

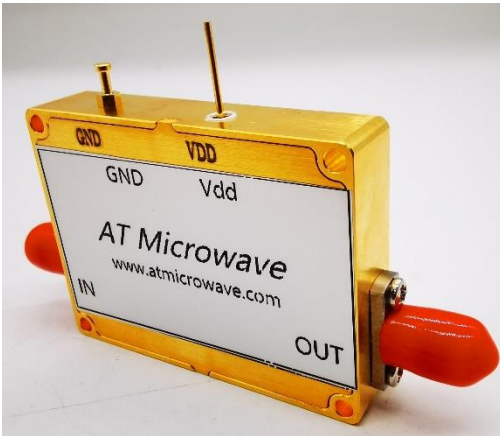


AT-AM4-2040-20

Active Multiplier x4, 20-40GHz Pout=+20dBm

Active X4, 20-40GHz Broadband, High Power

2020-11-6



Description:

AT-AM4-2040-20 is a broadband frequency multiplier. The multiplier has an input frequency of 5-10 GHz with a typical output +20dBm from 20-40GHz.

The integrated input and output buffers deliver high output power at a low drive level. The multiplier also has a typical harmonic suppression. The input port is SMA female, and the output is 2.92mm Female. Other port configurations are available under different requirement.

More information, please visit www.atmicrowave.com

Feature

- ✓ Frequency: 20-40GHz
- ✓ Pout: +20dBm typical
- ✓ Input: 5-10GHz
- ✓ Low Harmonics

Application

- ✓ 28/39GHz 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Electronical Specifications:

Parameter	Min	Typical	Max
Input Frequency	5GHz		10GHz
Input Power	+10	+13dBm	+15
Multiplier Factor		X4	
Output Frequency	20GHz		40GHz
Output Power		+20dBm	
1 st Suppression vs 4 th Pout		-50dBc	
2 nd Suppression vs 4 th Pout	-25	-35dBc	
3 rd Suppression vs 4 th Pout	-25	-35dBc	
Drain Voltage	+5.5V	+8V	+12V
Current		0.3A	0.35A
Spec Temp		25C	

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Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	2.92mm Female
Case Material	Copper
Finish	Gold Plated
Package Sealing	Epoxy Sealed
Weight (Without Heatsink)	80g
Size:	45x34x8.5mm

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+13V
RF Input Power	+20dBm
Operating Temperature	-20 to +70C
Storage Temperature	-65 to +150C

Note: -40 to 85C operating Temp range is available according to request.

Notes:

- ✓ Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
- ✓ This data is only for reference, not for guaranteed specifications.
- ✓ Please contact AT Microwave team to make sure you have the most current data.
- ✓ Always pay attention to the temperature of the case, heatsink and fan are required if case temperature exceeds over 50C.



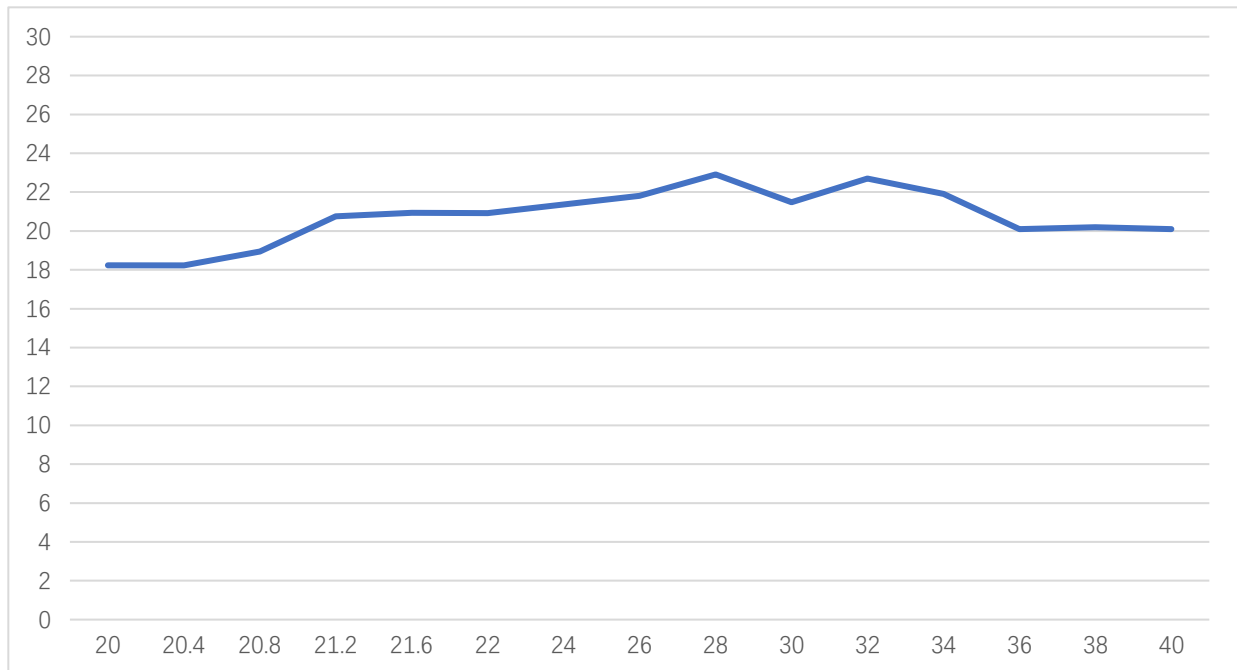


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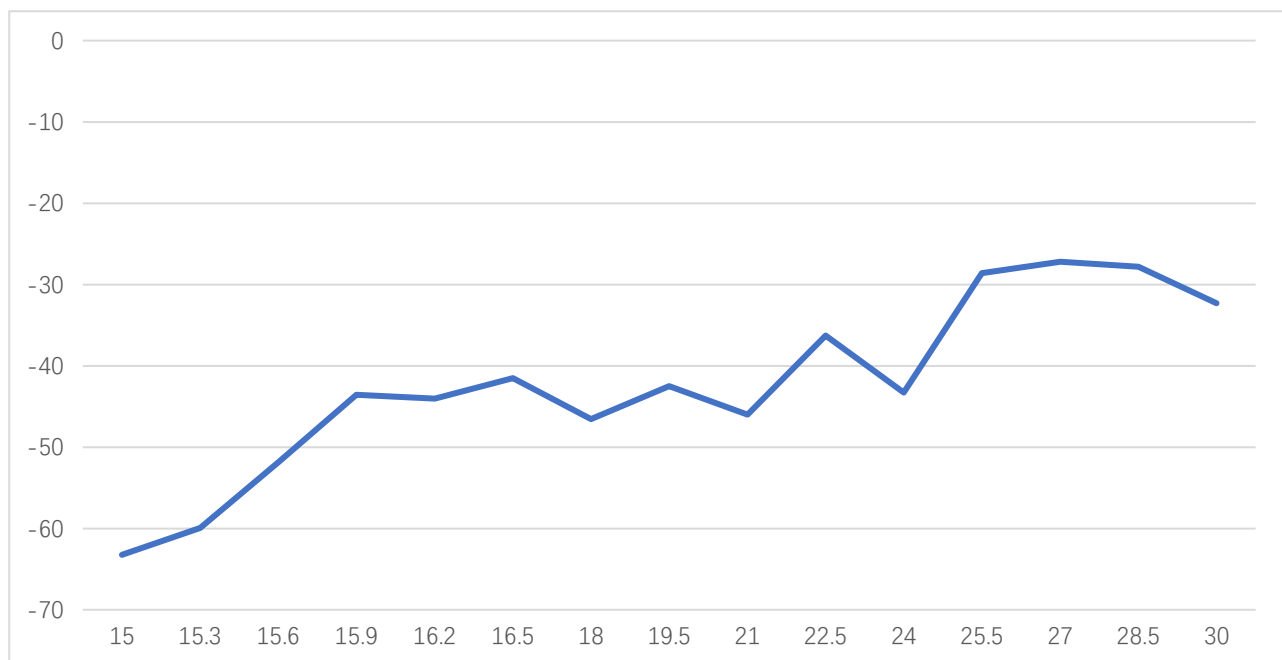
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Test Data:

Input=+13dBm, 25C

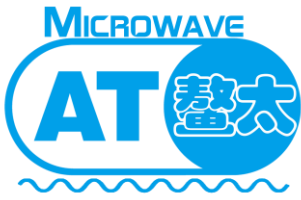


X4 Pout vs Frequency/GHz



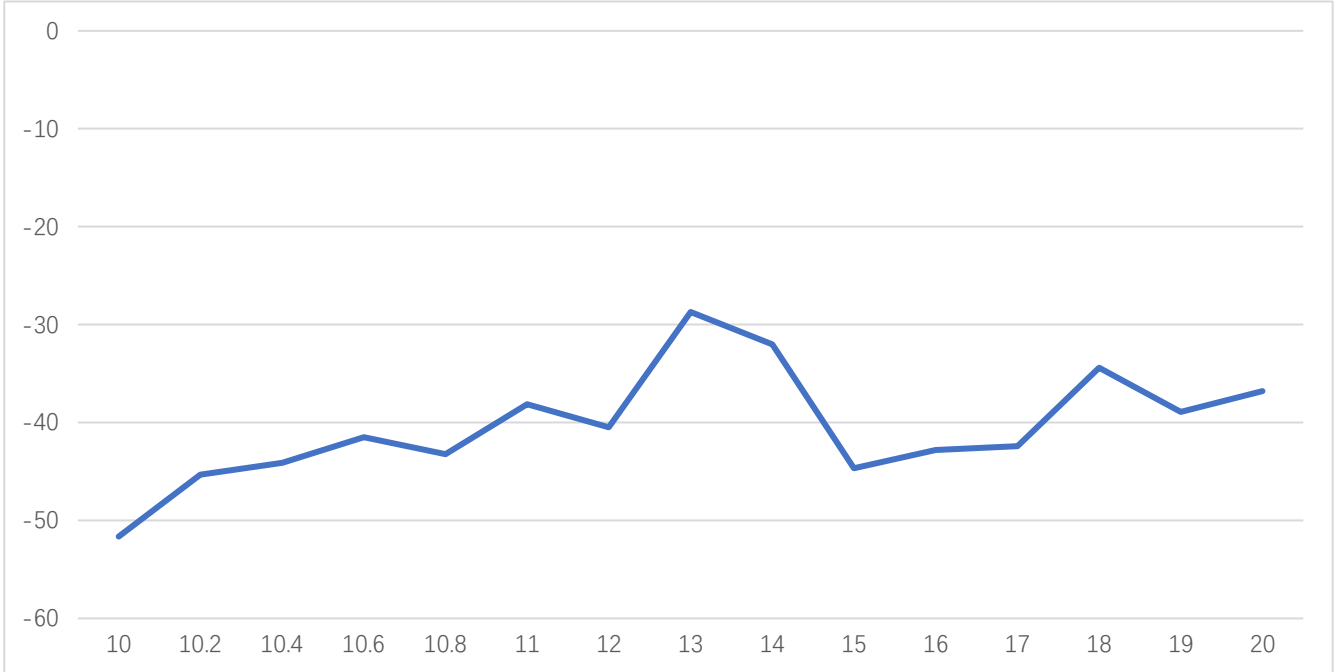
X3 Suppression vs 4th Pout



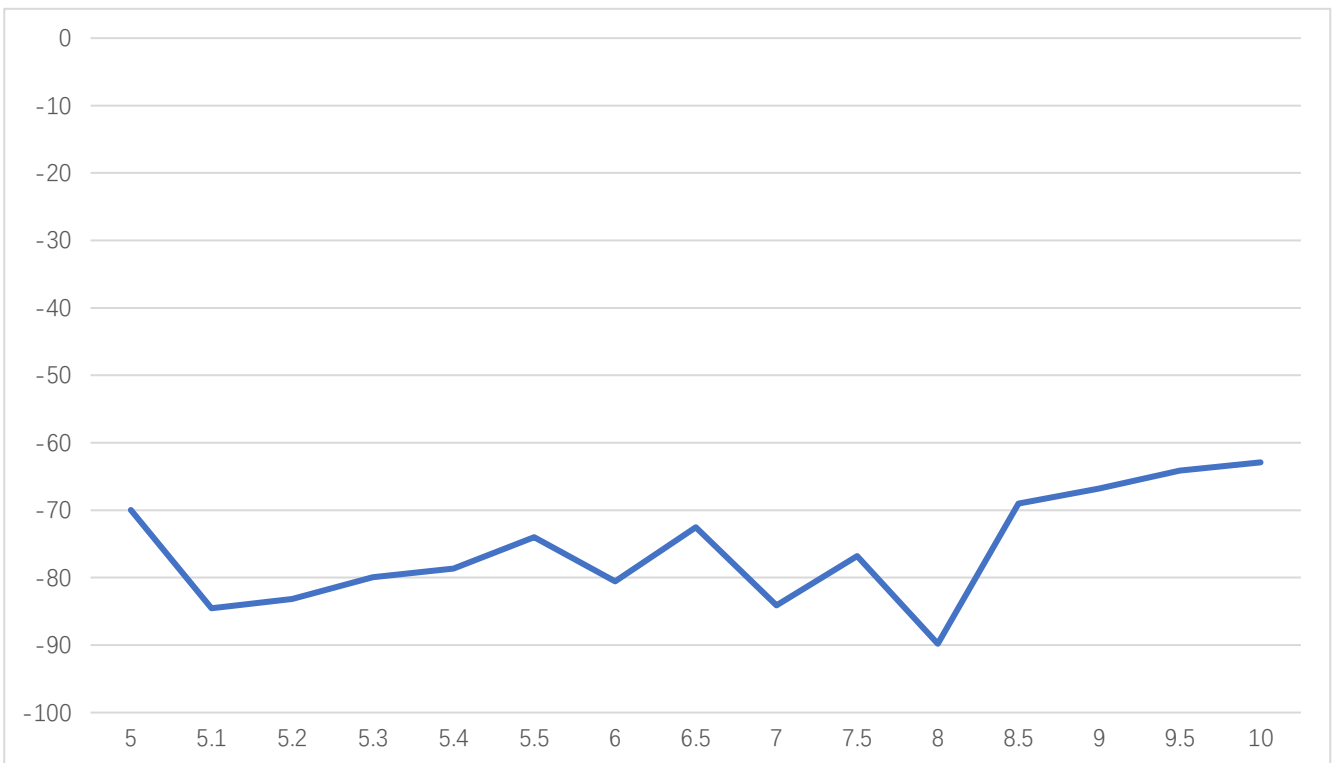


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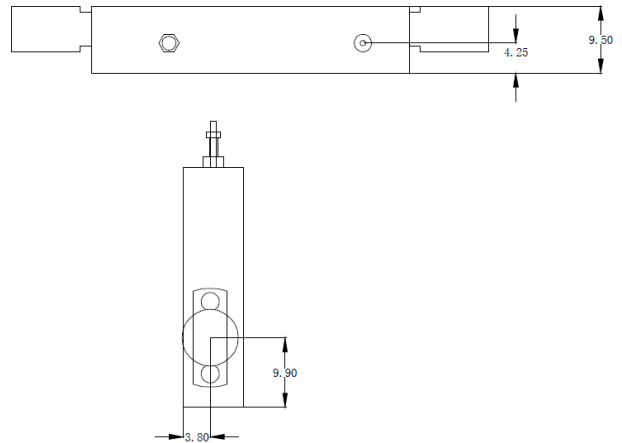
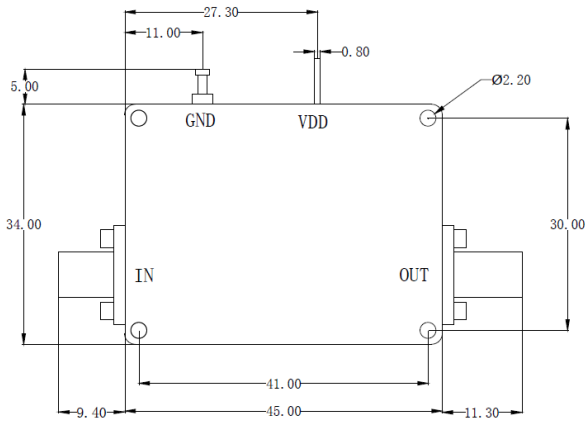
X2 Suppression vs 4th Pout



X1 Suppression vs 4th Pout

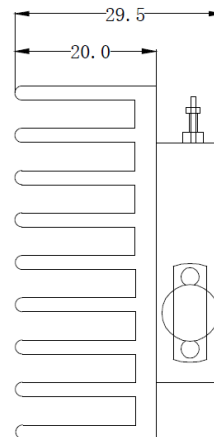
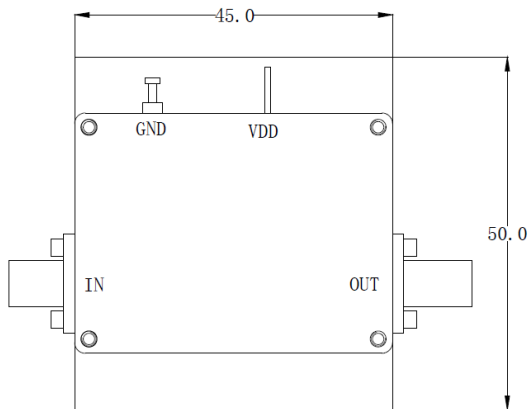


Dimension: (Unit:mm)



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

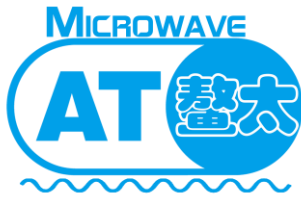
Note: Female Default. Contact with us for other types.



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





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PCN History

Date	Description
2020-11-6	Change Nickel plated to Gold Plated. Change Screw assembly to Epoxy Sealing. RF Performance unchanged.

