

VLS3-AR0521-SL

- onsemi AR0521 5MP Rolling Shutter Sensor
- Designed for Low Light Applications
- S-Mount for Interchangeable Lenses
- FAKRA Automotive Connector
- Plug & Play with Linux OS & Yocto
- Comes with VizionViewer™ Configuration Utility and VizionSDK



Specifications

Camera Information

CMOS Sensor	onsemi AR0521
Active Pixels	2592 (H) x 1944 (V) = 5MP
Pixel Size	2.2 μm x 2.2 μm
Optical Format	1/2.5" (Diagonal 7.13 mm)
Shutter Type	Rolling Shutter
Chromaticity	Color
Illuminated type	Back Side Illuminated (BSI)
Maximum Frame Rate (UYVY)	2592 x 1944 @ 24 fps 2560 x 1440 @ 32 fps 1920 x 1080 @ 60 fps 1280 x 960 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 120 fps
Maximum S/N Ratio	40 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 2592 x 1944 @ 24 fps $\leq$ 1.2W
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 System	Linux Yocto
Software	VizionViewer™
Development SDK	VizionSDK

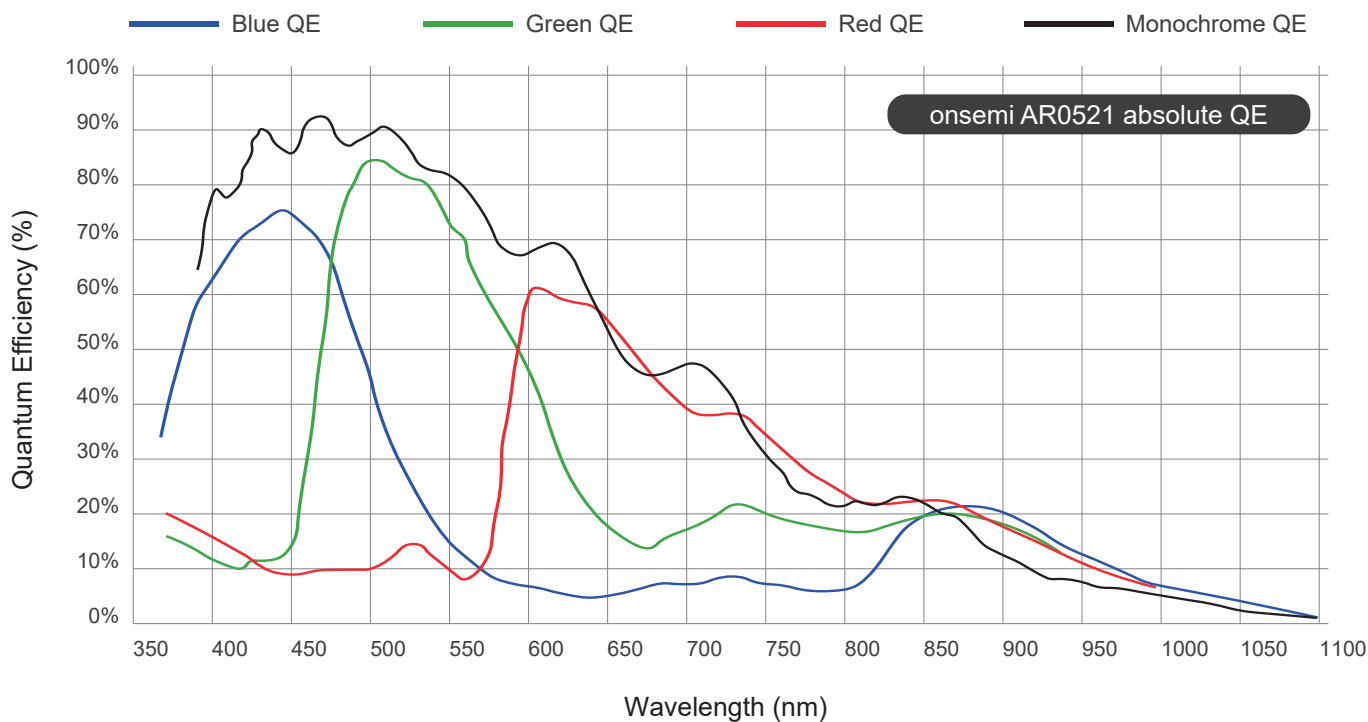
Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 32.2(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

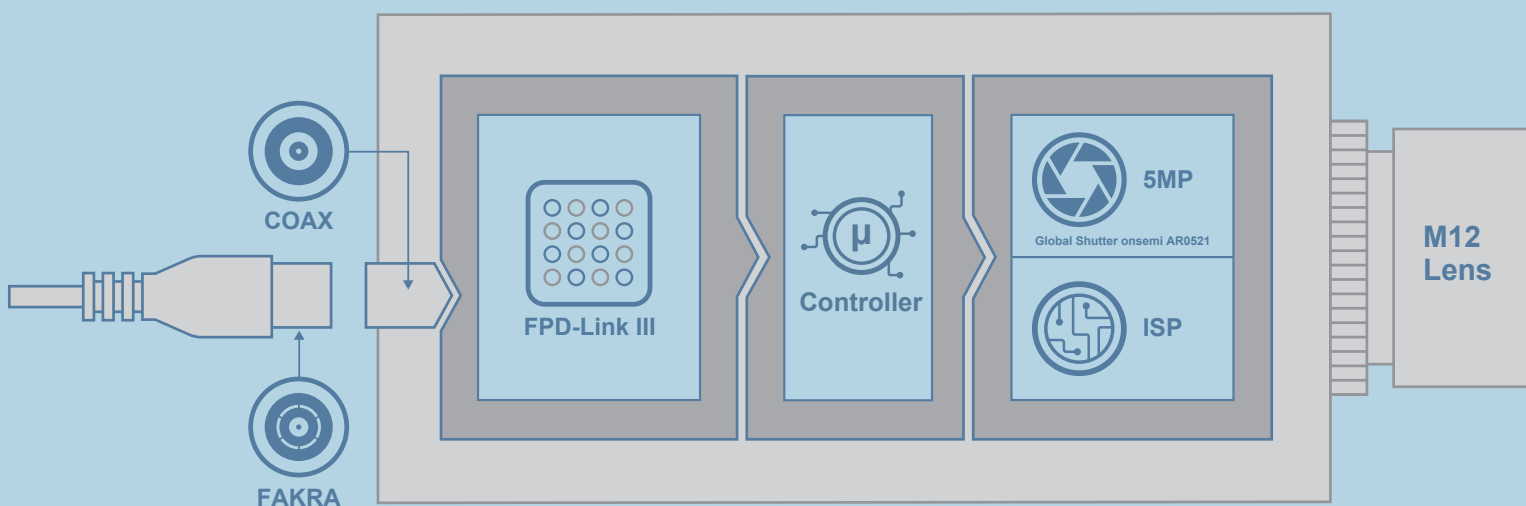
Certification and Compliance

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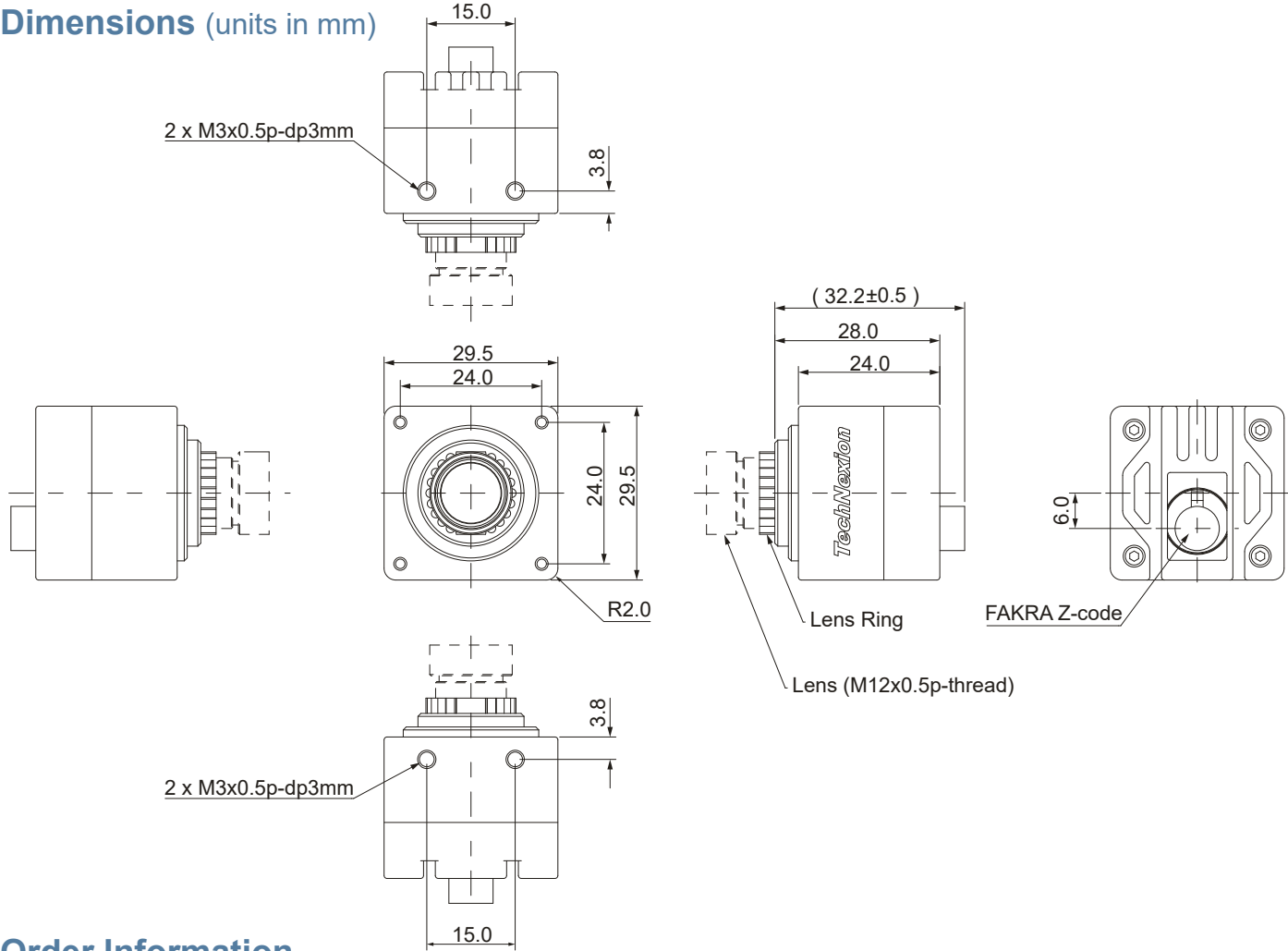
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLS3-AR0521-x-Sxx-xx

Part Number Rules

Option	Code	Description
Chromaticity	C	Color
Lens	S34	S-Mount Module D-FOV 34°
	S85	S-Mount Module D-FOV 85°
	S140	S-Mount Module D-FOV 140°
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)

Lens Information

			
	VLS3-AR0521-C-S34-IR	VLS3-AR0521-C-S85-IR	VLS3-AR0521-C-S140-IR
Focus Type	Fixed Focus	Fixed Focus	Fixed Focus
Focal Length	12 mm	3.9 mm	2.87 mm
Aperture	F1.8	F2.8	F2.6
Lens D-FOV	34.0°	96.0°	146.0°
Lens H-FOV	27.0°	80.0°	112.0°
Lens V-FOV	20.3°	60.0°	82.0°
Module D-FOV	33.6° ± 5%	85.2° ± 5%	140.0° ± 5%
Module H-FOV	26.8° ± 5%	73.0° ± 5%	110.5° ± 5%
Module V-FOV	20.1° ± 5%	58.1° ± 5%	81.4° ± 5%
TTL	20.43 mm	22 mm	21 mm
BFL	6.64 mm	4.54 mm	5.27 mm
MOD	0.2 m	0.3 m	0.3 m
Distortion	<-3.31%	<1.26%	<-20.0%
IR-Filter	650 nm	650 nm	650 nm

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 VizionSDK



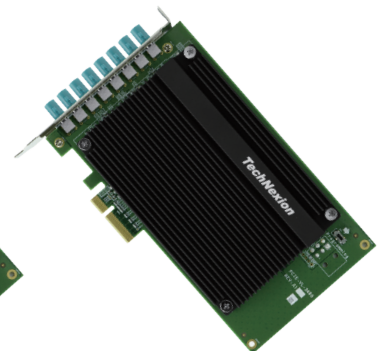
UVC-VL-3100



PCIE-VL-3120



PCIE-VL-3440



PCIE-VL-3480

Nvidia Orin Fanless AI Computing



x8

- Nvidia Orin Nano / NX Systems
- Up-to 8 FPD-Link III cameras
- Nvidia Jetpack driver integration
- TechNexion VizionSDK

TRAQ-4VM Robotic AMR Solutions



x8

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

i.MX8M Plus HMI Solutions



x2

- NXP i.MX8M Plus
- 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 VizionSDK

i.MX8M Plus Edge Computing



x2

- NXP i.MX8M Plus
- 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 VizionSDK