

HIGH SENSITIVITY 2MP GLOBAL SHUTTER CMOS

OVERVIEW

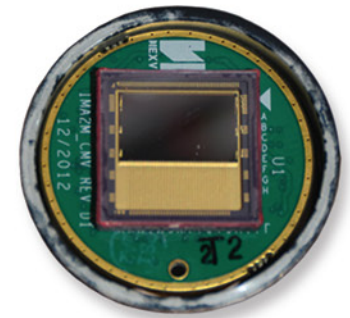
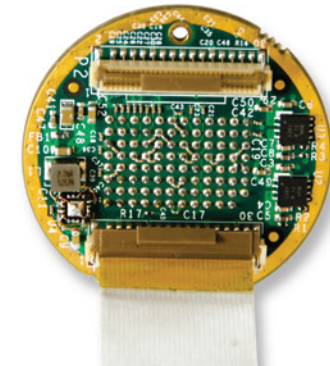
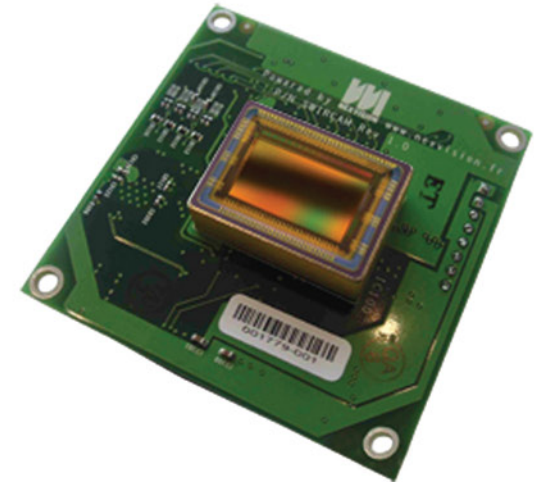
- High sensitivity 2Mpx
- Global shutter CMOS image sensor with CDS (Correlated Double Sampling)
- 2048x1088 pixel format
- 5,5 μm pitch
- 8 LVDS channels each running at 480 Mbps
- 170 Frames/s in 10 bit mode
- 35 Frames/s in 12 bit mode
- Multiple HDR modes up to 90 dB
- Row windowing capable of up to 8 separate ROIs
- X-Y mirroring function

APPLICATIONS

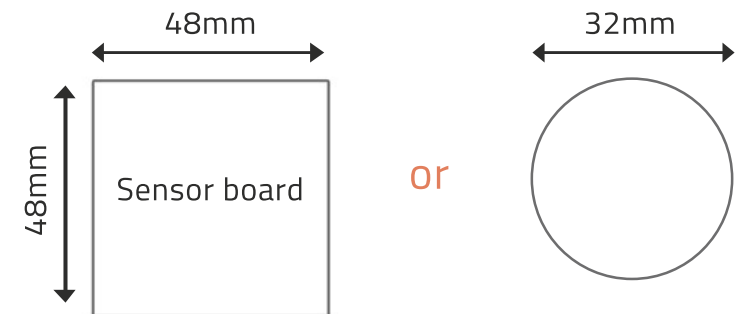
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|--------------------------|-----------------------|
| Corona detection | Sterilization |
| Surface inspection | UV optics development |
| Semiconductor inspection | UV metrology |
| Non-destructive testing | Lithography |
| Astronomy | Forensic |
| UV spectroscopy | |
| Fire detection | |

SENSOR FEATURES

- Pipelined global shutter with CDS
- Optical format of 2/3"
- 2048 * 1088 active pixels on a 5.5 μm pitch
- 170 Frames/s in 10 bit mode
- 35 Frames/s in 12 bit mode
- Row windowing capable of up to 8 separate ROIs
- X-Y mirroring function
- 8 LVDS-outputs @ 480 MHz multiplexable to 4 and 2 at reduced frame rate
- Multiple High Dynamic Range (HDR) modes up to 90 dB
- On chip temperature sensor
- On chip timing generation
- SPI-control
- Ceramic 95 pin μPGA package (18.6 mm x 13.5 mm)



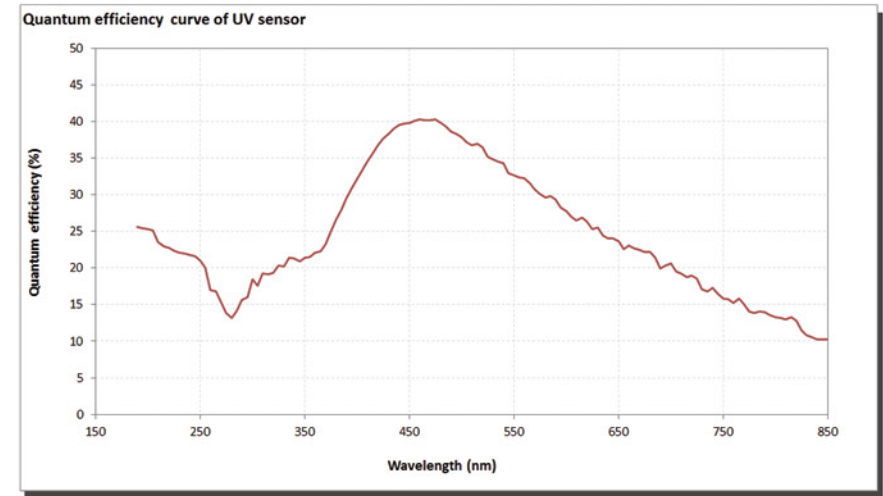
PHYSICAL DIMENSION



UV SENSOR SPECIFICATIONS

Resolution :	2048 (h) x 1088 (v)
Pixel size :	5.5 x 5.5 μm^2
Full well charge :	13.5 Ke-
Conversion gain :	0.075 LSB/e- (10 bit mode)
Sensitivity :	TBD
Temporal noise :	13 e- (RMS)
Dynamic range :	60 dB
Optical format :	2/3"
Dark current :	125 e/s (25C die temperature)
Operating temperature range :	-30 °C to +70 °C
Power consumption :	600 mW
Fixed pattern noise :	<1 LSB (<0.1% of full swing)

QUANTUM EFFICIENCY CURVE OF UV SENSOR



EXAMPLE OF UV VIDEO CAMERA SOLUTION WITH TWO 1024x1024px VIDEO STREAMS

