



Solid State Pulsed TACAN Band Solid State High Power RF Amplifier

Aethercomm P/N SSPA 0.96-1.22-800 is a high power pulsed amplifier that operates across the TACAN frequency band of 960 MHz to 1220 MHz. The peak-envelope power is 800 watts typical. Power flatness across the entire band is +/-1.0 dB typical. Typical small signal gain is 60 dB. Input VSWR is 1.5:1 maximum. Output VSWR is 2.0:1 maximum. Noise figure is 7 dB typical. Harmonics are -30 dBc maximum. This amplifier offers an external PA turn-on and turn-off command that enables and disables the PA in 2500 nSecs maximum. RF pulse rise and fall times are 50 nSec maximum. This model operates from 36.0 Vdc with a quiescent current of 2.5 amps typical class AB biased. Average current at rated output power is 7.0 amps typical at a 10% duty cycle. Approximate size 11" by 13.5" by 2" and is offered with a bolt-on heat sink. Please contact the factory for heat sink sizes. The input RF connector is SMA female. The output RF connector is N type female. Mounting is accomplished via six through holes in the housing. This PA operates from a base

Typical Performance from 960 to 1220 MHz @ 25C

Parameter	Min	Typ	Max
PEP Output Power (dBm)	57.8	59.0	60.0
Small Signal Gain (dB)	50	52	-
Small Signal Gain Variation Over Frequency (dB)	+/-0.50	+/-1.00	+/-2.0
Noise Figure (dB)	5.0	7.0	10.0
Input Return Loss (dB)	-30.0	-18.0	-14.0
Output Return Loss (dB)	-20.0	-12.5	-9.8
Harmonics (dBc)	-70	-40	-30
Pulse Width (uSec)	-	3.5	10,000
36 Vdc Quiescent Current (Amps)	-	2.5	5.0
Current @ Rated Power Out (Amps)	-	7.0	10.0
DC Turn-on/off time (nSecs)	-	1900	2500
Input Power Level (dBm)	-	5.0	10.0
Dynamic Range (dB)	60	70	80
Duty Cycle (%)	-	10	20

- High power TACAN band pulsed amplifier
- 600 watts min peak envelope power
- 52 dB typ gain
- Typical pulse width is 3.5uSec gaussian pulse
- Typical duty cycles are 10%

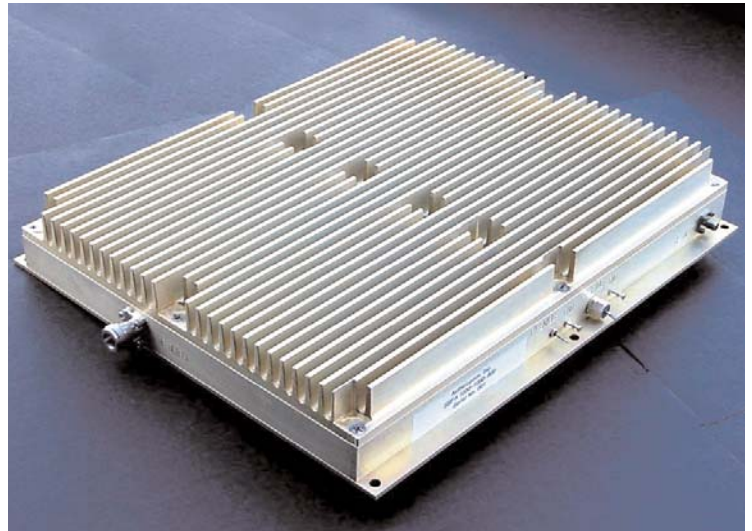


plate temperature of -40C to 85C. The PA is protected from an open or short-circuited placed on the output RF port of the unit.

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.