

AR-50RC

25/50 Watts CW, 30-512 MHz, Multiband, Automatic Band-Switching/LNA with Co-Site Filter

RF Amplifiers



The Model AR-50RC is a portable, lightweight, fully automatic band-switching RF booster amplifier for multiband VHF/UHF Tactical Radio equipment employing legacy, proprietary and emerging waveforms. The amplifier covers the frequency band of 30-512 MHz using six high speed auto switching filters to assure harmonic suppression and is SINCGARS, HAVEQUICK, and ECCM compatible. The amplifier includes power supply Voltage Spike Suppression, a DC/DC converter for wide DC input range, RF sensing, T/R switching, Automatic Level Control (ALC), six 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 2-piece aluminium case. Optional interface coaxial cables and shock mounting plate are available.

- Radio Vendor independent design, single and multiband radio compatible with just an RF connection
- 25 W CW across the entire 30-512 MHz band; no filter gap and 50 W at SATCOM band.
- Full band high-speed filter switching for SINCGARS, HAVEQUICK and ECCM modes to assure interference free operation
- Remote Control Connector
- Separate LOS and SATCOM antenna ports
- Internal LNA with Co-site filtering
- Same internal AR-50 JITC Certified amplifier board (AN/PSC-5D and AN/PRC-117G)
- Three year Warranty from a company with 40+ years in the business



Specifications

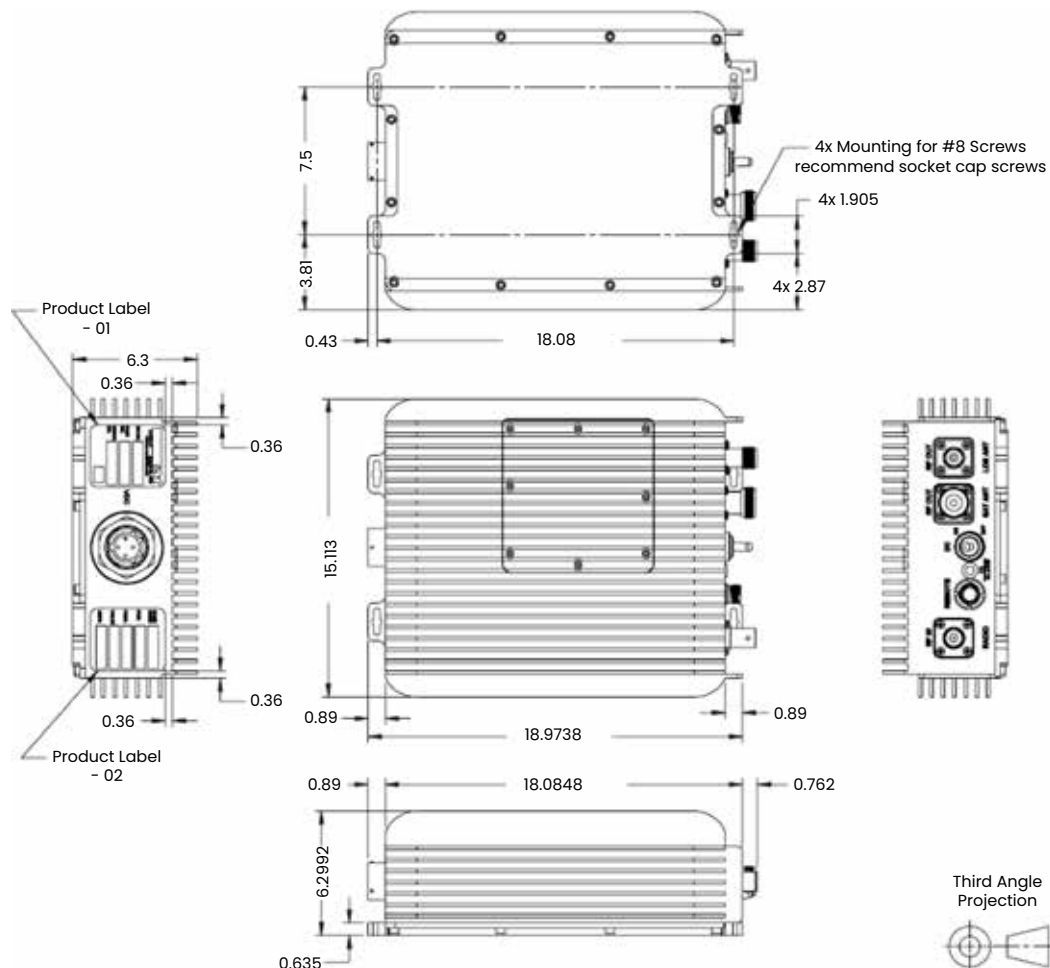
Frequency Range	30-512 MHz
Power Output	LOS: 25 Watts CW nominal; 25 W PEP with 70% AM modulation; < 10% distortion typical SATCOM (290-320 MHz): 50 Watts
Input Power Range CW	< 5 Watts CW typical for 25 W LOS and 50 W SATCOM Output; Input Protection for up to 20 W CW
Input Power Range AM	LOS: 1.5 Watts average (3-5 W PEP) for 25 W PEP output at 70% modulation SATCOM: 1.5 Watts average (3-5 W PEP) for 50 W PEP output at 70% modulation
RF Keying Sensitivity	< 1 Watt typical
T/R & Filter Switchover Time	SINCGARS, HAVEQUICK, HPW, IW, ANW2 and DAMA 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 Ω nominal
Input VSWR	1.5:1 nominal
Harmonics	Better than - 60 dBc typical. FULL high speed filter switching avoids interference in SINCGARS, HAVEQUICK, and ECCM Modes - No filter gaps
Spurious Outputs	Better than - 70 dBc
Rx LNA Gain	12 dB typical
Rx LNA Noise Figure	2 dB typical
Rx Co-Site Filter	Band pass frequency 239-273 MHz, Out of band rejection 35 dB typical
Power Requirement	12-35.5 VDC filtered and transient protected for 12 or 24 volt vehicle systems or dual XX90 batteries
Current at 50 W Output	< 7.5 Amps @ 24 V typical

Environmental Specifications

Operating Temperature	- 30°C 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)	6.35 x 15.24 x 19.05 cm
Weight	2 kg
Cooling	Natural convection required
RF Connectors	RF Input (Radio) - BNC female* RF Output (LOS) - TNC female* RF Output (SATCOM) - N-Type* *RF connectors may be ordered in any configuration of BNC, TNC or N-type
DC Connector	Multi-pin connector (Mating Connector Supplied)
Remote Control Connector	Glenair 801-012-07Z16-7CA (Mating Connector NOT Supplied)
Construction	Aluminium housing with integral heatsink
Optional Equipment	
BC1050	Dual Battery Cable
SMK-50	Shock Mount Kit



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All specifications are subject to change without notice
The information contained herein is for reference only and does not constitute a warranty of performance

Partnered Supplier



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