

# 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.



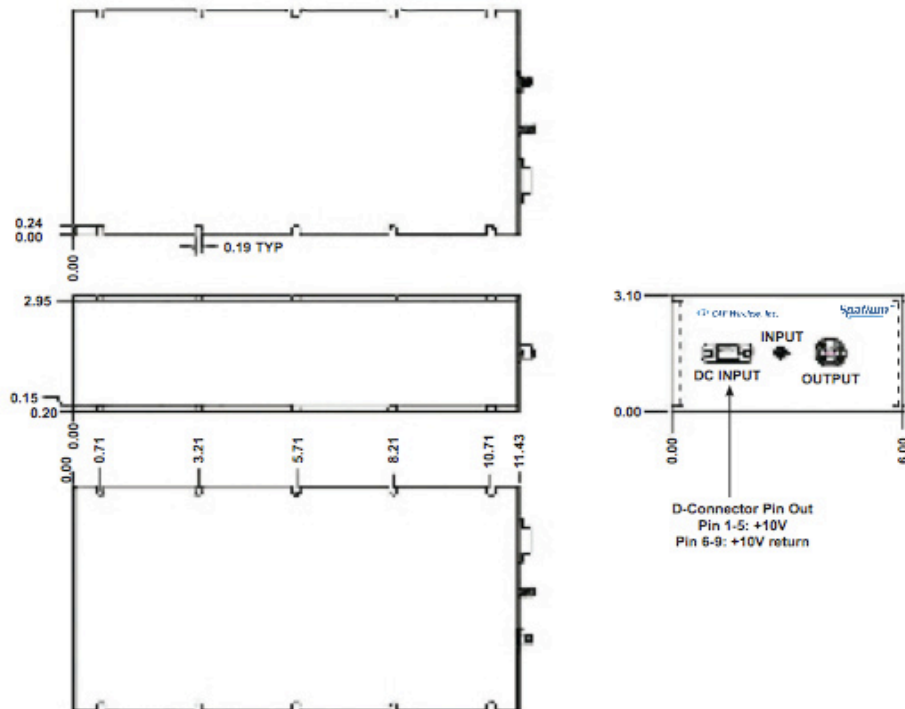
### Typical Applications

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

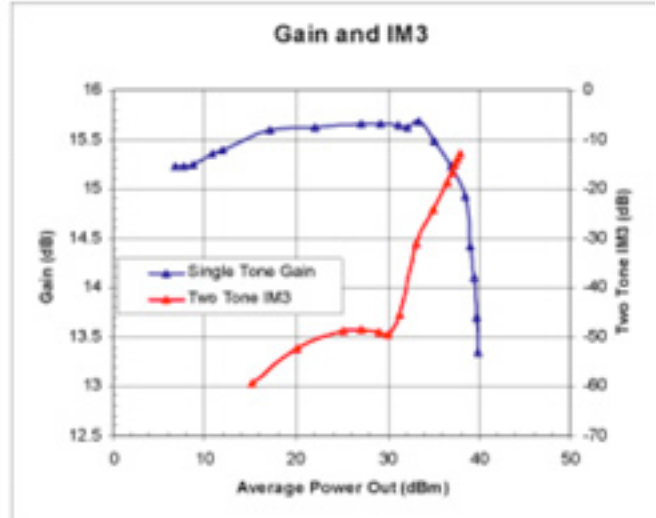
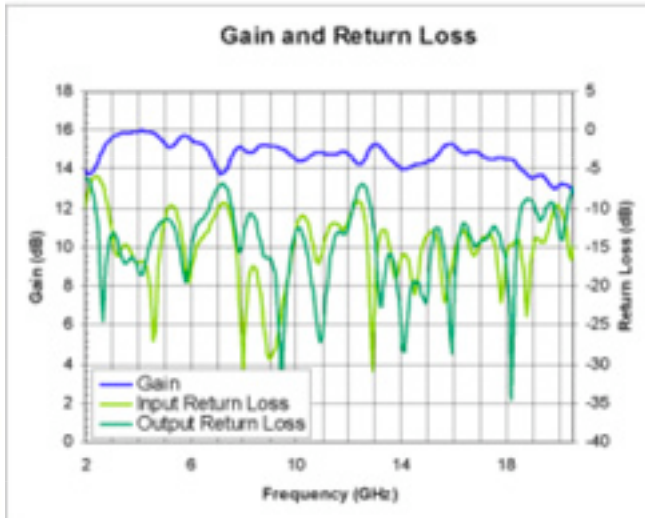
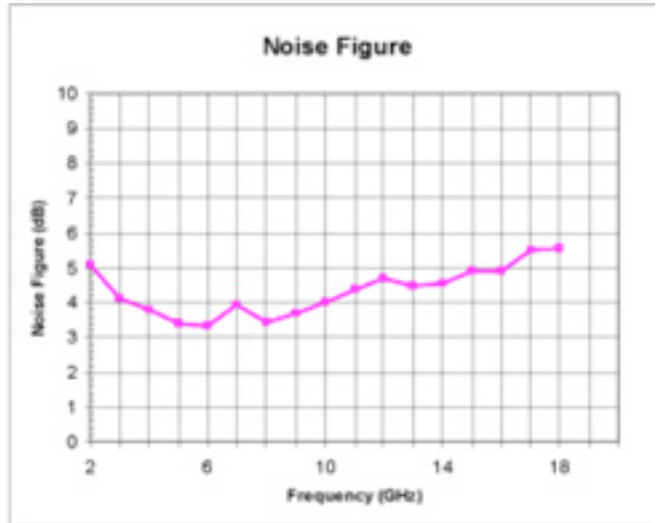
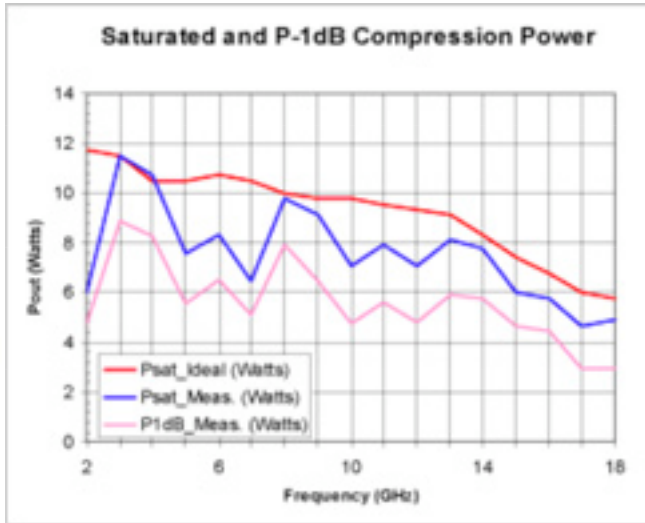
### Key Features

- 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)			2:01	3:01
Output VSWR (50 ohms)			2:01	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			
Size	In.		3.98 x 5.8 x 1.5	
RF connectors			SMA (F)	



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