

# The Precision Instrument for High Speed Inspection



## KEY BENEFITS

- » New generation of sensors – 512 pixels 14µm, 1024 pixels 14µm, 2048 pixels 14µm, 4096 pixels 10µm
- » Excellent dynamic range >66dB
- » High sensitivity CCD sensor
- » Up to 12 bits depth
- » Line rate up to 210k lines/s
- » Flat field correction
- » Easy configuration
- » Interface – CameraLink
- » Mechanics – compact and accurate, compatible with all the AViVA range

## TYPICAL APPLICATIONS

- » Web inspection – metallurgy, wood, paper, textile...
- » Process control – pick and place, positioning
- » Print inspection
- » Sorting – food, postal, parcel, checks...
- » Surface inspection – wafers, PCB...
- » Document archiving, data archiving



The AViiVA EM4 sets new standards for line scan cameras – with improved speed and image quality. With a newly designed CCD imaging sensor and a resolution of up to 4096 pixels, it delivers state-of-the-art performance without compromise.

The camera is the perfect choice for demanding machine vision applications with comprehensive built-in features including; automatic FCC, LUT or automatic tap balance.

The EM4 benefits from Teledyne e2v's long experience in imaging, and the proven qualities of the AViiVA family; performance, reliability and high precision mechanical design.

## DETAILED SPECIFICATION

### SENSOR CHARACTERISTICS

Resolution	pixels	512	1024	2048	4096
Pixel size (square)	µm	14	14	14	10
Maximum line rate	kHz	210	126	70	37

### FUNCTIONALITIES (PROGRAMMABLE BY CONTROL INTERFACE)

Gain range	32dB				
Offset	-4096 to 4096 LSB				
Exposure time	Up to 6.55 ms				
Trigger mode	Free run, external trigger				
Regulatory	RoHS, CE and FCC compliant				

### RADIOMETRIC PERFORMANCES

Bit depth	bits	8, 10 or 12
Spectral range	nm	250–1100
Non-linearity	%	< +/- 1
Dynamic range	dB	> 66

### MECHANICAL AND ELECTRICAL INTERFACE

Size (w x h x l)	mm	56 x 60 x 43
Lens mount		C, F, T2, M42 x 1
Sensor alignment	µm	better than ±100
Power supply	V	single 12 to 24
Power dissipation	W	< 11
Operating temperature	°C	0 to 60 (front face)
Storage temperature	°C	-40 to 70

### CONNECTORS

Power	HR10 6-pin
Control & data: Camera Link	MDR 26-pin