



The SPA series power amplifiers are a ruggedized and compact solution for providing up to 20W linear power in a single band of operation.



Its optimized design provides minimum size, weight and power consumption enabling deployment in virtually all platforms. The power amplifier covers one of the UHF, L/S, C, and Ku bands in a single, compact, lightweight, environmentally sealed package.

KEY FEATURES:

- Linear Amplification in UHF, L/S, C or Ku-Bands
- Low Cost, Size, Weight and Power (SWaP)
- Ruggedized and Compact
- RS-485 Monitoring and Control
- Vortex® and Rover® Compatible
- High Linearity Compatible with Virtually All Modulation Forms
- Qualified on Multiple Programs
- Deployed on Numerous Platforms

SPA Series Power Amplifier

The SPA series provides linear amplification in one of the UHF, L/S, C or Ku frequency bands. The RS-485 digital control interface allows for dynamic configuration in operation, as well as output power control. This provides for increased versatility by supporting maximum transmit power for FSK and FM modulated carriers as well as linear operation for QPSK & OQPSK signals without detrimental spectral regrowth.



SINGLE BAND POWER AMPLIFIER PERFORMANCE SPECIFICATIONS

Specification	Frequency Band			
	UHF	L/S	C	Ku
Frequency Range	400-470 MHz	1710-1850 MHz & 2200-2500 MHz	4400-5000 MHz & 5250-5850 MHz	14.5-15.35 GHz
RF Output Power (P_{1dB})	20 W minimum	20 W minimum	15 W minimum	8 W minimum
RF Input Power	-5 to +10 dBm			
Maximum RF Input	+15 dBm			
VSWR (Input and Output)	2.0:1 maximum			
Spurious and Harmonic EMI	IAW MIL-STD-461E			
RF Output Protection	Will operate into any load at any phase angle.			
DC Input Power	+28 \pm 4VDC @ 7.5A Max (Reverse polarity protected)			
Size and Weight	4 x 6 x 1", 2.5 pounds maximum			
RF Connectors	2x SMA			
Operating Temperature	-20 to +70°C baseplate			
Power and Control	Fischer 102 (DC Power) & Fischer 1031 (RS-485 & Discrete)			
Environmental	IAW MIL-STD-810F			



SPA Power Amplifier



Ramona Research also supplies a variety of Single and Quad Band Power Amplifiers