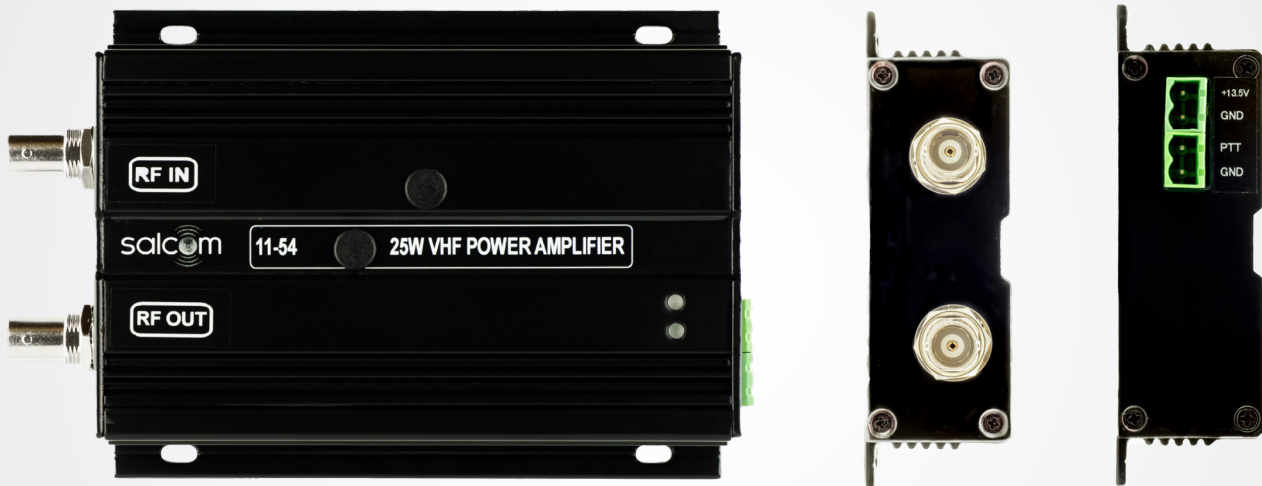


## Product Sheet

# Power Amplifier – VHF

## 11-54 Series

Designed to extend the reach and coverage of paging and telemetry networks, the 11-54 VHF power amplifier delivers 25W of output power, all from a 3W input.



Product code  
11-54-0000

### Key Features

- » Operates over frequency range of 138-162MHz
- » Delivers 25W of output power from a 3W input
- » Providing a  $\pm 5$ MHz bandwidth, ensures a minimum output of 20 Watts.
- » Operates satisfactorily down to 400mW
- » A 2dB 50 $\Omega$  input matching pad allows for connection to a wide range of driving devices
- » Will pass a receive signal with less than 1dB attenuation.
- » 3 stage aerial filter attenuates all spurious emissions to less than -30dBm.
- » Protected against accidental power connection reversal.

### Operation

The 11-54 power amplifier operates over the frequency range 138-162MHz and with 4-5 watts input it will deliver 25 Watts. It has a switching bandwidth of  $\pm 5$ MHz with 20 Watts minimum output. Field tuning to specific frequencies is possible using a tuning tool through access holes in the case.

The power sensor operates with a minimum of 3 watts input and switches both the power and aerial relays to reduce standby current. The 11-54 will operate satisfactorily with down to 400mW drive with the PTT connection grounded to constantly enable transmit mode.

A 2dB, 50 $\Omega$  input matching pad allows for connection to a wide range of driving devices without the risk of instability caused by mismatching. In the receive mode it will pass a receive signal with less than 1dB attenuation. The 3-stage filter attenuates spurious emissions to less than -30dBm.

The 11-54 is protected against accidental power connection reversal.

## Technical Specification

### Power Amplifier - VHF 11-54-0000 - 25-Watt

Frequency Range	138-162MHz-VHF
Frequency Selection	Externally field tunable or Factory Preset option
Power Supply	+13.8V typical (11 to 15 VDC range)
Power Consumption	Standby: 4mA Normal Operation: 4A Maximum: 5A @ 25W output
Transmit Power	25 Watts @ 5W input
Transmit Duty Cycle	50% at 25 Watts
Power Input	PA Receiver Switching = 3W min PA Only = 0.4W min for 10W output typical
Switching Bandwidth	PA Receiver Switching = $\pm 5$ MHz, 20W min with 4W input PA Only = $\pm 5$ MHz, 20W min with 4W input
Transmit Enable	PA Receiver Switching = Power sense circuit operates relay PA Only = Ground PTT, 3mA source
Connectors	PTT: 2-way pluggable terminal block (supplied) Power: 2-way Pluggable terminal block (supplied)
Power Connector	2-way pluggable terminal block (supplied)
RF Connector	50 $\Omega$ BNC (both Input and Output)
Environmental Protection	Not suitable for outdoor use and should be protected from adverse environmental conditions
Operating Temperature	-10°C to +60°C (+14°F to +140°F)
Indicators	Power LED (Green) <ul style="list-style-type: none"><li>• Solid On = Normal Operation</li></ul> Status LED (Red) <ul style="list-style-type: none"><li>• Off = Receive mode</li><li>• On = Transmit mode</li></ul>
Weight	400g
Enclosure Dimensions	100mm x 130mm x 30mm (W x D x H)
Enclosure Material	Extruded aluminum
Colour	Matte Black
Type Approvals	AS 4295: 1995

NB: All specifications and applications are indicative only and subject to change without prior notification.