

SYSTEM OVERVIEW

COMPONENTS

Description	Model	Serial Number
Zyla Research USB 3 Enclosed 12 & 16 Bit	ZYLA-5.5-USB3	VSC-07338

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	7.57	6.71	7.56	7.13
	Low noise	0.3	1.2	0.42	2.47
	Low noise & high well capacity	0.44	1.3	0.47	2.48
200 Mhz	High well capacity	7.68	6.6	7.37	6.83
	Low noise	0.3	0.95	0.41	2.3
	Low noise & high well capacity	0.47	1.18	0.46	2.35

SATURATION LEVEL

Pixel Well Depth*3	29689	electrons
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SENSOR DARK CURRENT

Median Dark Current Achievable	0.1334	electrons / pixel / sec
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SYSTEM PASSED FOR SHIPPING

Test Technician	Date
Trevor Lavery	10th November 2017

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