

## SMA Frequency Divider Divide by 4 Prescaler Module Operating from 100 MHz to 20 GHz

The FMFD4002 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 100 MHz to 20 GHz and supports a divide ratio of 4. Output Frequency is 25 MHz to 5 GHz. Impressive broadband typical performance of this Prescaler includes output power of +3 dBm, SSB phase noise of -153 dBc/Hz at 100 KHz offset. This exceptional technical performance is achieved through the use of a hybrid MIC PCB solder assembly which is RoHS and REACH compliant. This frequency divider design requires +5 Vdc typical bias voltage, operates over maximum temperature range of -40°C to +85°C and has an absolute maximum rating for input power of +13 dBm. The rugged and compact package supports SMA Female connectors, RFI and Ground Pins. For highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

### Electrical Specifications (TA= 25°C, Vd1 = 5 Vdc, Id1 = 170 mA)

Description	Min	Typ	Max	Units
Input Frequency (Sine Wave)	0.1		20	GHz
Output Frequency (Square Wave Output)	0.025		5	GHz
Output Power	-1	5		dBm
Phase Noise @100kHz Offset		-153		dBc/Hz
Operating DC Voltage 1		5		V
Operating DC Current 1		170		mA

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.1 to 0.25	0.25 to 1	1 to 10	10 to 18	18 to 20	GHz
Input Power (CW), Max	10	10	10	10	10	dBm
Input Power (CW), Min	5	-2	-16	-12	-9	dBm

### Mechanical Specifications

<b>Size</b>	
Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.563 in [14.3 mm]
Output Connector	SMA Female

### Environmental Specifications

<b>Temperature</b>	
Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C
Humidity	MIL-STD-202F, 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



### Features:

- Wide Input Frequency Range: 100 MHz to 20 GHz
- Divide-by-4 Prescaler
- Output Frequency 25 MHz to 5 GHz
- Output Power: +3 dBm typical
- Low SSB Phase Noise: -153 dBc/Hz @ 100 KHz offset typical
- RoHS & REACH Compliant Assembly
- Bias Voltage: +5 Vdc
- Operational Temperature Range: -40°C to +85°C
- Compact SMA Connectorized Package
- Designed to meet MIL-STD-202 Test Conditions

### Applications:

- PLL Applications
- Test Instrumentation
- Countermeasures
- Point to Point Microwave Radio
- SATCOM
- MILCOM
- Base Stations

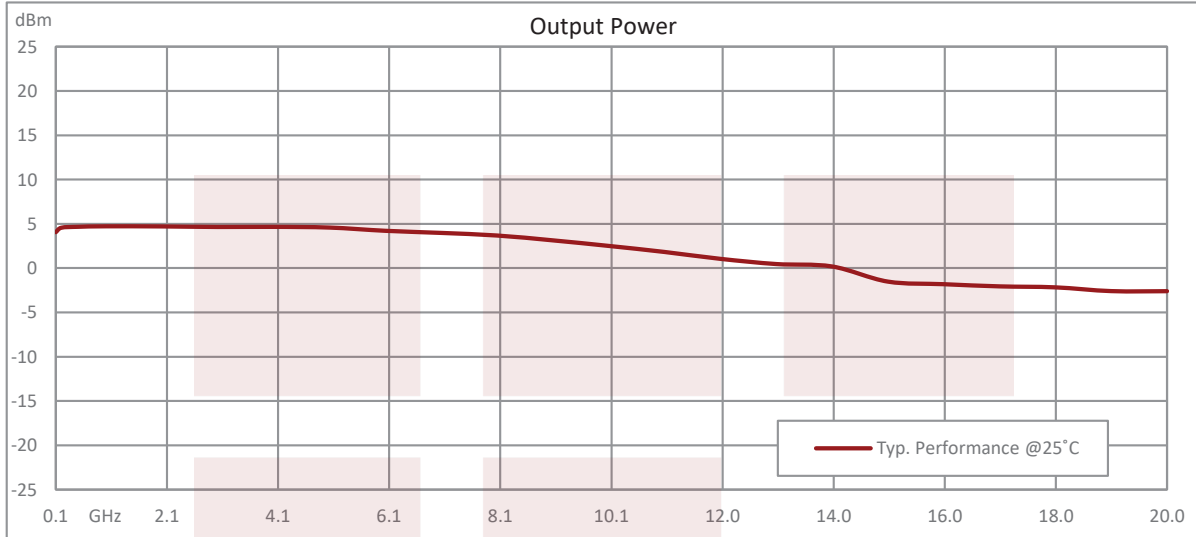
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**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**Typical Performance Data**

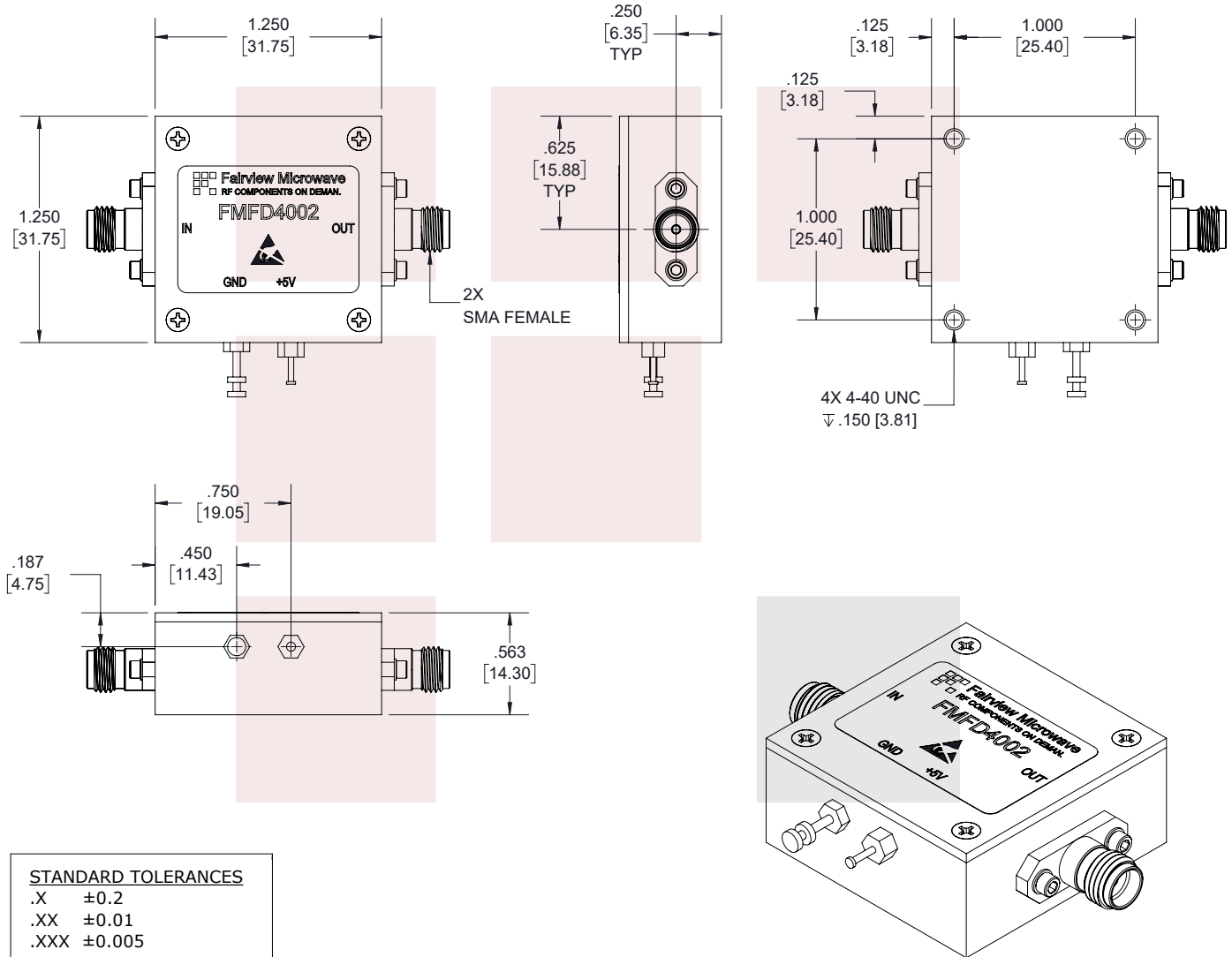


SMA Frequency Divider Divide by 4 Prescaler Module Operating from 100 MHz to 20 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Frequency Divider Divide by 4 Prescaler Module Operating from 100 MHz to 20 GHz FMFD4002](#)

URL: <https://www.fairviewmicrowave.com/sma-frequency-divider-divide-4-prescaler-module-100-mhz-20-ghz-fmfd4002-p.aspx>

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<p><b>Fairview Microwave</b> an INFINIT<sup>®</sup> brand</p>	NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].					
	DWG NO <b>FMFD4002</b>		CAGE CODE <b>3FKR5</b>			
TITLE SMA Frequency Divider Divide by 4 Prescaler Module Operating from 100 MHz to 20 GHz		CAD FILE 04/26/18	SHEET 1 OF 1	SCALE N/A	SIZE A	7361