

VLS-FPD3-AR1335-SL

TechNexion
INNOVATORS OF TECHNOLOGY

- onsemi AR1335 13MP Rolling Shutter Sensor
- 4K HDR Imaging for Low-Cost Applications
- S-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 AR1335
Active Pixels	4208 (H) x 3120 (V) = 13 MP
Pixel Size	1.1 μm x 1.1 μm
Illuminated Type	Back Side Illuminated (BSI)
Maximum S/N Ratio	37 dB
Optical Format	1/3.2" (Diagonal 5.8 mm)
Shutter Type	Rolling Shutter
Chromaticity	Color
HDR Support	Yes
Maximum Frame Rate (YUV422-UYYV)	4208 x 3120 @ 10 fps 3840 x 2160 @ 15 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 60 fps 1280 x 720 @ 120 fps 640 x 480 @ 60 fps
Output Format	YUV422-UYYV 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	4200 x 3120 @ 12 fps \leq 1.4W
Standby Power	\leq 0.3W 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

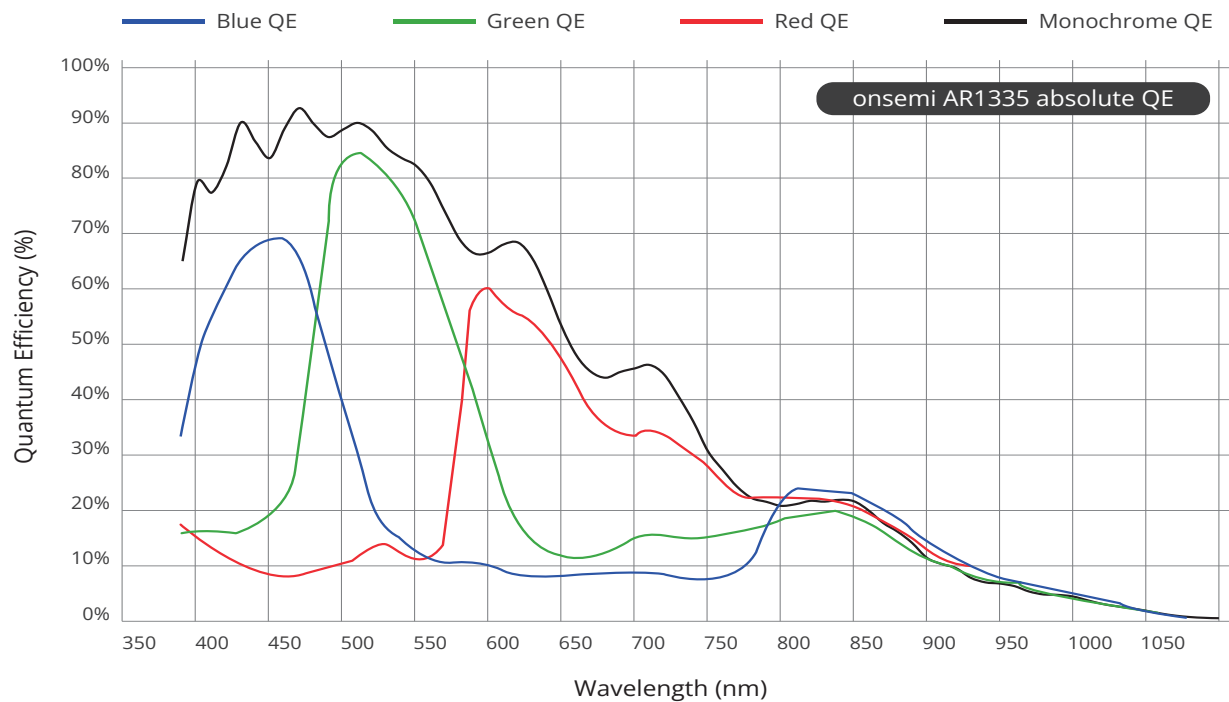
Environmental and Mechanical

Dimensions	29.5(W) x 29.5(H) x 28(D) mm
Weight	\leq 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

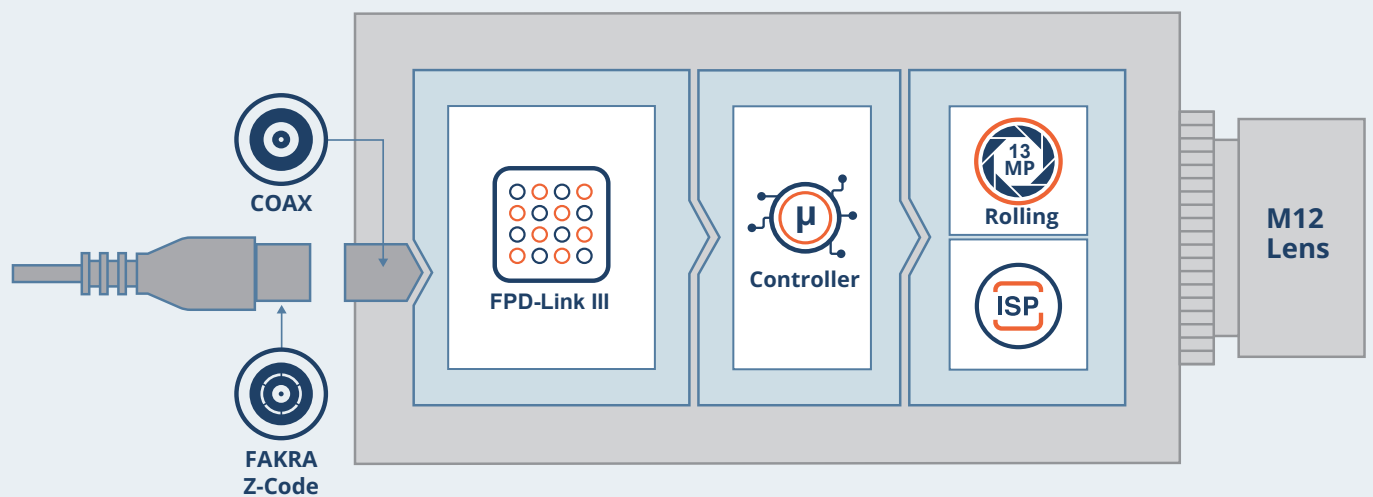
Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives
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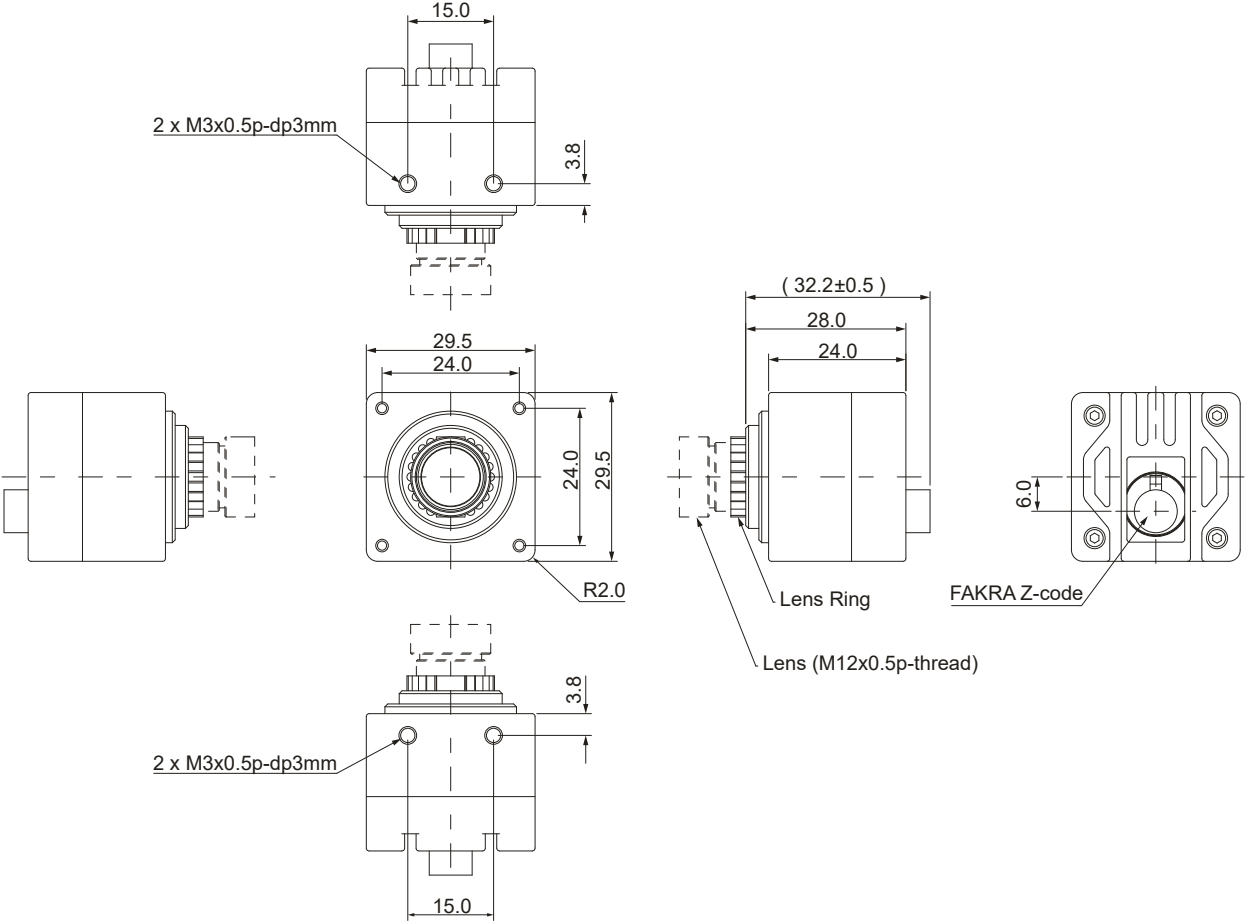
Spectral Characteristics



Block Diagram



Dimensions (units in mm)



Order Information

VLS-FPD3-AR1335-x-Sxx-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
Lens	S85	S-Mount Module D-FOV 85°
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.



Custom Lens Solutions



VLS-FPD3-AR1335-C-S85-IR

Focus Type	Fixed Focus
Focal Length	3.2 mm
Aperture	F2.4
Module D-FOV	84.6° ± 5%
Module H-FOV	70.3° ± 5%
Module V-FOV	55.2° ± 5%
TTL	22 mm
BFL	3.4 mm
MOD	0.3 m
Distortion	<1.6%
IR-Filter	650 nm

FPD-Link III Frame Grabber

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 framegrabber that easily plug into a USB port and extend the system with FPD-Link interconnect.



Up to 15m

Up to 15 meters of data and power transmission over a single COAX cable.



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.

