

## Full W Band Active Multiplier 75-110GHz, X6, Pout=+10dBm

2022-9-1



### 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 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](http://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          | +5dBm          | +7dBm                                  | +10dBm   |
| Multiplier Factor    |                | X6                                     |          |
| Output Frequency     | 75GHz          |  | 110GHz   |
| Output Power         | +8dBm<br>+6dBm | 75-105GHz: +10dBm<br>105-110GHz: +8dBm |          |
| Harmonic Suppression |                | -25dBc                                 |          |
| 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       |
| Case Material | Copper      |
| Finish        | Gold Plated |
| Weight        | 200g        |
| Size:         | See outline |

## Absolute Maximum Ratings Table

| Parameter             | Value        |
|-----------------------|--------------|
| Drain Supply          | +9V          |
| RF Input Power        | +18dBm       |
| Operating Temperature | 0 to +50C    |
| Storage Temperature   | -65 to +150C |

### 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.

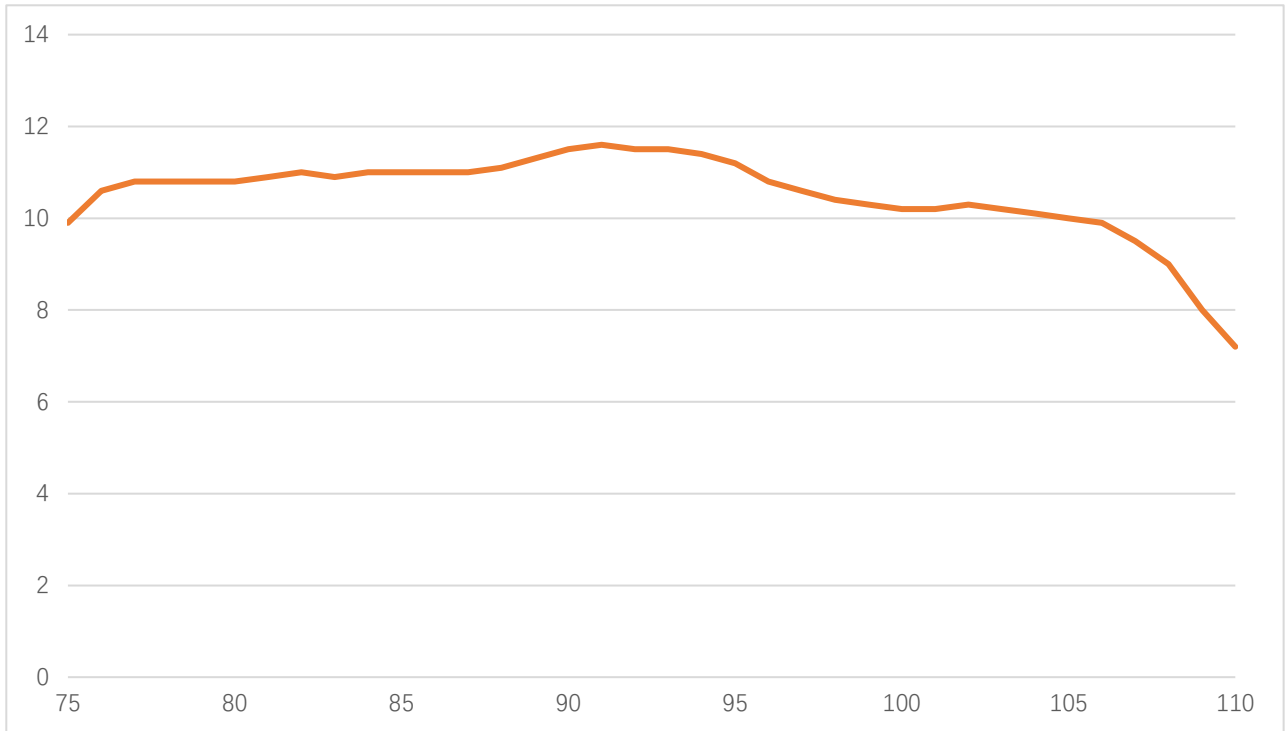




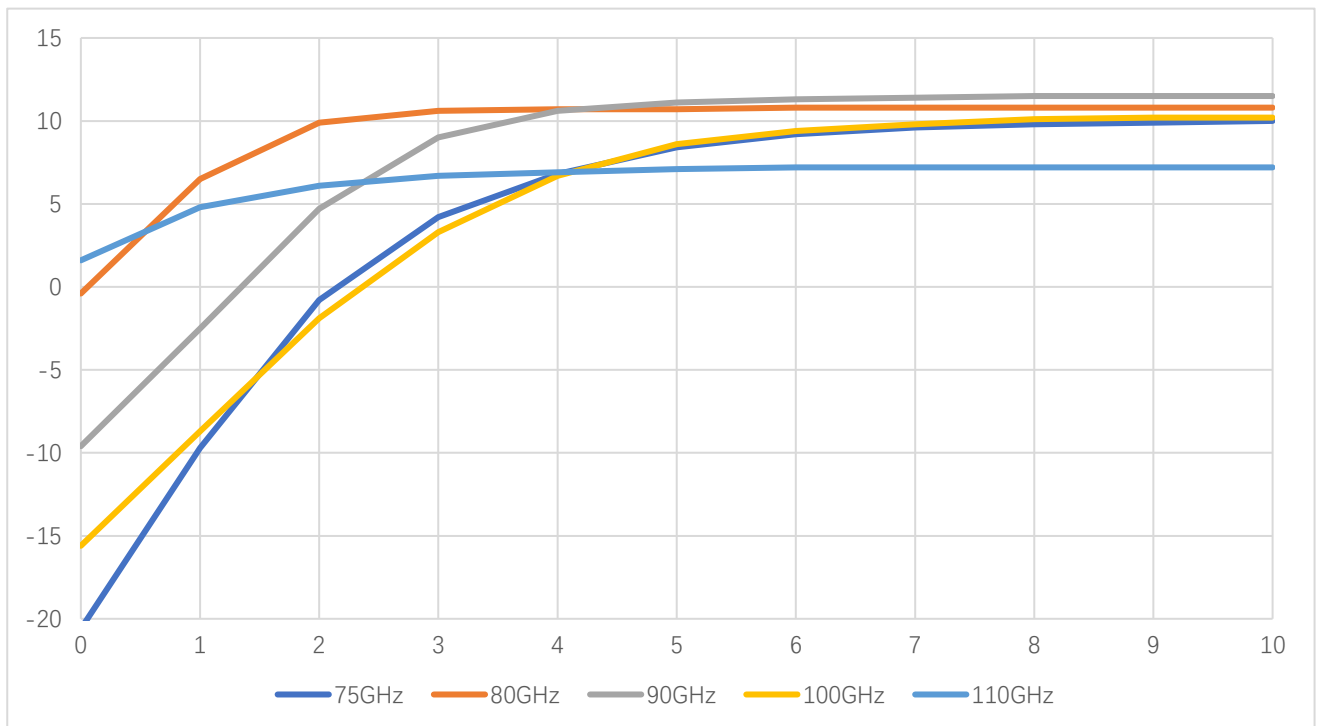
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## Test Data



Pout vs Frequency



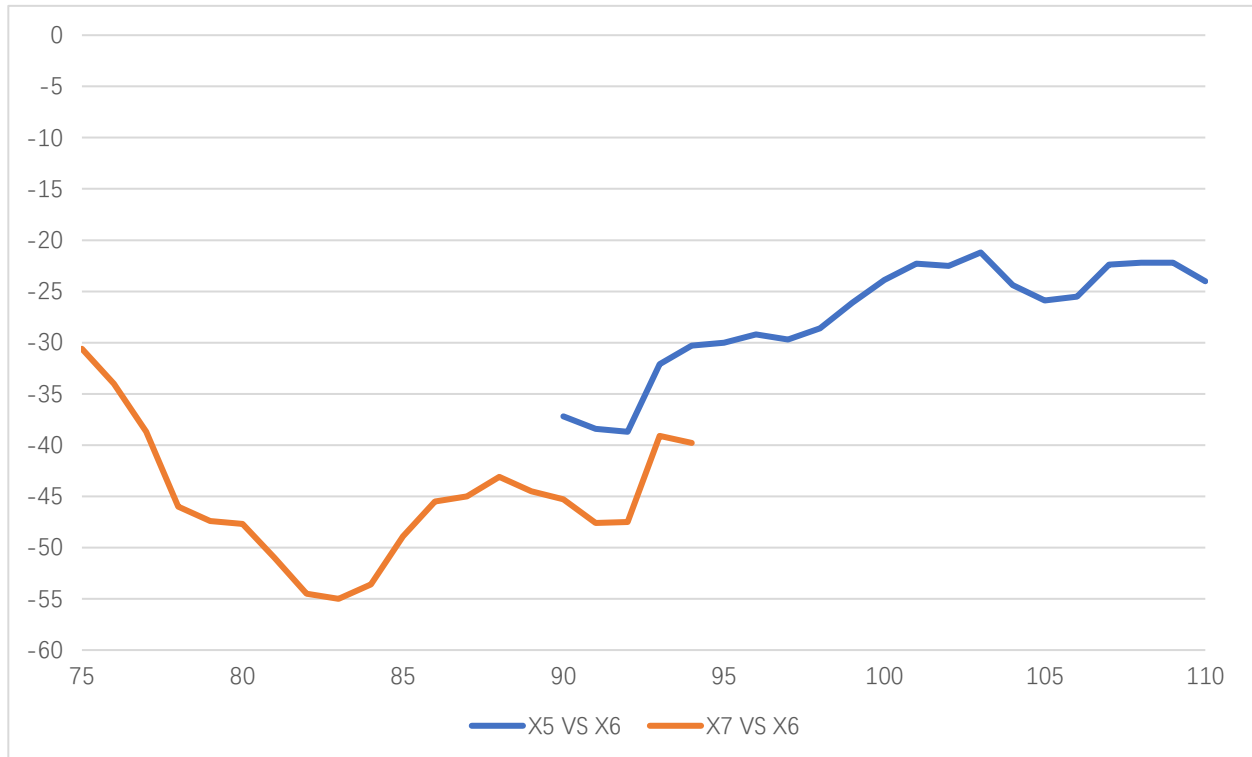
Pout vs Pin





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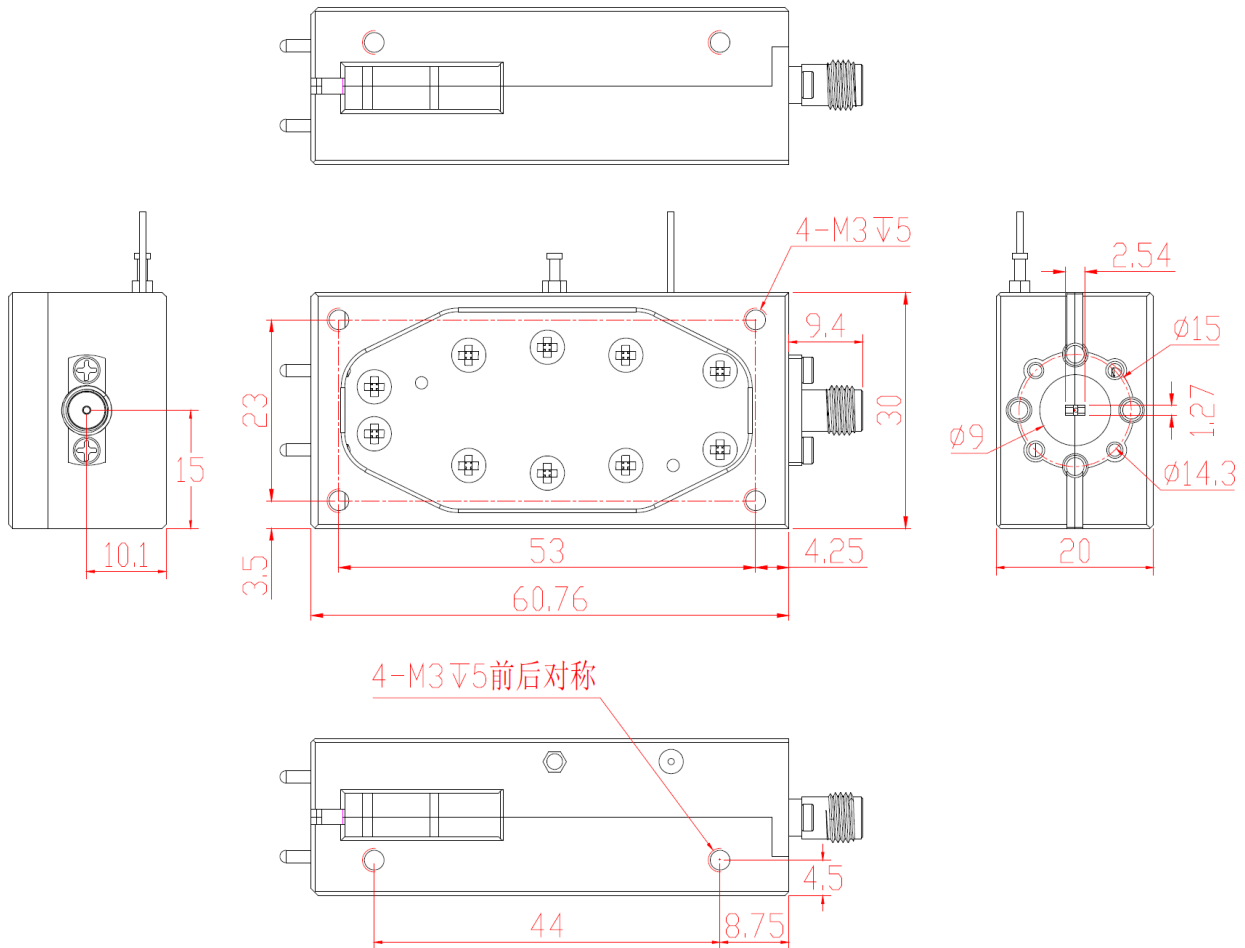
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X5/X7 Harmonics Suppression vs X6 Pout



## Dimension ( unit in mm)



## PCN History

| Date     | Description     |
|----------|-----------------|
| 2022-9-1 | Outline Updated |

