

TC-9200 SIGNAL MONITORING and DF SYSTEM

TC-8120 Vehicle DF Antenna



RF



TC-2200 Receiver

BIT



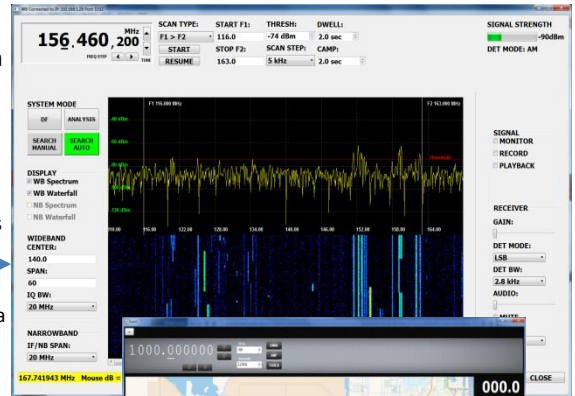
TC-373 DF Processor

Signal Acquisition and Monitoring

Commands

Signal/DF Data

Windows Based Mission GUI



Geo-Location

SYSTEM FEATURES

- VHF/UHF 30-2000 MHz Signal Monitoring and Direction Finding
- Advanced digitally implemented, proprietary algorithm DF processor
- Shipboard, Patrol Boat, Airborne, Vehicle and fixed station configurations
- Uses rugged laptop, Windows based tablet, Droid or system host computer
- Mission/Platform specific DF Antenna Arrays (airborne, shipboard, vehicle, fixed)
- Configurations to support On-The-Move (OTM) operation
- 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)
- Non ITAR System. Exportable under Commercial Export License.

SYSTEM DESCRIPTION

The TC-9200 Signal Monitoring and DF System provides advanced geo-location capability over the 30 to 2000 MHz range with an option for coverage to 3000 MHz in a next generation single channel architecture. One to three signal intercept and monitoring channels can be added for simultaneous DF and monitoring functions. The system is designed for fixed site ground, vehicle, shipboard and airborne and applications. Systems are complete with a choice of DF array to fit the application, high performance DF receiver channel, DF processor, choice of rugged PC, tablet or Droid and 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. As an option, the receiver channel and DF processor is mounted at the antenna location eliminating the requirement for long RF coax cable runs. The system includes a built-in GPS and electronic compass and accepts external platform NAV data. The TC-9200 provides direction finding and signal intercept for AM, NBFM, WBFM, USB, LSB, CW and PM signals. Optional Krypto500/1000 and Signal Works or Mod-Rec decoding, classification and analysis software packages are available to address a wide range of complex signal formats.

The TC-9200 System uses proven, in-production COTS equipment configured into rack mount or customer specified enclosures to meet particular operational requirements. This approach provides a **'Customized COTS'** solution.

Call or visit our web site for more details.

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SPECIFICATIONS

DF Frequency Range	30-2000 MHz, option for coverage to 3 GHz
Signal Intercept Range	30-3000 MHz, uses DF channel or separate optional 1>3 receiver channels
System Noise Figure	10 dB VHF/UHF, 12-14 dB SHF, typical
DF Array	8-element broadband annular slot
DF Methodology	Single channel phase/amplitude, proprietary algorithm, 8 port goniometer/commutator/combiner
DF Accuracy and Resolution	4 degrees RMS test chamber/test range, 4-7 degrees RMS deployed (environment dependent), 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 TC-2200 rugged brick, receiver, <1000 uSec. tuning time., 110 dB dynamic range, wide selection of IF bandwidth filters and signal demodulation modes
System Computer	Rugged MIL-STD-810, choice of laptop or tablet, 64-bit windows CPU, 2.6 GHz processor, 8GB SDRAM, 320GB HDD, 1 GgE/ 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	-10 to +50 degrees C
Storage temperature	-40 to +70 degrees C
Humidity	Deployed equipment, 0 to 95%, non-condensing
Shock	MIL-STD-810F, 526.5
Vibration	MIL-STD-810F, 514.5
RFI/EMI	Designed to meet but not tested to applicable MIL-STD-461E, CS and RS methods and procedures
Power Requirements	45 Watts, 11-32VDC external, or AC power adapter at 90-260VAC/48-63Hz input
Size	Varies per configuration; Receiver, 5.0"W x 9.0"L x 1.25" H, DF Processor 3.25"W x 6.25" L x 1.2" H; DF Assembly 10"W x 14"L x 4"H
Weight	TC-8120 DF array, rugged tablet, single channel, 24 lbs. OTM and platform versions vary