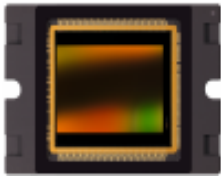


CMV12000
AREA SCAN SENSORS



The CMV12000 is a high sensitivity pipelined global shutter CMOS image sensor with a resolution of 4096 x 3072 pixels (super

HD format). Pipelining means that exposure during read out is possible. The state-of-the-art pixel design makes true correlated double sampling (CDS) possible which reduces the fixed pattern noise and dark noise significantly. The imager integrates 64 LVDS channels each running at 300 Mbps resulting in a 300 fps frame rate at full resolution with 10 bits per pixel data output. Driving and read-out programming can be set over a serial peripheral interface. An internal timing generator produces the signals needed for read-out and exposure of the image sensor while external exposure triggering remains possible.

SPECIFICATIONS

Part status	Production
Resolution	12MP - 4096(H) x 3072(V)
Pixel size	5.5 x 5.5
Optical format	APS-like
Shutter type	Global shutter
Frame rate	300 fps (10 bit) 132 fps (12 bit)
Output interface	64 LVDS outputs @ 600 Mbps multiplexable to 32, 16, 8, 4, 2 or 1 output(s)
Sensitivity	4,64 V/lux.s
Conversion gain	0.075 LSB/e-
Full well charge	13500 e-
Dark noise	13 e- (RMS)
Dynamic range	60 dB
SNR max	41,3 dB
Parasitic light sensitivity	1/50000
Extended dynamic range	Yes, up to 90 dB
Dark current	125 e-/s (25 degC)
Fixed pattern noise	< 1 LSB (<0,1% of full swing)
Chroma	Mono and RGB
Supply voltage	1,8V / 3,3V
Power	4200 mW
Operating temperature range	-30 to +70 degC (TBC)
RoHS compliance	Yes (TBC)
Package	237 pins μ PGA
Socket	Andon Electronics (http://www.andonelectronics.com) 10-30-07-237-400T4-R27-L14 (thru-hole) 10-30-07-237-414T4-R27-L14 (surface mount) 10-30-07-237-405G10-L14 (adapter)

ORDERING INFO - CMV12000

Part Number	Version	Chroma	Microlens	Package	Glass
CMV12000-2E5M1PA	5 um epi	mono	Yes	ceramic 237pins μ PGA	double sided AR coated
CMV12000-2E5C1PA	5 um epi	color	Yes	ceramic 237pins μ PGA	double sided AR coated
CMV12000-2E12M1PA	12 um epi	mono - NIR enhanced	Yes	ceramic 237pins μ PGA	double sided AR coated
CMV12000-2E5M1PN	5 um epi	mono	Yes	ceramic 237pins μ PGA	removable