MICROWAVE POWER AMPLIFIER
ABP1800-11-2825

Features:

- Broadband, high gain and high power output
- Low VSWR, unconditional stable
- Small size, low cost
- SMA female connector I/O
- Operating temperature -40~+75°C, storage temperature -55~+85°C

General Description

ABP1800-11-2825 is a two stage MMIC broadband power amplifier module operating in the frequency of 2 to 18GHz. The amplifier provides 28dB of small signal gain, +25dBm of minimum output power at 1dB gain compression. It has excellent gain flatness and good VSWR at both input and output. The amplifier requires only a single positive DC power supply, its built-in DC voltage regulator and internal sequencing circuitry makes the application more robust.

Electrical Specifications

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	GHz	2.0		18.0
P-1dB Compression Point	dBm	+24.0	+25.0	
Output IP3	dBm	+30.0	+35.0	
Output IP2	dBm	+43.0	+45.0	
Nominal Gain @25°C	dB	26.0	28.0	32.0
Gain flatness over frequency	dB		+/-1.0	+/-1.25
Gain Variation over Temperature	dB		+/-2.0	+/-2.5
Noise Figure at 25 degree C 2.0~2.5GHz 2.5~13.0GHz 13.0~18.0 GHz	dB		 3.25 2.75 3.50	 3.75 3.50 4.25
Input VSWR			1.65:1	2.0:1
Output VSWR			1.50:1	2.0:1
Spurious	dBc			-70.0
Reverse Isolation	dB		70.0	
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-45.0		+125.0
DC Power Supply Voltage	V		+12.0	
DC Power Supply Current	mA	270	330	500
In/Out connectors		SMA female		
Size	inches	1.5x1.2x0.4		

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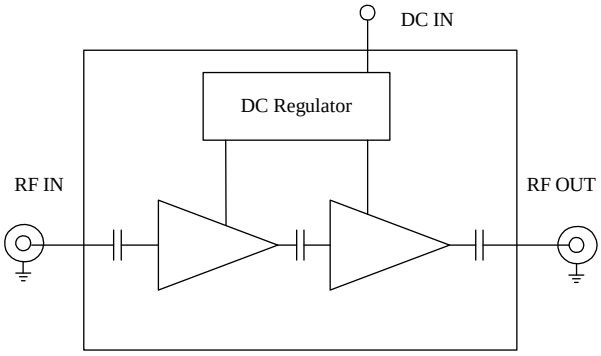
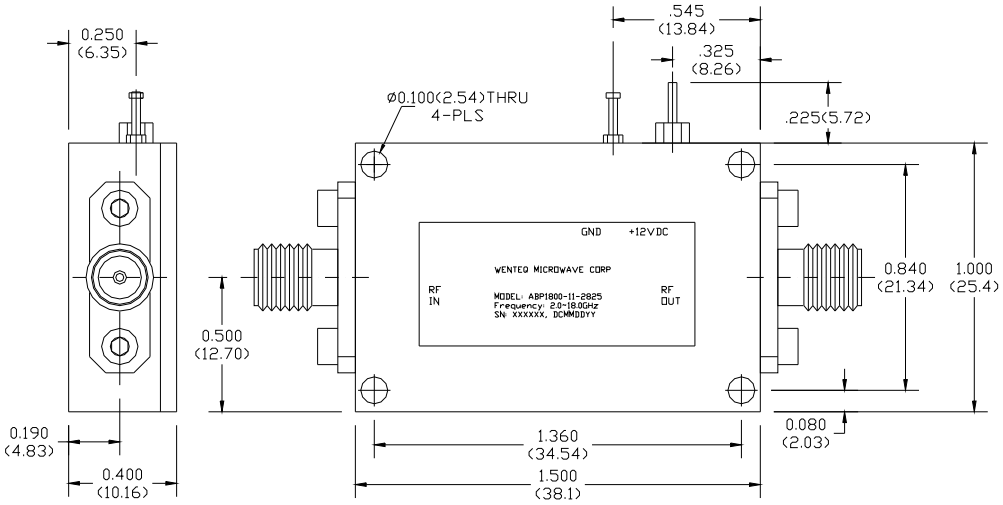
Functional Diagram



Mechanical Structure:



Note: All units in inches (mm).

Absolute Maximum Ratings

DC Voltage	+13V
RF Input Power	15 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C

Electrostatic sensitive device, please observe precautions for handling this amplifier.

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