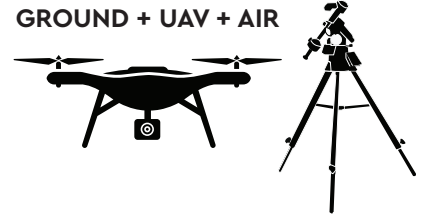


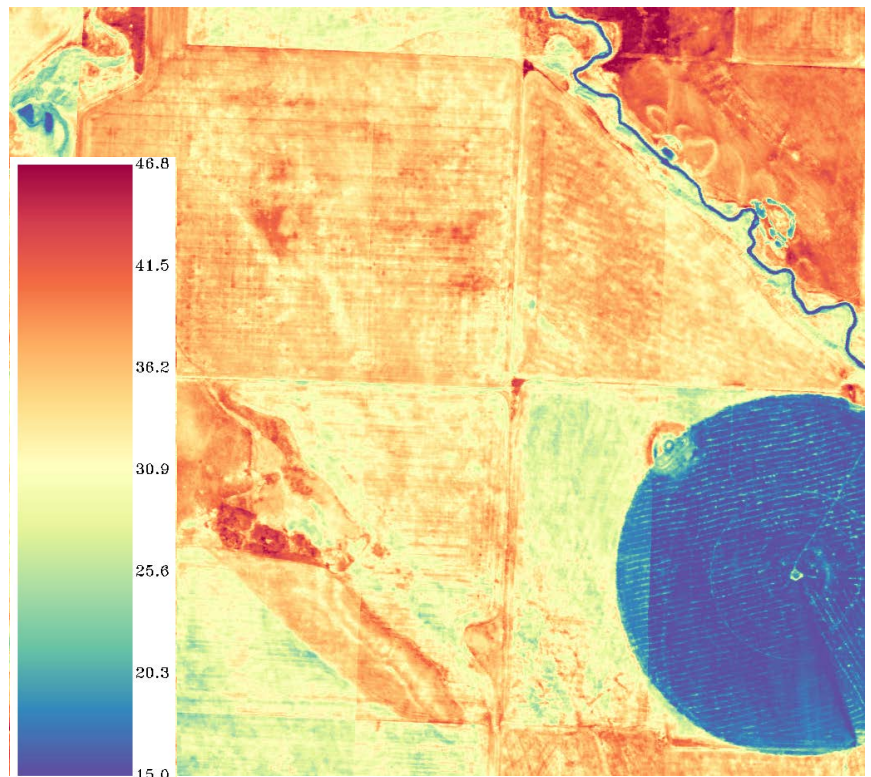
MICRO **TABI** 640

PORTABLE BROADBAND MICRO-TIR IMAGER FOR AIR & GROUND USE

GROUND + UAV + AIR



- Portable Air/Ground Broadband TIR imager
- 3.7-4.8 μ m Spectral Coverage
- 40° FOV
- 640 Spatial Imaging Pixels
- Cryo-Cooled
- High Thermal Resolution
- Internal Blackbody Calibration Source
- GNSS/MEMS-Inertial System Compatibility
- Easy Lidar Integration
- Can be integrated into iMMS Sensor Suite



Sub-image of Radiometrically corrected and georeferenced microTABI thermal mosaic with colour ramp applied - values in Degrees C (Apparent Temperature with scene emissivity at 1.0)



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 - 4.8microns |
| # Spectral Channels | 1 (Broadband) |
| Cooling System | Cryo-cooler |
| # Across-Track Pixels | 640 |
| Total Field of View | 40° |
| iFOV | 1.10 mRAD (0.0625°) |
| F/# | F/2.0 |
| Pixel Size | 15x15 Microns |
| Dynamic Range | 14-Bits |
| Detector Full Well | ≥ 4 Me |
| Data Rate @90fps | 33 Mb/s |
| Maximum FPS, Full Frame | 90 |
| NETD @ 40 deg. C | 0.025 |

| | |
|------------------------------|----------------------------------|
| Data Recording Capacity | ≥1TB (SSD, SATA III) |
| Data Recording Capacity (hr) | ~17 hours (@90 fps) ² |

| | |
|---------------|-------|
| Time Stamping | <1 ms |
|---------------|-------|

| | |
|-------------|-----------------------|
| Data Output | Apparent Temperatures |
|-------------|-----------------------|

¹Sensor calibration traceable against NIST-traceable standard

²Continuous recording

DIMENSIONS, WEIGHTS, AND POWER

| ITEM | W / H / D(CM) / WT. (KG) |
|-------|---------------------------|
| SHU | 10.1 / 22.8 / 25.4 / 3.38 |
| POWER | kg 75W @ 28 VDC |

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 MuSICTM System |
|---------------------------|---|

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

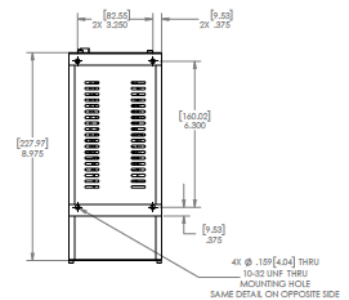
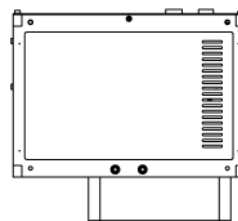
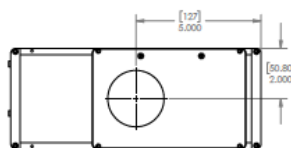
- Processing software Linux or Windows-based
- Playback software (Quicklook)
- Real-time radiometric calibration and inflight thermal anomaly detection (optional)
- Generates 16-32 bit BIP format data compatible with ENVI (BIL, BSQ formats possible)

MAPPING SYSTEM

- GNSS-inertial or MEMS-inertial integration (optional)
- Data Synchronization (GPS, attitude, & image streams)

GEOCORRECTION SOFTWARE

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



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