

VLI-AR0144-SL

- onsemi AR0144 1MP Global Shutter Sensor
- Captures high-speed dynamic targets clearly within an ultra-short exposure time.
- S-Mount for Interchangeable Lenses
- FAKRA Automotive Connector
- Plug & Play with Linux OS & Yocto
- Comes with VizionViewer™ SDK



Specifications

Camera Information

CMOS Sensor	onsemi AR0144
Active Pixels	1280 (H) x 800 (V) = 1.0MP
Pixel Size	3.0 μm x 3.0 μm
Optical Format	1/4" (Diagonal 4.5 mm)
Shutter Type	Global Shutter
Chromaticity	Mono / Color
Illuminated type	Front Side Illuminated (FSI)
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	UYVY

Camera Interface

Connector	FAKRA SMB Jack Z-Code
Serial Link	FPD-Link III

Power

Supply Voltage	12V $\pm$ 5%
Power Consumption	UYVY 1280 x 800 @ 60 fps $\leq$ 0.9W
Standby Power	$\leq$ 0.1W Standby



yocto
PROJECT

Software Support

Platform Support	x86 Intel / AMD NXP i.MX8M Mini / Plus NXP i.MX93 TI Sitara™ AM62x / AM62A TI Jacinto™ TDA4VM / TDA4VA / TDA4VH NVIDIA Jetson Nano NVIDIA Xavier NX NVIDIA Orin Nano/NX
Operation Systems	Linux Yocto
SDK	VizionViewer™ SDK

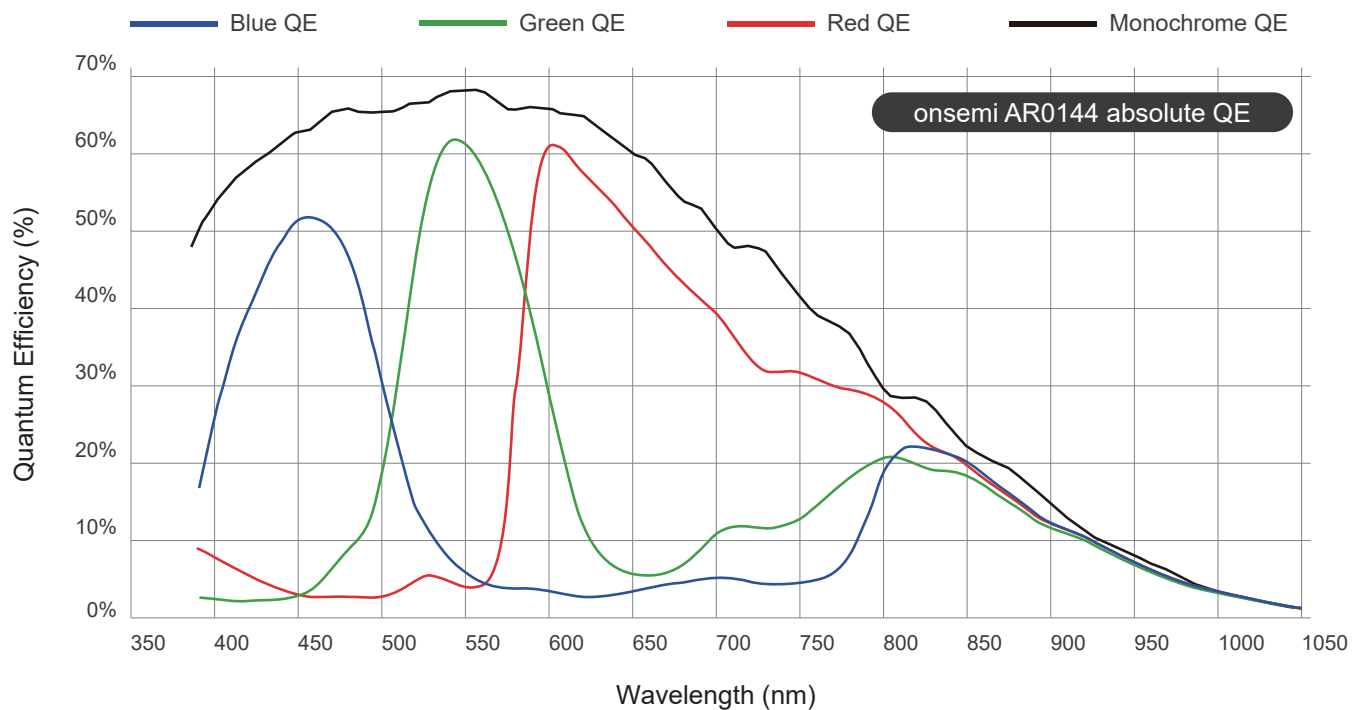
Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 32.3(D) mm
Weight	45 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

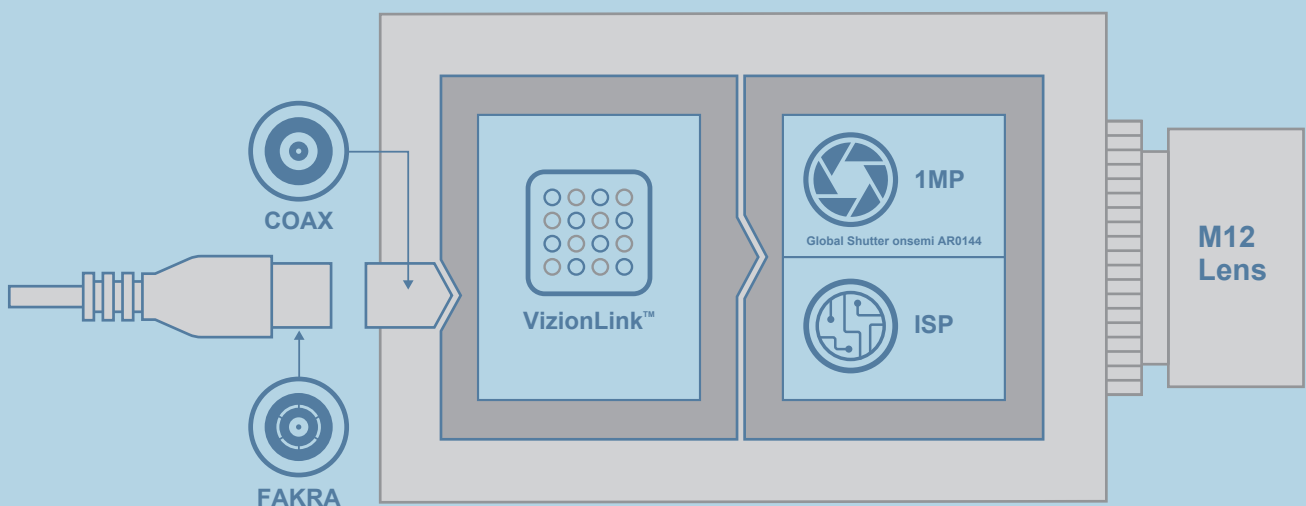
Certification and Compliance

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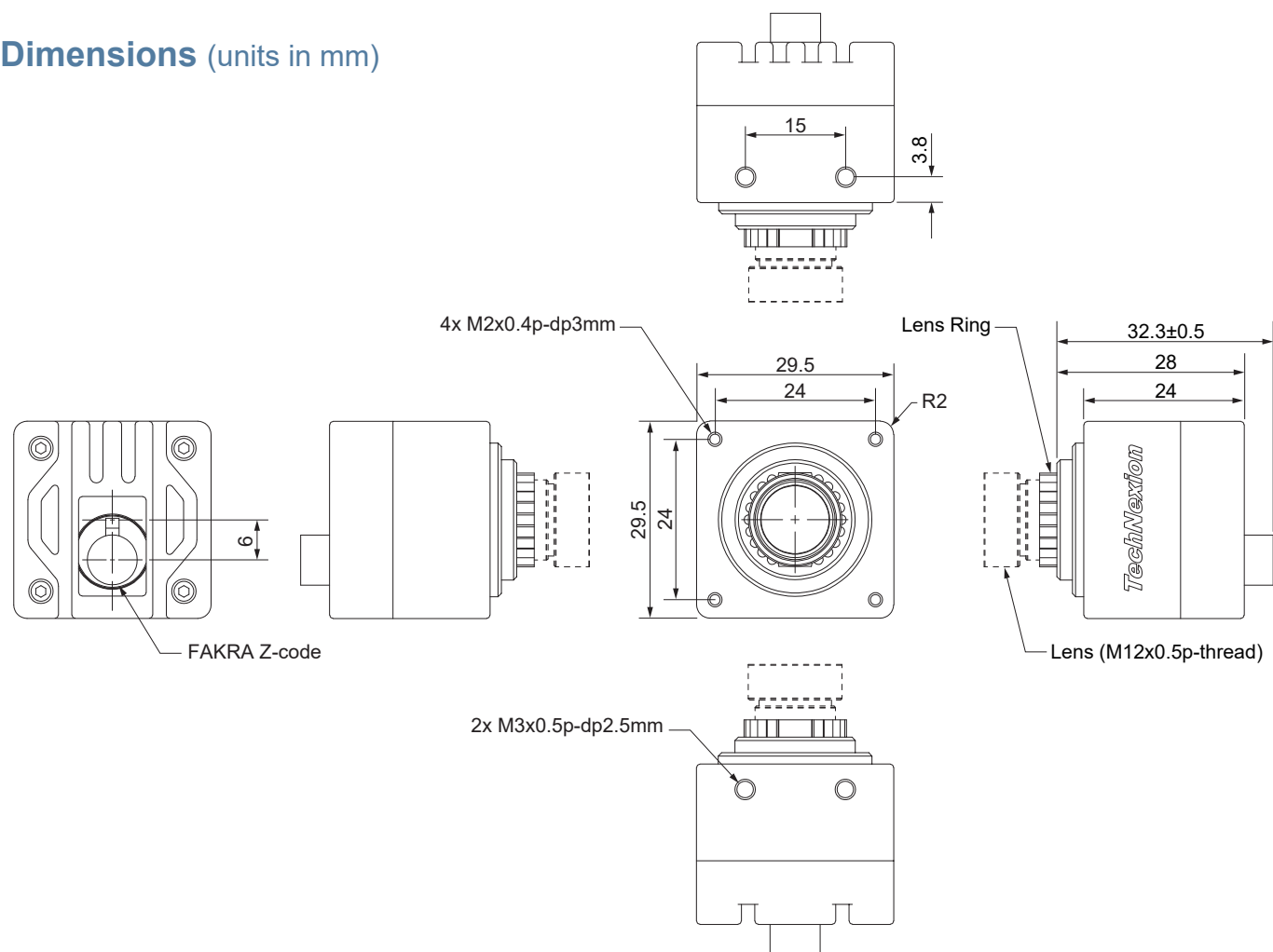
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLI-AR0144-x-Sxx-xx

Part Number Rules

Option	Code	Description
Chromaticity	C	Color
	M	Monochrome
Lens	S83	S-Mount Module D-FOV 83°
Filter	-	-
	IR	IR Cut Filter 650nm

For customization, please 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)

Lenses

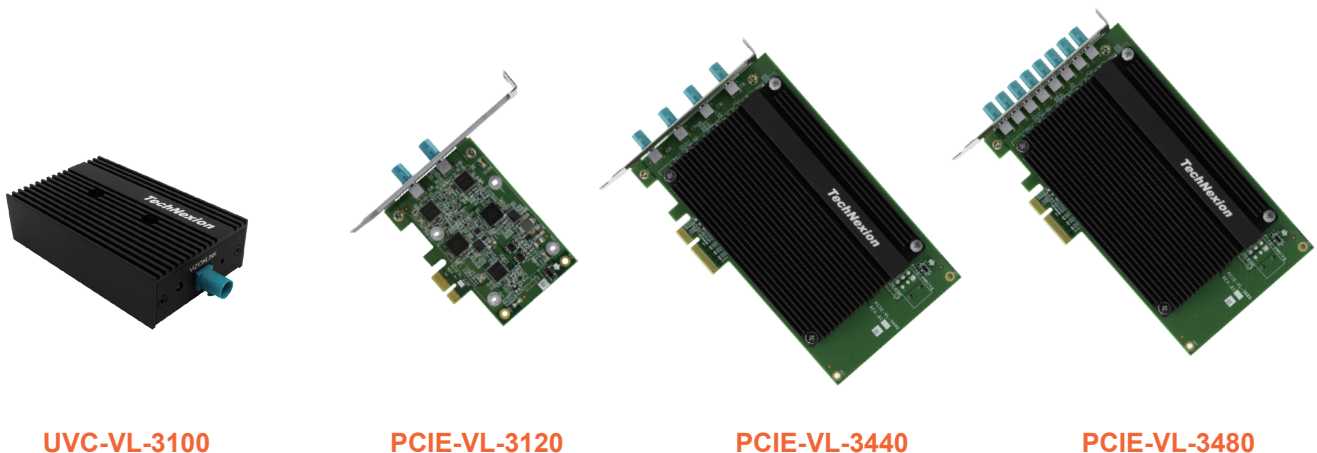
Lens Information

Focus Type	Fixed Focus
Focal Length	2.85 mm
Aperture	F2.8
Lens D-FOV	84.0°
Lens H-FOV	75.0°
Lens V-FOV	58.0°
Module D-FOV	82.6° ± 5%
Module H-FOV	73.5° ± 5%
Module V-FOV	50.3° ± 5%
TTL	20 mm
BFL	2.03 mm
MOD	0.3 m
Distortion	< -0.35%
IR-Filter	650 nm
Lens Operating Temperature	- 20°C to +60°C

FPD-Link III Frame Grabbers

Adding TechNexion FPD-Link III cameras to an existing x86 Intel or AMD based system couldn't be easier by using our full range frame grabber cards.

- Available in 1 / 2 / 4 / 8 port FPD-Link III camera frame grabber configuration
- Fits in a standard PCI Express Gen 3 slot
- Plug-n-Play driver-less UVC based solution
- Complete Fanless design with brushed aluminium thermal solution
- Comes with TechNexion Vizionviewer™ SDK



UVC-VL-3100

PCIE-VL-3120

PCIE-VL-3440

PCIE-VL-3480

TEK-8021-NX / TEK-60xx-ORIN

Nvidia Jetson NX/Orin Solutions



- Nvidia Xavier NX Systems
- Nvidia Orin Nano / NX Systems
- Up-to 24 FPD-Link III camera solutions
- Nvidia Jetpack driver integration
- TechNexion Vizionviewer™ SDK

TRAQ-4VM

Texas Instruments TDA4VM Robotic AMR Solution



- TI TDA4VM
- Up-to 8 FPD-Link III cameras
- FPD-Link III Display
- Single Pair Ethernet (SPE) sensor network extension
- Linux / Debian support
- TechNexion Vizionviewer™ SDK

TEP6-xxx-IMX8MP

NXP i.MX8M Plus based HMI Family



- NXP i.MX8M Plus HMI solution
- Available as 15" / 15.6" / 21.5" Display solution
- Up-to 2 FPD-Link III cameras
- FPD-Link III remote Display
- Linux / Debian / Android support
- TechNexion Vizionviewer™ SDK

TEK6-xxx-IMX8MP

NXP i.MX8M Plus based Edge Computing Gateway System



- NXP i.MX8M Plus Edge Computing
- Available with By-pass Ethernet solution
- Extensive low-speed I/O availability
 - GPIO / UART / CAN / USB
- Up-to 2 FPD-Link III cameras
- Linux / Debian / Android support
- TechNexion Vizionviewer™ SDK