1. Spectral SNR and NESR

1.1. Method

100 frames from calibrated radiance standard were acquired. Also, 100 frames of dark current were acquired and averaged to one dark image. The calibration frames were corrected by dark image subtraction and the spectral SNR and NESR were calculated.

SNR = **Signal** / **Noise**

where **SNR** means Signal-to-Noise ratio, **Signal** is dark subtracted average of 100 frames, and **Noise** is standard deviation of **Signal** between 100 frames.

NESR = **C** × **Noise**

where **NESR** means Noise Equivalent Spectral Radiance, **C** is radiometric calibration coefficient and **Dark Noise** is standard deviation of Dark Signal between 100 frames.

1.2. General Information

PARAMETER	VALUE
Measured by	KKA
File date	14-Dec-2020
Report date	14-Dec-2020
Sensor type	aisaFenix1K
Sensor serial no	360009
Project	NERC
Measurement phase	Final calibration
Binning	2x2_1x1

1.3. Results summary

Signal-to-Noise ratio was measured in a laboratory setup with a halogen illumination signal level. Resulting Spectral Signal, SNR and NESR are plotted as a function of wavelength in Figures 1,2 and 3,4.

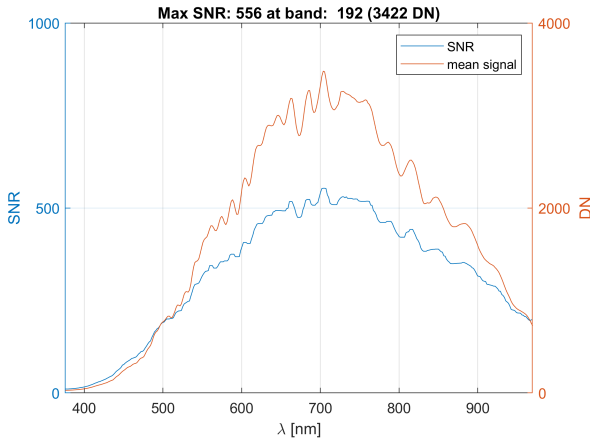

Figure 1.
Spectral SNR with halogen illumination of VNIR sensor.

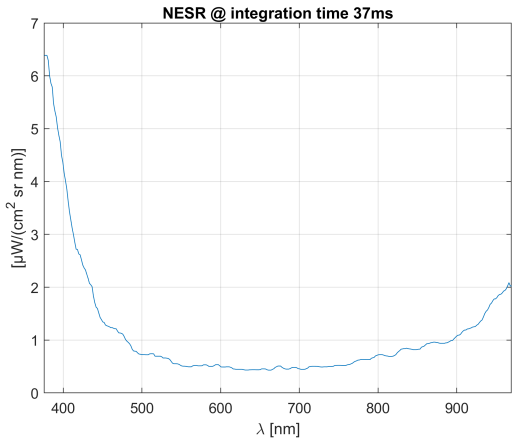

Figure 2.
Spectral NESR as a function of wavelength of VNIR sensor.

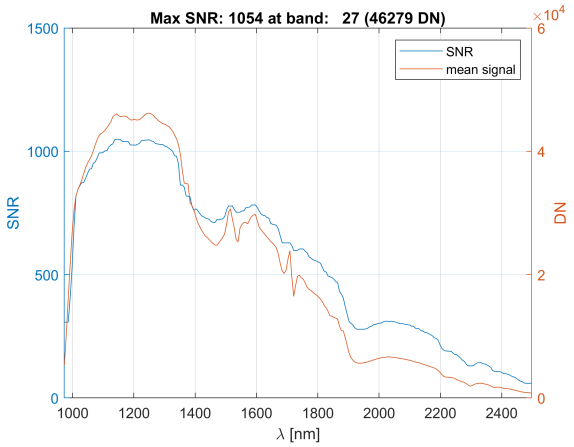

Figure 3.
Spectral SNR with halogen illumination of SWIR sensor.

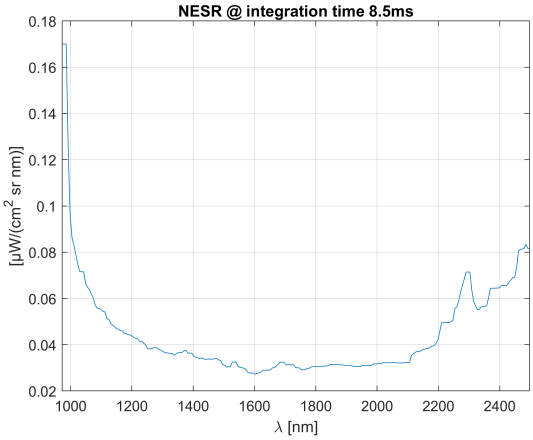

Figure 4.
Spectral NESR as a function of wavelength of SWIR sensor..