

## 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 30 meters / 98 feet 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
- 30 meters / 98 feet 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°C to 50°C / -40°F to 122°F

#### 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

|                                              |                                                                                                            |                             |                                                           |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------|
| <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)<br>0 lux with IR Illuminators on |
| <b>Iris</b>                                  | N/A                                                                                                        | <b>Onboard storage</b>      | Capacity: From 1TB to 8TB<br>Card: MicroSD, SDXC          |
| <b>Field of view (after LDC<sup>2</sup>)</b> | Horizontal: 89° - 37° (82° - 35°)<br>Vertical: 65° - 29° (60° - 26°)<br>Diagonal: 99° - 46° (92° - 43°)    | <b>CPU</b>                  | 4 x Ambarella CV25S88                                     |
| <b>Sensor movement</b>                       | Tilt: +0°-105° for each lens from horizon<br>Pan: +/- 90° for each lens<br>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)<br>Standard quality (SQ): Up to 600 Kbps |                                  |                                              |

## Standard audio settings

|              |               |
|--------------|---------------|
| <b>Audio</b> | Not supported |
|--------------|---------------|

## Power and network

|                                      |                                                                                                                                         |                     |                                                                                            |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------|
| <b>Power input<sup>4</sup></b>       | With IR: IEEE 802.3bt Type 3 PoE++<br>Without IR: IEEE 802.3at Type 2 PoE+<br>Extended temperature range:<br>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: 43-57V, 0.65-0.49A, 27.7W<br>Without IR: 43-57V, 0.46-0.34A, 19.5W<br>Extended temperature range:<br>43-57V, 0.91-0.68A, 38.7W | <b>RTSP</b>         | RTSP 1.0<br>RFC 2326<br>Max concurrent streams: 8 (2 per camera head)<br>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 -10°C / 14°F and assumes IR will be enabled.



# CH52-E

## Tech specs

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

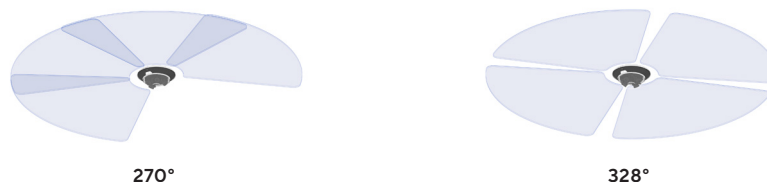
### Dimensions



### Software capabilities

|                                |                                                                                                                                                                                      |                                    |                                                                                                             |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Alerts <sup>5</sup>            | 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 <sup>5</sup> | Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP |
| People analytics <sup>5</sup>  | People search, attribute search, face search, occupancy trends, motion search, trajectory analysis, selective face blurring, AI-powered search                                       | Sharing and privacy <sup>5</sup>   | Live links, live face blur, privacy regions, audit log                                                      |
| Vehicle analytics <sup>5</sup> | 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 <sup>1</sup> | WDR | Lens | IR range   | Onboard storage | Maximum SQ onboard retention <sup>1</sup> | People/vehicle analytics | US cost (MSRP) <sup>USD</sup> | WW cost (MSRP) <sup>USD</sup> |
|--------------|-----------------|-----|------|------------|-----------------|-------------------------------------------|--------------------------|-------------------------------|-------------------------------|
| CH52-1TBE-HW | 4 x 5MP         | ✓   | Zoom | 30m / 98ft | 1TB             | 30 Days                                   | ✓                        | \$4,099                       | \$3,849                       |
| CH52-2TBE-HW | 4 x 5MP         | ✓   | Zoom | 30m / 98ft | 2TB             | 60 Days                                   | ✓                        | \$6,299                       | \$6,049                       |
| CH52-4TBE-HW | 4 x 5MP         | ✓   | Zoom | 30m / 98ft | 4TB             | 120 Days                                  | ✓                        | \$10,699                      | \$10,449                      |
| CH52-8TBE-HW | 4 x 5MP         | ✓   | Zoom | 30m / 98ft | 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 Cloud License Pricing (new/capacity increase)<sup>2</sup>

| Model number         | Description                                                | US cost (MSRP) <sup>USD</sup> | WW cost(MSRP) <sup>USD</sup> |
|----------------------|------------------------------------------------------------|-------------------------------|------------------------------|
| LIC-CAM-MLT4-1Y-CAP  | 1-Year Four-Camera Multisensor License, Capacity Increase  | \$699                         | \$699                        |
| LIC-CAM-MLT4-3Y-CAP  | 3-Year Four-Camera Multisensor License, Capacity Increase  | \$1,949                       | \$1,949                      |
| LIC-CAM-MLT4-5Y-CAP  | 5-Year Four-Camera Multisensor License, Capacity Increase  | \$3,249                       | \$3,249                      |
| LIC-CAM-MLT4-10Y-CAP | 10-Year Four-Camera Multisensor License, Capacity Increase | \$6,499                       | \$6,499                      |

### Video Security Cloud License Pricing (renewal)<sup>2</sup>

| Model number         | Description                                      | US cost (MSRP) <sup>USD</sup> | WW cost(MSRP) <sup>USD</sup> |
|----------------------|--------------------------------------------------|-------------------------------|------------------------------|
| LIC-CAM-MLT4-1Y-RNW  | 1-Year Four-Camera Multisensor License, Renewal  | \$699                         | \$699                        |
| LIC-CAM-MLT4-3Y-RNW  | 3-Year Four-Camera Multisensor License, Renewal  | \$1,949                       | \$1,949                      |
| LIC-CAM-MLT4-5Y-RNW  | 5-Year Four-Camera Multisensor License, Renewal  | \$3,249                       | \$3,249                      |
| LIC-CAM-MLT4-10Y-RNW | 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    | Arm Mount                                                                        |
| ACC-MNT-CORNER-1 | Corner Mount                                                                     |
| ACC-MNT-PEND-1   | Pendant Cap Mount                                                                |
| ACC-MNT-POLE-1   | Pole Mount                                                                       |
| ACC-MNT-XLARM-1  | Large Arm Mount                                                                  |
| ACC-POE-90W-AU   | 90W PoE++ (802.3bt Type 4) Injector,<br>GigE, Indoor, Australia Type I Plug      |
| ACC-POE-90W-EU   | 90W PoE++ (802.3bt Type 4) Injector,<br>GigE, Indoor, Europe Type F Plug         |
| ACC-POE-90W-NA   | 90W PoE++ (802.3bt Type 4) Injector,<br>GigE, Indoor, North America Type B Plug  |
| ACC-POE-90W-UK   | 90W PoE++ (802.3bt Type 4) Injector,<br>GigE, Indoor, United Kingdom Type G Plug |