

VLS3-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™ Configuration Utility and VizionSDK



Distributed by:



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	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

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

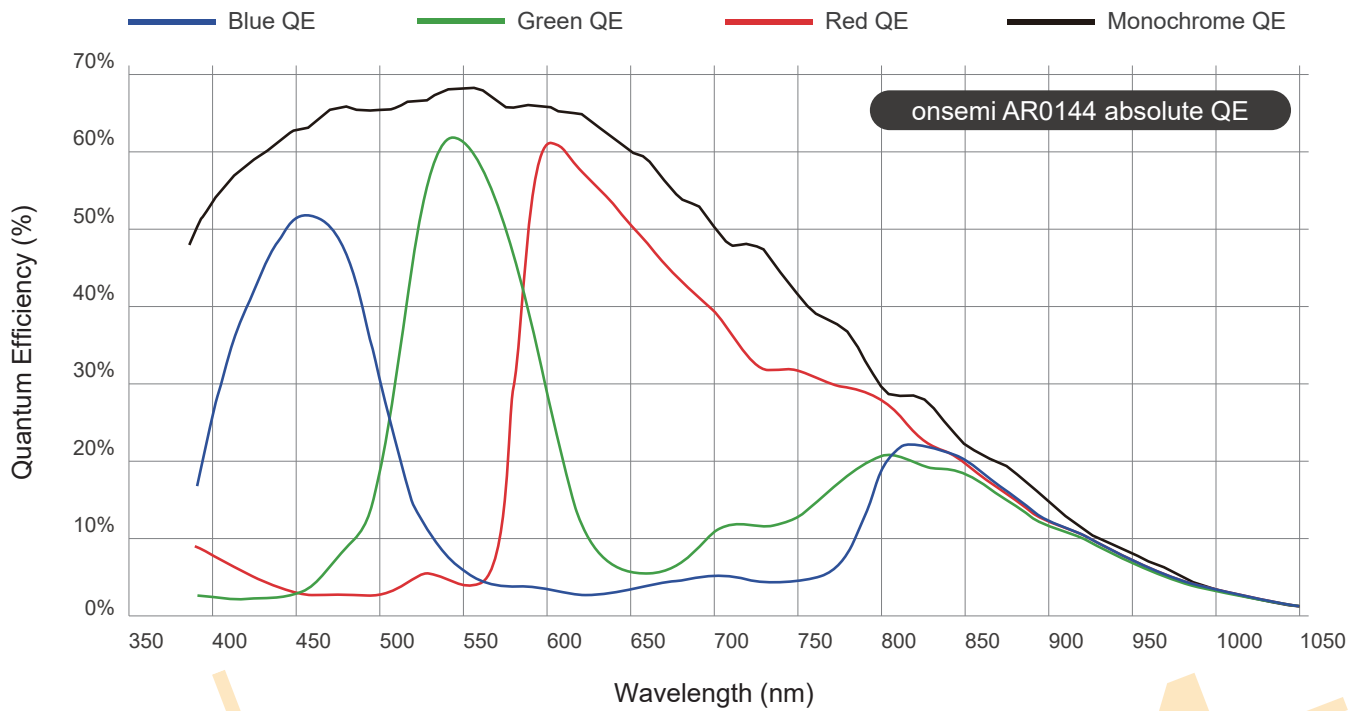
Environmental and Mechanical

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

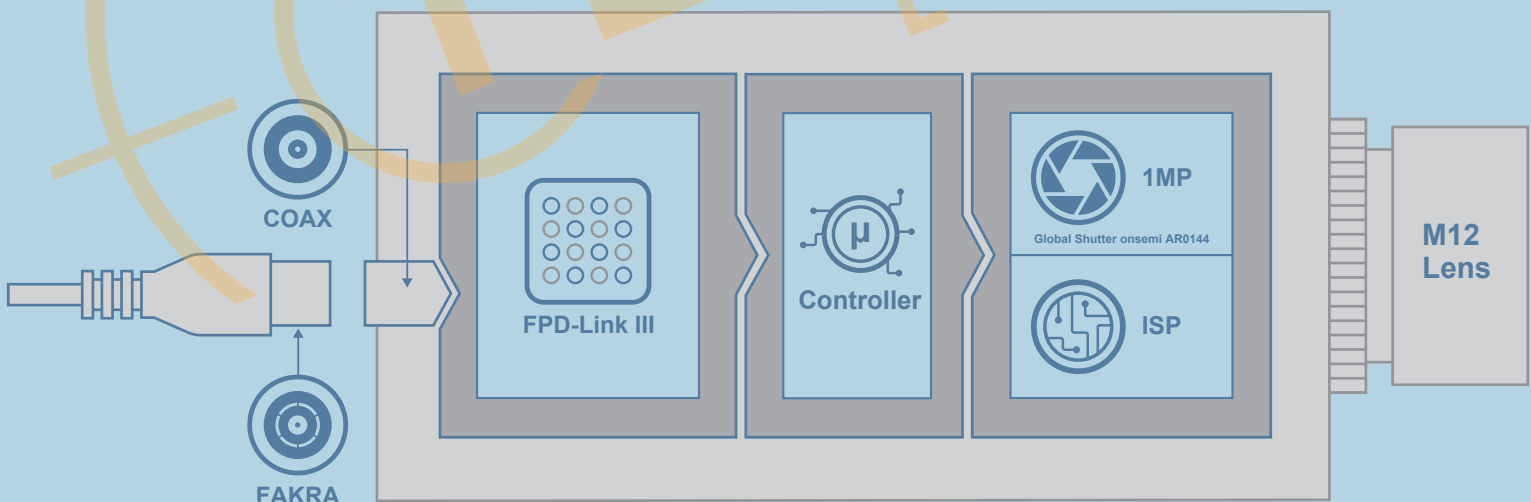
Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives
---------------	---

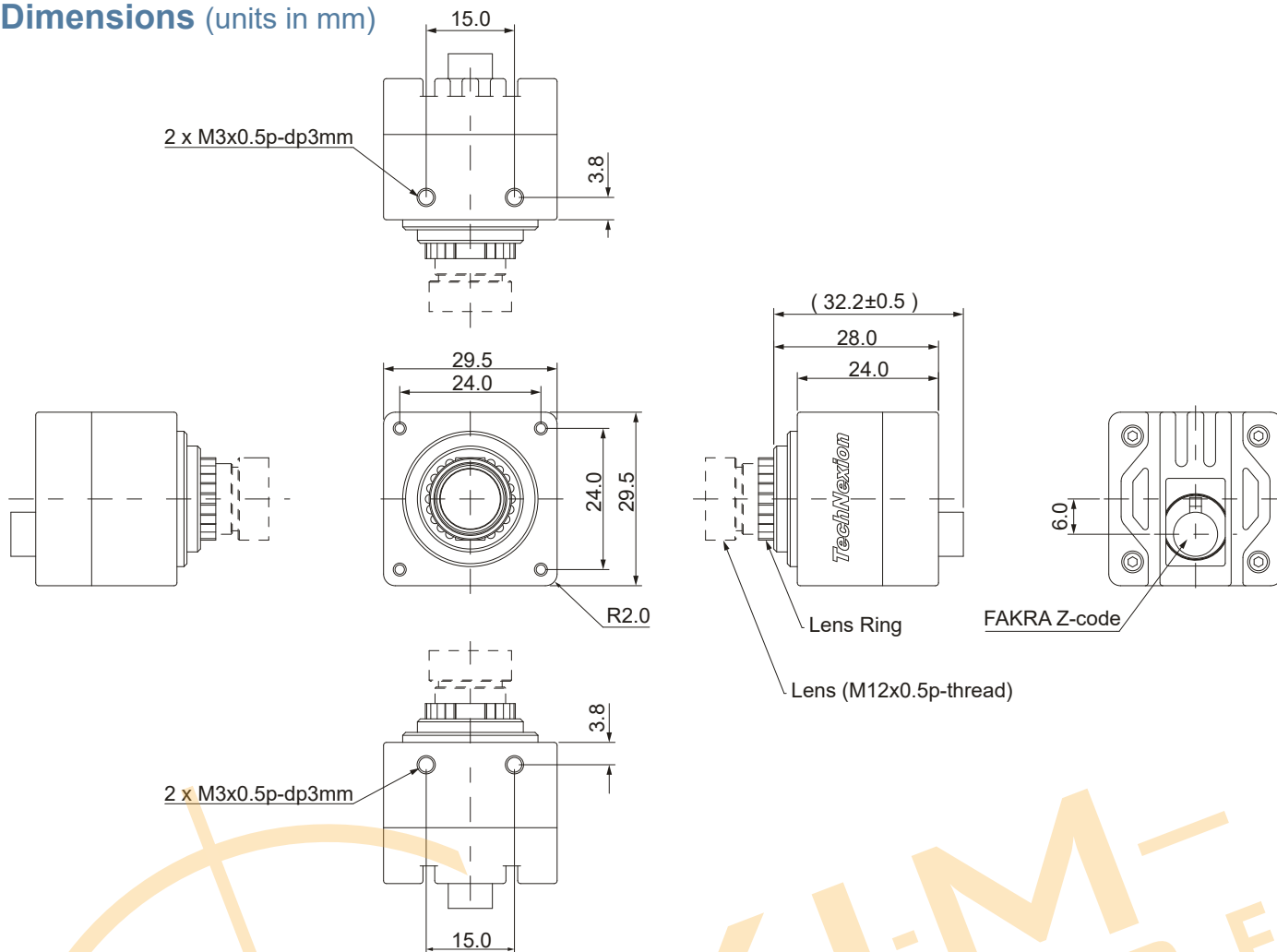
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLS3-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)

Lens Information

	 VLS3-AR0144-C-S33-IR	 VLS3-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

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



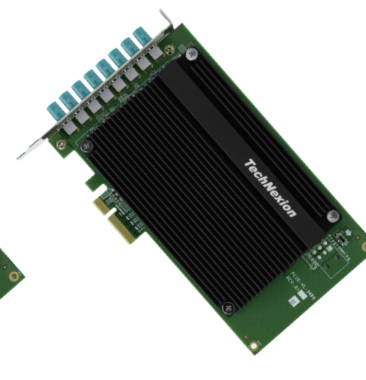
UVC-VL-3100



PCIE-VL-3120



PCIE-VL-3440



PCIE-VL-3480

Nvidia Orin Fanless AI Computing



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

TRAQ-4VM Robotic AMR Solutions



- 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



- 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



- 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

Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Texim Europe B.V. its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Texim"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Texim makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product.

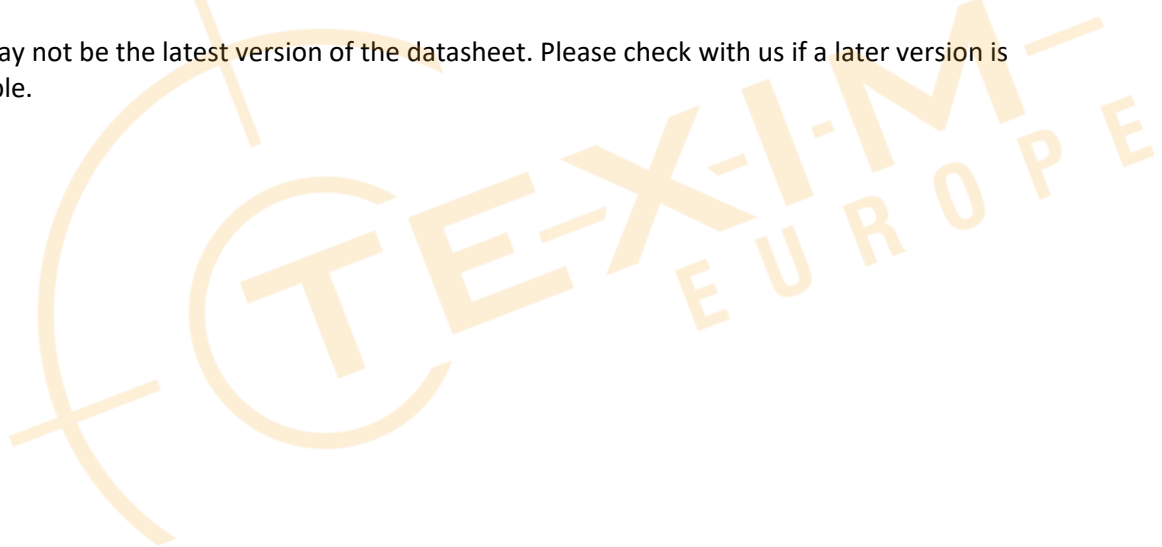
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

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.





Headquarters & Warehouse

Elektrostraat 17
 NL-7483 PG Haaksbergen
 The Netherlands

T: +31 (0)53 573 33 33
 E: info@texim-europe.com
 Homepage: www.texim-europe.com



The Netherlands

Elektrostraat 17
 NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
 E: nl@texim-europe.com



Belgium

Zuiderlaan 14, box 10
 B-1731 Zellik

T: +32 (0)2 462 01 00
 E: belgium@texim-europe.com



UK & Ireland

St Mary's House, Church Lane
 Carlton Le Moorland
 Lincoln LN5 9HS

T: +44 (0)1522 789 555
 E: uk@texim-europe.com



Germany

Bahnhofstrasse 92
 D-25451 Quickborn

T: +49 (0)4106 627 07-0
 E: germany@texim-europe.com



Germany

Martin-Kollar-Strasse 9
 D-81829 München

T: +49 (0)89 436 086-0
 E: muenchen@texim-europe.com



Austria

Warwitzstrasse 9
 A-5020 Salzburg

T: +43 (0)662 216 026
 E: austria@texim-europe.com



Nordic

Stockholmsgade 45
 2100 Copenhagen

T: +45 88 20 26 30
 E: nordic@texim-europe.com



Italy

Martin-Kollar-Strasse 9
 D-81829 München

T: +49 (0)89 436 086-0
 E: italy@texim-europe.com