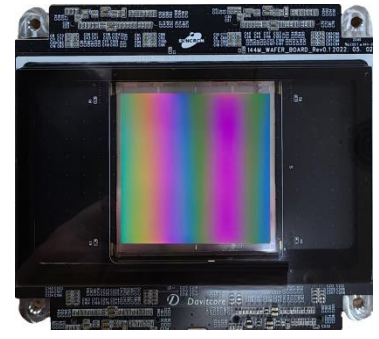
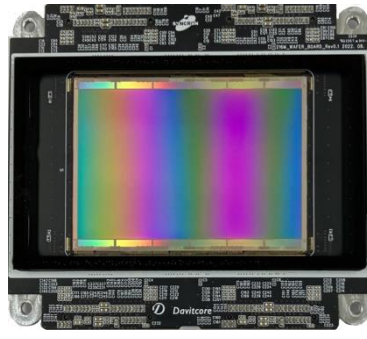
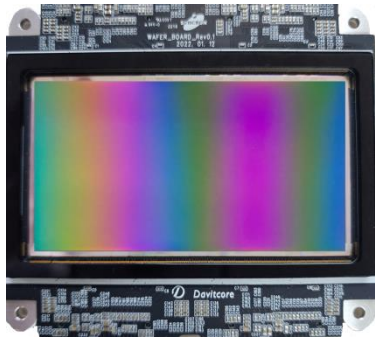


SCG 288M / SCG 216M / SCG 144M CMOS Imaging Sensors (Global Shutter)

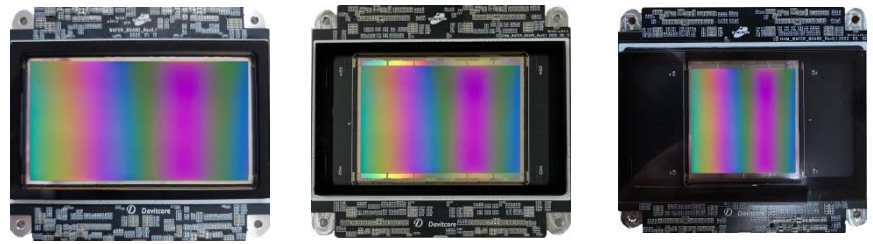


Specifications

SENSORS	288M	216M	144M
Active Pixel	24000 x 12000 (288M, 2:1)	18000 x 12000 (216M, 3:2)	12000 x 12000 (144M, 1:1)
Active Image Size	84.0mm x 42.0mm (Diagonal: 93.91mm)	63.0mm x 42.0mm (Diagonal: 75.7mm)	42.0mm x 42.0mm (Diagonal: 59.4mm)
Max. Frame Rate	10fps @ 288M 20fps @ mono bin2 mode 15fps @ 8-bit mode	10fps @ 216M 20fps @ mono bin2 mode 15fps @ 8-bit mode	10fps @ 144M 20fps @ mono bin2 mode 15fps @ 8-bit mode
Interface	32 data lane MIPI (max. 1.5GHz per lane)	24 data lane MIPI (max. 1.5GHz per lane)	16 data lane MIPI (max. 1.5GHz per lane)
Throughput	48 Gb/s	36 Gb/s	24 Gb/s
Power Consumption	<3.0W @ max. frame rate	<2.3W @ max. frame rate	<1.6W @ max. frame rate
Process	TPSCo TPS65ISC, Stitching		
Pixel	CMOS Global shutter		
Pixel Size	3.5um X 3.5um		
ADC Resolution	8-bit / 10-bit / 12-bit		
Exposure Mode	Free run, Trigger based operation (60us~)		
Windowing	Support multiple window (max. 16ea)		
Memory	SRAM / e-Fuse		
Bin	x-bin2 / y-bin2		
ADC (12-bit)	DNL: < ± 1 LSB INL: < ± 4 LSB		
Analog Gain	1x~4x gain		
Digital Gain	Unity to 8x		
Black Level Control	0~1023 LSB at 12bit		
Power Domain	3.3V, 1.2V		
Special Features	Multiple window, Overlap trigger mode, Non stitch line, Non image lag, low level noise		

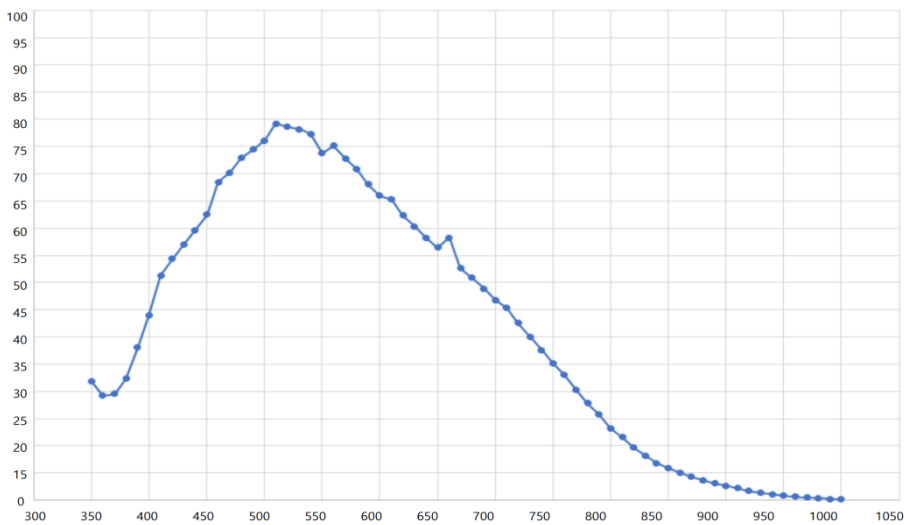
Pixel Requirements

- ❖ 3.5um G/S pixel
- ✓ 3.3V operation



SENSORS	288M	216M	144M
Dark Noise	< 3 e-		
CFPN Ratio	> 14 (<0.2 code @12-bit) 1x gain		
Row Noise Ratio	> 14 (<0.2 code @12-bit) 1x gain		
Conversion Gain	75 uV/e-		
Full Well Charge	15 ke-		
Linear FW@max SNR	13 ke-		
Dynamic Range	> 68 dB		
Dark Current @PD	<35e-/s @60C		
DSNU @PD	<40e-/s @60C		
Quantum Efficiency	52% for B/W w/o u-lens, 78% for B/W w/ u-lens, 68% in Red		
Parasitic Light Sensitivity (PLS)	1/20000 (86dB)		
Image Lag	None (< 0.5e-)		

QE data



Find out more at

<http://www.syncron.co.kr>

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