BROADBAND LOW NOISE AMPLIFIER
ABL1800-11-3825

Features:

- 2~18GHz Broadband operation with low noise, and high gain
- Low VSWR, unconditional stable
- SMA female connector I/O
- Built-in voltage regulators
- Operating temperature -40~+85°C, storage temperature -55~+85°C

General Description

ABL1800-11-3825 is a three stage GaAs MMIC broadband low noise amplifier module operating in the frequency of 2.0 to 18.0GHz. The amplifier provides 38dB of small signal gain with 2.5dB typical 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 for different DC voltage supply application. This amplifier is ideal for telecommunication infrastructures, microwave radio, test instrumentation and military applications

Electrical Specifications

Parameters		Specifications		
		Minimum	Typical	Maximum
Frequency Range	GHz	2.0		18.0
Nominal Gain @25°C base plate temperature	dB	35.0	38.0	40.0
Noise Figure	dB		2.5	4.0
P-1dB Compression Point	dBm	14.0	15.0	
Output IP3	dB m	27.0	28.0	
Gain flatness	dB		+/-1.5	+/-2.0
Gain Variation over Temperature Range	dB		+/-1.5	
Reverse Isolation	dB	40.0	50.0	
Input VSWR	-		1.8:1	2.5:1
Output VSWR	-		1.8:1	2.5:1
Spurious	dBc		60.0	
Operating Temperature	°C	-40.0		+85.0
Survival Temperature	°C	-45.0		+125.0
DC Power Supply Voltage	V	+10.0	+12.0	+15.0
DC Power Supply Current	mA	150.0	180.0	220.0
RF In/Out connectors		50 ohm SMA female		
DC Input Connector		Feedthru Pin		
Size	inches	1.50×1.0×0.4		

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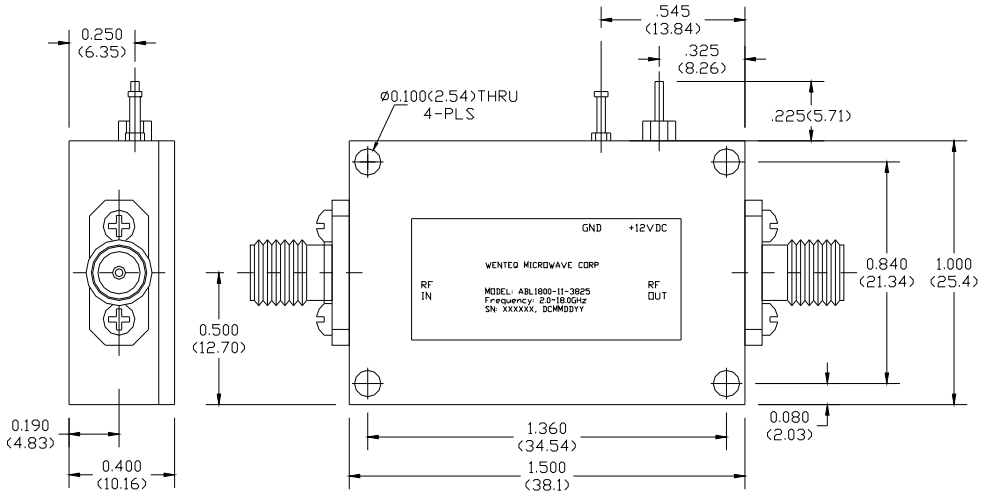
Mechanical Structure:



Note: All units in inches (mm).

Housing Material and Surface Finish:

Body and cover material: aluminum
Surface finish: nickel plated
Connector material: Stainless Steel
Connector surface finish: Passivated

Absolute Maximum Ratings

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

Revision History:

Revision	Date	Description	Comments
A00	06/20/2016	Initial Release	

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