



GIGAPYX 4600

**46 MP, BSI Rolling Shutter
High Speed HDR CMOS image sensor**



GIGAPYX is a family of high quality image sensors ranging from 1.5" / 14MP up to 6x7 medium / 220MP in optical format / resolution. GIGAPYX4600 is the first release of this family which features Full Frame 35mm / 46MP. It offers up to 200 fps for 8K format with 12 bits acquisition mode and up to 90dB intra-scene dynamic range with in-pixel true HDR.



APPLICATIONS

- Cinematography
- Defense
- Aerial Imaging & NewSpace
- Astronomy & Scientific Imaging
- High Resolution QA Industrial Inspection (including UV)



MAIN CHARACTERISTICS

- Resolution 46 MP
- Active Pixels 8320 x 5456
- Image Size 24 x 36 mm
- Aspect Ratio 3:2
- Max Frame Rate 150 fps in FF
200 fps in 8k



PERFORMANCES

- High Dynamic range up to 90 dB (Dual gain)
- Readout Noise: 1.5 e-
- High Full Well Capacity > 50 ke-
- QE>84% (peak)
- Dark current: 3.4 e-/s RMS (@ 29°C)



KEY FEATURES

- 4.4 µm Pixel pitch, BSI
- Ultra Low-noise Rolling Shutter
- Ultra low crosstalk
- 2x2 Binning, Bayer-compatible
- 12/13/14 bits ADC
- 8 to 128 LVDS data lanes at 840 Mbps
- Ceramic package, µPGA, 520 pin
- Power < 4.1W @ full speed
- Monochrome (without µlenses) or standard RGB Bayer

GIGAPYX Family	Definition (Width x Height)	Matrix sizes in mm Width x Height	Diagonal in mm
GIGA1400	4160 x 3256	18.3 x 14.5	23.35
GIGA2700	6240 x 4356	27.5 x 19.4	33.65
GIGA3700	8320 x 4356	36.6 x 19.4	41.42
GIGA4600	8320 x 5456	36.6 x 24.2	43.87
GIGA8000	10400 x 7656	45.8 x 33.9	56.98
GIGA8200	12480 x 6556	54.9 x 29	62.08
GIGA11000	12480 x 8756	54.9 x 38.7	67.17
GIGA15100	12480 x 12056	54.9 x 53.2	76.45
GIGA22000	16640 x 13156	73.2 x 58.1	93.45

