

Ultra-broadband Solid State Power Amplifier

CHPA0220-1

The CAP Wireless CHPA0220-1 ultra-broadband solid state power amplifier is based on CAP Wireless' patented Spatium™ broadband spatial combining technology, which provides a breakthrough combination of solid state reliability and stability with exceptionally broad bandwidth and high power. Spatium power amplifiers are uniquely positioned to meet the demanding specifications of applications such as electronic counter measures (ECM), laboratory instrumentation, and electromagnetic compatibility/electromagnetic interference (EMC/EMI) test, as well as narrower band applications like radar, microwave imaging, and satellite communications.



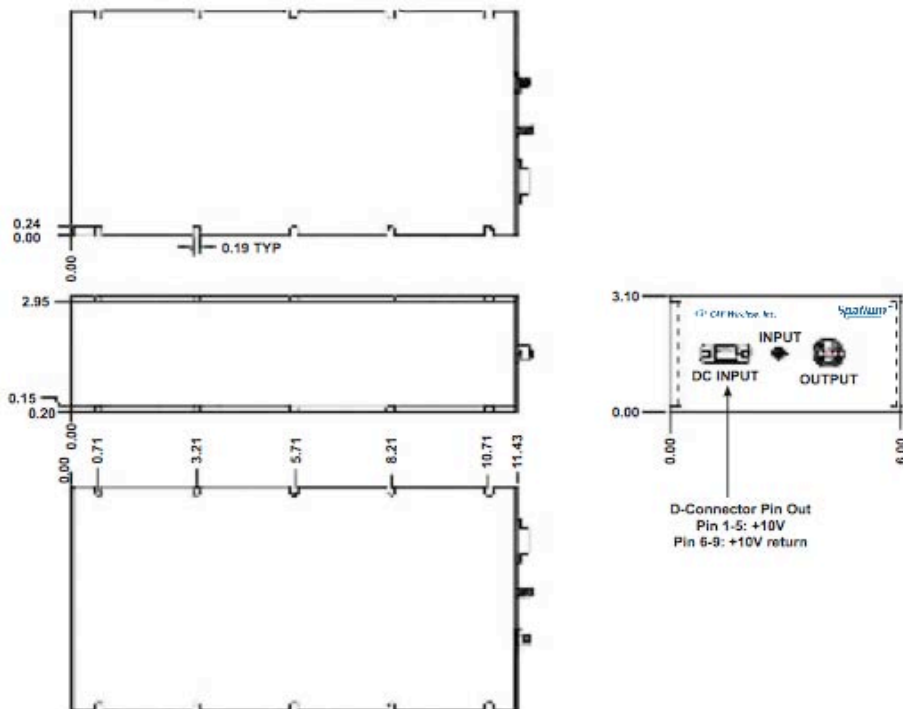
Typical Applications

- Electronic warfare (ECM, ECCM)
- Multi-band communication
- Signal simulators
- Instrumentation and test equipment

Key Features

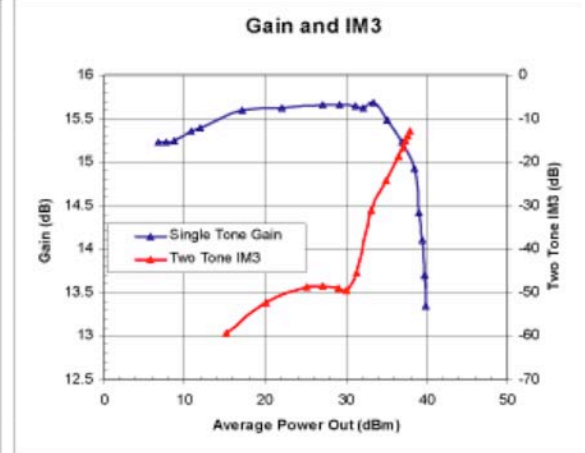
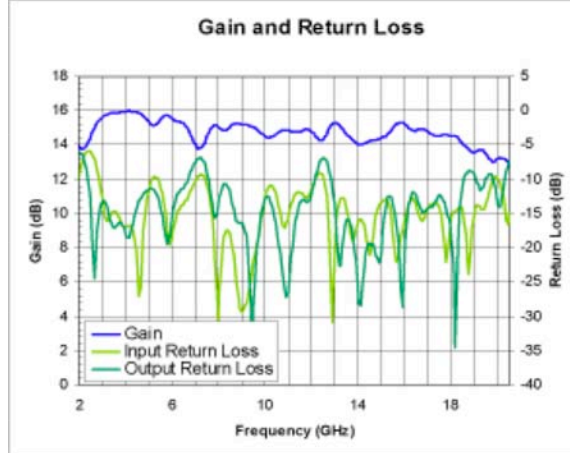
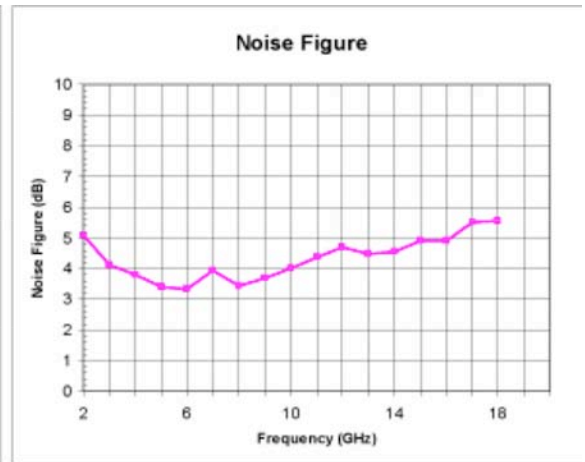
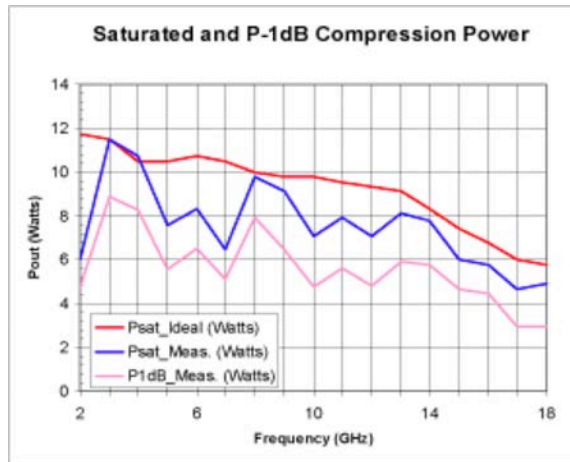
- Ultra-broad 2-20 GHz bandwidth
- 15 dB nominal gain
- 8 watts typical saturated power
- Solid state MMIC reliability

Outline



Electrical Parameters	Units	Min.	Typ.	Max.
@10 V, 25°C Baseplate				
Frequency	GHz	2		20
Gain	dB		15	
Gain variation, peak-to-peak, 3-18 GHz	± dB		2	
Gain variation, peak-to-peak, 2-20 GHz	± dB		3	
Gain variation, over operating temp.	± dB		±1	
Input VSWR (50 ohms)			2.0:1	3:01
Output VSWR (50 ohms)			2.0:1	3:01
Noise figure	dB		4.5	
Output power, saturated	watts		8	
Output power, 1 dB compressed	watts		5	
Third order intercept point	dBm		47	
Second order intercept point	dBm		57	
Harmonics (Pout<P1dB)	dBc		-30	
Spurious	dBc		-80	
Current	amps		5.4	
Environmental Parameters	Units	Min.	Typ.	Max.
Temperature, operating	°C	-20		50
Temperature, storage	°C	-20		125
Cooling	Conduction			
Altitude operating	K feet		50	
Physical Parameters	Units	Min.	Typ.	Max.
Dimensions	Inches	11.4 x 6.0 x 3.1		
RF connectors in/out		SMA (F)		

Typical Performance Data



The information provided herein is believed to be reliable at press time. CAP Wireless assumes no responsibility for inaccuracies or omissions. CAP Wireless assumes no responsibility for the use of this information, and all such information shall be entirely at the user's own risk. Prices and specifications are subject to change without notice. No patent rights or licenses to any of the circuits described herein are implied or granted to any third party.