

VCI-AR0144-SL

- onsemi AR0144 1MP Global Shutter Sensor
- 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



Distributed by:



Specifications

Camera Information

CMOS Sensor	onsemi AR0144
Active Pixels	1280 (H) x 800 (V) = 1MP
Pixel Size	3.0 μm x 3.0 μm
Optical Format	1/4" (Diagonal 4.5 mm)
Shutter Type	Global Shutter
Chromaticity	Color
Illuminated type	Front Side Illuminated (FSI)
Maximum Frame Rate (MJPEG)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Maximum Frame Rate (UYVY)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Maximum S/N Ratio	38 dB
Output Format	MJPEG (JPG) UYVY

Camera Interface

Connector	USB Type-C 5 Gbps
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Power

Supply Voltage	5V ± 5%
Power Consumption	UYVY 1280 x 800 @ 60 fps ≤ 0.9W
Standby Power	≤ 0.1W Standby

Software Support

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

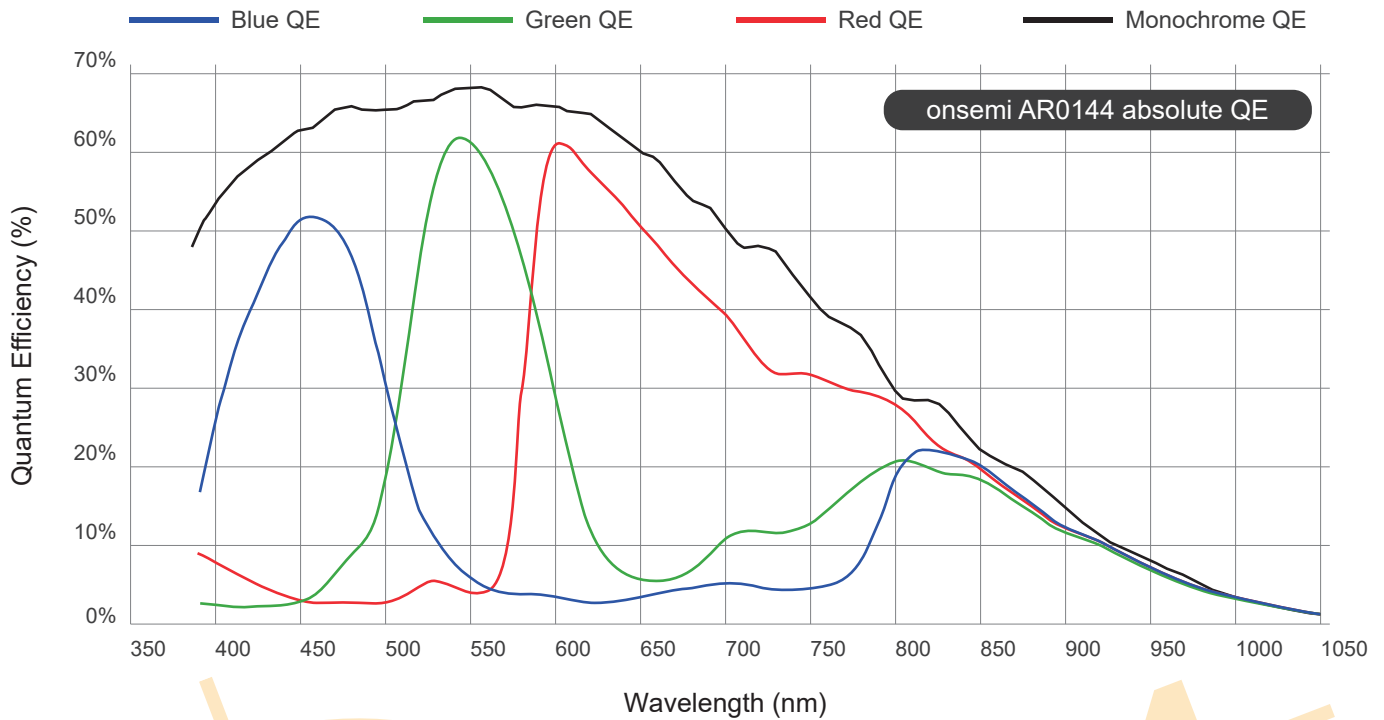
Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 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
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Spectral Characteristics

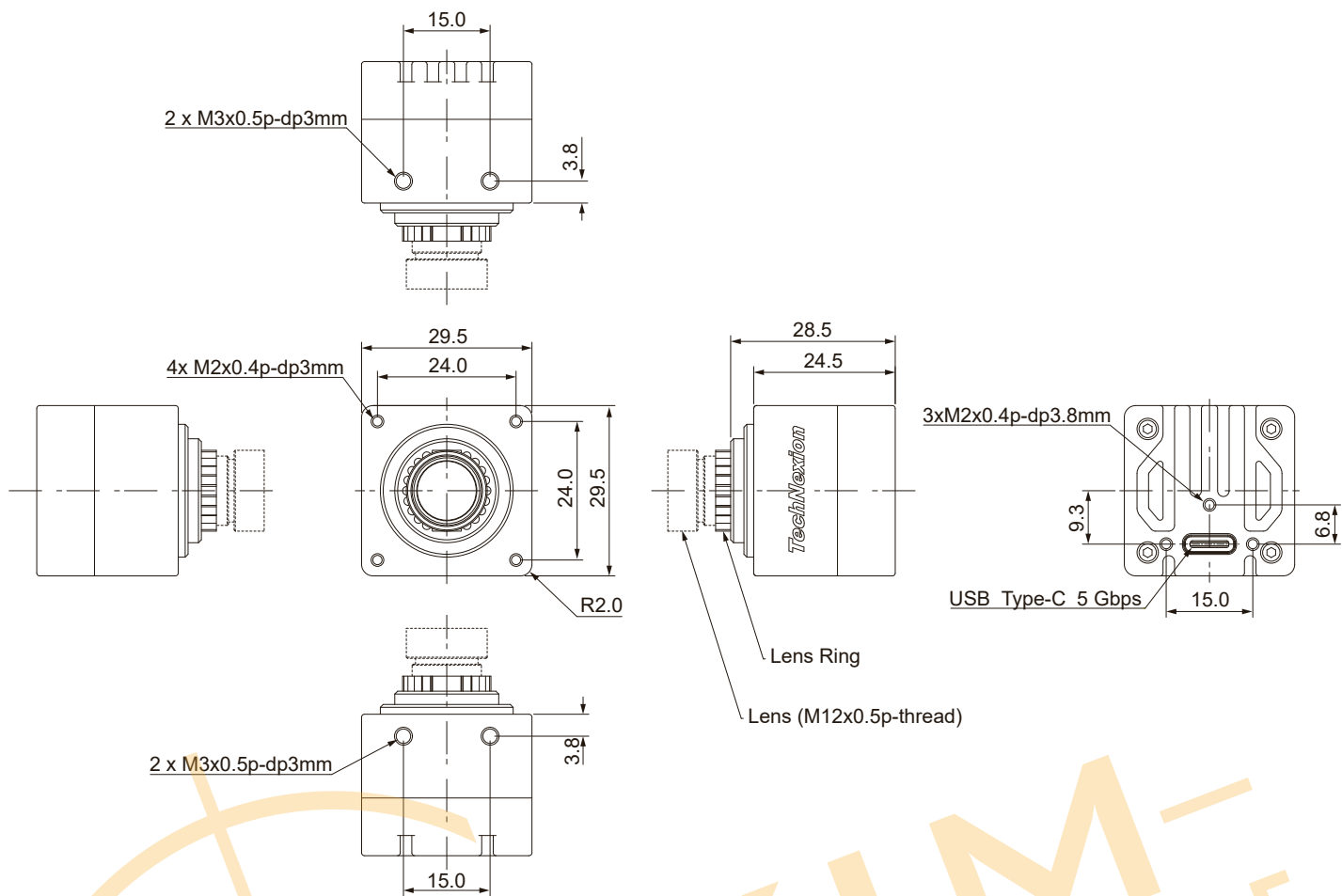


Connector Pin Definition

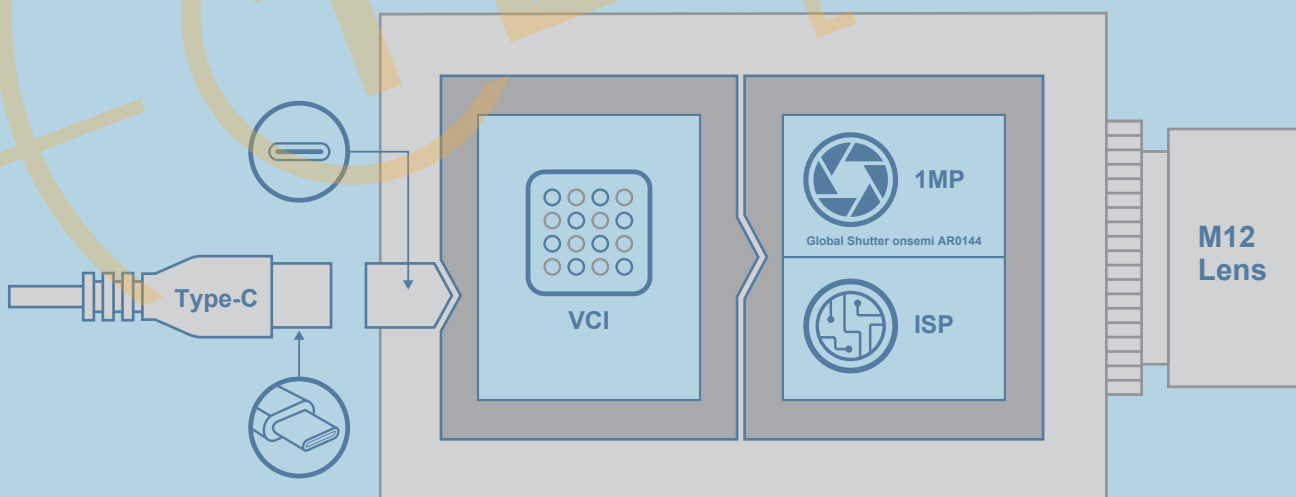


A1	GND	B12	GND
A2	TXP1	B11	RXP1
A3	TXN1	B10	RXN1
A4	VBUS1	B9	VBUS3
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS2	B4	VBUS4
A10	RXN2	B3	TXN2
A11	RXP2	B2	TXP2
A12	GND	B1	GND

Dimensions (units in mm)



Block Diagram



Lens Information

	 VCI-AR0144-C-S33-IR	 VCI-AR0144-C-S83-IR
Focus Type	Fixed Focus	Fixed Focus
Focal Length	8 mm	2.85 mm
Aperture	F1.8	F2.8
Lens D-FOV	34.0°	84.0°
Lens H-FOV	28.2°	75.0°
Lens V-FOV	17.5°	58.0°
Module D-FOV	33.1° ± 5%	82.6° ± 5%
Module H-FOV	28.0° ± 5%	73.5° ± 5%
Module V-FOV	17.4° ± 5%	50.3° ± 5%
TTL	25.22 mm	20 mm
BFL	6.92 mm	2.03 mm
MOD	0.2 m	0.3 m
Distortion	<-5.11%	< -0.35%
IR-Filter	650 nm	650 nm

Order Information

VCI-AR0144-x-Sxx-xx

Part Number Rules

Option	Code	Description
Chromaticity	C	Color
Lens	S33	S-Mount Module D-FOV 33°
	S83	S-Mount Module D-FOV 83°
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)

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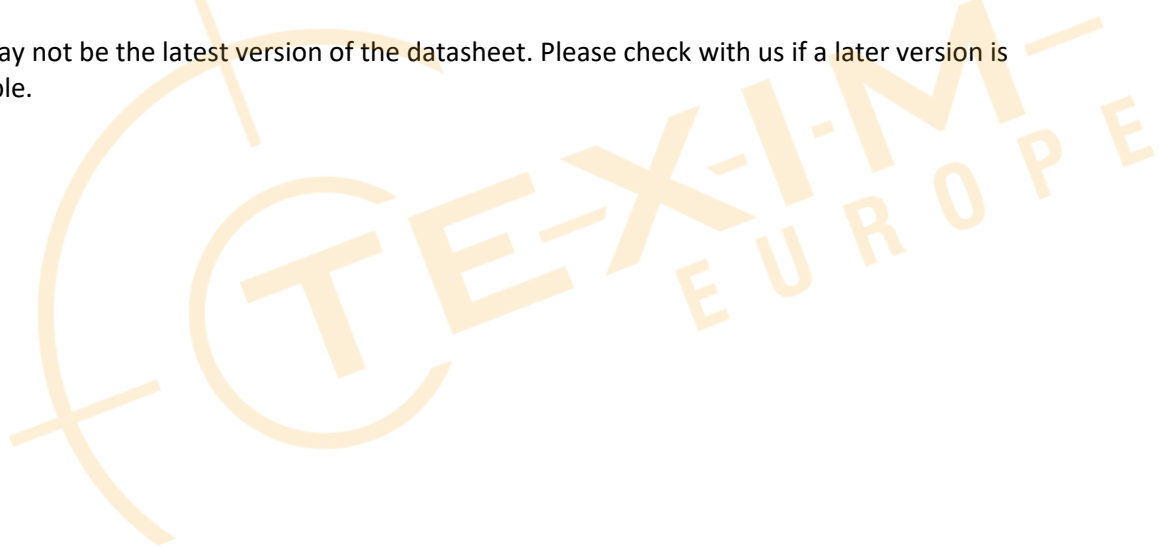
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

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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