

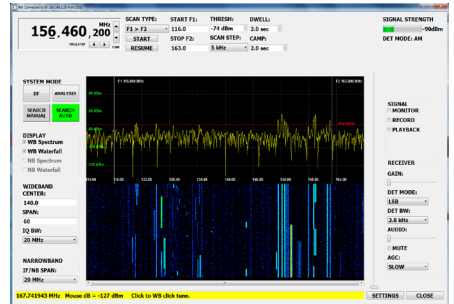
## TC-9300VM COMINT/DF SYSTEM

### ¾ ATR Shock Mount Package



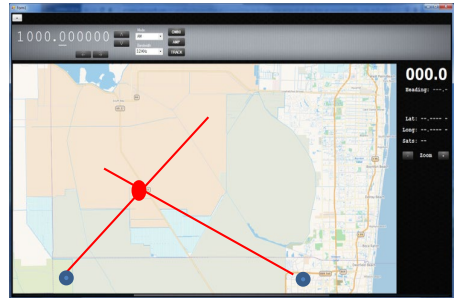
### Signal Search & Acquisition

### Windows Based Mission GUI



### SYSTEM FEATURES

- Multi-Role: DF and COMINT Signal Search/Analysis
- 30-2000 MHz or 30-3000 MHz and 30-6000MHz Frequency Coverage
- DF antenna and Receiver selection determine frequency range
- Advanced digitally implemented algorithm DF processor
- ¾ ATR, airborne, vehicle, shipboard, UAV/UAS Applications
- Also available as two channel Full ATR Configuration (TC-9320VM)
- Uses rugged laptop or Windows based tablet
- Mission/Platform specific DF Antenna Arrays (airborne, shipboard, vehicle, fixed)
- Comprehensive Operator GUI, built-in compass and GPS
- DF and Signal Intercept for AM/FM/SSB/CW and complex signal formats (third party software option)



### Geo-Location

### SYSTEM DESCRIPTION

The TC-9300VM COMINT/DF System provides advanced geo-location capability over the 30-2000 MHz, 30 to 3000 MHz or 30-6000 MHz range in a next-gen single channel architecture. The TC-9320VM is available in a full ATR package for simultaneous DF and COMINT functions. The system is designed for tactical ground, vehicle, shipboard, airborne fixed/rotary wing and UAS/UAV applications. Systems are complete with a choice of DF array to fit the application, DF receiver channel (SDR tuner-digitizer), DF processor/demodulator, choice of rugged PC, tablet and battery pack/AC-DC power adapter. Windows based software and GUI is provided for system control, BIT status, RF/Baseband spectral displays, DF LOB plots, moving map display and mission data logging. The system includes a built-in GPS and electronic compass and accepts external platform NAV data. The TC-9300VM provides direction finding and signal intercept for AM, NBFM, WBFM, USB, LSB, CW and PM signals. Optional Krypto500/1000 and Signal Works/Mod-Rec decoding, classification and analysis software packages are available to address a wide range of complex signal formats.

The TC-9300VM system uses proven, in-production COTS equipment configured onto ATR shock mount tray enclosures for transportable, bulkhead mount, OTM and fixed applications that are mission/platform specific. This approach provides a **'Customized COTS'** solution.

Call or visit our web site for more details and to view a narrated operations video for the TC-9300 COMINT/DF system.

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## SPECIFICATIONS

DF Frequency Range	30-2000 MHz, 30-3000 MHz, 30-6000 MHz, Antenna and Receiver dependent
System Noise Figure	10 dB VHF/UHF, 12-14 dB SHF, typical
DF Array	8-element broadband annular slot, TC-8220, TC-8111-3, TC-8111-3E, TC-8111-6
DF Methodology	Single channel phase/amplitude, proprietary algorithm, 8 port goniometer/commutator/combiner
DF Accuracy and Resolution	4 degrees RMS, 1-degree resolution
DF Measurement	5 MSec., internal/external 'tip-off' command with LOB confidence factor
DF Processor	Phase/amplitude digitally implemented proprietary design. Built-in compass/GPS and ext. NAV data interface, external DF cueing and event time stamping
Receiver Channel	High performance SDR tuner-digitizer, rugged mini-brick, 300 uSec. tuning time, 16-bit A/D, 120 dB dynamic range, Ethernet I&Q output stream
System Computer	Rugged MIL-STD-810, choice of laptop or tablet, 64-bit windows CPU, 2.6 GHz processor, 8GB SDRAM, 320GB HDD, 1 GIGe/ USB 2.0 ports,
Signal Processing	Performs DF on AM/NBFM/WBFM/LSB/USB/CW and PM signals. Optional software supports classification, decode for over 2500+ plus complex signal types
GUI Screens	System Control: Receiver operation, DF processor modes, system BIT, outside world interface set-up, signal search and DF (auto, manual and directed), touch screen, mouse and display System Displays: RF and baseband spectral, mouse click on signal receiver tuning, band-scope, BIT panel, LOB and geo-location display on moving map, mission log, Remote/Local hand-off for DF
Audio Outputs	800 mW, 8-ohm mono; 600-ohm balanced line
Environmental	Designed to meet but not tested to applicable MIL-STD-810F methods and procedures
Operating Temperature	-20 to +60 degrees C
Storage temperature	-40 to +70 degrees C
Humidity	Deployed equipment, 0 to 95%, non-condensing
Salt Fog	MIL-STD-810F, 509.4
Shock	MIL-STD-810F, 526.5
Vibration	MIL-STD-810F, 514.5
Altitude (unpressurized)	35,000 ft, MSL
RFI/EMI	Designed to meet but not tested to applicable MIL-STD-461E, CS and RS methods and procedures
Power Requirements	35 Watts, 12-15VDC (nominal platform 14VDC) external, or AC power adapter at 90-260VAC/48-63Hz input, high density Lithium-Ion battery pack equivalent to BA-5590 (single channel system)
Size	¾ ATR Shock Mount Tray/DF system enclosure, 7.86" W x 6.75" H x 15.75" L. Includes shock mounts, tray attach hardware and interface connector protrusions
Weight	TC-9300VM enclosure with shock mount tray, 6.8lbs. Complete system with TC-8111 DF array, rugged laptop, cable set, single channel, ~24lbs.