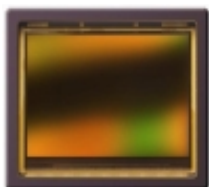


CHR70M

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) 575-13-85-065-01M-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 |