MILLIMETER WAVE POWER AMPLIFIER
ABP4000-45-2223

Features:

- Wide band operation from 18.0 to 40.0GHz
- High gain, medium power output, unconditional stable
- K-female connector I/O
- Single DC power supply required, built-in voltage regulator
- Operating temperature -40~+75°C, storage temperature -55~+85°C

General Description

ABP4000-45-2223 is a two stage GaAs MMIC HEMT based broadband low noise amplifier module operating in the frequency from 18.0 to 40.0GHz. The amplifier provides 22dB of small signal gain and 23dBm typical output power at 1 dB gain compression point. The amplifier requires only a single positive DC power supply. Its built-in DC voltage regulator allows the amplifier to functional at different DC supply voltages without affecting the RF performances.

Electrical Specifications

Parameters		Specifications		
		Minimum	Typical	Maximum
Frequency Range	GHz	18.0		40.0
Nominal Gain @25°C base plate temperature	dB	19.5	22.0	25.5
Noise Figure	dB		5.5	7.5
P-1dB Compression Point	dBm	+22.0	+23.0	
Saturated Output Power	dBm	+23.0	+24.5	+26.0
Gain flatness	dB		+/-1.75	+/-2.0
Gain Variation over Temperature Range	dB		+/-2.5	
Reverse Isolation	dB	55.0		
Input VSWR	-		1.7:1	2.5:1
Output VSWR	-		1.7:1	2.5:1
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-45.0		+125.0
DC Power Supply Voltage	V	+8.0	+12.0	+15.0
DC Power Supply Current	mA	330.0	430.0	530.0
RF In/Out connectors		50 ohm k-female		
DC Input Connector		Feedthru Pin		
Size	inches	1.50×1.0×0.4		

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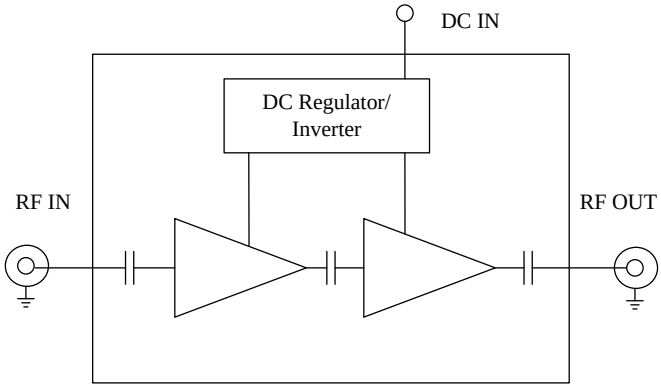
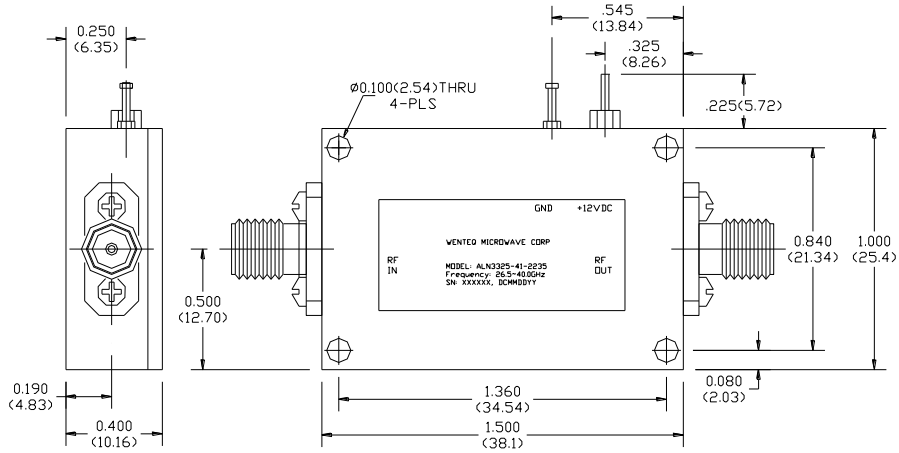
Functional Diagram



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	+18V
RF Input Power	+10 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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