

# VLS-GM2-AR0522-CB

- onsemi AR0522 5MP Rolling Shutter Sensor
- Near Infra-Red Enhancement for Outdoor Applications
- Designed for Low Light Applications
- C-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



## 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<br>2560 x 1440 @ 32 fps<br>1920 x 1080 @ 60 fps<br>1280 x 960 @ 60 fps<br>1280 x 720 @ 60 fps<br>640 x 480 @ 120 fps |
| Output Format                    | YUV422-UYYV<br>RGB888 / RGB565<br>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<br>NVIDIA Jetson Orin Nano / NX<br>NVIDIA Jetson Xavier NX<br>NVIDIA Jetson Nano<br>NXP i.MX95 |
| Operation System | Linux<br>Yocto  |
| Software         | VizionViewer™   |
| Development SDK  | VizionSDK   |

## Environmental and Mechanical

|                       |                                |
|-----------------------|--------------------------------|
| Dimensions            | 29.5(W) x 29.5(H) x 33.3(D) mm |
| Weight                | ≤ 40 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 |
|---------------|---|

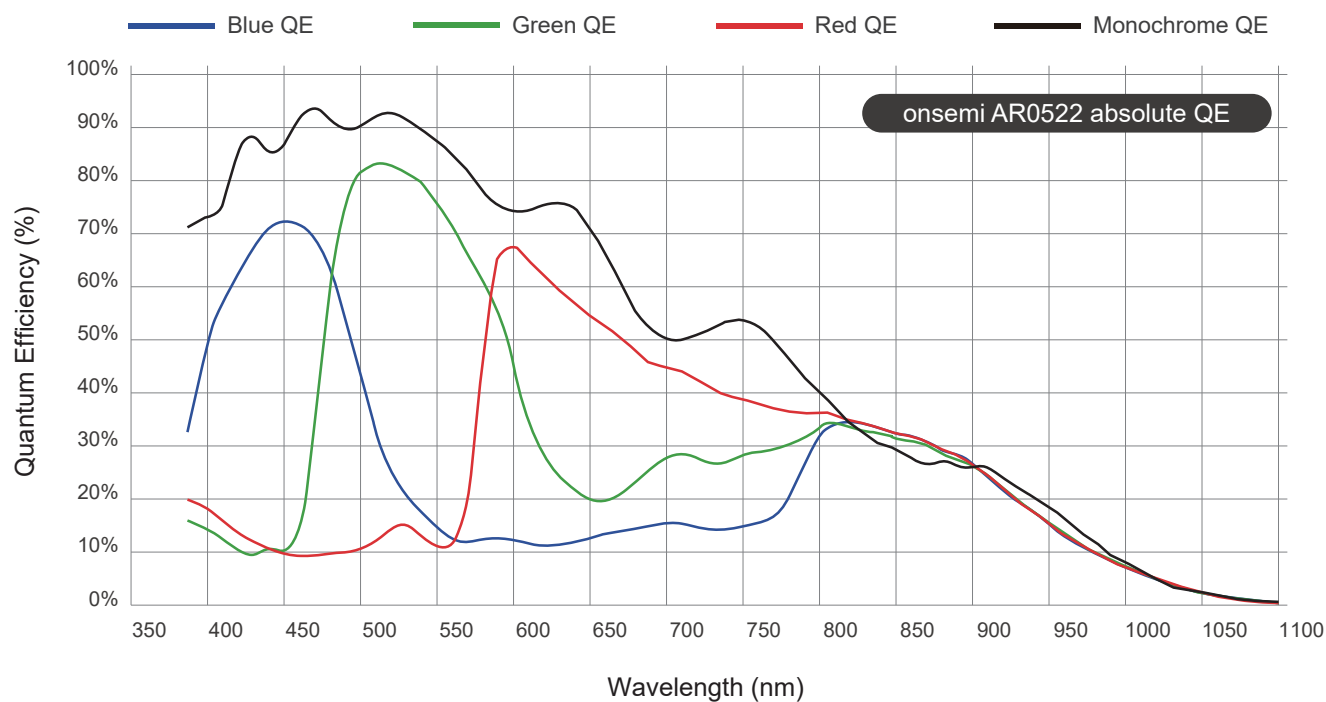


VizionSDK

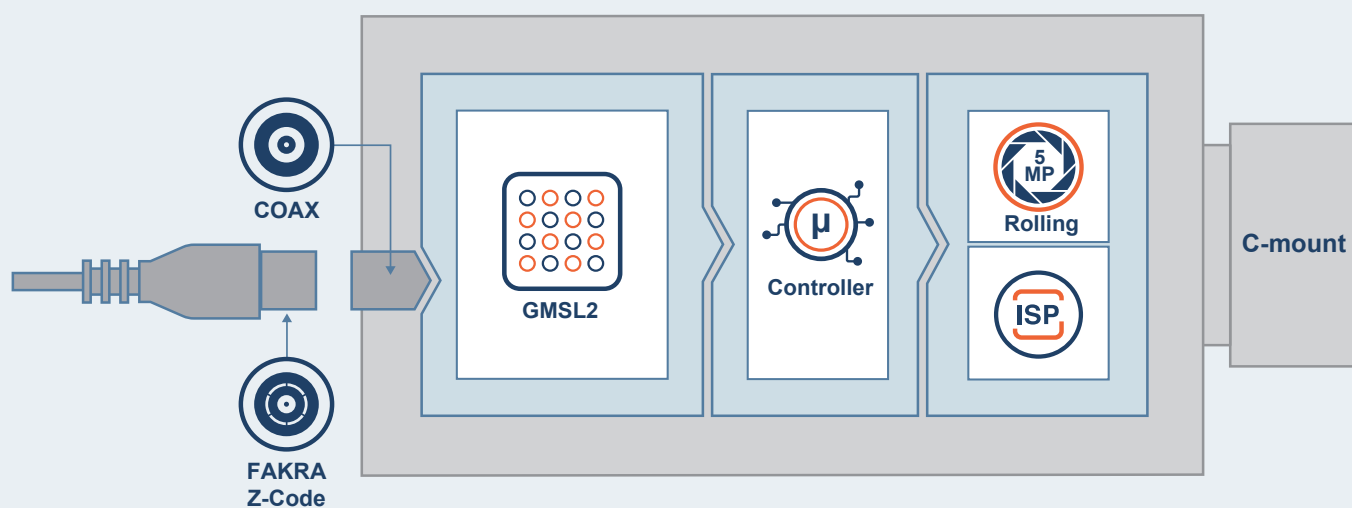


VizionViewer™

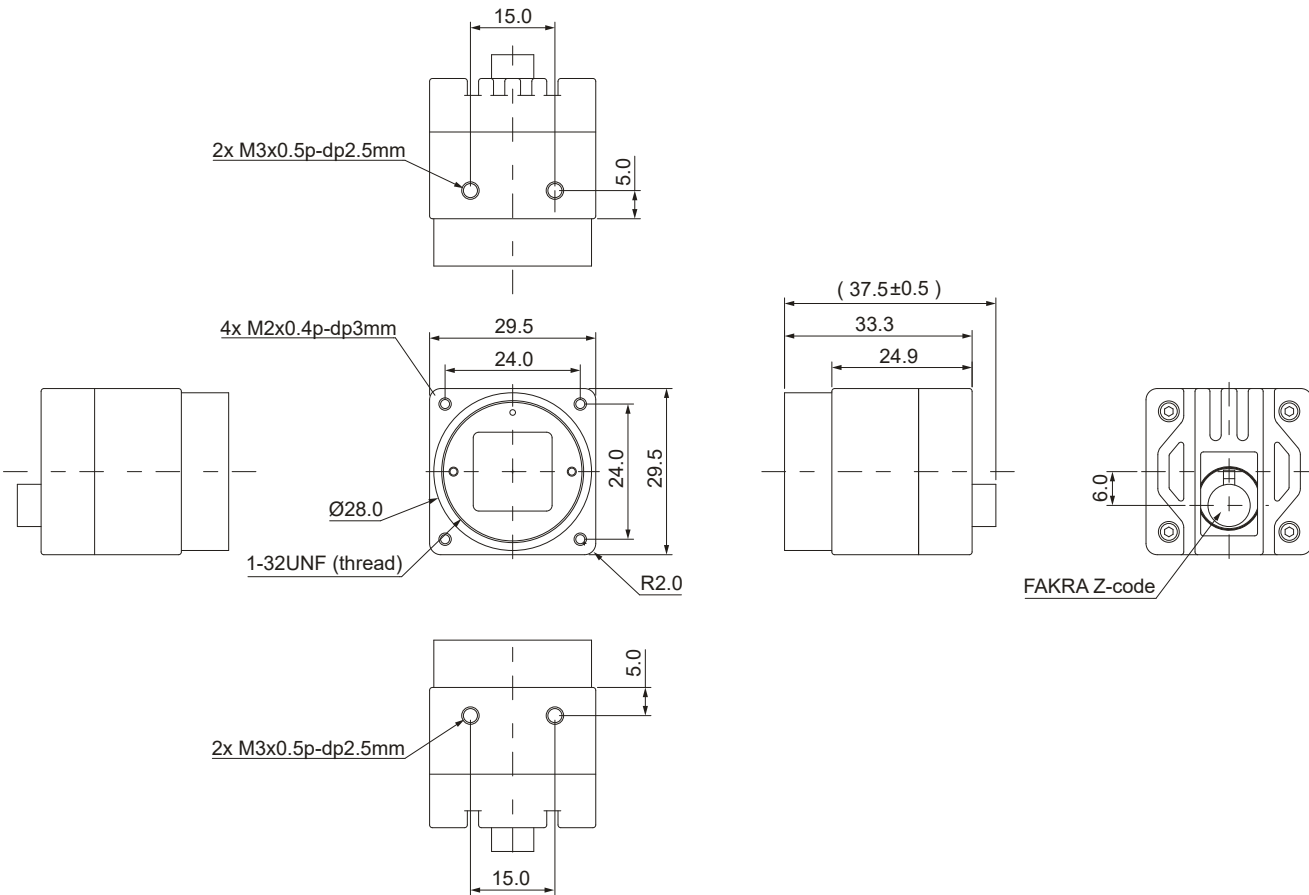
## Spectral Characteristics



## Block Diagram



Dimensions (units in mm)



Order Information

VLS-GM2-AR0522-x-CB-xx-xxxx

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

## Custom Lens Solutions

Our C-mount cameras can be paired with a variety of off-the-shelf lenses. Customers are welcome to choose their own, or alternatively our engineers are on standby to assist with selecting the right camera lens for different applications.



## 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.

