

ISM Broadband Power Amplifier

SS0498

The SS0498 industrial, scientific, and medical (ISM) broadband power amplifier offers 20 dB of gain and 20 watts of linear output power. Intended for OEM systems, this device provides exceptionally high power for use in signal distribution, power boost, and other applications requiring higher levels of RF power than can normally be achieved with printed circuit board (PCB)-level components. Operating from a 12 volt supply, the amplifier is well suited to fixed or mobile applications. Alternative supply voltage ranges are available.

The unit incorporates a blanking function that facilitates rapid ($<10\mu\text{S}$) enabling and muting of the RF output level. Additionally, the amplifier features extremely low power consumption (<0.25 Watts) when muted, reducing heat dissipation and extending battery life in mobile applications.

Typical Applications

- ISM broadband communications
- Private land mobile
- Multi-band communication
- Auxiliary broadcasting
- Fixed microwave
- Instrumentation and test equipment

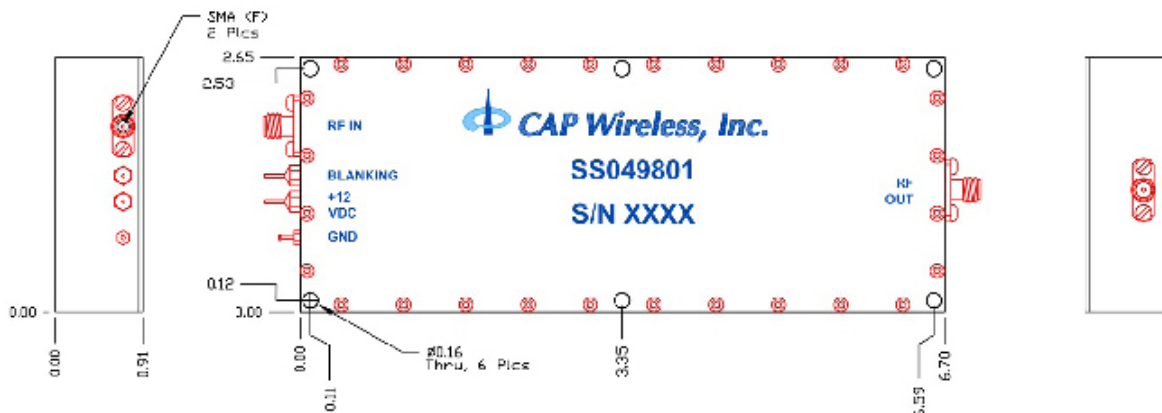
Key Features

- 20 watts P1dB
- High linearity laterally diffused metal oxide semiconductor (LDMOS) technology
- Solid state reliability
- Class AB operations
- 12 volt operation
- 25% efficiency
- Ultra low power dissipation in blanking mode

Electrical Parameters	Units	Min.	Typ.	Max.
12 V, 25°C Baseplate				
Frequency	MHz	2400		2485
Gain	dB	20	21	
Gain variation	±dB			1
Gain variation, over operating temp.	±dB		2	
Input VSWR (50 ohms)			1.0:1	2.0:1
Output power, saturated	watts		25	
Output power, 1 dB compressed	watts		20	
Voltage	volts		12	
Current @ 20 watts output	amps		8	

Physical Parameters				
Size	in.	6.8 x 2.7 x 1.0		
RF connectors		SMA (F)		
DC connectors		Filter feedthrough		
Blanking	TTL	Low = Enable High = Standby		
Standby current	MA		10	

Outline



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