

SMA Female Active 3x Frequency Multiplier with 960 MHz to 1.35 GHz Output



FMFX2016

Features

- Active Frequency Tripler (x3)
- 320 to 450 MHz Input Frequency
- 960 to 1350 MHz Output Frequency
- Conversion Gain 6 dB typ
- Fundamental Isolation 30 dB typ
- RF Input Drive Level: -3 dBm
- Max RF Input Power: +23 dBm
- DC Bias: +12Vdc @ 105 mA
- 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

Description

The FMFX2016 is an active Frequency Tripler (x3) module that covers a broad output frequency bandwidth from 960 MHz to 1350 MHz. Typical performance includes 6 dB conversion gain, 30 dB fundamental isolation, with an RF input drive level of -3 dBm. DC bias is +12Vdc with 105 mA DC current. Maximum RF input power is +23 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, VDC1 = 12 Vdc, IDC1 = 105 mA, Pin = -3dBm)

Description	Min	Typ	Max	Units
Input Frequency Range	320		450	MHz
Output Frequency Range	960		1,350	MHz
Impedance		50		Ohms
Conversion Gain (Pin = +3 dBm)	0	6		dB
Fundamental Isolation (F0)*(Fin=12GHz/Fout=36GHz)	10	30		dB
2F0 Isolation*	20	30		dB
4F0 Isolation*	30	40		dB
Input VSWR (@ 390 MHz)		1.4:1	1.8:1	
Output VSWR (@ 1170 MHz)		1.7:1	2.2:1	
Operating DC Voltage 1	10	12	15	V
Operating DC Current 1		105	125	mA

*Isolation with respect to output power level

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]

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Configuration

Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +105 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:

Absolute Maximum Rating

Absolute Maximum Ratings

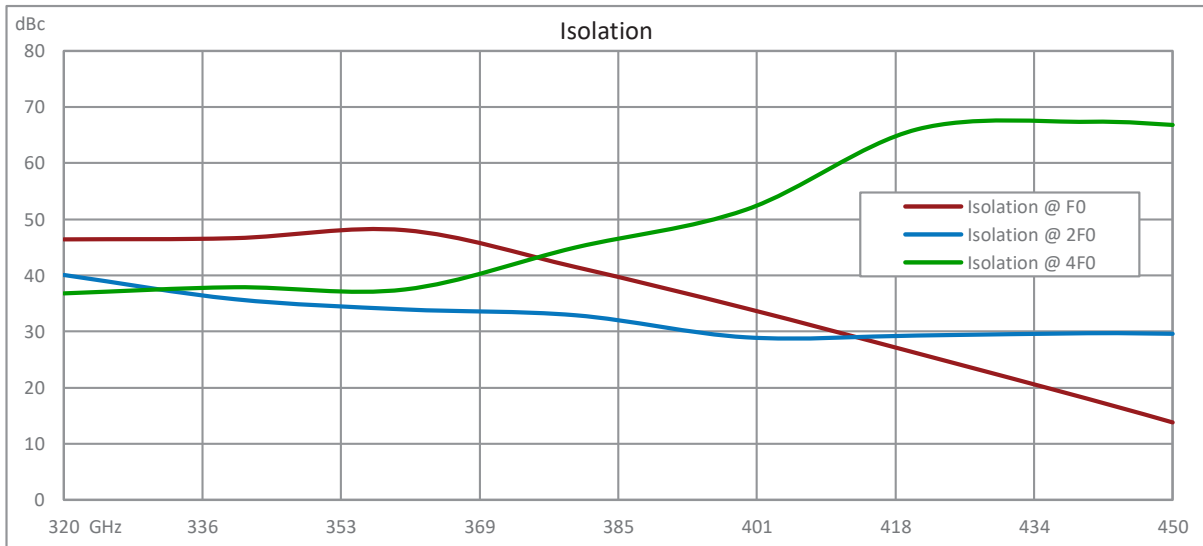
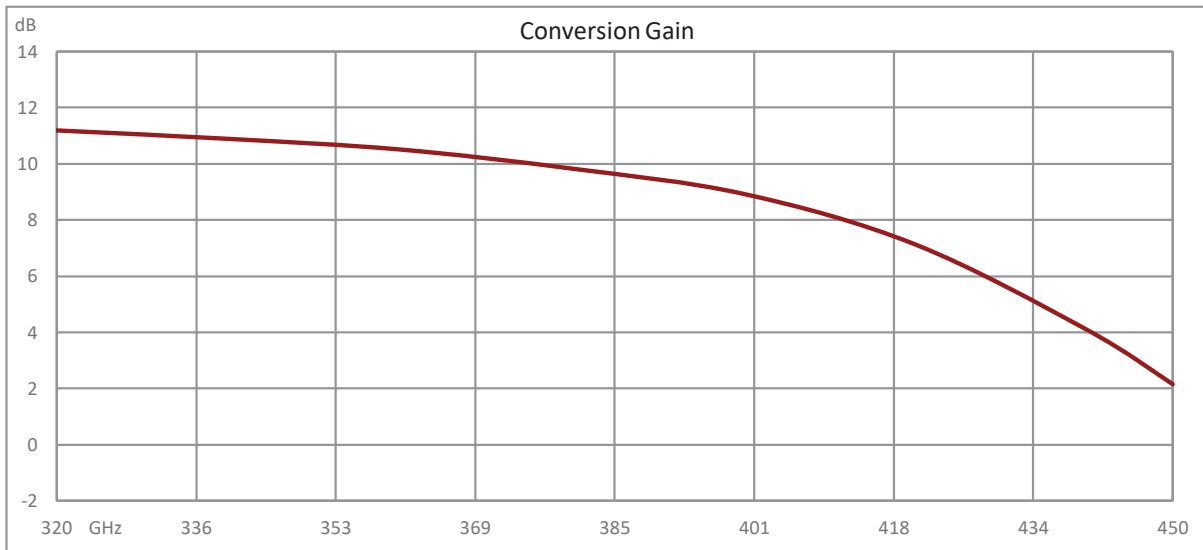
Parameter	Maximum
RF Input Power	+23dB
Operating Temperature	-40 °C to +85 °
Storage Temperature	-55 °C to +105 °

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Typical Performance Data



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SMA Female Active 3x Frequency Multiplier with 960 MHz to 1.35 GHz Output 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 Active 3x Frequency Multiplier with 960 MHz to 1.35 GHz Output FMFX2016](https://www.fairviewmicrowave.com/sma-active-3x-frequency-multiplier-1.35-ghz-fmfx2016-p.aspx)

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FMFX2016 CAD Drawing

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