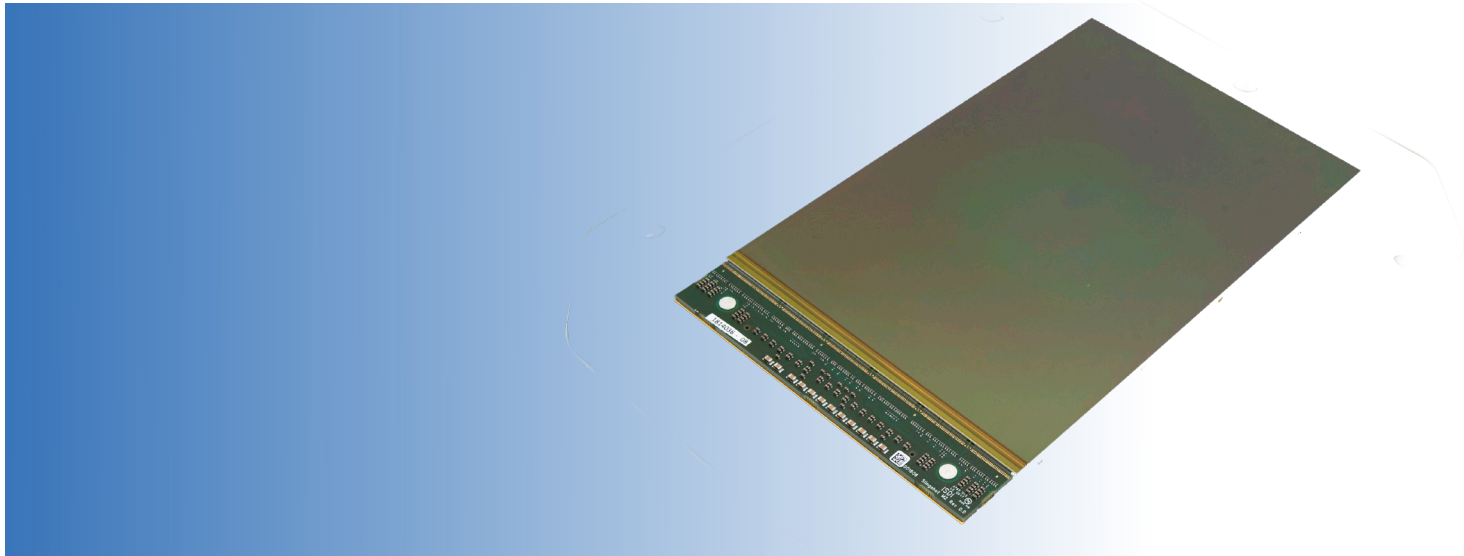


IS series 75µm pixel sensors

IS-1512 / IS-1207



The IS series includes two sizes of high speed wafer-scale CMOS image sensors featuring 75µm pixel pitch. They have been developed for medical, industrial and scientific applications. Dual pixel gain can be selected using high and low full well modes, allowing the same sensor to be deployed for real-time and single-shot imaging. A dynamically programmable region of interest (ROI) mode allows shorter frame time proportional to the number of rows.

These sensors can be matched to a wide choice of scintillator options for deployment in real time surgical imaging, cone beam CT and mammography. All sensors can be tiled to create larger arrays.

Both sensor sizes can be supplied with fibre optic faceplate (FOP) attached.

Key features

Radiation-hard pixel design

2 x 2 binning, run time selectable

Programmable region of interest (ROI) for higher frame rates.

Dual gain (full well), run time selectable

Specifications

	IS-1207	IS-1512
Active area (cm)	11.5 x 6.5	11.5 x 14.8
Resolution (h x v)	1537 x 864	1537 x 1984
Frame rate max (fps)	68 (no binning), 192 (2x2 binning)	30 (no binning), 86 (2x2 binning)
Tile butting	3-side	3-side
Digital outputs	6 x analogue	6 x analogue
Package dimensions (cm)	11.5 x 7.9	11.5 x 16.3

Specifications

IS-1512 / IS-1207



	IS-1512	IS-1207
Pixel pitch	74.8µm	
On chip ADC	none	
Chroma	Mono	
Gain modes	Dual gain: high or low full well	
Row period in ROI mode	17µs	
Minimum ROI size	2 rows	
Readout architecture	Rolling shutter	
Temperature sensor on-chip	-40C° to +80C°, analogue output	
QE @ 550 nm	48%	
Operating temperature	10 – 50°C	
RoHS	Yes	
Connector Type	QMS-052-09.75-L-D-A	
Supply voltage	3.5V, 3.3V, 1.8V	
Power consumption	0.8W	
Package	Silicon wire-bonded to PCB, metal/metal substrate	
Saturation in linear range HFW	2.8 Me-	
Saturation in linear range LFW	290ke-	
Dynamic range HFW	74.4dB	
Dynamic range LFW	70.5dB	