MICOM-2TS *Trunk Mount*

HF-SSB ALE Trunk Mount
Digital Signal Processing Radio
125 watt PEP/Average 1.6-30 MHz

Micom-2TS is an advanced Ruggedized Digital Signal Processing transceiver, intended for very wide area radio communications. It provides, Voice, Data, Fax and E-mail solutions with a high degree of sophistication, signal quality and reliability, while being very simple to operate.

MICOM-2TS with its compact size provides maximum ease of installation. The Automatic Link Establishment-ALE (per FED-STD 1045 and MIL-STD 188/141B) is a Standard Feature.

Features

- Enhanced DSP based Radio Platform
- Enhanced features for better communication
- Ruggedized Mobile / Fixed Transceiver
- Front panel programming
- Advanced digital technology
- Conforms to MIL-STD 810 and EIA Specifications
- ALE per FED-STD-1045 and MIL-STD-188/141B
- High MTBF
- Security access code
- Variable Bandwidth for optimal signal processing
- Voice activated digital squelch
- Programmable channel scan
- Digital noise blanking and clarifier
- Guard and Priority Channels
- Continuous duty operation (optional)
- Multi-language Liquid Crystal Display
- BITE (Built-in Test)
- Meets FCC and EMC standards
- Selectable front-end Attenuator
- Enhanced Voice Quality
- Excellent frequency stability
- Selectable Power Output
- Small Size, Light Weight
- Variable notch filter
- Sub-octave pre-selector
- Adaptable internal configuration options
- Multinet Operation For A.L.E (optional)

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GENERAL

Model Number:	M81AMN0KV5-K
Frequency Range:	1.6 MHz Tx, 100 KHz-30 MHz Rx
Number of Channels:	200
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
Audio Bandwidths@-6dB:	Voice: 350 to 2700 Hz CW: 650 to 1150 Hz Low speed data: 1450 to 1950 Hz High speed data*: 350 to 3300 Hz
Operating Temp. Range:	-30^0 to +60^{0}C
Humidity:	-95% @ 50^{0}C
Operating Voltage:	13.8 VDC ±20% Neg. Ground
ALE:	Per FED-STD 1045 and Mil-STD 188/141A

Current Drain @ 13.8 VDC	Receive	Transmit			
	Squelched	Full Audio	Voice	2 Tone	1 Tone
	2.2A	3A	14A	23A	28A

Dimensions and Weight	Height mm/inch	Width mm/inch	Depth mm/inch	Weight Kg	Weight Lb
Radio Unit	92 / 3.7	302 / 11.9	285 / 11.3	5.8	12.8
Control Head	60 / 2.36	187 / 7.367	70 / 2.75	0.32	0.71

*Optional, for authorized users only.

RECEIVER

Sensitivity (SINAD) SSB: (Voice)	0.5µv for 10 dB SINAD (0.3µv Typically.) 0.1-1.6 MHz - reduced performance
1/2 Rated Power Sensitivity:	1µv 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
Intermediation Rejection:	-80 dB
Cross ModulationRejection:	-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 Constant Voice:	Attack time 10 msec
	Release time 1500 msec
Data:	Attack time 10 msec
	Release time 1500 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-2TS meets the following US military and industrial standard requirements for adverse environmental conditions (without the need 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-2TS 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 ISO 9001 and EMC (Electromagnetic Compatibilty).

FCC information;	J3E, R3E, H3E, J2A, B8C
FCC Applicable Parts of Rules:	15, 80, 90
FCC Type Acceptance Number :	ABZ9QCC1635
With High Stability Option:	ABZ9QCC1634

OPTIONS

- RS232 Remote Contol Interface
- Linear Amplifier Interface
- Phone Patch Interface
- Pre-post Selector Interface base station operationfor 500 watt conversion Transceiver
- Data/Fax Modem Interface
- Multinet (For A.L.E)
- Micom-Link Interface
- 24 VDC Operation
- Rss for PC (Radio and ALE)
- High (0.1 PPM) Frequency stability

MAJOR ACCESSORIES

- Phone Patch
- Micom-Link (FM-HF repeater)
- Automatic Antenna Tuner
- Continuous Duty Kit
- AC Power Supply
- Pre-post Selector
- Automatic Telephone Interconnect
- 1 kW Amplifier
- Antennas and Grounding kit
- Data/Fax Modem
- CW Key & Headphones
- Encryption Voice/Data

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