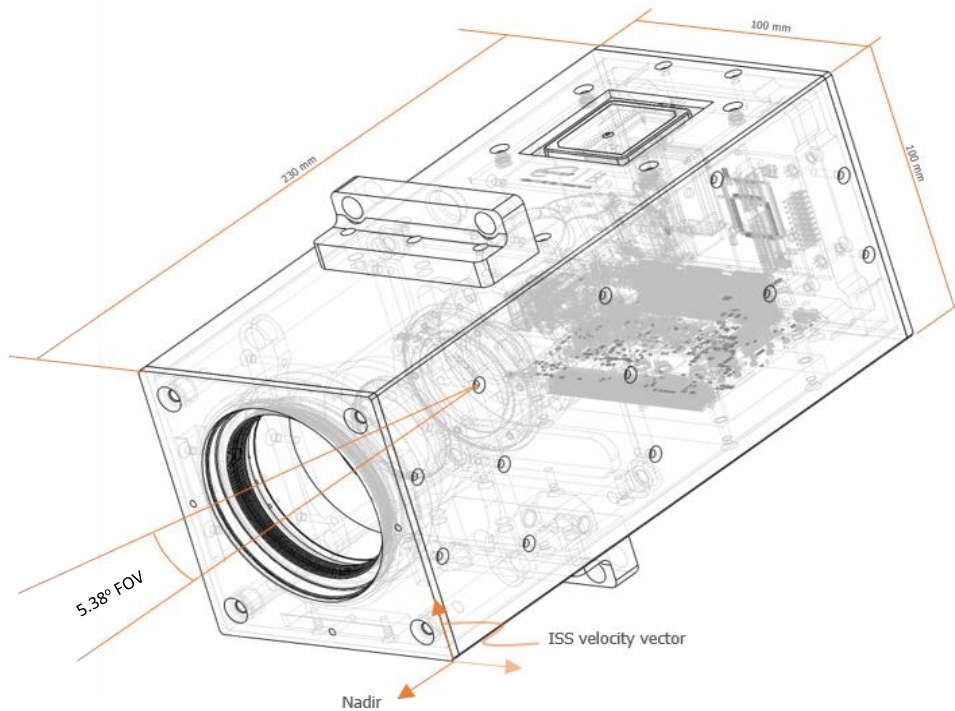


ISS-HEIST DATA PRODUCT SPECIFICATION

OSK's Hyperspectral Earth Imaging System Trial is the first truly commercial space-based hyperspectral sensor system capable of providing 150 spectral bands in the VNIR range. The system is hosted on the Nanoracks External Platform on board the International Space Station. This system is meant to be a technology demonstrator and is a prelude to OSK's second generation hyperspectral payload/spacecraft with extended SWIR capability.



ADDITIONAL INFORMATION

- Data Products = GeoTiff and ENVI formats
- Raw Image, DN = 16 bit
- Positional Accuracy = <5km
- Radiometric Corrections = Based on calibration coefficients, Values scaled by 100
- Min Product Size = 38 km x 38 km (5 second bursts)
- Horizontal Datum = WGS84
- Map Projection = UTM

Payload Characteristics	Detail
Total Mass	<3 kg
Orbit Altitude	400 km (ISS)
Orbit Inclination	51.6°
Processor	Jetson TX2
On Board Storage	4 TB
Daily Downlink Budget	~100GB

Sensor Characteristics	Detail
Sensor Type	Line Imaging Spectrometer
Spectrograph	Solid Block Offner
Sensor Frame Rate Capability	>300 Hz
Spectral Bin Size	4 nm
FPA Format (Active)	1364 x 308 pixels

Image Characteristics	Detail
Ground Sampling Distance	28 m
Spectral Range	400 nm – 1000 nm
Swath Width	38 km
Spectral Bands	150
Maximum # of Image Lines / Strip	35000
OSK Image Product	Level 1B
Radiometric Units	W / m ² / sr / μm