BROADBAND LOW NOISE AMPLIFIER
ABL0600-01-3440

Features:

- Broad band operation from 10MHz to 6 GHz
- Low VSWR, unconditional stable
- SMA female connector I/O
- Single DC power supply, internal voltage regulator, operating voltage from +9.5~+15V
- Operating temperature -40~+85°C, storage temperature -55~+125°C

General Description

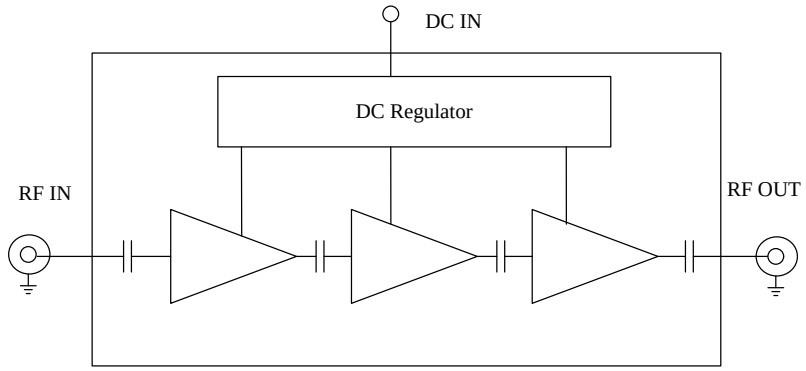
ABL0600-01-3440 is a three stage InGaP/GaAs HBT based broadband low noise amplifier module operating in the frequency from 10MHz to 6.0 GHz. The amplifier provides 34dB of typical small signal gain with 3.0dB typical noise figure, and requires only a single DC power supply. Its built-in voltage regulator allows the amplifier being used at DC voltage as low as 9.5V to as high as +15V.

Electrical Specifications

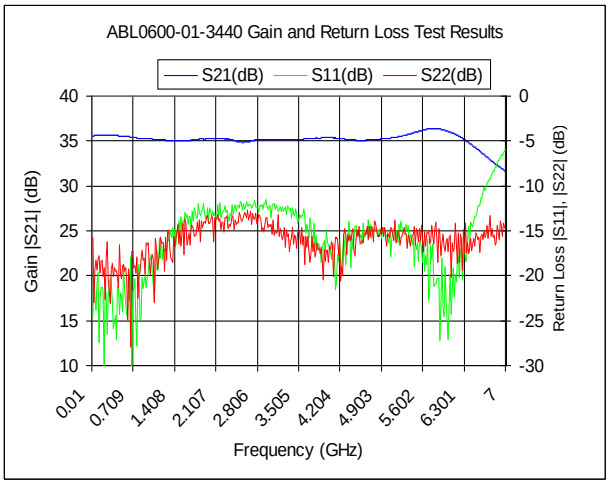
Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	10.0		6000.0
Noise Figure (from 50MHz)	dB		3.0	4.0
Nominal SS Gain @25°C	dB	30.0	34.0	37.0
P-1dB Compression Point	dBm	+12.0	+14.0	
Output Saturated Power	dBm	+15.0	+16.0	
Output IP3 (tested with 1MHz spacing at 0dBm power each tone)	dBm	+18.0	+23.0	
Output IP2 power (tested with 10 MHz spacing at 0dBm power each tone)	dBm	+30.0	+33.0	
Gain flatness	dB		+/-1.0	+/-1.25
Gain Variation	dB		+/-1.0	
Input VSWR	-		1.5:1	2.0:1
Output VSWR	-		1.5:1	2.0:1
Reverse Isolation	dB	45.0		
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+9.5	+12.0	+15.0
DC Supply Current	mA	100.0	130.0	150.0
In/Out connectors	-	50 ohm SMA female		
Size	inches	1.70×0.95×0.375		

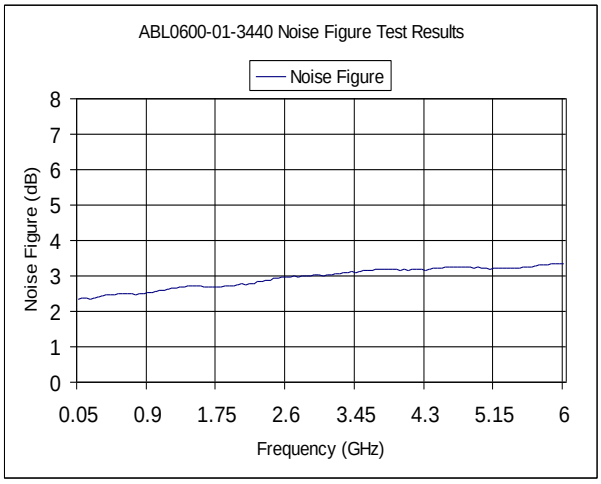
138 W Pomona Ave, Monrovia, CA 91016
Phone: (626) 305-6666, Fax: (626) 602-3101, sales@wenteq.com, www.wenteq.com

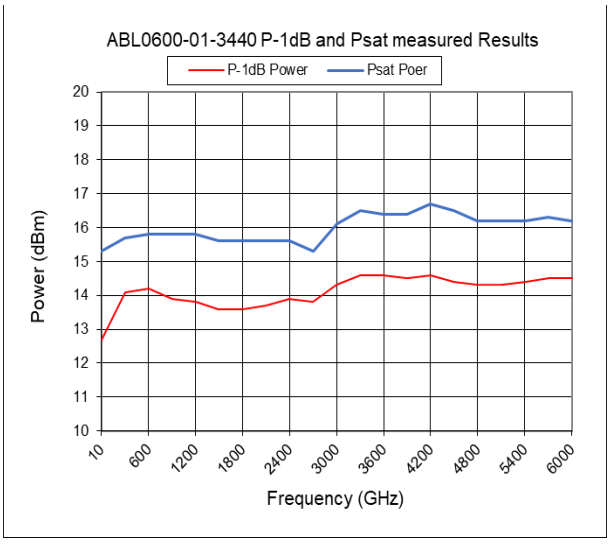
Functional Diagram

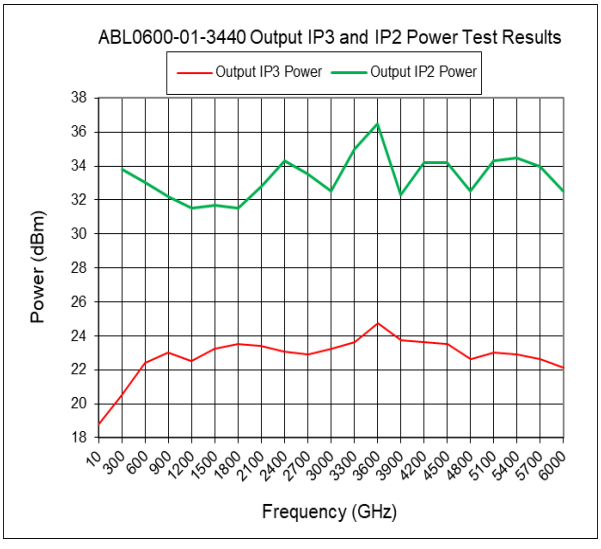


Typical Test Results:



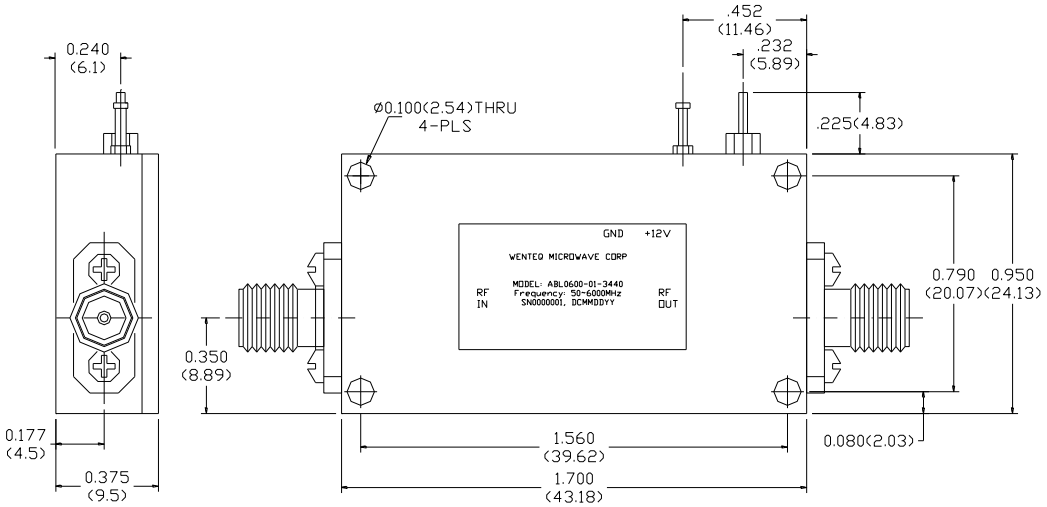






138 W Pomona Ave, Monrovia, CA 91016
Phone: (626) 305-6666, Fax: (626) 602-3101, sales@wenteq.com, www.wenteq.com

Mechanical Structure:



Note: All units in inches (mm).

Absolute Maximum Ratings

DC Voltage	+15V
RF Input Power	+10 dBm
DC Voltage at RF I/O	±25V
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C

Revision History:

Revision	Date	Description	Comments
A00	11/18/2007	Initial Release	
A01	09/16/2014	Specification improvements	
A02	02/25/2015	Replaced test results	
A03	02/03/2020	Added IP2 test results	

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