

## AR-50SE

50 Watts PEP, 30-88MHz, Tx/Rx Booster Amplifier  
RF Amplifiers



### Automatic Band-Switching

The Model AR-50SE is a fully automatic band-switching RF booster amplifier for multi-band Tactical Radio equipment employing legacy, proprietary and emerging waveforms. The amplifier which is a sub-banded version of our J1TC certified AR-50 multi-band product covers the frequency band of 30 - 88 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, and protection against antenna mismatch and over-temperature. Protection against accidental polarity reversal is provided. The amplifier comprises a rugged 3-piece aluminium case.

- 50 W across the entire 30 - 88 MHz band
- Full band high-speed filter switching for to assure interference free operation
- DC ON/OFF switch
- Three year Warranty from a company with 40+ years in the business

### Specifications

<b>Frequency Range</b>	30 - 88 MHz
<b>Power Output</b>	50 Watts CW nominal; 50 W PEP with 80% AM modulation; < 10% distortion typical
<b>Input Power Range CW: 1-20 W</b>	< 5 Watts CW typical for 50 Watts Output; Input Protection for up to 20 W CW
<b>Input Power Range AM</b>	1.5 Watt average (3 - 5 W PEP) for 50 W PEP output at 80% modulation
<b>RF Keying Sensitivity</b>	<1 Watt typical
<b>T/R &amp; Filter Switchover Time</b>	SINCGARS, legacy and modern modulations capable
<b>Insertion Loss Bypass Mode</b>	1.0 dB typical
<b>Insertion Loss Active Rx</b>	1.5 dB nominal
<b>Modulation</b>	AM, FM, or PM, and Tactical communications waveforms
<b>Duty Cycle</b>	Tactical operations
<b>Input/Output Impedance</b>	50 $\Omega$ nominal
<b>Input VSWR</b>	1.5:1 nominal
<b>Harmonics</b>	Better than - 60 dBc typical. FULL high speed filter switching avoids interference in SINCGARS
<b>Spurious Outputs</b>	Better than - 70 dBc
<b>Power Requirement</b>	12 - 33 VDC MIL-STD-461E and 1275
<b>Current</b>	< 7.5 Amps @ 24 V typical

### Environmental Specifications

<b>Operating Temperature</b>	- 40°C to + 55°C
<b>Altitude (Operating)</b>	30,000 ft
<b>Immersion (Water)</b>	IP67
<b>Vibration / Shock / Humidity / Enviro</b>	Designed to meet applicable sections of Mil Std 810F/ designed for ground/base vehicle use

### Mechanical Specifications

<b>Size (HxWxD)</b>	6.35 x 16.51 x 25.22 cm
<b>Weight</b>	3.63 kg
<b>Cooling</b>	Natural convection required
<b>RF Connectors</b>	RF Input (Radio): TNC Female RF Output (LOS): N-Type Female
<b>DC Connector</b>	Multi-pin connector (Mating Connector Supplied)
<b>Construction</b>	Aluminium housing with integral heatsink
<b>Ground Stud</b>	Ground stud on front panel

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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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