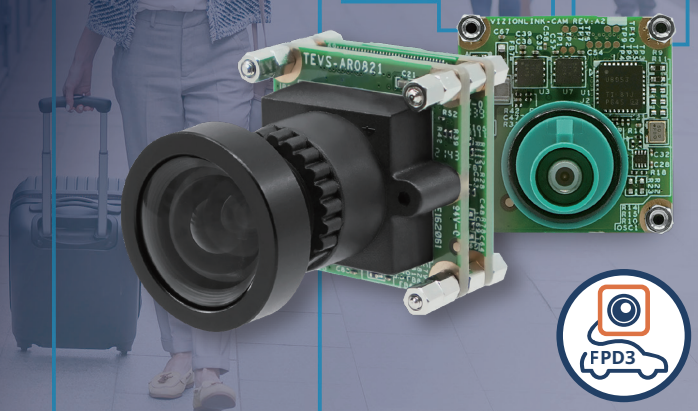
TechNexion
INNOVATORS OF TECHNOLOGY

UVLS-FPD3-AR0821

- onsemi AR0821 8MP Rolling Shutter Sensor
- 4K HDR Imaging Capabilities
- Designed for Low Light 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 AR0821
Active Pixels	3848 (H) x 2168 (V) = 8 MP
Pixel Size	2.1 µm x 2.1 µm
Illuminated Type	Back Side Illuminated (BSI)
Maximum S/N Ratio	41.8 dB
Optical Format	1/1.7" (Diagonal 9.25 mm)
Shutter Type	Rolling Shutter
Chromaticity	Color
HDR Support	Yes
Maximum Frame Rate (YUV422-UYVY)	3840 x 2160 @ 15 fps 2560 x 1440 @ 30 fps 1920 x 1080 @ 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	3840 x 2160 @ 15 fps ≤ 1.6W
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	24.5(W) x 24.5(H) x 34.4(D) mm
Weight	≤ 25 grams
Operating Temperature	-30°C to + 70°C

Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives

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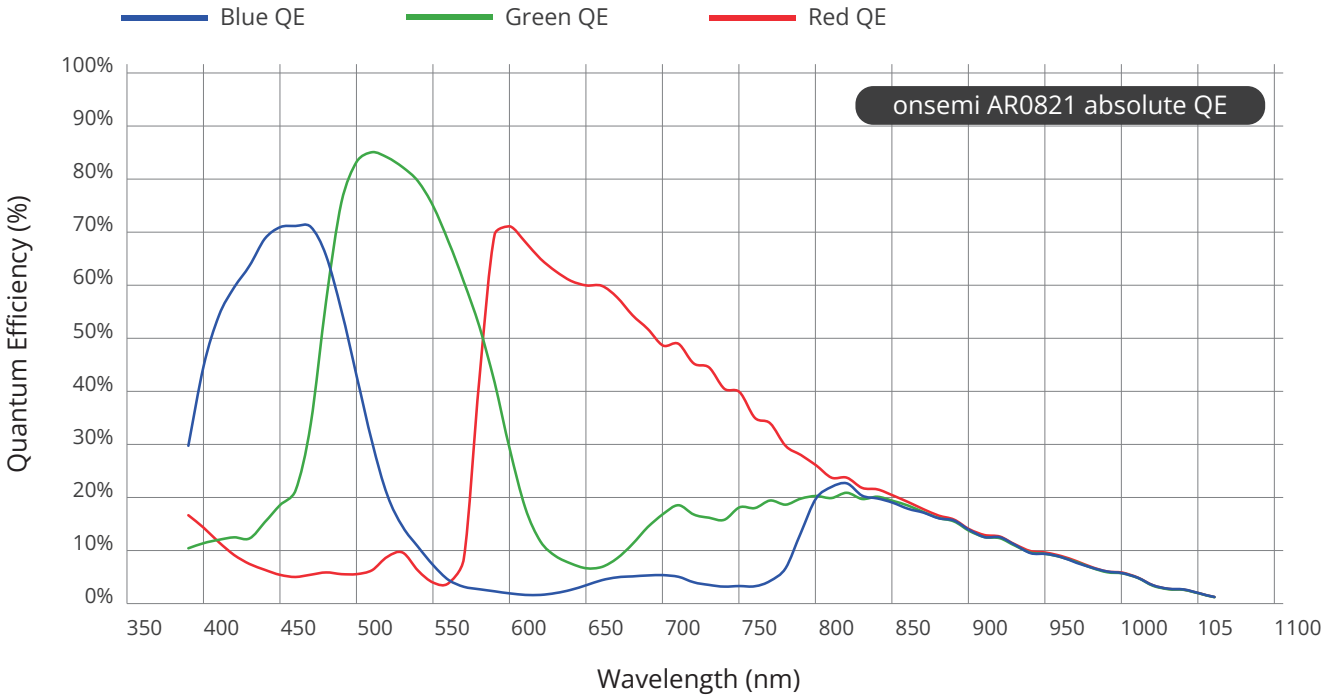
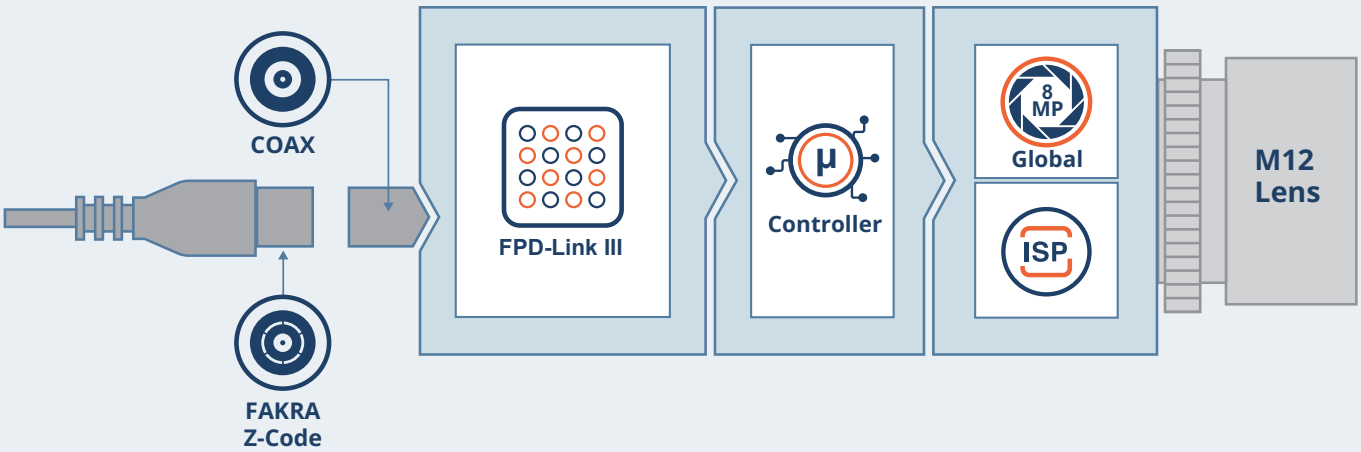
Spectral Characteristics



Block Diagram



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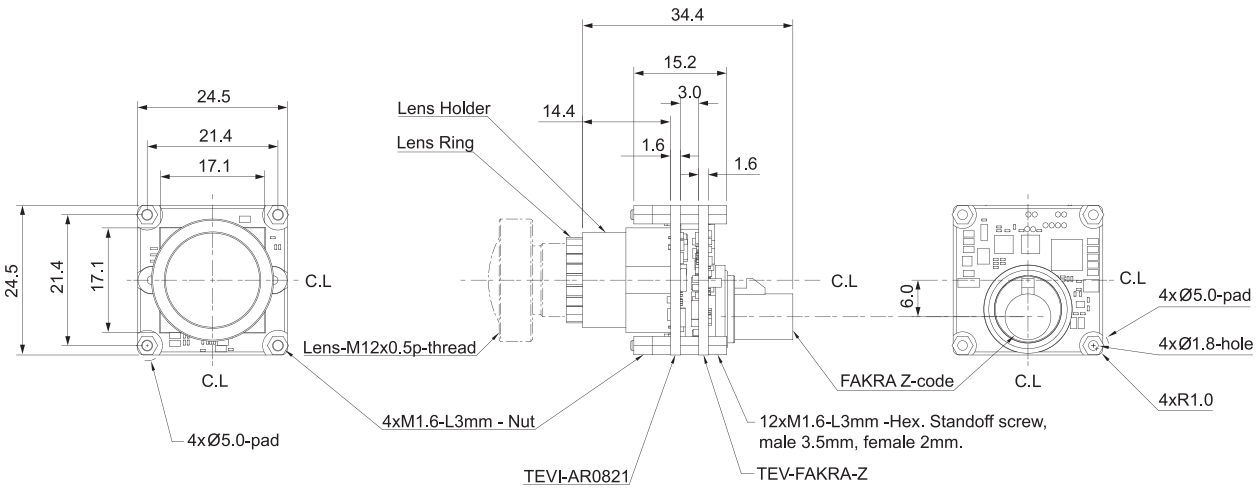
Dimensions (units in mm)



Order Information

UVLS-FPD3-AR0821-x-Sxx-xx-xxxx

Option	Code	Description
Chromaticity	C	Color
	M	Monochrome
Lens	S44	S-Mount Module D-FOV 44°
	S74	S-Mount Module D-FOV 74°
	S119	S-Mount Module D-FOV 119°
	S156	S-Mount Module D-FOV 156°
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)

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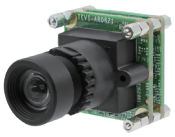
Custom Lens Solutions

	 UVLS-FPD3-AR0821-C-S44-IR	 UVLS-FPD3-AR0821-C-S74-IR	 UVLS-FPD3-AR0821-C-S119-IR	 UVLS-FPD3-AR0821-C-S156-IR
Focus Type	Fixed Focus	Fixed Focus	Fixed Focus	Fixed Focus
Focal Length	12 mm	6 mm	3 mm	3.2 mm
Aperture	F2.0	F2.8	F2.0	F2.0
Module D-FOV	44.0° ± 5%	74.4° ± 5%	118.8° ± 5%	156.0° ± 5%
Module H-FOV	38.3° ± 5%	67.1° ± 5%	110.7° ± 5%	137.2° ± 5%
Module V-FOV	21.6° ± 5%	40.8° ± 5%	75.4° ± 5%	79.4° ± 5%
TTL	23.09 mm	28.6 mm	29.56 mm	44.98 mm
BFL	5.06 mm	8.8 mm	4.85 mm	6.14 mm
MOD	0.15 m	0.1 m	0.3 m	0.3 m
Distortion	<2%	<0.50%	<-5%	<-32%
IR-Filter	650 nm	650 nm	650 nm	650 nm

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.

Software

Linux and Yocto systems are supported.

UVC Compliant

Fully plug-n-play in Windows and Linux embedded systems.

VizionViewer™

Easy to use software utility providing you with granular camera settings control.

Autodetect

Zero configuration required to detect any specific TechNexion FPD-Link camera by the framegrabber.

VizionSDK

Hardcode and control your cameras with C# and Python code.

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