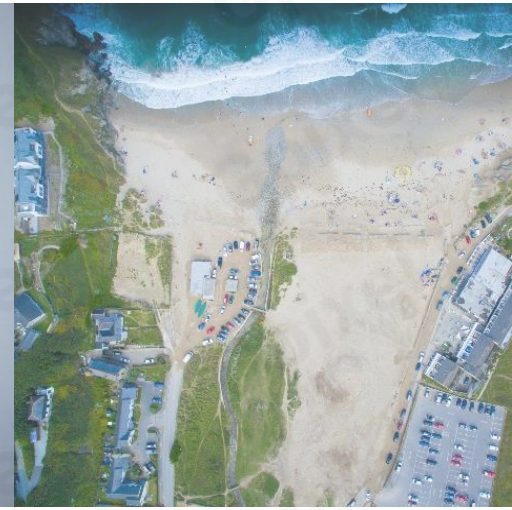


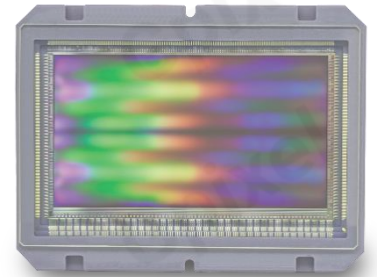
# GMAX32152 Product Flyer



## 152MP GLOBAL SHUTTER IMAGE SENSOR

**GMAX32152** is an ultra-high resolution global shutter CMOS image sensor in medium format. Using a state-of-the-art charge domain pixel architecture, this sensor delivers an attractive combination of high frame rate and high dynamic range. A native 12-bit performance pixel achieves 67.3 dB dynamic range, combined with a high speed sub-LVDS delivering 16 fps. Pixel data is read out over serial differential pairs, with source synchronous clock and control channel.

Its medium format image area and wide aspect ratio make it well suited for aerial mapping and surveying applications and cultural heritage digitization.



### Key Features

- 3.2  $\mu\text{m}$  Global Shutter pixel
- large image plane of 60.6mm diagonal
- High data throughput up to 960Mbps
- Low noise global shutter
- High speed and Good PLS

### Applications

- High Resolution Industrial Inspection
- Flat panel display inspection
- Aerial mapping

# Sensor Specifications

Resolution	152 MP - 16556(H) x 9200(V)	Optical format	3.7"
Pixel size	3.2 $\mu\text{m}$ x 3.2 $\mu\text{m}$	Photosensitive area	53.0 mm x 29.4 mm
Shutter type	Global shutter	Parasitic Light Sensitivity	< - 83.5 dB (angular dependence)
Peak QE	66.9% @ 500 nm	Angular response	> 15° (80% response)
Full well capacity	9.3k e- @ PGA gain x1.4	Temporal noise	4.0 e- @ PGA gain x1.4
Max. SNR	39.6 dB @ PGA gain x1.4	Dynamic Range	67.3 dB @ PGA gain x1.4
Dark Current	1.4 e-/pixel/s @ 30 °C	ADC	12 bit
Maximum frame rate	16 fps	Output format	38 pairs of Sub-LVDS
Power consumption	<2.8 W	Max. Data rate	36.48 Gbps
Supply voltage	3.3 V /1.3 V for analog 2.5 V - 3.3 V for IO 1.2 V for digital	Channel multiplexing	38/20/14/11/8/5
Chroma	Bayer RGB, Mono	Package	183 pins $\mu\text{PGA}$ 68.2 mm x 52.0 mm

# Ordering Information

Sensor Part No.	Description
GMAX32152-BVM-NUT-BU1	Monochrome, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 1
GMAX32152-BVM-NUT-BU2	Monochrome, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 2
GMAX32152-BVM-NUT-BU3	Monochrome, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 3
GMAX32152-BVC-NUT-BU1	Bayer RGB, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 1
GMAX32152-BVC-NUT-BU2	Bayer RGB, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 2
GMAX32152-BVC-NUT-BU3	Bayer RGB, Normal speed, 16 fps @ 12bit 38 x Sub-LVDS, Grade 3