

SCI E-series Radar Tactical UAV Variant (SCI-TUAV)



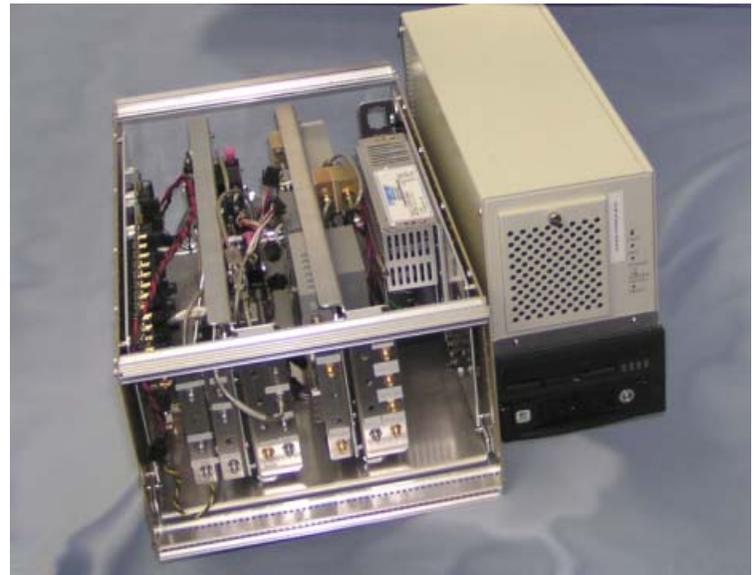
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VENDOR DESCRIPTION

SCI has been developing a family of RF sensors, called E-Series, to cover a range of applications from instrumentation to compact airborne radar systems. The common elements to the E-Series variants are the use of Direct Digital Synthesis (DDS) waveform generation and extremely flexible Field Programmable Gate Array (FPGA) control. The first bread-board sensor prototype demonstrated Stretch and Direct Receive modes and was used to collect ground moving target HRR signatures, Ship RCS data, and to detect small aircraft for a UAV collision avoidance sensor experiment. Range-Doppler data can be downloaded from the Downloads page at www.sensorconcepts.com.

The SCI-TUAV radar is a 4-band airborne radar specifically designed for low cost use. This optimizes hardware, software and algorithm integration.

This system allows multi-band and multi-mode (SAR/GMTI/HHR-GMTI) operation in a single target detection and identification radar.



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Business Category: Small Business

SARMTI

Hardware		
RF Frequency: UHF, C, X and Ku-Bands	Operating Altitude: 3000 to 10,000 ft AGL	MTBF: TBD
Power: 1 Watt (higher power optional)	Operating Speed: 45 knots to >130 knots	MTTR: TBD
Weight: Est. 25 lbs excl. gimbal & antenna	Interface: Configured to application	Cooling: Ambient air
Dimensions: 280mm x 510mm x 180mm Excl. gimbal and antenna	Bandwidth: Up to 3 GHz	Processor On-board Platform: 12 GFLOPS
Internal Volume: <1 ft ³		

System Capability
Waveforms: Stretch and Direct Receive
Chirp Rep. Rate: >5 KHz
Selectable Resolution (SAR/GMTI)
Flexible Swath Size