

**Features:**

- Frequency from 500MHz to 6.0 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

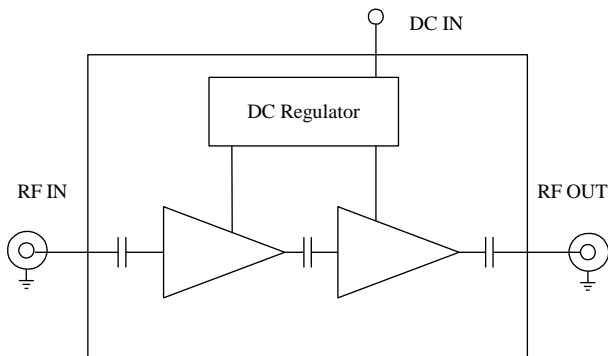
**General Description**

ABP0600-08-4025 is a two stage E-pHEMT MMIC based broadband power amplifier module operating in the frequency range of 0.5GHz to 6.0GHz. The amplifier provides 40dB of small signal gain, +25dBm 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.

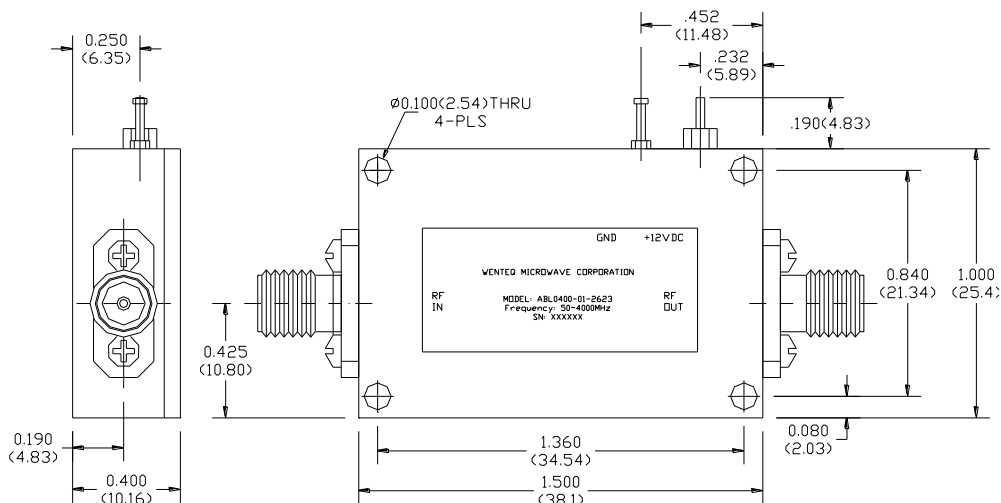
**Electrical Specifications**

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	500.0		6000.0
P-1dB Compression Point	dBm	+24.0	+25.0	
Output IP3	dBm	+32.0	+37.0	
Nominal SS Gain @25°C	dB	37.0	40.0	43.0
Gain flatness	dB		+/-1.0	+/-1.5
Gain Variation over temp.	dB			+/-1.5
Noise Figure	dB		3.0	4.5
Input VSWR	-		1.5:1	2.0:1
Output VSWR	-		1.5:1	2.0:1
Reverse Isolation	dB	50.0		
Non-harmonic Spurious	dBc			-65.0
Maximum no damage input power	dBm			+30.0
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		220	350
In/Out connectors	-	50 Ohm SMA female		
Outline Dimensions ABP0600-08-4025	inches	1.5x1.0x0.40		

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	+15V
RF Input Power	+30 dBm
Maximum Load VSWR	3:1
Storage Temperature	-55~+85°C
Operating Temperature	-40~+75°C