BROADBAND POWER AMPLIFIER
ABP0100-10-3529

Features:

- Octave bandwidth operation from 100~1000MHz with good gain flatness
- Low noise figure, good VSWR, unconditional stable
- 50 ohm 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

ABL0100-10-3529 is a two stage pHEMT based broadband power amplifier module operating in the frequency of 100 to 1000MHz and provide +29dBm minimum output P-1dB power with 35dB of small signal gain. The amplifier requires only a single positive DC power supply, its built-in DC voltage regulator allows for different DC voltage supply application. This amplifier is ideal for telecommunication infrastructures, microwave radio, test instrumentation and military applications.

Electrical Specifications

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	100.0		1000.0
P-1dB Compression Point	dBm	+29.0	+30.0	
Output IP3	dBm	+40.0	+43.0	
Output IP2	dBm	+53.0	+58.0	
Nominal SS Gain @25°C	dB	32.0	35.0	38.0
Gain flatness	dB		+/-1.0	+/-1.25
Gain Variation	dB		+/-1.2	
Noise Figure	dB		2.0	3.0
Input VSWR	-		1.5:1	1.8:1
Output VSWR	-		1.5:1	1.8:1
Reverse Isolation	dB	40.0		
Spurious	dBc			-60.0
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+11.5	+12.0	+13.0
DC Supply Current	mA	325.0	375.0	425.0
In/Out connectors		50 ohm SMA female		
Size	inches	1.50x1.0x0.40		

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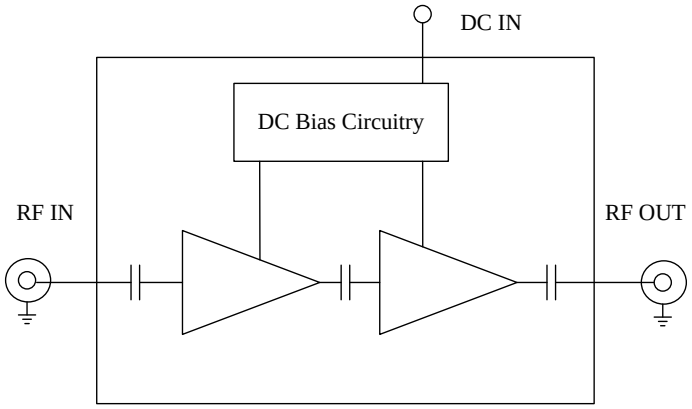
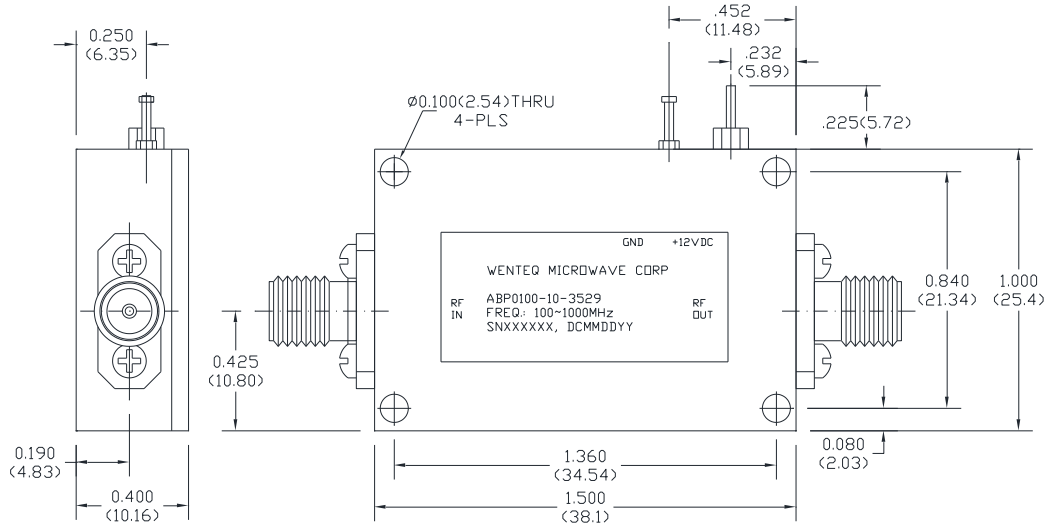
Functional Diagram



Mechanical Structure:



Note: All units in inches (mm).

Housing Material and Surface Finish:

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

Absolute Maximum Ratings

DC Voltage	+13V
RF Input Power	+20dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+75°C