

Total Control at Your Fingertips With PTZ Technology



Overview

Verkada’s CP52-E pan-tilt-zoom (PTZ) camera gives operators control over the camera’s field of view, enabling dynamic monitoring of large areas. Equipped with a 5MP image sensor, the CP52-E boasts broad 360-degree pan and 220-degree tilt capabilities. Operators can use this camera to investigate moving subjects and capture comprehensive footage as events unfold across vast spaces, all with remarkably low-latency (<500 milliseconds). Additionally, the CP52-E features 28x optical zoom to capture finer details of the scene. With an infrared range (IR) of 100m / 328ft, the CP52-E delivers excellent detail even in low-light conditions.

The CP52-E camera is designed with a turret style to optimize usability. It incorporates advanced motor mechanisms that allow for quick and seamless transitions between positions, providing operators with smooth and effective control. The turret design also enhances its range of motion, offering more degrees of freedom and effectively reducing blind spots.

The CP52-E is IP66 weather rated for highly-exposed outdoor installations. The exterior housing provides IK10 protection against direct impacts from vandals, hail and flying debris. Like all Verkada cameras, the CP52-E works out-of-the-box without any additional configurations. All CP52-E cameras come with a 5-year warranty.

Key features

Coverage

- 5MP high-definition image resolution
- 28x optical zoom
- 360° pan, 220° tilt
- 100m / 328ft IR illumination

Storage and processing

- 512GB-3TB of onboard storage
- Up to 180 days of retention in standard quality
- Edge processing for motion, people and vehicle analytics

Sentry Mode

- Automatically capture zoomed high quality images of people
- Specify region of interest for image capture



The PTZ You've Always Wanted



Stay in control, with your favorite tools

With the CP52-E, we put the power of control in your hands. Compatible with the tools that you use and love, you can effortlessly steer the camera from your preferred devices:

- **Mobile Convenience:** Take control using the Verkada app on your iOS or Android mobile phone. Adjust the camera's position with ease, wherever you are.
- **Gaming Controls;** Connect your Xbox controller or favorite joystick to navigate the camera effortlessly. Experience the familiarity and precision of gaming controls while getting the perfect shot.
- **Computer Compatible:** Whether you're on Mac or Windows, use your trusty keyboard and mouse to command the CP52-E with precision. Seamlessly integrate camera control into your existing setup.



Seize the moment with low-latency streaming and instant controls

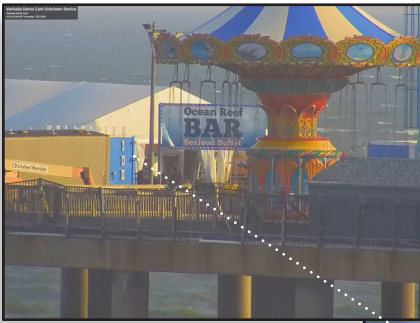
Our cutting-edge technology ensures your commands are met with immediate response, boasting an impressive (<500 milliseconds) latency. Experience smooth and precise controls that allow you to dynamically adjust to scenes as they unfold – all in real-time.

See what you missed with Sentry Mode

With our innovative Sentry Mode, the CP52-E becomes your vigilant eye, automatically detecting people entering its field of view. The camera smoothly pans, tilts and zooms in to capture high-resolution imagery, helping ensure you never miss a critical moment.



1257.2ft / 383.2m¹



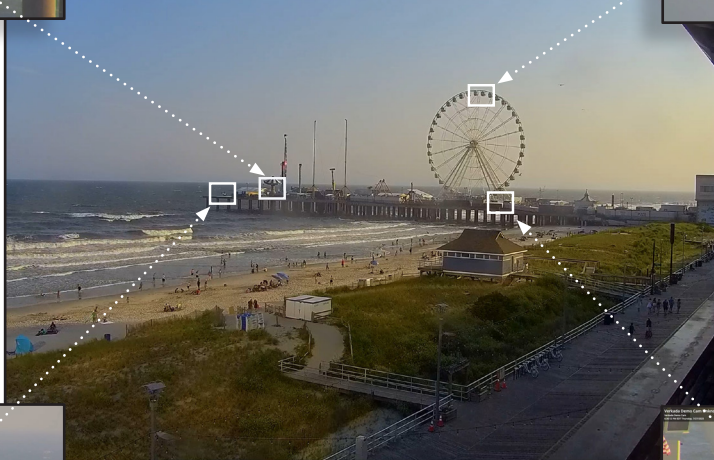
1050.0ft / 320.0m¹



1386.2ft / 422.5m¹



1022.0ft / 311.5m¹



Best optics in the Verkada portfolio

Lens: The CP52-E camera is equipped with a varifocal lens with motorized zoom functionality, providing the convenience to remotely adjust the focal length and zoom level. This allows operators to precisely move the camera and focus on specific areas or subjects.

Image sensor: Similar to other cameras in the Verkada portfolio, including Domes and Bullets, the CP52-E boasts a 1/2.8" Progressive CMOS image sensor.

Focal length: The CP52-E offers a focal length range of 4.94mm (F1.3) to 148.24mm (F4.8), allowing it to capture scenes with a wide range of magnification levels. At the shorter end of 4.94mm (F1.3), the camera delivers a broader field of view, ideal for comprehensive monitoring. When zoomed in to 148.24mm (F4.8), the camera provides magnification capabilities, enabling the capture of fine details even at a distance.

Shutter speed: The CP52-E's shutter speed spans from 1/30 second to 1/10,000 second, offering a wide range of options for different scenarios. This versatility enables the camera to excel in various conditions, from low-light environments where capturing details is critical to situations involving fast-moving action that require crisp snapshots.

1. Distances were approximated using the measurement tool on Google Earth. Images are real screenshots from Command.



Example use cases

Cities and Municipalities



Stadiums

Help ensure crowd safety during concerts, events, or sports games. Capture the action and oversee seating areas, entrances and critical points.



Parking lots

Scan wide areas with extensive coverage at key locations, including entrances, exits and high-traffic areas.



Transportation hubs

Increase public safety by monitoring platforms, ticketing areas and waiting zones. Use facial recognition and investigate suspicious activities.



Parks

Provide a safer environment for park-goers, deter vandalism and illegal behavior and monitor wildlife.



Example use cases

Logistics



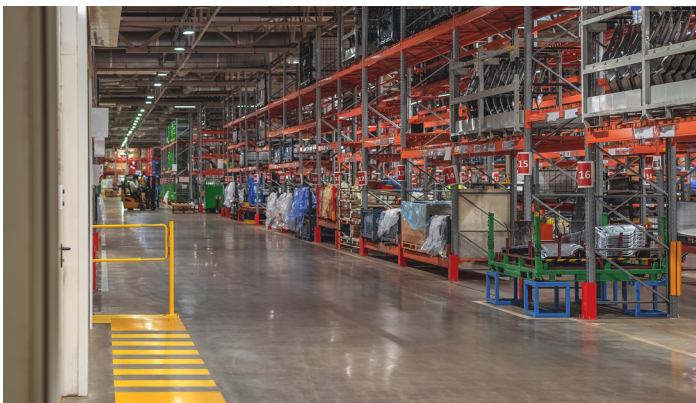
Train yards

Monitor train yard operations, tracks and storage areas to safeguard assets, detect unauthorized access and respond to security breaches promptly.



Storage lots

Gain a bird's eye view of sweeping areas from poles or towers. Monitor equipment, infrastructure and detect suspicious activities.



Warehouses

Secure entry points, loading docks, storage areas and inventory in warehouses and distribution centers.



Loading docks

Observe loading dock operations, prevent unauthorized access and deter theft or tampering of goods in transit.



Verkada's hybrid cloud architecture



No NVR or DVRs

Industrial-grade onboard storage saves up to 180 days of continuous video¹

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
- Scale to thousands of cameras per location
- No added equipment needed to support additional cameras

No hidden costs

- Hardware includes a 5-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs

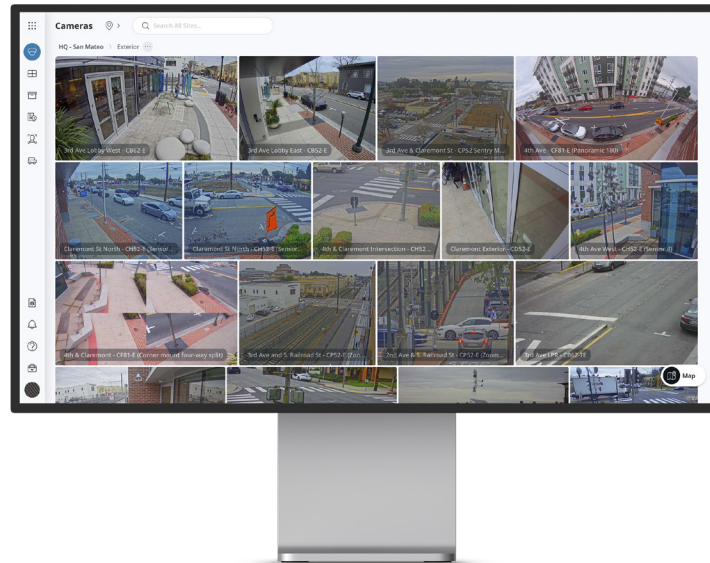


1. All our cameras record in "adaptive quality," capturing both standard and high quality streams. Standard quality (SQ) video is stored up to the amount of retention specified by the customer. The amount of high quality video stored on the camera will depend on the amount of motion detected by the camera 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

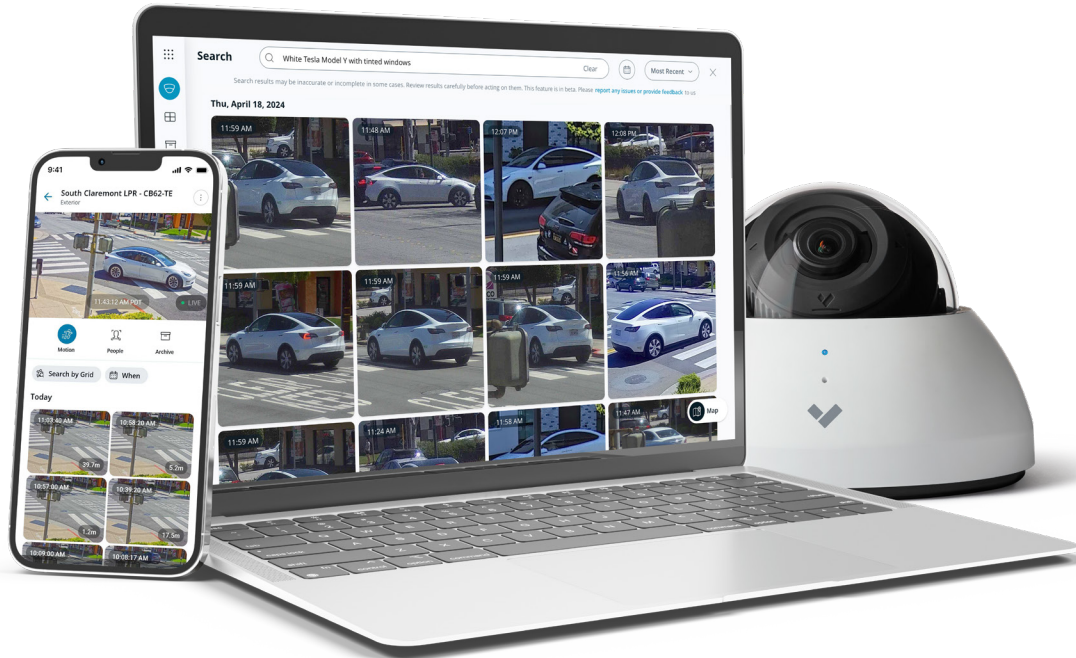
Streamline incident management

- 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 AI-Powered Search¹

Use Natural Language to Conduct Investigations Directly Relevant to Your Organization



Verkada's latest AI-powered search in Command gives users the ability to search for a near-limitless number of attributes of people and vehicles across their organization. With AI-powered search, users can leverage their own words in a freeform search bar to describe a person or vehicle of interest and conduct highly-granular investigations as a result.

Tap into AI to unlock nearly unlimited search criteria

- A high-performance text-to-image open source AI model and our own in-house enhancements turn the Command search bar into a blank canvas for freeform text queries—allowing users to conduct investigations into specific, granular attributes of people and vehicles.

Structure detailed queries beyond the norm

- Search for specific attributes like articles of clothing, apparel, brands, and more, to drill-down into more granular attributes of people that can make investigations more accurate and streamlined.
- Identify vehicles of interest with detailed criteria like tinted windows, spoilers, bumper stickers, text (like “UPS truck” or “San Mateo School Bus”) and more, to quickly detect vehicles pertinent to one’s investigation.

Conduct investigations that address different industry-specific use cases by time and location²

- Better investigate slip-and-fall cases, shoplifting, break-ins, occupational hazards, workplace safety compliance and more, using freeform queries.
- Organize searches by time and location for added specificity and more relevant insights of people and vehicles.

Take actionable steps once the subject or vehicle of concern is identified

- After identifying a specific person or vehicle, archive the relevant footage and create an incident report.
- Sift through results of people, download their image to add them as a POI or search their face across all of your organization’s cameras for exhaustive analysis of people under investigation.

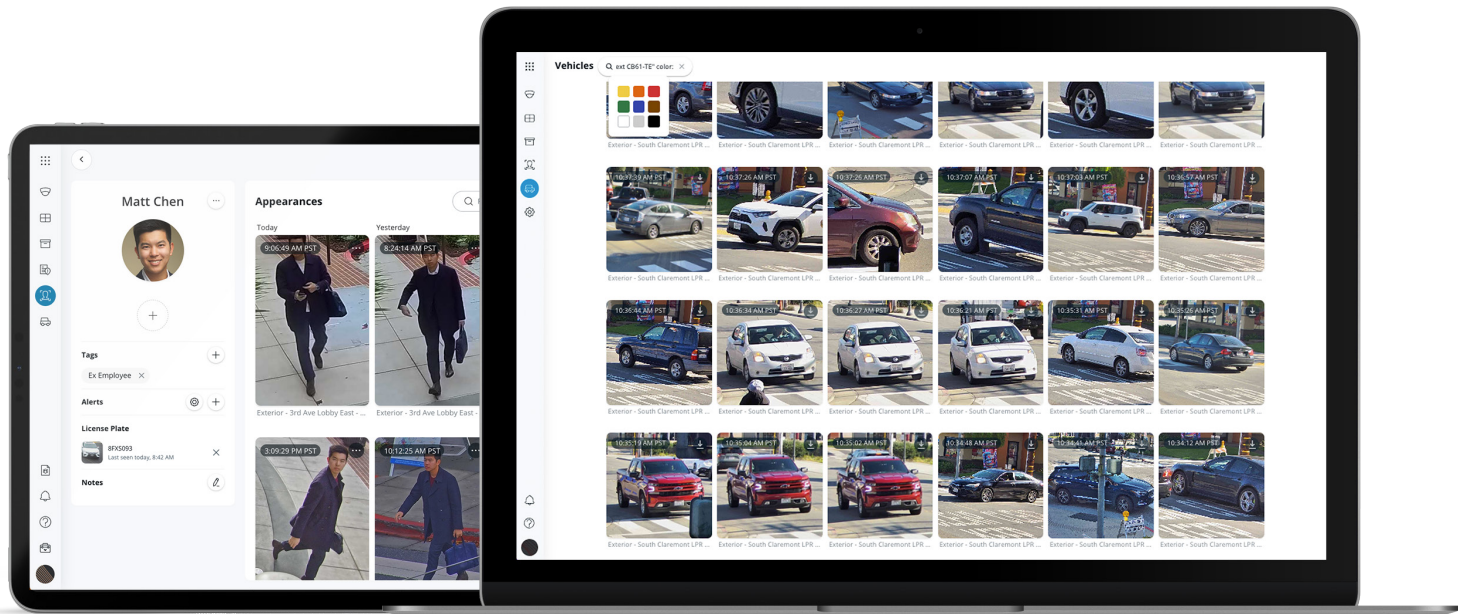
1. AI-powered search is currently supported in English only.

2. Check out our [User Guide](#) for example queries and methods for constructing your own queries relevant to your organization’s requirements.



Verkada's People and Vehicle Analytics

Simplify Investigations with Intelligent People, Face and Vehicle Detection



People and Vehicle Analytics combine intelligent edge-based video processing with computer vision to give users high-quality, cloud-based images of all individuals and vehicles identified in the scene. Using these analytics, customers can filter for specific attributes of people or vehicles (like clothing color or vehicle type) on a camera-by-camera basis.

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 and vehicle history

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

Attribute filters

- Drill-down into specific cameras to filter for people and vehicles based on a range of attributes, including clothing or vehicle color, gender appearance, vehicle body type and facial matches

Person and License Plate of Interest notifications

- Create a Person of Interest using an uploaded photo or existing face in Command
- Capture a license plate of interest with our CB52-TE or CB62-TE Bullet cameras
- 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



PTZ camera Tech Specs



CP52-E

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	Varifocal; motorized zoom	IR Cut Filter	Yes
Focal Length	5.2mm – 148.15mm	IR Range	100m / 328ft
Aperture	F1.3 – F4.8	Minimum Illumination	0.04 lux @ F1.4 (Color) 0 lux @ F1.4 with IR Illuminators on
Iris	DC Iris	Onboard Storage	Capacity: From 512GB to 3TB Card: MicroSD, SDXC
Field of View (after LDC²)	Horizontal: 55°–2° Vertical: 42°–1.5° Diagonal: 66°–2.5°	CPU	Ambarella CV22S66
Sensor Movement	Tilt: 220° Pan: 360°		

Standard video settings

Compression	H.265 (historical video only), H.264	Historical Video Settings	Adaptive quality ¹
Frame Rate³	24fps	WDR Technology	True WDR, dual exposure
Live Streaming Settings⁴	Static: 1,000 Kbps (SQ), 3,000 Kbps (HQ) Moving: 2,000 Kbps (SQ), 4,500 Kbps (HQ)		

Standard audio settings

Audio	Not supported
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Power and network

Power Input⁵	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 / 1000 Mbps
Power Consumption⁵	With IR: 42.5 – 57V, 0.995 – 0.742A, 42.26W Without IR: 42.5 – 57V, 0.547 – 0.408A, 23.26W Extended temperature range: 42.5 – 57V, 1.035 – 0.772A, 44.04W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 2 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.

5. The listed ranges represent the uplink bandwidth based on target bitrates. To learn more, visit Verkada's Knowledge Base and read "[Understanding Variable Bitrates for Verkada PTZ Cameras](#)".



PTZ camera Tech Specs



CP52-E

General

Operating Temperature	-40°C to 50°C / -40°F to 122°F	LED Indicator	System power and status indicator
Humidity	0 to 90%	Warranty	5 Years
Certifications	FCC, IC, UL, CB, CE, UKCA, Japan VCCI, AS/NZS (RCM), IK10 impact rating, IP66 weather rating	Included Accessories	Rubber cap, pendant cap, T30 security L-wrench

Mechanical

Weight	Camera: 7076.04g / 249.6oz Pendant cap: 408.23g / 14.4oz	Body	Aluminum, plastic
Dimensions	Ø: 256mm / 10.1in, H: 406mm / 16.0in with pendant cap Ø: 256mm / 10.1in, H: 336mm / 13.2in without pendant cap		

Dimensions

256mm / 10.1in



406mm / 16.0in



Software capabilities

Alerts	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection	Streaming and Storage	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP, fast archive
People Analytics	People search, attribute search, face search, Sentry Mode, motion search, trajectory analysis, selective face blurring, AI-powered search ⁷	Sharing and Privacy	Live Links, audit log
Vehicle Analytics	Vehicle search, attribute search, motion search, trajectory analysis, AI-powered search ⁷	Controllers⁶	Mouse, keyboard, Xbox Wireless Controller, joystick

Coverage examples



360° pan



220° tilt

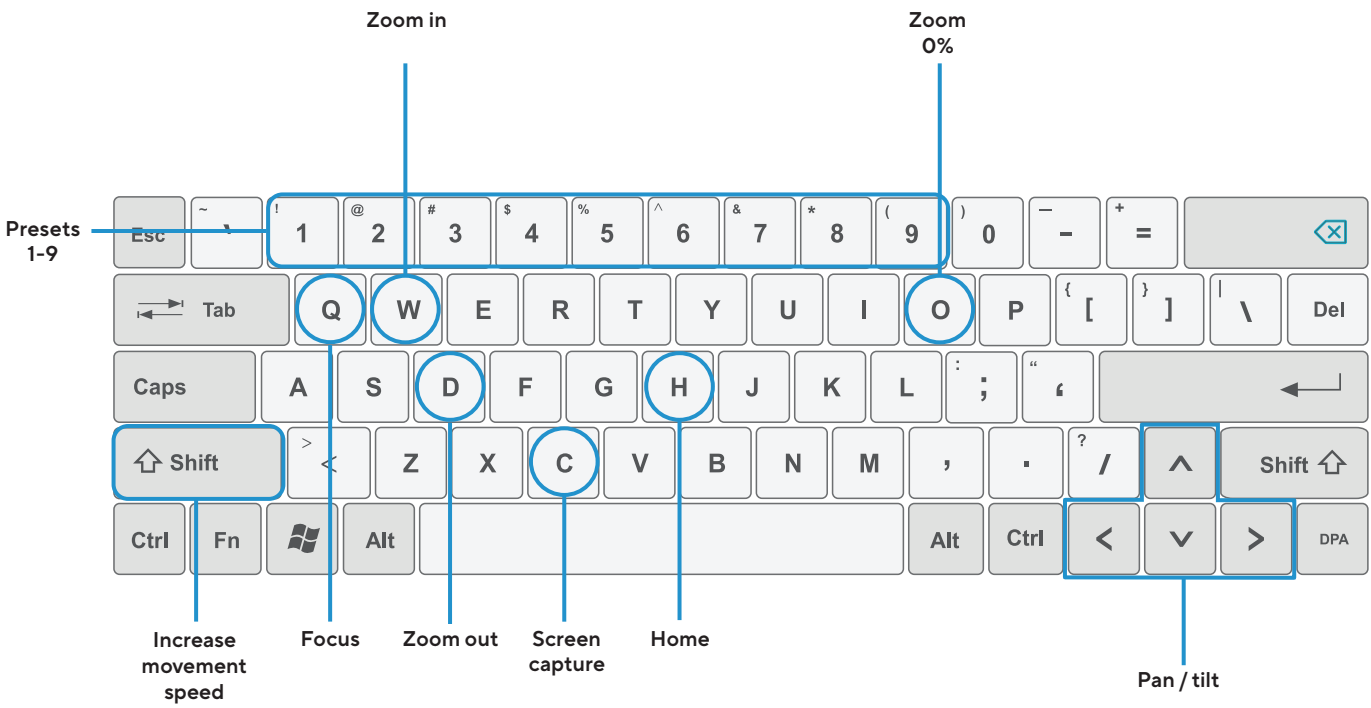
6. To learn more about the supported controllers for the CP52-E, please flip to page 13 of this document.

7. AI-powered search is currently supported in English only.



PTZ camera

Keyboard Shortcuts



1 - 9 Presets 1-9

Q Focus

H Home

↑
< ↓ > Pan / tilt

W Zoom in

⇧ Shift Increase movement speed

D Zoom out

C Screen capture

O Zoom 0%



PTZ camera Controllers

Xbox Wireless Controller

The Xbox Wireless Controllers provide a highly responsive solution for controlling CP52-E cameras via Verkada Command. The CP52-E is pre-configured to work out-of-the-box with the Xbox controller. Below are the preset controls.



Additional controller options

The listed controllers have been tested and found fully compatible. However, users need to manually configure their preferred controller(s). For suggested control mapping, refer to Verkada's Knowledge Base website.

Note: Other controller types may be compatible, but they haven't been tested or verified by Verkada.

- Thrustmaster HOTAS Warthog Flight Stick
- Vivotek AJ-001 USB Joystick



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.



Turn your cameras into a monitored alarm system

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.
- Monitoring agents immediately review camera footage to determine if a person is actually present.

Take action

- If there is a person present, 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 not a person present, 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

PTZ camera pricing

Model Number	MP ¹	WDR	Lens	IR Range	Onboard Storage	Maximum SQ Onboard Retention ¹	People/Vehicle Analytics	Cost (MSRP) ^{USD}
CP52-512E-HW	5.0MP	✓	Zoom	100m / 328ft	512GB	30 Days	✓	\$3,699
CP52-1TBE-HW	5.0MP	✓	Zoom	100m / 328ft	1TB	60 Days	✓	\$4,499
CP52-1P5TBE-HW	5.0MP	✓	Zoom	100m / 328ft	1.5TB	90 Days	✓	\$5,299
CP52-3TBE-HW	5.0MP	✓	Zoom	100m / 328ft	3TB	180 Days	✓	\$6,899

Video Security Cloud License pricing

Model Number	Description	Cost (MSRP) ^{USD}
LIC-CAM-1Y	1-Year Camera License	\$199
LIC-CAM-3Y	3-Year Camera License	\$549
LIC-CAM-5Y	5-Year Camera License	\$899
LIC-CAM-10Y	10-Year Camera License	\$1,799

Accessories pricing

ACC-MNT-XLARM-1	Large Arm Mount	\$159
ACC-MNT-POLE-1	Pole Mount	\$209
ACC-MNT-CORNER-1	Corner Mount	\$199
ACC-POE-60W	PoE++ (802.3bt) Injector, GigE	\$149

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>