

AVIIVA® UC2

Line Scan Camera



User friendly and low cost to meet your colour requirements

Key Features

- ❖ Sensor Size: 4096 pixels, 10 µm, Monoline RGB Pattern Sensor
- ❖ Interface: GigE Vision and GenICam Compliant
- ❖ Mechanics: Compact and Accurate
- ❖ Excellent Dynamic Range: 67 dB
- ❖ Data Rate: up to 62 Mpixels/s
- ❖ Flat Field Correction
- ❖ White Balance Correction
- ❖ Colour Space Correction
- ❖ Bit Depth:
 - 8, 10 or 12 bit Serial RGB
 - 8 Bits Parallel RGB
- ❖ High Sensitivity CCD Sensor
- ❖ Fully Configurable by the User with CommCam Software

Typical Applications

- ❖ Web Inspection (ceramic, printing)
- ❖ Parts Inspection or Sorting (labels, plastics, minerals, wood, waste management/recycling)
- ❖ Surface Inspection (PCB, film scanning, document scanning)

The new AVIIVA Gigabit Ethernet UC2 GE colour line scan camera is designed with our three concepts: accuracy, versatility and easy implementation with the same compact housing design: 56 x 60 x 40.1 mm of the AVIIVA SC2 family. This housing incorporates the same sensor, 4096 pixels or 1365 x RGB pattern (10 µ) with the same precise sensor alignment. e2v's detector manufacturing process guarantees excellent PRNU values, a significant element of differentiation among camera competitors.

One of the major advantage of the new GigE camera family is the ultimate concept design of the e2v camera, with a wider gain range (36 db) an automatic calibration (white balance, Flat Field Correction, Colour Space Correction), low noise electronics and a fully upgradeable camera via Gigabit Ethernet interface.



Detailed Specifications

Sensor Characteristics at Maximum Pixel Rate		
Resolution	pixels	4096 or 1365 x RGB pattern
Pixel Size (square)	µm	10
Maximum Line Rate	kHz	14
Anti-Blooming		x 100

Radiometric Performance at Maximum Pixel Rate		
Bit Depth	bits	8, 10 or 12 in serial RGB 8 in parallel RGB
Spectral Range	nm	400-700
Non-linearity	%	< 1
Dynamic Range	dB	67

Connectors	
Power	HR 10A-7R-6PB
Control & Data	HR 10A-7R-5SB
Gigabit Ethernet	RJ45-9 pin

Functionalities (Programmable by Control Interface)	
Gain	0 to 30 dB (step of 0.035)
Offset (Contrast Expansion)	On all the dynamic
Exposure Time (internal)	Up to 32 ms
Clock Selection	15.625 or 31.25 MHz
Trigger Mode	Timed, Trigger Width, Trigger Controlled
Flat Field Correction	Auto, Manual
White balance	Auto, Manual
Colour correction	Coefficient Input
Regulatory	RoHS, CE and FCC compliant

Mechanical & Electrical Interface		
Size (w x h x l)	mm	56 x 60 x 40.1
Optional Lens Mount		F, T2, M42 x 1
Sensor Alignment	µm	Better than ± 100
Power Supply	V	Single 12 to 24
Power Dissipation	W	< 9
Operating Temperature	°C	0 to 45 (front face)
Storage Temperature	°C	-40 to 75



Overview of e2v Line Scan Camera Range

Commercial Name	M/C	Max Data Rate M Pixels/s	Interface	Resolution	Bit Depth
AVIIVA SM2	Monochrome	60	CL/LVDS	512 to 4096	up to 12 bits
AVIIVA SC2	Colour	60	CL/LVDS	4096	up to 12 bits
AVIIVA UM2	Monochrome	62	GE	512 to 4096	up to 12 bits
AVIIVA UC2	Colour	62	GE	4096	up to 12 bits
AVIIVA M4	Monochrome	160	CL	2048-6144-8192	up to 10 bits
AVIIVA UM4	Monochrome	160	CL	8192	up to 12 bits
AVIIVA UM8	Monochrome	320	CL	12288	up to 12 bits
ELIIXA UC8	Colour	320	CL	4 x 4096	up to 12 bits

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