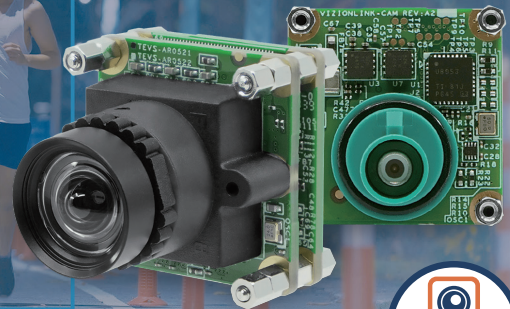**TechNexion**
INNOVATORS OF TECHNOLOGY

UVLS-GM2-AR0521

- onsemi AR0521 5MP Rolling Shutter Sensor
- 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

Distributed by:

TEXIM
EUROPE
www.texim-europe.com

VizionSDK   VizionViewer™

Camera Information

CMOS Sensor	onsemi AR0521
Active Pixels	2592 (H) x 1944 (V) = 5 MP
Pixel Size	2.2 µm x 2.2 µm
Illuminated Type	Back Side Illuminated (BSI)
Maximum S/N Ratio	40 dB
Optical Format	1/2.5" (Diagonal 7.13 mm)
Shutter Type	Rolling Shutter
Chromaticity	Color
Maximum Frame Rate (YUV422-UYVY)	2592 x 1944 @ 24 fps 2560 x 1440 @ 32 fps 1920 x 1080 @ 60 fps 1280 x 960 @ 60 fps 1280 x 720 @ 60 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	2592 x 1944 @ 24 fps ≤ 1.2W
Standby Power	≤ 0.1W Standby

Software Support

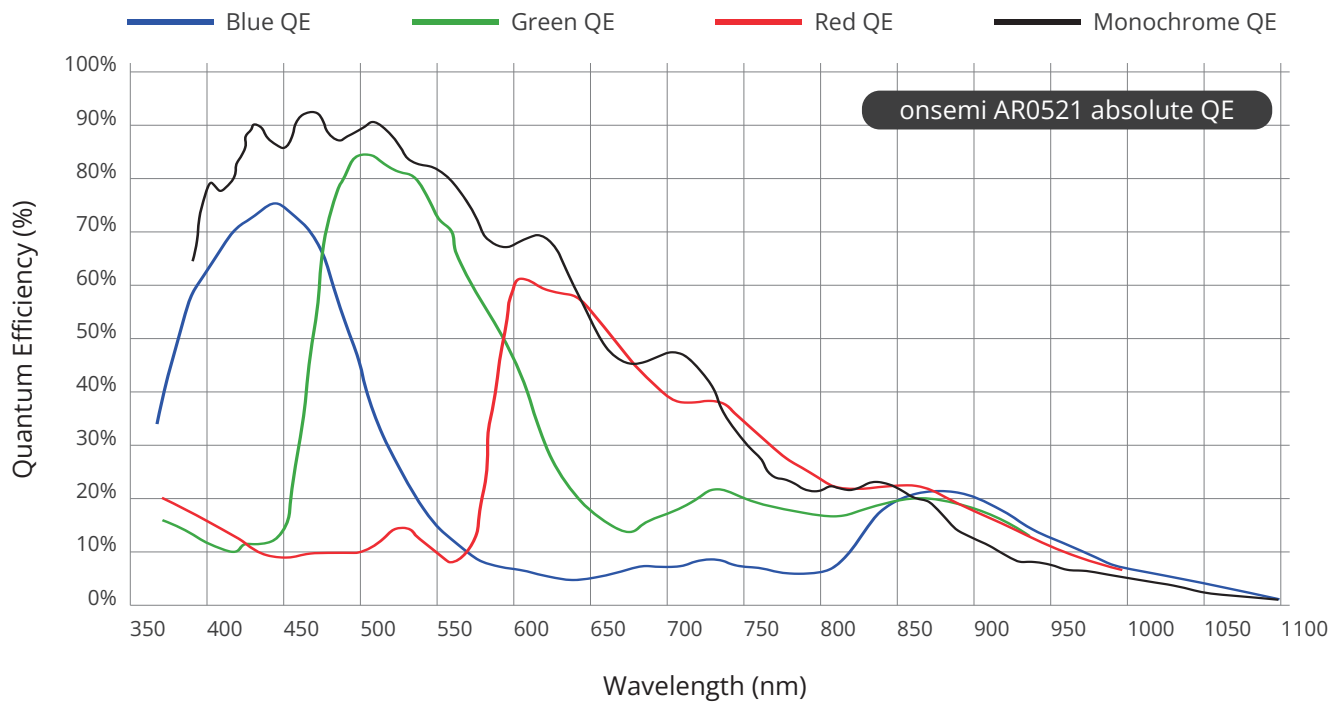|	
Platform Support	NVIDIA Jetson AGX Orin NVIDIA Jetson Orin Nano / NX NVIDIA Jetson Xavier NX NVIDIA Jetson Nano NXP i.MX95
Operation System	Linux Yocto
Software	VizionViewer™
Development SDK	VizionSDK

Environmental and Mechanical

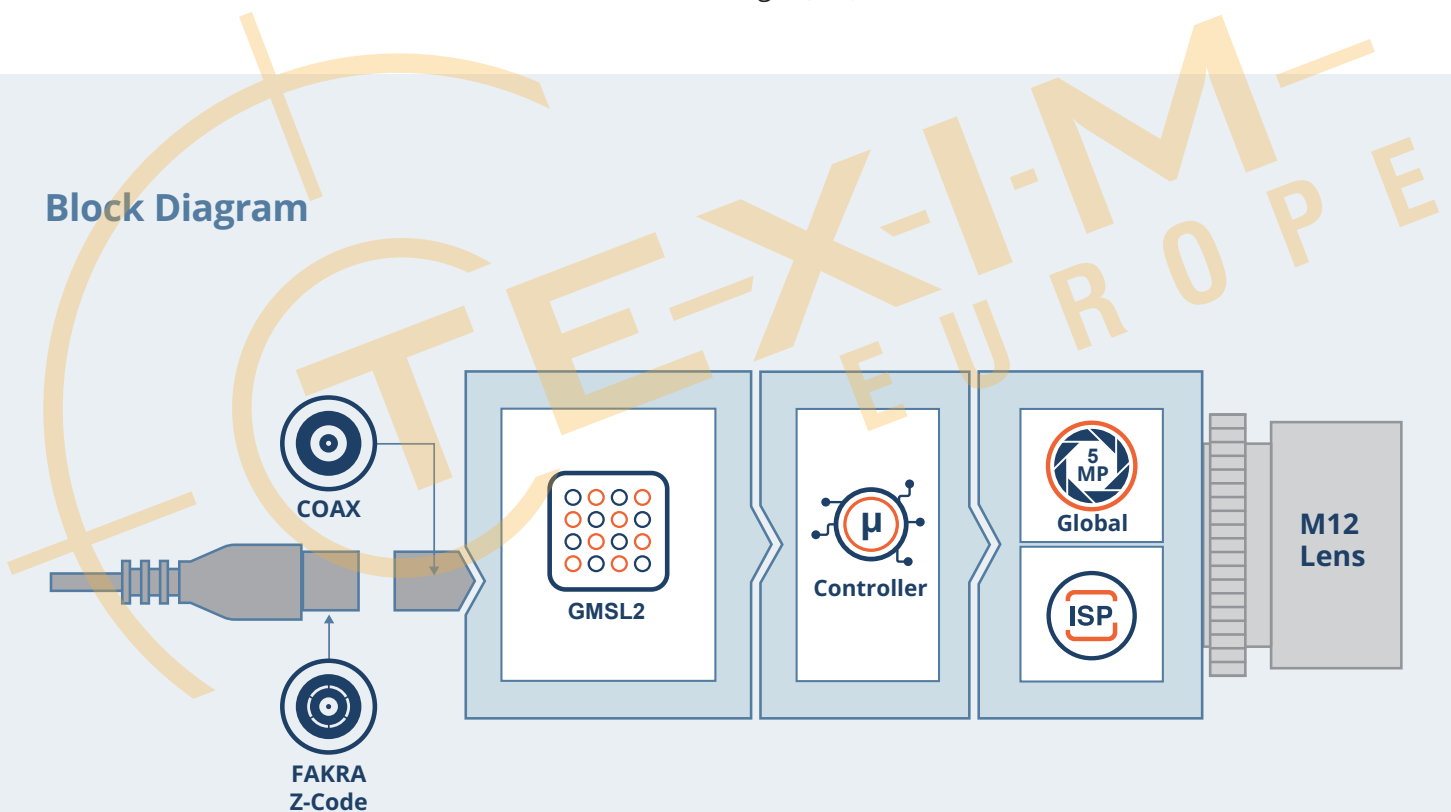|	
Dimensions	24.5(W) x 24.5(H) x 30(D) mm
Weight	≤ 20 grams
Operating Temperature	-30°C to + 70°C

Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

Spectral Characteristics

Block Diagram

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

Dimensions (units in mm)

Lens Holder
Lens Ring
Lens-M12x0.5p-thread
4xM1.6-L3mm - Nut
24.5
21.4
17.0
24.5
21.4
17.0
C.L
C.L
4xØ5.0-pad

30.0
15.2
3.0
10.0
1.6
1.6
C.L
6.0
C.L
C.L
FAKRA Z-code
12xM1.6-L3mm -Hex. Standoff screw, male 3.5mm, female 2mm.
TEVI-AR0521
TEV-FAKRA-Z
4xØ5.0-pad
4xØ1.8-hole
4xR1.0
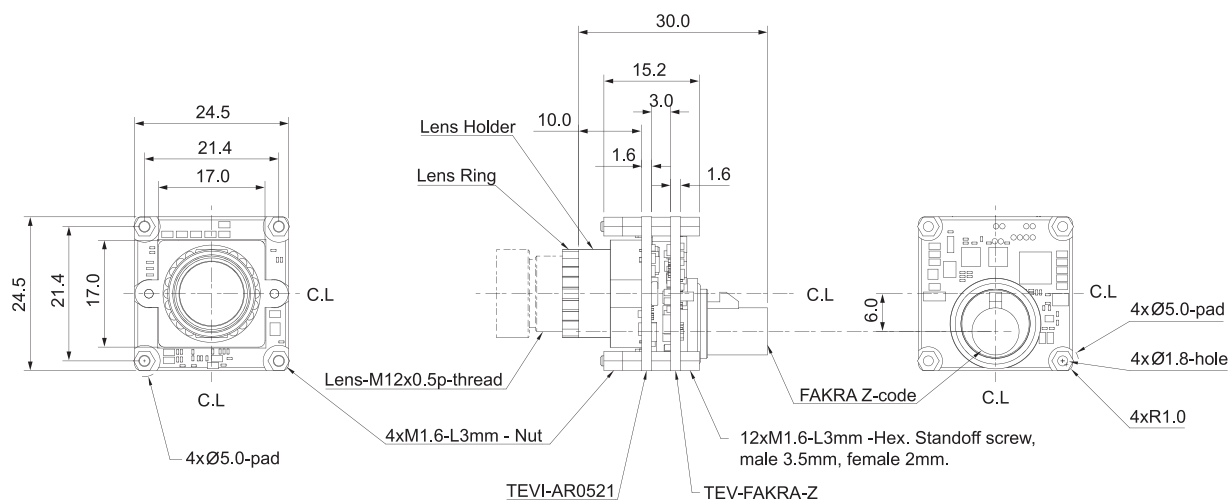
Order Information

UVLS-GM2-AR0521-x-Sxx-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
Lens	S34	S-Mount Module D-FOV 34°
	S85	S-Mount Module D-FOV 85°
	S140	S-Mount Module D-FOV 140°
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

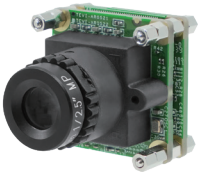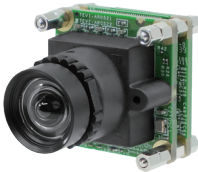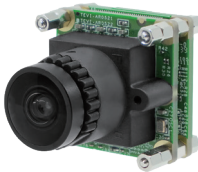An easy to attach A-Mount bracket
for TechNexion 30mm enclosed cameras.

245-MOUNT-BRACKET

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

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Custom Lens Solutions

	UVLS-GM2-AR0521-C-S34-IR	UVLS-GM2-AR0521-C-S85-IR	UVLS-GM2-AR0521-C-S140-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	33.6° ± 5%	85.2° ± 5%	140.0° ± 5%
Module H-FOV	26.8° ± 5%	73.0° ± 5%	110.5° ± 5%
Module V-FOV	20.1° ± 5%	58.1° ± 5%	81.4° ± 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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Disclaimer

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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.

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