



AN/VRC-111 50 Watt Vehicle Adapter Amplifier

For the AN/PRC-148 Multiband Inter/Intra Team Radio



- Dual Channel Configuration: Consists of Two AN/PRC-148 Radios, Two Vehicle Adapters, 2-Channel 50 Watt Power Amplifier Unit, and Mounting Tray. *Also available:*
 - Single Channel Configuration
 - Without AN/PRC-148 Radios
- Contiguous 30-512 MHz Coverage
- 50 Watt Output from 30-88 MHz
- 20 Watt Output from 88-512 MHz
- Cable-free Radio Dismount Capability in Less Than 2 Seconds

Supports and Maintains All Functionality of All Configurations of the AN/PRC-148 Radio, Including MBITR and JTRS Enhanced MBITR (JEM)



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For the AN/PRC-148 Multiband Inter/Intra Team Radio



The AN/VRC-111 Vehicle Adapter Amplifier (VAA) is a COTS/NDI electrical and mechanical fixture combining the functionality of the battle-proven AN/PRC-148 Multiband Inter/Intra Team Radio (all MBITR and JEM configurations) and Vehicle Adapter into a system that offers an alternative to existing SINGARS vehicular installations. The AN/VRC-111 50 Watt VAA system comprises two Vehicle Adapter Units with two AN/PRC-148 Multiband Inter/Intra Team Radios affixed on a mounting tray that installs on a standard MT-6352/VRC or MT-6352A/VRC Electrical Equipment Mounting Base and a dual channel 50 Watt Power Amplifier Unit that installs on a standard MT-6353/VRC RF Power Amplifier Mounting Base. The mounting tray includes a cable harness, a multi-pin electrical connector that interfaces to the MT-6352 base, and an optional locking mechanism that secures the radios when required.

The Vehicle Adapter Unit contains a sleeve for the insertion of the AN/PRC-148 with a locking cam to fasten the radio into position once it is fully inserted and allows for rapid, cable-free removal in less than 2 seconds. The VAA with AN/PRC-148 inserted provides 50 Watts in SINGARS transmit mode (30-88 MHz, FM) and 20 Watts in non-SINGARS transmit mode (30-512 MHz AM and 88-512 MHz FM). The 50 Watt VAA system operates from the vehicular power supply (20-32V) provided through the MT-6352 base.

The VAA is rugged, constructed to withstand harsh weather conditions and ballistic shock. **A common solution for vehicular and dismounted communications.**

GENERAL SPECIFICATIONS

Supports the capabilities of the installed radios

Frequency Range

- 30-512 MHz contiguous

Power Input

- 20 to 32 VDC, MIL-STD-1275

Installations

- Adheres to the AN/VRC-92 footprint
- Stand-alone dual power amplifier offers mounting flexibility

Weight

- 65 lbs

Radio Unit

- All variants of the AN/PRC-148 (MBITR and JEM) and PRC-6809 MBITR

- Non-U.S. Government sales are subject to U.S. Government approval.
- Specifications are subject to change without notice.

Electrical Interfaces

- AN/VIC-1, AN/VIC-3, LS-671, MT-6352 Power, RS-232 Data

Mechanical Interfaces

- MT-6352, MT-6352A, MT-6353

RF SPECIFICATIONS

RF Interface

- 50 Ohms

FM Receive Sensitivity

- -113 dBm @ 12 dB SINAD (-115 dBm typical)

Receive Spurious

- > 58 dB

Output RF Power

- 50 Watts from 30 to 88 MHz
- 20 Watts from 88 to 512 MHz

Harmonic Suppression

- > 55 dBc

Spurious Suppression

- > 80 dBc

Transmit Duty Cycle

- 100% 50 W transmit both channels at 60°C

Co-site

- Full performance at > 6% frequency with 1.5M antenna separation (30-88 MHz)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature

- -31°C to +60°C

Shock/Vibration

- MIL-STD-810F

Sand/Dust

- MIL-STD-810F

Humidity

- MIL-STD-810F

Ballistic Shock

- MIL-S-901

EMI Compliance

- EMI/EMC: MIL-STD-461C

TEMPEST Compliance

- NSTISSAM TEMPEST/1-92, level II
- NACSEM 5112

Salt Fog

- MIL-STD-810F

Altitude

- 30,000 ft, MIL-STD-810F

Blowing Rain

- MIL-STD-810F

Near Strike Lightning

- MIL-STD-464

ACCESSORIES

A complete line of accessories to support the installed radios and Vehicle Adapters

SYSTEM COMPONENTS

Other AN/PRC-148 System Components

- Vehicle Adapter (20 W and 50 W versions)
- Tactical Repeater
- Base Station (20 W and 50 W versions)
- Man Portable System
- AN/VRC-111 20 W Vehicle Adapter Amplifier

Thales Communications, Inc.

22605 Gateway Center Drive | Clarksburg, MD 20871
Toll-Free: 1.800.258.4420 | Phone: 240.864.7000 | Fax: 240.864.7920
E-mail: Solutions@thalescomminc.com | Website: www.thalescomminc.com

