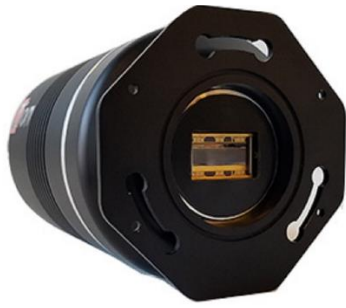


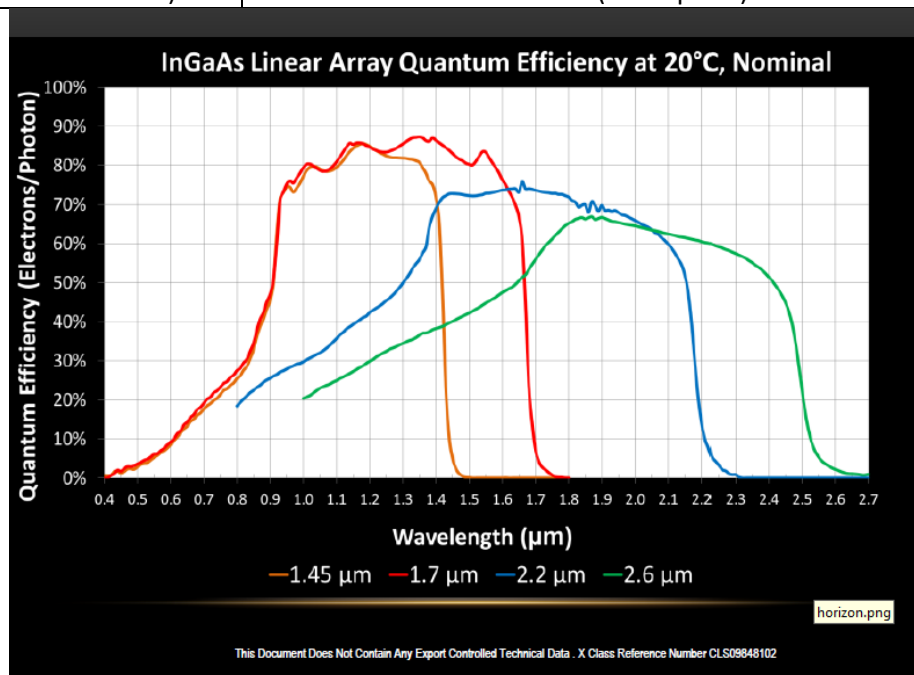
# The New Zion Red Series™ Spectroscopy InGaAs Camera



## Zion InGaAs 256

## Zion InGaAs 512

	Zion InGaAs 256	Zion InGaAs 512
Active Pixels	256 x 1 - H x V	512 x 1 - H x V
Pixel Size -	50x500 - W x H $\mu\text{m}$	
Array Length	12.8 Width ; mm	25.6 Width ; mm
Array Length		
Gain, Setting 1 (High Sensitivity)	70 e-/count	
Gain, Setting 2 (High Dynamic Range)	1818 e-/per count	
ADC resolution	16 bits	
Readout Noise-High Sensitivity	(25 KHz) 800 e-	
Readout Noise-High Dynamic Range	(25 KHz) 10,000 e-	
Readout Rate1	25 kHz or 1250 kHz	
Full Frame Rate	20 - Frames /s	
USB Link Throughput	13000 Kbytes / s	
Ethernet Link Throughput	1000 Kbytes / s	
Cooling capability (below ambient)	65°C - 90°C (GXP option)	



# The New Zion Red Series™ 2D InGaAs Camera



CCD image sensor	2D InGaAs SWIR and Visible FPA	
CCD format	1280 x 1024 imaging Pixels	
CCD image area	15.36 mm x 12.29 mm	
Pixel size	12 $\mu\text{m}$ x 12 $\mu\text{m}$	
Pixel well capacity (e-)	<b>High Gain Only</b>	
	45,000 (e-)	
Nominal gain (e-/count)	4 (e-/count)	
System read noise (e-)	35 e-/scan	
Response nonlinearity: High gain	1%	
Cooling temp. @ +20°C ambient	60°C	
Interface	Camera Link	
Cooling method	Air cool and/or liquid cool comes standard	
Dark current (e-/p/sec) @ -60°C	300 e-/pix/sec @ -60	
Blemish specification	.5% @ 20°C	
Digitization	16 Bits	
Scan rate	16 MHz	
Frame rate	93 fps full resolution @ 16 MHz	
	385 fps binned 512x512	
Exposure time	0.000005	0.27 at 20°C
	0.000005	120 at -60°C

