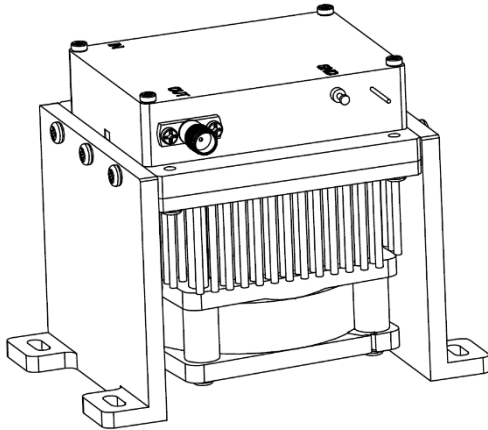


15-40GHz Broadband Amplifier, +28dBm

2022-9-22



Module with-HF Option

Product Overview

AT-PA-1540-3028TC is high gain power amplifier with +28dBm output power in the frequency of 15-40GHz. The DC power requirement is +12V/0.72A at Psat output. The power supply range can be from +8V to +28V.

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: 15-40GHz
- ✓ Psat:+28dBm
- ✓ 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		15-40GHz	
Gain	27dB	30dB	
P1dB		+27dBm	
Psat	+27	+28dBm	
NF		4dB	5.5dB
Drain Supply	+8V	+12V	+28V
Current NO RF		0.7A	
Idd Psat		0.92A	1.1A
Input Return Loss	-7	-10 dB	
Output Return Loss	-7	-10 dB	
Spec Temp		25C	





AT-PA-1540-3028TC

15-40GHz 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)	230g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+30V
RF Input Power	+15 dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +125C

Caution:

Please pay attention to the case temperature.

If case temperature exceeds +50C, heat sink and fan are required.

Bias Procedure:

Make sure GND is connected before Vdd Power ON.

Module may be damaged when Vdd Power ON without GND.





AT-PA-1540-3028TC

15-40GHz Power Amplifier

Part Number Selection

Item	Description
AT-PA-1540-3028TC	In defaulted without heatsink and Fan. Heatsink and Fan required during operation.
AT-PA-1540-3028TC -HF	Including Heatsink and Fan. Fan bias is connected with PA Module's Vdd supply

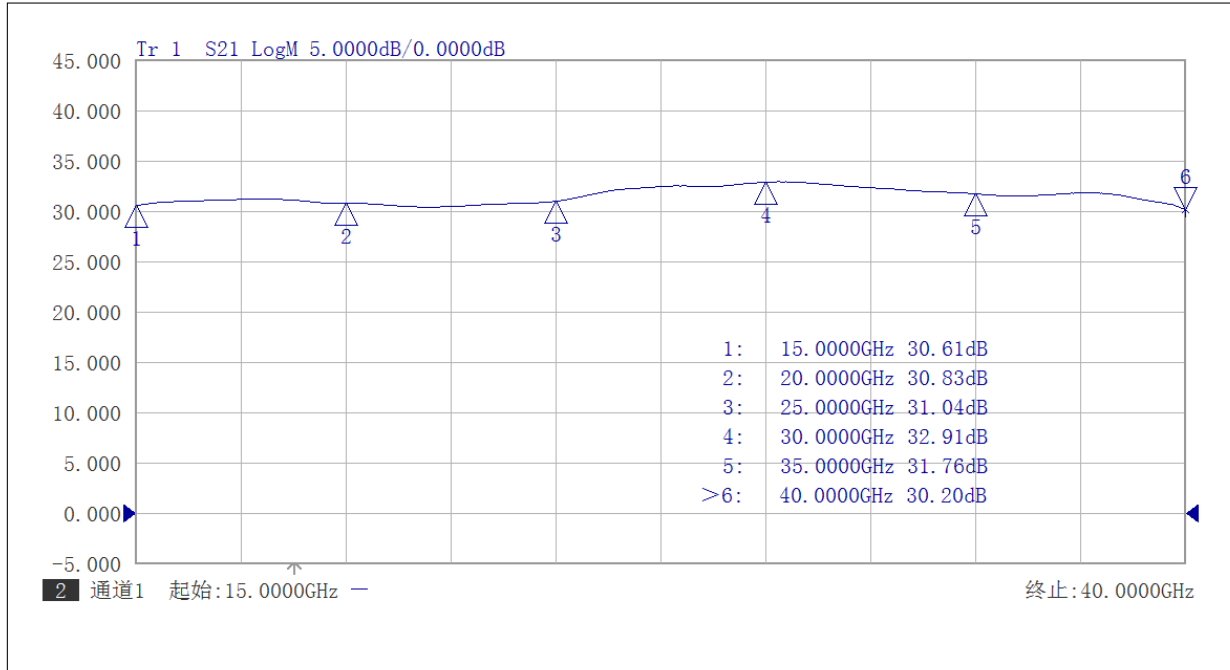
Notes:

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.

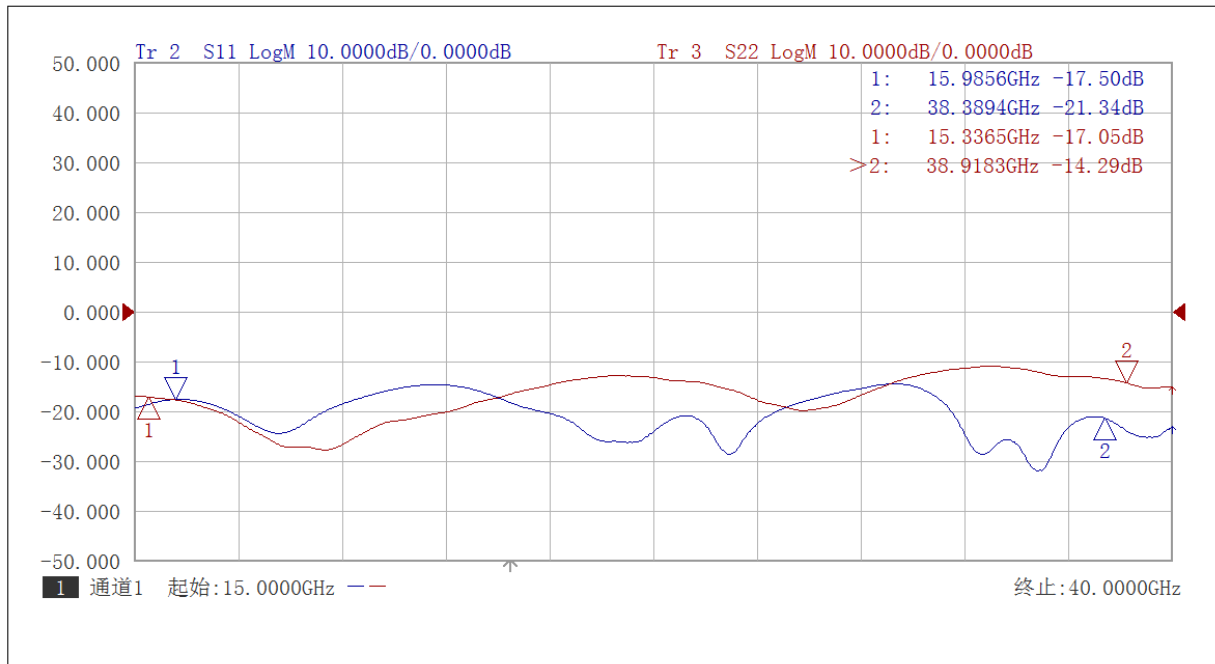


Test Data (25C)

Please note that test curves will vary slightly from unit to unit.

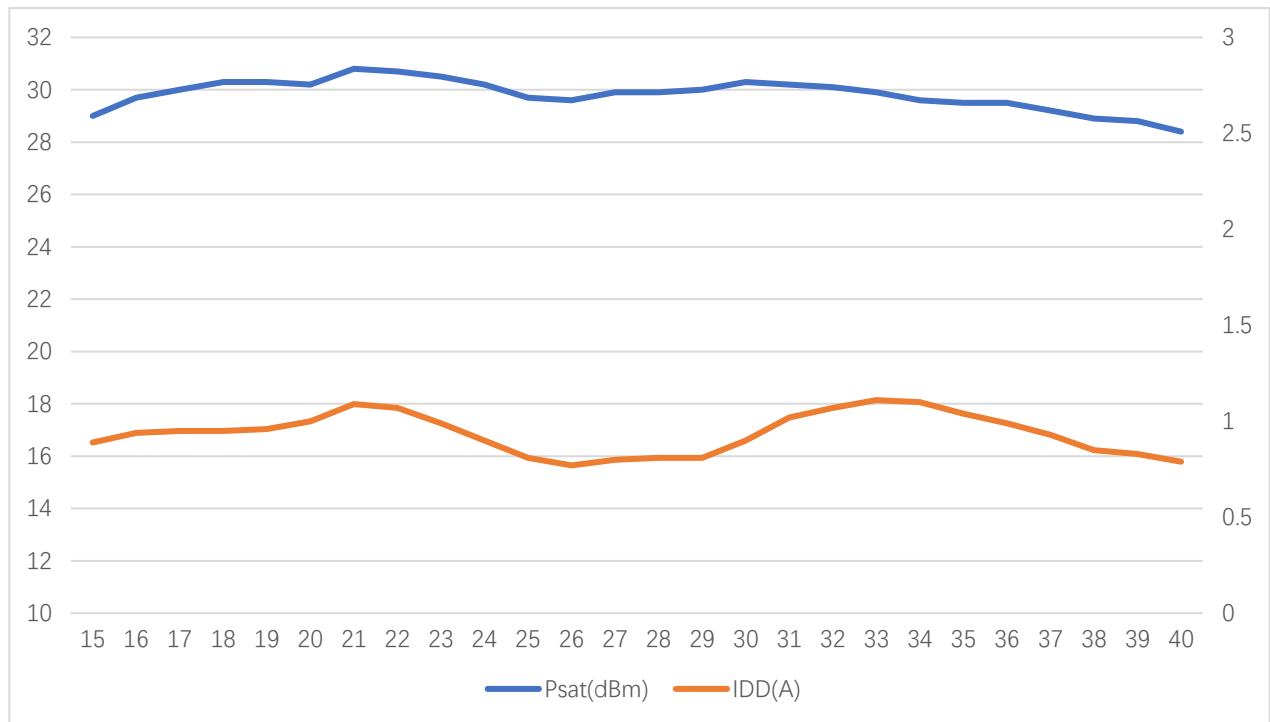


Gain vs Frequency

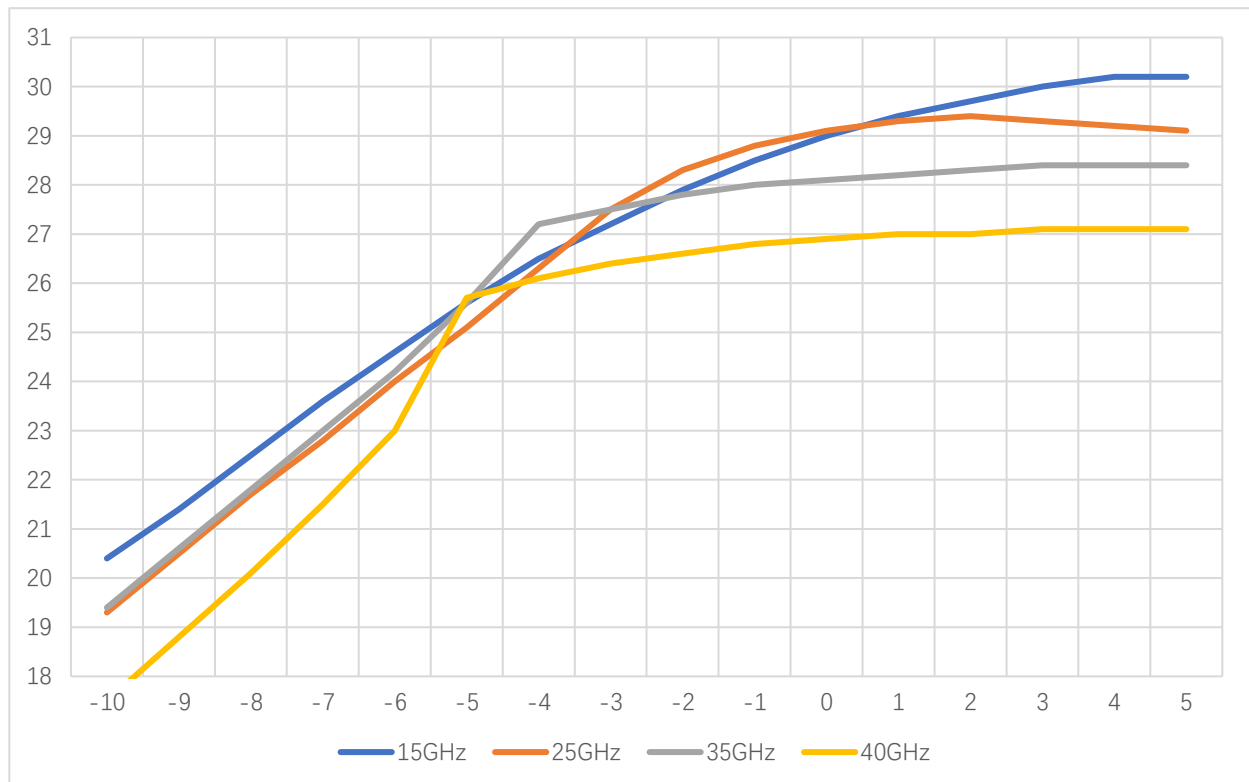


Return Loss vs Frequency



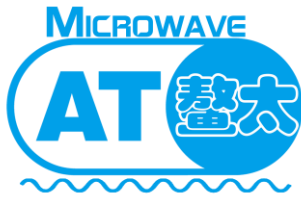


Psat and IDD vs Frequency at 12V



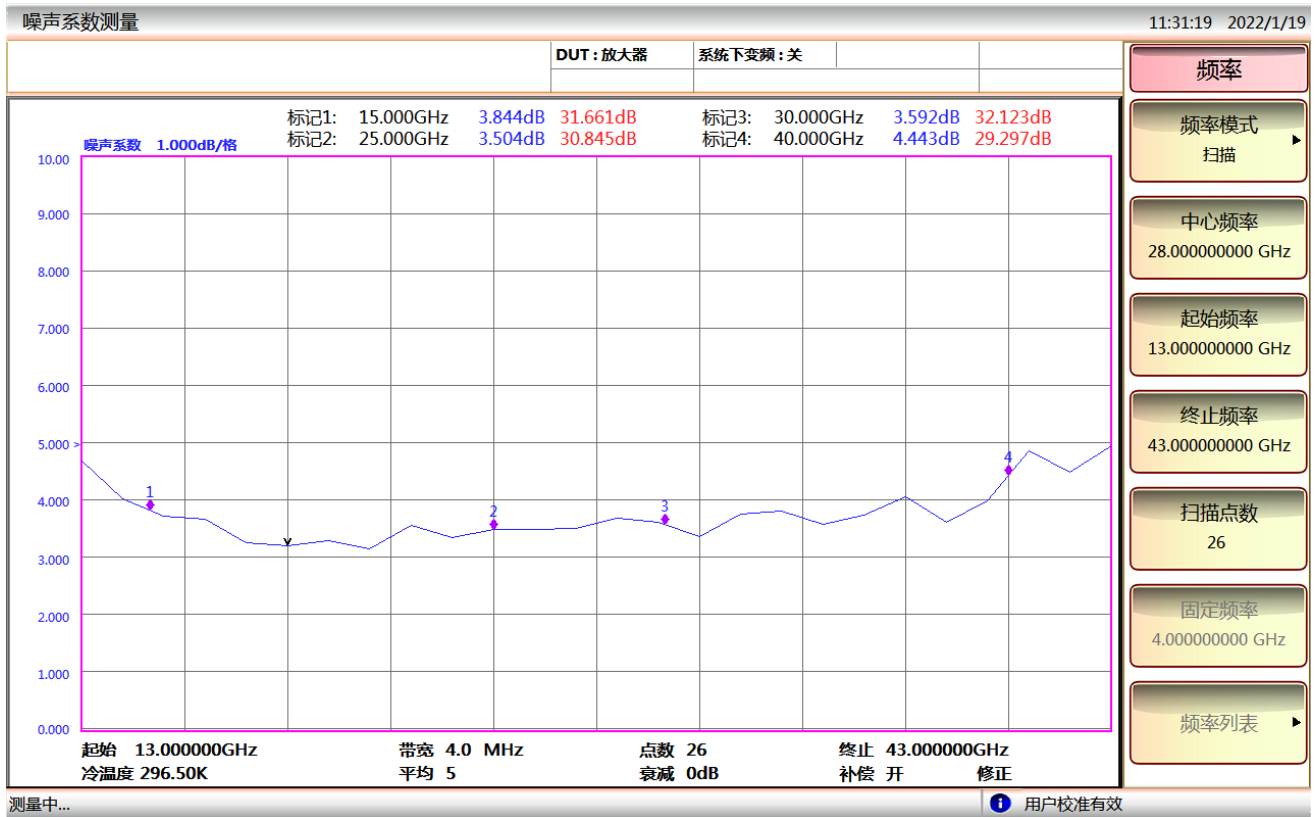
Pout vs Pin





AT-PA-1540-3028TC

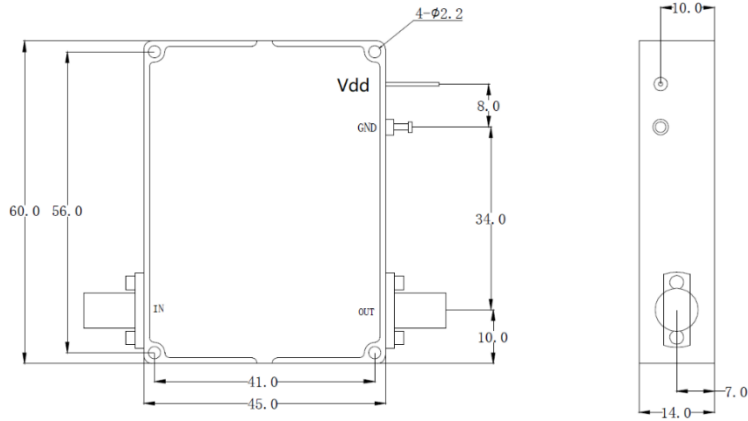
15-40GHz Power Amplifier



NF vs Frequency



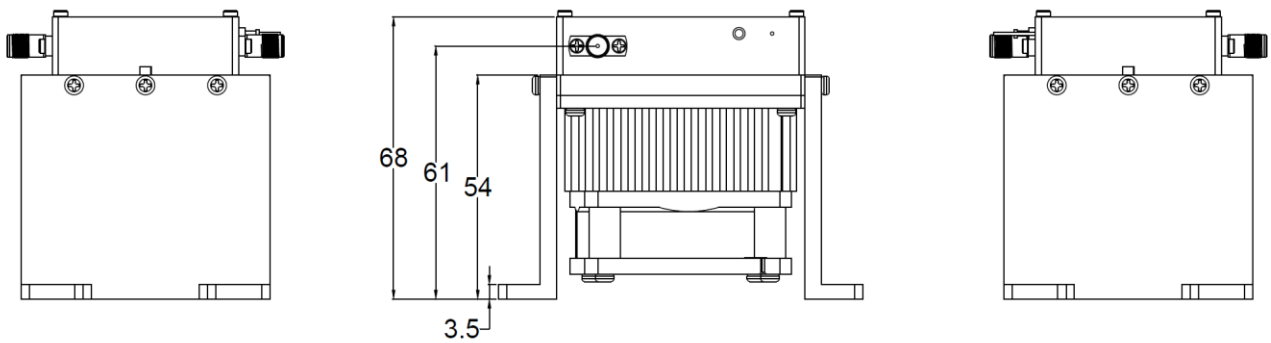
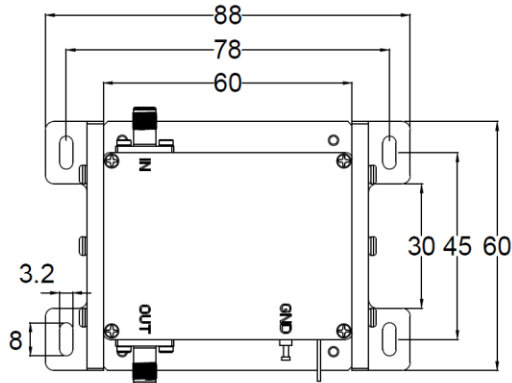
Dimension: (unit mm)



	<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.

Outline without heatsink. Heat Sink Required During Operation



Outline-HF option with heatsink

