TechNexion
INNOVATORS OF TECHNOLOGY

VLS-GM2-AR0822-SL

- onsemi AR0822 8MP Rolling Shutter Sensor
- 4K HDR Imaging Capabilities
- Near Infra-Red Enhancement for Outdoor Applications
- Designed for Low Light Applications
- 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

VizionSDK VizionViewer™

Camera Information

CMOS Sensor	onsemi AR0822
Active Pixels	3840 (H) x 2160 (V) = 8 MP
Pixel Size	2.0 µm x 2.0 µm
Illuminated Type	Back Side Illuminated (BSI)
Maximum S/N Ratio	40.5 dB
Optical Format	1/2" (Diagonal 8.81 mm)
Shutter Type	Rolling Shutter
Chromaticity	Color
Maximum Frame Rate (YUV422-UYVY)	3840 x 2160 @ 26 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Output Format	YUV422-UYVY 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	3840 x 2160 @ 15 fps ≤ 1.3W
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

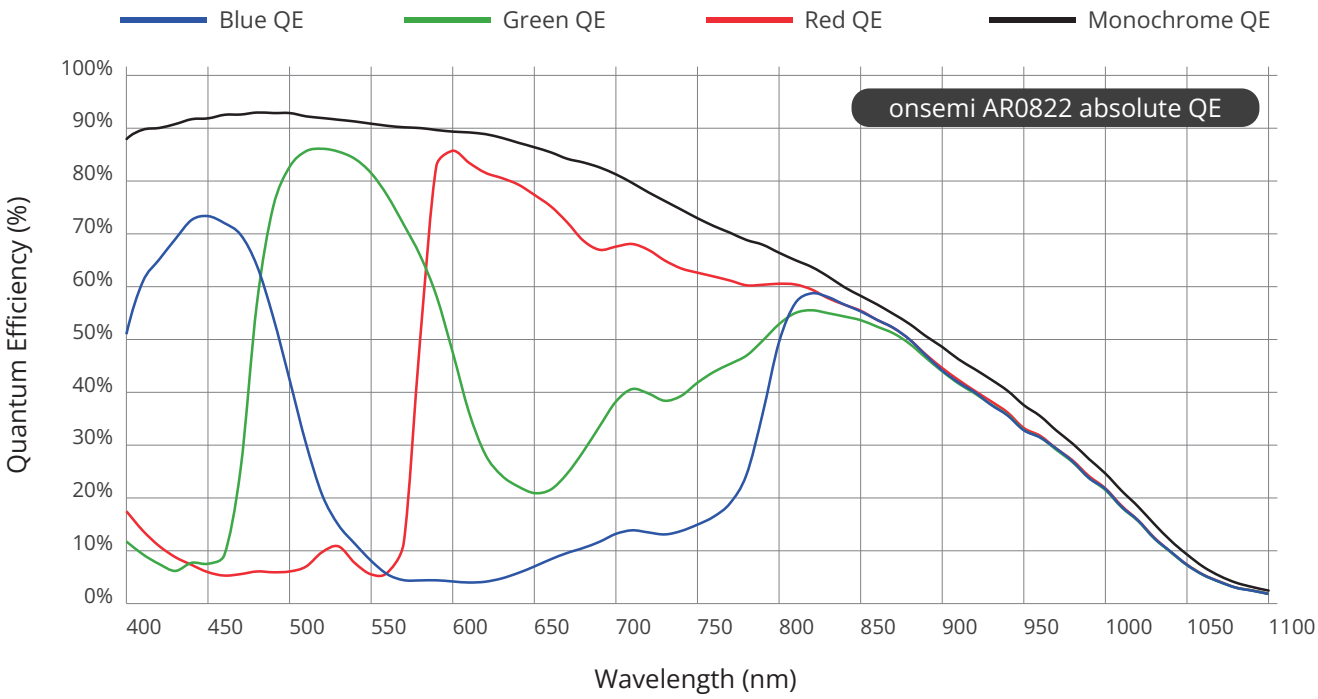
Environmental and Mechanical

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

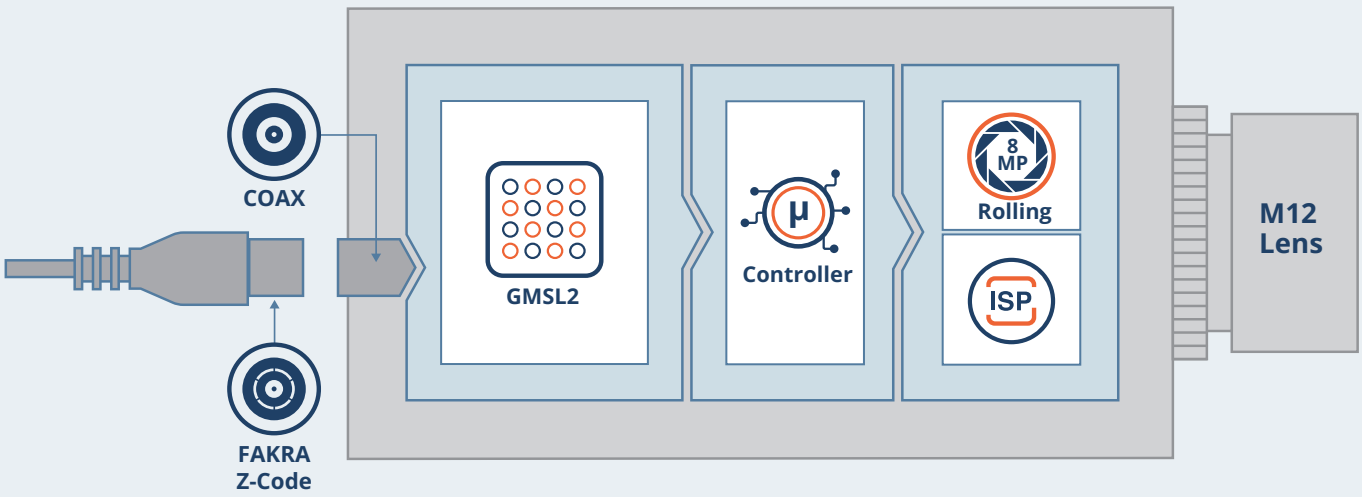
Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

Spectral Characteristics

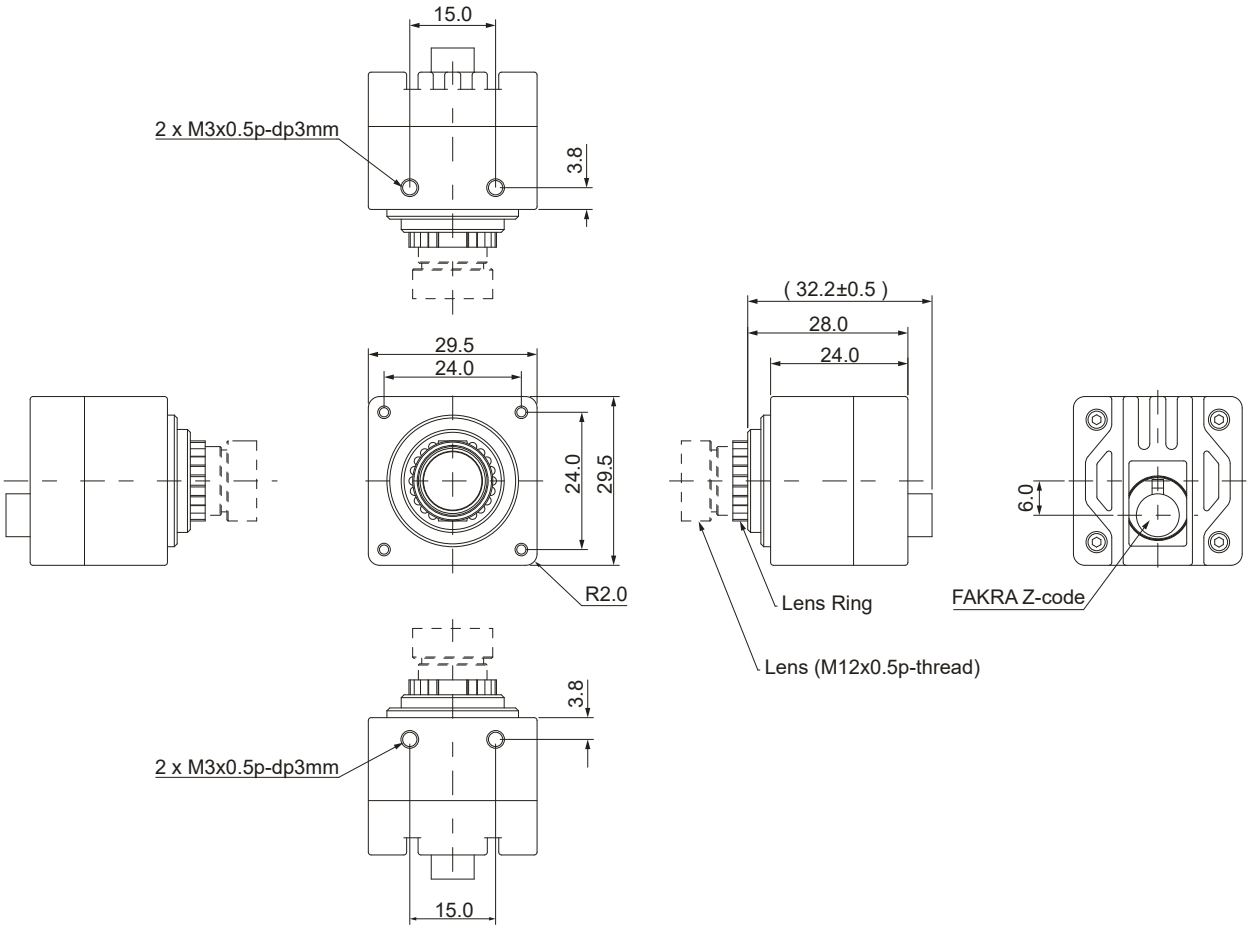


Block Diagram



For more information:
www.technexion.com
sales@technexion.com

Dimensions (units in mm)



Order Information

VLS-GM2-AR0822-x-Sxx-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
	M	Monochrome
Lens	S42	S-Mount Module D-FOV 42°
	S72	S-Mount Module D-FOV 72°
	S108	S-Mount Module D-FOV 108°
	S150	S-Mount Module D-FOV 150°
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)

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Custom Lens Solutions

	 VLS-GM2-AR0822-C-S42-IR	 VLS-GM2-AR0822-C-S72-IR	 VLS-GM2-AR0822-C-S108-IR	 VLS-GM2-AR0822-C-S150-IR
Focus Type	Fixed Focus	Fixed Focus	Fixed Focus	Fixed Focus
Focal Length	12 mm	6 mm	3 mm	3.2 mm
Aperture	F2.0	F2.8	F2.0	F2.0
Module D-FOV	41.7° ± 5%	72.0° ± 5%	108.6° ± 5%	150.0° ± 5%
Module H-FOV	36.3° ± 5%	64.7° ± 5%	104.0° ± 5%	132.6° ± 5%
Module V-FOV	20.5° ± 5%	39.0° ± 5%	72.2° ± 5%	77.6° ± 5%
TTL	23.09 mm	28.6 mm	29.56 mm	44.98 mm
BFL	5.06 mm	8.8 mm	4.85 mm	6.14 mm
MOD	0.15 m	0.1 m	0.3 m	0.3 m
Distortion	<2%	<0.50%	<-5%	<-32%
IR-Filter	650 nm	650 nm	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.

Software

Linux and Windows systems are supported.

UVC Compliant

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

VizionViewer™

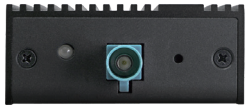
Easy to use software utility providing you with granular camera settings control.

Autodetect

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

VizionSDK

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



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