

L3HARRIS SINGARS RT-1702

VHF Combat Net Radio

The L3Harris SINGARS RT-1702 enhances warfighter agility with highly secure, ruggedized communications capabilities engineered for missions on the move.



The RT-1702 rapidly adapts to changing mission needs. When deployed as a manpack by dismount soldiers, the radio uses a standard Point-To-Point interface to allow Command and Control applications to access tactical networks. The L3Harris Vehicular Amplifier Adapter supports mobile use and networked

communications capabilities through an Internet Controller.

This SINGARS system is easy to set up and operate. All critical capabilities are built in so no external programming is required. Frequency and security options are available from the front panel, allowing local forces to effectively manage multiple operations.

Warfighters get enhanced Situational Awareness through real-time maps, Position Location Information and IP data with an optional, embedded 12-channel GPS receiver. External interfaces are also available for sharing GPS data with other tactical systems.



**VERSATILE—
IN-VEHICLE OR DISMOUNT
COMMUNICATIONS**

KEY BENEFITS

- > **Robust SINGARS voice clarity and extended range**
- > **Extremely easy to use, no external programming required**
- > **Reliable and durable, simplified maintenance**
- > **Gen 3 Night Vision goggle display compatibility**
- > **World's most-fielded tactical radio technology**

GENERAL	
RT Nomenclature	RT-1702
Frequency Range	30-88 MHz
Channel Spacing/Bandwidth	25 kHz
Net Presets	8 for single-channel operation
GPS	Optional embedded GPS receiver
Management Tool	CMS
Frequency Tuning	25 kHz
Software Environment	NA
Frequency Stability	±2 PPM

TRANSMITTERS	
Power Output	1 mW (LO), 100 mW (MED), 5 W (HI) 50 W (PA with RFPA power amplifier)
Harmonic Suppression	-44 dBc (2nd, 3rd), -69 dBc (>3rd)
Spurious Suppression	≤-100 dBc
Audio Input	1.4 mV to 140 mV into 600 Ohms, 0.7 mV in whisper

RECEIVERS	
Sensitivity	-90 residual to -114 sensitivity
Adjacent Channel Rejection	23 dB @ 25 kHz, 45 dB @ 50 kHz
Squelch	150 + 3Hz
Noise Floor (NF)	-181 dBc/Hz, at frequencies ±5 MHz or 10%
Audio Output	50 mW + 2 dB

POWER	
Power Input	13.0 ±1.0 Vdc
Power Consumption	355 mA-1554 mA
Battery Types	Primary-balanced lithium sulphur dioxide or rechargeable Ni-Cad, Ni-mH, Li-Ion

SECURITY	
Encryption	Country unique Pavilion SINGGARS

MODES AND WAVEFORMS	
Narrowband Waveforms	STANAG 4204 compliant (SC)
Wideband Waveforms	SINGGARS (FH)
Voice and Data Modes	Single channel: clear or secure (STANAG 4204 compliant), PT, CT, FH: clear or secure (any combination of 2320 available channels). Analog voice SC/PT, over-the-air remote fill, retransmit operation (automatically switches between voice and 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

PHYSICAL	
Dimensions	3.4 H x 5.3 W x 10.15 D in (8.7 H x 13.4 W x 25.8 D cm) including battery
Volume	181.42 in ³ (2972 cm ³) including battery
Weight	3.5 kg (7.8 lbs) including BB-2590
Color/Finish	Green

ENVIRONMENTAL	
Temperature	-58°F to +160°F (-50°C to +70°C)
Immersion	MIL-STD-810 to 1M (3 ft)
Shock and Vibration	MIL-STD-810
Sand/Dust/Salt Fog/Rain	MIL-STD-810
Humidity	MIL-STD-810
EMI	MIL-STD-461

INTERFACES	
Data	1 audio/data connector (manpack) standard 6-pin 2 data connectors in vehicle configuration
Audio	2 standard 6-pin
Antenna Port	VHF: BNC; 50 Ohms
Programming	1 audio/fill connector
Function Knob	1
Remote Control	ECDU or VRCU

STANDARD KIT INCLUDES	
BB-2590	Battery

OPTIONAL FEATURES	
Embedded GPS Receiver	Built-in GPS receiver
ECDU: 8220991G1 English, 8241542G1 Arabic	Provides dismounted over-the-shoulder control of radio. Also provides mapping and SA.
Vehicular Remote Control Unit (VRCU): 8227595G1 English, 8241529G1 Arabic	Allows remote operation of up to 2 mounted SINGGARS RT-1702 radios
2 Wire Remote Control: A3272557-1	Secure remote control capability for up to 4 km distance
Fill Options	Single-point fill capability using the Advanced Fill Device (AFD/A) and Communications Management System (CMS)

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1025 W. NASA Boulevard
Melbourne, FL 32919