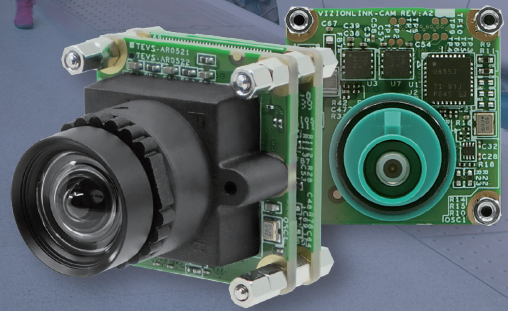


UVLS-GM2-AR0522

TechNexion
INNOVATORS OF TECHNOLOGY

- onsemi AR0522 5MP Rolling Shutter Sensor
- Near Infra-Red Enhancement for Outdoor Applications
- Designed for Low Light Applications
- Convenient S-Mount (M12) interchangeable lens
- 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 AR0522 |
| 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 / Mono |
| Maximum Frame Rate (YUV422-UYYV) | 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-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 | 2592 x 1944 @ 24 fps \leq 1.2W |
| Standby Power | \leq 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 |

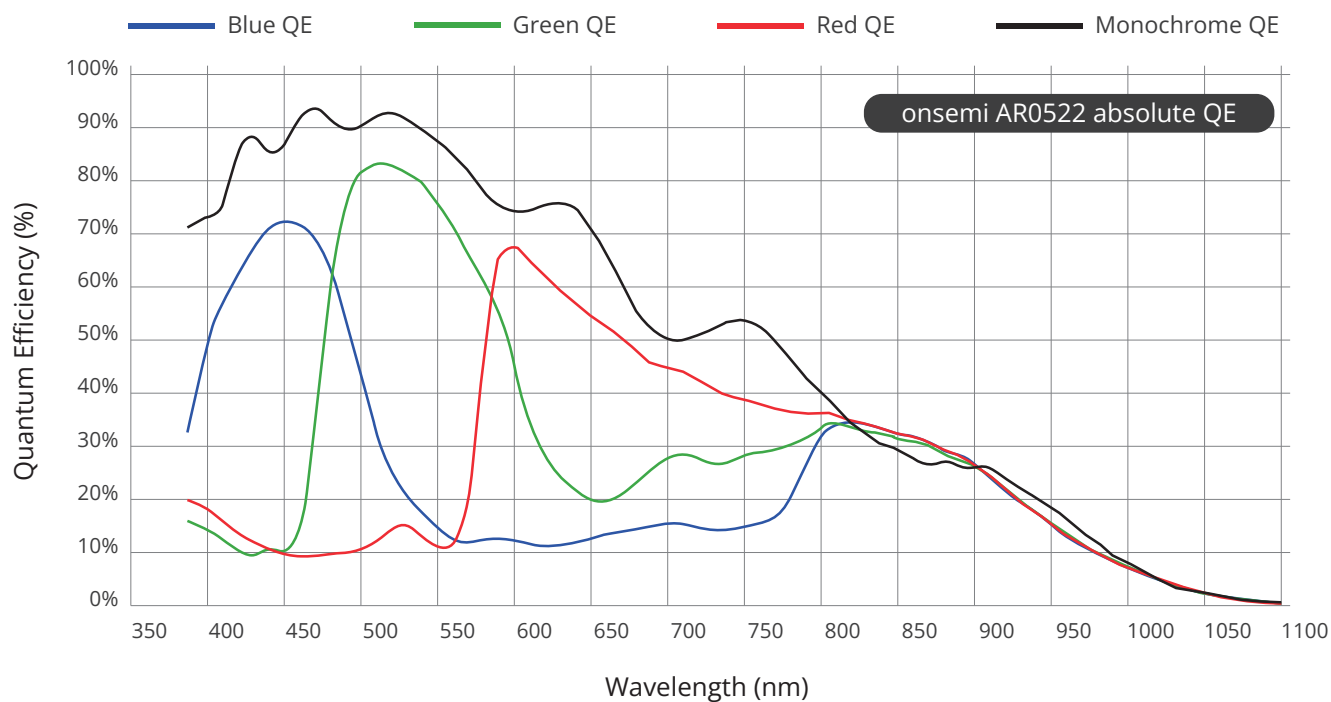
Environmental and Mechanical

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

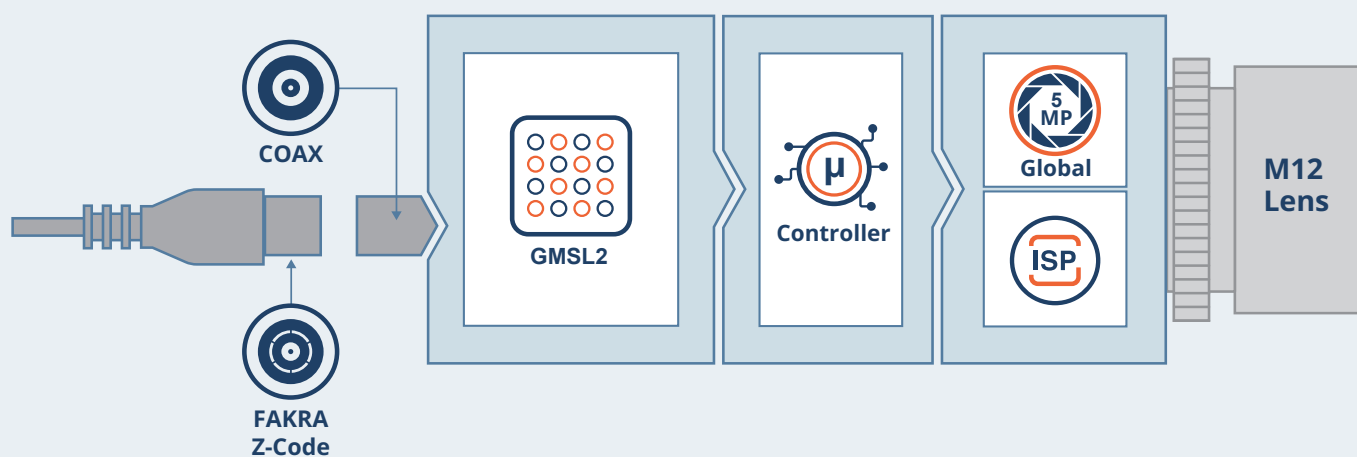
Certification and Compliance

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

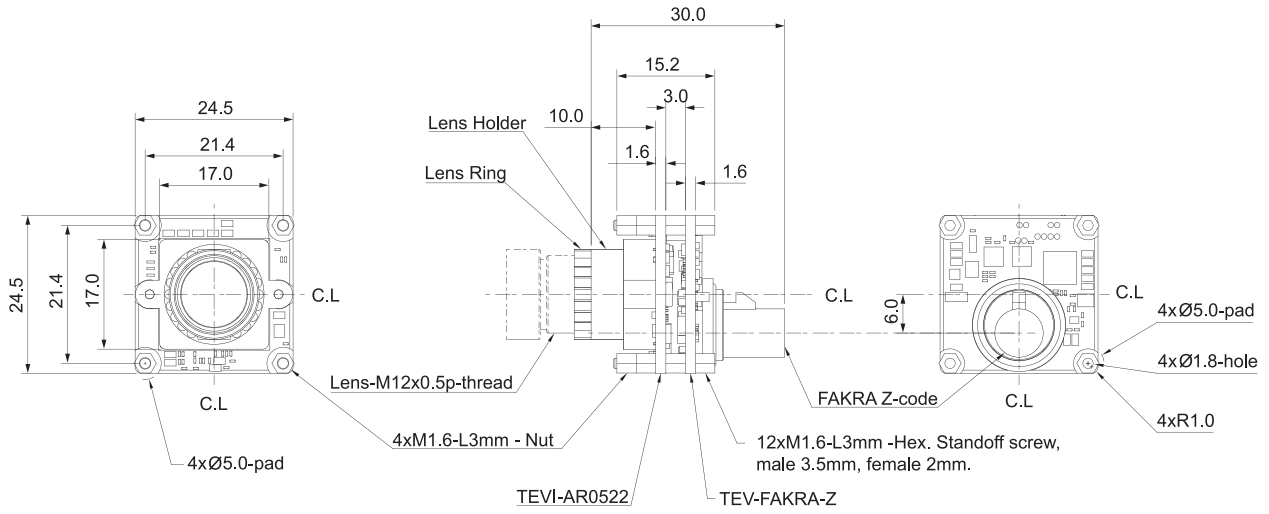
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

UVLS-GM2-AR0522-x-Sxx-xx-xxxx

| Option | Code | Description |
|--------------|------|--|
| Chromaticity | C | Color |
| | M | Monochrome |
| 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.

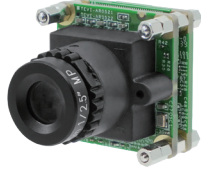
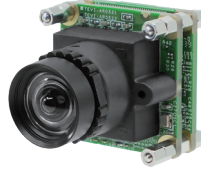
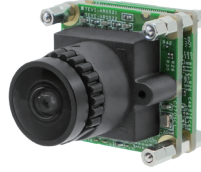


245-MOUNT-BRACKET



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

Custom Lens Solutions

| |  |  |  |
|--------------|---|--|---|
| | UVLS-GM2-AR0522-C-S34-IR | UVLS-GM2-AR0522-C-S85-IR | UVLS-GM2-AR0522-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.



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.

