WENTEQ MICROWAVE CORP

BROADBAND LOW NOISE AMPLIFIER
ABL0600-33-4009

Features:

- Broad band operation from 2.0 to 6.0 GHz
- Low VSWR, unconditional stable
- Small size, low cost
- SMA female connector I/O
- Single DC power supply, internal voltage regulator allowing operating voltage from +8V to +15V range
- Operating temperature -40~+75°C, storage temperature -55~+125°C

General Description

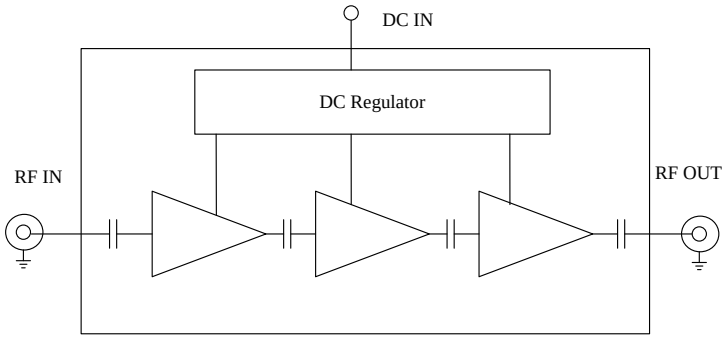
ABL0600-33-4009 is a three stage pHEMT transistor based broadband low noise amplifier module operating in the frequency of 2.0 to 6.0GHz. The amplifier provides 40dB of small signal gain with 0.9dB noise figure and excellent gain flatness, as well as good VSWR at both input and output. The amplifier requires only a positive DC power supply, its built-in DC voltage regulator allows for different DC voltage supply application.

Electrical Specifications

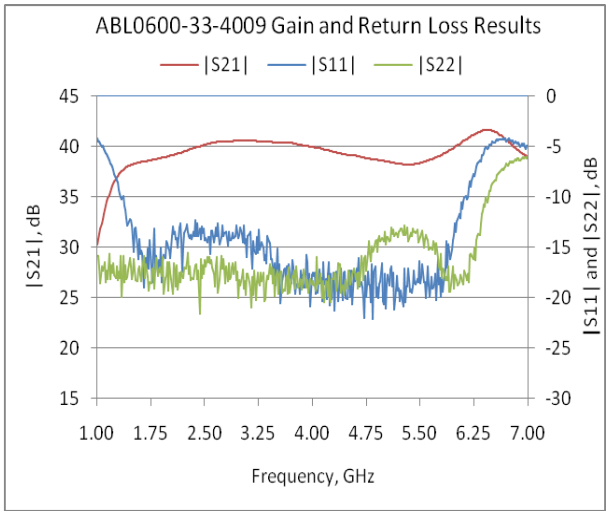
Parameters		Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	2000		6000
Noise Figure (from 50MHz)	dB		0.9	1.10
Nominal SS Gain @25°C	dB	37.0	40.0	43.0
P-1dB Compression Point	dBm	+12.0	+14.0	
Gain flatness	dB		+/-1.0	+/-1.25
Gain Variation over temperature	dB		+/-1.5	
Input VSWR	-		1.5:1	2.0:1
Output VSWR	-		1.6:1	2.0:1
Reverse Isolation	dB	55.0	60.0	
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+8.0	+12.0	+15.0
DC Supply Current	mA	95.0	110.0	125.0
RF In/Out connectors	-	SMA female		
DC Input Connector	-	Feed-thru PIN		
Size	inches	1.5×0.85×0.375		

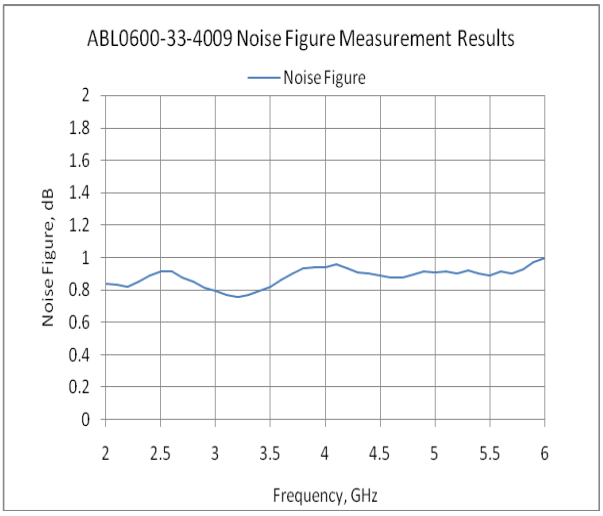
138 W Pomona Ave, Monrovia, CA 91016
Phone: (626) 305-6666, Fax: (626) 602-3101, sales@wenteq.com, www.wenteq.com

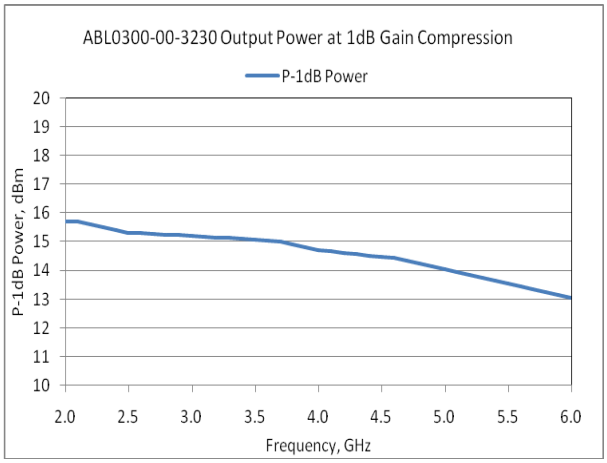
Functional Diagram

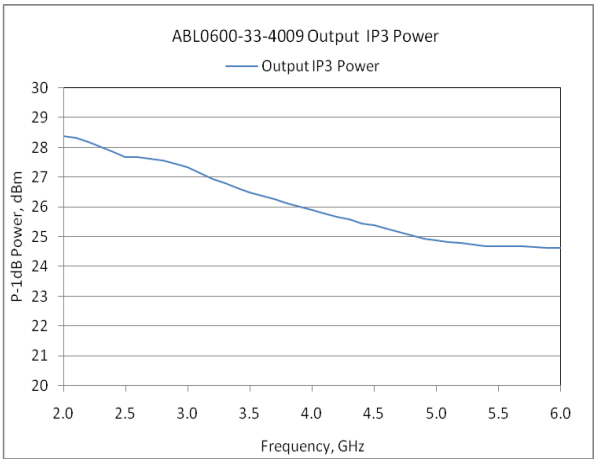


Typical Test Results:









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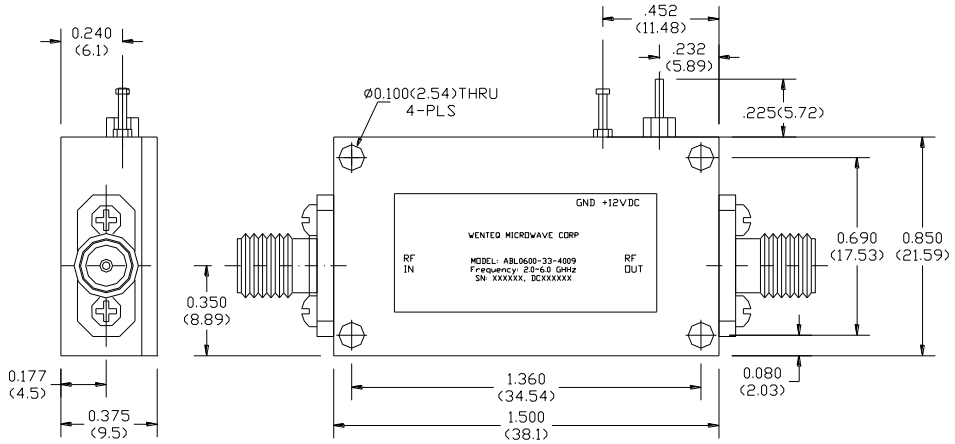
Mechanical Structure:



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	+15V
RF Input Power	+10dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+75°C

Revision History:

Revision	Date	Description	Comments
A00	10/21/2010	Initial Release	
A01	05/08/2014	Added product picture and test plots	
A02	08/25/2020	Updated DC current value	

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