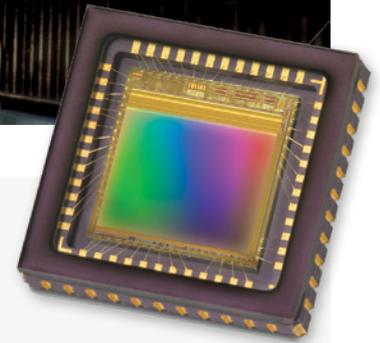


SNAP OUT OF THE DARK, INTO A BRIGHTER FUTURE



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 50/60 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.



KEY BENEFITS

- 1.92 million pixels (1,600 (H) x 1,200 (W)), 4.5 μm 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 (four separate configurable windows)
- Linear dynamic range 66 dB @ 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



Sensor Characteristics

Resolution – pixels	1,600 (V) × 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	114-120

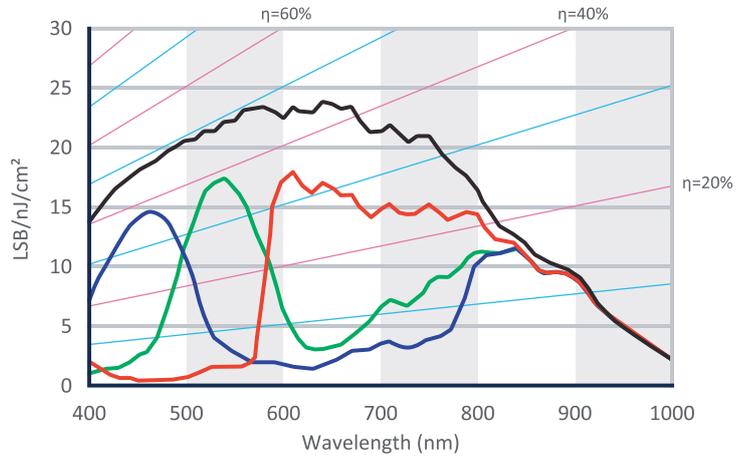
PIXEL PERFORMANCE

Bit depth – bits	10
Dynamic range – dB	66 (linear) / >100 (HDR)
SNRmax – dB	41
Responsivity – LSB10/(nJ/cm²)	24

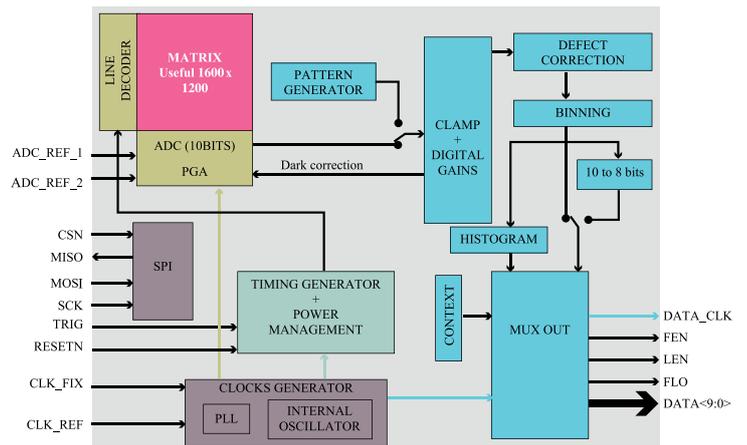
MECHANICAL & ELECTRICAL INTERFACE

Power supplies – V	3.3 & 1.8
Power consumption	
Functional – mW	200
Standby – μW	33

SPECTRAL RESPONSE & QUANTUM EFFICIENCY



SENSOR OVERVIEW



ORDER CODES

MONO	EV76C570ABT-EQT
COLOR	EV76C570ACT-EQT

* For other CFA options please contact Teledyne e2v