

## SMA Frequency Divider Divide by 32 Prescaler Module Operating from 400 MHz to 4 GHz

### FMFD32000



#### Features

- Wide Input Frequency Range: 400 MHz to 4 GHz
- Divide-by-32 Prescaler
- Output Frequency 12.5 MHz to 125 MHz
- Output Power: 0 dBm typical
- Low SSB Phase Noise: -144 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

#### Description

The FMFD32000 is a coaxial packaged Frequency Divider module that operates across a wide input frequency range from 400 MHz to 4 GHz and supports a divide ratio of 32. Output Frequency is 12.5 MHz to 125 MHz. Impressive broadband typical performance of this Prescaler includes output power of 0 dBm and SSB phase noise of -144 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 = 70 mA)

Description	Min	Typ	Max	Units
Input Frequency (Sine Wave)	0.4		4	GHz
Output Frequency (Square Wave Output)	12.5		125	MHz
Output Power	-2	1		dBm
Phase Noise @100kHz Offset		-144		dBc/Hz
Operating DC Voltage 1	9	12	15	V
Operating DC Current 1		70	85	mA

#### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.4 to 3	3 to 4				GHz
Input Power (CW), Max	12	12				dBm
Input Power (CW), Typ	0	0				dBm
Input Power (CW), Min	-12	-3				dBm

Electrical Specification Notes:

\*AC Coupled Output Centered at 0V

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#### Mechanical Specifications

##### Size

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.563 in [14.3 mm]
Weight	0.085 lbs [38.56 g]

##### Configuration

Input Connector	SMA Female
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
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

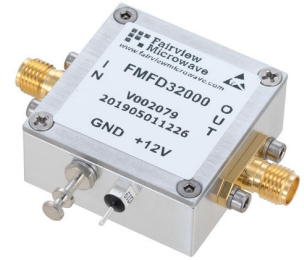
#### Compliance Certifications (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

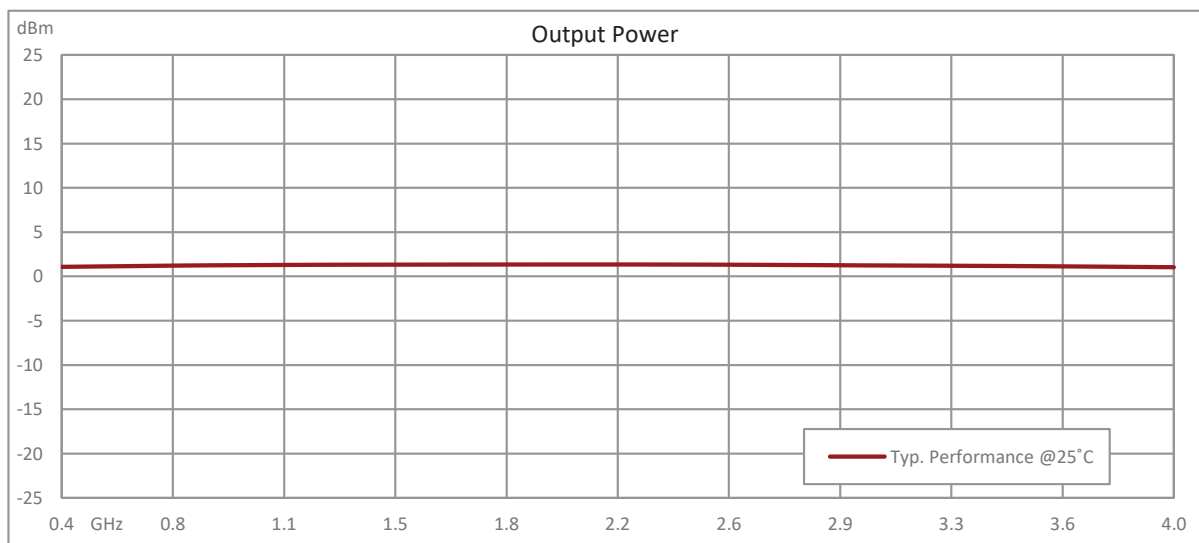
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#### Functional Block Diagram

#### Typical Performance Data



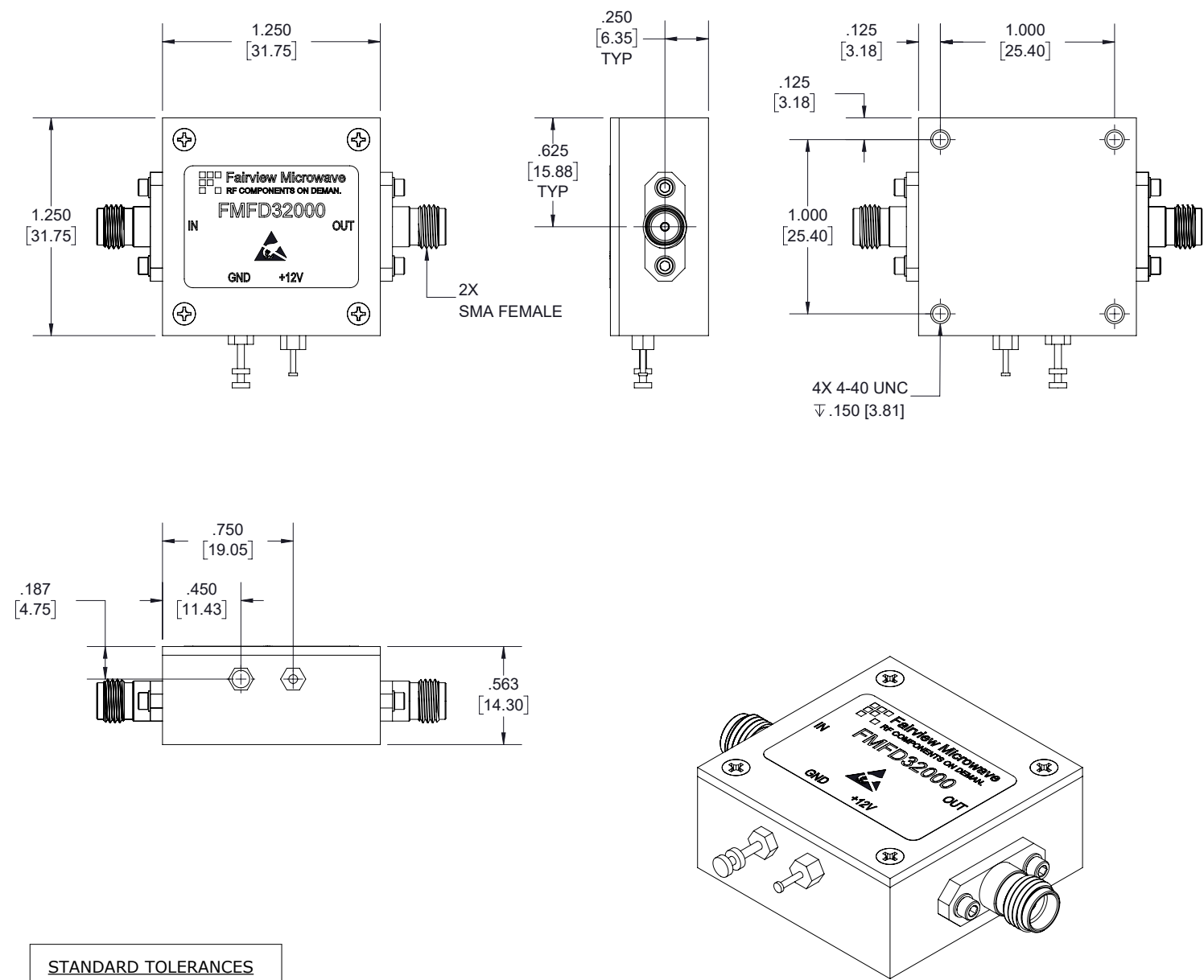
SMA Frequency Divider Divide by 32 Prescaler Module Operating from 400 MHz to 4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Frequency Divider Divide by 32 Prescaler Module Operating from 400 MHz to 4 GHz FMFD32000](https://www.fairviewmicrowave.com/sma-frequency-divider-divide-32-prescaler-module-400-mhz-4-ghz-fmfd32000-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-frequency-divider-divide-32-prescaler-module-400-mhz-4-ghz-fmfd32000-p.aspx>


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**FMFD32000 CAD Drawing**  
 SMA Frequency Divider Divide by 32 Prescaler Module Operating from 400 MHz to 4 GHz



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

\*STANDARD TOLERANCES APPLY  
 ONLY TO DIMENSIONS IN INCHES

 <b>Fairview Microwave</b> an INFINIT <sup>®</sup> brand		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].					
TITLE		DWG NO FMFD32000			CAGE CODE 3FKR5		
		CAD FILE	05/10/19	SHEET	1 OF 1	SCALE	N/A
				SIZE	A	7361	