



MORCOM RTU-200 UHF Transceiver

INTRODUCTION

The RTU-200 UHF Transceiver is Morcom's unique offering for civil and military operators that need a radio that works in the 225-400 MHz band. This transceiver is a multimode unit because it operates either in AM or FM modulation making it interoperable with most UHF aircraft installed radios and with legacy ground based transceivers in that band. With a power output of 40 Watts in FM and 15 Watts in AM (carrier) this unit packs enough punch to reach aircraft at considerable distances.

As the 225-400 MHz is the primary air-to-ground communications band for military aircraft, this transceiver is ideal for use by the military services and government contractors that need air-to-ground communications in this band. The RTU-200 is built to last, its metal chassis ensures durability and the ability to be installed in two different configurations:

- Vehicular use (24 VDC)
- Base station (with external power supply)

SPECIAL FEATURES

- Possibility to operate in the remote mode by serial communication line (supports RS232 and RS422 protocols).
- Possibility of connection with centralized systems.
- Built-in self-control and self-diagnostic system (BITE).

SPECIFICATIONS

General Specs

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|-------------------------|-----------------------------------|
| Frequency range: | 225 ÷ 400 MHz |
| Channel spacing: | 25 kHz |
| Modulation: | AM (A3E) FM/PM (G3E) |
| Communication type: | Telephony |
| Frequency accuracy: | 1 ppm |
| Power supply: | 24 Vdc |
| Power consumption | 7 A @ 24 Vdc (in TX max RF power) |
| Dimensions (h x w x d): | 94 x 264 x 237.5 mm |
| Weight: | 5 kg |
| Operating temperature | -10° ÷ +55°C |
| Storage temperature: | -40° ÷ +70°C |
| Relative humidity: | up to 95% (25° ÷ 55° C) |
| Vibration: | NAV-30-A002 |
| Shock: | NAV-30-A001, gr.B, cl. II |

Receiver Specs

| | |
|---------------------------------------|--|
| Sensitivity: | ≤ 2.5 μV @ 12 dB SINAD (AM) ≤ 1 μV @ 20 dB SINAD (FM) |
| Selectivity: | ≥ 60 dB @ ± 25 kHz (FM) ≥ 75 dB (AM) |
| Protection against spurious response: | ≥ 60 dB |
| Spurious irradiation: | ≤ 2 nW (-57 dBm) |
| Background noise: | ≤ 40 dB |
| Image frequency rejection: | > 70 dB |
| Audio band: | 300 ÷ 3400 Hz @ 3 dB (AM) 300 ÷ 3000 Hz (with deemphasis filter in FM mode) |
| Distortion BF: | ≤ 5 % |
| Audio output for loud-speaker: | 4 W / 4 Ω |

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Transmission Specs

| | |
|--|---|
| Power RF max: | 15 W carrier in AM mode 40 W in FM mode |
| Power RF reduced: | ≤ 1 W |
| Impedance: | 50 Ω |
| Audio band: | 300 ÷ 3400 Hz @ 3 dB (AM) 300 ÷ 3000 Hz (with deemphasis filter in FM mode) |
| Spurious and harmonics attenuation: | > 60 dB |
| Distortion: | < 5 % |



Established in 1984, MORCOM International, Inc. has provided a broad range of quality products and services to the government and commercial marketplace.

MORCOM is a strong, stable, and reputable company with the experience, resources, proven management, leadership, and corporate commitment to provide a variety of high-technology products and services to our clients. MORCOM specializes in the sale and installation of wireless communications systems, weather information equipment, and systems that are critical to public safety, national defense, air and ocean navigation, and homeland security activities.

MORCOM's clients range from small enterprises to large corporations and government contractors to state and federal agencies, as well as international customers. Our commitment to comprehensive success for every client includes full development, design, and implementation of solutions tailored to the each requirement—from equipment through installation and maintenance.

MORCOM—Your source for unique radio communications solutions

- VHF and UHF Ground to Air Communications Systems
- 225-400 MHz Portable, Vehicular, and Base Radio Transceivers
- P25 and DMR Radio Communications Systems
- Interoperability Solutions
- Tactical Communications Equipment



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