

Features:

- Multi-octave bandwidth from 10~1000MHz
- Low noise figure, and high gain
- Good VSWR, unconditional stable
- SMA female connector I/O
- RF input protected by PIN diode limiter
- Single DC power supply, operating voltage from +10~+15V
- Operating temperature -40~+85°C, storage temperature -55~+125°C

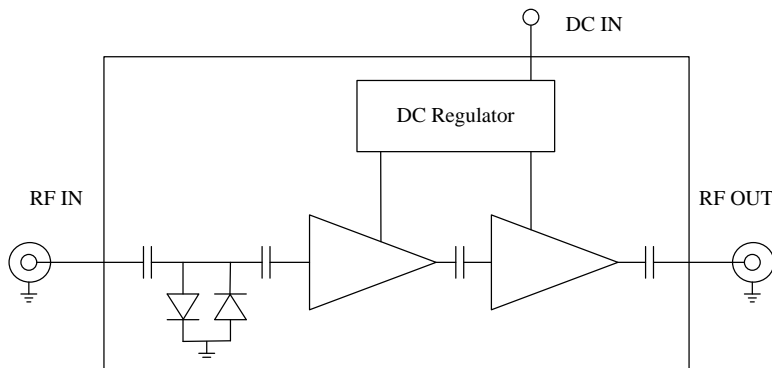
**General Description**

ABL0100-01-4010DP is an input PIN diode protected two stage enhancement mode pHEMT low noise transistor based broadband low noise amplifier module operating in the frequency from 10MHz to 1.0GHz. The amplifier provides 40dB of small signal gain with 1.0dB noise figure and excellent gain flatness, as well as good VSWR at both input and output. Its built-in DC voltage regulator allows the amplifier to functional from +10 to +15V DC supply voltages without affect RF performances.

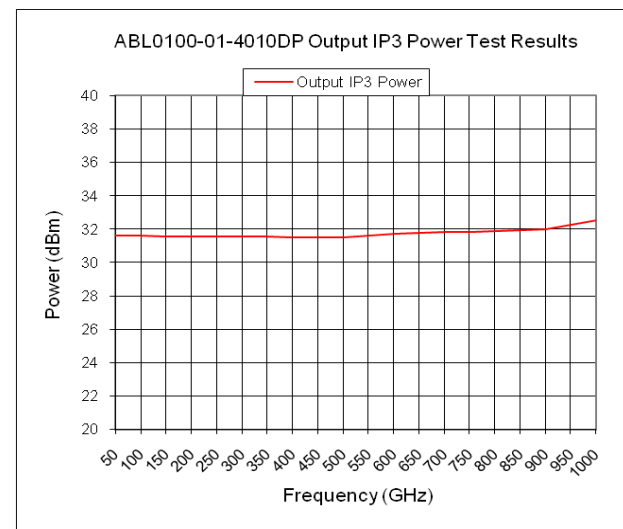
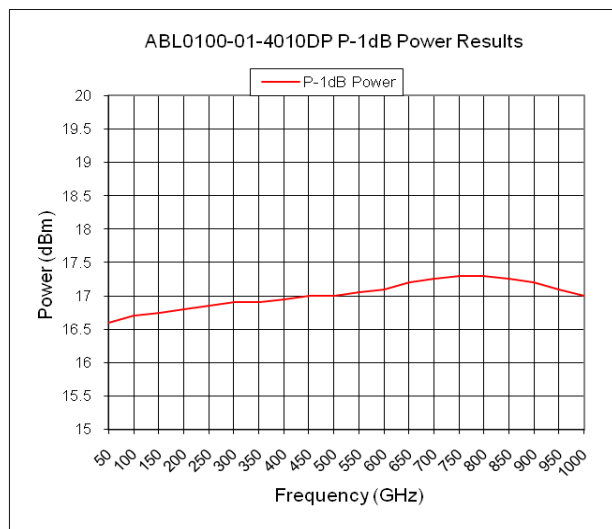
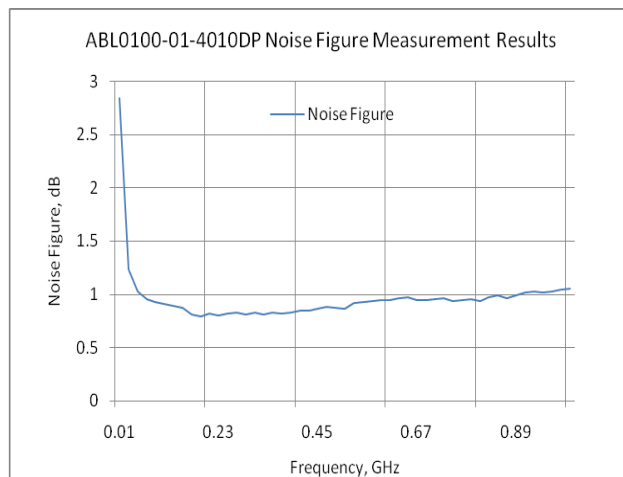
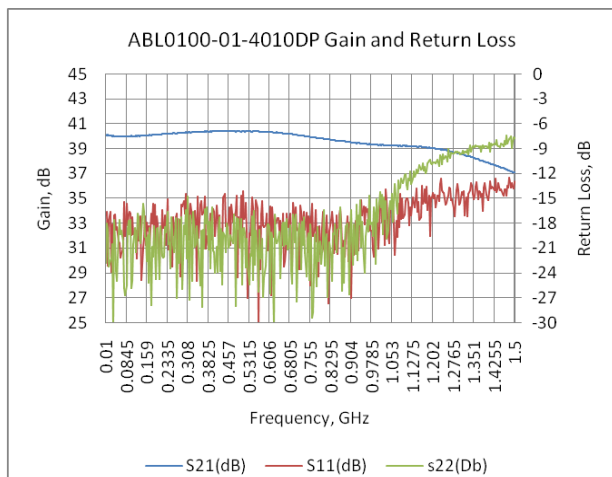
Electrical Specifications

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	10		1000
Noise Figure @25°C	dB		1.5	3.0
10~50MHz			1.0	1.2
50~1000MHz				
P-1dB Compression Point	dBm	+16.0	+17.0	
Output IP3	dBm	+28.0	+31.5	
Nominal SS Gain @25°C	dB	37.0	40.0	42.0
Gain flatness	dB		+/-1.0	+/-1.25
Gain Variation	dB		+/-1.25	
Input VSWR	-		1.30:1	1.50:1
Output VSWR	-		1.30:1	1.50:1
Reverse Isolation	dB	50.0	55.0	
Spurious	dBc			-70.0
Input no damage power	dBm	+30.0		
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+10.0	+12.0	+15.0
DC Supply Current	mA	100.0	110.0	125.0
In/Out connectors		SMA female		
Sizes	inches	1.5×0.85×0.375		

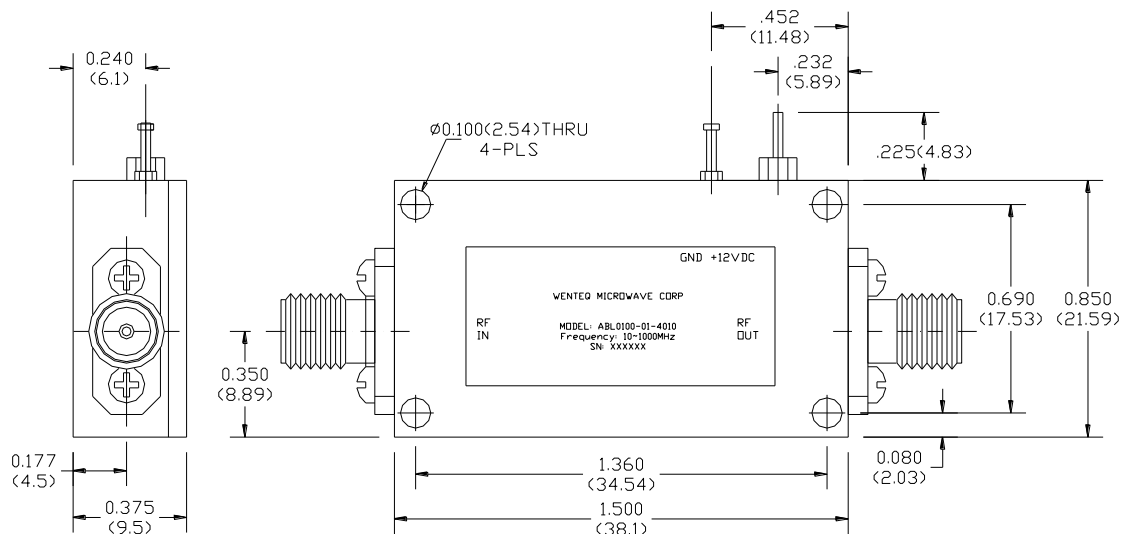
Functional Diagram



Typical Test Results



Mechanical Structure:



Note: All units in inches (mm).

Absolute Maximum Ratings

DC Voltage	+15V
RF Input Power	+30dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+75°C

Revision History:

Revision	Date	Description	Comments
A00	10/20/2016	Initial Release	



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