

## VCI-AR0822-SL

- 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
- Comes with VizionViewer™ SDK



## Specifications

### Camera Information

CMOS Sensor	onsemi AR0822
Active Pixels	3840 (H) x 2160 (V) = 8MP
Pixel Size	2.0 $\mu\text{m}$ x 2.0 $\mu\text{m}$
Optical Format	1/2" (Diagonal 8.81 mm)
Shutter Type	Rolling Shutter
Chromaticity	Mono / Color
Illuminated type	Back Side Illuminated (BSI)
Maximum Frame Rate (MJPEG)	3840 x 2160 @ 30 fps 2560 x 1440 @ 40 fps 1920 x 1080 @ 40 fps 1280 x 720 @ 40 fps 640 x 480 @ 51 fps
Maximum Frame Rate (UYVY)	3840 x 2160 @ 15 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 30 fps 1280 x 720 @ 30 fps 640 x 480 @ 30 fps
Maximum S/N Ratio	40.5 dB
HDR Support	Yes
Output Format	UYVY MJPEG (JPG)

### Camera Interface

Connector	USB Type-C 5 Gbps
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### Power

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

### Software Support

Operation Systems	UVC Plug-and-play Windows 10/11 Linux Yocto
SDK	VizionViewer™ SDK

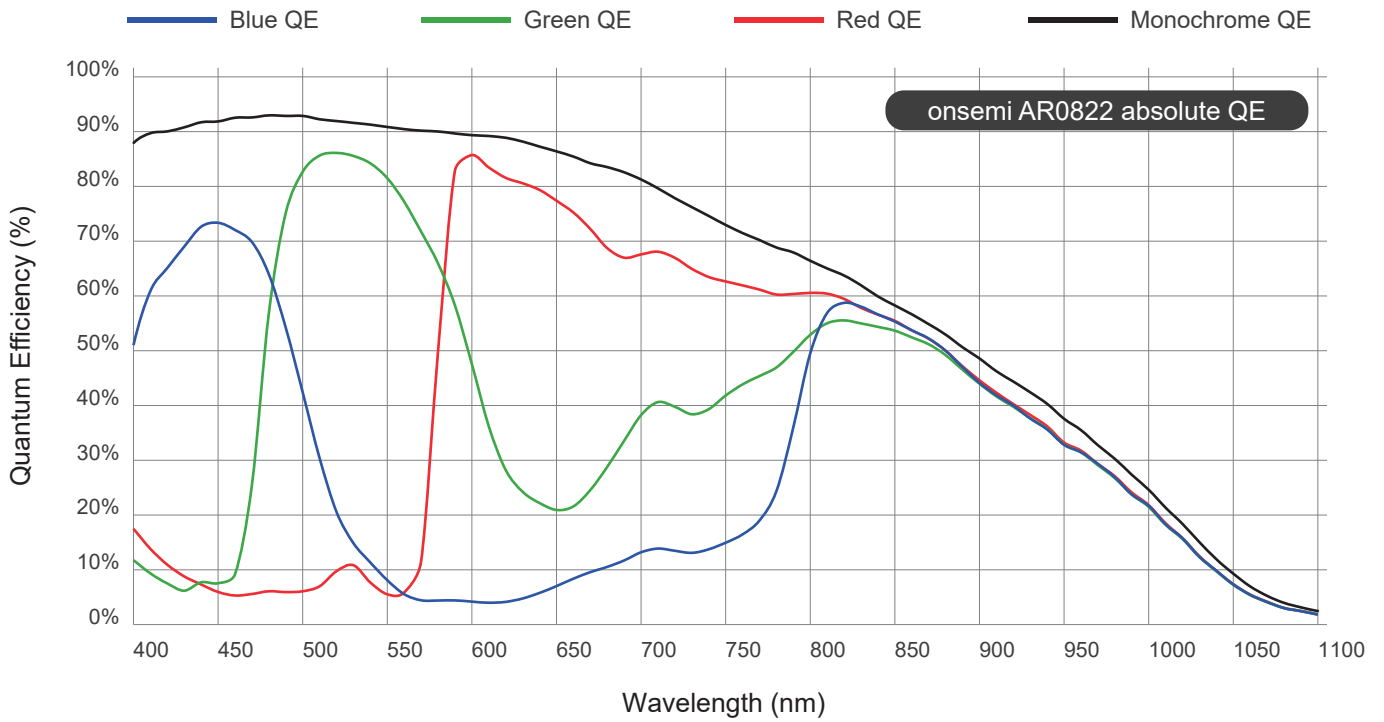
### Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 28.7(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

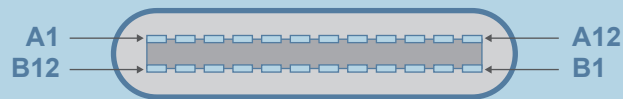
### Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives
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# Spectral Characteristics

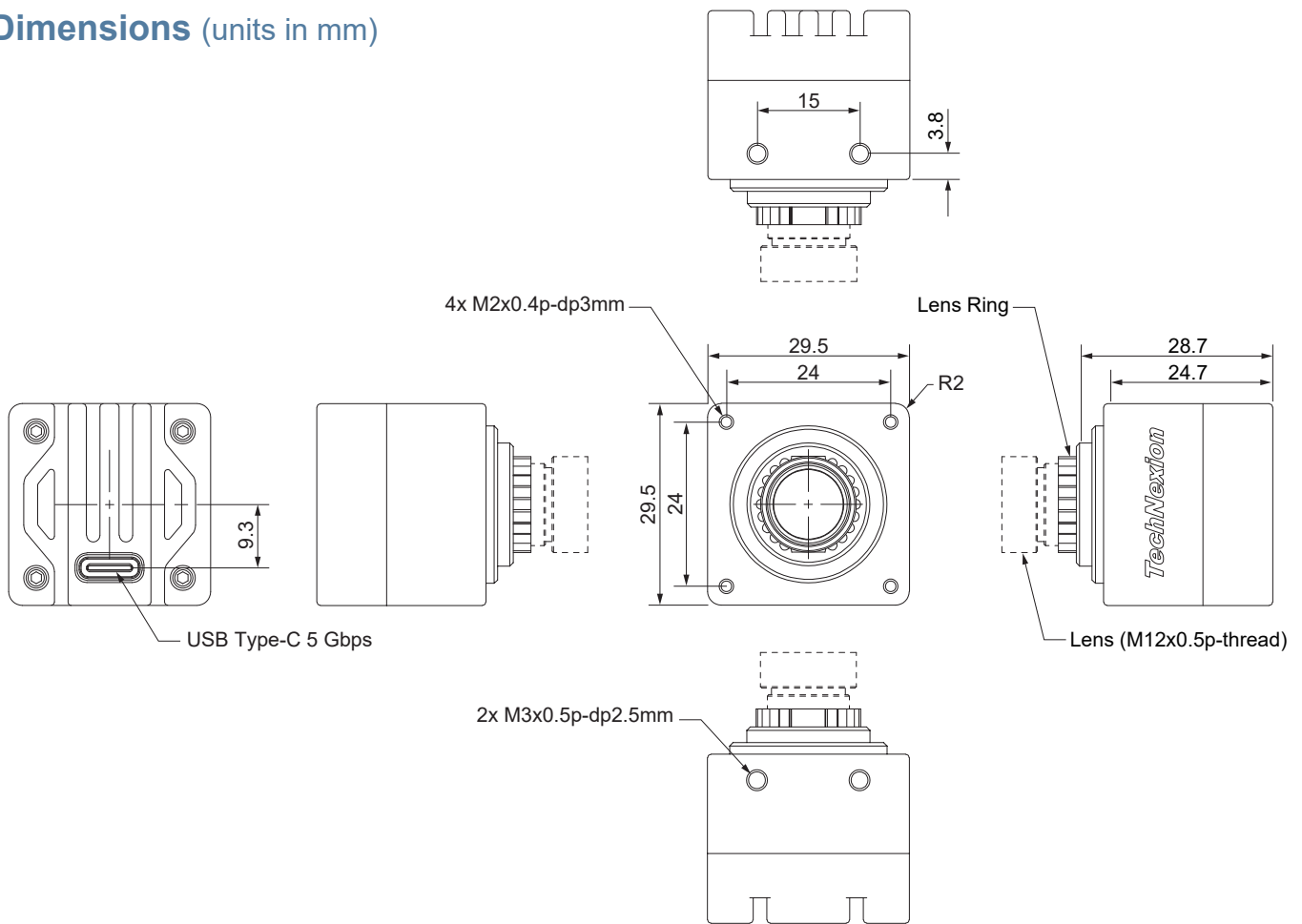


## Connector Pin Definition

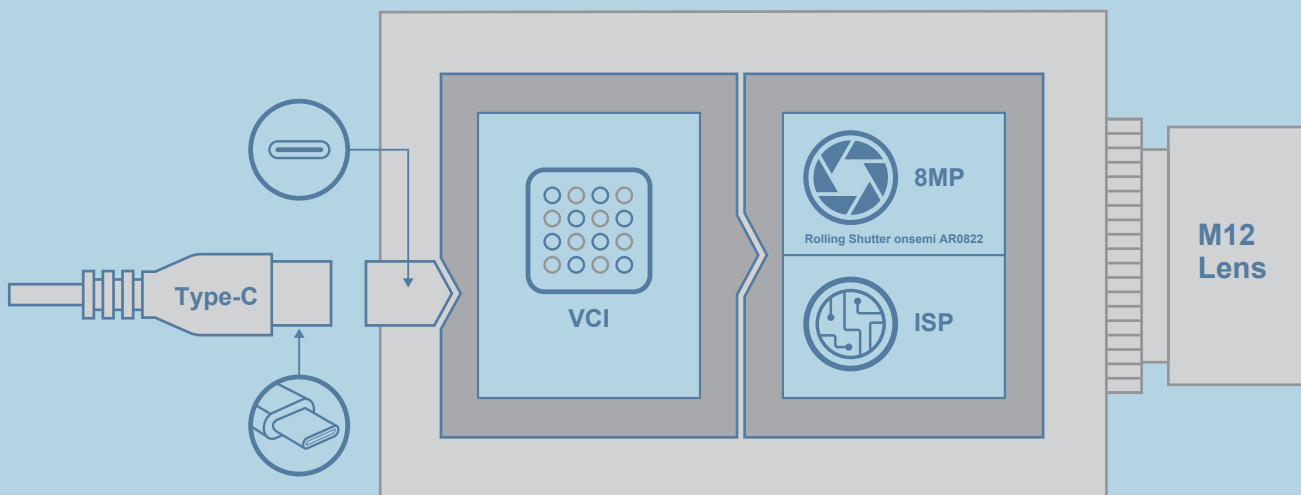


<b>A1</b>	GND	<b>B12</b>	GND
<b>A2</b>	TXP1	<b>B11</b>	RXP1
<b>A3</b>	TXN1	<b>B10</b>	RXN1
<b>A4</b>	VBUS1	<b>B9</b>	VBUS3
<b>A5</b>	CC1	<b>B8</b>	SBU2
<b>A6</b>	DP1	<b>B7</b>	DN2
<b>A7</b>	DN1	<b>B6</b>	DP2
<b>A8</b>	SBU1	<b>B5</b>	CC2
<b>A9</b>	VBUS2	<b>B4</b>	VBUS4
<b>A10</b>	RXN2	<b>B3</b>	TXN2
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

## Dimensions (units in mm)



## Block Diagram



# Lenses

## Lens Information

Focus Type	Fixed Focus
Focal Length	6 mm
Aperture	F2.8
Lens D-FOV	72.0°
Lens H-FOV	61.0°
Lens V-FOV	47.0°
Module D-FOV	72.0° ± 5%
Module H-FOV	64.7° ± 5%
Module V-FOV	39.0° ± 5%
TTL	28.6 mm
BFL	8.8 mm
MOD	0.1 m
Distortion	<0.5%
IR-Filter	650 nm
Lens Operating Temperature	- 10°C to +50°C

## Order Information

VCI-AR0822-x-Sxx-xx

### Part Number Rules

Option	Code	Description
Chromaticity	C	Color
	M	Monochrome
Lens	S72	S-Mount Module D-FOV 72°
Filter	-	-
	IR	IR Cut Filter 650nm

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

## Optional Accessories

### VCI-MOUNT-BRACKET-A

An easy to attach A-Mount bracket for TechNexion USB3 cameras.



VCI-MOUNT-BRACKET-A



VCI-MOUNT-BRACKET-A on tripod  
(tripod not included)