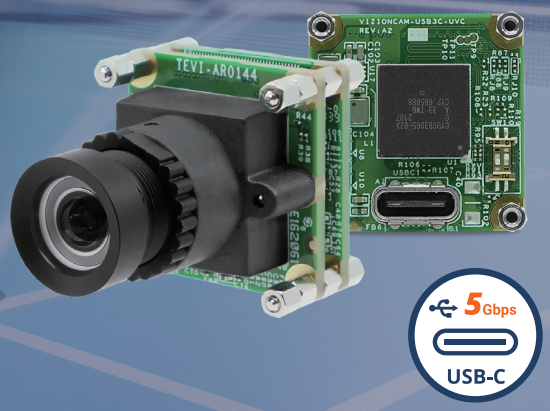
TechNexion
INNOVATORS OF TECHNOLOGY

UVCI-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
- VizionViewer™ configuration utility
- VizionSDK for custom development



VizionSDK VizionViewer™

Camera Information

CMOS Sensor	onsemi AR0144
Active Pixels	1280 (H) x 800 (V) = 1MP
Pixel Size	3.0 µm x 3.0 µm
Illuminated Type	Front Side Illuminated (FSI)
Maximum S/N Ratio	38 dB
Optical Format	1/4" (Diagonal 4.5 mm)
Shutter Type	Global Shutter
Chromaticity	Color
Maximum Frame Rate (YUV422-UYVY)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Maximum Frame Rate (MJPEG)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Output Format	YUV422-UYVY MJPEG (JPG)

Camera Interface

Connector	USB Type-C 5 Gbps

Power

Supply Voltage	5V ± 5%
Power Consumption	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	24.5(W) x 24.5(H) x 25.6(D) mm
Weight	≤ 18 grams
Operating Temperature	-30°C to + 70°C

Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

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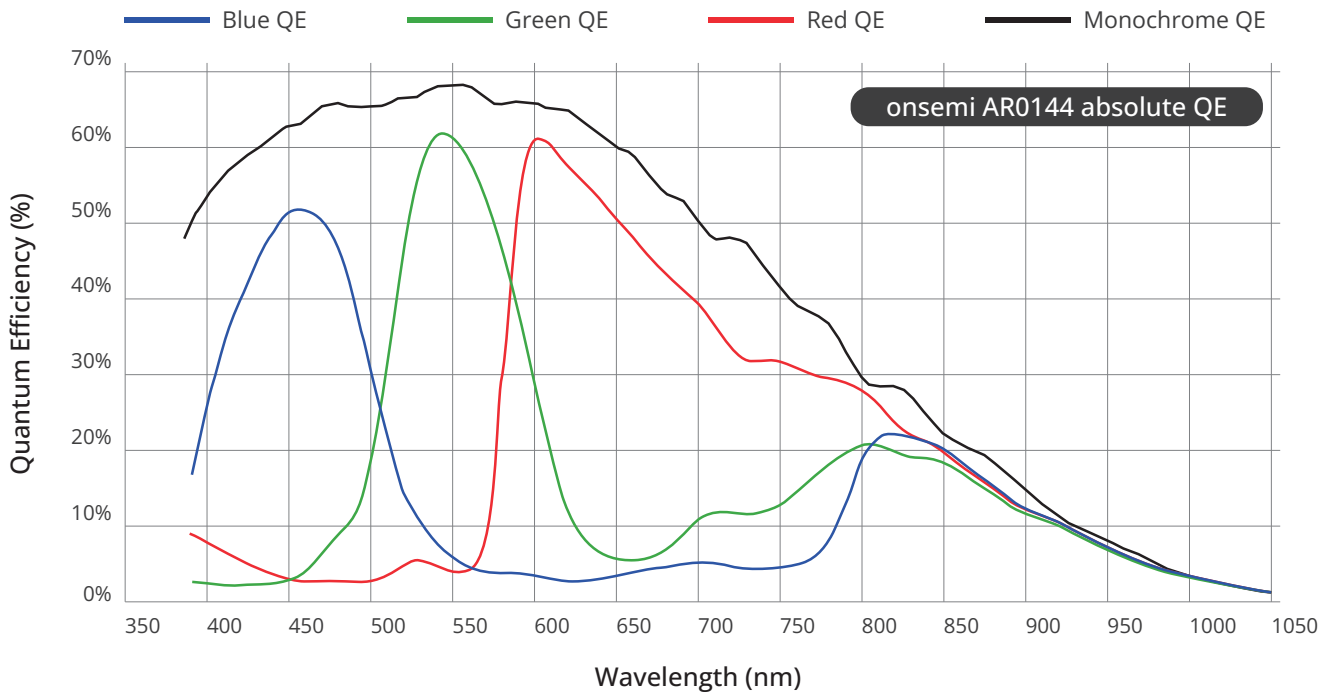
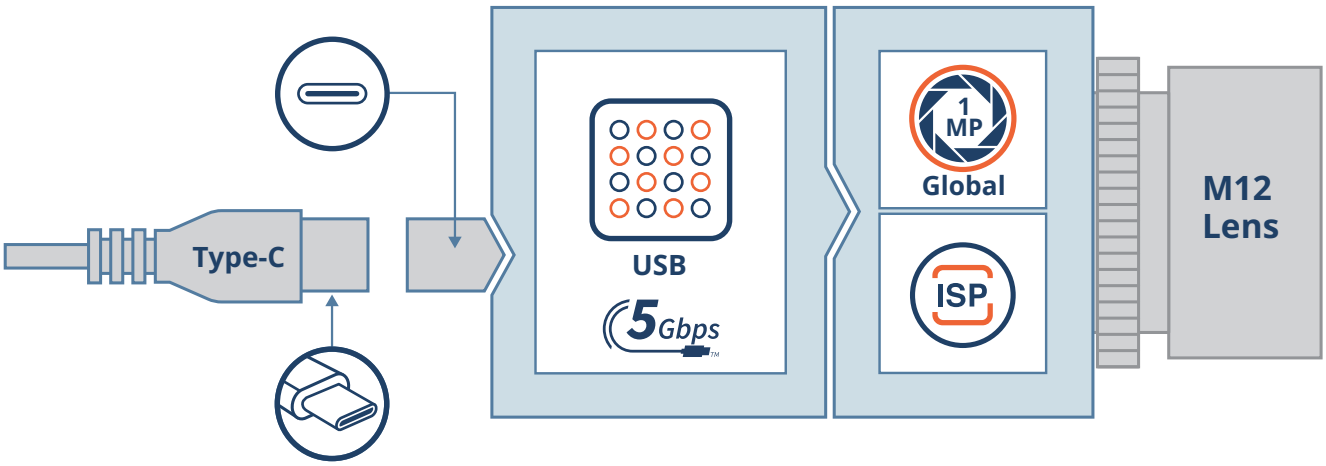
Spectral Characteristics



Block Diagram



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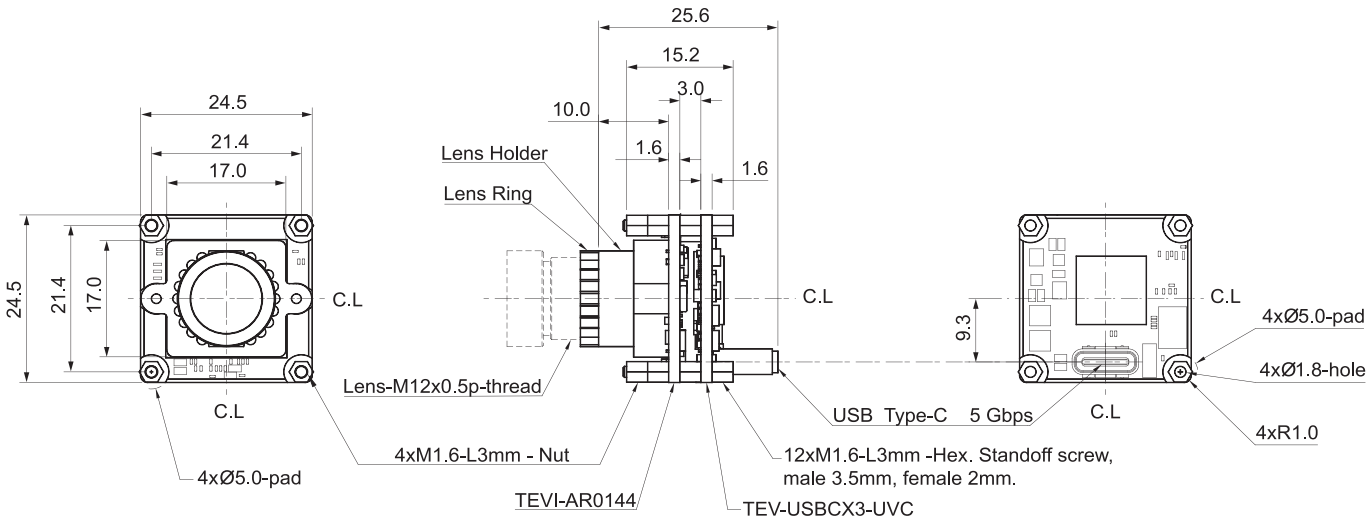
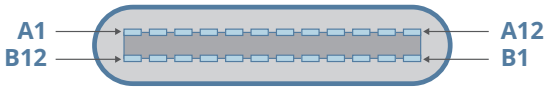
Spectral Characteristics



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

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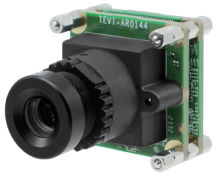
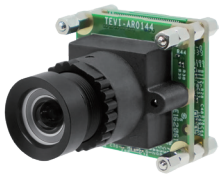
Lens Information

	 UVCI-AR0144-C-S33-IR	 UVCI-AR0144-C-S83-IR
Focus Type	Fixed Focus	Fixed Focus
Focal Length	8 mm	2.85 mm
Aperture	F1.6	F2.8
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	26.2 mm	20 mm
BFL	7.8 mm	2.03 mm
MOD	0.3 m	0.3 m
Distortion	<-5.03%	<-0.35%
IR-Filter	650 nm	650 nm
Lens Structure	6G + IR	2G + 3P + IR
First layer material	Glass	Plastic

Order Information

UVCI-AR0144-x-Sxx-xx-xxxx

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
Custom ID	xxxx	Custom Part number ID

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-A

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

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