

Ray1 – SWIR camera module

Specification	value	Specification	value
Sensor		Camera	
Technology	Colloidal quantum dots	Camera dimensions	
Resolution	VGA; 640 x 512	Lens dimensions	36.5 (dia.) mm x 54.9 (length) mm
Pixel	15um, square	Camera weight	665 g in total; (camera: 535 g, lens: 130 g)
Sensor area	9.68 x 7.68mm	Operating temperature	-30 ~ 50 C°
Shutter	Global	Power consumption	5.5W (TEC on)
Frame rate	14 bit @ 20 fps	Power supply	12VDC
Wavelength range	900 – 1,700nm	Image output	USB Micro-B 3.0
Cooling	TEC integrated	Software	Win, Linux (Ubuntu) Nvidia Jetson
Operating pixels	> 99.9%	SDK	C++; C#; Python
Dynamic range	33dB (TBC)	Casing, screw XX for mount	Aluminum, IP xx
Non-uniformity correction	Bilateral filter	Mount screw	1/4"
Mount	C	File save mode	14bit RAW
Lens		File format	PNG / MP4
EFL	25mm		
F/#	1.4 ~ 22		
FOV	30.6° x 40.1° x 47.6°		
Wavelength range	900 – 1,700nm		
Working distance	0.3 m ~ ∞		
Distortion	< 0.9%		
Mount	C		
Lens AR coating trans.	93.8% (average), above 90% in range		

