



PRELIMINARY

MODEL AR-75
75 WATTS
30 MHz - 512 MHz, Multi-Band
Automatic Band-Switching/LNA with Co-Site Filter

The Model AR-75 is a portable, lightweight, 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 automatically switched filters to assure low harmonic distortion levels and is SINCGARS, HAVE QUICK and ECCM compatible. The AR-75 is designed for operation from 18 to 32 Volts. The amplifier includes Voltage Spike Suppression for vehicle applications, RF sensing, T/R switching, Automatic Level Control (ALC), six automatically switched harmonic filter bands, and protection against antenna mismatch and over-temperature. Protection against accidental polarity reversal is provided. Optional cables and vehicle shock mounting kit are available.

- Radio Vendor independent design, single and multi-band radio compatible with just an RF connection
- Full 75W across the entire 30 – 512 MHz band
- Low input power for full 75W output
- Three selectable output power positions
- Selectable LNA with more than 45dBc co-site signal suppression on SATCOM Rx band
- Complete independent system, with optional Remote control capability.
- High speed filter switching in SINCGARS, HAVE QUICK and ECCM modes to assure compatible interference free operation
- 24 volt system, filtered and transient protected (MIL-STD 1275).
- DAMA capable
- Waterproof
- Compatible with 1-5 Watt and 10 -20 Watt tactical radios
- 3 year Warranty from a company with 30+ years in the business.



GENERAL SPECIFICATIONS

FREQUENCY RANGE	30 MHz – 512 MHz
POWER OUTPUT	75 Watts across full band 30 MHz – 512 MHz (Three selectable output power positions 35/50/75 Watts)
INPUT POWER	1-20 Watts typical
RF KEYING SENSITIVITY	<1 Watt typical
T/R & FILTER SWITCHOVER	SINCGARS, HAVE QUICK, and DAMA compatible
LNA GAIN	9dB Typical
CO-SITE FILTER	45dBc typical (Stopband Rejection)
INSERTION LOSS	1.5 dB typical
MODULATION	AM/FM/PM, HAVE QUICK, SINCGARS and other JTRS waveforms
DUTY CYCLE	Tactical operations
INPUT/OUTPUT IMPEDANCE	50 Ohm nominal
INPUT VSWR	1.5:1 typical
HARMONICS	-60 dBc typical
SPURIOUS OUTPUTS	-70 dBc maximum
POWER REQUIREMENT	18 – 32 Vdc @ 12 Amps typical



modular rf

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE	-20 to + 90 °C (case temp)
ALTITUDE (operating)	10,000 ft
ENVIRONMENTAL	Designed for ground / base vehicle use
VIBRATION / SHOCK / HUMIDITY	Per Mil Std 810E

MECHANICAL SPECIFICATIONS

SIZE (LxWxH)	11.7" x 6.5" x 4"
WEIGHT	~9 lbs
COOLING	Natural convection required
RF CONNECTORS	TNC or BNC female (customer to specify)
DC & CONTROL CONNECTOR	Multi-pin connector (Mating Connector Supplied)
CONSTRUCTION	Sealed waterproof aluminum housing with integral heatsink/splash proof

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