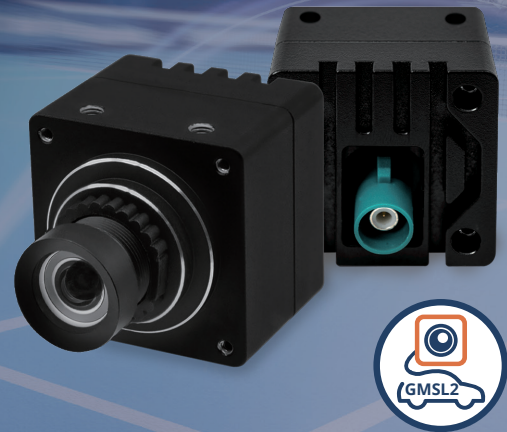


VLS-GM2-AR0144-SL

- onsemi AR0144 1MP Global Shutter Sensor
- Captures high-speed dynamic targets clearly within an ultra-short exposure time
- S-Mount for Interchangeable Lenses
- GMSL2™ (Gigabit Multimedia Serial Link) interface
- FAKRA Z-Code Automotive Connector
- Plug & Play with Linux OS & Yocto
- VizionViewer™ configuration utility
- VizionSDK for custom development



Distributed by:



Camera Information

CMOS Sensor	onsemi AR0144
Active Pixels	1280 (H) x 800 (V) = 1 MP
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-UYYV)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Output Format	YUV422-UYYV RGB888 / RGB565 RAW8 / RAW10 / RAW12

Camera Interface

Serial Link	GMSL2
Serializer	MAX96717
Connector	FAKRA SMB Jack Z-Code

Power

Power over Coax	10.8V - 26.4V
Power Consumption	1280 x 800 @ 60 fps ≤ 0.9W
Standby Power	≤ 0.1W Standby

Software Support

Platform Support	NVIDIA Jetson AGX Orin NVIDIA Jetson Orin Nano / NX NVIDIA Jetson Xavier NX NVIDIA Jetson Nano NXP i.MX95
Operation System	Linux Yocto
Software	VizionViewer™
Development SDK	VizionSDK



VizionSDK



VizionViewer™

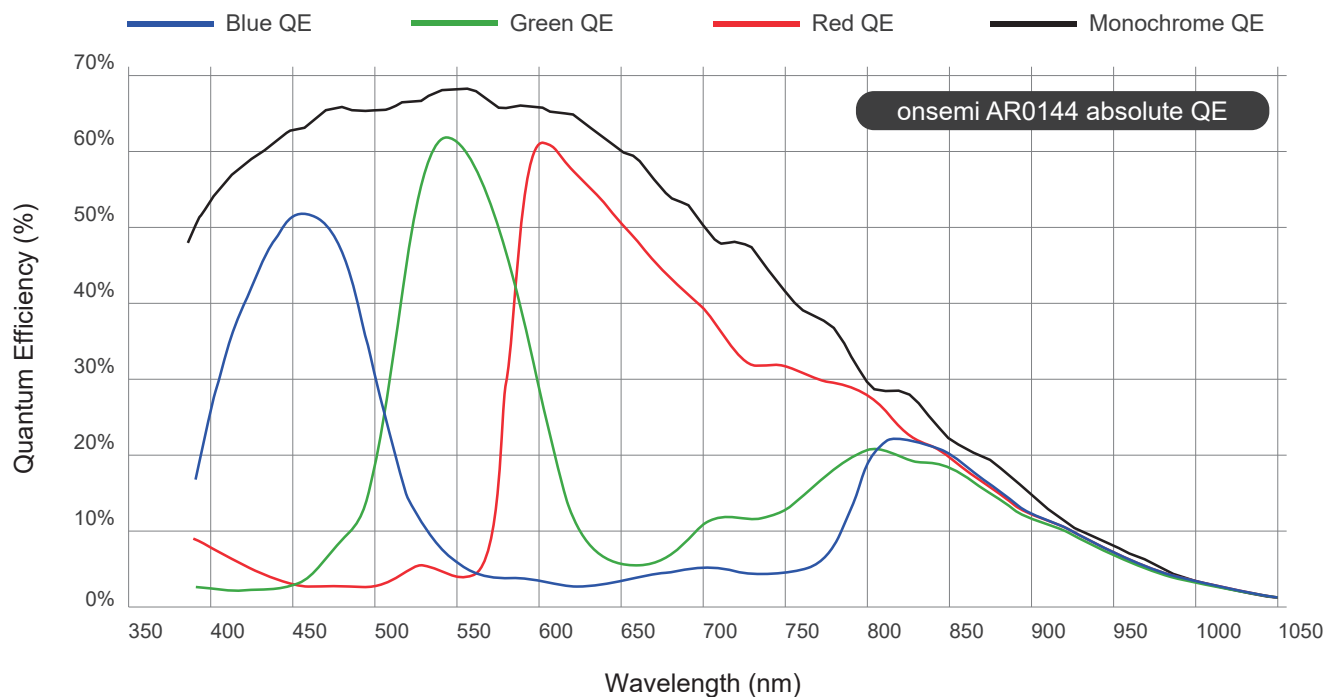
Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 28(D) mm
Weight	≤ 45 grams
MTBF	50,000 Hours
Shock	15G half-sine 11 ms duration
Vibration	1 Grms random 5-500Hz hr/axis
Relative Humidity	10 to 90 %
Operating Temperature	-30°C to + 70°C

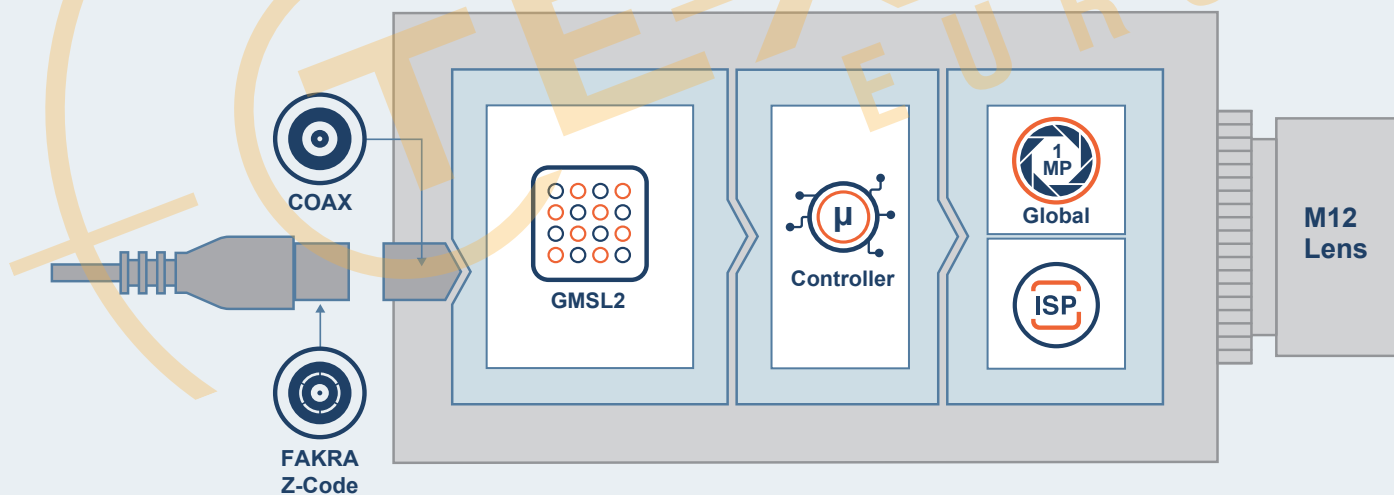
Certification and Compliance

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

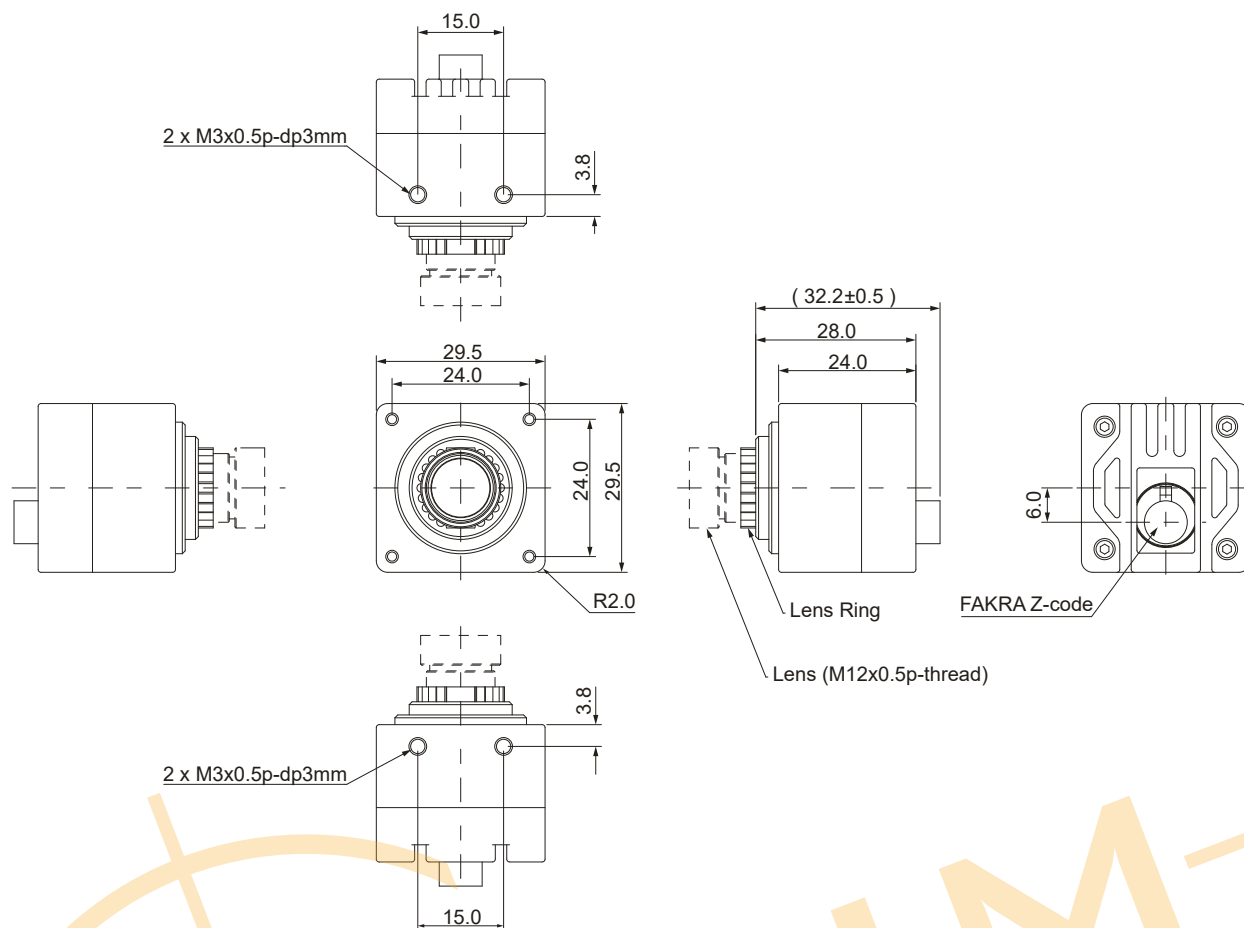
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLS-GM2-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 customized Software loader and special component (BOM)

For customization, please contact your TechNexion sales representative.

Optional Accessories

An easy to attach A-Mount bracket for TechNexion 30mm enclosed cameras.



300-MOUNT-BRACKET



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

Custom Lens Solutions

	 VLS-GM2-AR0144-C-S33-IR	 VLS-GM2-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

GMSL2 Frame Grabbers

The ease of usage, benefits and integration of a GMSL camera in embedded systems is often made complex by the lack of GMSL ports and connectors on the system. For those scenarios TechNexion developed a range of framegrabbers that easily plug into a USB port and extend the system with 1 to 4 GMSL interconnects.



1-4 Port

Connect up-to 4 GMSL cameras to a single USB port on your x86 or Arm based system.



UVC Compliant

Fully plug-n-play in Windows and Linux embedded systems.



Autodetect

Zero configuration required to detect any specific TechNexion GMSL camera by the framegrabber.



Software

Linux and Windows systems are supported.



VizionViewer™

Easy to use software utility providing you with granular camera settings control.



VizionSDK

Hardcode and control your cameras with C# and Python code.



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.

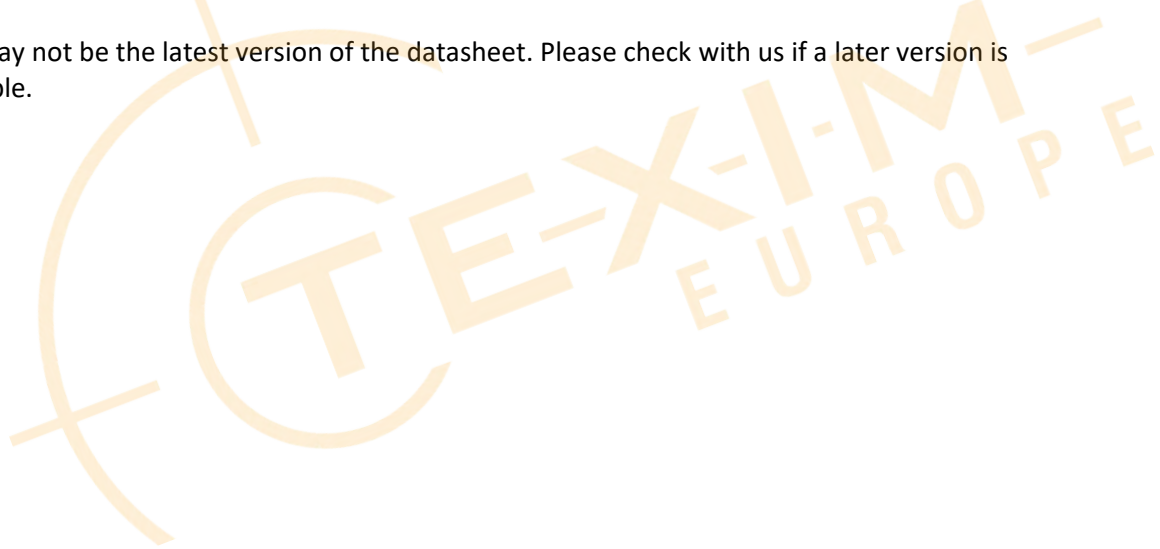
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

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