



MODEL AR-35
35 WATTS CW
35 WATTS PEP
30 MHz - 512 MHz, Multi-Band
Automatic Band-Switching
GSA Schedule Contract GS-07F-472AA

The Model AR-35 is a portable, lightweight, waterproof, fully automatic band-switching RF booster amplifier for multi-band 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, and HAVEQUICK compatible. The amplifier includes Voltage Spike Suppression, RF sensing, T/R switching, Automatic Level Control (ALC), six automatically switched harmonic filter bands (DAMA/IW capable), and protection against antenna mismatch and over-temperature. Protection against accidental polarity reversal is also provided. Low current on standby due to "sleep mode" greatly extends battery life in field use. The amplifier comprises a rugged submersible 2-piece aluminum case.

- Radio Vendor independent design. Single and multi-band radio compatible with just an RF connection
- 35W CW across the entire 30–512 MHz band
- Low RF input power for full 35W CW output
- Super low "sleep mode" standby Rx power drain
- High speed filter switching in SINCGARS and HAVEQUICK modes to assure interference free operation
- DAMA/IW capable
- Battery and Vehicle power compatible, 12 and 24 volt systems. Filtered and DC transient protected
- Waterproof (Submersible)
- 3 year Warranty from a company with 40+ years in the business



GENERAL SPECIFICATIONS

FREQUENCY RANGE	30 MHz – 512 MHz
POWER OUTPUT	35 Watts CW nominal, 35W PEP with 70% AM modulation
INPUT POWER RANGE CW :1-5 WATTS	3.5W typical for 35 Watts CW Output
INPUT POWER RANGE AM :1-3 WATTS PEP	3W PEP typical for 35W PEP Output
RF KEYING SENSITIVITY	<1 Watt CW nominal
T/R & FILTER SWITCHOVER TIME	SINCGARS, HAVEQUICK, HPW, IW, and DAMA compatible
INSERTION LOSS BYPASS MODE	1.0 dB or better
INSERTION LOSS ACTIVE RX MODE	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	-60 dBc typical FULL high speed filter switching avoids interference in SINCGARS and HAVEQUICK hopping modes.
SPURIOUS OUTPUTS	Better than -70 dBc
POWER REQUIREMENT	13.8 VDC - 33 VDC, from two BAXX90 Batteries or 12 and 24 VDC vehicle systems, filtered and transient protected
CURRENT	5.50 Amps nominal



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ENVIRONMENTAL SPECIFICATIONS

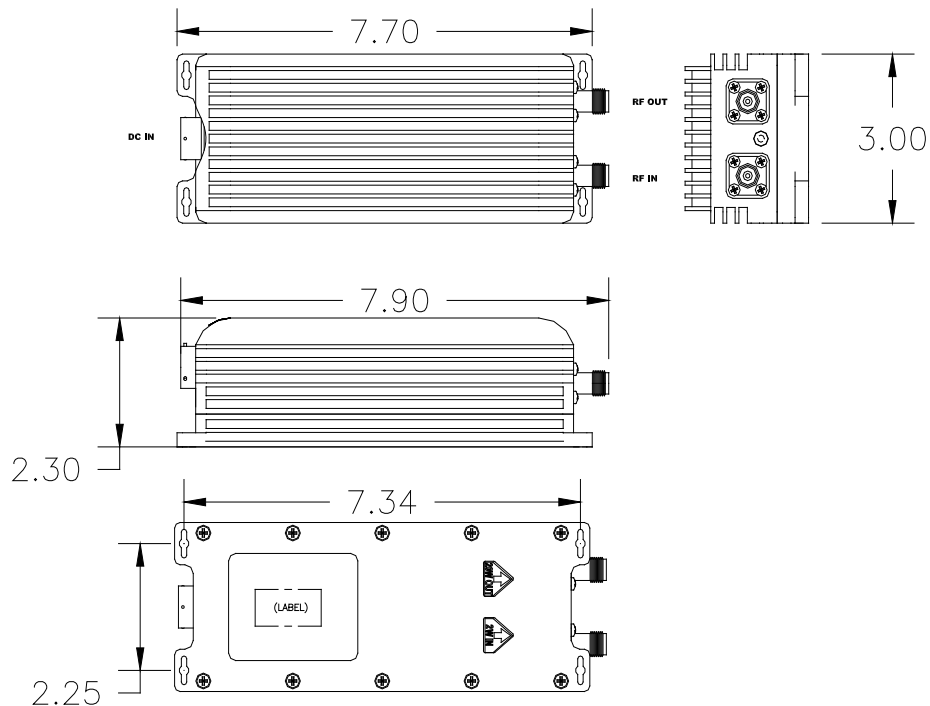
OPERATING TEMPERATURE	-30 to +60 °C
ALTITUDE (operating)	15,000 ft
IMMERSION (water)	66 ft for 20 min
VIBRATION / SHOCK / HUMIDITY/ENVIRO	Designed to meet applicable sections of Mil Std 810F/Hand portable

MECHANICAL SPECIFICATIONS

SIZE (HxWxD)	2.30" x 3.00" x 7.70"
WEIGHT	2 lb
COOLING	Natural convection required
RF CONNECTORS	TNC female
DC CONNECTOR	Multi-pin connector (Mating Connector Supplied)
CONSTRUCTION	Aluminum housing with integral heatsink

OPTIONAL EQUIPMENT

BC1030	Battery Cable (22" cable connecting KMW1031 Series to two XX90 or similar batteries)
VC1030	Vehicle Power Cable (120" cable with NATO slave plug for vehicle use)
RC1031	Radio Cable (36" TNC Male to TNC Male)
AC1031	Antenna Cable (36" TNC Male to TNC Female)



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