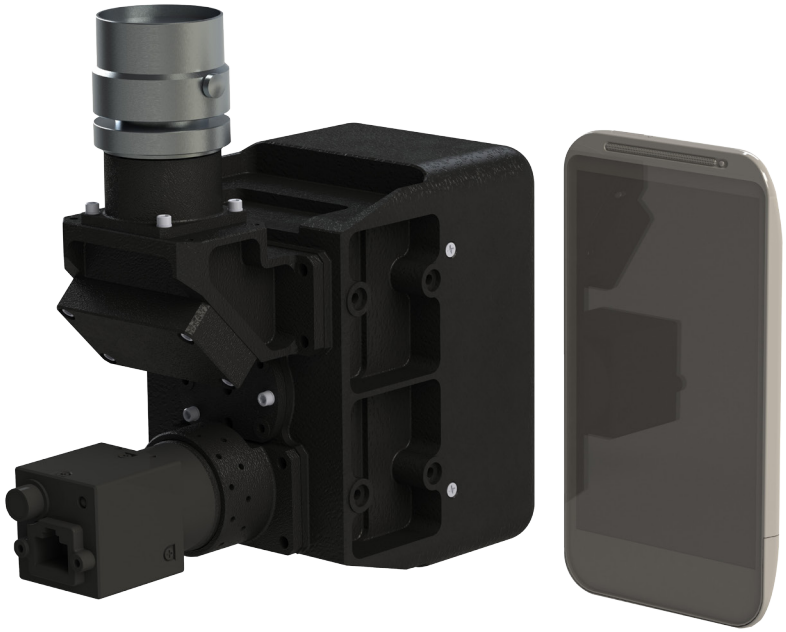
MICRO CASI 1920

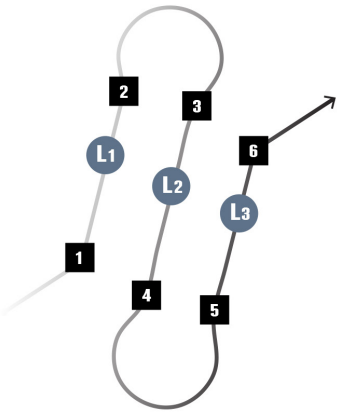
SMALL FORM FACTOR, 288 CHANNEL,
PROGRAMMABLE, WIDE ARRAY
HYPERSPECTRAL PUSHBROOM VNIR IMAGER

PORTABLE HYPERSPECTRAL MICRO-VNIR IMAGER FOR AIR & GROUND USE



Portable Air/Ground Hyperspectral VNIR Imager

- 0.4–1.0µm Spectral Coverage
- Self-Contained Camera & Data Recording
- 288 Spectral Channels
- 36.6° FOV
- 1920 Spatial Imaging Pixels
- Custom Fore-Optics Available
- Optional GPS/IMU
- Internal Calibration System
- Easy Lidar Integration
- Remote Operation via R/F Link or
  Autonomous via Waypoints
- Precision Data Time Stamping to External Devices
- API Available



or Waypoints

itres

HYPERSPECTRAL & THERMAL REMOTE SENSING

microCASI1920

SMALL FORM FACTOR, 288 CHANNEL, WIDE ARRAY, HYPERSPECTRAL PUSHBROOM VNIR IMAGER, CONTINUOUS VNIR-SWIR COVERAGE WHEN USED WITH ITRES μSASI-384

Vegetation Classifications / Invasive Species / Optical Water Quality / Coral Reefs / Wetlands / Forestry / Agriculture / Change Detection / Environmental Impact Assessments / Utility Corridors

PERFORMANCE

Spectral Range (Continuous Coverage)	400-1000nm
# Spectral Channels	288
# Across-Track Pixels	1920
Total Field of View	36.6 degrees
IFOV	0.36 mRad (0.021°)
f/#	f/2.0
Spectral Width Sampling/Row	2.1nm (average)
Spectral Resolution (FWHM)	<5nm
Pixel Size	5.86 x 5.86 microns
Dynamic Range	12-bits
Detector Full Well	32,500 electrons
Maximum FPS:	280 fps (full frame)
Spectral Smile/	≤0.5 pixels
Keystone Distortion	≤0.5 pixels
Data Recording Capacity	480GB (SSD, SATA III)
Data Recording Capacity (hr)	**3** hours (@ 40fps)

DIMENSIONS, WEIGHTS, AND POWER

ITEM	W / H / D (CM) / WT. (KG)
SHU, Control, Recording	10.2 / 19 / 17.8 / <1.5kg[1]
Power Draw	Sensor Head 45W[1]
	[1]Subject to change

OPERATION

Operator	Control remotely via laptop & existing R/F downlink, or pre-programmed track and waypoints.
Multiple Sensor Operation	Up to 5 ITRES imagers may be simultaneously operated via MuSIC system

INTERFACE, TIME-STAMPING, REMOTE OPERATION & CONTROL

- GigE or USB-3
- TTL input for waypoint trigger
- Precision data time-stamping to external devices
- API available

DATA PROCESSING SYSTEM

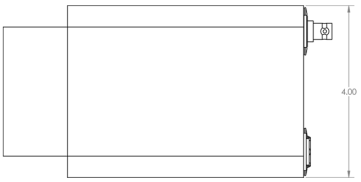
- Processing software Linux or Windows-based
- Playback software (Quicklook)
- Generates 16-32 bit BIP format data compatible with ENVI (BIL, BSQ formats possible)

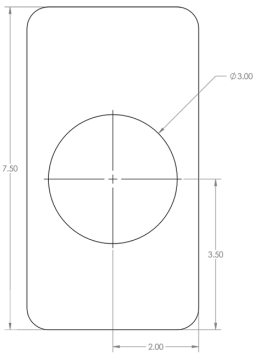
GEOCORRECTION SYSTEM

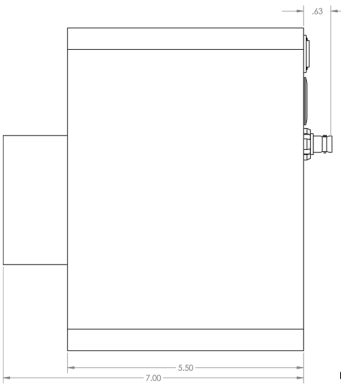
- GPS/IMU integration (optional)
- Data synchronization (GPS, attitude, & image streams, if INS used)

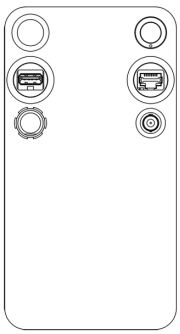
GEOCORRECTION/ORTHOCORRECTION/MOSAICKING SOFTWARE

- Accepts Lidar, Ifsar, and USGS DEM inputs
- Nearest neighbor algorithm used – maintains radiometric fidelity









NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES AS PER ANSI Y14.5 1994.

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All ITRES sensors are calibrated to traceable standards.
Specifications subject to change without notice.