

SMA Female 2x Frequency Multiplier with 2.5 GHz to 6 GHz Output and 15 dB Conversion Loss

The FMFX2012 is a passive Frequency Doubler (x2) module that covers a broad output frequency bandwidth from 2500 MHz to 6000 MHz. Typical performance includes 15 dB conversion loss, 25 dB fundamental Isolation, with an RF input drive level of 12 to 18 dBm. The design does not require any DC voltage to operate. Maximum RF input power is +27 dBm with an operational temperature range of -40° C to +85° C. The rugged and compact package assembly supports SMA female connectors. And for highly reliable operation, the model is designed to meet a variety of MIL-STD-202 test conditions including shock, vibration, altitude, and humidity.

Electrical Specifications (TA= 25°C, Pin = +15 dBm)

Description	Min	Typ	Max	Units
Input Frequency Range	1,250		3,000	MHz
Output Frequency Range	2,500		6,000	MHz
Impedance		50		Ohms
Input Power (CW)	+12		+18	dBm
Conversion Loss		15	19	dB
Fundamental Isolation*	10	25		dB
3F0 Isolation*	15	30		dB
Input VSWR(S11 @ 2.12 GHz)		1.6:1	2.5:1	
Output VSWR(S22 @ 4.25 GHz)		2.5:1	3.5:1	

*Isolation with respect to output power level of 2F0

Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width	0.563 in [14.3 mm]
Height	1.25 in [31.75 mm]
Weight	0.003 lbs [1.36 g]
Output Connector	SMA Female

Environmental Specifications

Temperature

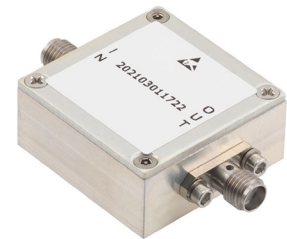
Operating Range	-40 to +85 deg C
Storage Range	-65 to +150 deg C

Humidity	MIL-STD-202, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

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

Plotted and Other Data

Notes:



Features:

- Passive Frequency Doubler (x2)
- 1250 to 3000 MHz input Frequency
- 2500 to 6000 MHz output frequency
- Conversion loss 15 dB typ
- Fundamental Isolation 25 dB typ
- RF Input Drive Level: 12 to 18 dBm
- Max RF Input Power: +27 dBm
- SMA Female Connectors
- -40° C to +85° C Operating Temperature
- 50 Ohm Design
- Rugged Design meets MIL-STD-202 Test Conditions

Applications:

- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military & Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications

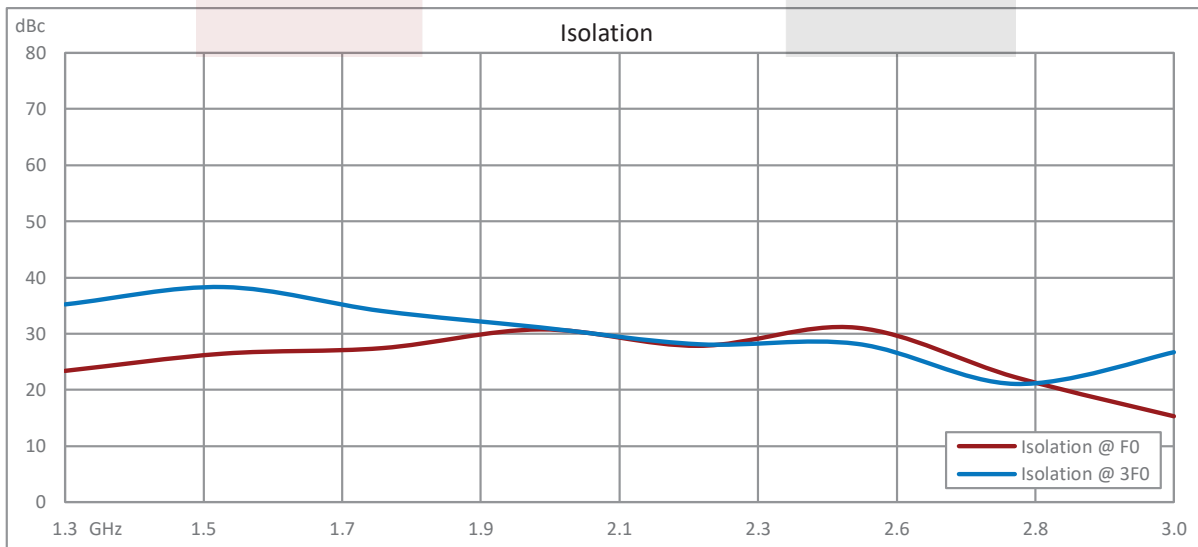
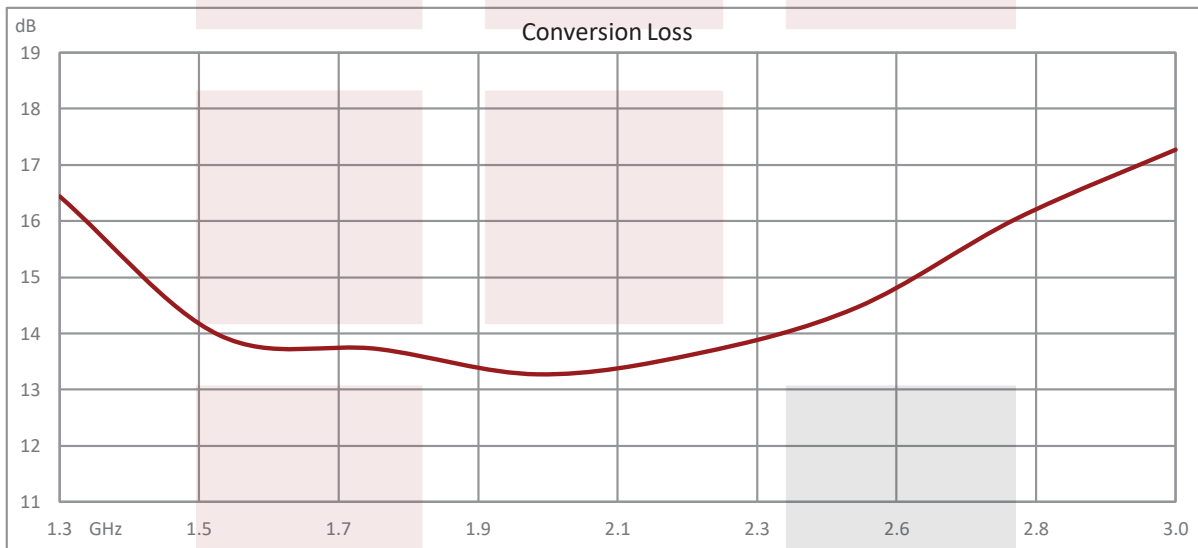
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Absolute Maximum Rating

Absolute Maximum Ratings

Parameter	Maximum
RF Input Power	+27dB
Operating Temperature	-40 °C to +85 °
Storage Temperature	-65 °C to +150 °

Typical Performance Data



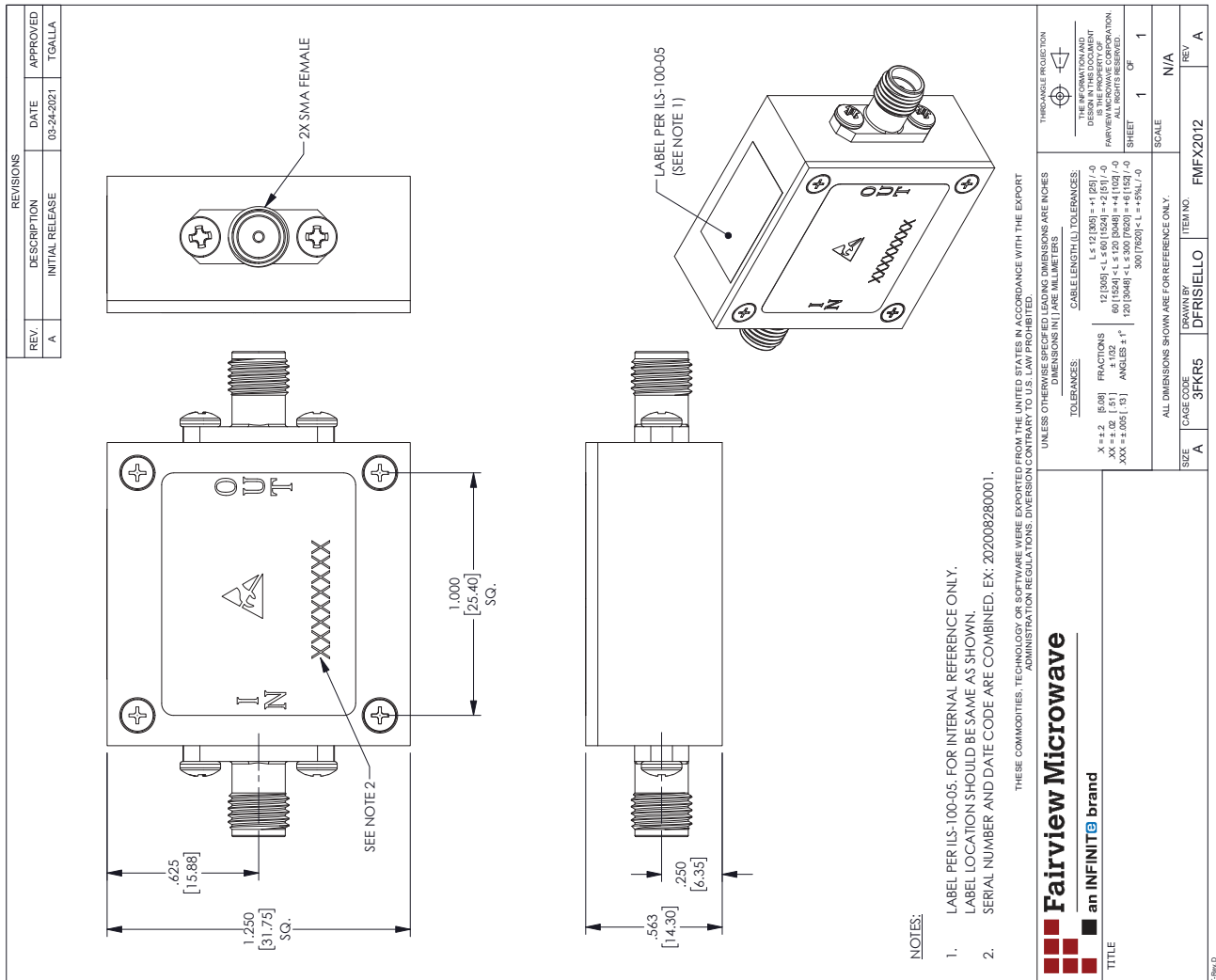
SMA Female 2x Frequency Multiplier with 2.5 GHz to 6 GHz Output and 15 dB Conversion Loss from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Female 2x Frequency Multiplier with 2.5 GHz to 6 GHz Output and 15 dB Conversion Loss FMFX2012](#)

URL: <https://www.fairviewmicrowave.com/sma-2x-frequency-multiplier-6-ghz-15-db-fmfx2012-p.aspx>

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