URC-300® Transceiver
Maximized RF Performance - Redefining Software Defined

Improved Ground-to-Air-Communications
The new software-defined URC-300 Transceiver improves ground-to-air communications with an architecture that enables users to upgrade fielded radios as new technology becomes available. The URC-300 retains a familiar user-friendly interface from the URC-200 (V2) as well as many of the legacy accessories.

- UHF/VHF AM Voice; ETSI EN 300 676-1 compliant for both 8.33 and 25 kHz
- UHF/VHF FM Voice with optional 30-90 MHz frequency band extension
- Separate DC input powers radio and charges battery
- Built-in power conditioning replaces external filter accessories
- Smaller size and less weight than the URC-200 (V2); ideal for emergency grab-and-go
- Side-by-side radios fit into a 19" rack for rackmount applications
- Built-in web server for maintainer configuration and monitoring
- Redesigned user interface with large, user-friendly display

Future, Field-Upgradable Enhancements
- Additional accessories for vehicular, shipboard, backpack and rackmount applications
- Cipher text (data)
- Frequency agile cosite filter
- Adaptive Noise Reduction (ANR)

Additional Certifications
- MIL-STD-461G EMI/EMC
- CE / RoHS / REACH / Radio Equipment Directive
- NSN 5820-01-695-9351
- J/F 12: 13243

Accessories
- Two-channel Remote Control Unit
- ED-137 VoIP Gateway Adapter
- 50W power amplifier
- Additional accessories for vehicular, shipboard, backpack and rackmount applications
- Optional accessories to power from AC or DC source
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Features
- Highly Versatile
  - VHF/UHF AM and FM capability provides interoperability with a variety of RF systems
  - Adaptable to many applications including man-pack, rackmount, vehicular and shipboard
- Remote Control
  - SNMP V3 command / control / BIT
- Intuitive Front Panel Control
  - All parameters are easy to set and access via the front-panel control and web-based GUI
- Web-based provisioning tool for maintainers

Technical Specifications

General
- Frequency range:
  - VHF: 115 MHz to 150 MHz (AM)
  - VHF: 115 MHz to 173.995 MHz (FM)
  - UHF: 225 MHz to 399.995 MHz (AM and FM)
  - LVHF: 30 MHz to 90 MHz (FM)
- Tuning increments:
  - 25 kHz, 12.5 kHz, 5 kHz and 8.33 kHz
- Channel Spacing:
  - 25 kHz, 8.33 kHz, ETSI EN 300 676-1 Compliant
- Frequency stability:
  - <± 1 PPM
- 20 Channel Presets: Independently programmable transmit and receive

Receiver Characteristics
- Sensitivity:
  - AM Voice: -103 dBm
  - FM Voice: -114 dBm
- Receiver dynamic range: 118 dB
- Cross modulation: ≥ 80 dB
- Audio noise (S + N) / N): ≥ 40 dB

Transmitter Characteristics
- Output power:
  - AM: 1 to 7 Watts (CW) user adjustable in 0.2 Watt steps; 10 Watts avg ± 1 dB @ 90% AM
  - FM: 1 to 10 Watts user adjustable in 0.2 Watt steps
- AM Modulation: 0 to 95% user adjustable
- Distortion: <10% (<2% typical in AM)
- Spurious output: < -85 dBc
- Harmonic output: < -75 dBc
- Adjacent Channel Power:
  - 25 kHz: ≤ 60 dB
  - 8.33 kHz (AM VHF only): ≤ 50 dB
- FM Broadcast Intermod Immunity: ≥ 95 dB (applies to AM channels only)

Optimal Line-of-Sight (LOS) transmission distances relative to aircraft altitude

Physical Characteristics
- Weight:
  - 10.3 lbs. (radio only)
- Dimensions:
  - 11.1” L x 8.4” W x 3.4” H
    (radio only without handles)
- Environmental:
  - Ruggedized. Environmentally tested for humidity, vibration, shock/drop, rain/drip-proof, temperature and altitude. Complies with sections of MIL-STD-810H and is rated IP65 for ingress protection
- Temperature:
  - -25°C to +55°C (operating)
  - -40°C to +70°C (non operating)

Power Supply
- Battery:
  - BB-2590 (rechargeable)
- AC:
  - 108 – 253 VAC, 47 – 63 Hz
- DC:
  - 10.7 – 34 VDC
- Battery case dimensions:
  - 5.2” L x 7.3” W x 2.8” H
- Current drain (+28 VDC):
  - Transmit: <2.5 amps
  - Receive: <360 mA

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Web-based provisioning tool for maintainers.