



# AMP-1520/2

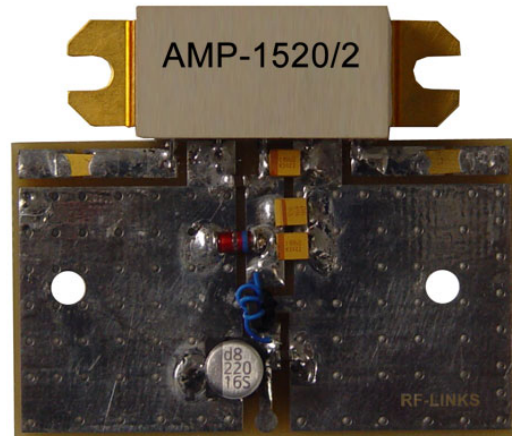
## ULTRA LINEAR DRIVER UHF AMPLIFIER BOARD 1.5-2.2 GHz 2.5W

The AMP-1520/2 is a discrete hybrid linear power amplifier design, which uses thick film solder manufacturing processes for accurate performance and high reliability.

This 2 stage GaAs FET transistor design uses feedback loops for flat broadband linear performance, with very low noise figure. The model is particularly suited for power driver applications used in the base station & repeater infrastructure, and for commercial & military radios.

### Features

- LOW NOISE FIGURE: 2.3 dB (TYP.)
- GAIN: 21.3 dB (TYP.)
- HIGH P1dB: +33.5 dBm (TYP.)
- HIGH IP3: +49 dBm (TYP.)
- BROADBAND RESPONSE: 1.5 GHz TO 2.2 GHz (TYP.)



### Electrical Specifications: $Z_0 = 50 \Omega$ , $V_{CC} = +12 V_{DC}$

Parameter	Units	Typical	Guaranteed
		25°C	0°C to +85°C
Frequency	MHz	1800-2000	1800-2000
Small Signal Gain (min)	dB	21.3	19.0
Gain Flatness (max)	dB	+ 0.25	+ 0.5
Noise Figure (max)	dB	2.3	3.0
Reverse Isolation	dB	37.0	
Power Output @ 1.0 dB Comp. (min.)	dBm	+33.5	+32.0
Output IP <sub>3</sub>	dBm	+49.0	+46.0
VSWR Input / Output (max.)		1.6:1 / 1.8:1	2.0:1 / 2.0:1
DC Current @ +12 Volts (max.)	mA	495	510

### Absolute Maximum Ratings

Parameter	Absolute Maximum
Storage Temperature	-40°C to +85°C
Operation Base Temperature	+85°C
Max. DC Voltage	+15 Vdc
Max. Continuous RF Input Power	+15 dBm

### Thermal Data: $V_{CC} = +12 V_{DC}$

Parameter	Rating
Thermal Resistance $\theta_{jc}$	22°C/W
Junction Temperature Rise Above Case $T_{jc}$	51°C

## Typical Performance Curves at +25°C

