

CP52-E PTZ Camera

5MP PTZ for expansive and detailed coverage of large areas



Overview

The CP52-E PTZ camera features a 1 / 2.8" progressive CMOS image sensor, varifocal lens with 28x motorized optical zoom, and 328 feet / 100 meters of IR range for reliable 5MP image quality at distance in harsh conditions. Up to three context cameras can be paired with the CP52-E to complement its [sentry mode](#), providing precise and automated monitoring of individuals across an expansive field of view. With its onboard CV22S Ambarella processor delivering advanced analytics like AI-powered search, AI-powered alerts, person of interest (POI) alerts, and crowd detection, the CP52-E offers privacy-sensitive monitoring of large areas such as stadiums, arenas, and parking lots.

Engineered in-house, the CP52-E has a turret design that enhances its range of motion, effectively reducing blind spots. Advanced motor mechanisms allow for quick and seamless transitions between positions with ultra low latency (<500 milliseconds). The CP52-E features a robust metal housing, IP66 weather rating, and IK10 impact rating to help ensure functionality in harsh conditions and inclement weather.

Key features

Excellent image quality

- 1 / 2.8" progressive CMOS image sensor
- 5MP resolution
- Varifocal lens with 28x optical zoom
- 328 feet / 100 meters of IR range for long-range nighttime viewing

Advanced analytics

- Onboard CV22S Ambarella processor enables people and vehicle analytics
- AI-powered search and AI-powered alerts

Automated monitoring

- Support sentry mode with up to three context cameras for automated monitoring of vast areas

Durability and weather protection

- Robust metal housing
- 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 helps reduce bandwidth consumption, enabling coverage at scale
- 30 - 180 days (512GB - 3TB) of onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage



CP52-E

Tech specs

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	328ft / 100m
Aperture	F1.3 – F4.8	Minimum illumination	0.8 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 LDC³)	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 rate²	24fps	WDR technology	True WDR, dual exposure
Live streaming settings³	Static: 1,000 kbps (SQ), 3,000 kbps (HQ) Moving: 2,000 kbps (SQ), 4,500 kbps (HQ)		

Standard audio settings

Audio	Not supported
--------------	---------------

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 / 1000 Mbps
Power consumption⁴	With IR: 43-57V, 1.00-0.74A, 42.3W Without IR: 43-57V, 0.55-0.41A, 23.3W Extended temperature range: 43-57V, 1.04-0.77A, 44.0W	RTSP	RTSP 1.0 RFC 2326 Max concurrent streams: 2 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. Frame rate can be adjusted by support.

3. 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](#)".

4. Extended temperature range includes operating temperatures below 14°F / -10°C and assumes IR will be enabled.



CP52-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	5 years
Certifications	FCC, ICES, CE, UKCA, RCM, VCCI, KCC, NOM, ICASA, UL/cUL/IEC 62368-1, CB, IK10 impact rating, IP66 weather rating, FY2019 NDAA compliant	Included accessories	Rubber cap, pendant cap, T30 security L-wrench

Mechanical

Weight	Camera: 15.59lbs / 7.07kg Pendant cap: 0.90lbs / 0.41kg	Body	Aluminum, plastic
Dimensions	Ø: 10.08in / 256.0mm, H: 15.98in / 406.0mm with pendant cap Ø: 10.08in / 256.0mm, H: 13.23in / 336.0mm without pendant cap		

Dimensions

10.08in / 256.0mm



15.98in / 406.0mm

Software capabilities

Alerts	Camera status, motion detection, people detection, vehicle detection, person of interest detection, crowd detection, AI-powered alerts	Streaming and storage	Cloud backup, configurable retention days, selectable storage location, timelapse, RTSP
People analytics	People search, attribute search, face search, Sentry Mode, motion search, trajectory analysis, selective face blurring, AI-powered search	Sharing and privacy	Live Links, audit log
Vehicle analytics	Vehicle search, attribute search, motion search, trajectory analysis, AI-powered search	Controllers ⁵	Mouse, keyboard, Xbox Wireless Controller, joystick

Coverage examples



360° pan



220° tilt

5. For details on the supported controllers for PTZ cameras, refer to the article [here](#).



Ordering information

CP52-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}
CP52-512E-HW	5MP	✓	Zoom	328ft / 100m	512GB	30 Days	✓	\$4,299	\$4,099
CP52-1TB-E-HW	5MP	✓	Zoom	328ft / 100m	1TB	60 Days	✓	\$5,699	\$5,499
CP52-1P5TB-E-HW	5MP	✓	Zoom	328ft / 100m	1.5TB	90 Days	✓	\$7,099	\$6,899
CP52-3TB-E-HW	5MP	✓	Zoom	328ft / 100m	3TB	180 Days	✓	\$10,099	\$9,899

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)

Model number	Description	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
LIC-CAM-1Y-CAP	Verkada 1-Year Camera License, Capacity Increase	\$249	\$249
LIC-CAM-3Y-CAP	Verkada 3-Year Camera License, Capacity Increase	\$659	\$659
LIC-CAM-5Y-CAP	Verkada 5-Year Camera License, Capacity Increase	\$1,099	\$1,099
LIC-CAM-10Y-CAP	Verkada 10-Year Camera License, Capacity Increase	\$2,199	\$2,199

Video Security software license pricing (renewal)

Model number	Description	US cost (MSRP) ^{USD}	WW cost (MSRP) ^{USD}
LIC-CAM-1Y-RNW	Verkada 1-Year Camera License, Renewal	\$249	\$249
LIC-CAM-3Y-RNW	Verkada 3-Year Camera License, Renewal	\$659	\$659
LIC-CAM-5Y-RNW	Verkada 5-Year Camera License, Renewal	\$1,099	\$1,099
LIC-CAM-10Y-RNW	Verkada 10-Year Camera License, Renewal	\$2,199	\$2,199



Accessories

Recommended accessories

Model Number	Description
ACC-MNT-CORNER-1	Verkada Corner 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