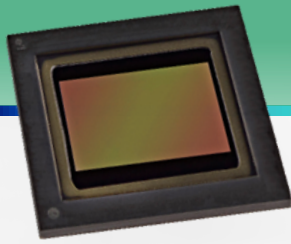


HDPYX 230-G

2.3 MP, Global Shutter HDR CMOS image sensor



The HDPYX 230-G image sensor uses a groundbreaking global shutter pixel with dual in-pixel memory to capture perfect High Dynamic Range (HDR) images. Its main features are excellent in-scene dynamic, low noise and high sensitivity. The result is a perfect picture in all conditions.



APPLICATIONS

- Night Vision
- ITS
- Robotic
- Surveillance



KEY FEATURES

- 3.2µm pixel pitch
- Global Shutter with built-in HDR pixel
- 11 bits ADC
- Embedded ISP for pixel defect correction, HDR management, ghost removal and artefacts correction
- Linear or compressed output from 8 to 16 bits
- 8 regions of interest (ROI)
- Subsampling and binning up to x4
- MIPI CSI-2 output (4 Lanes @ 800Mbps)
- Parallel outputs (12bits @ 100 MHz)
- Plastic package, IM2BGA, 104 balls
- Power < 435mW
- Automotive Grade qualification (AEC-Q100 grade 2)
- Embedded diagnostic features
- Monochrome or RGB+NIR (as detailed on the bottom right side)



MAIN CHARACTERISTICS

- Resolution 2.3 MP
- Active Pixels 1944 x 1204
- Aspect Ratio 16 : 10
- Frame Rate 60 fps
- Optical Diagonal 1/2.5" / 7.3mm



PERFORMANCES

- High Dynamic Range up to 97 dB (Dual exposure) on-chip
- Dynamic range of 67 dB with single integration
- Readout Noise: 2.3e- (Ambient)
- Dark current: 15e-/s (Ambient)
- Full Well Capacity: 7.1 ke-
- QE 69% at 550nm and 19% at 850nm
- SNR Max 41.6dB
- Very high MTF in NIR range

G	NIR	G	NIR
B	G	R	G
G	NIR	G	NIR
R	G	B	G

This configuration for NIR pixel offers a solution from very low light/night monochrome to high level color applications

