

18-40GHz Broadband Amplifier, +30dBm

2021-5-30



Product Overview

AT-PA-1840-3330GN is high gain power amplifier with +30dBm output power in the frequency of 18-40GHz. The DC power requirement is +22V/0.65A. Supply voltage can be from +22 to +28V. The module is with 2.92mm connector.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 18-40GHz
- ✓ Pout:+30dBm
- ✓ Small signal gain: 30dB
- ✓ Single Power Supply

Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		18-40GHz	
Gain	30dB	33dB	
Gain Flatness		+/-3dB	+/-4.5dB
P1dB		+27dBm	
Psat		+30dBm	
Drain Supply	+22V	+24V	
Current/Quiscent		0.55A	
IDD Psat		0.65A	
Input Return Loss		-10dB	
Output Return Loss		-5dB	
Spec Temp		25C	





AT-PA-1840-3330GN

18-40GHz Power Amplifier

Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	150g
Size:	60X45X14mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+28V
RF Input Power	+10 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

Caution:

Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

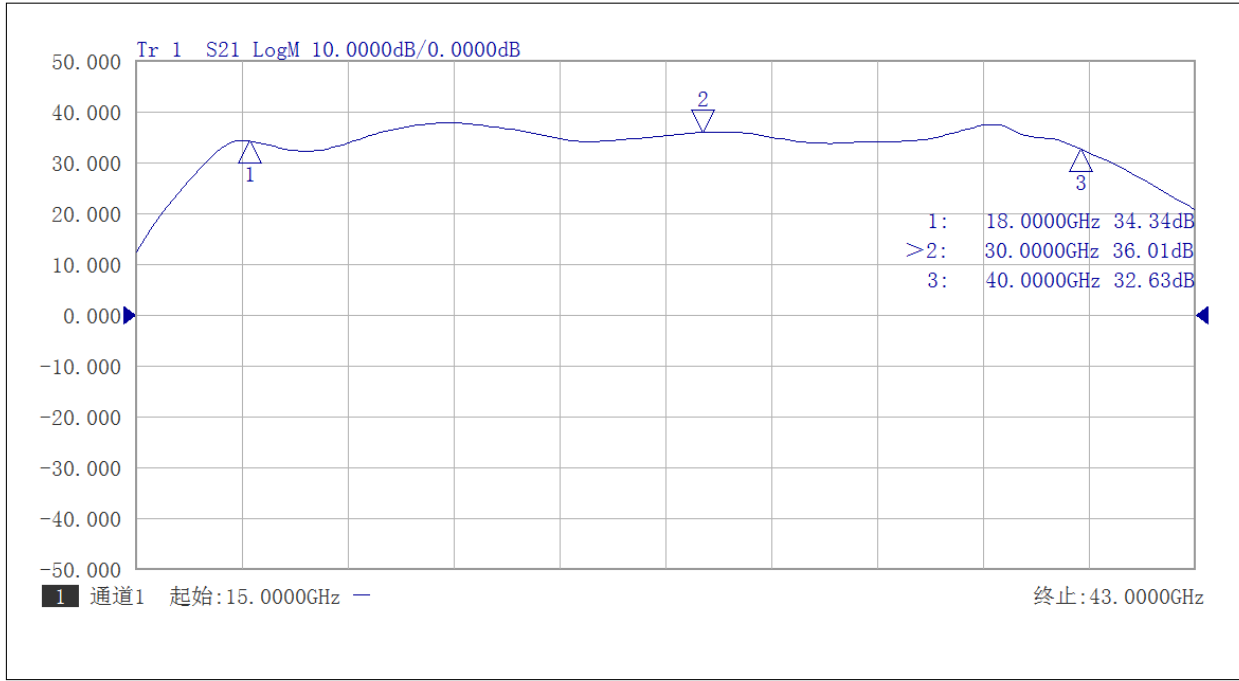
Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

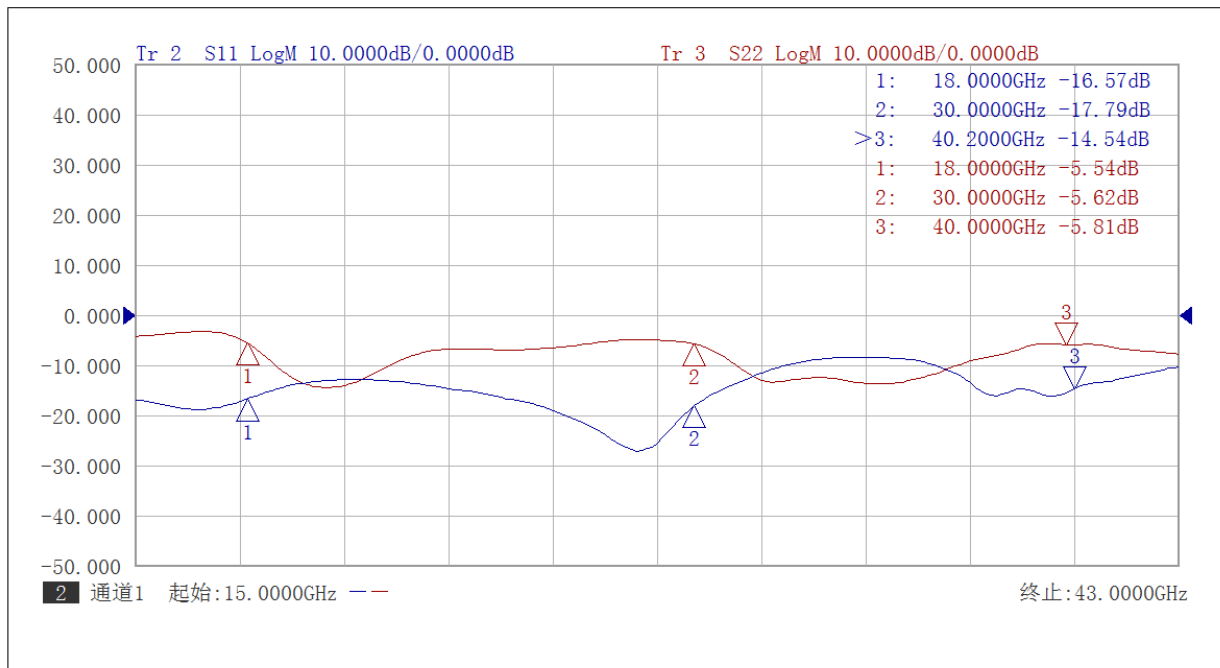


Test Data:

Vdd=+22V, Idd=0.54A, IDD=0.65A at Psat, 25C



Gain vs Frequency



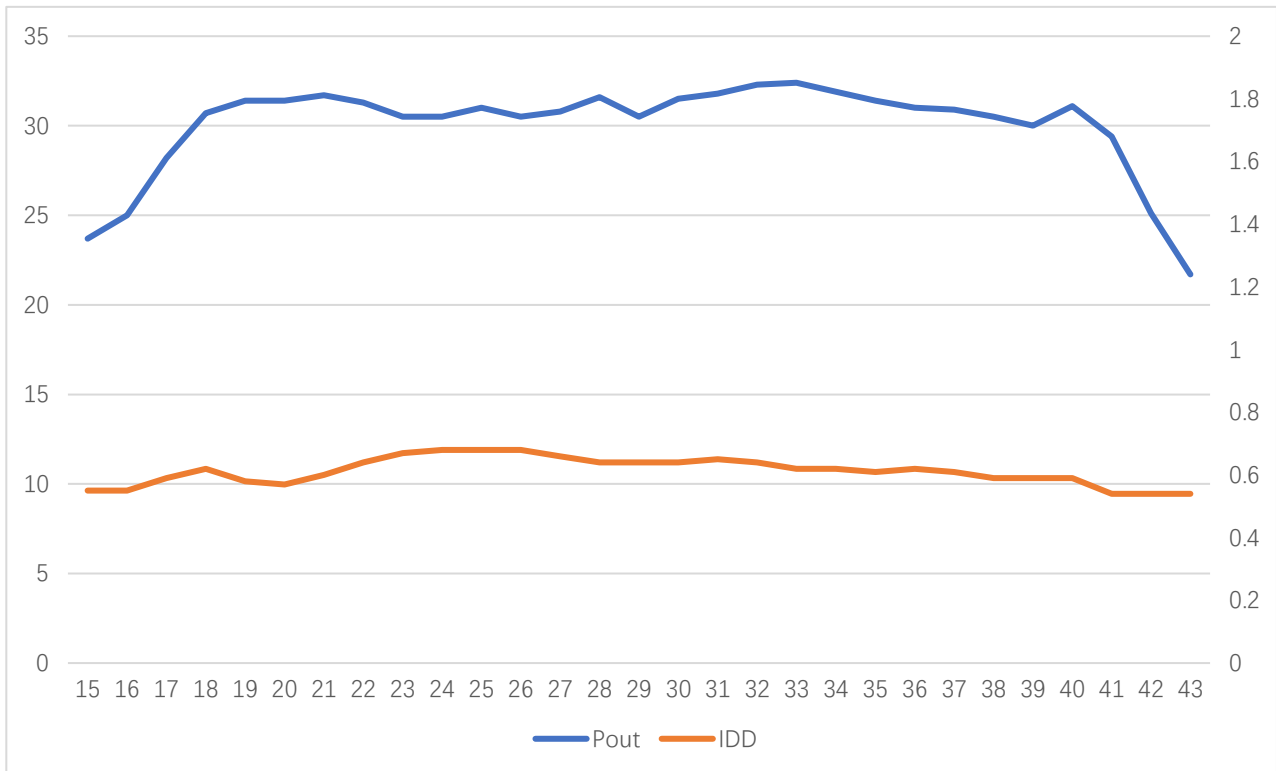
Return Loss vs Frequency





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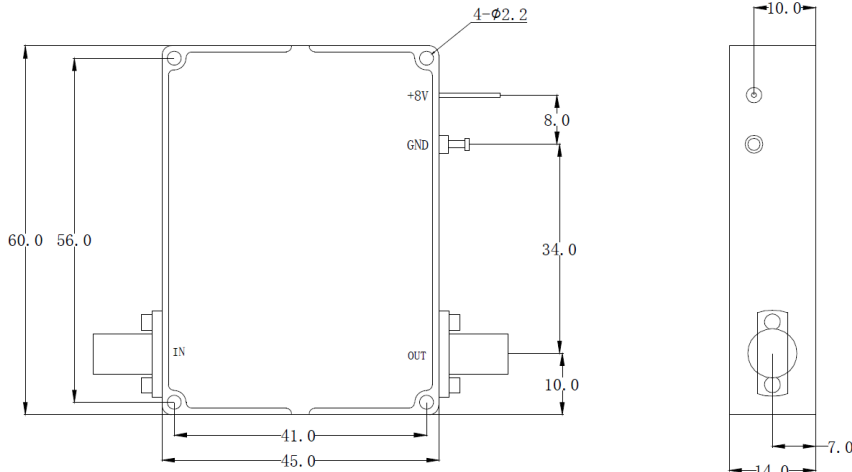
18-40GHz Power Amplifier



Psat and IDD vs Frequency, Pin=+5dBm

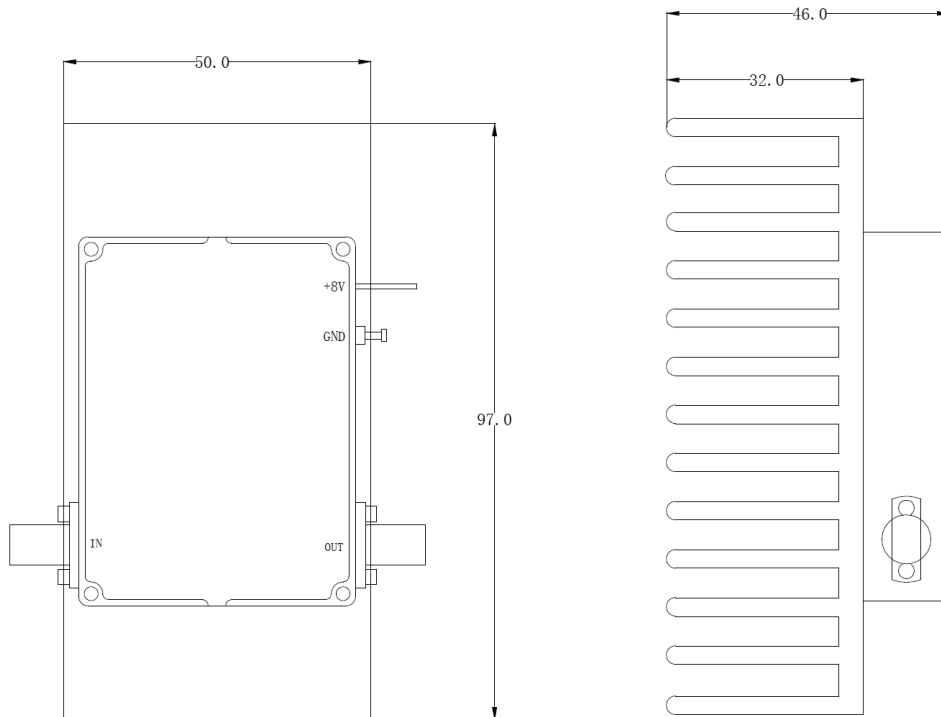


Dimension: (unit mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Length of a	9.4mm	9.5mm	10.8mm	11.3mm

Note: Female Default. Contact with us for other types.



Including a small heatsink without Fan if output Power higher than +20dBm.

Customers can removed it or use their own heatsink according to actual situation.

Heat Sink Required During Operation if case Temp higher than 50C

