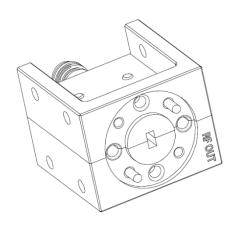




# Full E Band X3 Passive Multiplier 60-90GHz, WR-12

2023-11-1



#### **Description:**

AT-PM3-6090 is a full E band, X3 passive frequency multiplier. The multiplier has an input frequency of 20-30 GHz with a typical Conversion loss of -20dB.

The multiplier also has a typical harmonic suppression. The input port is 2.92mm female, and the output is WR-12 waveguide with UG-387/U anti-cocking Flange. Other port configurations are available under different requirement. AT-AM2-1844-18XC or AT-AM2-1844-18XC2 can be used as a driver for this passive module.

More information, please visit www.atmicrowave.com

#### **Feature**

✓ Frequency: 60-90GHz

✓ CL: -20dB typical

✓ Input: 20-30GHz +18dBm

✓ Low Harmonics

### **Application**

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

# **Electronical Specifications:**

Parameter	Min	Typical	Max
Input Frequency	20GHz		30GHz
Input Power	+16dBm	+18dBm	+20dBm
Multiplier Factor		X3	
Output Frequency	60GHz		90GHz
Conversion Loss		-20dB	-25
Pout (Pin=+18dBm)		-2dBm	
Harmonic Suppression		-25dBc	
Drain Voltage		NO	
Spec Temp		25C	







#### **Mechanical Information**

Item	Description
Input Port	2.92mm Female
Output Port	WR-12 Waveguide with UG-387/U anti-cocking Flange
Case Material	Copper
Finish	Gold Plated
Weight	65g
Size:	See outline

#### **Absolute Maximum Ratings Table**

Parameter	Value
RF Input Power	+23dBm
Operating Temperature	0 to +50C
Storage Temperature	-55 to +125C

#### Notes:

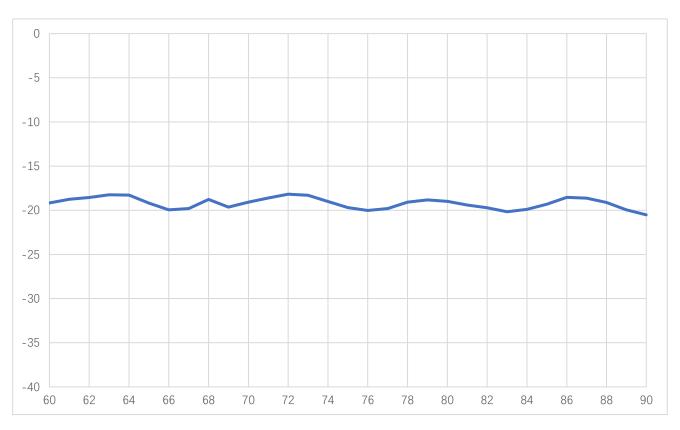
- Datasheet may be changed according to update of MMIC, Raw materials, process, and so on.
- This data is only for reference, not for guaranteed specifications.
- ✓ Please contact AT Microwave team to make sure you have the most current data.
- Always pay attention to the temperature of the case, heatsink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







# TEST DATA: (25C)



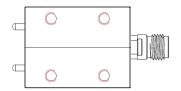
Conversion Loss vs Frequency

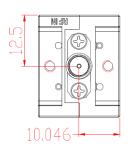


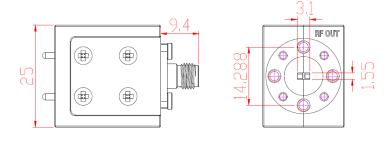


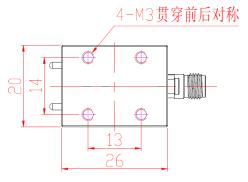


# **Dimension(mm)**









# **PCN History**

Date	Description
2020-5-1	Initially Released
2022-7-19	Outline Updated.
	Waveguide change to anti-cocking Flange.