

CHR70M

AREA SCAN SENSORS



The CHR70M is a high resolution CMOS image sensor with 10000 by 7096 pixels. The image array consists of 3.1µm x 3.1µm pinned diode pixels which

share a number of transistors (2 pixels sharing). The image sensor has 8 analog outputs, each running at 30MHz. This results in a frame rate of 3fps at full resolution. Higher frame rates can be achieved in windowing mode or subsampling mode.

The image sensor also integrates a programmable gain amplifier and offset regulation. These and other settings are all programmable using the SPI interface. All internal exposure and read out timings are generated by a programmable on-board sequencer. External triggering and exposure programming is also possible.

The CHR70M is derived from a custom CMOS image sensor. This sensor is not for sale for biometric applications.

Please [contact CMOSIS](#) for further information.

SPECIFICATIONS

Part status	Production
Resolution	70MP - 10000 (H) x 7096 (V)
Pixel size	3.1 x 3.1
Optical format	35mm
Shutter type	Electronic rolling shutter
Frame rate	3 fps
Output interface	8 analog channels
Sensitivity	0,88 V/lux.s
Conversion gain	64 µV/e-
Full well charge	13000 e-
Dark noise	7 e- (RMS)
Dynamic range	63 dB
SNR max	41,1 dB
Parasitic light sensitivity	-
Extended dynamic range	No
Dark current	3,2 e-/s (25 degC)
Fixed pattern noise	< 0,09% of full swing)
Chroma	Mono and RGB
Supply voltage	3,3V
Power	435 mW
Operating temperature range	0 to +60 degC (TBC)
RoHS compliance	Yes (TBC)
Package	65 pins PGA
Socket	Andon Electronics (http://www.andonelectronics.com) 575-13-85-065-01M-R27-L14 (thru-hole) 575-13-85-065-93M-R27-L14 (surface mount)

ORDERING INFO - CHR70M

Part Number	Version	Chroma	Microlens	Package	Glass
CHR71000-1E5M1PA	5 µm epi	mono	Yes	Ceramic PGA	double sided AR coated
CHR71000-1E5C1PA	5 µm epi	RGB Bayer	Yes	Ceramic PGA	double sided AR coated
CHR71000-1E5M1PN	5 µm epi	mono	Yes	Ceramic PGA	Removeable glass lid