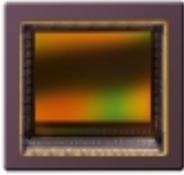




CMV8000
AREA SCAN SENSORS



The CMV8000 is a global shutter CMOS image sensor with 3360 by 2496 pixels in a 4/3" optical format. The image array

consists of 5.5 um by 5.5 um pipelined global shutter pixels, which allow exposure during read out while performing CDS operation reducing fixed pattern and dark noise significantly. The CMV8000 has 16 digital LVDS outputs (serial) each running at 600 Mbps, which results in 104 fps frame rate at full resolution in 10-bit mode. Higher frame rates can be achieved in row-windowing mode or row-subsampling mode. A 12-bit per pixel mode is available at reduced frame rates.

SPECIFICATIONS

Part status	Pre-production
Resolution	8MP - 3360 (H) x 2496 (V)
Pixel size	5.5 x 5.5
Optical format	4/3"
Shutter type	Global shutter
Frame rate	104 fps (10 bit) 46 fps (12 bit)
Output interface	16 LVDS outputs @ 600 Mbps
Sensitivity	5.56 V/lux.s
Conversion gain	0.077 LSB/e-
Full well charge	11700 e-
Dark noise	8.6 e- (RMS)
Dynamic range	61 dB
SNR max	41,3 dB
Parasitic light sensitivity	1/20000
Extended dynamic range	Yes, up to 90 dB
Dark current	41.2 e-/s (25 °C)
Fixed pattern noise	< 1 LSB (<0,1% of full swing)
Chroma	Mono and RGB
Supply voltage	1,8V / 3,3V
Power	900 mW
Operating temperature range	-30 to +70 degC
RoHS compliance	Yes
Package	107 pins uPGA
Socket	Andon Electronics (http://www.andonelectronics.com) IS232-848107T-400T4-R27-L14 (thru-hole) IS232-848107T-414T4-R27-L14 (surface mount)

ORDERING INFO - CMV8000

Part Number	Version	Chroma	Microlens	Package	Glass
CMV8000ES-1E5M1PA	5 um epi	mono	Yes	ceramic 107pins μ PGA	double sided AR coated
CMV8000ES-1E5C1PA	5 um epi	color	Yes	ceramic 107pins μ PGA	double sided AR coated
CMV8000ES-1E5M1PN	5 um epi	mono	Yes	ceramic 107pins μ PGA	removable