MICOM-2BF Front Mount

HF-SSB Mobile/Fixed
Digital Signal Processing Radio
125 watt PEP/Average 1.6-30 MHz

MICOM-2BF is an advanced Ruggedized Digital Signal Processing transceiver, intended for very wide area radio communications. It provides, excellent audio quality and high accuracy calibration of functions such as modulation, demodulation, squelch and noise blanking.
Its software-driven approach optimizes current system application and accommodates infrastructure for future system enhancements.

MICOM-2BF with its compact size provides maximum ease of installation.The radio configured via a Radio Service Software (RSS) program for factory or field programming with a PC computer.

Features

- Enhanced features for better communications
- Ruggedized Mobile /fixed Transceiver
- Superb Human Engineering
- Advanced digital technology
- Conforms to MIL-STD 810 and EIA Specifications
- High MTBF
- Complies with ISO 9001 Requirements
- Voice activated digital squelch
- Programmable channel scan
- Digital noise blanking and clarifier
- Guard and Priority Channels
- Continuous duty operation (optional)
- BITE(Built-in Test)
- Meets FCC and EMC standards
- Enhanced Voice Quality
- Excellent frequency stabillity
- Small Size, Light Weight
- Selective calling system per FS-1045 and MIL-STD 188/141A or selective calling system based on CCIR recommendations 493-1

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MOBAT Communication
Established by MOTOROLA & BARTAL

MOTOROLA

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GENERAL

Model Number:	M70AMK0KV5-N
Frequency Range:	1.6 MHz Tx, 100 kHz-30 MHz Rx
Number of Channels:	100 Simplex or Half Duplex
Scanning:	5 groups with up to 100 channels per group
Frequency Stability:	0.6 PPM
Frequency Drift (Aging):	1 PPM per year
Synthesizer Lock Time:	10 msec max.
Frequency Resolution:	10 Hz
Operating Temp. Range:	-30° to +60°C
Humidity:	95% @ 50°C
Operating Voltage:	13.8V DC ±20% Neg. Ground

Current Drain @ 13.8 VDC	Receive		Transmit		
	Squelched	Full Audio	Voice	2 Tone	1 Tone
	1.7A	2A	13A	22A	27A

Dimensions and Weight	Height mm/inch	Width mm/inch	Depth mm/inch	Weight Kg	Lb
	93 / 3.7	302 /11.9	288 /10.6	5.8	12.8

RECEIVER

Sensitivity (SINAD) SSB: (Voice)	0.5 µv for 10 dB SINAD (0.3 µ v Typical. Note 1) 0.1-1.6 MHz – reduced performance
1/2 Rated Power Sensitivity:	1 µ v for 2.5W audio @ speaker
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
Intermodulation 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:	5µv 1V (2 dB change in output level)
RGC Time Constants Voice:	Attack time 10 msec Release time 1500 msec
Data:	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

Output Power:	125W P.E.P. and average
Reduced Power Levels:	25W, 62W, 100W (RSS Programmable)
Audio Bandwidth Ripple:	3 dB
Intermodulation:	-31 dB/P.E.P. (-35 dB/P.E.P. Typical. Note 1)
Harmonic Emissions:	-64 dB/P.E.P. (-70 dB/P.E.P. Typical. Note 1)
Spurious Emissions:	-64 dB/P.E.P. (-70 dB/P.E.P. Typical. Note 1)
Carrier Suppression:	-50 dB/P.E.P.
Undesired Sideband Suppression:	-55 dB/P.E.P.
Audio Distortion:	2.5%
1/2 Power Mic. Sensitivity:	25 to 125 mV (RMS)/600 ohms
Hum & Ripple:	-50 dB
Inband Noise:	-60 dB (30 Hz BW)
Tx/Rx Switching Time:	10 msec
Tx Tuning Adjustments:	None

Note 1: Values noted as typical are valid over 90% or more of the frequency range.

MILITARY & INDUSTRIAL STANDARDS

MICOM -2BF meets the following US military and industrial standard requirements for adverse environmental conditions (without the need of external shock mounts)

Environmental Condition	US Military STD 810C	US Military STD 810D	US Military STD 810E
Vibration	Method 514.2	Method 514.3	Method 514.4
Shock	516.2	516.3	516.4
Rain	506.1	506.2	506.3
Dust	510.1	510.2	510.3
Salt Fog	509.1	509.2	509.3

The MICOM -2BF also meets the EIA-RS152B for shock, vibration and applicable test procedures, US FCC for channel occupancy, spurious, interference and frequency tolerance. It is manufactured according to the demanding standards of ISO 9000 and EMC (Electromagnetic Compatibility).

FCC Information; Emissions:	J3E, R3E, H3E, J2A, J2B, B8C
FCC Applicable Parts of Rules:	15, 80, 90
FCC Type Acceptance Number:	ABZ9QCC1635

OPTIONS

- RS232 Remote Contol Interface
- Linear Amplifier Interface
- Phone Patch Interface
- Data/Fax Modem interface
- Interlink Interface
- 24 VDC Operation
- RSS for PC

MAJOR ACCESSORIES

- Phone Patch
- Interlink (FM-HF repeater)
- Automatic Antenna Tuner
- Continuous Duty Kit
- Automatic Tuning whip antenna
- AC Power Supply
- 1 kW Amplifier
- 400 W Amplifier
- Antennas and Grounding kit
- Data/Fax Modem
- CW Key & Headphones

Specifications subject to change without notice.

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