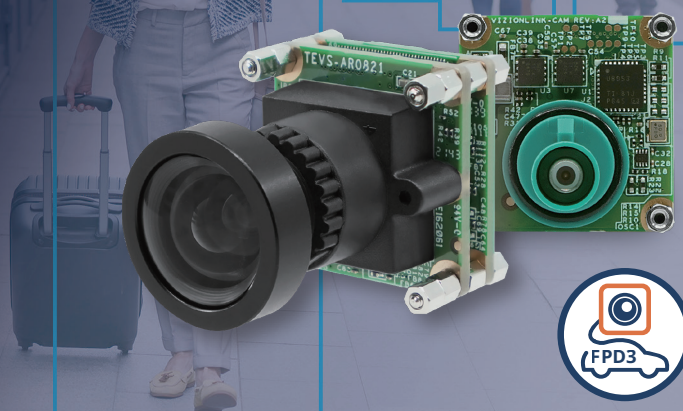


# UVLS-FPD3-AR0821

**TechNexion**  
INNOVATORS OF TECHNOLOGY

- 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



## Camera Information

CMOS Sensor	onsemi AR0821
Active Pixels	3848 (H) x 2168 (V) = 8 MP
Pixel Size	2.1 $\mu\text{m}$ x 2.1 $\mu\text{m}$
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-UYYV)	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-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	3840 x 2160 @ 15 fps $\leq$ 1.6W
Standby Power	$\leq$ 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	$\leq$ 25 grams
Operating Temperature	-30°C to + 70°C

## Certification and Compliance

Certification	Compliant with CE / FCC / RoHS / REACH directives
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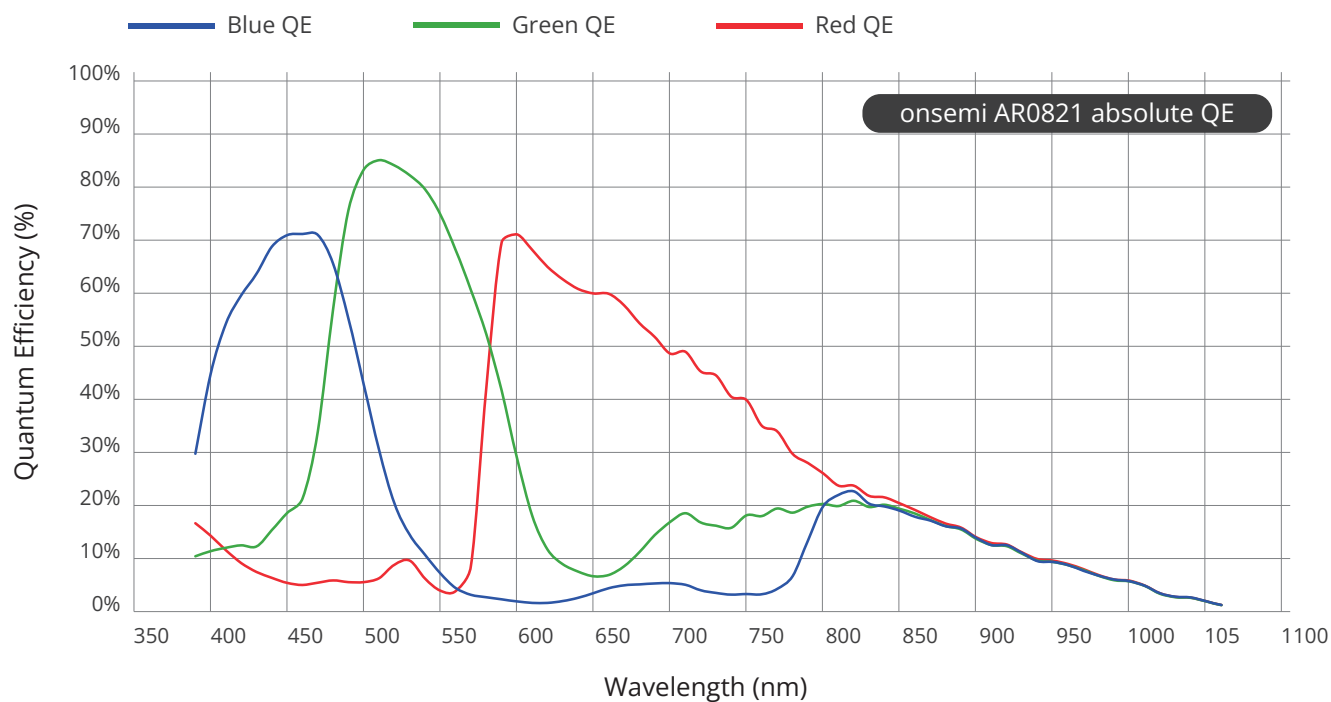


VizionSDK

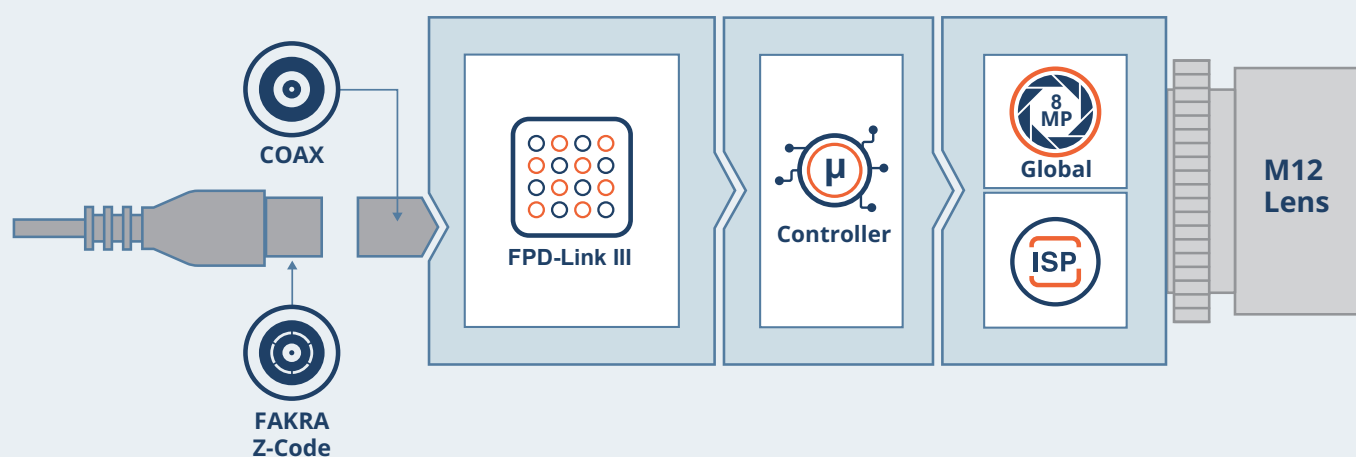


VizionViewer™

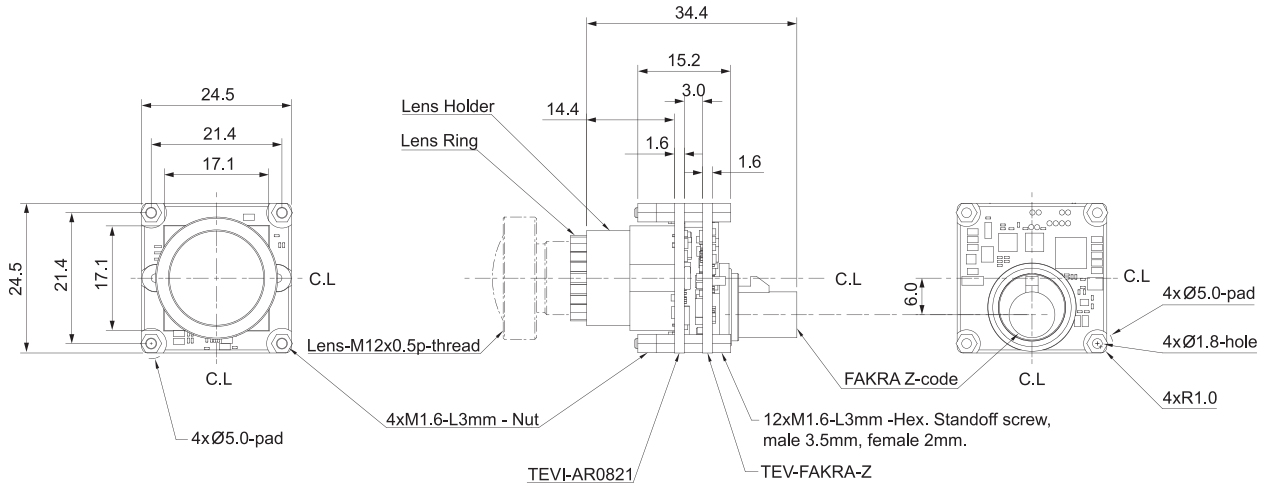
## Spectral Characteristics



## Block Diagram



## 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)

## 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 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.



### 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.

