

Product Information

micomRM500

500 Watt HF-SSB TRANSCEIVER 1.6 – 3.0 MHZ

The micomRM500 is especially designed to provide very long range radio communications for ground-to-ground, ground-to-air and ground-to-sea voice and data applications. The micomRM500 is a self-contained 500W transceiver package integrating micom3 radio, 500W amplifier, auto-sensing AC power supply, multiple accessory ports and a reliable air cooling system into a 19 inch rack mount cabinet.

Meeting the world's strictest standards for radio equipment communication dependability, including MIL-STD-810, ALE per MIL-STD-188-141B and FED-STD-1045, the micomRM500 is the ideal solution for organizations whose operations require reliable long-range radio communications for mission command and control.



micomRM500



ESTABLISHING A RADIO LINK IS ALWAYS FAST AND SIMPLE

- Automatic Link Establishment per MIL-STD-1045 & MIL-STD-188-141 standards.
- Full interoperability with other manufacturers' radios complying with the same ALE standards.

VOICE THAT'S LOUD & CLEAR

- Built-in voice quality system utilizes proprietary algorithms to filter out background noises, giving users exceptional communication clarity.
- Selectable bandwidth allows fine tuning for optimal voice and data communications.
- Voice-activated digital squelch.

USER-FRIENDLINESS

- New control head features a large LCD, full-dot matrix digital display and an enhanced keyboard for programming and set-up.
- Radio operation can be executed using any standard USB keyboard.
- Multiple language display available.
- Transceiver can be controlled using PC and programming application.
- Remote control configuration allows the transceiver to be operated from a remote location using optional 2 wire remote control head.

YEARS OF TROUBLE-FREE, MOST ADVANCED COMMUNICATIONS

- Upgrading to future technologies is easily done by installing new software into the transceiver's DSP unit.
- Easily replaceable digital components ensure cost-effective maintenance.
- Very high MTBF, as with all Micom radios.
- Unique Built-in self Test system provides exceptional dependability.

COMPREHENSIVE COMMUNICATION AND NETWORKING SERVICES

- Office-quality communication services integrating fax, e-mail and data transmission and reception.
- MultiNet enabling integration of different HF radio networks into one seamless network, allowing excellent coordination between different operational nets.
- AMD (Automatic Message Display) for free and pre-set text messages.

A PROVEN FAMILY OF RADIO PRODUCTS

- The micomRM500 is member of the Micom transceiver family - fixed and mobile stations - covering the long-range wireless communication needs of thousands of organizations worldwide.

MAJOR ACCESSORIES

- Automatic telephone interconnect
- Antenna system
- Pre post selector (PPS)
- FM to HF repeater
- HF modems
- ATUs
- Antennas and grounding kit
- Secure voice and data

SPECIFICATIONS

General

| | |
|--------------------------|-----------------------------------|
| Model | M91AMN0KV5-K G160 orG161 |
| Frequency range | 1.6-30 MHz |
| Number of channels | 200 |
| Scanning | 5 groups, up to 100 channels each |
| Transmission | 500W PEP average |
| Reception | 100 KHz-30 MHz Rx |

Modes of operation:

SSB (USB/LSB), AME, PLT, ISB, CW

| | |
|-----------------------------------|--|
| Operating voltage | 100-240 VAC 47-65 Hz 13.8V±20% 20V operation (optional) |
| Current Drain @13.8 VDC | Tx-27A, Rx-1.4A |
| Audio Bandwidth @ -6dB | |
| Voice | 350 to 2700 Hz 350 to 2100 Hz |
| CW | 650 to 1150 Hz |
| HSM | 350 to 3300 Hz |
| LSM..... | 1450 to 1950 Hz Frequency stability 0.6 PPM (0.1 PPM optional) |
| Synthesizer lock time..... | 10 msec max. |
| Frequency resolution | 10 Hz |
| Operating temperature range | -10°C to +60°C/ -14°F to +140°F |
| Humidity | 95% @ 50°C/122°F |
| Sensitivity (SINAD) | SSB:0.3 µV for 10 dB SINAD |
| Dimensions | |
| Height..... | 290 mm/11.42 inch |
| Width..... | 480 mm/18.9 inch |
| Depth..... | 550mm/21.7inch |
| Weight..... | 32 Kg/70.6 Lbs |

Receiver

| | |
|--------------------------------------|---|
| Reception | 100KHz-30MHzRx (100kHz-1.6 MHz reduced performance) |
| Sensitivity (SINAD) | |
| SSB | 0.3 µV for 10 dB SINAD |
| Selectivity | -6 dB @ 350 to 2700 Hz -60 dB @ -1 kHz, +4 kHz |
| Image rejection..... | -80 dB |
| IF rejection..... | -85 dB |
| Undesired sideband rejection | -55 dB@ -1 kHz |
| Spurious rejection..... | -80 dB |
| Intermediation rejection | -80 dB |
| Cross modulation rejection | -100 dB@ 100 kHz |
| Desensitization | -100 dB@ 100 kHz |
| Reciprocal mixing | -100 dB@ 100 kHz |
| Audio power @ speaker | 5W @ 2.5% distortion |
| RGC range | 5 µV 1V (2 dB change in output level) |
| RGC time constant voice/data 64 QAM | |
| Attack time: 10 msec | |
| Release time: 1500 msec | |
| Fast | Attack time: 10 msec Release time: 10 msec |
| Squelch | Constant SINAD (digital) |
| Clarifier range..... | ±200 Hz in 10 Hz steps |
| Receiver tuning adjustments | None |
| Antenna input protection..... | 20 kV maximum transient 100V RMS for 2 minutes |
| Transmitter | |
| Transmission | 500 W PEP and average |
| Reduced power levels | 200W, 300W, 400W (RSS Programmable) 125W radio (bypass mode) |
| Audio bandwidth ripple | 2dB |
| Intermodulation..... | -31 dB/PEP (-35 dB/PEP Typical Note 1) |
| Harmonic emissions | -60 dB/PEP (-70 dB/PEP Typical) |
| Spurious emissions | -64 dB/PEP (-70 dB/PEP Typical) |
| Carrier suppression | -50 dB/PEP |
| Undesired sideband suppression | -55 dB/PEP |
| Audio distortion..... | 2.5% |



Transmitter (Cont.)

1/2 power mic. Sensitivity.....25-125mV (RMS)/600 ohms
Hum & ripple-50 dB
Inband noise-60 dB (30 Hz BW)
Tx/Rx switching time10 msec
Tx tuning adjustmentsNone

OPTIONS

- USB com port for external keyboard
- PC control and programming package
- ALE DTM/DBM
- PPS interface
- Interface for secure voice device VP116
- 2 wire remote control panel

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