

VLS-GM2-AR0234-SL

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



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-UYYV) | 1920 x 1200 @ 60 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 120 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 | 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 |



VizionSDK



VizionViewer™

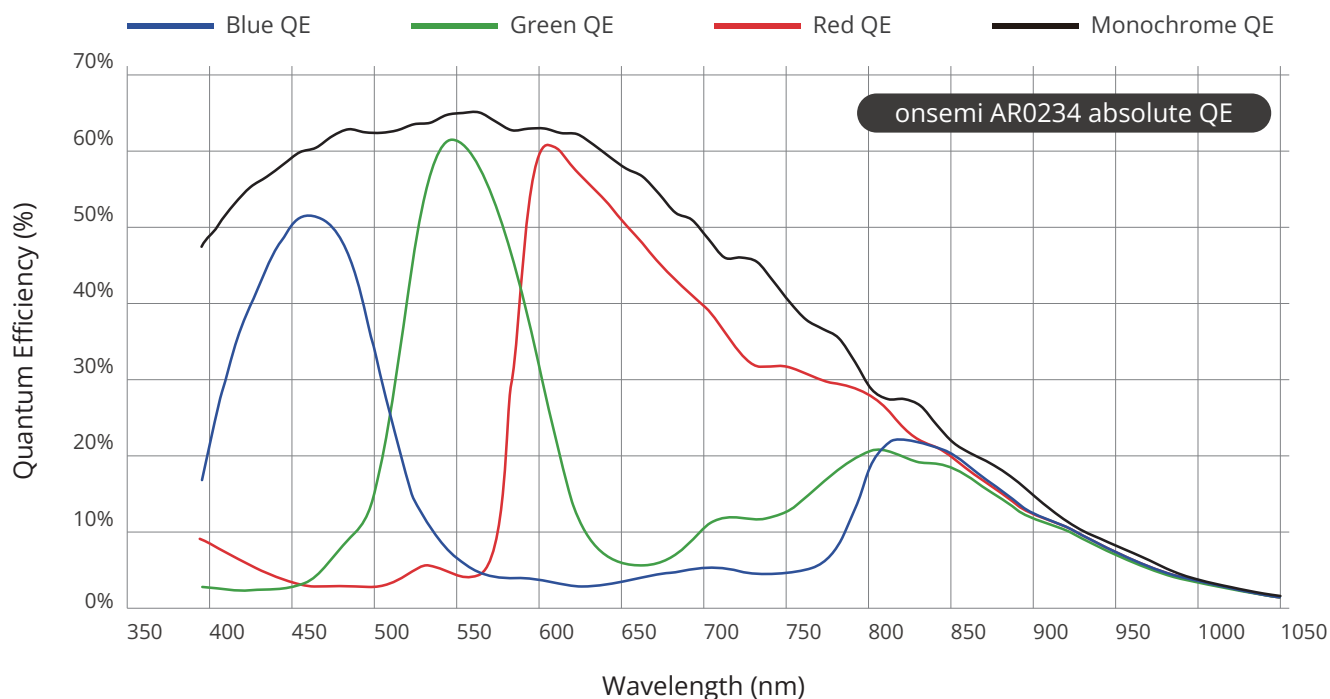
Environmental and Mechanical

| | |
|-----------------------|-------------------------------|
| Dimensions | 29.5(W) x 29.5(H) x 28(D) mm |
| Weight | ≤ 45 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 |

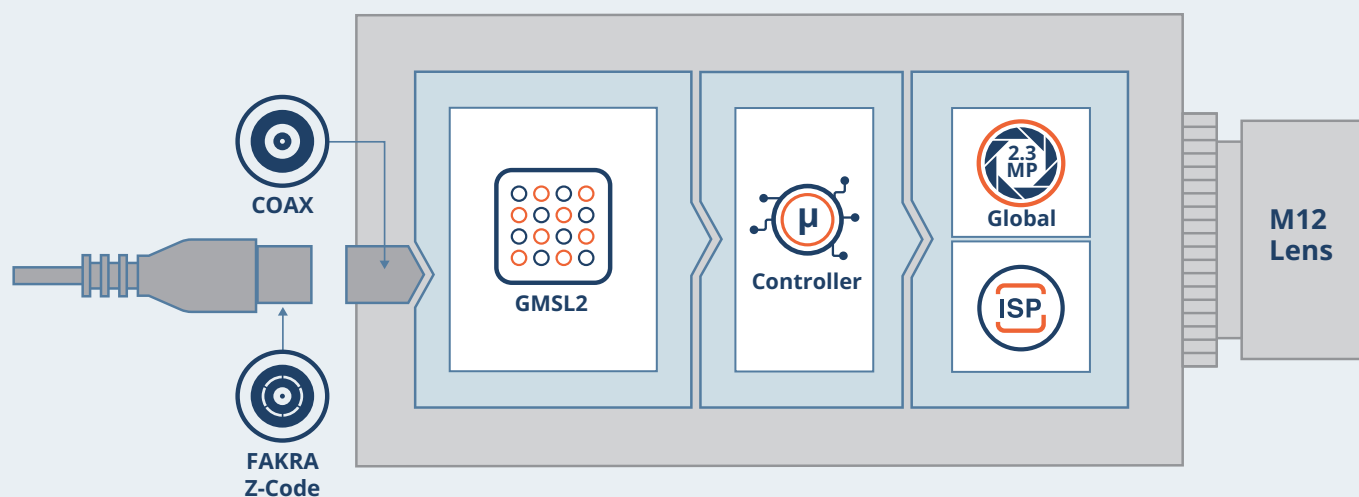
Certification and Compliance

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

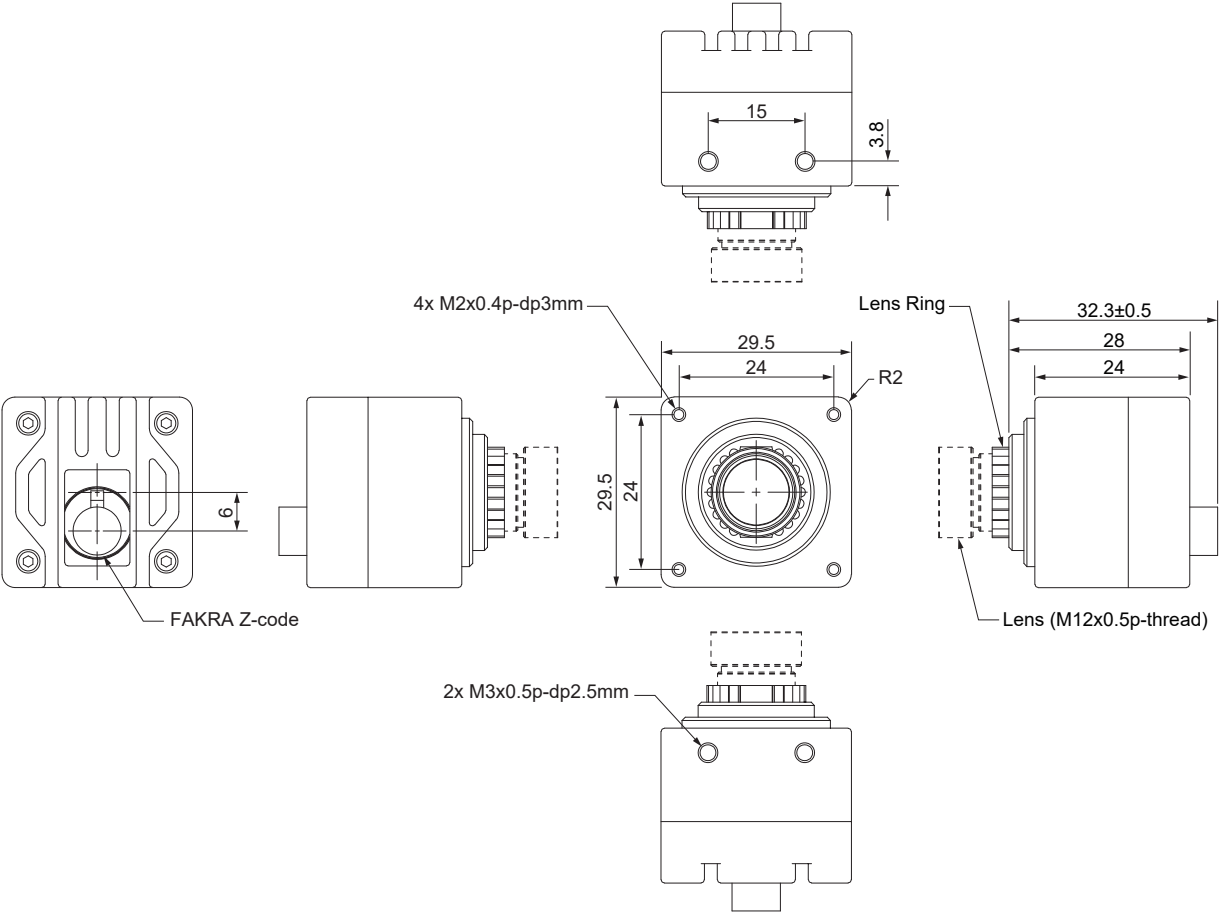
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLS-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.



300-MOUNT-BRACKET



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

Custom Lens Solutions

| |  |  |  |
|--------------|---|--|---|
| | VLS-GM2-AR0234-C-S32-IR | VLS-GM2-AR0234-C-S83-IR | VLS-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.



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.

