BROADBAND POWER AMPLIFIER
ABP1200-01-1825

Features:

- Broadband operation with flat gain from 100~12000MHz
- Medium power output, low noise figure, good VSWR, unconditional stable
- SMA female connector I/O
- Single DC power supply required, built-in voltage regulator
- Operating temperature -40~+75°C, storage temperature -55~+125°C

General Description

ABP1200-01-1825 is a one stage MMIC broadband power amplifier module operating in the frequency of 0.1GHz to 12.0GHz. The amplifier provides 18dB of flat small signal gain, +25dBm of typical output power at 1dB gain compression. 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*	0.1		12.0
P-1dB Compression Point	*dBm*	+24.0	+25.5	
Psat at Output	*dBm*	+26.0	+27.0	
Output IP3	*dBm*	+27.0	+32.0	
Nominal SS Gain @25°C	*dB*	16.0	18.0	20.0
Gain flatness	*dB*		+/-1.0	+/-1.5
Gain Variation	*dB*		+/-1.0	
Noise Figure at +25°C	*dB*		3.0	5.2
Input VSWR	-		1.6:1	1.8:1
Output VSWR	-		1.8:1	2.0:1
Reverse Isolation	*dB*	30.0	40.0	
Spurious	*dBc*			-60
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	*V*	+11.0	+12.0	+13.0
DC Supply Current	*mA*	250.0	300.0	350.0
In/Out connectors		SMA female		
Size		1.2”x1.0”x0.4”		

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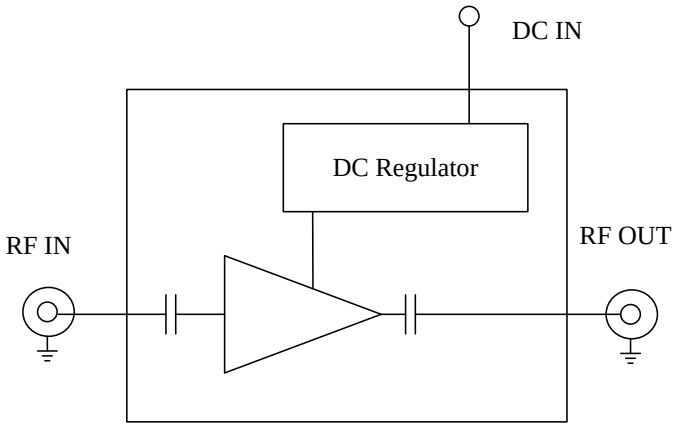
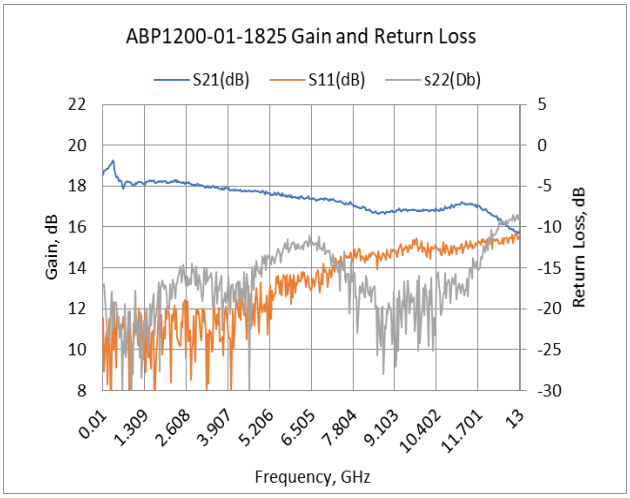
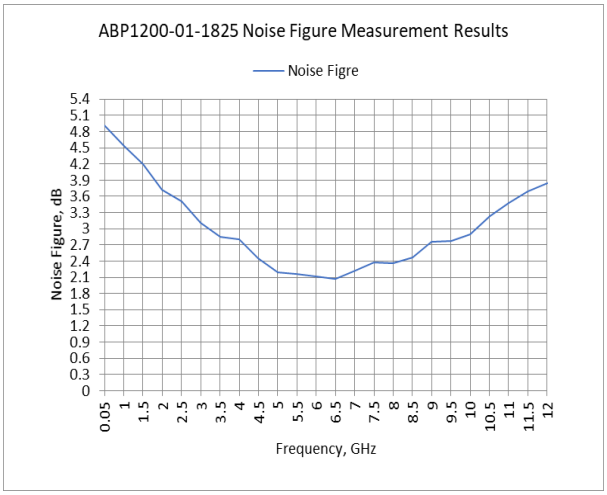
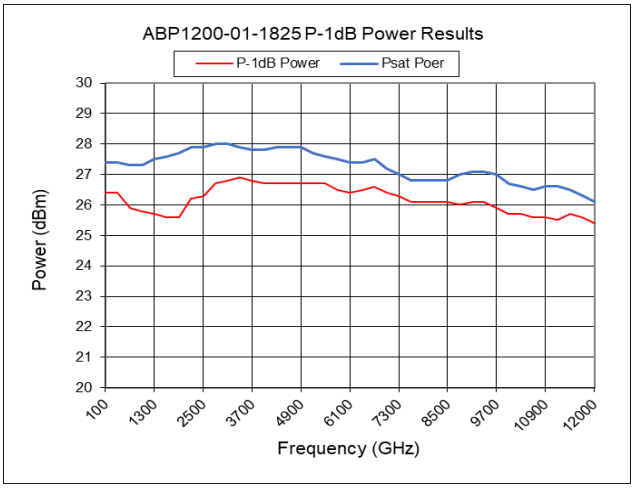
Functional Diagram

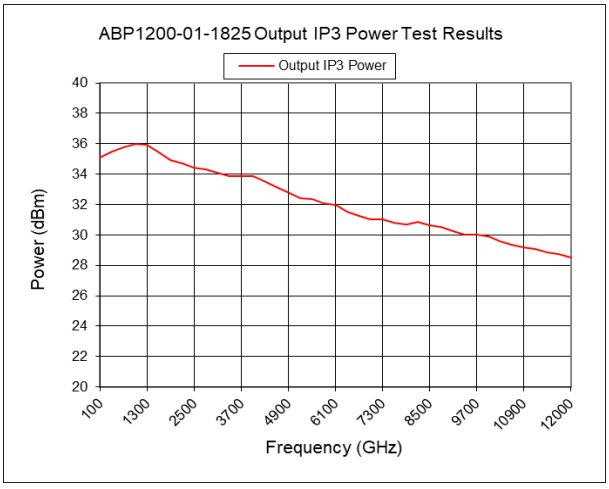


Typical Test Results:









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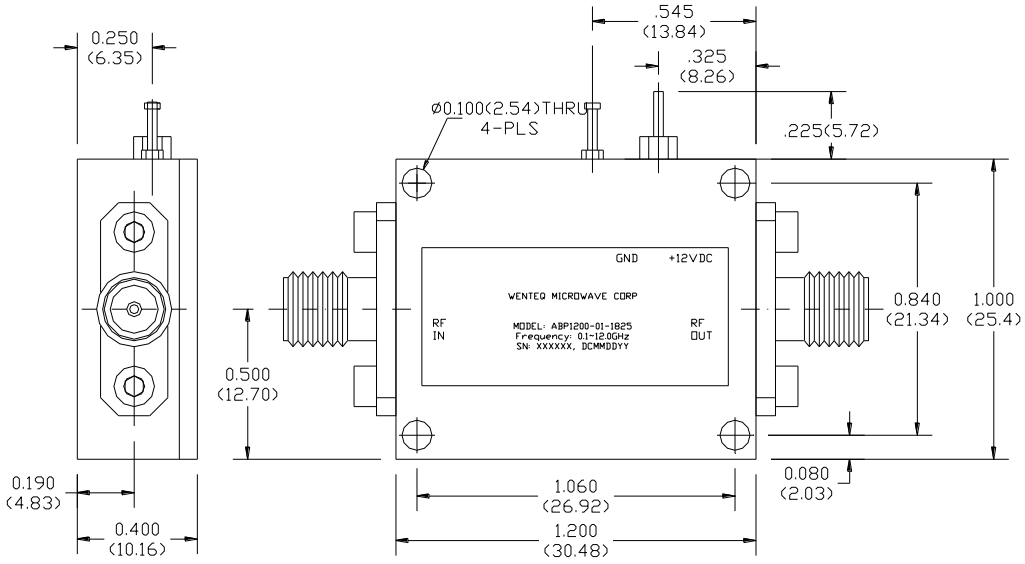
Mechanical Structure:



Note: All units in inches (mm).

Housing Material and Surface Finish:

Body and cover material: aluminum
Surface finish: Nickel plated
Connector material: Stainless steel
Connector surface finish: Passivated

Absolute Maximum Ratings

DC Voltage	+13.5V
RF Input Power	+17 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+75°C

Revision History:

Revision	Date	Description	Comments
A00	01/02/2018	Initial Release	

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