

SMA Frequency Divider Divide by 4 Prescaler Module Operating from 500 MHz to 18 GHz

The FMFD4001 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 500 MHz to 18 GHz and supports a divide ratio of 4. Output Frequency is 125 MHz to 4.5 GHz. Impressive broadband typical performance of this Prescaler includes output power of -4 dBm and SSB phase noise of -147 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 +12 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 = 12 Vdc, Id1 = 110 mA)

Description	Min	Typ	Max	Units
Input Frequency (Sine Wave)	0.5		18	GHz
Output Frequency (Square Wave Output)	0.125		4.5	GHz
Input Power (CW)	-15	0	10	dBm
Output Power	-7	-4		dBm
Phase Noise @100kHz Offset		-147		dBc/Hz
Operating DC Voltage 1	9	12	15	V
Operating DC Current 1		110	125	mA

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.5 to 1	1 to 2	2 to 12	12 to 16	16 to 18	GHz
Input Power (CW), Max	10	10	10	3	3	dBm
Input Power (CW), Typ	5	0	0	0	0	dBm
Input Power (CW), Min	3	-10	-15	-15	-10	dBm

Mechanical Specifications

Size

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

Temperature

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



Features:

- Wide Input Frequency Range: 500 MHz to 18 GHz
- Divide-by-4 Prescaler
- Output Frequency 125 MHz to 4.5 GHz
- Output Power: -4 dBm typical
- Low SSB Phase Noise: -147 dBc/Hz @ 100 KHz offset typical
- RoHS & REACH Compliant Assembly
- Bias Voltage: +12 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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Vibration
Altitude

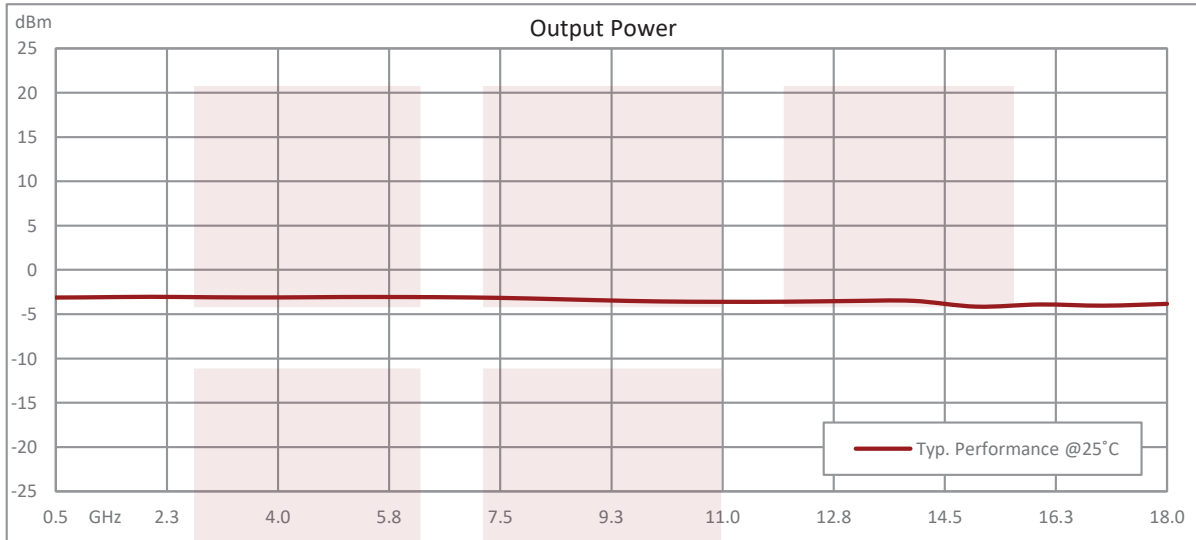
MIL-STD-202F, Method 204D, Condition B
MIL-STD-202F, Method 105C, Condition B

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

Plotted and Other Data

Notes:

Typical Performance Data

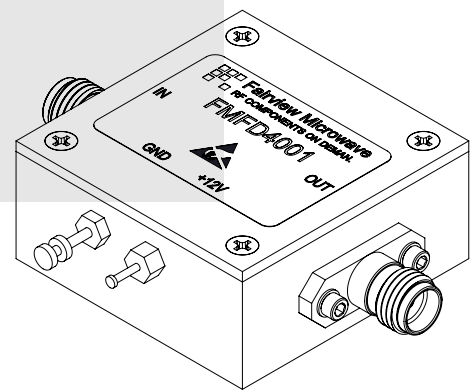
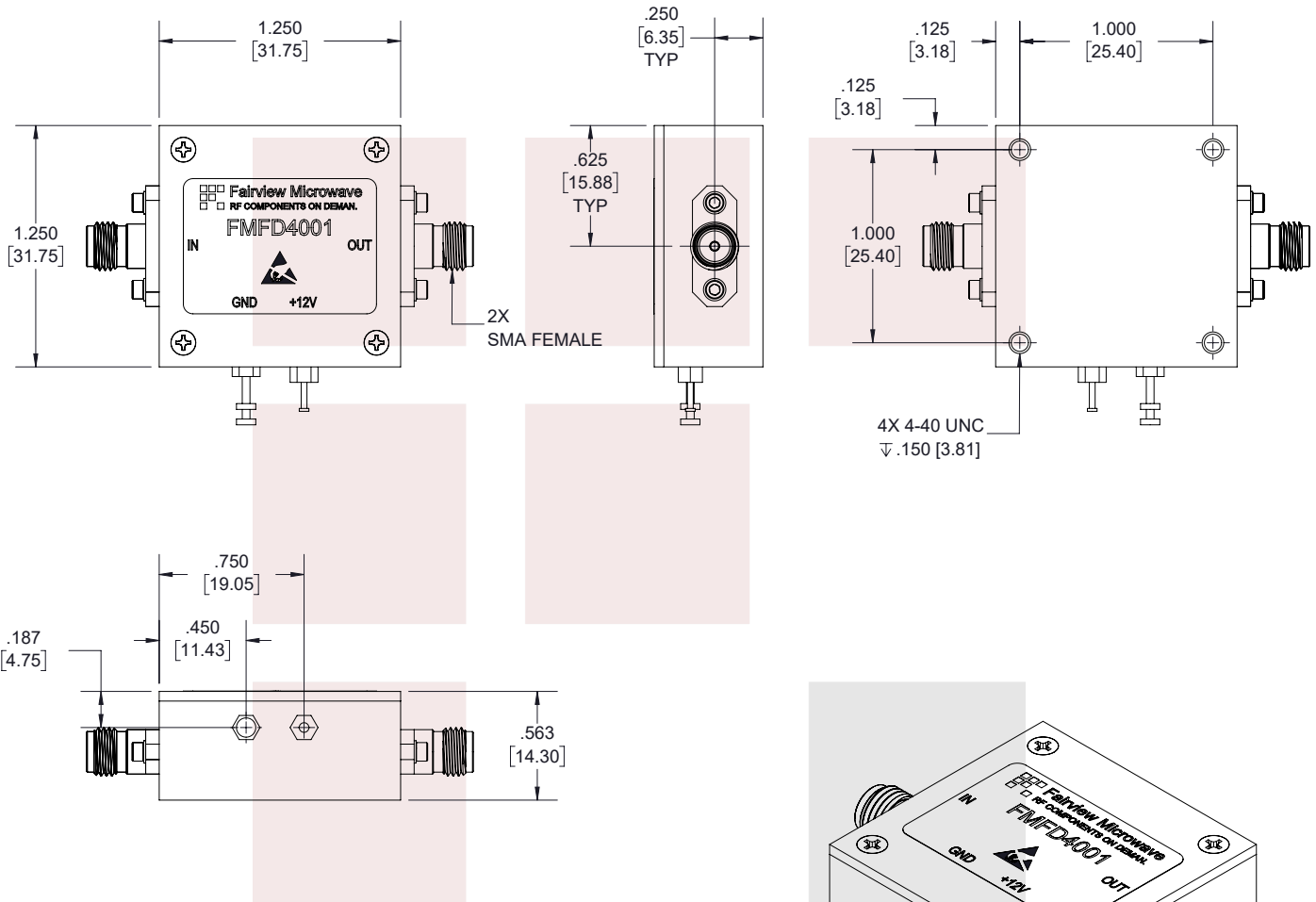


SMA Frequency Divider Divide by 4 Prescaler Module Operating from 500 MHz to 18 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Frequency Divider Divide by 4 Prescaler Module Operating from 500 MHz to 18 GHz FMFD4001](#)

URL: <https://www.fairviewmicrowave.com/sma-frequency-divider-divide-4-prescaler-module-500-mhz-18-ghz-fmfd4001-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>Fairview Microwave an INFINITE brand</p>		<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].</p>			
<p>TITLE</p> <p>SMA Frequency Divider Divide by 4 Prescaler Module Operating from 500 MHz to 18 GHz</p>		<p>DWG NO</p> <p>FMFD4001</p>		<p>CAGE CODE</p> <p>3FKR5</p>	
<p>CAD FILE</p> <p>04/26/18</p>		<p>SHEET</p> <p>1 OF 1</p>		<p>SCALE</p> <p>N/A</p>	
		<p>SIZE</p> <p>A</p>		<p>7361</p>	