

## CY53-E Two-Camera Multisensor

### Bidirectional 5MP Coverage From a Single Install Point



#### Overview

The CY53-E two-camera multisensor features two independent and adjustable 5MP image sensors which together support expansive coverage from a single install point. A pair of 1 / 2.8" progressive CMOS image sensors, each with 2.55x optical zoom and 30 meters / 98 feet of IR range, enable clear and consistent image quality in varied lighting conditions. The CY53-E includes a CV72S Ambarella processor to support advanced analytics like [AI-powered search](#), [AI-powered unified timeline](#), [occupancy trends](#), line crossing, loitering, and person of interest (POI) alerts. The camera is optimal for covering bidirectional hallways, warehouse aisles, wide entryways, and building lobbies – offering double the visibility of a single-sensor camera and, with configurable sensors, minimizing blind spots while only requiring a single PoE+ cable and IP address.

The CY53-E's robust metal housing, IP66/67 weather rating, and IK10 impact rating enable the device to withstand extreme temperatures and weather. Constructed with easy and efficient installation top-of-mind, the CY53-E features captive screws that remain attached to the mounting plate, a latch-based cable gland for easy PoE threading, a three-LED light status indicator, a built-in bubble level, and alignment presets that guide each lens into optimal positions for common viewing angles.

#### Key features

##### Excellent image quality

- Two 1 / 2.8" progressive CMOS image sensors
- 5MP resolution
- Two varifocal lenses with 2.55x optical zoom per lens
- 30 meters / 98 feet of IR range for nighttime viewing

##### Expansive coverage

- Individually adjustable and repositionable sensor heads
- Total field of view up to 180°

##### Streamlined installation

- Single PoE+ cable required
- Latch-based cable gland
- Alignment presets for optimal lens positioning
- Physical and digital mute switches to easily enable or disable audio

##### Durability and weather protection

- Robust metal housing
- IP66/67 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 (512GB - 4TB) of onboard storage
- Redundant cloud backup and unlimited cloud-based archiving of footage

##### Advanced analytics

- Onboard CV72S Ambarella processor enables people and vehicle analytics
- AI-powered search and AI-powered alerts
- Occupancy trends for operational insights



## CY53-E

## Tech specs

## Camera features

|                                              |                                                                                                              |                             |                                                           |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------|
| <b>Image sensor</b>                          | 2 x 1 / 2.8" Progressive CMOS                                                                                | <b>Shutter speed</b>        | 1 / 30 sec. to 1 / 10,000 sec.                            |
| <b>Sensor resolution<sup>1</sup></b>         | 2 x 5MP (2592 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>                          | 3.18 - 8.12mm                                                                                                | <b>IR range</b>             | 30m / 98ft; non-adjustable                                |
| <b>Aperture</b>                              | F1.9 - F3.24                                                                                                 | <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 512GB to 2TB<br>Card: MicroSD, SDXC        |
| <b>Field of view (after LDC<sup>2</sup>)</b> | Horizontal: 103° - 40° (93° - 38°)<br>Vertical: 75° - 30° (72° - 29°)<br>Diagonal: 138° - 49° (114° - 47°)   | <b>CPU</b>                  | Ambarella CV72S66                                         |
| <b>Sensor movement</b>                       | Tilt: +0° to 60° for each lens from upright<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>            | 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>          | Supported     | <b>Interface</b>       | Built-in microphone |
| <b>Audio capacity</b> | One-way audio | <b>Effective range</b> | 5m / 16ft           |

## Power and network

|                                      |                                                                                                                                      |                     |                                                                                             |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------|
| <b>Power Input<sup>4</sup></b>       | IEEE 802.3at Type 2 PoE+                                                                                                             | <b>Connectivity</b> | RJ-45 cable connector for network/PoE connection; 10 / 100 / 1000 Mbps                      |
| <b>Power consumption<sup>4</sup></b> | With IR: 37-57V, 0.60-0.45A, 25.5W<br>Without IR: 37-57V, 0.37-0.24A, 13.5W<br>Extended temperature range: 37-57V, 0.60-0.45A, 25.5W | <b>RTSP</b>         | RTSP 1.0<br>RFC 2326<br>Max concurrent streams: 4 (2 per camera head)<br>Audio support: Yes |

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.



CY53-E

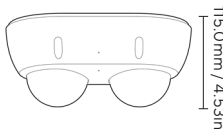
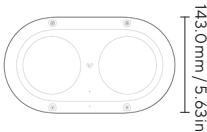
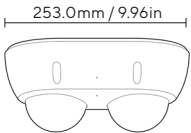
Tech specs

General

|                       |                                                                                                                                                  |                      |                                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature | -40°C to 50°C / -40°F to 122°F                                                                                                                   | LED indicator        | System power, status indicator and debug indicator                                                                                       |
| Humidity              | 0 to 90%                                                                                                                                         | Warranty             | 10 years                                                                                                                                 |
| Certifications        | FCC, ICES, CE, UKCA, RCM, NTRA, NOM, VCCI, KCC, UL/cUL/IEC 62368-1, IEC 62471, IP66/67 weather rating, IK10 impact rating, FY2019 NDAA compliant | Included accessories | T10 security screwdriver, mount plate with leveler, 4x wall mount screws, 4x wall anchors, desiccant, conduit adapter, large cable gland |

Mechanical

|            |                                                                                                                               |      |          |
|------------|-------------------------------------------------------------------------------------------------------------------------------|------|----------|
| Weight     | Camera: 2000g / 70.55 oz<br>Mount plate: 400g / 14.11 oz                                                                      | Body | Aluminum |
| Dimensions | L: 253.0mm / 9.96in<br>W: 143.0mm / 5.63in<br>H: 115.0mm / 4.53in with mount plate<br>H: 110.0mm / 4.33in without mount plate |      |          |



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                                                                            |                                    |                                                                                                             |

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



## Ordering information

### CY53-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> |
|----------------|-----------------|-----|------|------------|-----------------|-------------------------------------------|--------------------------|-------------------------------|-------------------------------|
| CY53-512E-HW   | 2 x 5MP         | ✓   | Zoom | 30m / 98ft | 512GB           | 30 Days                                   | ✓                        | \$2,299                       | \$2,199                       |
| CY53-1TBE-HW   | 2 x 5MP         | ✓   | Zoom | 30m / 98ft | 1TB             | 60 Days                                   | ✓                        | \$3,699                       | \$3,599                       |
| CY53-1P5TBE-HW | 2 x 5MP         | ✓   | Zoom | 30m / 98ft | 1.5TB           | 90 Days                                   | ✓                        | \$5,099                       | \$4,999                       |
| CY53-2TBE-HW   | 2 x 5MP         | ✓   | Zoom | 30m / 98ft | 2TB             | 120 Days                                  | ✓                        | \$6,499                       | \$6,399                       |
| CY53-4TBE-HW   | 2 x 5MP         | ✓   | Zoom | 30m / 98ft | 4TB             | 365 Days                                  | ✓                        | \$10,899                      | \$10,799                      |

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-MLT2-1Y-CAP  | 1-Year Two-Camera Multisensor License, Capacity Increase  | \$419                         | \$419                        |
| LIC-CAM-MLT2-3Y-CAP  | 3-Year Two-Camera Multisensor License, Capacity Increase  | \$1,199                       | \$1,199                      |
| LIC-CAM-MLT2-5Y-CAP  | 5-Year Two-Camera Multisensor License, Capacity Increase  | \$1,999                       | \$1,999                      |
| LIC-CAM-MLT2-10Y-CAP | 10-Year Two-Camera Multisensor License, Capacity Increase | \$3,999                       | \$3,999                      |

### 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-MLT2-1Y-RNW  | 1-Year Two-Camera Multisensor License, Renewal  | \$419                         | \$419                        |
| LIC-CAM-MLT2-3Y-RNW  | 3-Year Two-Camera Multisensor License, Renewal  | \$1,199                       | \$1,199                      |
| LIC-CAM-MLT2-5Y-RNW  | 5-Year Two-Camera Multisensor License, Renewal  | \$1,999                       | \$1,999                      |
| LIC-CAM-MLT2-10Y-RNW | 10-Year Two-Camera Multisensor License, Renewal | \$3,999                       | \$3,999                      |

2. Two-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-POLE-1   | Pole Mount                                                                       |
| ACC-MNT-XLARM-1  | Large Arm Mount                                                                  |
| ACC-MNT-YJBOX-1  | Two-Camera Multisensor Junction Box Mount                                        |
| ACC-MNT-YPEND-1  | Two-Camera Multisensor Pendant Cap 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 |
| INJ-POE-PLUS     | PoE Plus (802.3at) Injector, GigE                                                |