

- Browse through high-resolution snapshots of people detected
- Save snapshots or easily access associated full-res video
- Search for matched people across your entire organization with cross-camera search

### Occupancy Trends

- Estimate how many people cross a customizable digital line on a video feed
- Monitor usage of a space to optimize business operations

### Attribute filters

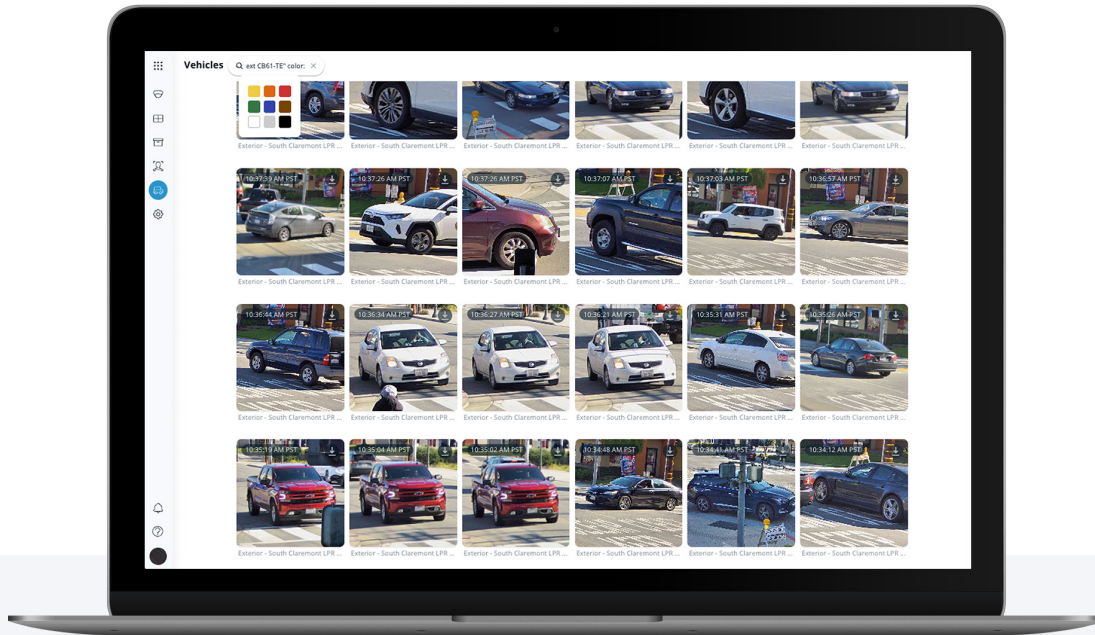
- Filter based on a range of attributes, including clothing color, gender appearance and facial matches

### Person of Interest notifications

- Create a Person of Interest using an uploaded photo or existing face in Command
- Set up proactive SMS/email alerts for when a matching face is detected by a camera
- Link License Plates of Interest to a Person of Interest



# Verkada's Vehicle Analytics Quickly Search and Filter To Find Vehicles of Interest



Vehicle Analytics is a powerful edge-based feature that gives users high-quality images of all vehicles identified in a scene. With Verkada's centralized management platform, customers can filter vehicles by date, time, color and body type.

## Find and Filter Vehicles With Ease

### Vehicle history

- Browse through high-resolution snapshots of vehicles detected in frame
- Save snapshots or easily access associated full-res video

### Investigate anywhere

- Vehicle Analytics is available from any compatible device and can be accessed from virtually anywhere in the world

### Attribute filters

- Filter based on a range of attributes, including vehicle color and body type

### Cross-camera search

- Easily find similar vehicles of interest across all cameras deployed across all sites
- Create and export playback of multiple angles of a vehicle to quickly provide evidence

### License Plate Recognition (LPR)

- Leverage a dual-camera system to provide LPR coverage, monitor a live LPR feed and search by plate number
- Receive License Plate of Interest alerts via SMS or email with an image or link to review the associated footage



## Multisensor camera Tech Specs



CH52-E

### Camera features

<b>Image Sensor</b>	4 x 1 / 2.8" Progressive CMOS	<b>Shutter Speed</b>	1 / 5 sec. to 1 / 32,000 sec.
<b>Sensor Resolution<sup>1</sup></b>	4 x 5MP (2688 x 1944)	<b>Day/Night</b>	IR-cut filter for day and night function
<b>Lens Type</b>	Varifocal; motorized zoom	<b>IR Cut Filter</b>	Yes
<b>Focal Length</b>	3.7-7.7mm	<b>IR Range</b>	30m / 98ft; non-adjustable
<b>Aperture</b>	F1.9 - F2.9	<b>Minimum Illumination</b>	0.009 lux @ F1.9 (color) 0 lux with IR Illuminators on
<b>Iris</b>	N/A	<b>Onboard Storage</b>	Capacity: From 1TB to 8TB Card: MicroSD, SDXC
<b>Field of View (after LDC<sup>2</sup>)</b>	Horizontal: 37°-89° (35°-82°) Vertical: 29°-65° (26°-60°) Diagonal: 46°-99° (43°-92°)	<b>CPU</b>	4 x Ambarella CV25S88
<b>Sensor Movement</b>	Tilt: +0°-105° for each lens from horizon Pan: +/- 90° for each lens Rotation: +/- 90° for each lens		

### Standard video settings

<b>Compression</b>	H.265, H.264	<b>Historical Video Settings</b>	Adaptive quality <sup>1</sup>
<b>Frame Rate<sup>3</sup></b>	24fps / sensor	<b>WDR Technology</b>	120dB dynamic range, true WDR, dual exposure
<b>Live Streaming Settings (Per Head)</b>	High quality (HQ): Up to 3,000 Kbps (default) Standard quality (SQ): Up to 600 Kbps		

### Standard audio settings

<b>Audio</b>	Not supported
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### Power and network

<b>Power Input<sup>4</sup></b>	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++	<b>Connectivity</b>	RJ-45 cable connector for network/PoE connection; 10/100 Mbps
<b>Power Consumption<sup>4</sup></b>	With IR: 42.5 - 57V, 0.65-0.49A, 27.69W Without IR: 42.5 - 57V, 0.46-0.34A, 19.54W Extended temperature range: 42.5 - 57V, 0.91 - 0.68A, 38.68W	<b>RTSP</b>	RTSP 1.0 RFC 2326 Max concurrent streams: 8 (2 per camera head) Audio support: No

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 -8.5°C / 16.7°F and assumes IR will be enabled.



# Multisensor camera Tech Specs



CH52-E

## General

<b>Operating Temperature</b>	-40°C to 50°C / -40°F to 122°F	<b>LED Indicator</b>	System power and status indicator
<b>Humidity</b>	0 to 90%	<b>Warranty</b>	10 Years
<b>Certifications</b>	FCC, ICES-003, UL/IEC 62368-1, CE, RCM, UKCA, VCCI, BIS, IK10 impact rating, IP66 weather rating	<b>Included Accessories</b>	IR cover, mounting template, 3 mounting screws, 3 wall anchors, 2 desiccants, T10 security screwdriver, offset wrench

## Mechanical

<b>Weight</b>	Camera: 2,900g / 102.3oz Mount plate: 536g / 18.9oz	<b>Body</b>	Aluminum, plastic dome trim
<b>Dimensions</b>	Ø: 275mm / 10.82in, H: 118mm / 4.65in with mount plate Ø: 267mm / 10.51in, H: 114mm / 4.49in without mount plate		

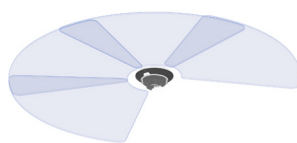
## Dimensions



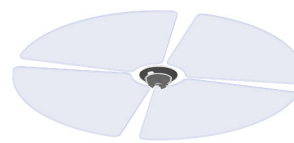
## Software capabilities

<b>Alerts<sup>5</sup></b>	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection, line-crossing detection, loitering detection	<b>Streaming and Storage<sup>5</sup></b>	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
<b>People Analytics<sup>5</sup></b>	People search, attribute search, face search, Occupancy Trends, motion search, trajectory analysis	<b>Sharing and Privacy<sup>5</sup></b>	Live Links, live face blur, privacy regions, audit log
<b>Vehicle Analytics<sup>5</sup></b>	Vehicle search, attribute search, motion search, trajectory analysis, Occupancy Trends		

## Coverage examples



270°



328°

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





## Professional video monitoring Stop Crimes in Progress

Verkada's professional video monitoring solution enables organizations to detect and respond to threats as they happen, using only their cameras.



### Meet your virtual guard

Professional video monitoring allows organizations to turn their Verkada cameras into a complete, monitored alarm solution - no extra hardware required. Simply select which cameras should be monitored, set an arm/disarm schedule and choose how monitoring agents should respond to a threat, such as remote talk down or notifying police.

### How it works

#### Detect unusual activity

- Choose which cameras should be monitored and when. An alarm is triggered if a person is detected while the system is armed.
- Other Verkada devices, including intrusion sensors, access control and environmental sensors, can also be configured as alarm triggers.

#### Assess the threat

- Monitoring agents immediately review camera footage to determine if there is a threat to people or property.\*
- Video-verification helps to ensure priority police response and screens out false alarms.

#### Take action

- If there is a legitimate threat, the monitoring agent will immediately notify your call list.
- Agents can also request emergency dispatch or talk down to intruders through an on-site speaker..
- If there is no visible threat, the agent will dismiss the incident.

### Key benefits



#### Detect intruders before they enter your building

Protect your perimeter with cameras that can detect intruders the minute they set foot on your property.



#### No alarm panel or sensors needed

Use cameras as intrusion sensors and get all the benefits of a monitored alarm system without any extra hardware.



#### Cut back on expensive in-person guards

Cameras detect intruders and agents can take action, reducing the need for live guards patrolling or watching cameras.



#### Help get priority police response

Video-verified alarms help the police know that they should respond quickly and helps you avoid false alarm fines.



#### Take action against intruders immediately

In addition to notifying law enforcement, our agents can talk down to intruders through a powerful speaker to scare them off.

\*Professional monitoring with video verification is included in the LIC-BA Standard Alarm License or the LIC-BV Premium Alarm License. One License is required per location, and includes up to 50 monitored cameras. Monitoring is provided by fully redundant, US-based, UL-listed central monitoring stations with Five Diamond Certification from The Monitoring Association. Certified monitoring centers are also available in Canada, the UK and Australia.



## Ordering Information

### Multisensor pricing

Model Number	MP <sup>1</sup>	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention <sup>1</sup>	People/Vehicle Analytics	Cost (MSRP) <sup>USD</sup>
CH52-1TBE-HW	20MP	✓	Zoom	30m / 98ft	1TB	30 Days	✓	\$3,599
CH52-2TBE-HW	20MP	✓	Zoom	30m / 98ft	2TB	60 Days	✓	\$4,899
CH52-4TBE-HW	20MP	✓	Zoom	30m / 98ft	4TB	120 Days	✓	\$7,499
CH52-8TBE-HW	20MP	✓	Zoom	30m / 98ft	8TB	365 Days	✓	\$12,699

### Video Security Cloud License pricing<sup>2</sup>

Model Number	Description	Cost (MSRP) <sup>USD</sup>
LIC-CH52-1Y	1-Year CH52-E Multisensor Camera License	\$599
LIC-CH52-3Y	3-Year CH52-E Multisensor Camera License	\$1,649
LIC-CH52-5Y	5-Year CH52-E Multisensor Camera License	\$2,699
LIC-CH52-10Y	10-Year CH52-E Multisensor Camera License	\$5,399

### Accessories pricing

ACC-MNT-2	Mounting Arm Kit for Pendant Cap (ACC-MNT-8)	\$89
ACC-MNT-8	Pendant Cap Mount Kit	\$69
ACC-MNT-9	Pole Mount, 2nd Generation	\$209
ACC-MNT-CORNER-1	Corner Mount	\$199
ACC-POE-60W	PoE++ (802.3bt) Injector, GigE	\$149

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2. The CH52-E requires a separate license from other Verkada Cameras.



# Ordering Information

## Viewing Station pricing

Model Number	Description	Cost (MSRP) USD
VX52-HW	VX52 Viewing Station	\$499
LIC-VX-1Y	1-Year Viewing Station License	\$499
LIC-VX-3Y	3-Year Viewing Station License	\$1,299
LIC-VX-5Y	5-Year Viewing Station License	\$1,999
LIC-VX-10Y	10-Year Viewing Station License	\$3,999