



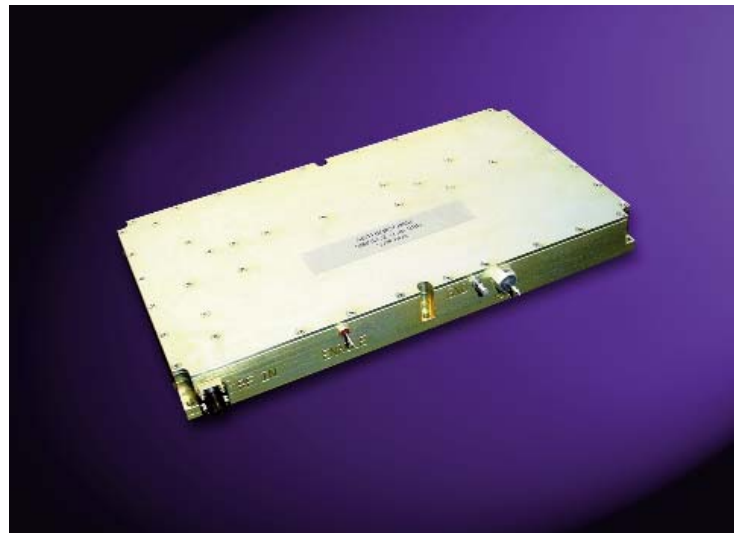
High Power, Broadband, L Band Solid State RF Amplifier

Aethercomm P/N SSPA 1.2-1.4-250 is a high power pulsed L band solid-state power amplifier that operates over the 1200 to 1400 MHz band. This unit was designed to support military L band radars. The peak RF power is 250 watts typical. Power flatness across the entire band is +/-1.0 dB typical. Typical saturated gain is 43 dB. Input VSWR is 2.0:1 maximum. Output VSWR is 2.0:1 maximum. Noise Figure is 7 dB typical. Harmonics are -30dBc maximum. This module offers an external PA turn-on and turn-off command that enables and disables the PA in 1000 nSecs maximum. RF pulse rise and fall times are 50nSec maximum. This model operates from 36.0 Vdc power supply with a quiescent current of 2.5 amps typical class AB biased. Average current at rated output power is 3.0 amps typical at a 10% duty cycle. This RF module is approximately 5.0 by 9.0 by 1.0. The input and output RF connectors are SMA female. Mounting is accomplished via through holes in the housing. This RF module operates from a base plate temperature

Typical Performance from 1215 to 1400 MHz @ 25C

Parameter	Min	Typ	Max
Peak Output Power (dBm)	53.0	54.0	55.0
Saturated Gain (dB)	40	43	-
Saturated Gain Variation Over Frequency (dB)	+/-0.50	+/-1.0	-
Noise Figure (dB)	5.0	7.0	10.0
Input Return Loss (dB)	-30.0	-15.0	-9.8
Output Return Loss (dB)	-30.0	-15.0	-9.8
Harmonics (dBc)	-	-40	-30
Pulse Width (uSec)	-	250	1000
36 Vdc Quiescent Current (Amps)	-	2.5	3.0
DC Turn-on/off time (nSecs)	500	800	1000
Input Power Level (dBm)	-	10	15
Duty Cycle (%)	-	25	50

- High power L band radar pulsed amplifier
- 250 watts typical peak output power
- 40 dB Saturated gain min
- Typical operation is a 100uSec PW @ 10% duty cycle
- High speed DC blanking circuitry



of -40C to 85C. The amplifier is protected from an open or short-circuited placed on the output RF port of the unit.

This is an example of an Aethercomm standard product. Aethercomm designs and manufactures high performance, high power CW or pulsed SSPA's for commercial, military and satellite communications customers.

Aethercomm Inc. reserves the right to make changes without further notice. Aethercomm recommends that before these items herein are specified into a system or critical application that the performance characteristics be verified by contacting the factory.