HyperScout

The intelligent hyperspectral imager

HyperScout is the first ever miniaturized hyperspectral imager with its own brain. It is designed to be operated upon nano, micro and larger satellites. The extremely compact reflective telescope ensures high optical quality in the VNIR range. The onboard data handling system is made for realtime data processing, enabling Level-2 generation onboard and therefore drastically reducing the amount of data to be downloaded and processed.

If used onboard larger satellites, the wide swath, the Level-2 realtime data processing, and the minimal impact at system level, make the HyperScout attractive as an ancilliary instrument providing real time phenomena information either to the larger primary payload, or to a ground control room. This enables smart operational planning for large payloads.

VIRSI, the HyperScout technology precursor, is available to interested parties for evaluation.

Applications

- Land survey and management, e.g. illegal dumps
- Early warning, e.g. flooding, forest fire, landslides
- Land cover and land use classification
- Monitoring of vegetation conditions (drought)
- Water logging

Availability

- In orbit demonstration delivery: December 2016
- Built to order
- 6 months lead time

Specifications

- Resolution: 4096 x 1850 px
- Swath (@300 km): 164 km
- GSD (@300 km): 40 m
- Level-2 onboard data processing
- Mass: 1.1 kg
- Volume: 1 U compatible

CONFIGURATION 1: EXTENDED RANGE

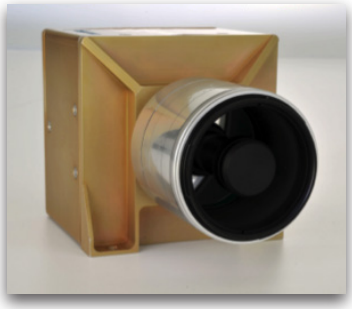
- Spectral range: 400 – 1000 nm
- Spectral resolution: 12 nm FWHM
- Spectral bands: 50

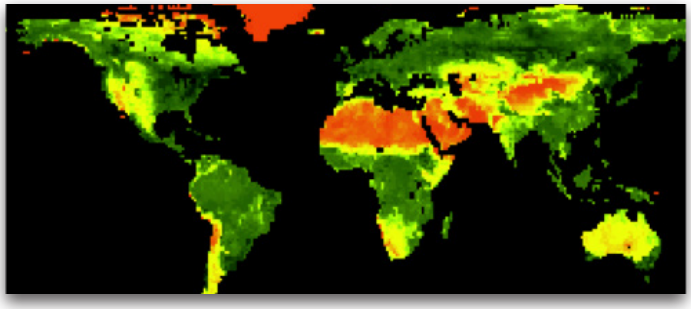
CONFIGURATION 2: HIGH SPECTRAL RESOLUTION

- Spectral range: 470 – 900 nm
- Spectral resolution: 5 nm FWHM
- Spectral bands: up to 150

Left: VIRSI, the HyperScout technology precursor

Right: NDVI map of the Earth (NASA)





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