

MICRO **TABI**640

CRYO-COOLED, SMALL FORM FACTOR, WIDE ARRAY
BROADBAND PUSHFRAME THERMAL IMAGER



PORTABLE BROADBAND MICRO-TIR IMAGER FOR AIR & GROUND USE

Portable Air/Ground Broadband TIR Imager

3.7–4.8 μ m Spectral Coverage

26.99 x 21.73° FOV

640 Spatial Imaging Pixels

Custom Fore-Optics Available

High Thermal Resolution

Wide Speed Range

Ultra-High Spatial Resolution

Internal Blackbody Calibration Source

Optional GPS/IMU

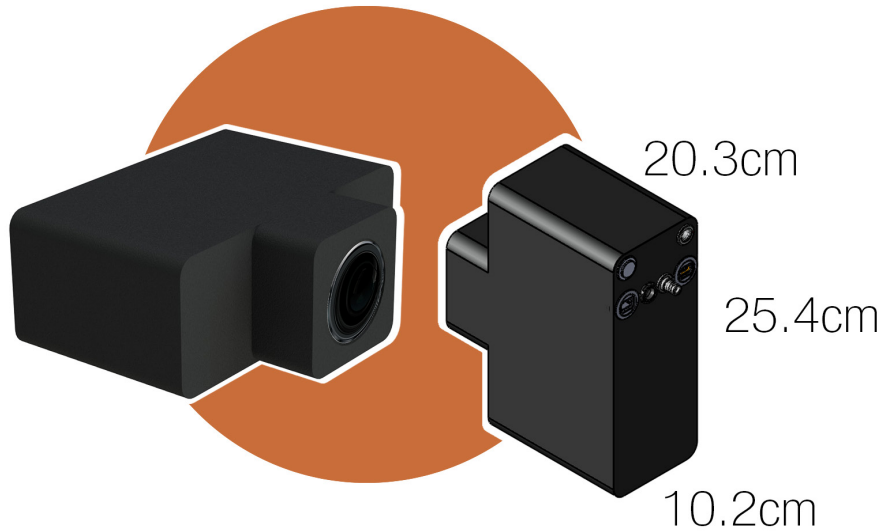
Easy Lidar Integration

Remote Operation via R/F Link or

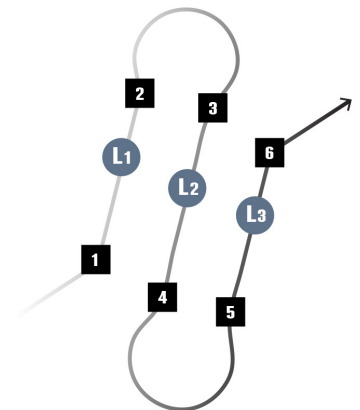
Autonomous via Waypoints

Precision Data Time Stamping to External Devices

API Available



Control via R/F Link



or Waypoints

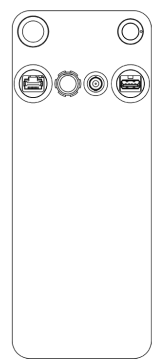
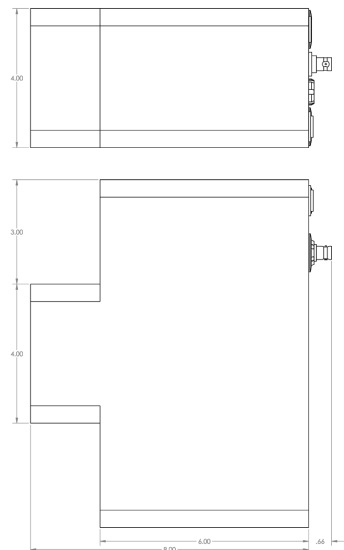
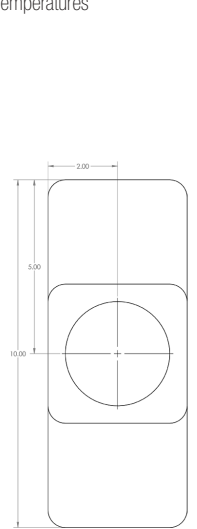


HYPERSPECTRAL & THERMAL REMOTE SENSING

micro **TABI640** SMALL FORM FACTOR, BROADBAND, WIDE ARRAY, PUSHFRAME THERMAL IMAGER

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

PERFORMANCE		DIMENSIONS, WEIGHTS, AND POWER		DATA PROCESSING SYSTEM	
Spectral Range (Continuous Coverage)	3.7-4.8 microns	ITEM	W / H / D (CM) / WT. (KG)		
# Spectral Channels	1 (Broadband)	SHU, Control, Recording	10.2 / 20.3 / 25.4 / ~2kg ¹		<ul style="list-style-type: none"> Processing software Linux or Windows-based Playback software (Quicklook) Generates 16-32 bit BIP format data compatible with ENVI (BIL, BSQ formats possible)
Cooling System	Cryo-cooler	Power Draw	70W ¹		
Image Frame Dimensions	640 x 512		¹ Subject to change		
# Across-Track Pixels	640	OPERATION		GEOCORRECTION SYSTEM	
Total Field of View	26.99 x 21.73 degrees	Operator	Control remotely via laptop & existing R/F downlink, or pre-programmed track and waypoints.	<ul style="list-style-type: none"> GPS/IMU integration (optional) Data synchronization (GPS, attitude, & image streams, if INS used) 	
f/#	f/2.0	Multiple Sensor Operation	Up to 5 ITRES imagers may be simultaneously operated via MuSIC system	GEOCORRECTION/ORTHO CORRECTION/MOSAICKING SOFTWARE	
Pixel Size	30 x 30 microns			<ul style="list-style-type: none"> Accepts Lidar, lfsar, and USGS DEM inputs Nearest neighbor algorithm used – maintains radiometric fidelity 	
Dynamic Range	14-bits	INTERFACE, TIME-STAMPING, REMOTE OPERATION & CONTROL			
Detector Full Well	4.25 Me	<ul style="list-style-type: none"> GigE or USB-3 TTL input for waypoint trigger Precision data time-stamping to external devices API available 			
Data Rate @30fps	20 MB/s				
Maximum FPS, Full Frame NEDT @ 300K	120 <0.05 degrees C				
Data Recording Capacity	480GB (SSD, SATA III)				
Data Recording Capacity (hr)	6 hours (@ 30fps)				
Time Stamping	<1 ms				
Data Output	Apparent Temperatures				



NOTES:
 1. INTERPRET DIMENSIONS AND TOLERANCES AS PER ANSI Y14.5 1994.
 2. REMOVE ALL BURRS AND SHARP EDGES.

ITRES Research Limited	DATE	REV	BY
DESCRIPTION			
APPROVED			
SCALE: 1:1	DATE: N/A	REV: N/A	BY: N/A
SHEET 1 OF 1			