

SYSTEM OVERVIEW

COMPONENTS

Description	Model	Serial Number
Zyla Research USB 3 Enclosed 12 & 16 Bit	ZYLA-5.5-USB3	VSC-02860

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 ⁻ per A/D count)	Median Read Noise*2 (e ⁻ RMS)	CMOS Sensitivity*1 (e ⁻ per A/D count)	Median Read Noise*2 (e ⁻ RMS)
560 Mhz	High well capacity	7.65	6.4	7.49	6.29
	Low noise	0.31	1.26	0.43	2.44
	Low noise & high well capacity	0.49	1.29	0.47	2.46
200 Mhz	High well capacity	7.73	6.58	7.46	6.35
	Low noise	0.31	1.06	0.43	2.33
	Low noise & high well capacity	0.52	1.16	0.5	2.47

SATURATION LEVEL

Pixel Well Depth*3	29099	electrons
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SENSOR DARK CURRENT

Median Dark Current Achievable	0.1216	electrons / pixel / sec
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SYSTEM PASSED FOR SHIPPING

Test Technician	Date
Stuart Hamilton	26th June 2015

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