

TerraSim-1 (TS-1)



Date Revised: 29 JAN 03

VENDOR DESCRIPTION

TerraSim-1 (TS-1) is a four-camera, 12-bit multispectral VNIR imaging platform with an on-board GPS/IMU package to provide exterior orientation parameters. The 1Kx1K cameras are capable of generating orthomosaics with 0.3m-2m GSD, and are upgradeable to 3Kx2K or 4Kx4K. With digital data collection and no need for ground control, seamless orthomosaics for 1:4800 base mapping and land cover classification can be generated rapidly. Rigorous calibration procedures are implemented to ensure geometric accuracy and radiometric balancing of the final imagery.

TerraFLIGHT software uses the built-in dGPS system and a pilot course deviation indicator (CDI) to drive image capture and manage automatic in-flight data acquisition and management. TS-1 is designed to accommodate a Zeiss gyro-stabilized mount if finer pointing accuracy is required.



Product Manager
Robotic & Unmanned Sensors

Telephone: (732) 427-5827 / DSN 987

Fax: (732) 427-5072 / DSN 987

e-mail: SFAE-IEWS-NV-RUS@iew.s.monmouth.army.mil

MS

Hardware	
Power: 3.2 Amp @ 120 VAC (60 Hz)	Operating Speed: 0 knots to 160 knots
Weight: 20 kg / 44 lbs	Operating Temp.: -5°C to 40°C
Dimensions: 400mm Dia x 550mm H / 15.75in Dia x 21.65in H	Storage Temp.: -5°C to 40°C
Internal Volume: 0.07 m ³ / 2.4 ft ³	Interface: Windows NT
In-Flight Manipulation of the Sensor: Yes	Bandwidth Required: 3.2 mbps
Able to Perform in an Environment with 6.5° yaw & 5.0° pitch rates	TCDL Compatibility: Yes
Operating Altitude: 1000 ft to 30,000 ft AGL	MTTR: 24 hours

Performance
Swath Width: 3300 ft @ 7700 ft AGL
Field of view: 24.6°
Sensor Type: 4-camera, Area-Imaging, MSI, VNIR (450 nm-880 nm)
On Board Storage Capacity for Continuous Collection – Configurable
Detector Type: Frame Transfer CCD, 1 Megapixel
Exposure Control: Electronic shuttering
Geolocation Accuracy: 3 meters CE90