BROADBAND LOW NOISE AMPLIFIER
ABL0300-33-1808

Features:

- Broad band from 1.0 to 3.0GHz,
- Low noise figure, high dynamic range
- Low VSWR, unconditional stable
- SMA female connector I/O
- Low DC consumption, single DC power supply required with built-in DC voltage regulator
- Operating temperature -40~+85°C, storage temperature -55~+85°C

DESCRIPTION:

ABL0300-33-1808 is a single stage high dynamic range wide band amplifier using enhancement mode pHEMT device. The amplifier provides 18dB of small signal gain with 0.8dB noise figure over frequency range from 1.0 to 3.0GHz. The amplifier requires only a single positive DC power supply. Its built-in DC voltage regulator and reverse polarity protection circuitry 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	GHz	1.0		3.0
Noise Figure	dB		0.8	1.0
Small Signal Gain @25°C	dB	16.0	18.0	20.0
Gain flatness	dB		+/-0.75	+/-1.0
Gain Variation over temperature	dB		+/-0.6	+/-0.75
P-1dB Compression Point	dBm	+18.0	+20.0	
Output IP3	dBm	+33.0	+37.0	
Input VSWR	-		1.5:1	2.0:1
Output VSWR	-		1.5:1	2.0:1
Reverse Isolation	dB	27.0	30.0	
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+8.0	+12.0	+15.0
DC Supply Current	mA	100	120	150
In/Out connectors		50 ohm SMA female		
Size	inches	1.2”x1.0”x0.4”		

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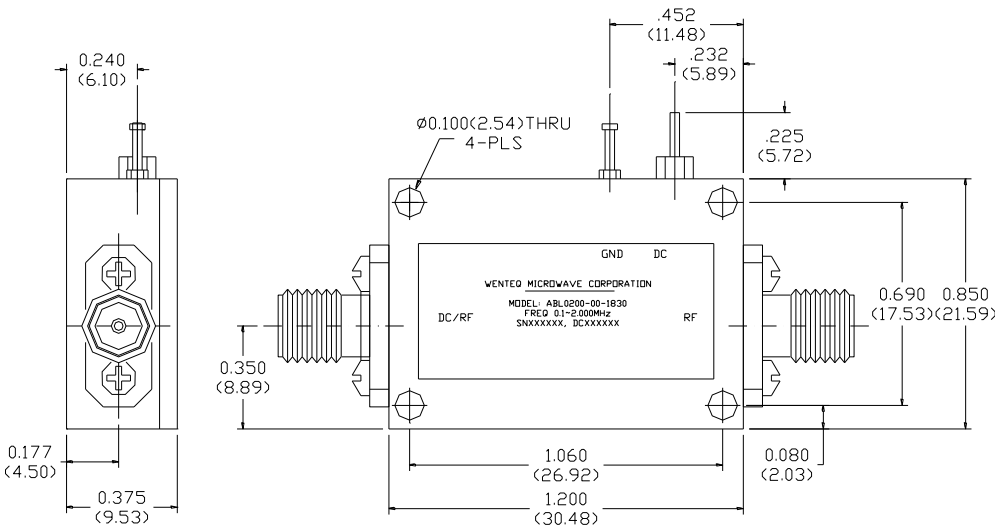
Mechanical Structure:



Note: All units in inches (mm).

Absolute Maximum Ratings

DC Voltage	+15V
Maximum RF Input Power	+27 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C