



Q-MAC Electronics

QM9201M 150Watt Military HF SSB Amplifier

TACTICAL COMMUNICATIONS



HF Power Amplifier



150 WATT PEP

FULLY PROTECTED

RUGGED CONSTRUCTION

Features

150 Watt PEP

Compatible with HF-90M Transceiver

Compatible with TA-91M ATU

Fast Automatic Harmonic Filters

Rugged Mil-Grade Construction

Fail-Safe Pass-Through Mode

Convenient AV Mount Points

Integration with Vehicle Harness System

Built in Test Equipment

The Q-MAC HF-150M HF SSB Power Amplifier increases the output power of HF-90M transceivers to 150 Watts PEP across the HF frequency band.

The HF-150M is designed for applications where medium power tactical communications is required. Applications include land mobile vehicles, tracked vehicles, patrol boats and base station installations.

When used with the Q-MAC HF-90M transceiver, the amplifier will provide continuous coverage from 2 to 30 MHz and is compatible with the HF-90M Frequency Hopping option. The unit is designed for continuous duty cycle without the need for any forced air cooling, making it ideal for tight spaces common in tactical vehicles.

The HF-150M has a frequency counter which senses the output from the HF-90M transceiver and using a microprocessor, automatically selects the correct internal harmonic filter. When integrated with the TA-91M Automatic Antenna Tuner, the system is automatically configured, without the need for any special operator input.



TA-91M Automatic Antenna Tuner



HF-90M on AV Mount

The HF-150M has a built in self test, with status conditions displayed on the front panel, allowing field technicians to diagnose faults down to module level. A built-in fail safe pass-through mode ensures that continuous operation is maintained in the event of an amplifier fault.

The RF input from the HF-90M does not require any adjustment and the HF-150M will supply the full 150 Watts for any frequency setting.

The HF-150M can be supplied with Anti-Vibration mounting platforms making it ideally suited to tracked vehicles.

Panel mounted connectors include provision for supplying DC power to the HF-90M transceiver, as well as the TA-91M automatic antenna tuning unit. Provision is also included for connecting to intercom harnesses in vehicles.

Construction of the HF-150M is build around a marine grade aluminium enclosure providing an environment rating to suit the most exacting military requirements.

RUGGED CONSTRUCTION • SIMPLE TO USE • ALL MODE PROTECTION





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QM9201M 150Watt Military HF SSB Amplifier

SPECIFICATIONS



HF Power Amplifier



HF-90M on AV Mount



HF-150M on AV Mount



TA-91M Automatic Antenna Tuner

SPECIFICATIONS

Frequency Range	2-30MHz
Modes	USB, LSB, CW, Hopping, AM(RX) FSK
RF Input/Output Impedance	50 Ohm
Power Input	12/24V DC +/- 20% (Factory configured)
Power Consumption	500mA RX, 20 Amps Peak, 5 Amps typical voice
Environmental	To Mil-Std 810F - Shock, Drop, Immersion, Dust and Temp
MTBF	Greater than 4000 Hours
MTTR	15 Minutes to Module Level
Size	355(W) x 160(D) x 150(H) mm
Weight	7 Kg
Power Output	150Watt PEP
RF Drive Requirement	Max 50 Watts (From standard HF-90M)
Harmonic Output	-40dBm
Harmonic Filter Switching Time	Less than 50mS
Transmit Duty Cycle	60% Speech/Data Convection Cooling. 100% with Forced air cooling.
Input VSWR	<1.5:1
Connectors	1 x DC Power Input. MS3474W14, 4 Pin Male 1 x RF Input, BNC Female 2 x Control Port 62IN-57, 7 Pin Female 1 x Audio Output, 62IN-57 5 Pin Female 1 x RF Output, Type N Female
Cooling	Natural Convection Via Heatsink fins

ACCESSORIES

- TA-91M Automatic Antenna Tuning Unit
- DC Power Cable
- HF-90M to HF-150M Coax Cable
- HF-90M to HF-150M DC Supply Cable
- HF-150M to TA-91M Coax Cable
- HF-150M to TA-91M DC Supply Cable
- Anti Vibration Mounting Hardware



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