

# Ultra-broadband Solid State Power Amplifier

## CHPA0220-2

The CAP Wireless CHPA0220-2 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.



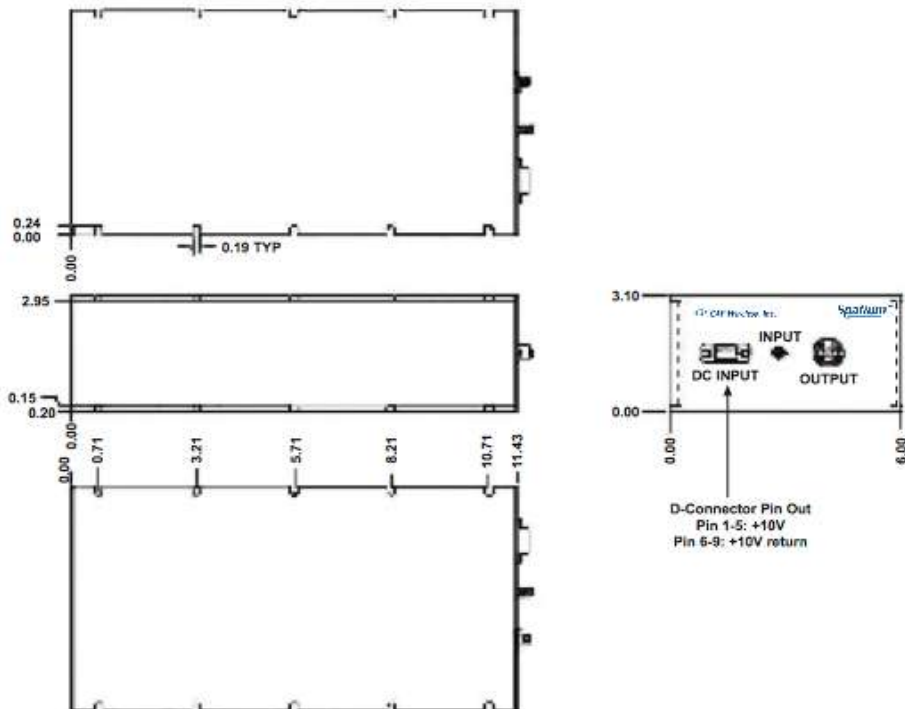

### Typical Applications

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

### Key Features

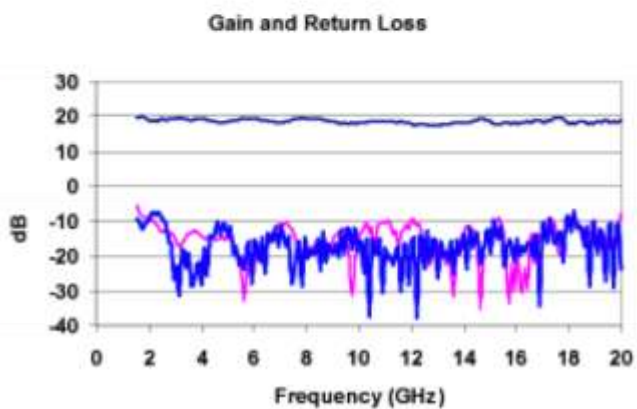
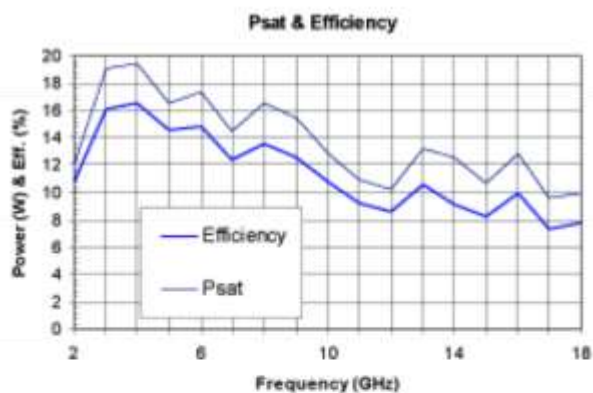
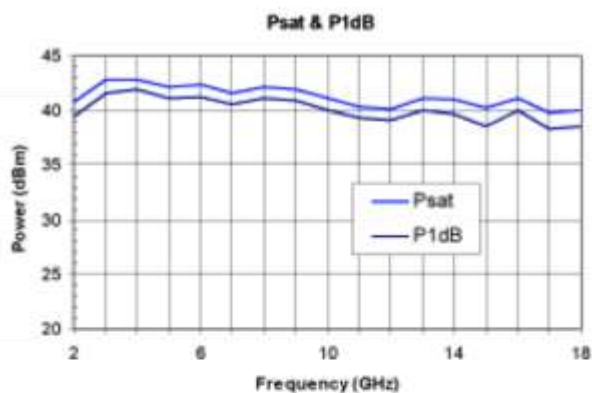
- Ultra-broad 2-20 GHz bandwidth
- 15 watts typical saturated power
- Solid state MMIC reliability

### Outline



Electrical Parameters	Units	Min.	Typ.	Max.
@10 V, 25°C Baseplate				
Frequency	GHz	2		20
Gain	dB	17.5	20	
Gain variation, 2-20 GHz	±dB		1	1.5
Gain variation, over operating temp.	±dB		1	
Input VSWR (50 ohms)			2.0:1	3.0:1
Output VSWR (50 ohms)			2.0:1	3.0:1
Noise figure	dB		10	12
Output power, saturated	watts	7	15	
Output power, 1 dB compressed	watts		12	
Spurious	dBc		-80	-70
Current	amps		10	14
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		SMA (F)		

## Typical Performance Data



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