BROADBAND POWER AMPLIFIER
ABP1800-33-4730

Features:

- Broad band, low noise, high gain and medium power output
- Low VSWR, unconditional stable
- SMA female connector RF I/O
- Single DC power supply required
- Optional heatsink available
- Operating temperature -40~+85°C, storage temperature -55~+85°C

General Description

ABP1800-33-4730 is a multi-stage GaAs pHEMT MMIC based broadband power amplifier module operating in the frequency from 6.0 to 18.0GHz. The amplifier provides 47dB of small signal gain with +30dBm typical output power at 1dB gain compression point. The amplifier offers excellent gain flatness, as well as good VSWR at both input and output. It 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		Specifications		
		Minimum	Typical	Maximum
Frequency Range	GHz	6.0		18.0
Nominal Gain @25°C base plate temperature	dB	43.0	47.0	51.0
Noise Figure	dB		3.0	5.0
P-1dB Compression Point	dBm	+29.0	+30.0	
Psat at Output	dBm	+30.0	+31.0	
Gain flatness	dB		+/-2.0	+/-2.5
Gain Variation over Temp.	dB		+/-2.5	
Reverse Isolation	dB	65.0		
Input VSWR	-		1.6:1	2.5:1
Output VSWR	-		1.6:1	2.5:1
Spurious	dBc			-70.0
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-45.0		+85.0
DC Power Supply Voltage	V	+7.0	+8.0	+10.0
DC Power Supply Current	mA	1000.0	1200.0	1500.0
RF In/Out connectors		50 ohm SMA female		
DC Input Connector		Feedthru Pin		
Outline Dimensions not including connectors	inches	1.90×1.00×0.40		

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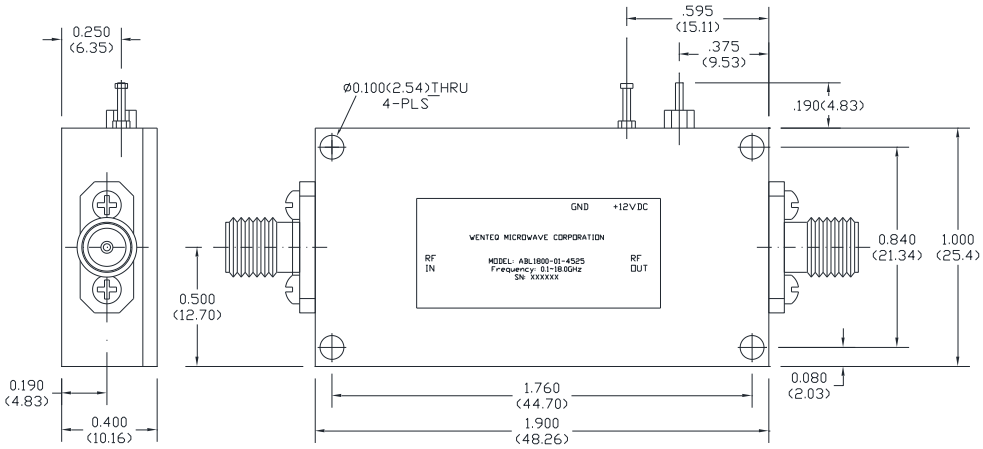
Mechanical Structure:



Note: All units are in inches(mm), and all tolerances are +/-0.005 inch unless otherwise specified

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	+10V
RF Input Power	+15 dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+85°C

WARNING: This device is electrostatic sensitive, please observe precautions for safe handling of this amplifier.

WARNING: This product can expose you to chemicals including Nickel (Metallic) and Gallium Arsenide which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to **www.P65warnings.ca.gov**.