

Snap Out of the Dark, into a Brighter Future



KEY BENEFITS

- » 1.92 million pixels (1,600 (H) x 1,200 (W)), 4.5µm square pixels with micro-lens
- » High speed: 50/60fps 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 (four 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 12.7mm x 12.7mm
- » SPI control

APPLICATIONS

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

ORDER CODES

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



This 1,600 (H) x 1,200 (W) pixel CMOS image sensor, designed on **Teledyne 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 50/60fps 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

Resolution – pixels	1,600 (H) x 1,200 (W)
Image size – inches	1/1.8
Pixel size – μm	4.5 x 4.5
Aspect ratio	4:3
Max frame rate – fps	60 @ full / >120 @ VGA
Pixel rate – Mpixels/s	114 to 120

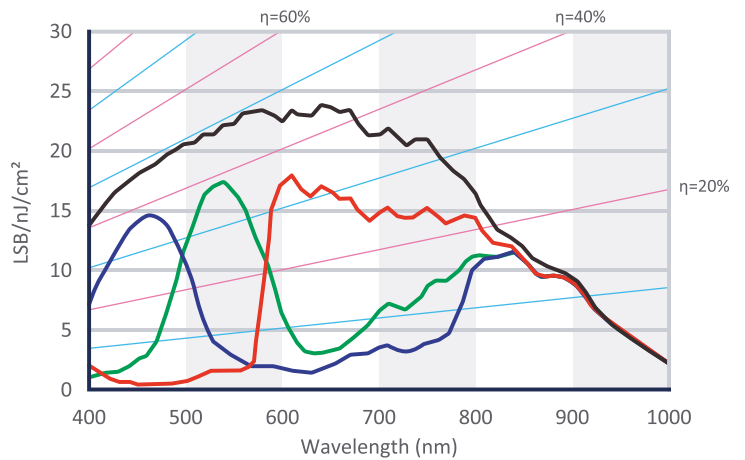
PIXEL PERFORMANCE

Bit depth – bits	10
Dynamic Range – dB	66 (linear) / >100 (HDR)
SNRmax – dB	41
Responsivity – $\text{LSB}10/(\text{nJ}/\text{cm}^2)$	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

