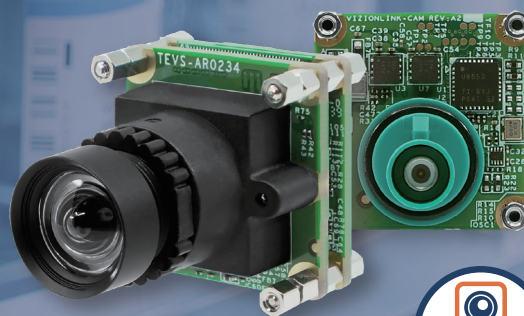# UVLS-GM2-AR0234

TechNexion
INNOVATORS OF TECHNOLOGY

- onsemi AR0234 2.3MP Global Shutter Sensor
- 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 AR0234
Active Pixels	1920 (H) x 1200 (V) = 2.3 MP
Pixel Size	3.0 µm x 3.0 µm
Illuminated Type	Front Side Illuminated (FSI)
Maximum S/N Ratio	38 dB
Optical Format	1/2.6" (Diagonal 6.8 mm)
Shutter Type	Global Shutter
Chromaticity	Color
Maximum Frame Rate (YUV422-UYVY)	1920 x 1200 @ 60 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 120 fps 640 x 480 @ 120 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	1920 x 1200 @ 60 fps ≤ 1.25W
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	24.5(W) x 24.5(H) x 30(D) mm
Weight	≤ 20 grams
Operating Temperature	-30°C to + 70°C

Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

Spectral Characteristics

onsemi AR0234 absolute QE

Block Diagram

COAX

FAKRA
Z-Code

GMSL2

μ
Controller

2.3
MP
Global

ISP

M12
Lens

Dimensions (units in mm)

Left view labels:
- 24.5
- 21.4
- 17.0
- 24.5
- 21.4
- 17.0
- C.L
- C.L
- 4xØ5.0-pad

Center view labels:
- 30.0
- 15.2
- 3.0
- 10.0
- 1.6
- 1.6
- Lens Holder
- Lens Ring
- C.L
- Lens-M12x0.5p-thread
- 4xM1.6-L3mm - Nut
- FAKRA Z-code
- 12xM1.6-L3mm -Hex. Standoff screw, male 3.5mm, female 2mm.
- TEVI-AR0234
- TEV-FAKRA-Z

Right view labels:
- 6.0
- C.L
- C.L
- 4xØ5.0-pad
- 4xØ1.8-hole
- 4xR1.0
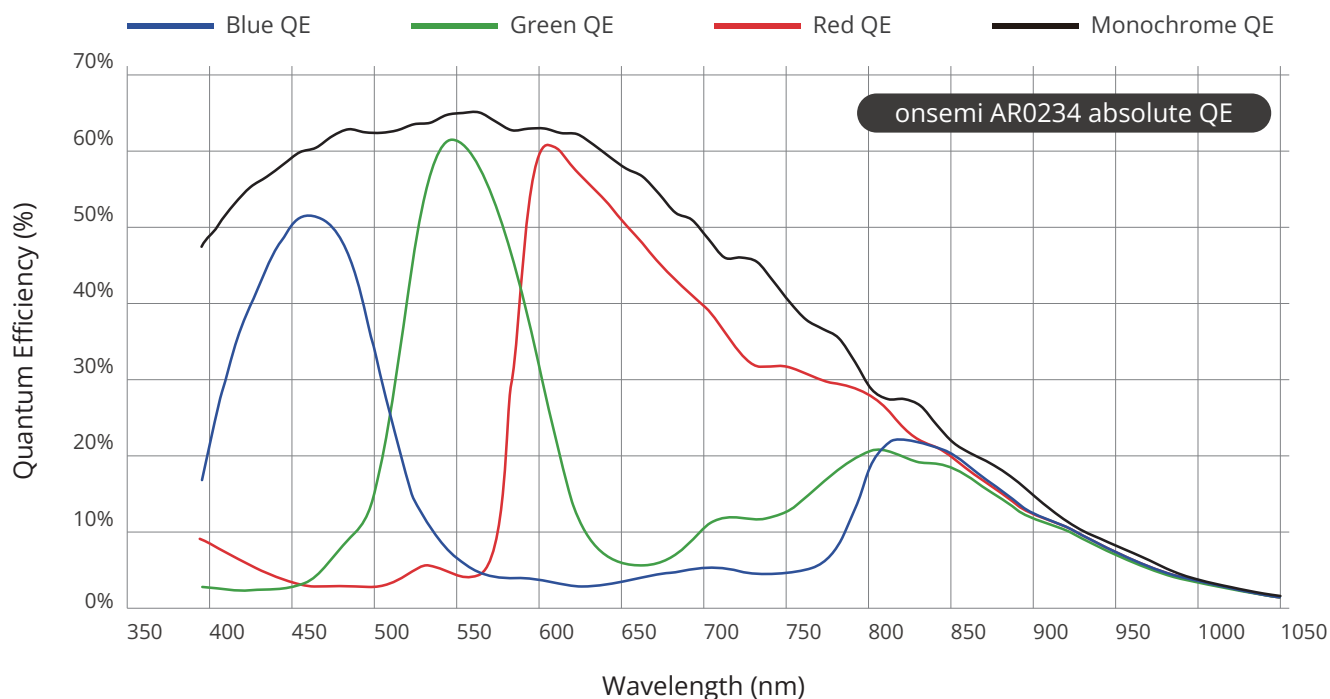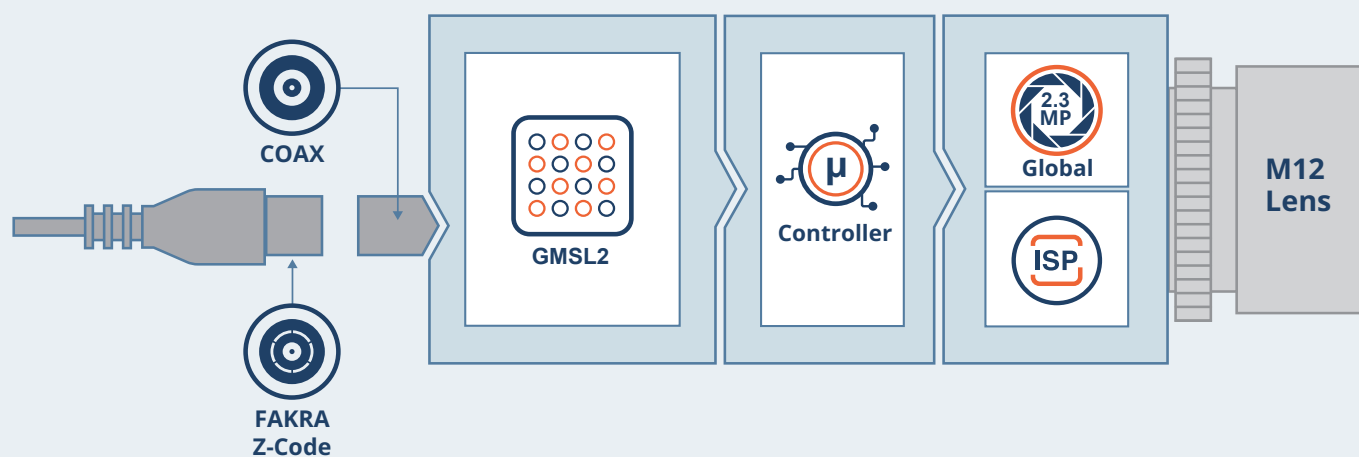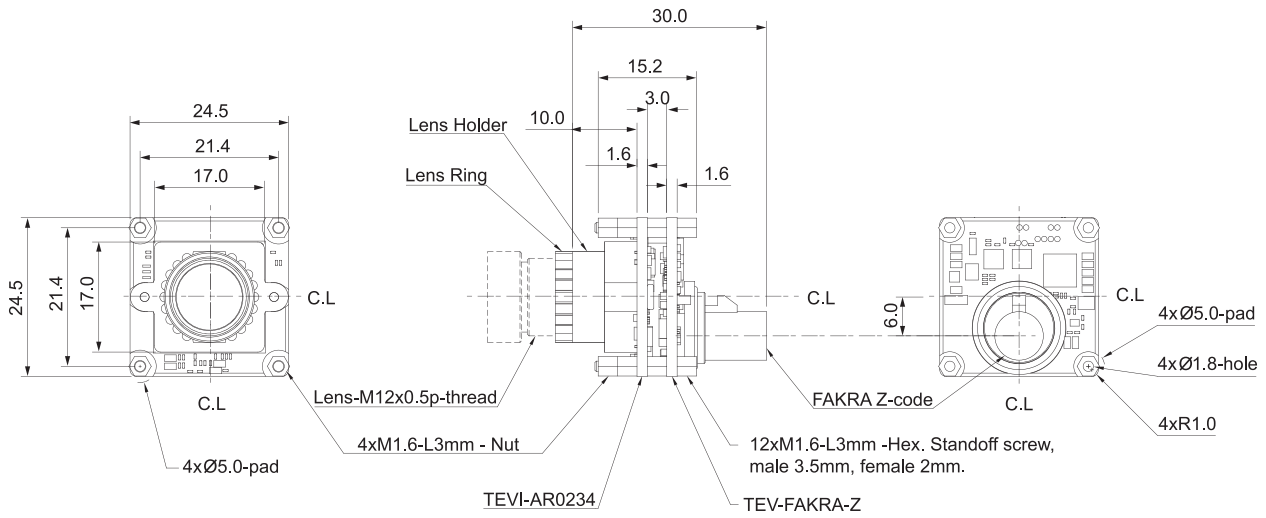
Order Information

UVLS-GM2-AR0234-x-Sxx-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
Lens	S32	S-Mount Module D-FOV 32°
	S83	S-Mount Module D-FOV 83°
	S128	S-Mount Module D-FOV 128°
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.

245-MOUNT-BRACKET

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

Custom Lens Solutions

	UVLS-GM2-AR0234-C-S32-IR	UVLS-GM2-AR0234-C-S83-IR	UVLS-GM2-AR0234-C-S128-IR
Focus Type	Fixed Focus	Fixed Focus	Fixed Focus
Focal Length	12 mm	3.9 mm	2.87 mm
Aperture	F2.0	F2.8	F2.8
Module D-FOV	31.8° ± 5%	82.8° ± 5%	127.7° ± 5%
Module H-FOV	26.9° ± 5%	73.4° ± 5%	110.5° ± 5%
Module V-FOV	16.8° ± 5%	50.1° ± 5%	68.6° ± 5%
TTL	23.2 mm	22 mm	21 mm
BFL	7.3 mm	4.54 mm	5.27 mm
MOD	0.3 m	0.3 m	0.3 m
Distortion	<-2.50%	<1.26%	<-20%
IR-Filter	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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