

Features:

- low noise, flat gain over 0.4~2GHz band
- Low VSWR, unconditional stable
- High P-1dB power, good linearity
- SMA female connector I/O
- Single DC power supply with integrated voltage regulator
- Operating temperature -40~+85°C, storage temperature -50~+125°C

**General Description**

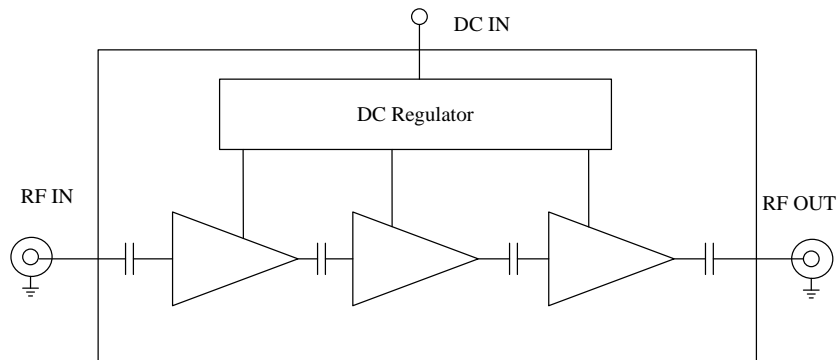
ABL0200-20-4513B is a high dynamic range three stage enhancement mode pHEMT low noise transistor based broadband low noise amplifier module operating in the frequency range from 0.4 to 2.0GHz. The amplifier provides 45dB of small signal gain, 1.3dB noise figure and excellent gain flatness, as well as good VSWR at both input and output. 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

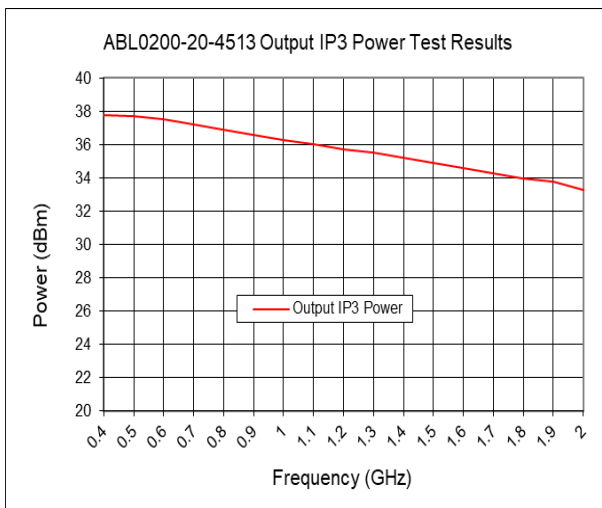
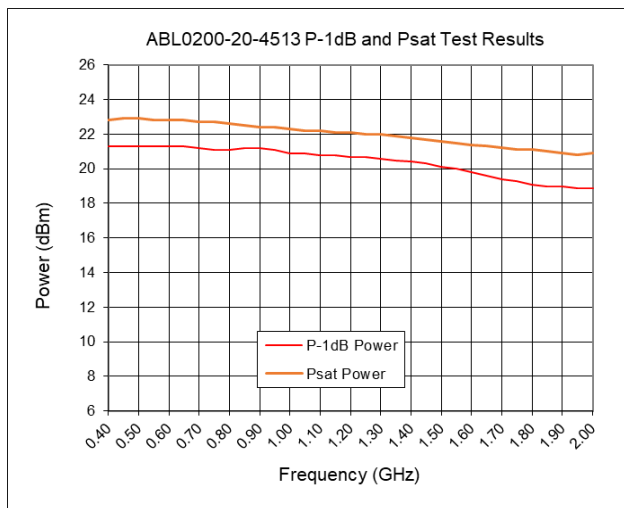
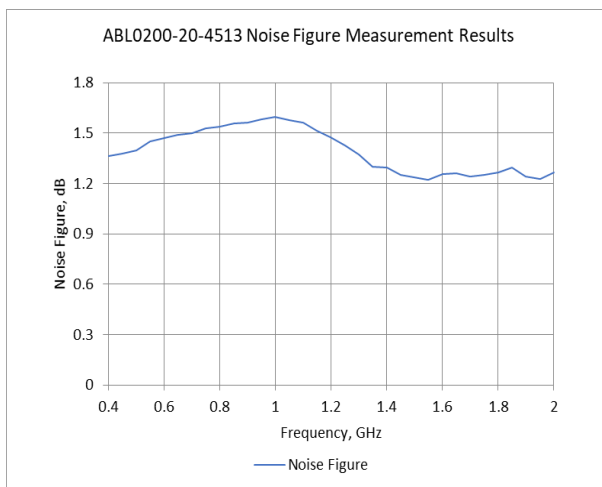
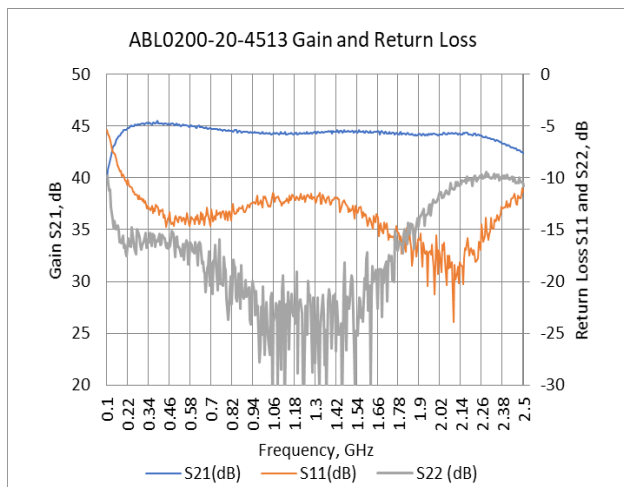
PARAMETERS	Units	SPECIFICATIONS		
		MINIMUM	TYPICAL	MAXIMUM
Frequency Range, MHz	MHz	400.0		2000.0
Noise Figure	dB		1.3	1.8
P-1dB Compression Point	dBm	18.0	20.0	
Output IP3	dBm	+32.0	+35.0	
Nominal Gain @Room Temp	dB	43.0	45.0	47.0
Gain flatness	dB		+/-0.5	+/-0.75
Gain Variation over Temp	dB		+/-1.0	
Input VSWR	-		1.6:1	1.8:1
Output VSWR	-		1.6:1	1.8:1
Reverse Isolation	dB	65.0		
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-55.0		+125.0
DC Power Supply Voltage	V	+11.0	+15.0	+30.0
DC Power Supply Current	mA	200	220 mA	240
RF In/Out connectors		50 ohm SMA female		
DC power supply Input		Feedthru Pin		
Outline Dimensions		3.55"x0.1.06"x0.69*		

Note: Other package types available upon request.

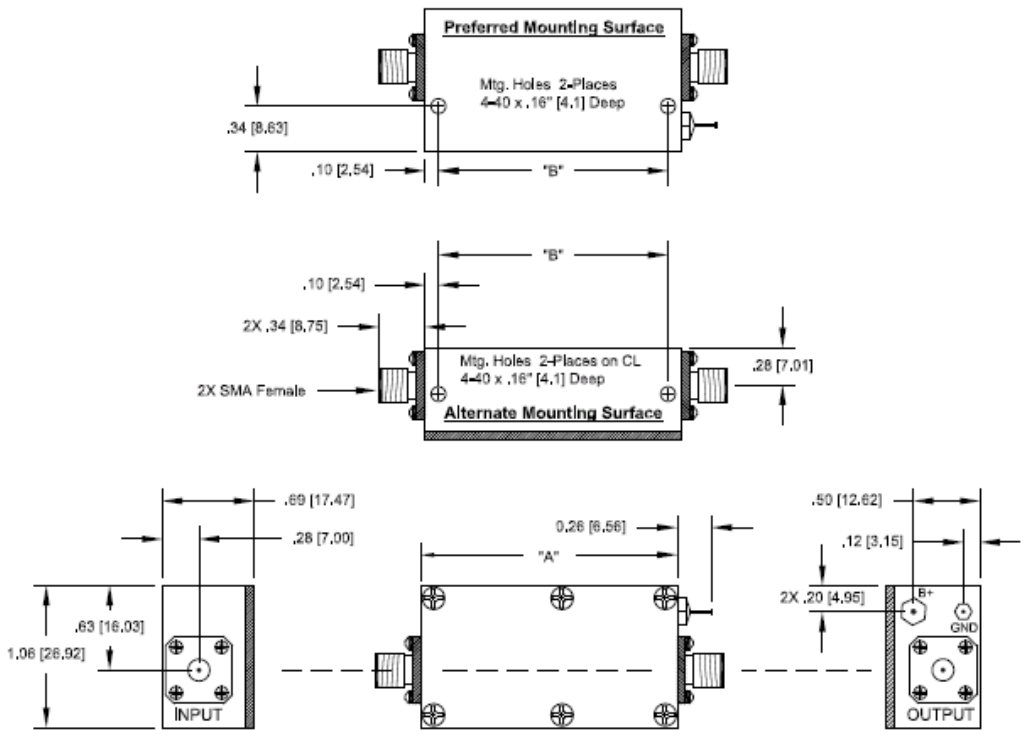
Functional Diagram



Test Results:



Mechanical Structure:



Dimensions Are Inches [mm]

Note: A=3.55 inch (90.2mm), B=3.35 inch (85.1mm)

Absolute Maximum Ratings

DC Voltage	+30V
RF Input Power	+20 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C

Revision History:

Revision	Date	Description	Comments
A00	08/08/2019	Initial Release	



Caution! Electrostatic sensitive device, please observe precautions for handling ESD sensitive devices.