VLS-FPD3-AR0144-CB

TechNexion
INNOVATORS OF TECHNOLOGY

- onsemi AR0144 1MP Global Shutter Sensor
- Captures high-speed dynamic targets clearly within an ultra-short exposure time.
- C-Mount for Interchangeable Lenses
- 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 AR0144
Active Pixels	1280 (H) x 800 (V) = 1 MP
Pixel Size	3.0 µm x 3.0 µm
Illuminated Type	Front Side Illuminated (FSI)
Maximum S/N Ratio	38 dB
Optical Format	1/4" (Diagonal 4.5 mm)
Shutter Type	Global Shutter
Chromaticity	Color
Maximum Frame Rate (YUV422-UYVY)	1280 x 800 @ 60 fps 1280 x 720 @ 60 fps 640 x 480 @ 60 fps
Output Format	YUV422-UYVY RGB888 / RGB565 RAW8 / RAW10 / RAW12

Camera Interface

Serial Link	FPD-Link III
Serializer	TI DS90UB953
Connector	FAKRA SMB Jack Z-Code

Power

Power over COAX	10.8V - 26.4V
Power Consumption	1280 x 800 @ 60 fps ≤ 0.9W
Standby Power	≤ 0.1W Standby

Software Support

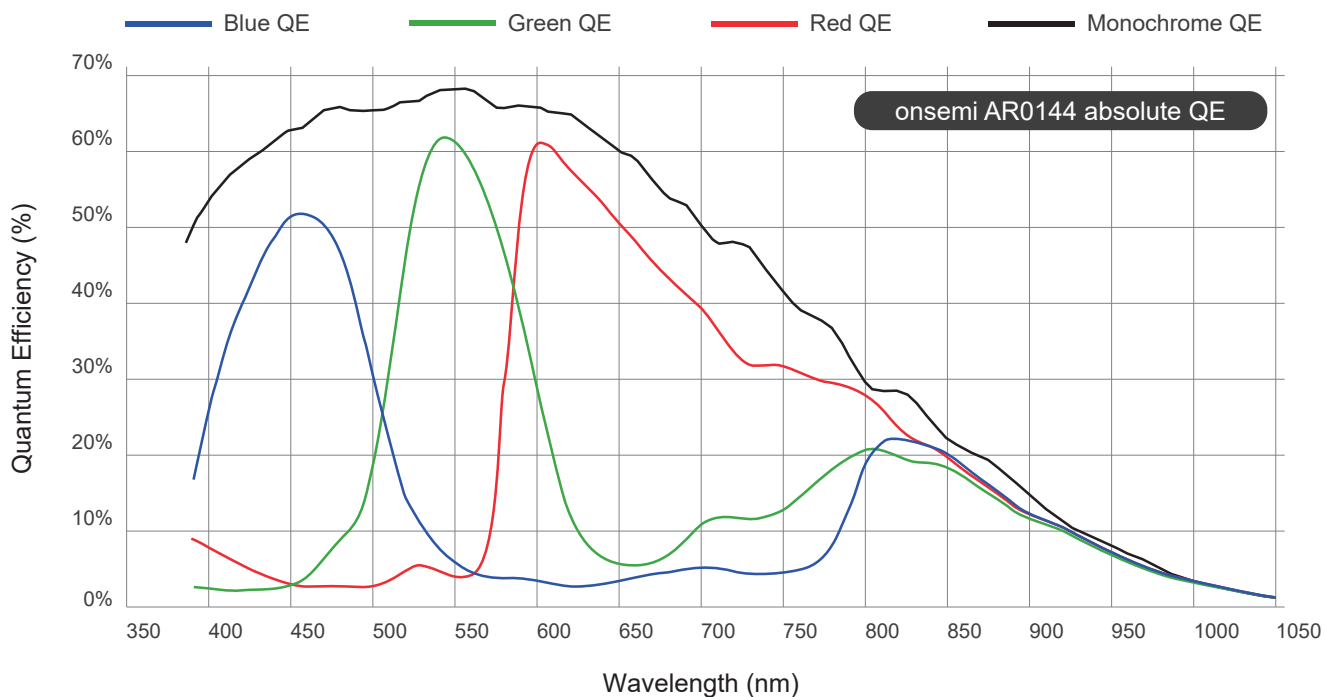|	
Platform Support	NVIDIA Jetson AGX Orin NVIDIA Jetson Orin Nano / NX NVIDIA Jetson Xavier NX NVIDIA Jetson Nano NXP i.MX95 TI Sitara™ AM68 / AM69 TI Jacinto™ TDA4VM / TDA4VH
Operation System	Linux Yocto
Software	VizionViewer™
Development SDK	VizionSDK

Environmental and Mechanical

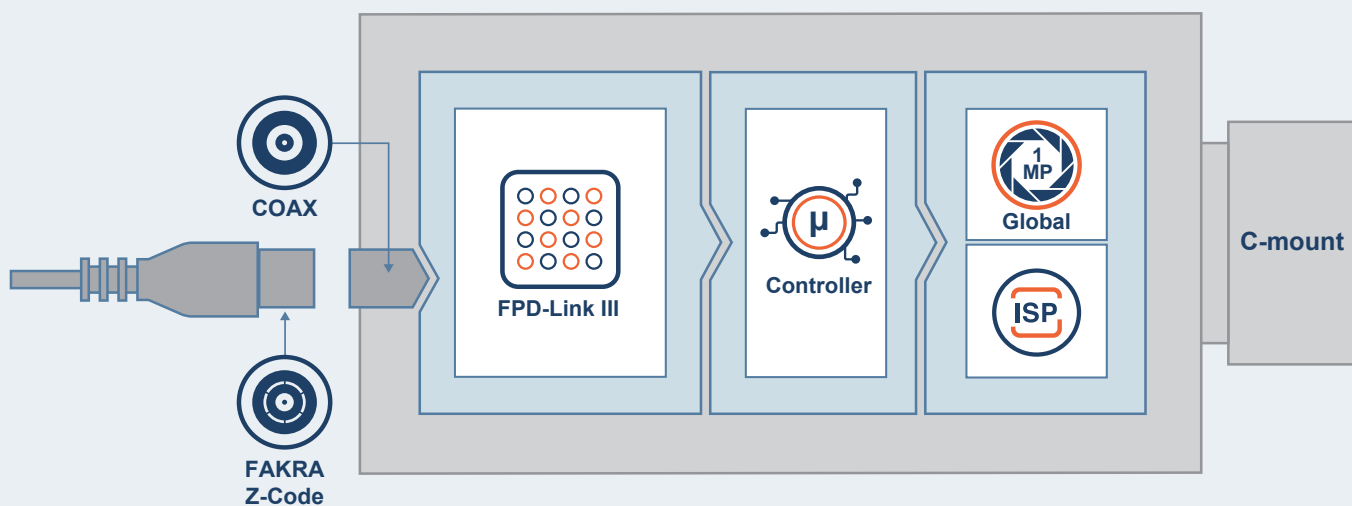|	
Dimensions	29.5(W) x 29.5(H) x 33.3(D) mm
Weight	≤ 40 grams
MTBF	50,000 Hours
Shock	15G half-sine 11 ms duration
Vibration	1 Grms random 5-500Hz hr/axis
Relative Humidity	10 to 90 %
Operating Temperature	-30°C to + 70°C

Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

Spectral Characteristics

onsemi AR0144 absolute QE

Block Diagram

Dimensions (units in mm)

15.0

2x M3x0.5p-dp2.5mm

5.0

4x M2x0.4p-dp3mm

29.5

24.0

24.0

29.5

Ø28.0

1-32UNF (thread)

R2.0

(37.5±0.5)

33.3

24.9

6.0

FAKRA Z-code

2x M3x0.5p-dp2.5mm

5.0

15.0
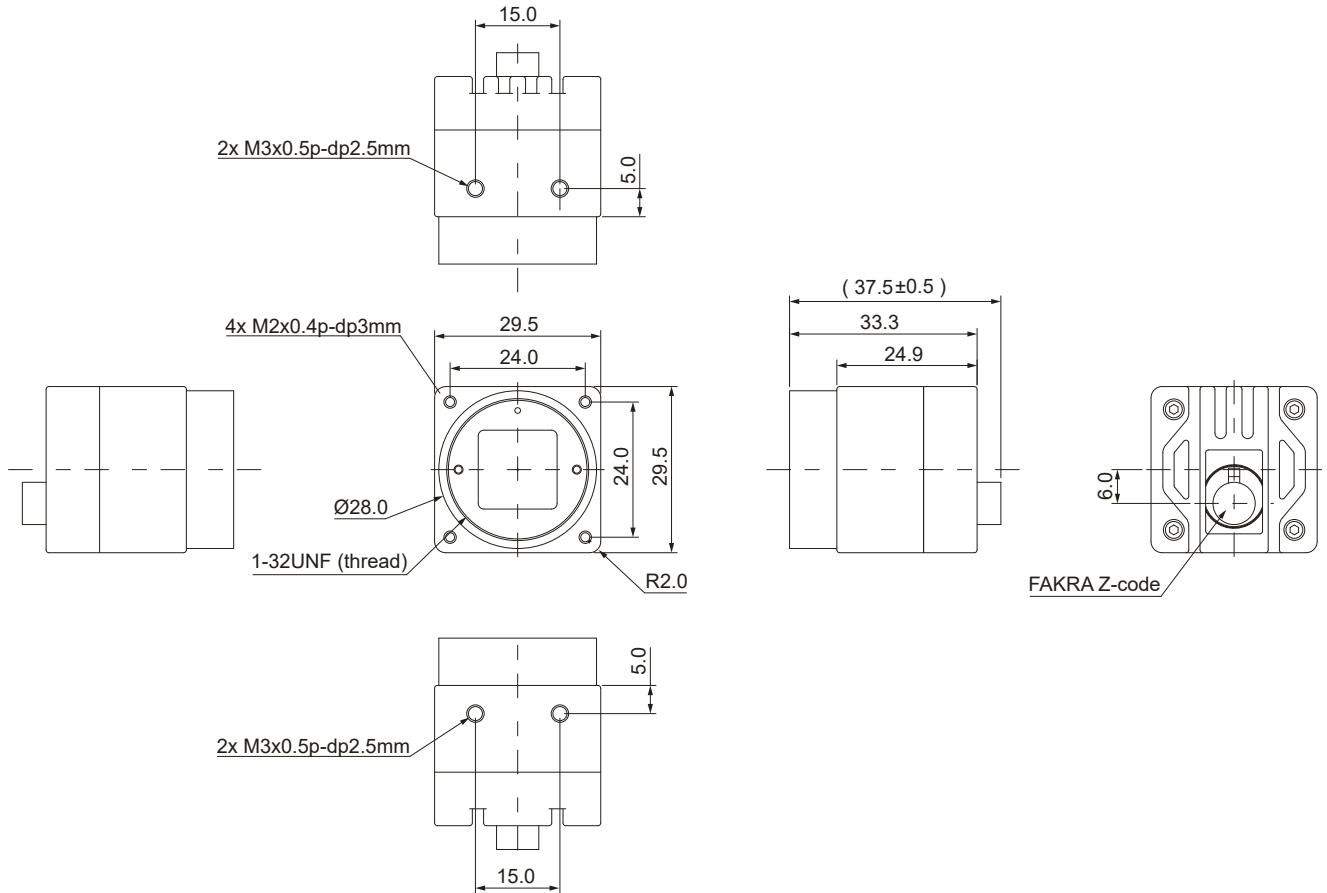
Order Information

VLS-FPD3-AR0144-x-CB-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
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.

FPD-Link III Frame Grabbers

The ease of usage, benefits and integration of a FPD-Link III camera in embedded systems is often made complex by the lack of FPD-Link 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 FPD-Link interconnects.

1-4 Port
Connect up-to 4 FPD-Link 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 FPD-Link camera by the framegrabber.

Software
Linux and Yocto 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.

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