



ITT

SINGGARS RT-1702 VHF Radio

Wearable and vehicle mounted software-programmable voice and data radios with integrated Situational Awareness.



Engineered for life

Photos courtesy of the U.S. D.O.D. and ITT Corporation.



ITT SINCGARS RT-1702 VHF Radio

The ITT SINCGARS RT-1702 radio provides the international customer access to the quality, durability and reliability of the most widely fielded Combat Net Radio in the world – ITT SINCGARS. Built on the same production lines and using the same parts used for the U.S. Armed Forces, RT-1702 offers unparalleled operational availability and whole life support.

ITT SINCGARS transmission and encryption security algorithms provide each country their own unique secure communications which provides the user immediate secure frequency hopping operations with no external planning or fill distribution system required. Flexible frequency selection and security options are available from the front panel to allow the local unit to effectively manage multiple radio net operations.

When combined with the available embedded 12 channel GPS Receiver option the RT-1702 offers the warfighter secure voice, IP data and GPS position reporting in a single system. External GPS interfaces are also provided to allow effective sharing of GPS data with other tactical systems.

The RT-1702 is designed to provide network data services in both mounted and dismounted configurations. In the mounted role the radio works with the ITT Internet controller to provide robust mobile ad hoc network data services. As a man-pack the radio provides the local host Command and Control Application a standard PPP interface to access the Tactical Internet.

The RT-1702 is software programmable which enables ITT to customize the features and functions of the radio to meet the specific operational needs of the using force.



English RT-1702 in a VAA mount (above) with dual Arabic RT-1702s in a VAA, VRC-91 configuration (top of page)

System Specification

Frequency Range	30-88 MHz
Channels	2320
Presets	8 single channel 6 Frequency Hopping (FH) presets Independently selectable operating bands available from front panel Default orthogonal hopsets provided
Transmit Power	100 mW, 5 W, 10 W dismounted, 50 W mounted RFPA options
Operating Modes	Single Channel - Clear or Secure (STANAG 4204 compliant) FH - Clear or Secure (any combination of 2320 available channels) Over the Air Remote Fill Retransmit operation (automatically switches between voice and data)
Data	RS-232 PPP data interface for local data devices MIL-STD-188-220C operations with ATCS Tactical Internet X.21 packet data interface RS-232 data at 1200, 2400, 4800 and 9600 bps Synchronous data at 1200, 2400, 4800 and 16000 bps

Integrated GPS Option

Passive or Active Antennas	
Over the Air	Position reporting and reception
C2 applications	Local and receiver positions provided
Optional Enhanced Control Display Unit (ECDU)	Radio remote control Display of local position, net member positions Waypoint entry and management

Environmental

Operating Temperature	-50°C to +71°C
Testing	MIL-STD 810 Tracked and wheeled vibration, ballistic and drop shock, humidity, rain, dust, drop, loose cargo, salt fog, immersion to 1m (3'), altitude MIL-STD-461 EMI

Physical Characteristics

Size	8.7cm (3.4") high x 13.4cm (5.3") wide x 25.8cm (10.15") deep
Weight	3.5 Kg with embedded battery
Display	Multi-language front panel display and keypad available

Battery Operations

Battery Options	BA-5590, BB-2590, and BB-590 Internal holding battery insert for mounted operations using standard alkaline cells
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Features

Fill option	Single point fill capability using ITT Advanced Fill Device (AFD/A)
Remote Control	Secure remote control capability for up to 4 km distance
Optional Vehicular Remote Control Unit (VRCU)	Allows remote operation of up to 2 mounted SINCGARS radios
ECDU	Provides dismounted over the shoulder control of radio
Support	Comprehensive built-in-test capability Complete operator and maintainer training and technical documentation available Automated field test set available for standardized intermediate test functions Field Service Representatives are available to support system integration and installation at user facilities
Mean Time Between Failures	Production reliability demonstrated at over 5,000 hours

Optional Equipment



Advanced Fill Device (AFD/A)
distributes key communications information to radios



Vehicle Remote Control Unit (VRCU)
control single or dual radios from anywhere within a vehicle



Enhanced Control Display Unit (ECDU)
Situational Awareness, radio control, and GPS positioning at your fingertips

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