Resonon Airborne Imaging Systems

Hyperspectral remote sensing

Resonon builds light, compact and high-performance airborne imagers for unmanned (UAV) and manned platforms.

Airborne Applications

Plant species identification, forest health imaging, crop health monitoring, invasive weed mapping – all are examples of applications using Resonon Airborne Imaging spectrometers. Resonon's experience and state-of-the-art technologies are applied globally for both manned and unmanned (UAV) use.

Low payload weight

An Imager and Flight Computer, without power supply, typically weigh less than 6 lbs (2.2 kgs).

Compact design

Resonon builds one of the market's most compact Airborne Hyperspectral imaging packages for use on both UAV and Manned platforms

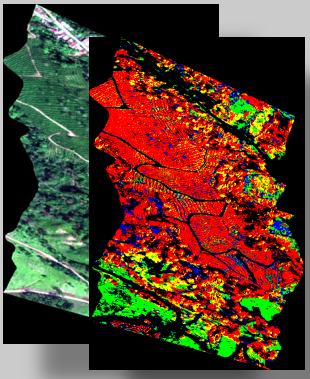
Configuration Flexibility

By separating the imager and flight computer, multiple configuration layouts may be configured, saving precious payload space. In addition turning mirrors enable flexible system orientation.

Value

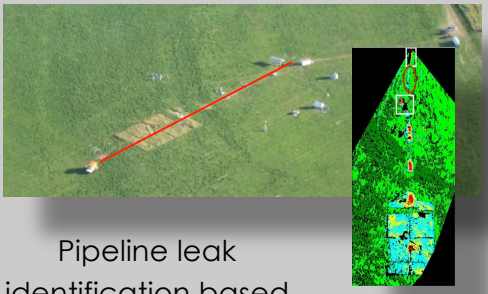
Resonon leads the industry in performance at an affordable price.

Applications



Tropical plant species identification (Costa Rica)

Ice lake depth mapping (Greenland)



Pipeline leak identification based on plant stress

Forest species identification (Montana)

Plant species identification
Resonon customers have used our Imaging Spectrometers to map variation in plant species from the air.

Crop Health
Signs of crop stress can be detected before visible by the human eye.

Invasive or Alien species
Species identification has enormous potential for range management and drug interdiction.

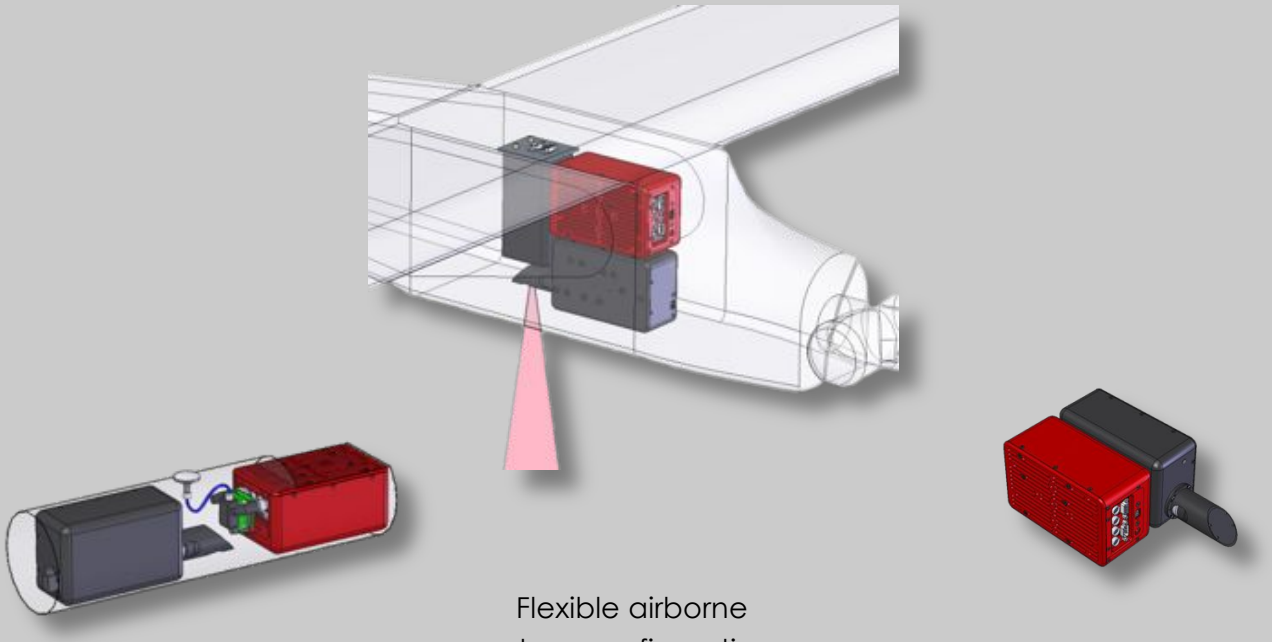
R&D
Resonon Hyperspectral imaging has helped scientists determine glacial lake depth and snow reflectivity for climate change studies.

Forest Management
Identification of stressed trees can be critical to forest management.

Urban Mapping
Mapping various urban surfaces helps planners and managers identify coverage and makeup of urban land coverage.

Others
Anywhere remote views require high resolution visible or Near Infrared spectral data may be a good application for Resonon Hyperspectral Airborne solutions.

Specifications



Flexible airborne
system configurations

Specifications

Component weights [3]

Pika II Imaging Spectrometer 400-900 nm [1]	2.3 pounds; 1.04 kg
Pika NIR 900-1,700 nm [1,2]	3.25 lbs; 1.474 kg
PcaQ Flight computer	2.56 lbs; 1.16 kg
Pika II turning mirror	0.14 lbs; 68 grams
NIR Turning Mirror	0.19 lbs; 86 grams

Physical Dimensions [3]

Pika II Imaging Spectrometer	4.0 x 6.5 x 2.75 in. 102 x 165 x 70 mm
Pika NIR Imaging Spectrometer	4.0 x 9.0 x 3.0 in. 102 x 229 x 76 mm
PcaQ Flight computer	4.0 x 6.5 x 3.26 in. 102 x 165 x 828 mm
Pika II turning mirror	
NIR Turning Mirror	

Contact

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[1] Select one imager for specific applications.
[2] Pika NIR not released for sale outside the USA.
[3] See detailed specifications at www.resonon.com.