

Applications:

- Instrumentations
- Test Bench
- Frequency Extension

Features:

- State-of-the art Solid State Packaging Technologies
- Full Waveguide Bandwidth Coverage
- Low Level Harmonics and spurious
- Covering 10 Waveguide Bands at 18-170 GHz



Descriptions:

3J Microwave, Inc. offers a complete line of passive multipliers in frequency range of 18 to 170 GHz. The available state-of-the-art solid-state technologies, devices, packaging & harmonics suppression & filtering techniques are utilized in the passive multipliers to meet various requirements. Waveguide connectors are designed to cover eight waveguide bands from K to D-Band in the frequency range of 18 to 170 GHz. Coax RF

connectors are available in the frequency range below 67 GHz on demand. The series passive multipliers are designed for the various applications such as bench test, instrumentations and frequency extension etc. The passive multipliers are sorted in category of **PFM** series passive multipliers.

Please consult the factory for passive multiplier in the frequency range of higher than 110 GHz.

PFM Series Passive Multiplier Specifications:

Model No.*	Type	Fin (GHz)	Fout (GHz)	Pin (dBm)	Pout (dBm)	Harmonics (dBc)	RF Input Connector	RF Output Connector	Outline
PFM-xxxx-00	Kx2	9-13.5	18-27	+18	+8	-20	SMA	UG595-U	L01
	Jx2	11-16.5	22-33	+18	+8	-20	SMA	UG595-UM	L02
	Jx3	7.3-11	22-33	+20	+5	-15	SMA		L03
	Ax2	13-20	26-40	+18	+7	-20	SMA	UG599-U	L04
	Ax3	8.6-13.4	26-40	+20	+5	-15	SMA		
	Qx2	16.5-25	33-50	+18	+6	-20	2.92 mm or WR-42	UG383-U	
	Qx3	11-16.7	33-50	+20	+4	-15	SMA		
	Ux2	20-30	40-60	+18	+5	-20	2.92 mm or WR-34	UG383-UM	
	Ux3	13.3-20	40-60	+20	+3	-15	SMA		
	Vx2	25-37.5	50-75	+18	+4	-20	2.92 mm or WR-28	UG385-U	
	Vx3	16.6-25	50-75	+20	+2	-15	2.92 mm		
	Ex2	30-45	60-90	+18	+3	-20	2.4 mm or WR-22	UG387-U	
	Ex3	20-30	60-90	+20	+1	-15	2.92 mm		
	Wx2	37.7-55	75-110	+18	+2	-20	2.4 mm or WR-19	UG387-UM	
	Wx3	25-36.7	75-110	+20	0	-15	2.92 mm or WR28		

* Please see "how to order" for the model number details



Section 3-3: Passive Multiplier Series

www.3jmicrowave.com Frequency Coverage: 18 to 170 GHz

How to Order:

PFM-x x xx -00

Waveguide Designation
Input Connector
Factory Reserved

WG-BAND	K	WR34	Ka	Q	U	V	E	W
Designation	K	J	R	Q	U	V	E	W

Multiplication Time

Connector Type	SMA		2.92		2.4	
	Male	Female	Male	Female	Male	Female
Designation	SM	SF	KM	KF	2M	2F

Coax:

Waveguides:

WG-BAND	K	WR34	Ka	Q	U
Designation	42	34	28	22	19

PFM Model Number Example:

Model Number of an E-Band Times 2 Passive Multiplier:

Specifications	Model number
Input RF Frequency: 30 to 45 GHz Input Power: +18 dBm Output RF Frequency: 60 to 90 GHz Output Power: +3 dBm Harmonics: -20 dBc Input Connector: WR-22 Output Connector: WR-12	PFM-E222-00

Outline: L01, L02, L03 and L04