



AVIIVA® UM4
Line Scan Camera

Elegance to vision,
uncompromised simplicity...

Key Features

- Sensor Size 8 192 pixels - 7 x 7 μm
- Interface: Camera Link®
(medium or base configuration)
- Mechanics: 76 x 76 x 56 mm
- High Dynamic Range: 62 dB
- Data Rate: 160 Mpixels/s
- Bit Depth: 8, 10 or 12 bits
- Automatic Gain Balance
- Flat Field Correction
- High Sensitivity CCD sensor
- Fully Configurable by the User
with CommCam Software

Typical Applications

- Web Inspection
(printing, textile, paper...)
- Surface Inspection
(semiconductors, PCB, DVD,
flat panel display...)
- OCR and Bar Codes Reading
(document scanning, postal sorting...)

AVIIVA® UM4

Line Scan Camera

The AVIIVA Line Scan family combines superior technical performance and simplicity of use, with e2v manufacturing critical components from the CCD sensor to the complete camera. The AVIIVA UM4 is the latest addition to the AVIIVA family, following on from the highly successful AVIIVA M4.

The UM4 has been designed with ease of use at its heart: including fine automatic tap balancing, flat field correction and a high dynamic range of 62dB, whilst the software provided allows direct upgrading of the camera's firmware. The camera is also RoHS compliant.

The AVIIVA UM4 8K includes all of the features that make the AVIIVA family such a success, with key improvements on ease of use and performance.



Detailed Specifications

Sensor Characteristics at Maximum Pixel Rate

Resolution	pixels	8192
Pixel Size (square)	µm	7
Line Length	mm	57.3
Max Line Rate	kHz	19
Anti-Blooming		x 100

Functionalities (Programmable by Control Interface)

Gain Range	up to 48 dB (0.035 dB steps)
Offset (Contrast Expansion)	-4096 to +4095 LSB
Exposure Time	Up to 6.5 ms
Trigger Mode	Free Run, External Trigger
Output Format	2 or 4 taps
Tap Balance	Automatic
Flat Field Correction	Automatic
Regulatory	CE, FFC 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	62

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	< 10
Operating Temperature	°C	0 to 65 (front face)
Storage Temperature	°C	- 40 to 70



Overview of e2v Line Scan Camera Range

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	512 to 4096	up to 12 bits
AVIIVA SC2	Color	60	CL/LVDS	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 UM4	Monochrome	160	CL	8192	up to 12 bits
AVIIVA UM8	Monochrome	320	CL	12288	up to 12 bits

WWW.E2V.COM © copyright e2v technologies 2007 - bright ideas

Sales offices

Northern Europe

e2v
106 Waterhouse Lane
Chelmsford
Essex CM1 2QU
England
T +44 (0)1245 493 493
F +44 (0)1245 492 492

Southern Europe

e2v
16 Burospace
F-91572 Bièvres Cedex
France
T +33 (0) 1 6019 5500
F +33 (0) 16019 5529

Americas

e2v
4 Westchester Plaza
Elmsford
NY 10523-1482
USA
T +1 914 592 6050
F +1 (914) 592-5148

Asia Pacific

e2v
Bank of China Tower
30th floor office 7
1 Garden Rd Central
Hong Kong
T +852 2251 8227/8/9
F +852 2251 8383

Product Contact

e2v
Avenue de Rochepleine - BP 123
F-38521 Saint-Egrève Cedex
France
T +33 (0)4 76 58 30 00
hotline-cam@e2v.com

e2v