

AVIIVA® UM8

Line Scan Camera



It inspects all at **first glance...**
...and **in detail**

Key Features

- ❖ Sensor Size: 12 288 pixels - 5 x 5 μm ,
- ❖ Interface: Camera Link® (medium or full configuration),
- ❖ Mechanics: 76 x 76 x 56 mm³
- ❖ Excellent Dynamic Range: 64 dB
- ❖ High Data Rate: up to 320 Mpixels/s
- ❖ Bit Depth: 8, 10 or 12 bits
- ❖ High-sensitivity CCD sensor
- ❖ Fully Configurable by the User with CommCam Software

Typical Applications

- ❖ Surface Inspection: flat panel display, printed circuit board, semiconductors...
- ❖ Web Inspection: printing, textile, paper...
- ❖ OCR and Bar Codes Reading: document scanning...

This 12288 pixels CCD camera is the most advanced member of the AVIIVA Line Scan family, associating technical performances and simplicity of use. e2v manages the entire manufacturing process, from the sensor to the camera. The design of the AVIIVA UM8 integrates the best of e2v experience to provide a camera based on improved sensitivity of the CCD sensor technology. This camera offers an excellent dynamic range, easy implementation, flat field correction and an outstanding design of the housing. The AVIIVA UM8 takes advantage of all the features that make the success of the AVIIVA family with key improvements on easiness of use, mechanical and electrical performances, automatic taps balancing.



Detailed Specifications

Sensor Characteristics at Maximum Pixel Rate		
Resolution	pixels	12288
Pixel Size (square)	µm	5x5
Line Length	mm	61.4
Maximum Line Rate	kHz	25
Anti-Blooming		x 100

Functionalities (Programmable by Control Interface)	
Gain	up to 33 dB (0.035 dB steps)
Offset (Contrast Expansion)	-4096 to +4095 LSB
Exposure Time (internal)	up to 6.5 ms
Trigger Mode	free run, external trigger
Output Format	4 or 8 taps
Flat Field Correction	Auto
Regulatory	CE, FCC and RoHS compliant

Radiometric Performances at Maximum Pixel Rate		
Bit Depth	bits	8, 10 or 12
Spectral Range	nm	250 - 1100
Non-linearity	%	±1
Dynamic Range	dB	64

Mechanical and Electrical Interface		
Size (w x h x l)	mm	76 x 76 x 56
Lens Mount		M72 x 0.75
Sensor Alignment	µm	better than ± 50
Sensor Flatness	µm	better than ± 20
Power Supply	V	single 12 to 24
Power Dissipation	W	< 14
Operating Temperature	°C	0 to 65 (front face)
Storage Temperature	°C	-40 to 70



Overview of e2v Line Scan Camera Offer

Commercial Name	M/C	Max Data Rate M Pixels/s	Interface	Resolution	Bit Depth
AVIIVA M2	Monochrome	60	CL/LVDS	512 to 4096	up to 12 bits
AVIIVA SM2	Monochrome	60	CL/LVDS G	512 to 4096	up to 12 bits
AVIIVA SC2	Color	60	CL/LVDS G	4096	up to 12 bits
AVIIVA UM2	Monochrome	60	GigE	512 to 4096	up to 12 bits
AVIIVA UC2	Color	60	GigE	4096	up to 12 bits
AVIIVA M4	Monochrome	160	CL	2048-6144-8192	up to 10 bits
AVIIVA UM8	Monochrome	320	CL	12 288	up to 12 bits

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