

50 Watt Multi-Band Amplifier

The **MB50 Amplifier** is the newest, state-of-the-art amplifier from the professionals at TSE, Inc. The MB50 incorporates many improvements over our legendary RAMP-25 amplifier:

High Performance – 20-50 watts output depending on power source and 11db of receive gain across the entire 30-512 MHz range.

Power Output – Operates on a single BA-x90 battery, dashboard power or any 12-30 volt DC power source. Optional dual-battery power cable provides 50 watts power output.

Waveforms – Capable of SINCGARS, HaveQuick, HPW and DAMA (JITC Certified).

Ruggedness – Integrated handles protect connectors and operator controls.

Dual Antenna Ports – Easily toggles between LOS and SATCOM antennas.

Nested BNC Connector – Attach a standard blade, long-whip or ‘Thick UHF’ antenna directly to the amplifier.

Form Factor – Optimized to fit in the pocket of a typical rucksack.

For more information, contact sales@tserecon.com



Features

- Easily handles large data transmissions
- User selectable Low Noise Amplifier
- Lightens operator load when compared to large radios vs. small radio/amplifier combo
- Designed for use with PRC-148 and PRC-152 or any multi-band radio capable of 30-512 MHz
- 50 watts out of the rucksack with dual-battery cable (optional)
- Advanced filtering minimizes SATCOM co-site interference
- Blade and Long-Whip antennas available
- Small footprint shock mount available



Available on GSA Schedule **GS-35F-0039T**



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Transmit

LOS Mode

- Frequency range: 30-512MHz with automatic frequency detection
- Modulation format: AM/FM/MPSK 5 or 25 KHz bandwidth, SINCGARS FH
- RF power input: 2-20 CW/PEP
- Max. RF power input: 20 watts CW/PEP
- Harmonics: -60 dBc
- Transmit duty cycle: 4:1 RCV to TX

SATCOM Mode

- Frequency range: 292-318 MHz With Automatic Frequency Detection
- Modulation format: FM/Multi-Phase 5 or 25 KHz bandwidth
- Co-site suppression: 30 dB
- Switching speed: DAMA compliant
- RF power input: 2-20 watts CW/PEP
- Max RF power input: 20 watts CW/PEP
- Harmonics: -60 dBc
- Transmit duty cycle: 4:1 RCV to TX



**See
component
list below**

Receive

LOS Mode

- Frequency range: 30-512 MHz
- Insertion loss: 1.5 dB Typical

SATCOM Mode

- Frequency range: 242-268 MHz
- Noise figure: 3.5 dB Typical
- Receive gain: 10 dB Typical

General

- Power Output: 5590 – 18 watts* / car cord – 24 watts* / 24-30 volts DC – 50 watts*
- Power Switch: Five position, 10-50 Watts in 2 dB increments, certified for updated MIL-STD-188-181C
- Mode Switch: User selectable between LOS, SATCOM, SATCOM w/LNA, and Frequency Hop modes
- Power source: 12-30 VDC
- Power consumption TX: 4.3 A max – BA5590 / 5.1 A max – cigarette cable / 5.7 A max – 28 VDC cable
- Power consumption RCV: SAT 175 mA, LOS 100 mA
- Radio connector: Nested BNC female (same configuration as found on PRC-112, PRC-117F, PSC-5 series)
- SATCOM antenna: Type N female
- LOS connector: Nested BNC female (PSC-5 Style)
- Input / output VSWR: 1.5:1 Typical
- VSWR mismatch: High VSWR Indicator, No damage due to mismatch
- High temperature: Power fold-back protection and indicator
- DC off RF bypass: Routes RF input to LOS Port
- Operating temperature: -20 C to +60 C
- Cooling: Natural Convection
- Dimensions: 5"W x 2.5 "H x 8" D
- Weight: 4 LBs

For more information, contact:

sales@tserecon.com

910.425.3360

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* Note: RF output figures are average across the 30-512 MHz frequency spectrum. Power output may exceed 50 watts or drop to 18 watts, depending on DC input power and actual frequency.

Components

- TSE-AMP-25-5590: BA5590 Power Cable (12 VDC)
- TSE-AMP-25-FL: Flying Lead Cable
- TSE-AMP-25-CIG: Dashboard Power Cable
- TSE-AMP-ANT: Antenna Cable

Optional:

- TSE-MB50-ANT: Blade Antenna, 30-88 MHz, High-Power
- TSE-19V-25-DC: AC Power Adapter
- TSE-AMP-25-5590-2 Dual BA5590 Power Cable (24 VDC)
- TSE-RM-5: Shock Mount & Adapter