



modular rf

MODEL AR-50RCS 50 WATTS CW 30 - 90 MHz, Multi-Band

The Model AR-50RCS is a portable, lightweight, fully automatic band-switching RF booster amplifier for multi-band VHF Tactical Radio equipment employing legacy, proprietary and emerging waveforms. The amplifier which is a sub-banded version of our JITC certified AR-50 multi-band product covers the frequency band of 30-90 MHz using high speed auto switching filters to assure harmonic suppression and is SINCGARS compatible. The amplifier includes power supply Voltage Spike Suppression, a DC/DC convertor for wide DC input range, RF sensing, T/R switching, Automatic Level Control (ALC), three automatically switched harmonic filter bands (DAMA capable), and protection against antenna mismatch and over-temperature. Protection against accidental polarity reversal is provided. The amplifier comprises a rugged 3-piece aluminum case. Optional interface coaxial cables and shock mounting plate are available.

- Radio Vendor independent design, single and multi-band radio compatible with just an RF connection
- 50W CW across the entire 30 – 90 MHz band
- Remote Control Power Level
- Separate Rx Out port
- **Same internal AR-50 JITC Certified amplifier board (AN/PSC-5D & AN/PRC-117G)**
- Three year Warranty from a company with 40+ years in the business



GENERAL SPECIFICATIONS

FREQUENCY RANGE	30 – 90 MHz
POWER OUTPUT	50 Watts CW nominal; 50W PEP with 70% AM modulation; <10% distortion typical
INPUT POWER RANGE CW :	<5 Watts CW typical for 50 Watts Output; Input Protection for up to 20W CW
INPUT POWER RANGE AM :	1.5 Watt average (3 - 5W PEP) for 50W PEP output at 70% modulation
RF KEYING SENSITIVITY	<1 Watt typical
T/R & FILTER SWITCHOVER TIME	SINCGARS, legacy and modern modulations capable
INSERTION LOSS BYPASS MODE	1.0 dB typical
INSERTION LOSS ACTIVE RX	1.5 dB nominal
MODULATION	AM, FM, or PM, and Tactical communications waveforms
DUTY CYCLE	Tactical operations
INPUT/OUTPUT IMPEDANCE	50 Ohm nominal
INPUT VSWR	1.5:1 nominal
HARMONICS	Better than -60 dBc typical. FULL high speed filter switching avoids interference in SINCGARS
SPURIOUS OUTPUTS	Better than -70 dBc
POWER REQUIREMENT	12 - 35.5 VDC filtered and transient protected for 12 or 24 volt vehicle systems or dual XX90 batteries
CURRENT@50W OUTPUT	<7.5 Amps @ 24V typical

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE	-30 to +60 °C Ambient
ALTITUDE (operating)	15,000 ft
IMMERSION (water)	IP67
VIBRATION / SHOCK / HUMIDITY / ENVIRO	Designed to meet applicable sections of Mil Std 810F/Designed for ground/base vehicle use

MECHANICAL SPECIFICATIONS

SIZE (HxWxD)	2.50" x 6.00" x 7.50"
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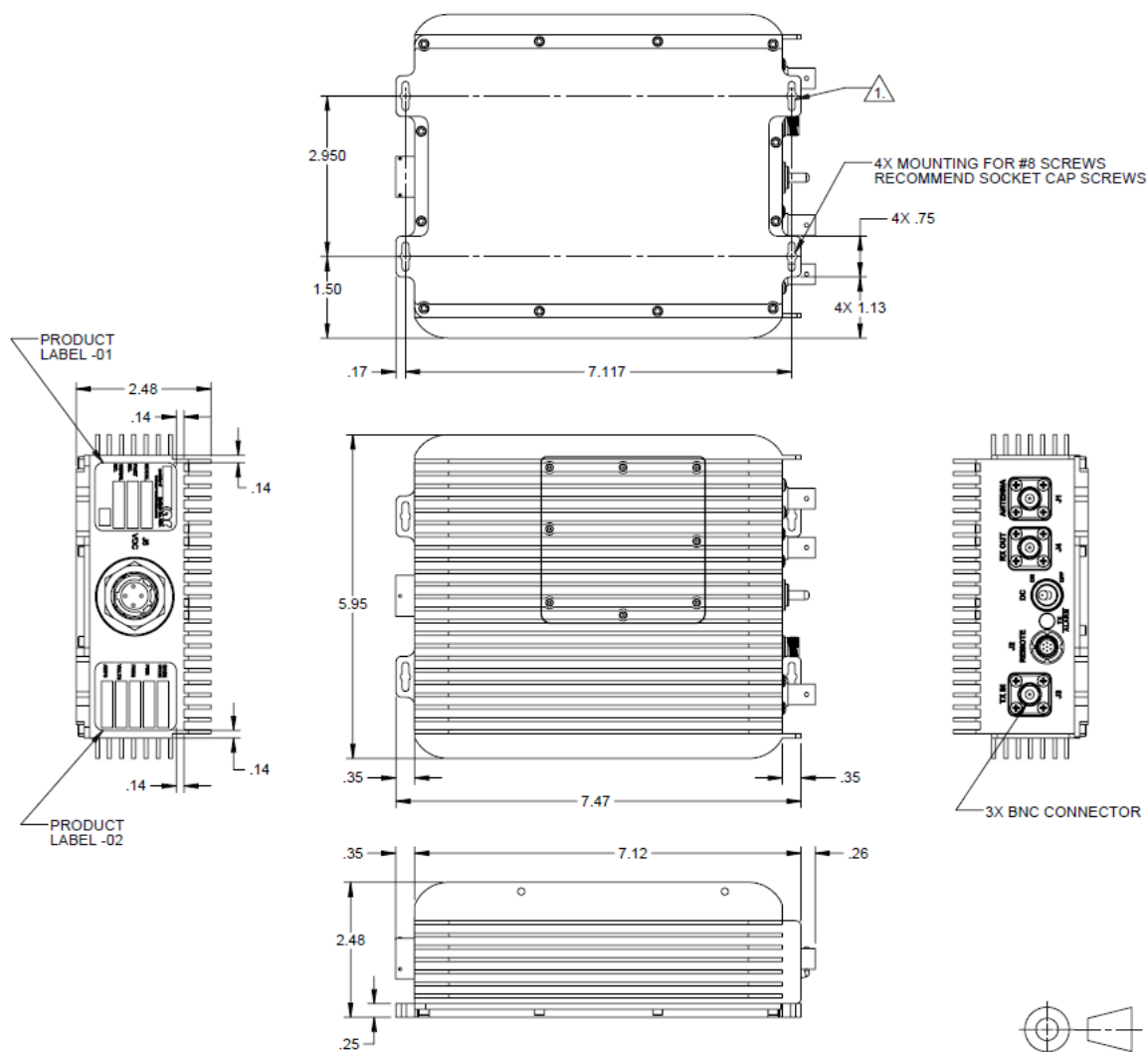


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WEIGHT	4.4 lb
COOLING	Natural convection required
RF CONNECTORS	TX IN – BNC Female RX OUT – BNC Female ANTENNA – BNC Female
DC CONNECTOR	Multi-pin connector (Mating Connector Supplied)
REMOTE CONTROL CONNECTOR	Glenair 801-012-07Z16-7CA (Mating Connector Supplied)
CONSTRUCTION	Aluminum housing with integral heatsink

OPTIONAL EQUIPMENT

BC1050	DUAL BATTERY CABLE
SMK-50	SHOCK MOUNT KIT



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