

VCS-AR0822-CB

TechNexion
INNOVATORS OF TECHNOLOGY

- onsemi AR0822 8MP Rolling Shutter Sensor
- 4K HDR Imaging Capabilities
- Near Infra-Red Enhancement for Outdoor Applications
- Designed for Low Light Applications
- C-Mount for Interchangeable Lenses
- UVC USB Type-C 5 Gbps Connector
- Plug & Play with Windows & Linux OS
- VizionViewer™ configuration utility
- VizionSDK for custom development



VizionSDK VizionViewer™

Camera Information

| | |
|----------------------------------|---|
| CMOS Sensor | onsemi AR0822 |
| Active Pixels | 3840 (H) x 2160 (V) = 8MP |
| Pixel Size | 2.0 μm x 2.0 μm |
| Illuminated Type | Back Side Illuminated (BSI) |
| Maximum S/N Ratio | 40.5 dB |
| Optical Format | 1/1.8" (Diagonal 8.81 mm) |
| Shutter Type | Rolling Shutter |
| Chromaticity | Color / Mono |
| HDR Support | Yes |
| Maximum Frame Rate (YUV422-UYYV) | 3840 x 2160 @ 15 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps |
| Maximum Frame Rate (MJPEG) | 3840 x 2160 @ 30 fps 2560 x 1440 @ 60 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps |
| Output Format | YUV422-UYYV MJPEG (JPG) |

Camera Interface

| | |
|-----------|-------------------|
| Connector | USB Type-C 5 Gbps |
|-----------|-------------------|

Power

| | |
|-------------------|----------------------------------|
| Supply Voltage | 5V \pm 5% |
| Power Consumption | 3840 x 2160 @ 15 fps \leq 1.3W |
| Standby Power | \leq 0.1W Standby |

Software Support

| | |
|------------------|--|
| Operation System | UVC Plug-and-play Windows 10/11 Linux Yocto |
| Software | VizionViewer™ |
| Development SDK | VizionSDK |

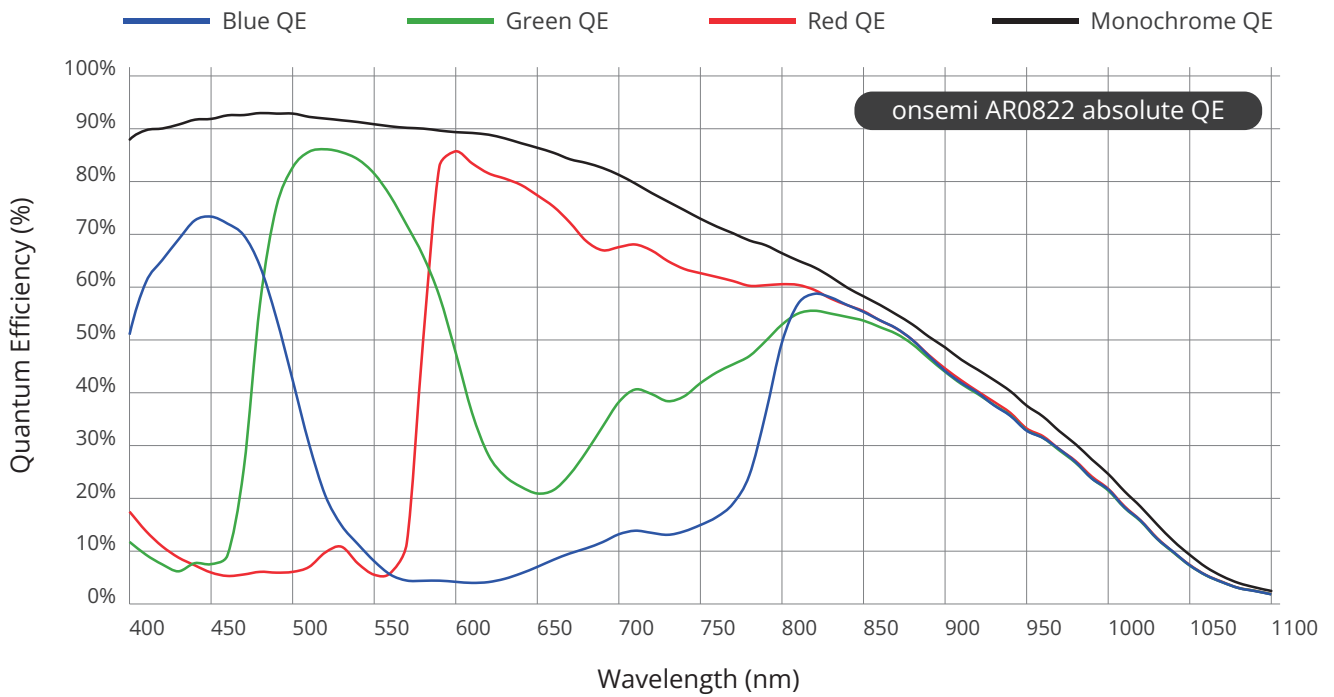
Environmental and Mechanical

| | |
|-----------------------|--------------------------------|
| Dimensions | 29.5(W) x 29.5(H) x 33.7(D) mm |
| Weight | \leq 39 grams |
| MTBF | 50,000 Hours |
| Shock | 15G half-sine 11 ms duration |
| Vibration | 1 Grms random 5-500Hz hr/axis |
| Relative Humidity | 10 to 90 % |
| Operating Temperature | -30°C to + 70°C |

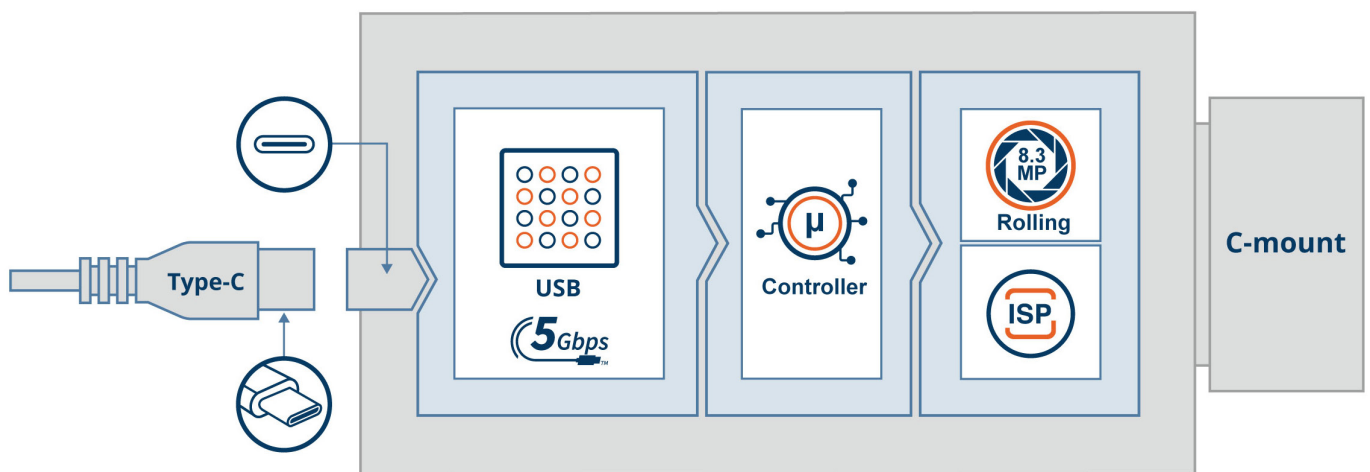
Certification and Compliance

| | |
|---------------|---|
| Certification | Compliant with CE / FCC / RoHS / REACH directives |
|---------------|---|

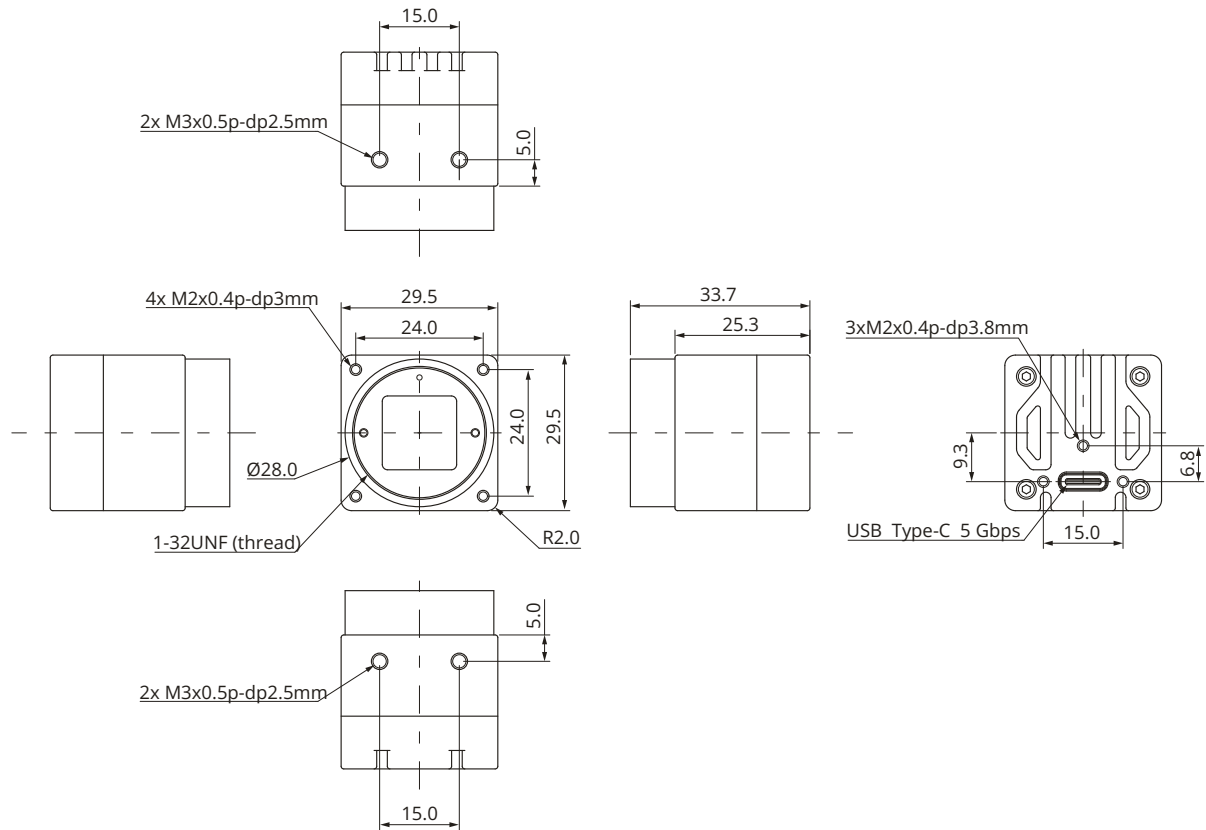
Spectral Characteristics



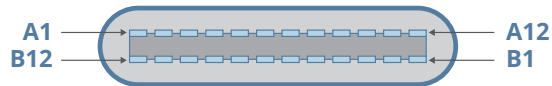
Block Diagram



Dimensions (units in mm)



Connector Pin Definition



| No. | Pin Define | No. | Pin Define |
|-----|------------|-----|------------|
| A1 | GND | B12 | GND |
| A2 | TXP1 | B11 | RXP1 |
| A3 | TXN1 | B10 | RXN1 |
| A4 | VBUS1 | B9 | VBUS3 |
| A5 | CC1 | B8 | SBU2 |
| A6 | DP1 | B7 | DN2 |
| A7 | DN1 | B6 | DP2 |
| A8 | SBU1 | B5 | CC2 |
| A9 | VBUS2 | B4 | VBUS4 |
| A10 | RXN2 | B3 | TXN2 |
| A11 | RXP2 | B2 | TXP2 |
| A12 | GND | B1 | GND |

Order Information

VCS-AR0822-x-CB-xx-xxxx

| Option | Code | Description |
|--------------|------|-----------------------|
| Chromaticity | C | Color |
| | M | Monochrome |
| Filter | - | - |
| | IR | IR Cut Filter 650nm |
| Custom ID | XXXX | Custom Part number ID |

For customization, please contact your TechNexion sales representative.

Optional Accessories

An easy to attach A-Mount bracket for TechNexion 30mm enclosed cameras.



300-MOUNT-BRACKET



300-MOUNT-BRACKET on tripod
(tripod not included)

Custom Lens Solutions

Our C-mount cameras can be paired with a variety of off-the-shelf lenses. Customers are welcome to choose their own, or alternatively our engineers are on standby to assist with selecting the right camera lens for different applications.

