1" 18MP Global Shutter CMOS Image Sensor

SENSOR DESCRIPTION

GMAX2518 has an optical format of 1" and features 18 MegaPixel (4508 × 4096) Global Shutter pixels based on the proven GMAX 2.5 um architecture, operating with true correlated double sampling (CDS) for low read noise and high dynamic range. In addition, the dual light pipe technology provides excellent PLS and angular response, with 32pair of sub-LVDS each run at 960MHz, the sensor output with maximum 30.72Gbps data, achieving maximum frame rate of 150 fps in 10-bit output and 64 fps in 12-bit output.

The sensor integrates an on-chip sequencer, programmable through SPI, and is designed to be fully pin compatible with GMAX0505, GMAX2509 and GMAX2505 to significantly shorten time to market for camera manufactures. GMAX2518 will be assembled in a 19.5 x 20.8 mm 226-pins LGA ceramic package, which is mechanically compatible to fit into an industry standard 29 mm x 29 mm camera housing.

SENSOR SPECIFICATION

Resolution	4508 × 4096	Optical format	1" (15.2 mm)
Pixel size	2.5 μm × 2.5 μm	Photo-sensitive area	11.3 mm × 10.2 mm
Shutter type	Global shutter	Quantum efficiency	>65 %
Full well capacity	6.5k e-	Shutter efficiency	1/10,000
Dark noise	1.6 e-	Dark current	<1 e-/p/s @ 25°C
Dynamic range	61.4 dB @ 10 bit 65.7 dB @ 12 bit	Frame rate	150 fps @ 10 bit 64 fps @ 12 bit
Output interface	32 pairs of sub-LVDS	Channel multiplexing	32/16/12/8/4/2
ADC	10/12 bit	Max. Data rate	30.72 Gbps
Chroma	Mono & Color	Package	226 pins LGA
Power supply	3.3 V / 1.8 V	Power consumption	<1.5 W

PACKAGE OUTLINE



Subject to change without notice. Please address all product inquiries to GPIXEL Email: info@gpixel.com