



Fixed Station

## MICOM Z PRODUCT DESCRIPTION

### Micom Z HF-SSB Transceiver

The MICOM Z is a state-of-art adaptive HF radio designed to meet the demanding requirements imposed by demanding operational environment.

Implementation of the latest technological breakthroughs in digital signal processing the MICOM Z radio provide a complete solution to traditional HF problems while allowing user friendly, easy operation for the non skilled end user. It was designed to satisfy all the needs of short, medium and long range communication in the crowded HF band.

The MICOM Z offers a, reliable long range communication performance covering Voice, Data, and Telegraphy (CW) using upper sideband (USB), lower sideband (LSB), and amplitude modulation equivalent (AME) modes of operation.





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### **MICOM Z Radio System Overview**

#### **User Friendly operation**

Designed to offer cutting edge features usable by the un-skilled user, the MICOM Z MMI is easy to master. Improvements based on user feedbacks are incorporated in the system, as a part of its ongoing evaluation program.

- o Large digital front panel display and keyboard for programming and set-up.
- o PC control and programming via RS232.
- o BIT – Built-in Test:  
A comprehensive multilevel built-in test (BIT) assists the user to identify faulty modules at the field level, and ensures complete functional testing after module replacement. The BIT also assists higher echelon maintenance personnel not provided with module level test equipment.

#### **Internal GPS**

- o The MICOM Z Front mount or Trunk mount versions can be ordered with an integral Global Positioning System (GPS) receiver.
- o Using the ALE AMD or the CCIR 493 Selcall GPS Call messaging platforms, any station can generate a request for GPS location from any other station in the network.

#### **Automatic Link Establishment (ALE) MIL-STD-188-141B**

- o ALE feature is supplied as standard.
- o Non-skilled users are ensured easy operation.

#### **CCIR 493 4&6 Digits Selcal per UN-WGET Interoperability Agreement**

- o Interoperable with all major suppliers supporting the standard
- o GPS
- o Beacon call





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### Specifications Techniques

#### General

Transmit Frequency Range	1.6 to 30 MHz
Receive Frequency Range	0.1 to 30 MHz (0.1 to 1.6 MHz reduced performance)
RF Input Impedance	50 ?
Number of Channels	500 simplex or half duplex, user programmable
Scanning	5 groups with up to 100 channels per group, including 1 guard channel.
	Programmable scan rate: 1 to 5 sec. per channel, in 1 sec. steps
Frequency Stability	0.6 ppm @ -30° to 60°C
Frequency Drift (Aging)	1 ppm/year
Synthesizer Lock Time	10 msec. max.
Frequency Resolution	10 Hz
Operating Temperature Range	-30° to +60°C
Storage Temperature Range	-40° to +85°C
Humidity	Max. 95% @ 50°C
Modes of Operation	SSB - J3E PILOT - R3E AME - H3E CW - J2A
Operating Voltage	13.8 VDC ?20%, negative ground
ALE	Per MIL STD 188-141B
CCIR 493 4&6 digits	Per UN-WGET Interoperability Agreement supporting Beacon Call & GPS Call



Version Mobile

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### Specifications Techniques

#### Military and Industrial Standards

MIL-STD-810	Vibration, Choc, Sel, brouillard, Sable & Poussière, Température, Altitude
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#### Transmitter

Output Power	125 W P.E.P
Reduced Power Levels	4 User Programmable

#### Audio Bandwidth

Voice	350 to 2700 Hz at -6 dB
CW	650 to 1150 Hz
TX/RX Switching Time	10 msec

#### Receiver

Sensitivity (SINAD) SSB	0.5 $\mu$ V for 10 dB SINAD (0.35 $\mu$ V typical)
1/2 Rated Power Sensitivity	1 $\mu$ V for 2.5 W audio at speaker
Selectivity	-6 dB @ 350 to 2700 Hz
Image Rejection	-80 dB
IF Rejection	-85 dB

Spurious	-80 dB
Intermodulation	-80 dB

Desensitization	-100 dB @ 100 kHz
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Audio Power at Speaker	2 W @ 2.5% distortion
Squelch	Syllabic
Clarifier Range	$\pm$ 200 Hz in 10 Hz steps