



## 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

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

*continued...*

## Transmission Specs

Power RF max:	15 W carrier in AM mode 40 W in FM mode
Power RF reduced:	$\leq 1$ W
Impedance:	50 $\Omega$
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 %



## **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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