

Features:

- Broad band, low noise
- Low VSWR, unconditional stable
- High P-1dB, excellent linearity
- SMA female connector I/O
- Single DC power supply operation with built in voltage regulator
- Operating temperature -40~+85°C, storage temperature -55~+125°C



General Description

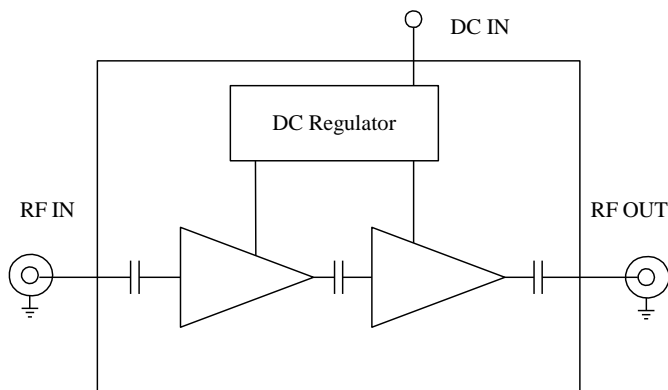
ABL0200-01-2718 is a high dynamic range two stage enhancement mode pHEMT low noise transistor based broadband low noise amplifier module operating in the frequency range from 50MHz to 2.0GHz. The amplifier provides 27dB of small signal gain, 1.8dB noise figure and excellent gain flatness, as well as 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

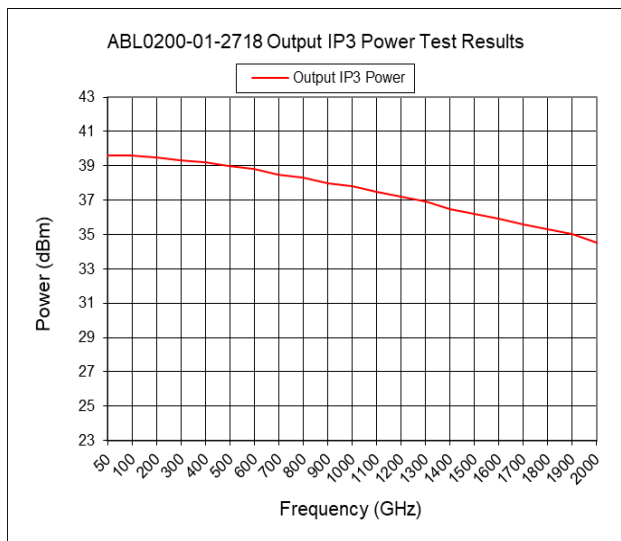
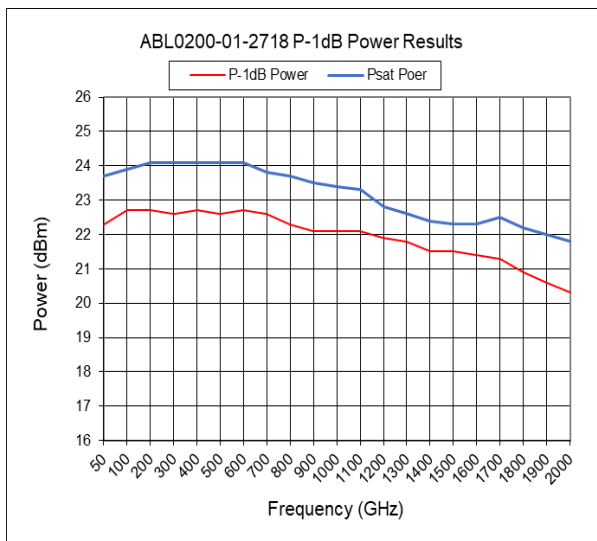
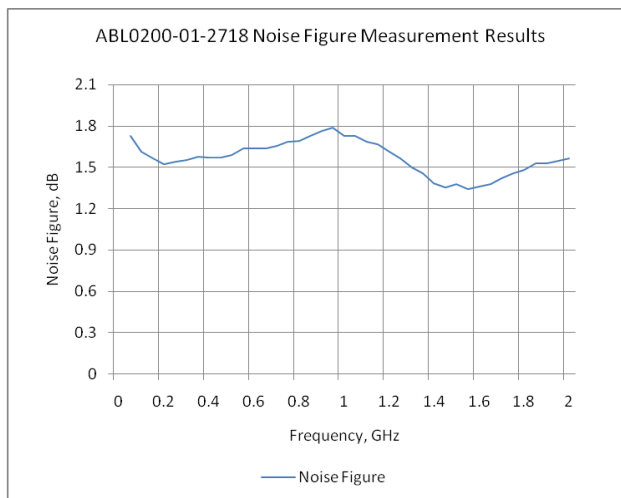
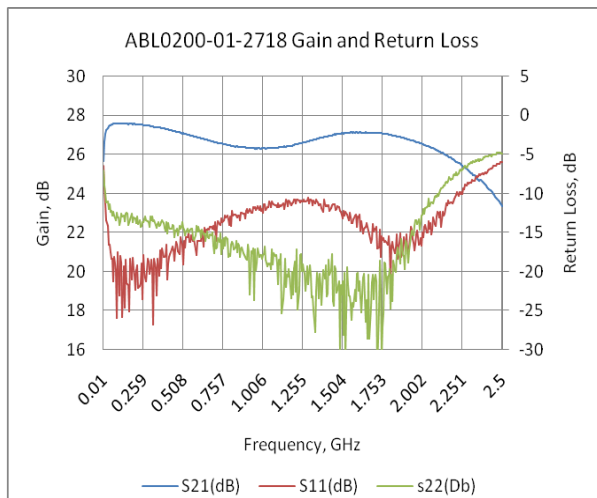
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Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	50.0		2000.0
Noise Figure (from 50MHz)	dB		1.8	2.0
Nominal SS Gain @25°C	dB	25.0	27.0	29.0
Gain flatness	dB		+/-0.75	+/-1.1
Gain Variation Over Temperature	dB		+/-1.0	
P-1dB Compression Point	dBm	+20.0	+22.0	
Output IP3	dBm	+34.0	+37.0	
Input VSWR	-		1.5:1	1.8:1
Output VSWR	-		1.5:1	1.8:1
Reverse Isolation	dB		45.0	
Spurious	dBc			-70
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+10.5	+12.0	+13.5
DC Supply Current	mA	140.0	160.0	190.0
RF In/Out connectors		SMA female		
DC Input Connector		Feed-thru PIN		
Size		1.2"x0.85"x0.375		

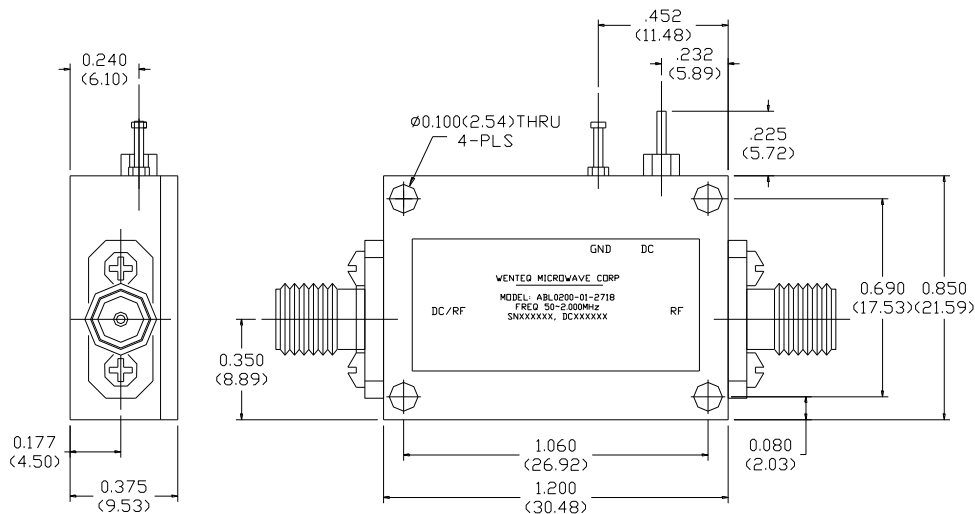
Functional Diagram



Typical Test Results:



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	+20 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C

Revision History:

Revision	Date	Description	Comments
A00	06/02/2016	Initial Release	



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