

# Low-Light Without Distortion



## KEY BENEFITS

- » High QE, low-light CMOS sensor
- » Global shutter
- » 860 x 640 pixels @ 60fps
- » 5.8µm square pixels with micro-lens
- » Wide dynamic range (120 dB)
- » Power supplies 3.3V & 1.8V
- » Low power consumption
- » Output format 8 bits parallel
- » Operating temperature (-30° to +65°C)
- » Package: µCLCC48 10mm x 10mm

## APPLICATIONS

- » Surveillance IP/CCTV cameras
- » Industrial machine vision
- » Biometric/medical imaging
- » Automotive vision

## ORDER CODES

- » EV76C454BBT-EQV  
for black and white product
- » EV76C454BMT-EQV  
for mono/color product
- » EV76C454BCT-EQV  
for Bayer product
- » For other CFA options  
please contact **Teledyne e2v**



This 550K 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 an electronic global (true snapshot) shutter, and offers a high readout speed at 60fps in full resolution, and 80fps in VGA mode. Very low power consumption enables this device to be used in battery powered applications.

### SENSOR CHARACTERISTICS

Resolution – pixels	640 (V) x 838 (H)
Image size – inches	1/2.9
Pixel size – $\mu\text{m}$	5.8 x 5.8
Aspect ratio	4:3
Max frame rate – fps	60 @ full / 80 @ VGA
Pixel rate – Mpixels/s	48

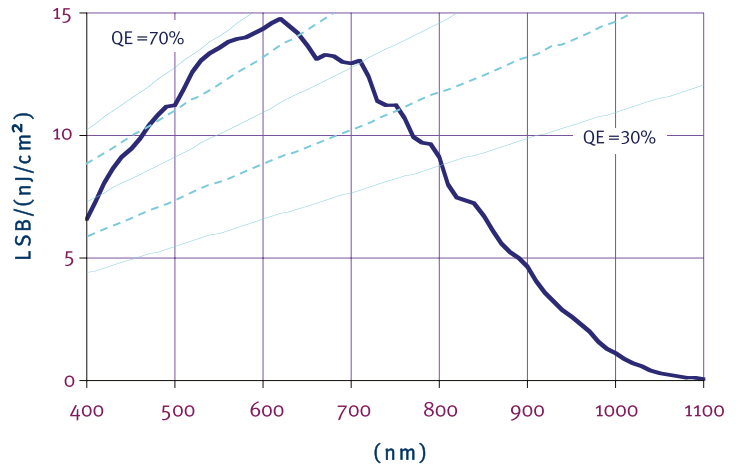
### PIXEL PERFORMANCE

Bit depth – bits	8
Dynamic range – dB	>52 (linear) / >100 (HDR)
SNRmax – dB	>40
Responsivity LSB/(nj/cm <sup>2</sup> )	15

### MECHANICAL & ELECTRICAL INTERFACE

Power supplies – V	3.3 & 1.8
Power consumption	
Functional – mW	80
Standby – $\mu\text{W}$	40

### SPECTRAL RESPONSE AND QUANTUM EFFICIENCY GAIN = 1



### SENSOR ARCHITECTURE – BLOCK DIAGRAM

