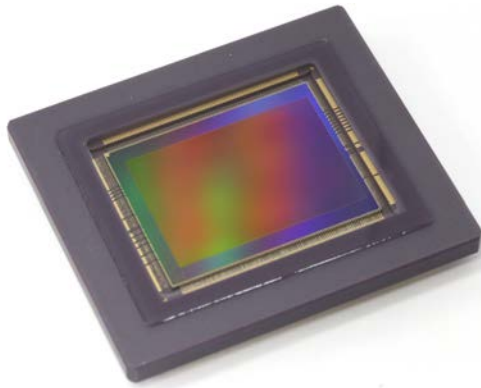


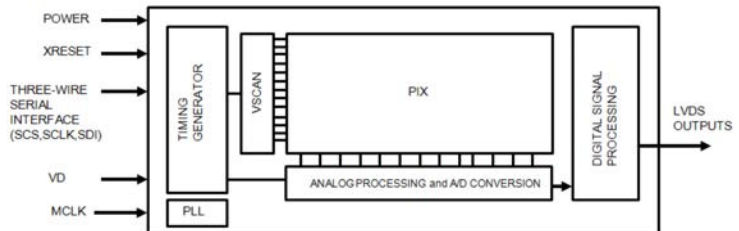
# 120 Megapixel CMOS Sensor



The 120MXS is an ultra-high resolution CMOS sensor with 13280 x 9184 effective pixels (approx. 60x the resolution of Full HD). It has a size equivalent to APS-H (29.22mm x 20.20mm), and a square pixel arrangement of 2.2 $\mu$ m x 2.2 $\mu$ m with 122 million effective pixels. Ultra-high-resolution is made possible by parallel signal processing, which reads signals at high speed from multiple pixels. All pixel progressive reading of 9.4 fps is made possible by 28 digital signal output channels. It is available in RGB or with twice the sensitivity, in monochrome.

## Specifications:

- Sensor size: APS-H (29.22mm x 20.20mm)
- Filter types:
  - 120MXSC: RGB
  - 120MXSM: Monochrome
- Number of effective pixels: 13280h x 9184v, approx. 122MP
- Pixel size: 2.2 $\mu$ m x 2.2 $\mu$ m
- Progressive Scan
- Rolling Shutter
- 188pin ceramic PGA
- Sensitivity (Green):
  - 120MXSC: 10,000e/lux/sec
  - 120MXSM: 20,000e/lux/sec
- Saturation: 10,000e @ gain0.5x
- Output Channels: Data 28 lanes, Clock 14 lanes
- Dark Random Noise: 2.3e rms @ gain x8, Room Temp.
- Dark Current: 8.1e/sec @ gain x8, 60°C
- Number of output channels: Data 28 lanes, Clock 14 lanes
- Main clock frequency: 45MHz (Recommended)
- Output format: 720Mbps in LVDS output 9.4fps @ 10 bit
- Built in column amplifier (Pre-amplifier gain mode: x0.5, x1, x2, x4, x8)
- Serial communication
- All pixel progressive scan reading function, Region of Interest (ROI) reading function (Vertically)
- Vertically intermittent reading function (1/1, 1/2, 1/3, 1/5, 1/7, 1/15)
- Power consumption: 2.5W (under recommended operating conditions)
- Power supply voltage: 1.7 V, 3.5 V
- Package size: 55.0mm x 47.8mm x 4.49mm



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