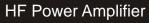


Q-MAC Electronics

QM9201M 150Watt Military HF SSB Amplifier

TACTICAL COMMUNICATIONS



150 WATT PEP

FULLY PROTECTED

RUGGED CONSTRUCTION



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.



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



Q-MAC Electronics

QM9201M 150Watt Military HF SSB Amplifier

SPECIFICATIONS

POWER RE POWER DC RF SPEAKER CONTROL CONTROL TEST RF POWER POWER POWER OUT PORT POWER POWER DC POWER P

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:

Connectors 1 x DC Power Input. MS3474W14, 4 Pin Male

1 x RF Input, BNC Female

2 x Control Port 62IN-57, 7 Pin Female1 x Audio Output, 62IN-57 5 Pin Female

1 x RF Output, Type N Female

Cooling Natural Convection Via Heatsink fins

CERTIFIED QUALITY MANAGEMENT SYSTEM — 18 0 9 0 0 1

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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