

# VCI-AR0821-CB

**TechNexion**  
INNOVATORS OF TECHNOLOGY

- onsemi AR0821 8MP Rolling Shutter Sensor
- 4K HDR Imaging Capabilities
- 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

Distributed by:



## Camera Information

CMOS Sensor	onsemi AR0821
Active Pixels	3848 (H) x 2168 (V) = 8MP
Pixel Size	2.1 $\mu\text{m}$ x 2.1 $\mu\text{m}$
Illuminated Type	Back Side Illuminated (BSI)
Maximum S/N Ratio	41.8 dB
Optical Format	1/1.7" (Diagonal 9.25 mm)
Shutter Type	Rolling Shutter
Chromaticity	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
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VizionSDK

VizionViewer™

## Power

Supply Voltage	5V $\pm$ 5%
Power Consumption	3840 x 2160 @ 15 fps $\leq$ 1.6W
Standby Power	$\leq$ 0.1W Standby

## Software Support

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

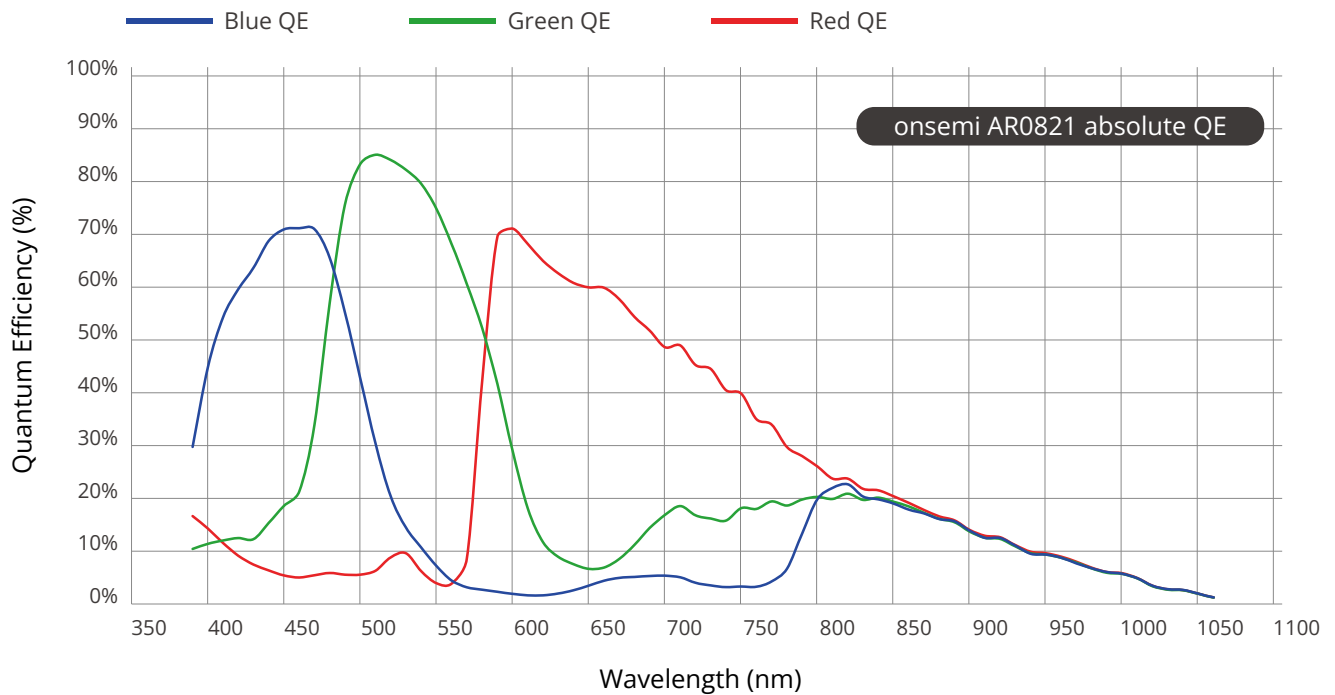
## Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 33.8(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

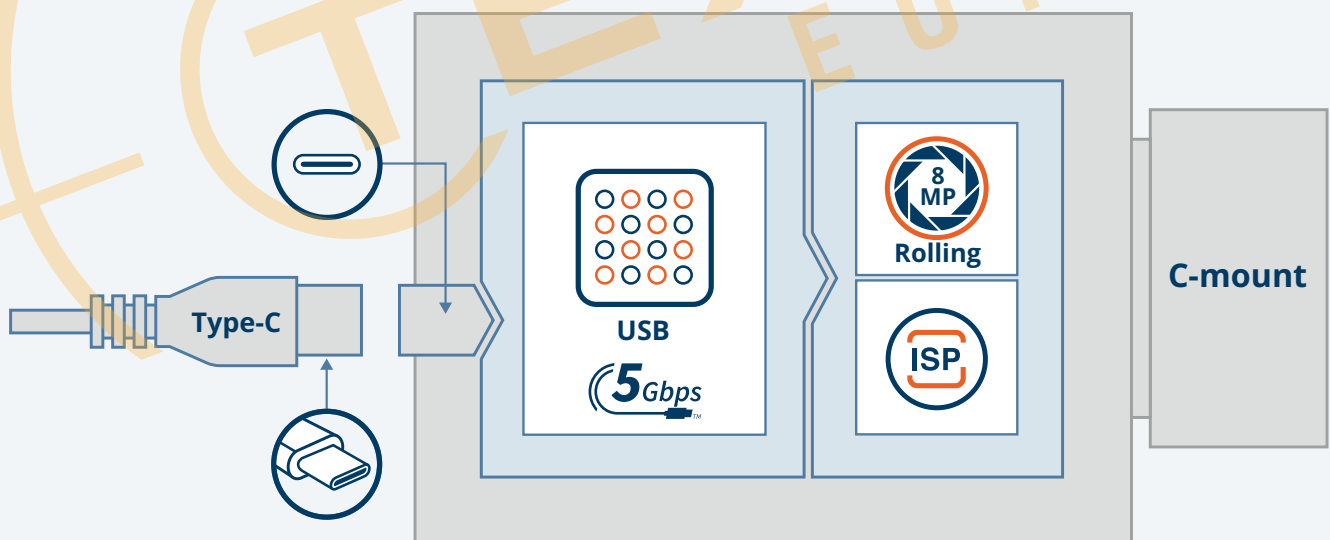
## Certification and Compliance

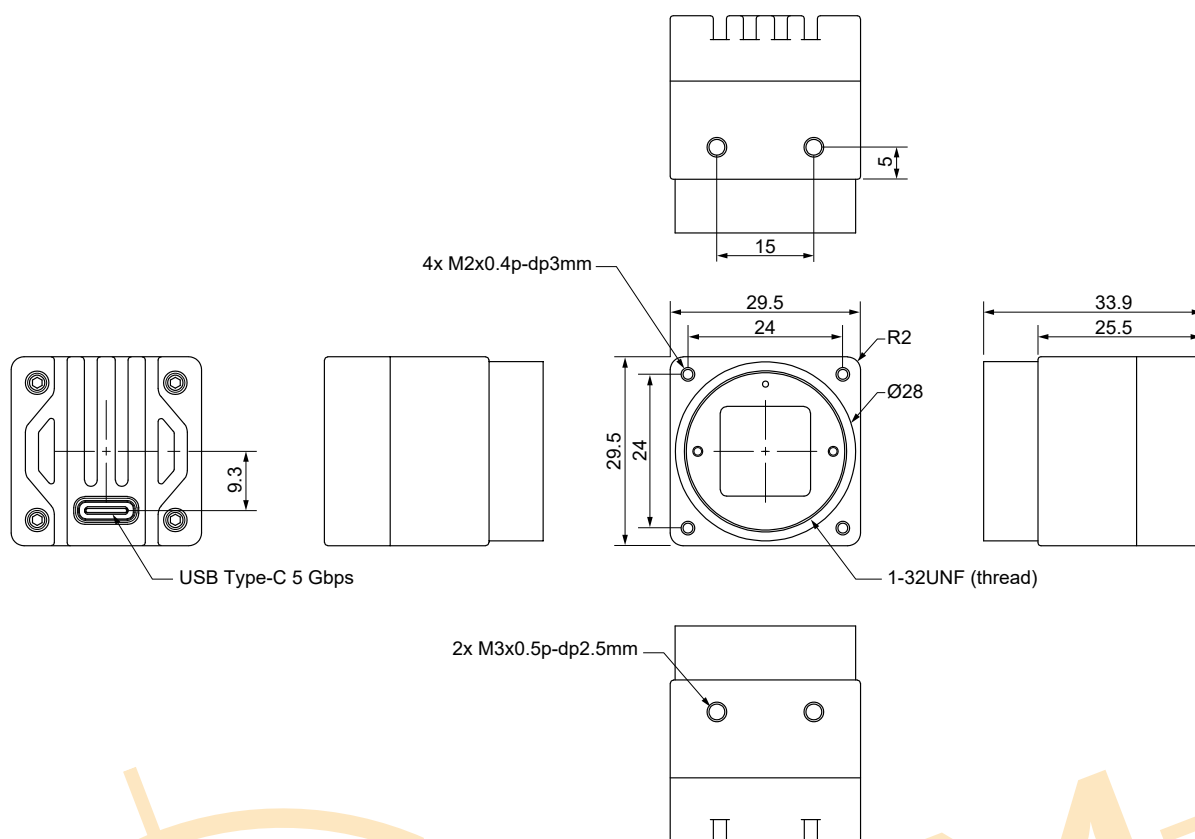
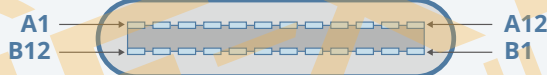
Certification	Compliant with CE / FCC / RoHS / REACH directives
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## Spectral Characteristics



## Block Diagram



**Dimensions** (units in mm)**Connector Pin Definition**

No.	Pin Define	No.	Pin Define
<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

## Order Information

VCI-AR0821-x-CB-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
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 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.



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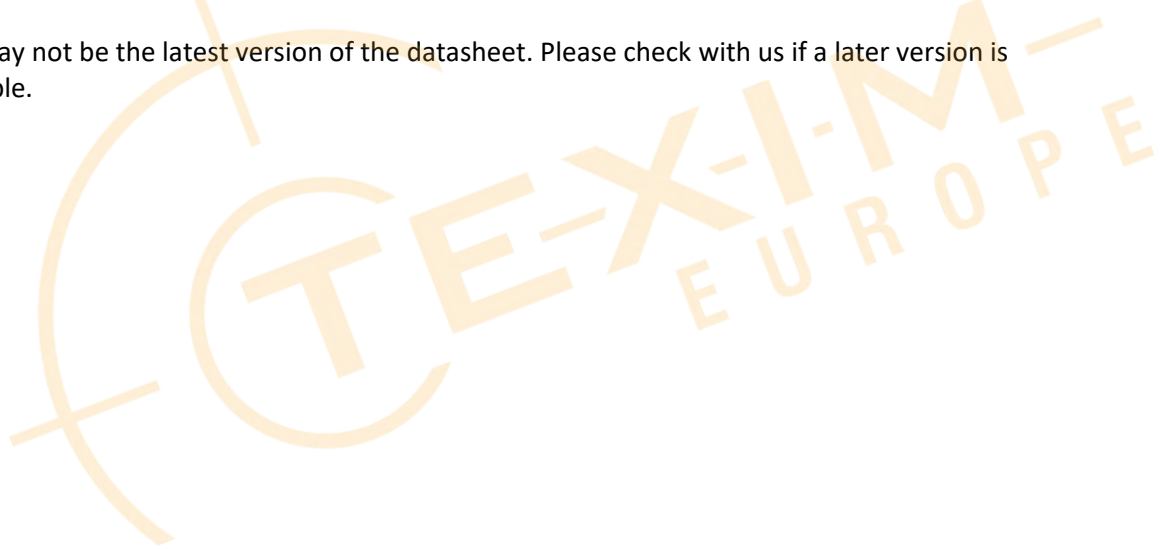
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Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





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