

Airborne Hyperspectral Imaging Systems



Affordable complete hyperspectral imaging systems for airborne remote sensing.

Resonon's hyperspectral airborne systems are fully integrated turnkey solutions, with all hardware and software necessary to acquire and analyze georegistered hyperspectral data.

Payload weights begin at 3.2 lbs (1.4 kg).

System components:

- Hyperspectral imaging camera
- System control computer
- System control software
- SSD data storage
- GPS/IMU
- Georectification software
- Multiple calibration options
- Flexible mounting options
- Spectronon** data analysis software
- Training services



Spectronon is Resonon's user-friendly data analysis software. **Spectronon** contains tools for batch processing, mosaicing multiple datacubes, and analyzing hyperspectral data.

Sample datacubes and **Spectronon** software are available for free download at www.downloads.resonon.com.

Multiple options are available for each configuration. Please contact us to discuss your technical requirements.

Visit www.resonon.com for complete product specifications.

Hyperspectral Camera Options

Resonon's airborne systems can be fitted with any of Resonon's hyperspectral imaging cameras, covering the 400 – 1700 nm spectral range.

	Pika L	Pika XC2	Pika NIR
Spectral Range	400 – 1000 nm	400 - 1000 nm	900 – 1700 nm
Spectral Resolution	3.2 nm	1.3 nm	5.5 nm
Spectral Channels	185	450	145
Spatial Channels	850	1500	320
Max Frame Rate at full frame	187 fps	171 fps	180 fps
Bit Depth	12	12	14
Imager Weight	1.3 lb (0.6 kg)	4.9 lb (2.2 kg)	9.6 lb (4.4 kg)
Minimum Complete System Weight	3.2 lb (1.4 kg)	6.1 lb (2.8 kg)	11.5 lb (5.2 kg)

GPS / IMU Options

	SBG Ellipse-N	SBG Ellipse-D	SPAN-IGM-A1	SPAN-CPT
Accuracy, SBAS	0.6 m	0.6 m	0.6 m	0.6 m
Accuracy, Pitch	0.2°	0.1°	0.04°	0.02°
Accuracy, Roll	0.2°	0.1°	0.04°	0.02°
Accuracy, Heading	1.0°	0.2°	0.22°	0.06°
Weight	0.10 lb (0.05 kg)	0.40 lb (0.18 kg)	1.13 lb (0.52 kg)	5.02 lb (2.28 kg)
Dimensions	4.6 x 4.5 x 2.4 cm	8.7 x 6.7 x 3.2 cm	15.2 x 14.2 x 5.1 cm	16.8 x 15.2 x 8.9 cm



Additional Specifications and Options

System Control Computer	1.01 lb / 0.46 kg	System component
Downwelling Calibration Sensor (VNIR)	0.41 lb / 0.19 kg	For monitoring solar illumination
Downwelling Calibration Sensor (NIR)	2.60 lb / 1.18 kg	
Calibration Tarps		Known reflectance standard
Pika L Gimbal Caddy	0.50 lbs / 0.23 kg	Mounting package for Pika L airborne system. Compatible with gimbals designed for SLR cameras.
Vibration Isolation Pod	5.4 lb / 2.5 kg	Stabilized packaging unit. Simplifies power, cabling, and mounting. Used in manned aircraft and larger UAV's.

About Resonon

Founded in 2002, Resonon is located in Bozeman, Montana in the heart of the Rocky Mountains. We provide the industry's most affordable turnkey hyperspectral imaging systems, as well as custom solutions for complex hyperspectral and optical applications. Our hyperspectral imaging cameras are lightweight, easy to use, have low stray light, low distortions, high SNR, and excellent image quality.