

VCI-AR1335-SL

- onsemi AR1335 13MP Rolling Shutter Sensor
- 4K HDR Imaging for Low-Cost Applications
- S-Mount for Interchangeable Lenses
- UVC USB Type-C 5 Gbps Connector
- Plug & Play with Windows & Linux OS
- Comes with VizionViewer™ Configuration Utility and VizionSDK



Specifications

Camera Information

| | |
|----------------------------|--|
| CMOS Sensor | onsemi AR1335 |
| Active Pixels | 4208 (H) x 3120 (V) = 13MP |
| Pixel Size | 1.1 μm x 1.1 μm |
| Optical Format | 1/3.2" (Diagonal 5.8 mm) |
| Shutter Type | Rolling Shutter |
| Chromaticity | Color |
| Illuminated type | Back Side Illuminated (BSI) |
| Maximum Frame Rate (MJPEG) | 4208 x 3120 @ 30 fps 3840 x 2160 @ 30 fps 2560 x 1440 @ 60 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 120 fps 640 x 480 @ 60 fps |
| Maximum Frame Rate (UYVY) | 4208 x 3120 @ 10 fps 3840 x 2160 @ 15 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 120 fps 640 x 480 @ 30 fps |
| Maximum S/N Ratio | 37 dB |
| HDR Support | Yes |
| Output Format | MJPEG (JPG) UYVY |

Camera Interface

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

Power

| | |
|-------------------|---------------------------------------|
| Supply Voltage | 5V \pm 5% |
| Power Consumption | UYVY 4200 x 3120 @ 12 fps \leq 1.4W |
| Standby Power | \leq 0.3W Standby |

Software Support

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

Environmental and Mechanical

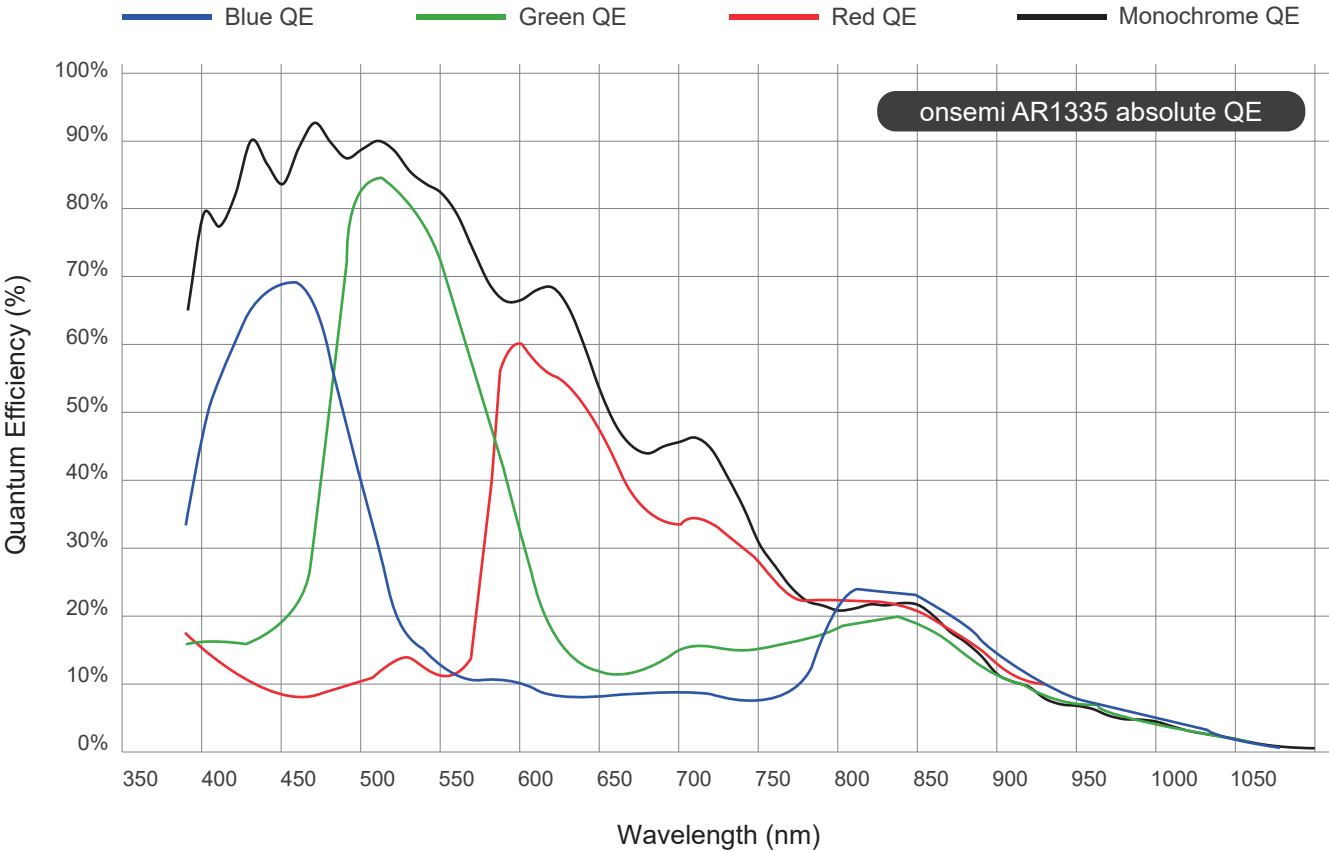
| | |
|-----------------------|--------------------------------|
| Dimensions | 29.5(W) x 29.5(H) x 28.5(D) mm |
| Weight | 44 grams |
| Relative Humidity | 10 to 90 % |
| MTBF | 50,000 Hours |
| Shock | 15G half-sine 11 ms duration |
| Operating Temperature | -30°C to +70°C |
| Vibration | 1 Grms random 5-500Hz hr/axis |

Certification and Compliance

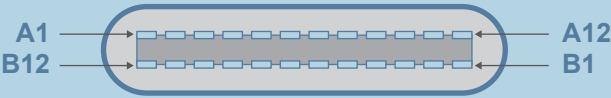
| | |
|---------------|---|
| Certification | Compliant with CE / FCC / RoHS / REACH directives |
|---------------|---|



Spectral Characteristics

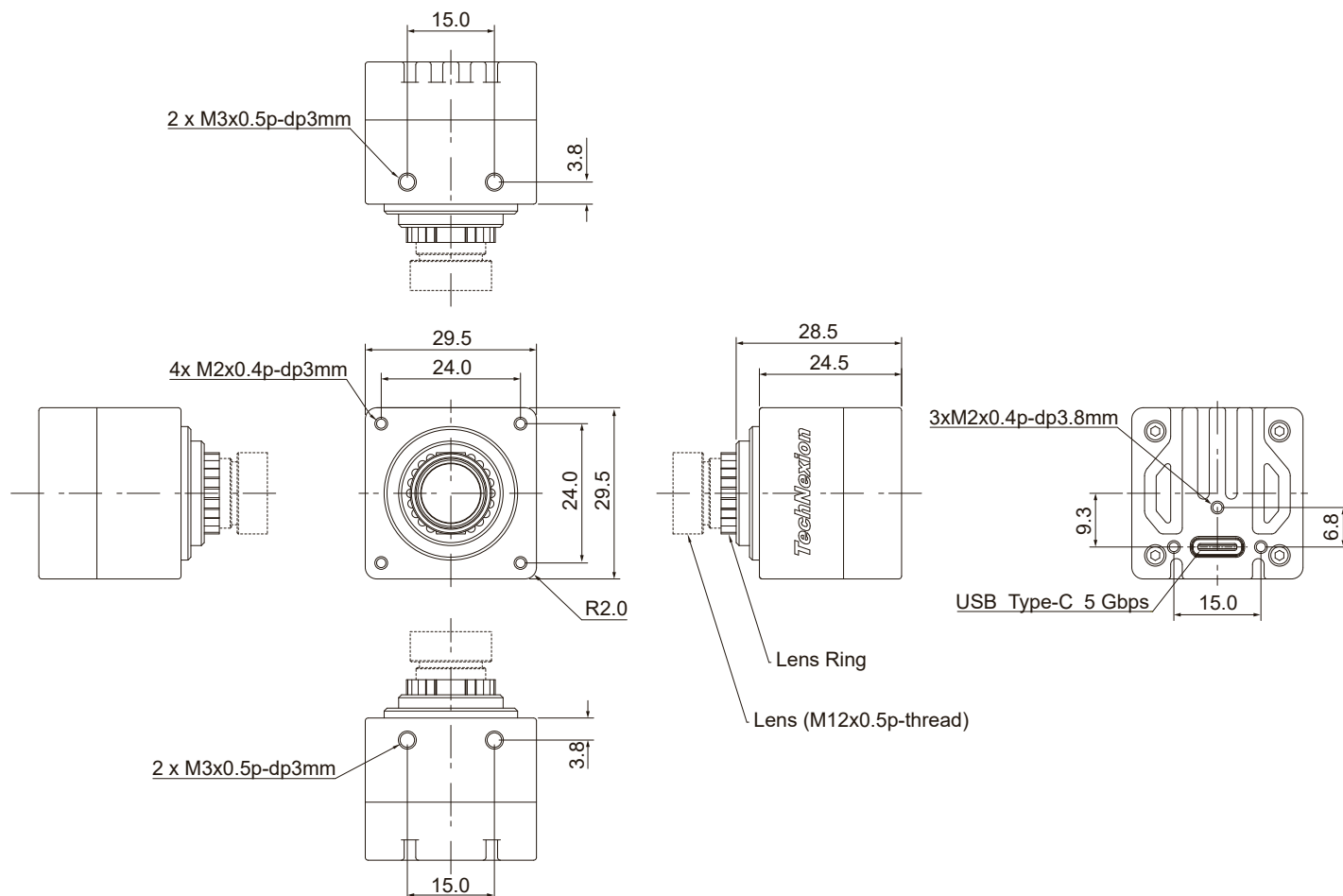


Connector Pin Definition

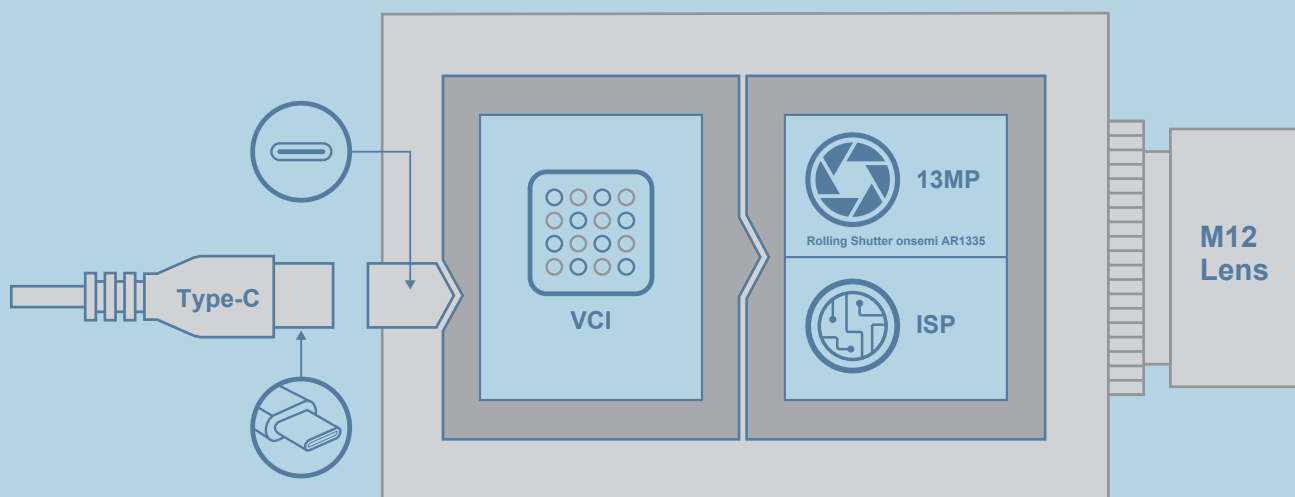


| | | | |
|-----|-------|-----|-------|
| A1 | GND | B12 | GND |
| A2 | TXP1 | B11 | RXP1 |
| A3 | TXN1 | B10 | RXN1 |
| A4 | VBUS1 | B9 | VBUS3 |
| A5 | CC1 | B8 | SBU2 |
| A6 | DP1 | B7 | DN2 |
| A7 | DN1 | B6 | DP2 |
| A8 | SBU1 | B5 | CC2 |
| A9 | VBUS2 | B4 | VBUS4 |
| A10 | RXN2 | B3 | TXN2 |
| A11 | RXP2 | B2 | TXP2 |
| A12 | GND | B1 | GND |

Dimensions (units in mm)



Block Diagram



Lens Information



VCI-AR1335-C-S85-IR

| | |
|--------------|-------------|
| Focus Type | Fixed Focus |
| Focal Length | 3.2 mm |
| Aperture | F2.4 |
| Module D-FOV | 84.6° ± 5% |
| Module H-FOV | 70.3° ± 5% |
| Module V-FOV | 55.2° ± 5% |
| TTL | 22 mm |
| BFL | 3.4 mm |
| MOD | 0.3 m |
| Distortion | <3.9% |
| IR-Filter | 650 nm |

Order Information

VCI-AR1335-x-Sxx-xx

Part Number Rules

| Option | Code | Description |
|--------------|------|--------------------------|
| Chromaticity | C | Color |
| Lens | S85 | S-Mount Module D-FOV 85° |
| Filter | - | - |
| | IR | IR Cut Filter 650nm |

For further customization or questions about orders, contact your TechNexion sales representative.

Optional Accessories

300-MOUNT-BRACKET

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



300-MOUNT-BRACKET



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