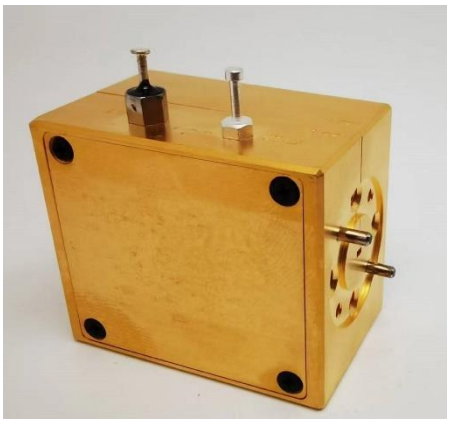
AT-PA-110140-1815E

110-140GHz Power Amplifier

F Band Power Amplifier, 18dB Gain, Pout=+14.5dBm, WR-08

2022-10-1



Product Overview

AT-PA-110140-1815E is a F Band power amplifier operating in 110-140 GHz frequency range. The PA is packaged in a waveguide module using industry standard WR-08.

MMIC technology Chip is used, which ensures reliable and repeatable unit-to-unit result. Higher gain amplifier is available according to request.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 110-140GHz
- ✓ Gain: 18dB
- ✓ Pout: +14.5dBm
- ✓ Single Supply

Application

- ✓ F Band Communication
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		110-140GHz	
Gain	14dB	18dB	
P1dB	+8dBm	+10dBm	
Psat (Pin=+5dBm)	+12dBm	+14.5dBm	
Drain Supply		+5V	+6V
Current		230mA	
Input Return Loss		-5dB	
Output Return Loss		-5dB	
Spec Temp		25C	

Shanghai AT Microwave Limited

Tel:021-6229 1233 Email:sales@atmicrowave.com www.atmicrowave.com

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Mechanical Information

Item	Description
Input Port	WR-08, UG-387/U-M Flange with anti-cocking Flange
Output Port	WR-08, UG-387/U-M Flange with anti-cocking Flange
Case Material	Copper
Finish	Gold Plated
Weight	150g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+8V
RF Input Power	+10dBm
Operating Temperature	0 to +50C
Storage Temperature	-65 to +140C

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.

Part Number Selection Guide

Item	Description
PN	Standard Module with DC Power Supply
PN-LCBT	Low Cost, Compact Bench-Top, +220V Supply with AC/DC Adapter

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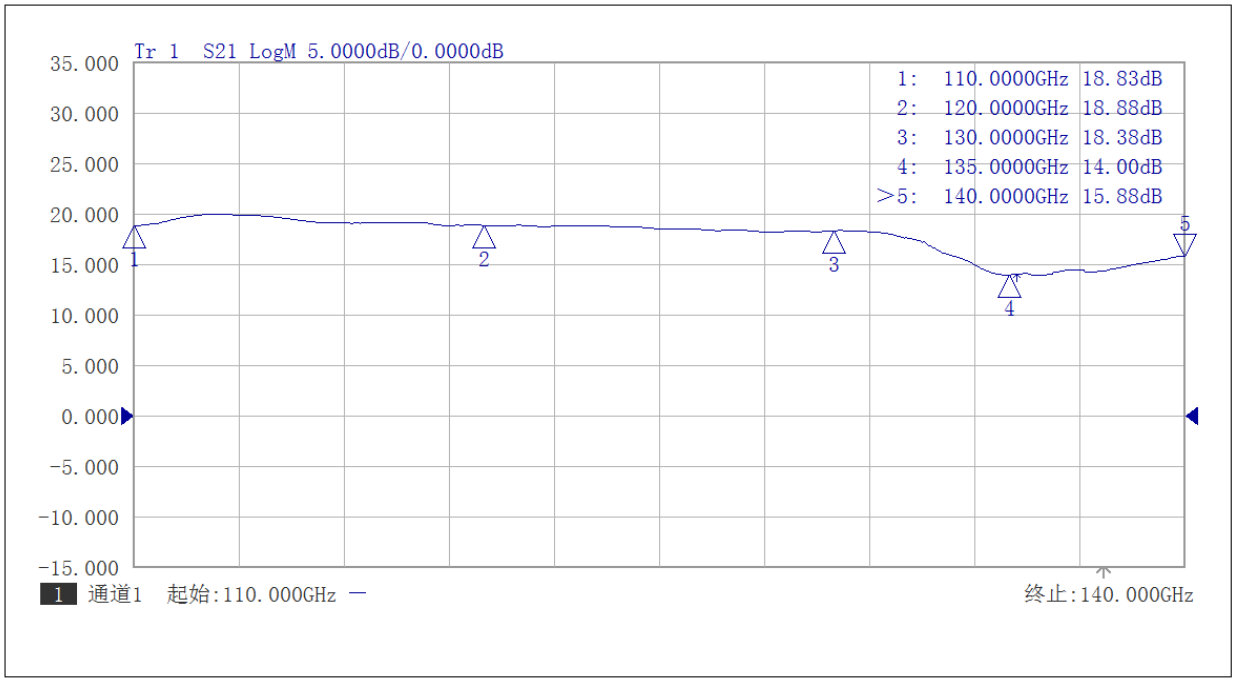
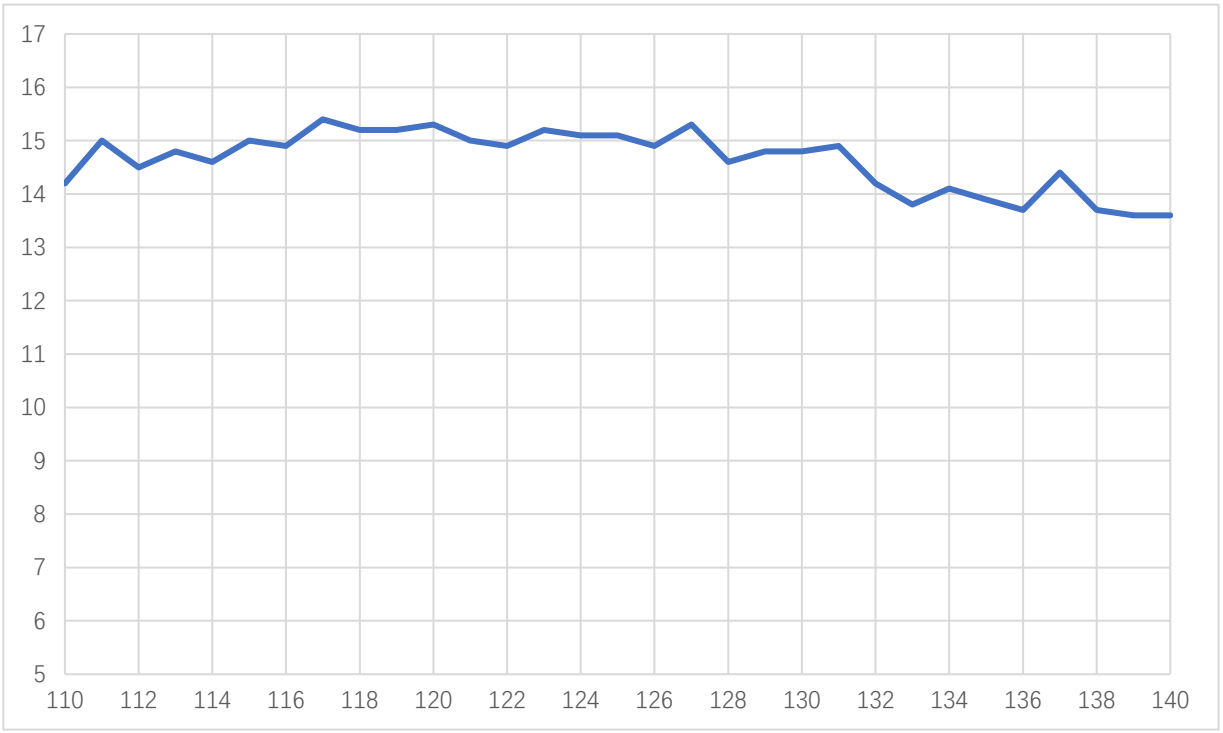
Test Data (25C)

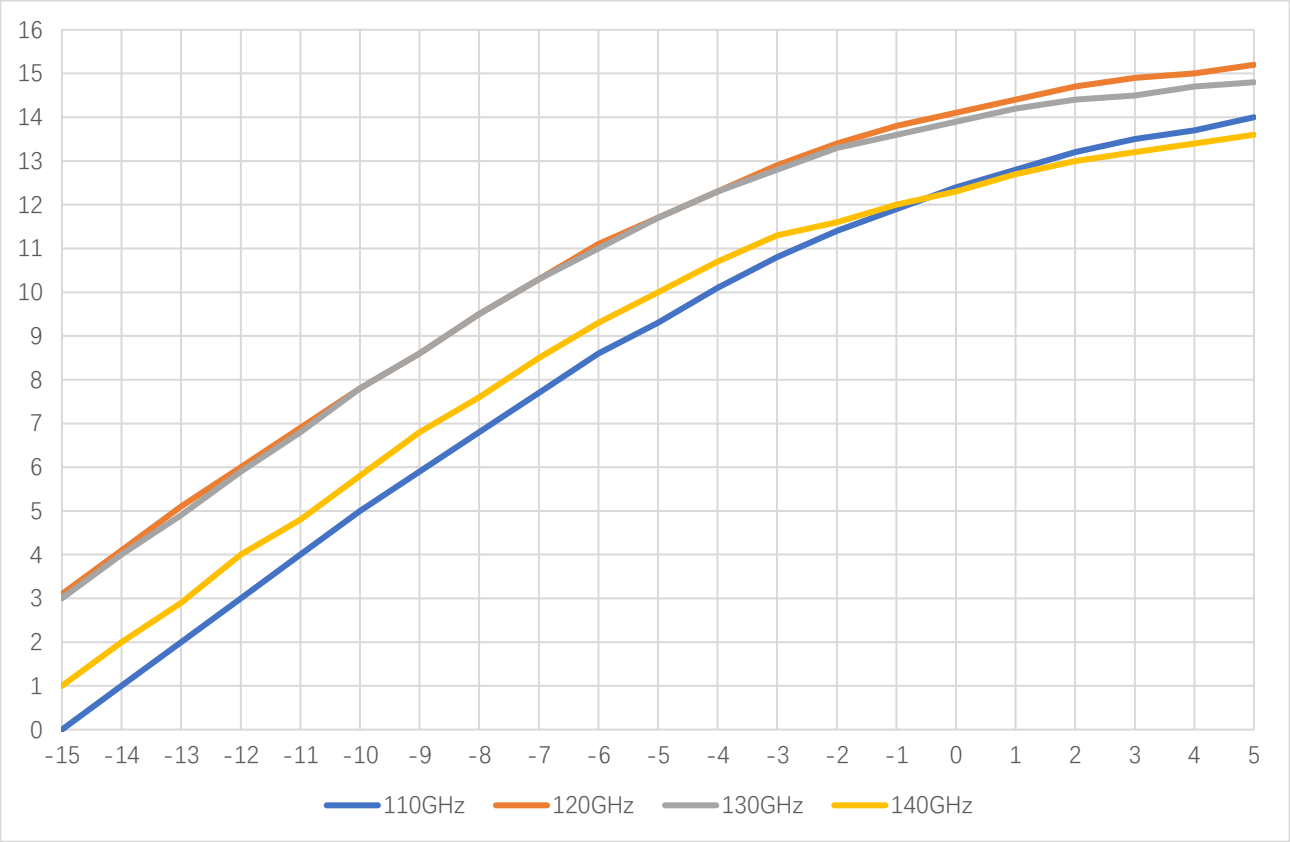
Please note that test curves will vary slightly from unit to unit.



Gain vs Frequency



Psat vs Frequency


16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5
110GHz
120GHz
130GHz
140GHz

Pout vs Pin

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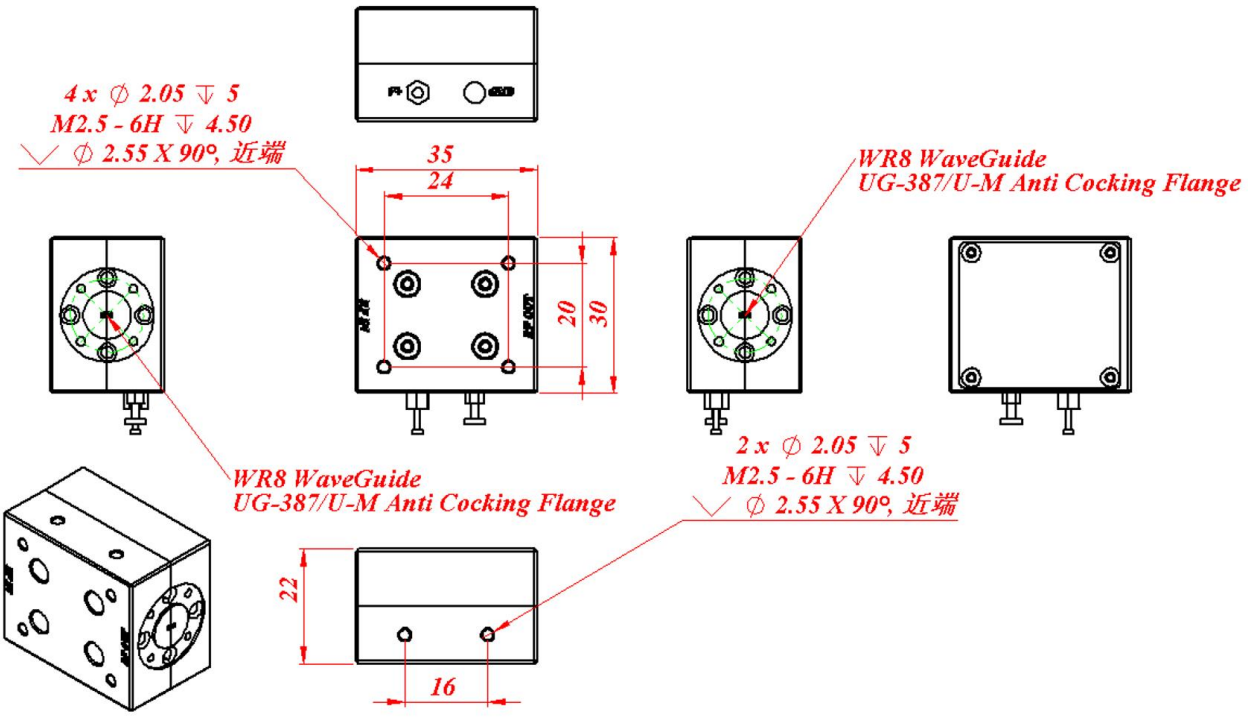
Dimension：（mm）



PCN History

Date	Description
2021-12-1	Initially released
2022-9-1	Outline updated