



**PRELIMINARY MODEL AR-55L**  
**50 WATTS PEP**  
**1.2 to 1.9GHz**

The Model AR-55L is a portable, RF booster amplifier Tactical Radio equipment employing legacy, proprietary and emerging waveforms. The amplifiers cover the frequency band of 1.2 to 1.9GHz with high speed auto switching TR detection circuits and a low pass output filter to assure good harmonic suppression. The unit is designed for use with modern networking formats like ANW2, WNW and SRW. The amplifiers include 24V vehicle power supply Voltage Spike and noise Suppression DC line filter, RF sensing, T/R switching, Automatic Level Control (ALC), and protection against antenna mismatch and over-temperature. Protection against accidental polarity reversal is provided. The amplifiers are comprised of rugged 2-piece aluminum case. Optional interface coaxial cables and shock mounting plate are available.

- Radio Vendor independent design, with just an RF connection
- 50W PEP across the entire band;
- Switchable Internal LNA with Co-site filtering to protect against co-site VHF/UHF transmitters
- Three year Warranty from a company with 40+ years in the business

**GENERAL SPECIFICATIONS**

FREQUENCY RANGE	1200 to 1900 MHz
POWER OUTPUT PEP	50 Watts PEP
INPUT POWER RANGE PEP	2 – 5 W PEP
RF KEYING SENSITIVITY	<1 Watt PEP typical
T/R SWITCHOVER TIME	<10 μS
INSERTION LOSS BYPASS MODE	2 dB typical
INSERTION LOSS ACTIVE RX	3 dB nominal
MODULATION	modern complex tactical communications waveforms like ANW2
DUTY CYCLE	Tactical operations 100 % for ANW2 networking modulations
INPUT/OUTPUT IMPEDANCE	50 Ohm nominal
INPUT VSWR	1.5:1 nominal
HARMONICS	Better than -60 dBc typical.
SPURIOUS OUTPUTS	Better than -70 dBc
Rx LNA GAIN	12 dB typical
Rx LNA NOISE FIGURE	<3.5 dB typical
Rx CO-SITE FILTER	High pass Filter, Out of band rejection 40 dB typical
POWER REQUIREMENT	24 Vehicle VDC filtered and transient protected for 24 volt vehicle systems or dual XX90 batteries
CURRENT	7 Amps @ 28V 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)	2.5" x 6.0" x 7.5"
WEIGHT	6 lb
COOLING	Natural convection required
GROUNDING STUD	On rear panel
RF CONNECTORS	RF Input( Radio) – TNC or N-type female* RF Output(antenna) – TNC or N-type female* <i>*RF connectors may be ordered in any configuration of TNC or N-type per customer's request</i>
DC CONNECTOR	Multi-pin connector (Mating Connector Supplied)
CONSTRUCTION	Aluminum housing with integral heatsink



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