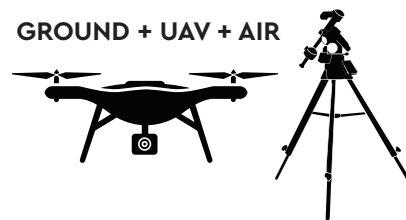


GROUND + UAV + AIR



MICRO**TABI**640

PORTABLE BROADBAND MICRO-TIR IMAGER FOR AIR AND GROUND USE

- Portable Air/Ground Broadband TIR imager
- 3.7–4.8 μ m Spectral Coverage
- 21.7° or custom 40° FOV
- 640 Spatial Imaging Pixels
- Cryo-Cooled
- High Thermal Resolution
- Internal Blackbody Calibration Source
- Optional Integrated GPS/IMU
- Easy Lidar Integration
- Remote Operation via R/F Link or Autonomous via Waypoints



Radiometrically and georeferenced microTABI thermal image



MICRO TABI 640

Wildfire Mapping / Building Heat Loss / Emergency Response / Power Line Mapping / Soil Moisture / Wildlife Surveys / Subsurface Karst Feature Detection / Buried Pipeline Delineation / Hotspot Mapping / Vulcanology / Rapid Urban Thermal Mapping

SENSOR TYPE

Small Form Factor, Broadband Pushframe Thermal Imager

PERFORMANCE

Spectral Range (Continuous Coverage)	3.7-4.8 Microns
# Spectral Channels	1 (Broadband)
Cooling System	Cryo-cooler
# Across-Track Pixels	640
Total Field of View	21.7 or 40°
F/#	F/2.0
Pixel Size	15 x 15 microns
Dynamic Range	14-bits
Detector Full Well	≥ 4 Me
Data Rate @30fps	20 Mb/s
Maximum FPS, Full frame	90
NEDT @40°	0.025
Data Recording Capacity	≥1TB (SSD, SATAIII) FPS
Data Recording Capacity (hr)	~17 hours (@90 fps) ²
Time Stamping	<1 ms
Data Output	Apparent Temperatures

Specifications subject to change without notice

¹Sensor calibration traceable against NIST-traceable standard

²Continuous recording



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DIMENSIONS, WEIGHTS, AND POWER

ITEM	W / H / D(CM) / WT. (KG)
SHU, CONTROL, RECORDING POWER	10/ 23 / 25 / 3.8kg ¹ 24-32VDC, ~70W ¹ Subject to change

ENVIRONMENTAL CONSTRAINTS (suggested)

Operating Temperature	Ambient 0 to +40°C (+32 +104°F)
Maximum Altitude	3048 (10,000ft) ASL (unpressurized, non-condensing environment)
Storage Temperature	Optimum -20 to +60°C

OPERATION

Operator	Control remotely via laptop & existing R/F downlink, or pre-programmed track and waypoints
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INTERFACE, TIME-STAMPING, REMOTE OPERATION & CONTROL

- GigE or USB-3
- TTL input for waypoint trigger
- Automated control for pre-planned coordinates (requires MEMS inertial (accepts .shp, .kml, etc.))
- 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)
- Real-time radiometric calibration and inflight thermal anomaly detection (optional)

GEOCORRECTION SYSTEM

- GNSS-inertial or MEMS-inertial integration (optional)
- Data synchronization (GPS, attitude, & image streams, if INS used)

GEOCORRECTION/ORTHO CORRECTION/ MOSAICING SOFTWARE

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

