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 8.33kHz and 25kHz
- Separate DC input powers radio and charges battery
- Optional accessories to power from AC or DC source
- 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
- Web-based configuration and monitoring tool for maintainers
- Redesigned user interface with large, user-friendly display

Future, Field-Upgradeable Enhancements
- FM voice
- 50W power amplifier
- Additional accessories for vehicular, shipboard, backpack and rackmount applications
- Cipher text (data)
- 30 - 90 MHz frequency band
- Remote Control Unit
- ED-137 VoIP Gateway Adapter
- Frequency agile cosite filter
- Adaptive Noise Reduction (ANR)

Additional Certifications
- MIL-461G EMI/EMC
- CE / RoHS / REACH / Radio Equipment Directive
- FCC
**Features**

- **Highly Versatile**
  - VHF and UHF AM capability provides interoperability with a variety of RF systems
  - Adaptable to many applications, including manpack, rackmount, vehicular and intercom

- **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 (Future FM)
  - UHF: 225 MHz to 399.995 MHz

- **Tuning increments:**
  - 25 kHz, 12.5 kHz, 5 kHz and 8.33 kHz

- **Channel Spacing:**
  - 25 kHz, 8.33 kHz

- **Frequency stability:**
  - ±1 PPM

- **20 Channel Presets:** Independently programmable transmit and receive

**Receiver Characteristics**

- **Sensitivity:**
  - AM PT: -102 dBm (-103.5 dBm typical)
  - Dynamic range: ≥ 115 dB

- **Cross modulation ≥ 80 dB**

- **Dynamic range: ≥ 115 dB**

- **Spurious response:** ≥ 80 dB

- **Audio noise (S + N) / N): ≥ 40 dB**

- **Image response:** ≥ 80 dB

- **Adjacent channel rejection:**
  - 25 kHz: ≥ 60 dB, 8.33 kHz: ≥ 60 dB

- **FM Broadcast Intermod Immunity:** ≥ 95 dB

**Transmitter Characteristics**

- **Output power:**
  - 1 to 7 Watts (CW) user adjustable in 0.2 Watt steps; 10 Watts avg ± 1 dB @ 90% AM

- **Modulation:** 0 - 95% user adjustable

- **Distortion:** <10%

- **Spurious output:** < -85 dBc

- **Harmonic output:** < -75 dBc

- **Adjacent Channel Power:**
  - 25 kHz: ≤ 60 dB, 8.33 kHz: ≤ 50 dB

**Physical Characteristics**

- **Weight:**
  - 10.9 lbs. (less battery)

- **Dimensions:**
  - 10.6”L x 8.5”W x 3.5”H (without battery and handles)

- **Environmental:**
  - Ruggedized. Environmentally tested for humidity, vibration, shock/drop, rain/drip-proof, temperature and altitude. Meets relevant sections of MIL-STD-810H and is rated IP65 for ingress protection

- **Temperature:**
  - -20˚C to +55˚C (operating)
  - -50˚C to +70˚C (non operating)

**Power Supply**

- **Battery:**
  - BB-2590 (rechargeable)

- **AC:**
  - 90 – 260 VAC, 47 – 63 Hz

- **DC:**
  - 10.7 – 34 VDC

- **Battery case dimensions:**
  - 5.2”L x 10.3”W x 2.8”H

- **Current drain (+28 VDC):**
  - Transmit: <2.5 amps
  - Receive: <360 mA