



AT-AM4-2050-22XC2

Active Multiplier x4, 20-50GHz Pout=+22dBm

Active X4, 20-50GHz Broadband, High Power +22dBm, 2.4mm

2022-5-1



Description:

AT-AM4-2050-22XC2 is a broadband frequency multiplier. The multiplier has an input frequency of 5-12.5 GHz with a typical output +22dBm from 20-50GHz.

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 2.4 mm Female. Other port configurations are available under different requirement.

More information, please visit www.atmicrowave.com

Feature

- ✓ Frequency: 20-50GHz
- ✓ Pout: +22dBm typical
- ✓ Input: 5-12.5GHz
- ✓ Low Harmonics

Application

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

Electronical Specifications:

Parameter	Min	Typical	Max
Input Frequency	5GHz		12.5GHz
Input Power	+10dBm	+13dBm	+15
Multiplier Factor		X4	
Output Frequency	20GHz		50GHz
Output Power	+20dBm +17dBm	20-48GHz: +22dBm 48-50GHz: +20dBm	
X3/X5 Suppression vs X4 Pout		-25dBc	
Drain Voltage		+5V	+8V
Quiescent Current		0.5A	
Current Psat		0.8A	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	2.4mm 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.

Part Number Selection Guide

Item	Description
PN	Stand Module with DC Power Supply
PN-LCBT	L ow Cost, C ompact B ench- T op, +220V Supply with AC/DC Adapter

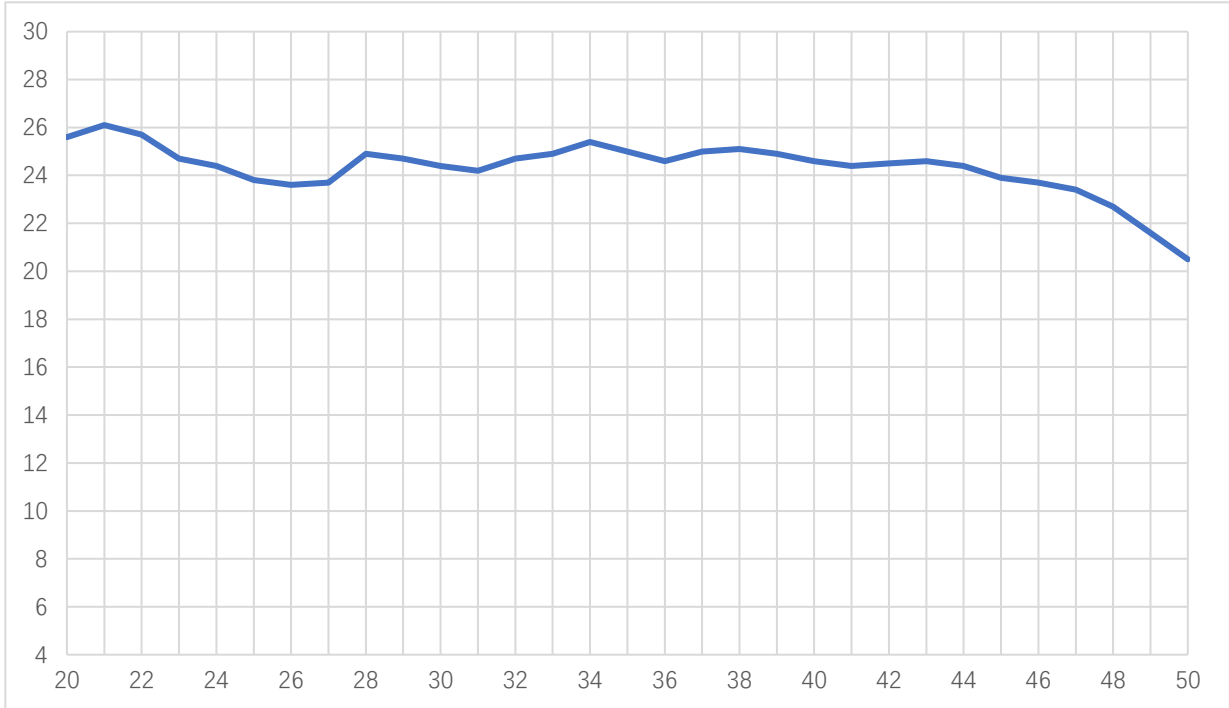




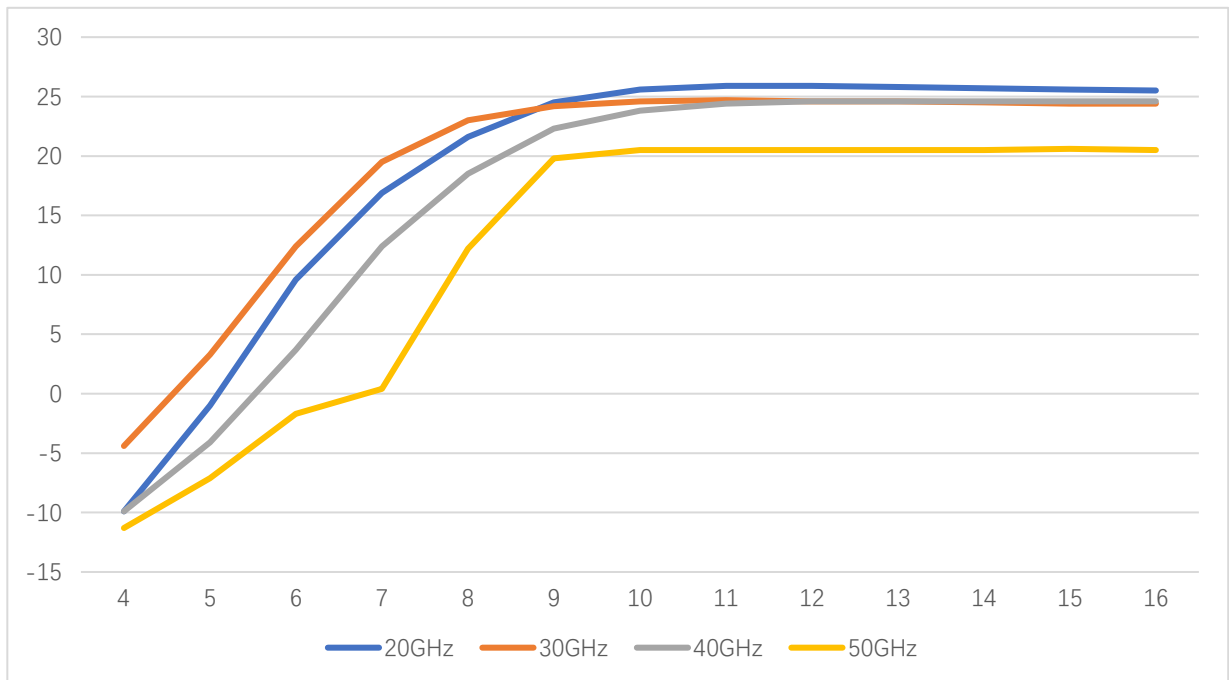
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Test Data

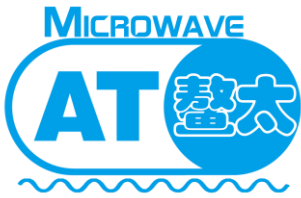


Pout vs Frequency



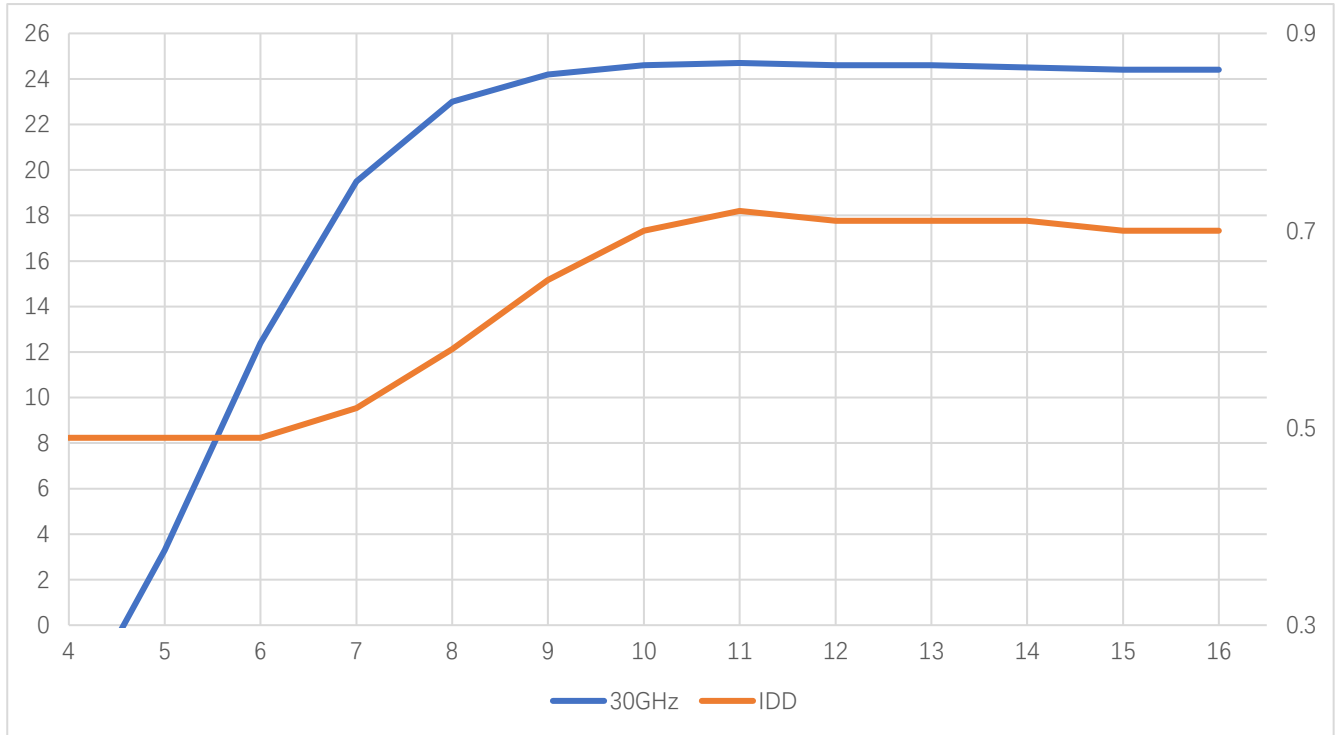
Pout vs Pin at 20/30/40/50GHz



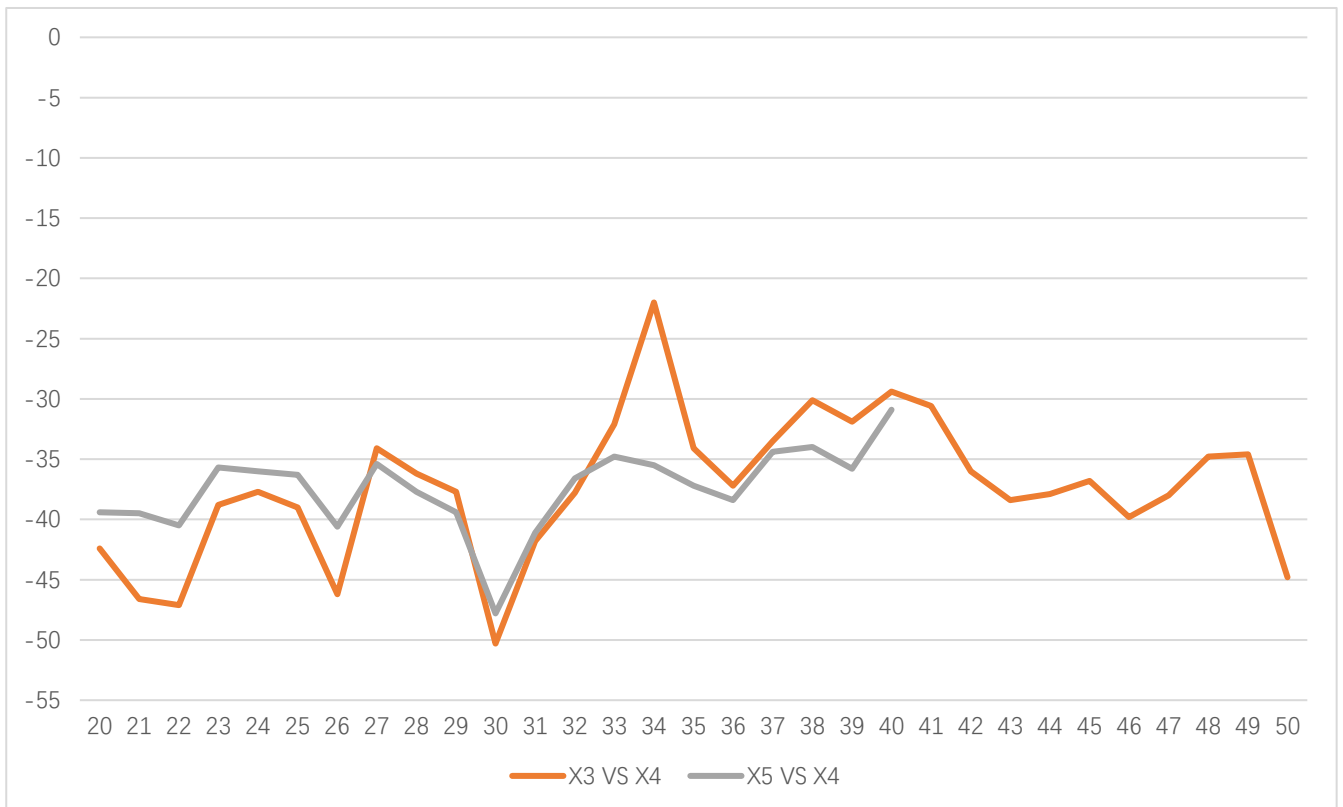


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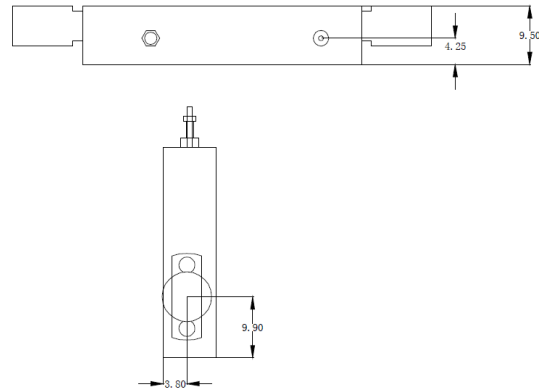
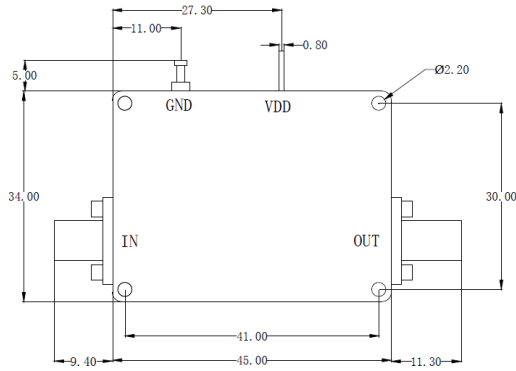
Pout and IDD vs Pin at 30GHz



X1/X2/X3/X5 Harmonics vs X4 Pout

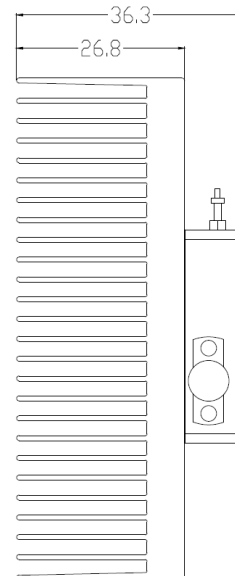
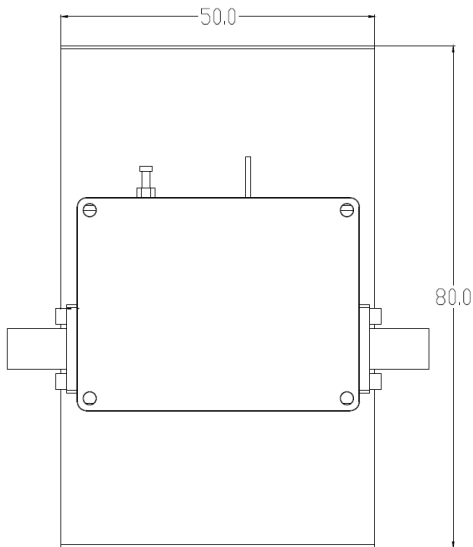


Dimension: (Unit:mm)



	<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

