

## SMA Female Active 3x Frequency Multiplier with 750 MHz to 1.05 GHz Output



### FMFX2015

#### Features

- Active Frequency Tripler (x3)
- 250 to 350 MHz Input Frequency
- 750 to 1050 MHz Output Frequency
- Conversion Gain 7 dB typ
- Fundamental Isolation 40 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 FMFX2015 is an active Frequency Tripler (x3) module that covers a broad output frequency bandwidth from 750 MHz to 1050 MHz. Typical performance includes 7 dB conversion gain, 40 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                                | 250 |       | 350   | MHz   |
| Output Frequency Range                               | 750 |       | 1,050 | MHz   |
| Impedance  |     | 50    |       | Ohms  |
| Conversion Gain (Pin = +3 dBm)                       | 2   | 7     |       | dB    |
| Fundamental Isolation<br>(F0)*(Fin=12GHz/Fout=36GHz) | 30  | 40    |       | dB    |
| 2F0 Isolation*                                       | 20  | 30    |       | dB    |
| 4F0 Isolation*                                       | 40  | 50    |       | dB    |
| Input VSWR (@ 300 MHz)                               |     | 1.4:1 | 2:1   |       |
| Output VSWR (@ 900 MHz)                              |     | 1.6:1 | 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

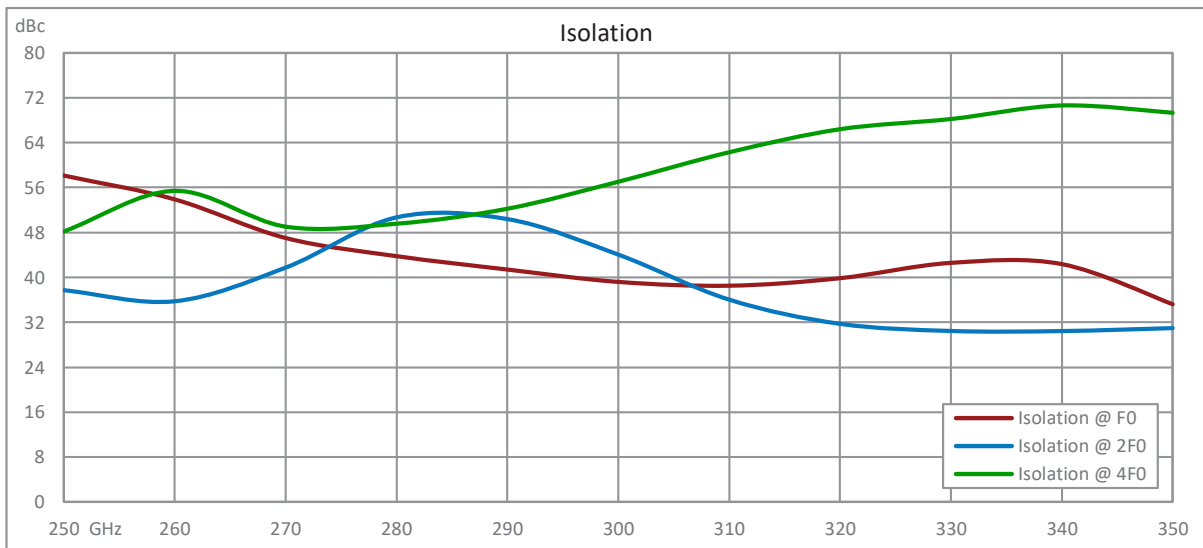
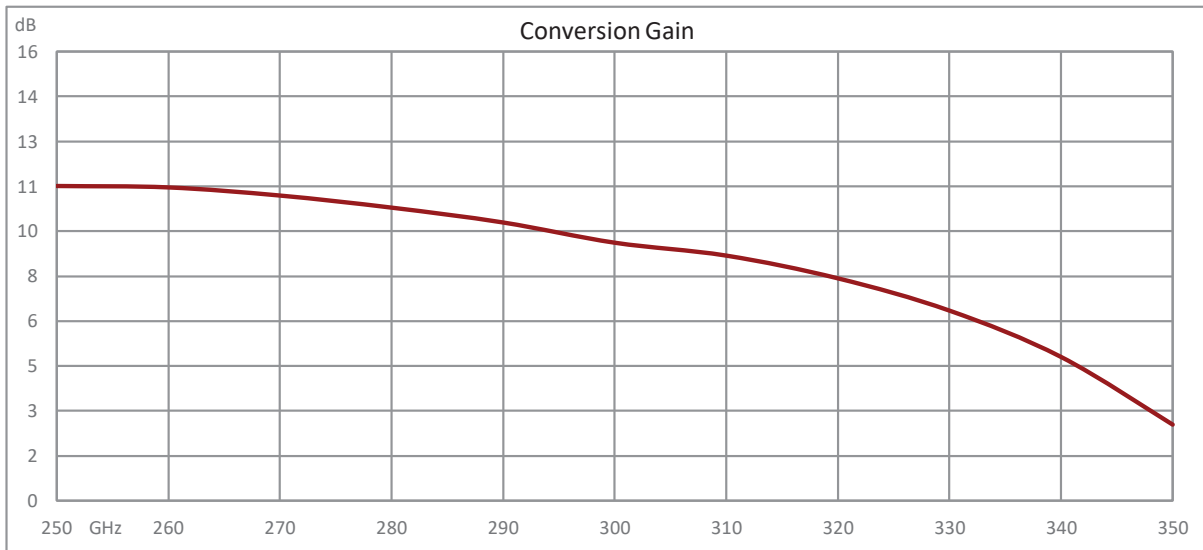
| Parameter             | Maximum          |
|-----------------------|------------------|
| RF Input Power        | +23dB            |
| Operating Temperature | -40 °C to +85 °  |
| Storage Temperature   | -55 °C to +105 ° |

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Typical Performance Data



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SMA Female Active 3x Frequency Multiplier with 750 MHz to 1.05 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 750 MHz to 1.05 GHz Output FMFX2015](https://www.fairviewmicrowave.com/sma-active-3x-frequency-multiplier-1.05-ghz-fmfx2015-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-active-3x-frequency-multiplier-1.05-ghz-fmfx2015-p.aspx>

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# FMFX2015 CAD Drawing

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