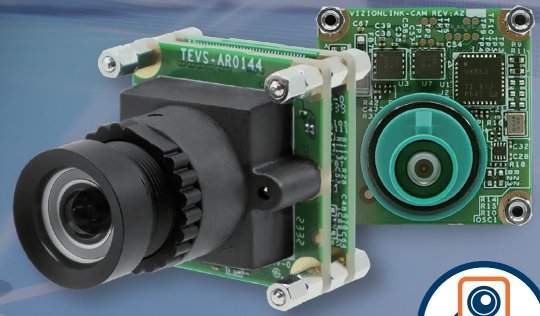


# UVLS-GM2-AR0144

- 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



VizionSDK VizionViewer™

## Camera Information

CMOS Sensor	onsemi AR0144
Active Pixels	1280 (H) x 800 (V) = 1 MP
Pixel Size	3.0 $\mu\text{m}$ x 3.0 $\mu\text{m}$
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 $\leq$ 1.32W
Standby Power	$\leq$ 0.6W Standby

## Software Support

Platform Support	NVIDIA Jetson AGX Orin NVIDIA Jetson Orin Nano / NX NXP i.MX95 NXP i.MX8M Plus Intel Arrow Lake Intel Panther Lake
Operation System	Linux Yocto
Software	VizionViewer™
Development SDK	VizionSDK

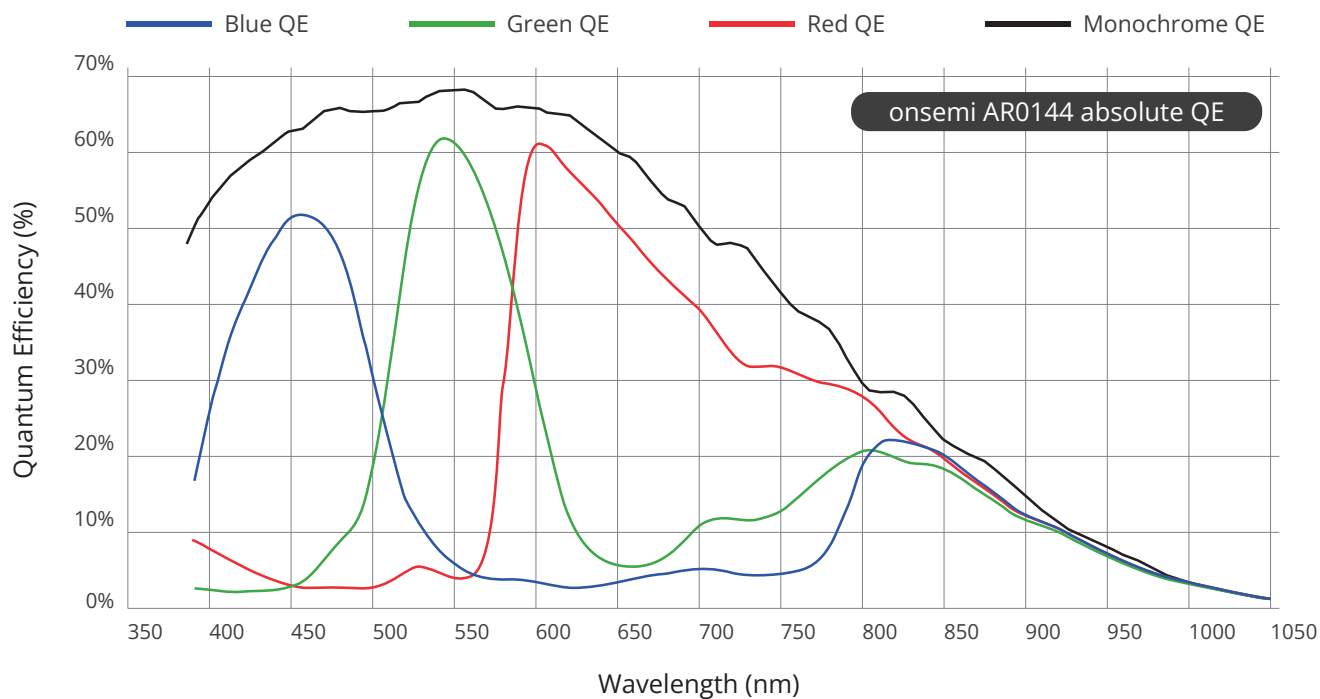
## Environmental and Mechanical

Dimensions	24.5(W) x 24.5(H) x 30(D) mm
Weight	$\leq$ 20 grams
Operating Temperature	-30°C to + 70°C

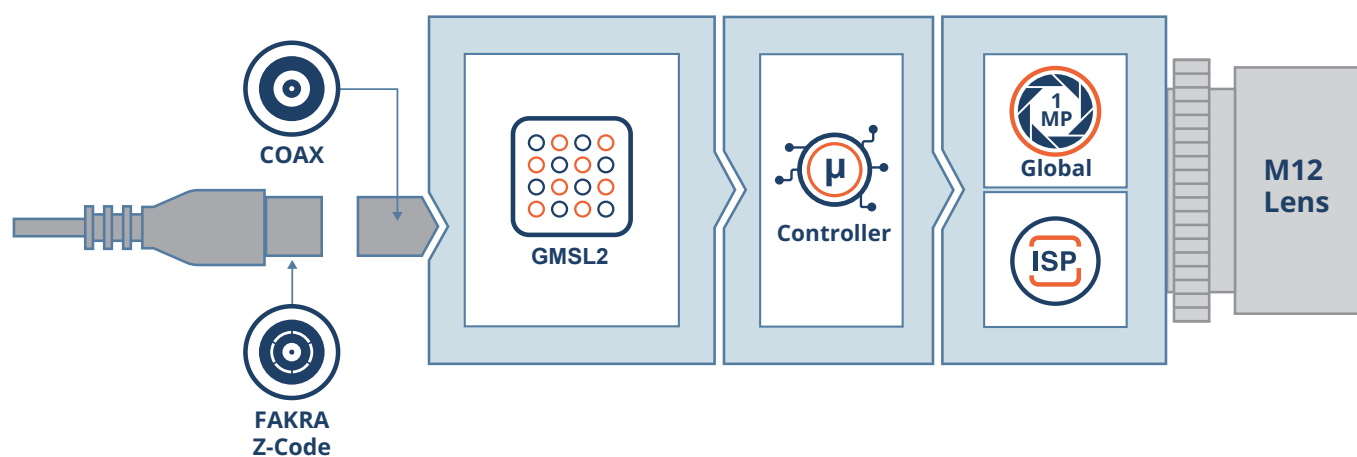
## Certification and Compliance

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

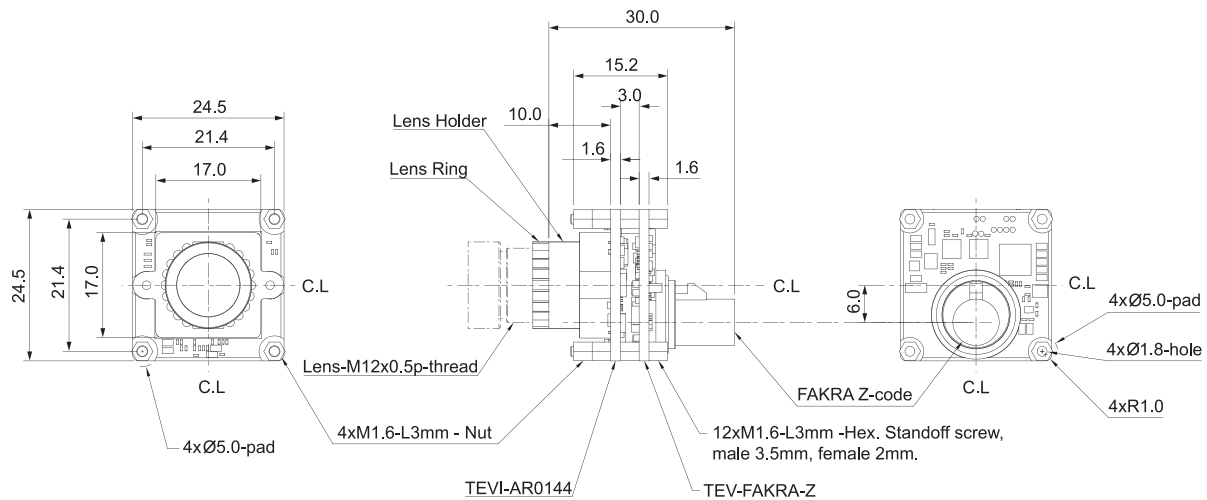
## Spectral Characteristics



## Block Diagram



### Dimensions (units in mm)



## Order Information

**UVLS-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 customization, please contact your TechNexion sales representative.

## Optional Accessories

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



245-MOUNT-BRACKET



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

## Custom Lens Solutions

	 UVLS-GM2-AR0144-C-S33-IR	 UVLS-GM2-AR0144-C-S83-IR
Focus Type	Fixed Focus	Fixed Focus
Focal Length	8 mm	2.85 mm
Aperture	F1.8	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
Lens Structure	6G + IR	2G + 3P + IR
First layer material	Glass	Plastic

## 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.

