

75 GHz to 110 GHz W-Band 6x Active Frequency Multiplier, +10 dBm Pout, WR-19 Output with UG-387/U-M Flange, SMA Female Input

The FMFX2026 is a WR-10 Waveguide 6x Active Frequency Multiplier that covers the full W frequency band from 75 GHz to 110 GHz with an input frequency band from 12.5 GHz to 18.33 GHz. Typical performance for the 50 ohm design includes +6 dBm input power, +10 dBm output power, and -15 dBc harmonics. The maximum input power (CW) is +10 dBm, and DC bias is +6 Vdc at 250 mA typ. The rugged and small size aluminum package design is gold plated and supports an SMA female connector for the RF input port and a UG-387/U-M waveguide flange pattern at the RF output port. Solder pins are used for DC bias voltage and ground. The module operates across a wide temperature range of -40°C to +80°C maximum.



Electrical Specifications@ +25°C

Description	Min	Typ	Max	Units
Input Frequency Range	12.5		18.33	GHz
Output Frequency Range	75		110	GHz
Input Power	5	6	10	dBm
Output Power		10		dBm
DC Voltage	5	6	8	Volts
DC Current		216		mA
Input VSWR		2.5:1		
Harmonics		-15		dBc

Biasing Up and Down Procedure

Biasing Up Procedure	
Step 1	Connect Ground Pin
Step 2	Apply DC Supply Voltage
Step 3	Turn ON RF input
Power Down Procedure	
Step 1	Turn OFF RF input
Step 2	Turn OFF DC Supply Voltage
Step 3	Remove Ground

Electrical Specification Notes:

- 1.) DC Supply must be able to source at least 0.5A DC at startup
- 2.) Open and short circuit loads are not recommended at the multiplier output.
- 3.) Ensure proper 50 Ohm load before turning the multiplier "ON".
- 4.) Do not put any foreign objects inside the waveguide. The warranty will be voided.

Mechanical Specifications

Size	
Length	1.673 in [42.49 mm]
Width	1.673 in [42.49 mm]

Features:

- WR-10 Waveguide 6x Active Frequency Multiplier
- Output Frequency 75 GHz to 110 GHz, W Band
- Input Frequency 12.5 GHz to 18.33 GHz
- Pout +10 dBm typ
- Bias Voltage Range +6 Vdc to +8 Vdc
- DC current 375 mA typ
- 50 Ohm Design
- Input RF Connector SMA Female
- Output Waveguide WR-10 with UG-387/U-M flange
- Solder Pins for DC Bias Voltage and Ground
- Operational Temperature Range -40°C to +80°C
- Rugged and Compact Aluminum Gold Plated Package Design

Applications:

- Test & Measurement
- Military Electronic Systems
- Military & Commercial Communications
- Research & Development

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Height	1.704 in [43.28 mm]
Weight	0.2 lbs [90.72 g]
Body Material and Plating	Aluminum
Finish	GLD
Input Port	SMA Female
Output Port	WR-10 Waveguide with UG-387/U-M Flange
DC Bias	Feed-thru Pin

Environmental Specifications

Temperature

Operating Range	-40 to 80 deg C
Storage Range	-40 to 100 deg C

Compliance Certifications (see [product page](#) for current document)

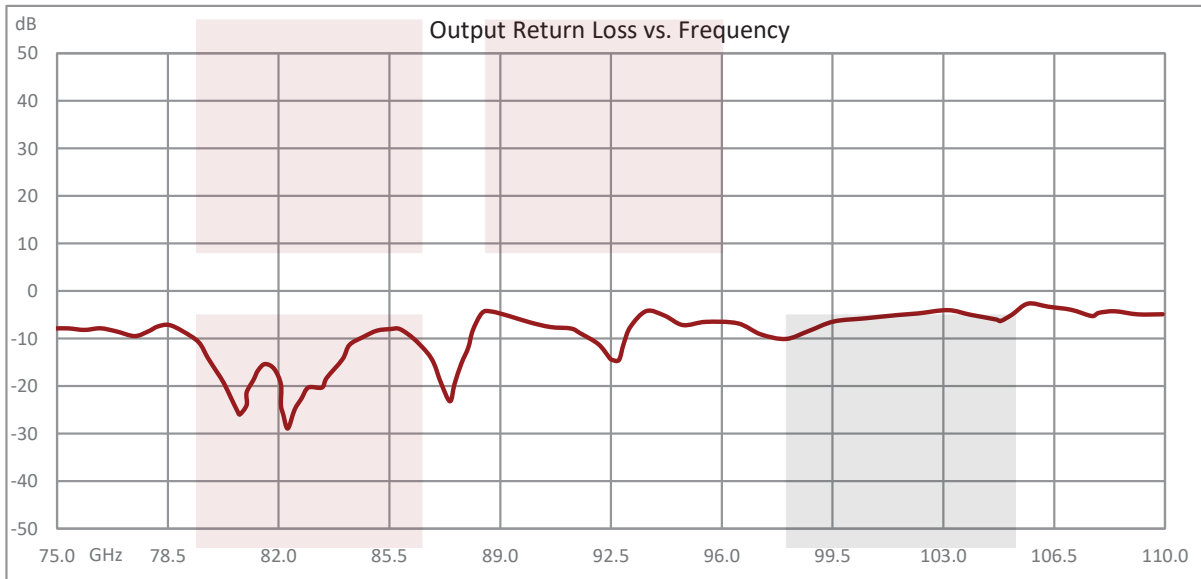
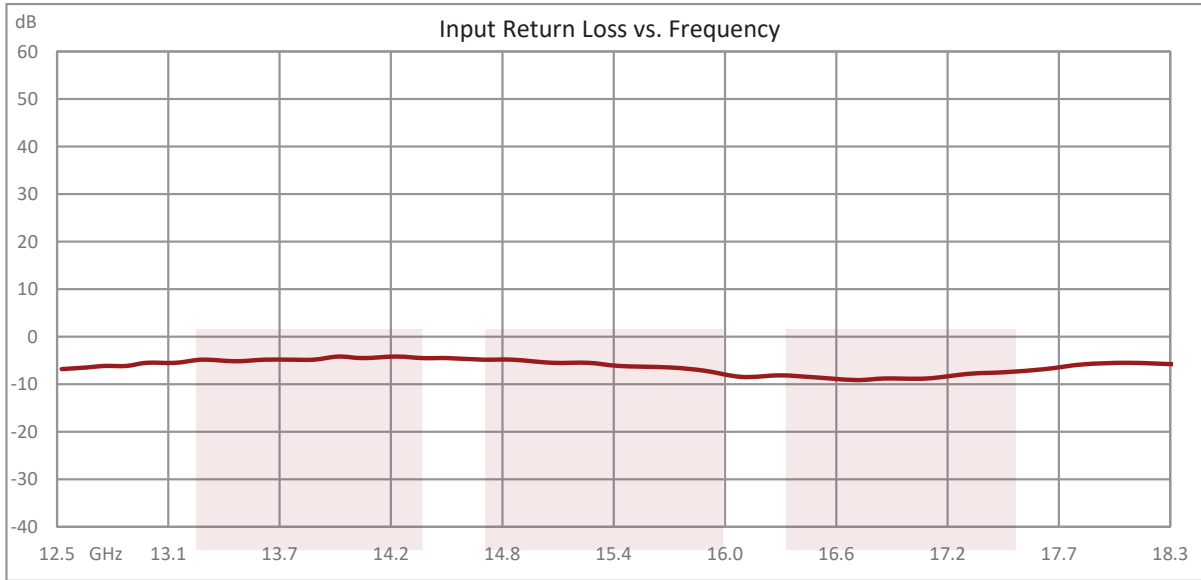
Plotted and Other Data

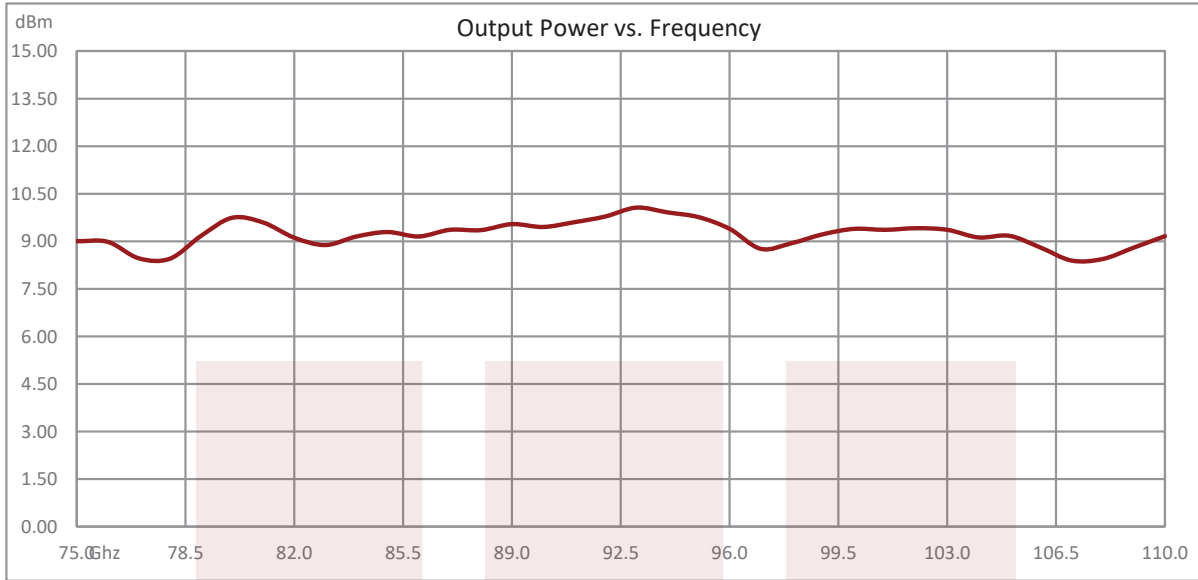
Notes:

Absolute Maximum Rating

Parameter	Rating
Operating Temperature	-40°C to +80°C
Storage Temperature	-40°C to +100°C
Total Power Dissipation	3W
Input Power (CW)	+10dBm
DC Operating Voltage	+12V

Typical Performance Data





75 GHz to 110 GHz W-Band 6x Active Frequency Multiplier, +10 dBm Pout, WR-19 Output with UG-387/U-M Flange, SMA Female Input from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [75 GHz to 110 GHz W-Band 6x Active Frequency Multiplier, +10 dBm Pout, WR-19 Output with UG-387/U-M Flange, SMA Female Input FMFX2026](https://www.fairviewmicrowave.com/wr-10-waveguide-6x-frequency-multiplier-w-heatsink-w-band-75-ghz-to-110-ghz-output-frequency-+16-dbm-pout-input-sma-ug-387-u-m-flange-fmfx2026-p.aspx)

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