

SYSTEM OVERVIEW

COMPONENTS

Description	Model	Serial Number
Zyla Research USB 3 Enclosed 12 & 16 Bit	ZYLA-5.5-USB3	VSC-04562

WINDOW VARIANT

Window Variant	VIS-NIR Enhanced Parallel
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SENSITIVITY & READ NOISE

System Readout Rate	Gain settings	Rolling Shutter		Global Shutter	
		CMOS Sensitivity*1 (e <sup>-</sup> per A/D count)	Median Read Noise*2 (e <sup>-</sup> RMS)	CMOS Sensitivity*1 (e <sup>-</sup> per A/D count)	Median Read Noise*2 (e <sup>-</sup> RMS)
560 Mhz	High well capacity	7.75	6.89	7.67	7.2
	Low noise	0.3	1.33	0.43	2.45
	Low noise & high well capacity	0.46	1.28	0.47	2.47
200 Mhz	High well capacity	7.84	6.72	7.61	7.06
	Low noise	0.31	1.13	0.43	2.32
	Low noise & high well capacity	0.49	1.17	0.48	2.39

SATURATION LEVEL

Pixel Well Depth*3	30280	electrons
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SENSOR DARK CURRENT

Median Dark Current Achievable	0.1232	electrons / pixel / sec
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SYSTEM PASSED FOR SHIPPING

Test Technician	Date
Andrew Murphy	14th June 2016

NOTES

For explanation of dark current in global shutter mode, see sCMOS spec sheet

- ◆ 1 Sensitivity is measured in photoelectrons per A/D count from a plot of Variance [Noise squared] against Signal.
- ◆ 2 Median noise distribution of the sensor. See tech note 'Imaging without compromise'
- ◆ 3 Pixel well depth measured using high well capacity gain setting