

The New Standard in Entry Level Platforms



KEY BENEFITS

- » 0.36 million pixels (480 (V) x 752 (H)), 4.5µm square pixels with micro-lens
- » High speed: >125fps at full resolution, low-light CMOS sensor
- » Efficient global shutter for sharp image of fast moving objects
- » Rolling shutter allowing global reset for best SNR
- » Multiple regions of interest
- » Linear dynamic range 66dB @ 25°C
- » Low power consumption
- » Output format 10 bits parallel plus synchronization
- » Accumulation mode
- » Operating temperature (-30° to +65°C)
- » Package: CLCC 8.5mm x 8.5mm and WLCSP 4.8mm x 4.7mm
- » SPI control

APPLICATIONS

- » Barcode reading/scanners
- » Industrial machine vision
- » Smart cameras
- » CCTV/IP surveillance cameras
- » Biometric and medical imaging
- » 3D virtual reality goggles

ORDER CODES

- » EV76C541ABT-EQT
for monochrome product
- » EV76C541ACT-EQT
for Bayer (color) product
- » For other CFA options
please contact **Teledyne e2v**



The EV76C541 is a wide-VGA format CMOS image sensor designed with **Teledyne e2v's** proprietary Eye-On-Si CMOS imaging technology. It is ideal for applications where superior performance is required, and a viable replacement for traditional industrial CCD sensors. The innovative pixel design offers excellent performance in low-light conditions with an electronic global shutter, and offers a high-readout speed at minimum 125fps in full resolution. Its very low power consumption makes it well suited for use in battery-powered applications such as hand-held barcode scanners. Novel industrial machine vision application features such as multi ROI and 3D range gating are also embedded on-chip.

SENSOR CHARACTERISTICS

Resolution – pixels	480 (V) x 752 (H)
Image size – inches	1/4
Pixel size – μm	4.5 x 4.5
Max frame rate – fps	>125 @ full format
Pixel rate – Mpixels/s	>45

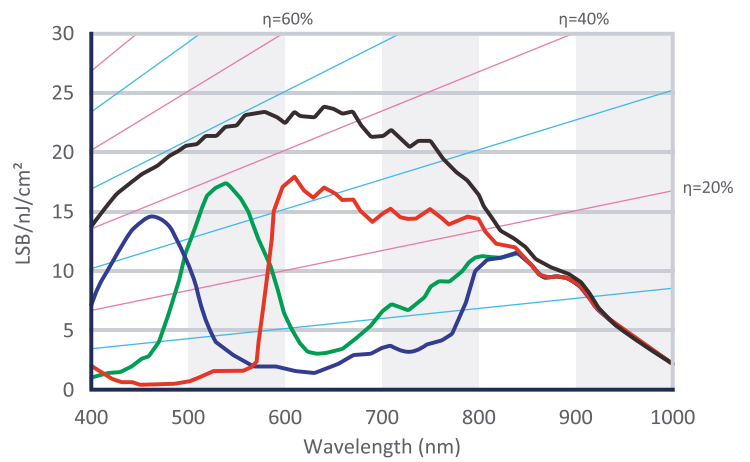
PIXEL PERFORMANCE

Bit depth – bits	10
Dynamic range – dB	66 (linear) / >100 (HDR)
SNRmax – dB	41
Responsivity – LSB10/(nJ/cm ²)	24

MECHANICAL & ELECTRICAL INTERFACE

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

SPECTRAL RESPONSE AND QUANTUM EFFICIENCY



SENSOR OVERVIEW

