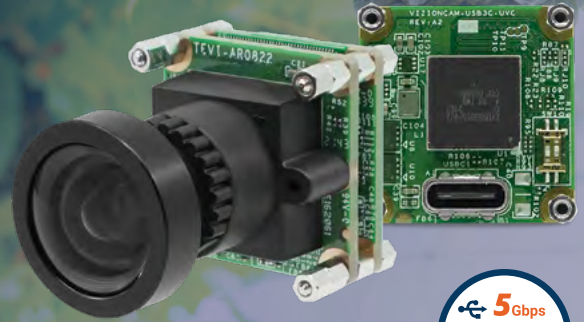


UVCI-AR0822-SL

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
- S-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 | 1/2" (Diagonal 8.81 mm) |
| Shutter Type | Rolling Shutter |
| Chromaticity | Mono / Color |
| HDR Support | Yes |
| 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 |
| Maximum Frame Rate (UYVY) | 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 |
| Output Format | MJPEG (JPG) UYVY |

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 |

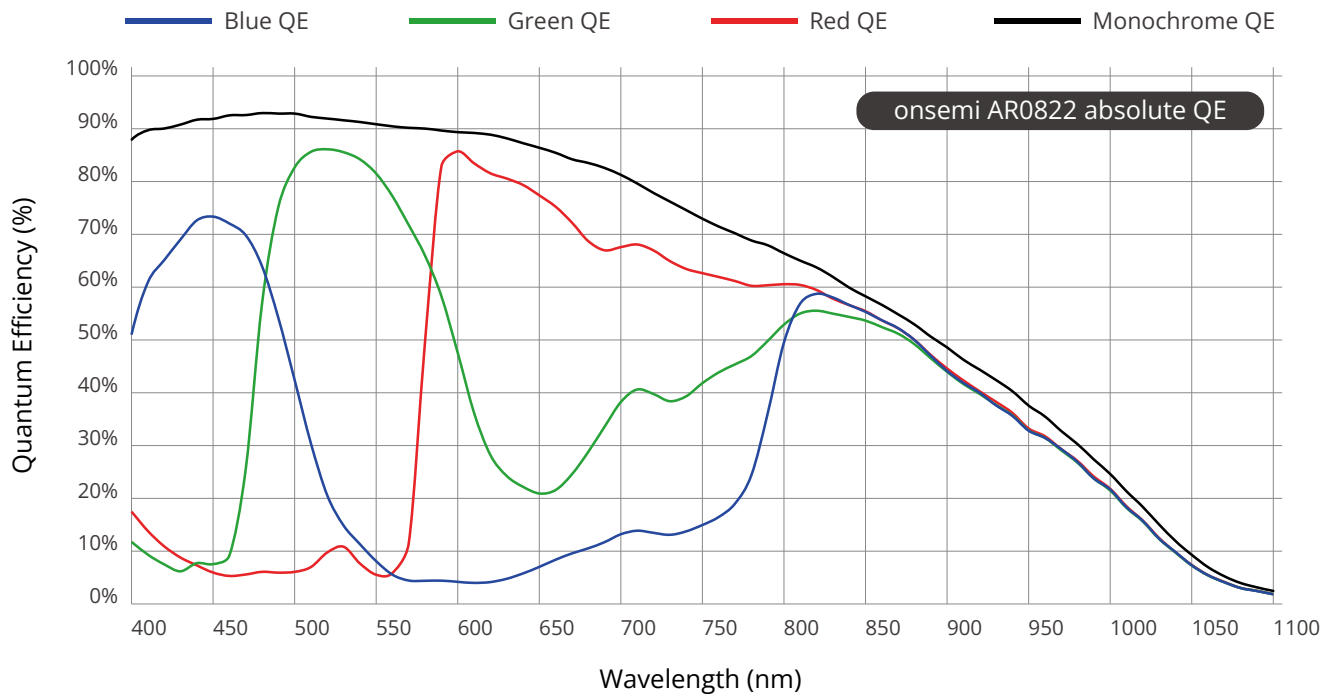
Environmental and Mechanical

| | |
|-----------------------|--------------------------------|
| Dimensions | 24.5(W) x 24.5(H) x 25.6(D) mm |
| Weight | \leq 23 grams |
| Operating Temperature | - 30°C to + 70°C |

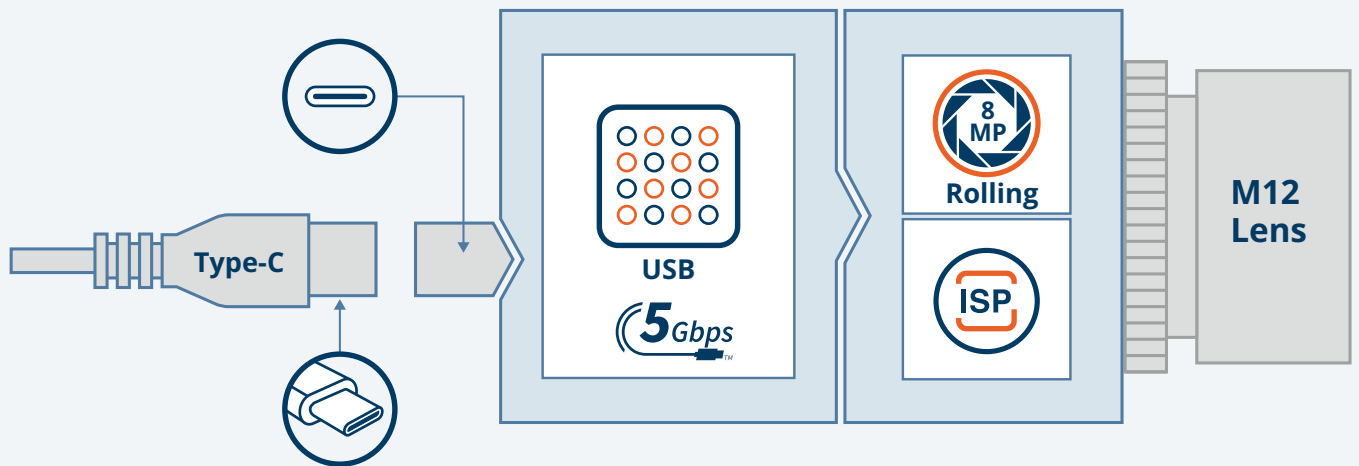
Certification and Compliance

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

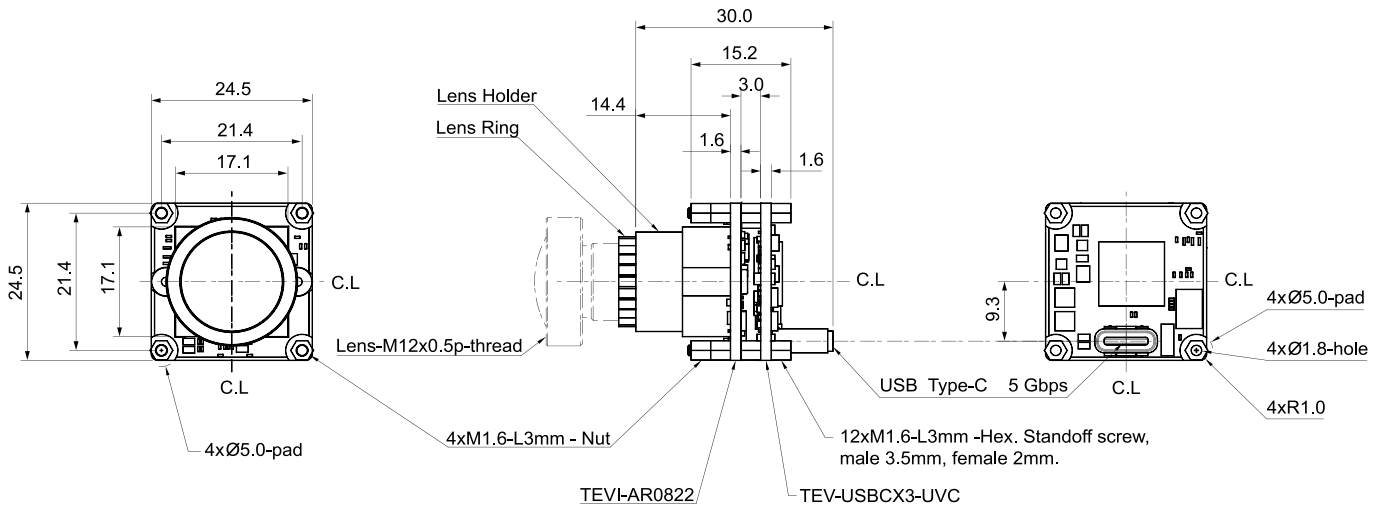
Spectral Characteristics



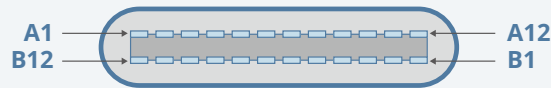
Block Diagram



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 |

Lens Information

| |  |  |  |  |
|--------------|---|---|--|---|
| | UVCI-AR0822-C-S42-IR | UVCI-AR0822-C-S72-IR | UVCI-AR0822-C-S108-IR | UVCI-AR0822-C-S150-IR |
| Focus Type | Fixed Focus | Fixed Focus | Fixed Focus | Fixed Focus |
| Focal Length | 12 mm | 6 mm | 3 mm | 3.2 mm |
| Aperture | F2.0 | F2.8 | F2.0 | F2.0 |
| Module D-FOV | 41.7° ± 5% | 72.0° ± 5% | 108.6° ± 5% | 150.0° ± 5% |
| Module H-FOV | 36.3° ± 5% | 64.7° ± 5% | 104.0° ± 5% | 132.6° ± 5% |
| Module V-FOV | 20.5° ± 5% | 39.0° ± 5% | 72.2° ± 5% | 77.6° ± 5% |
| TTL | 23.09 mm | 28.6 mm | 29.56 mm | 44.98 mm |
| BFL | 5.06 mm | 8.8 mm | 4.85 mm | 6.14 mm |
| MOD | 0.15 m | 0.1 m | 0.3 m | 0.3 m |
| Distortion | <2% | <0.5% | <-5% | <-32% |
| IR-Filter | 650 nm | 650 nm | 650 nm | 650 nm |

Order Information

VCI-AR0821-x-Sxx-xx-xxxx

| Option | Code | Description |
|--------------|------|--|
| Chromaticity | C | Color |
| | M | Monochrome |
| Lens | S42 | S-Mount Module D-FOV 42° |
| | S72 | S-Mount Module D-FOV 72° |
| | S108 | S-Mount Module D-FOV 108° |
| | S150 | S-Mount Module D-FOV 150° |
| Filter | - | - |
| | IR | IR Cut Filter 650nm |
| Custom ID | xxxx | Custom Part number ID for customized Software loader and special component (BOM) |

For customization, please contact your TechNexion sales representative.

Optional Accessories

An easy to attach A-Mount bracket for TechNexion camera board modules.



245-MOUNT-BRACKET



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