

Full W Band Active Multiplier, 75-110GHz, Pout=+10dBm

Super High Harmonics Suppression

2022-12-1



Description:

AT-AM6-75110-10 is a full W band, active x6 frequency multiplier. The multiplier has an input frequency of 12.5-18.33 GHz with a typical output +10dBm from 75-110GHz. The multiplier is with super high X5X7 harmonics suppression upto -50dBc

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 WR-10. Other port configurations are available under different requirement.

More information, please visit www.atmicrowave.com

Feature

- ✓ Frequency: 75-110GHz
- ✓ Pout: +10dBm typical
- ✓ Input: 12.5-18.33GHz
- ✓ Low Harmonics

Application

- ✓ W band Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Electronical Specifications:

Parameter	Min	Typical	Max
Input Frequency	12.5GHz		18.33GHz
Input Power	+8dBm	+10dBm	+15dBm
Multiplier Factor		X6	
Output Frequency	75GHz		110GHz
Output Power		+10dBm	
X5/X7 Suppression vs X6 Pout		-50dBc	
Drain Voltage		+5V	+8V
Current		0.3A	
Spec Temp		25C	





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Mechanical Information

Item	Description
Input Port	SMA Female
Output Port	WR-10 Waveguide with UG-387/U-M anti-cocking Flange
Case Material	Copper
Finish	Gold Plated
Weight	190g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+9V
RF Input Power	+20dBm
Operating Temperature	0 to +50C
Storage Temperature	-55 to +125C

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.

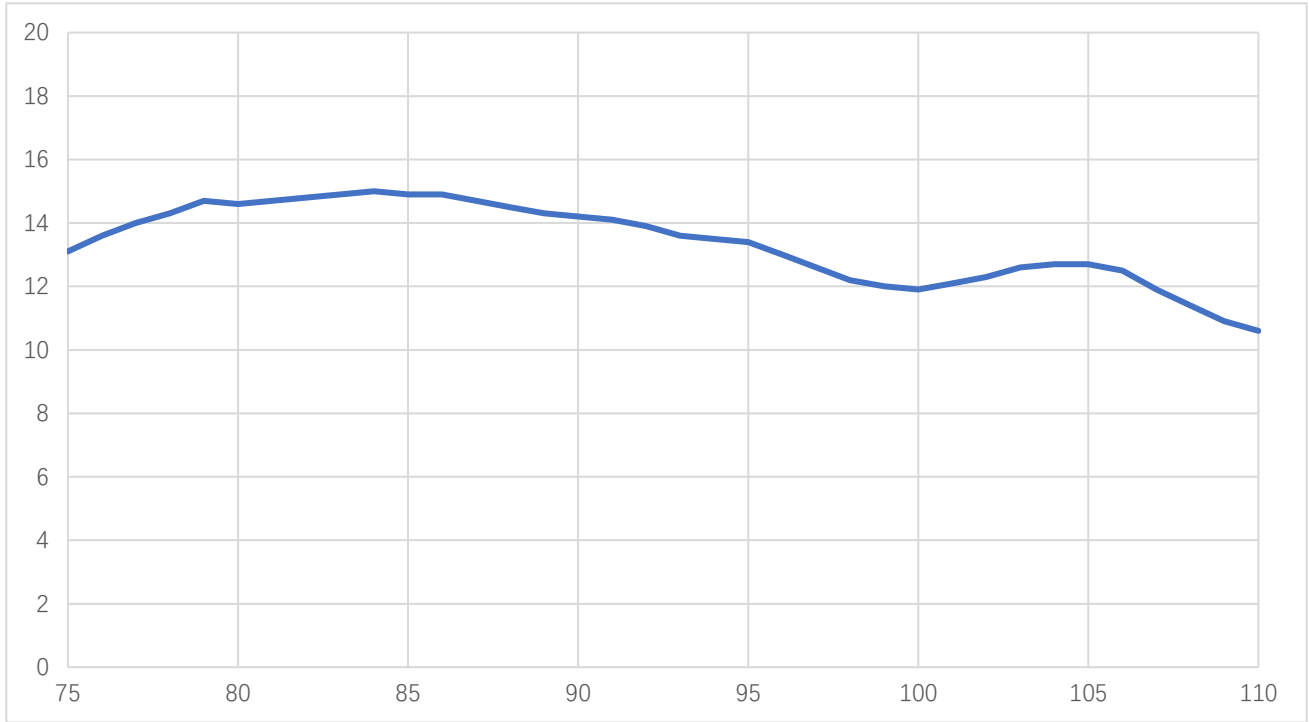




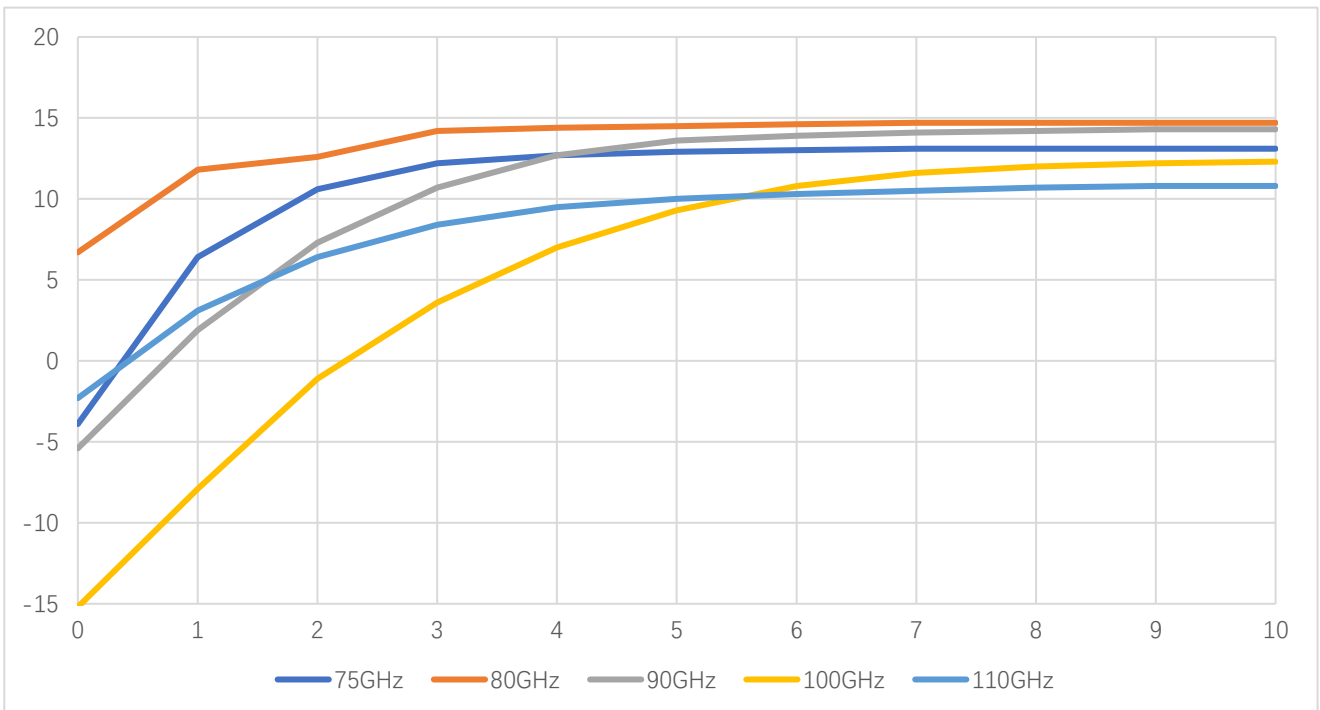
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Test Data(25C)

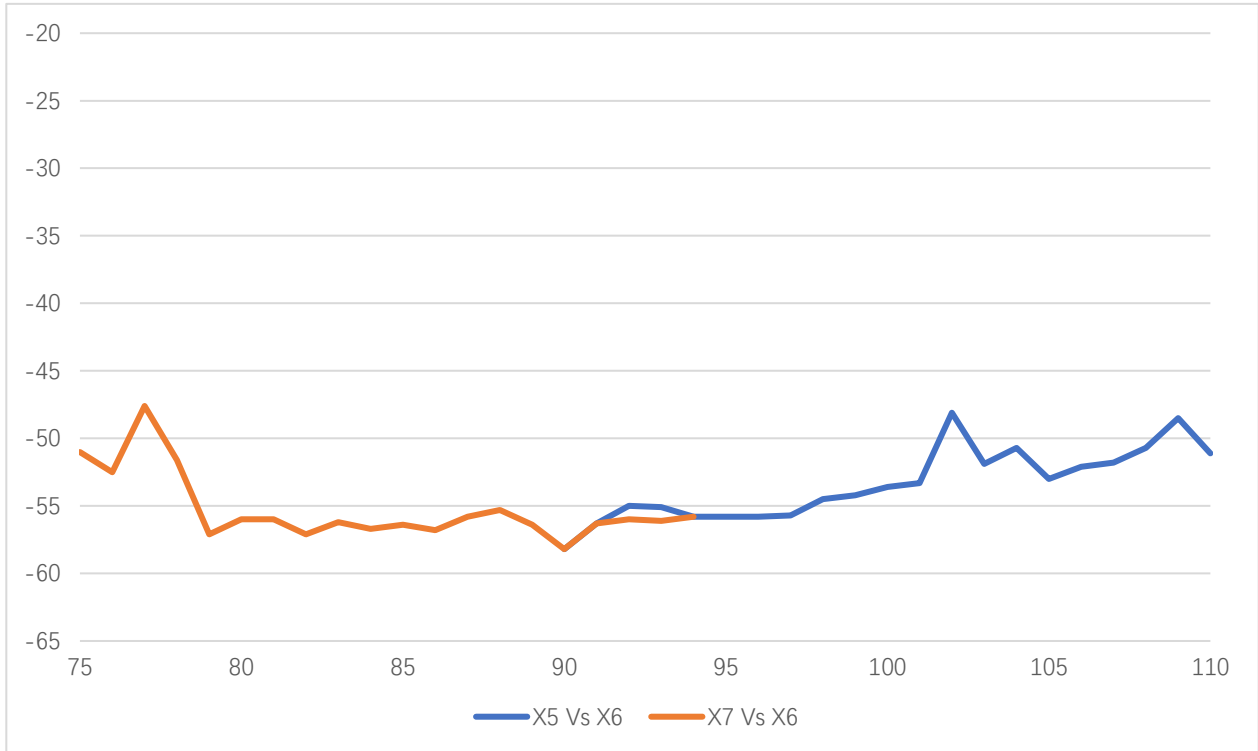


Pout vs Pin



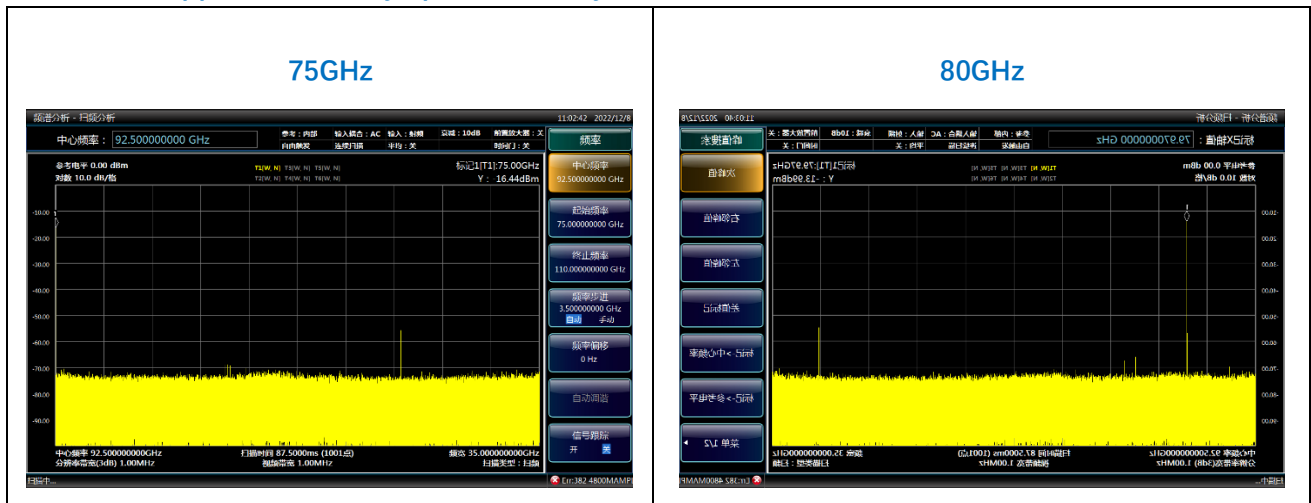
Pout vs Pin





X5/X7 Harmonics Suppression vs X6 Pout

Harmonics Suppression test by Spectrum Analyzer



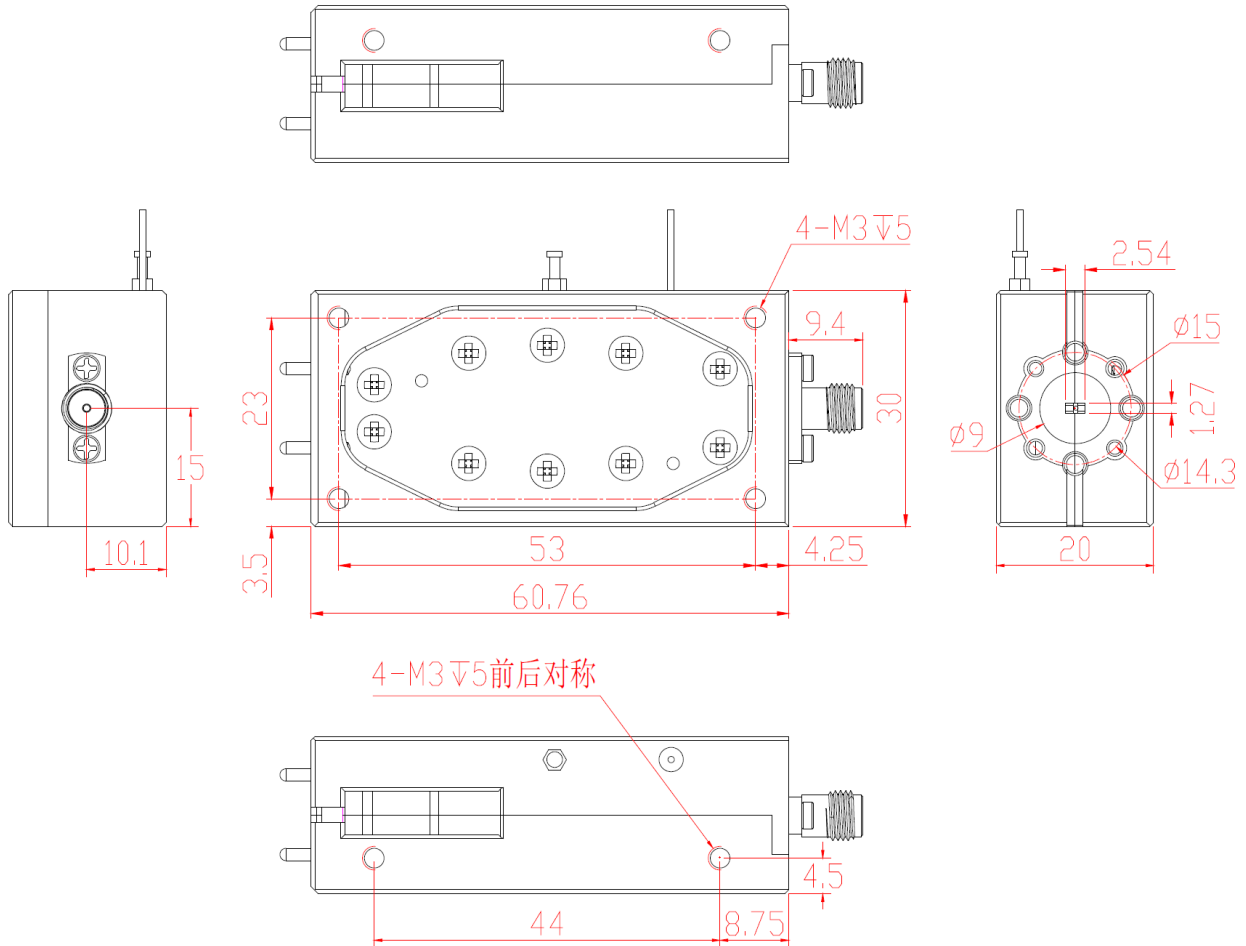


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Dimension (unit in mm)



PCN History

Date	Description
2022-9-1	Outline Updated
2022-12-1	Data test updated. X5/X7 Harmonics Suppression improved.

