



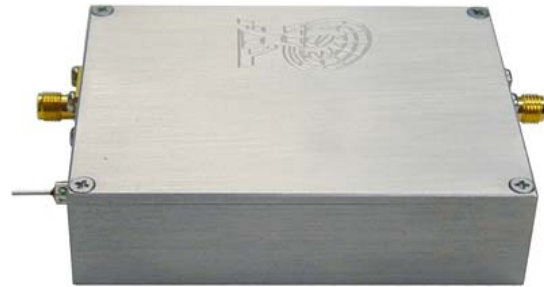
AMP-1520/2BX

ULTRA LINEAR DRIVER UHF

AMPLIFIER BOARD 1.5-2.2 GHz 2.5W

The AMP-1520/2BX 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. DC voltage 14V, driving 35 mW.



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 ₃	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 14 V (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 θ_{jc}	22°C/W
Junction Temperature Rise Above Case T_{jc}	51°C

Typical Performance Curves at +25°C

