



EV76C570

# 2M Sapphire family

B&W and color CMOS sensor

CIVIL AEROSPACE

DEFENCE

SPACE

INDUSTRIAL

MEDICAL & SCIENCE

SECURITY & RESCUE



Snap out of the dark into a brighter future

## KEY FEATURES

- 1.92 million pixels (1600 x 1200), 4.5 $\mu$ m square pixels with micro-lens
- High speed: 50/60 fps at full resolution, low light CMOS sensor
- Efficient global shutter for sharp images of fast moving objects
- Rolling shutter allowing global reset for best SNR
- Multiple regions of interest (4 separate configurable windows)
- Linear dynamic range 66dB @ 25°C with multiple HDR modes
- Low power consumption
- Output format 10 bits parallel plus synchronization
- 3D range gating mode
- Operating temperature (-30° to +65°C)
- Package : CLCC 48 12.7 x 12.7mm
- SPI control

## TYPICAL APPLICATIONS

- Barcode reading/scanners
- Industrial machine vision
- Smart cameras
- CCTV/IP surveillance cameras
- Biometric and medical imaging
- Intelligent traffic systems

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ORDER  
CODES

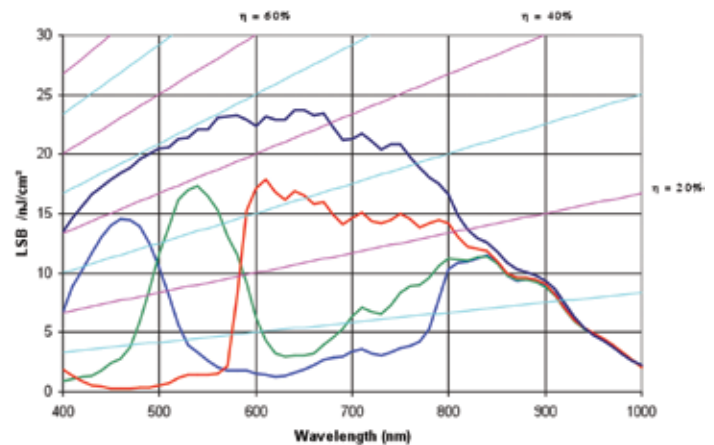
EV76C570ABT-EQT for monochrome product  
EV76C570ACT-EQT for Bayer (color) product  
For other CFA options please contact e2v

This 1600 x 1200 pixel CMOS image sensor, designed on e2v's proprietary Eye-On-Si CMOS imaging technology, is ideal for diverse applications where superior performance is required. The innovative pixel design offers excellent performance in low-light conditions with both electronic rolling shutter and electronic global shutter, with a high-readout speed of 50/60 fps in full resolution. Novel industrial machine vision application features such as multi ROI, histogram outputs and 3D range gating are embedded on-chip. Very low power consumption enables this device to be used in battery powered hand-held applications. The device is functionally, hardware and software compatible with the 1.3 million pixel EV76C560 device.

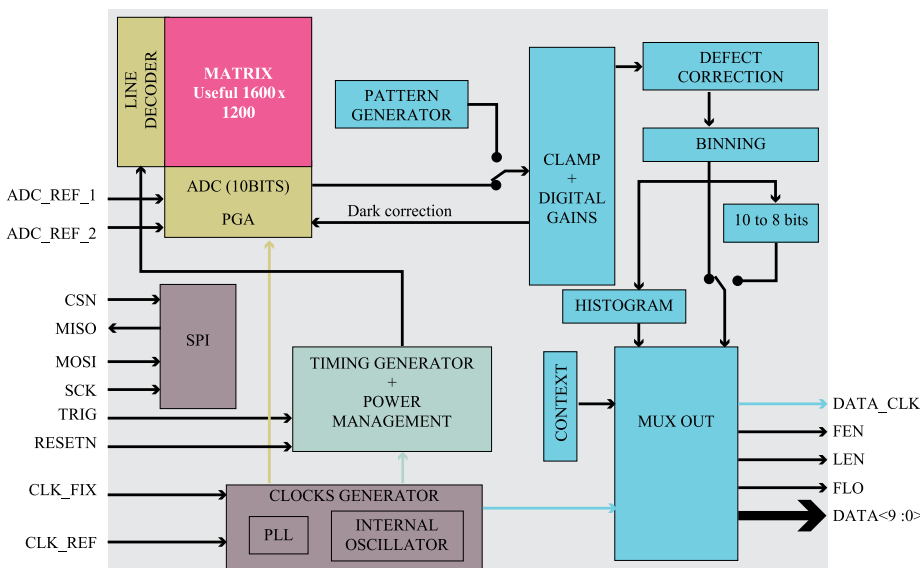
## Sensor characteristics

SENSOR CHARACTERISTICS		
Resolution	pixels	1600 (H) x 1200 (V)
Image size	inches	1/1.8
Pixel size (square)	µm	4.5 x 4.5
Aspect ratio		4/3
Max frame rate	fps	60 @ full format >120 @ VGA format
Pixel rate	Mpixels/s	114 to 120
PIXEL PERFORMANCE		
Bit depth	bits	10
Dynamic range	dB	66 (linear) >100 (HDR mode)
SNR max	dB	41
Responsivity	LSB10/(nJ/cm <sup>2</sup> )	24
MECHANICAL & ELECTRICAL INTERFACE		
Power supplies	V	3.3 & 1.8
Power consumption		
Functional	mW	200
Standby	µW	33

## Spectral response and quantum efficiency



## Sensor overview – Block diagram



Contact us online at:  
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