BROADBAND RF POWER AMPLIFIER
ABP0200-25-2526

Features:

- Frequency from 500MHz to 2.0 GHz
- Good noise figure, wide dynamic range, high gain with good gain flatness
- Low VSWR, unconditional stable
- SMA female connector I/O
- Single DC power supply, Integrated internal voltage regulator
- Operating temperature -40~+75°C, storage temperature -55~+125°C

General Description

ABP0200-25-2526 is a two stage E-pHEMT MMIC based broadband power amplifier module operating in the frequency range of 0.5GHz to 2.0GHz. The amplifier provides 25dB of small signal gain, +26dBm of typical output power with excellent gain flatness and VSWR at both input and output ports. The amplifier requires only a positive DC power supply, its built-in DC voltage regulator circuitry allows the amplifier to function over a range of DC supply voltage without affect the RF performances.

Electrical Specifications

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	500.0		2000.0
P-1dB Compression Point	dBm	+25.0	+26.0	
Output IP3	dBm	+35.0	+39.0	
Nominal SS Gain @25°C	dB	22.0	25.0	28.0
Gain flatness	dB		+/-0.5	+/-0.75
Gain Variation over temp.	dB			+/-1.0
Noise Figure	dB		2.75	3.0
Input VSWR	-		1.5:1	1.8:1
Output VSWR	-		1.3:1	1.6:1
Reverse Isolation	dB	45.0		
Non-harmonic Spurious	dBc			-65.0
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-55.0		+85.0
DC Voltage	V	+11.5	+12.0	+13.0
DC Supply Current	mA		290	400
In/Out connectors	-	50 Ohm SMA female		
Outline Dimensions ABP0200-25-2526 without heatsink	inches	1.5x1.0x0.40		

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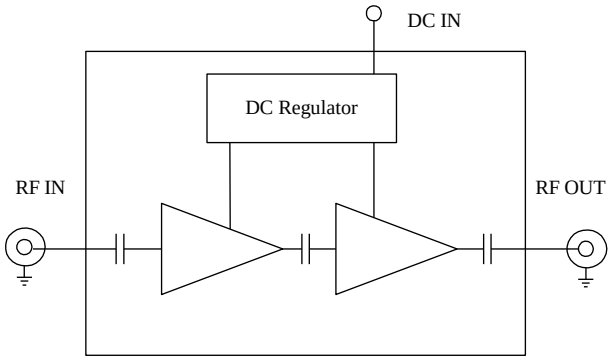
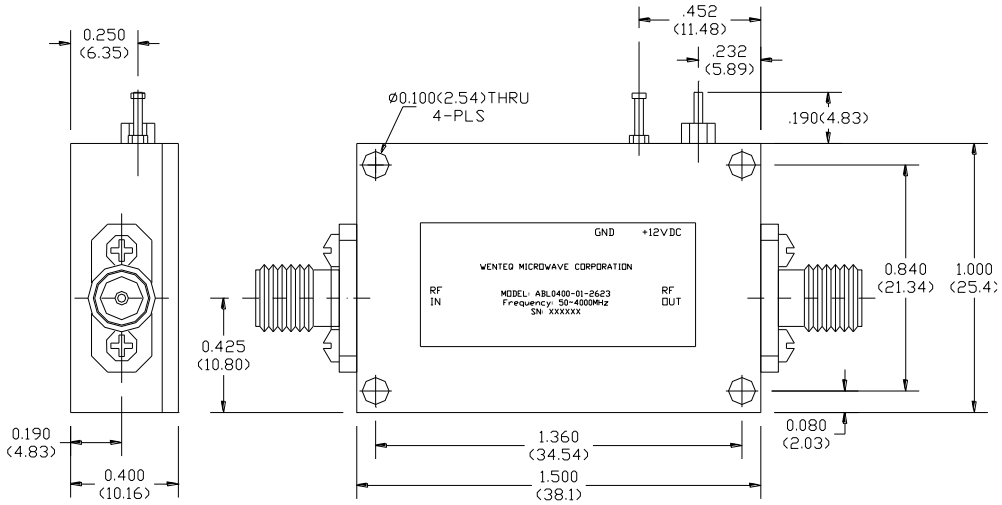
Functional Diagram



Mechanical Structure:



Note: All units are in inches (mm), and all tolerances are +/-0.005 inch unless otherwise specified

Housing Material and Surface Finish:

Body and cover material: aluminum
Surface finish: nickel plated
Connector material: Copper
Connector surface finish: gold plated

Absolute Maximum Ratings

DC Voltage	+13V
RF Input Power	+20 dBm
Maximum Load VSWR	3:1
Storage Temperature	-55~+85°C
Operating Temperature	-40~+75°C