Wenzel Associates, Inc.

"Quietly the Best"

LNFDN

Blue Tops RF Modules > Low Noise Frequency Divide-by-N

Features:

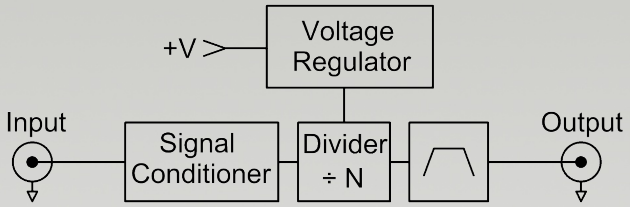
- Division Factor: 2 to 256
- Output Waveform: Sine or Square
- Intrinsic Phase Noise to -165 dBc/Hz
- Optional Output Bandpass Filter
- Low Power Consumption

Applications:

- Synthesizer Building Block
- Communication Systems
- Radar Systems
- Electronic Warfare Systems

Description:

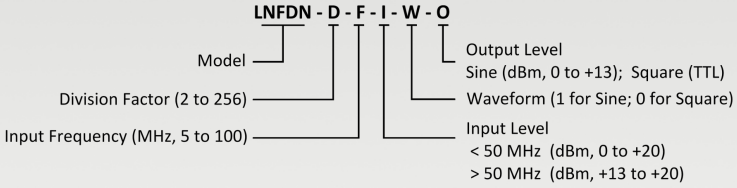
The LNFDN is a frequency divider module with a customer specified division factor from 2 to 256 for input frequencies up to 100 MHz. This module features a divider, an input signal conditioner, an output bandpass filter for excellent harmonic suppression and a low noise voltage regulator for power supply spurious rejection, all integrated into a single housing. The output bandpass filter can be included as required or bypassed for a broadband response (TTL compatible square wave output).



Electrical Specifications		
Division Factor		2 to 256
Input Frequency		5 MHz to 100 MHz, fixed
Input Level	< 50 MHz:	0 dBm to +20 dBm, fixed (±1 dB)
	> 50 MHz:	+13 dBm to +20 dBm, fixed (±1 dB)
Output Frequency		down to 2.5 MHz (sine); to 10 kHz (square)
Output Waveform		Sine or Square
Output Level	Sine	to +13 dBm (±2 dB)
	Square (TTL Compatible)	≤ 0.8 VDC (LO); +4.8 to +5.2 VDC (HI)
Phase Noise, Residual (Intrinsic, Output Referred, 100 MHz Model)		-165 dBc/Hz (100 kHz offset)
Harmonics		≤ -30 dBc (sine)
Sub-Harmonics		≤ -50 dBc (sine)
Spurious (Excluding Supply Line Related Spurs)		≤ -80 dBc
Supply Voltage		+15 VDC ±5%
Current Draw		≤ 60 mA
Operating Temperature		0 to +50°C
Storage Temperature		-40 to +85°C
Mechanical		
Dimensions		3" x 1.25" x 0.8"
DC Supply		Feed Thru Capacitor Solder Pin
Ground		Turret Terminal Solder Pin
RF Input / Output		SMA female *

* SMA female connectors are used unless otherwise specifed. Other options include SMA male, right angle SMAs, BNC female and others. Contact factory for custom configurations.

Ordering Information:



Standard P/N	Input Frequency	Division Factor	Input Level	Output Level	Output Frequency	Output Referred Residual Phase Noise (100 kHz offset)	Supply Voltage
LNFDN-2-10-0-1-13	10 MHz	÷2	0 dBm	+13 dBm	5 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-2-10-5-0-TTL	10 MHz	÷4	+5 dBm	0 to +5V TTL	2.5 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-8-80-13-1-13	80 MHz	÷8	+13 dBm	+13 dBm	10 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-8-80-13-0-TTL	80 MHz	÷8	+13 dBm	0 to +5V TTL	10 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-10-100-13-1-13	100 MHz	÷10	+13 dBm	+13 dBm	10 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-16-40-13-1-13	40 MHz	÷16	+13 dBm	+13 dBm	2.5 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-64-100-15-0-TTL	100 MHz	÷64	+15 dBm	0 to +5V TTL	1.5625 MHz	≤ -165 dBc/Hz	+15 VDC
LNFDN-256-100-13-1-10	100 MHz	÷256	+13 dBm	+10 dBm	390.625 kHz	≤ -165 dBc/Hz	+15 VDC

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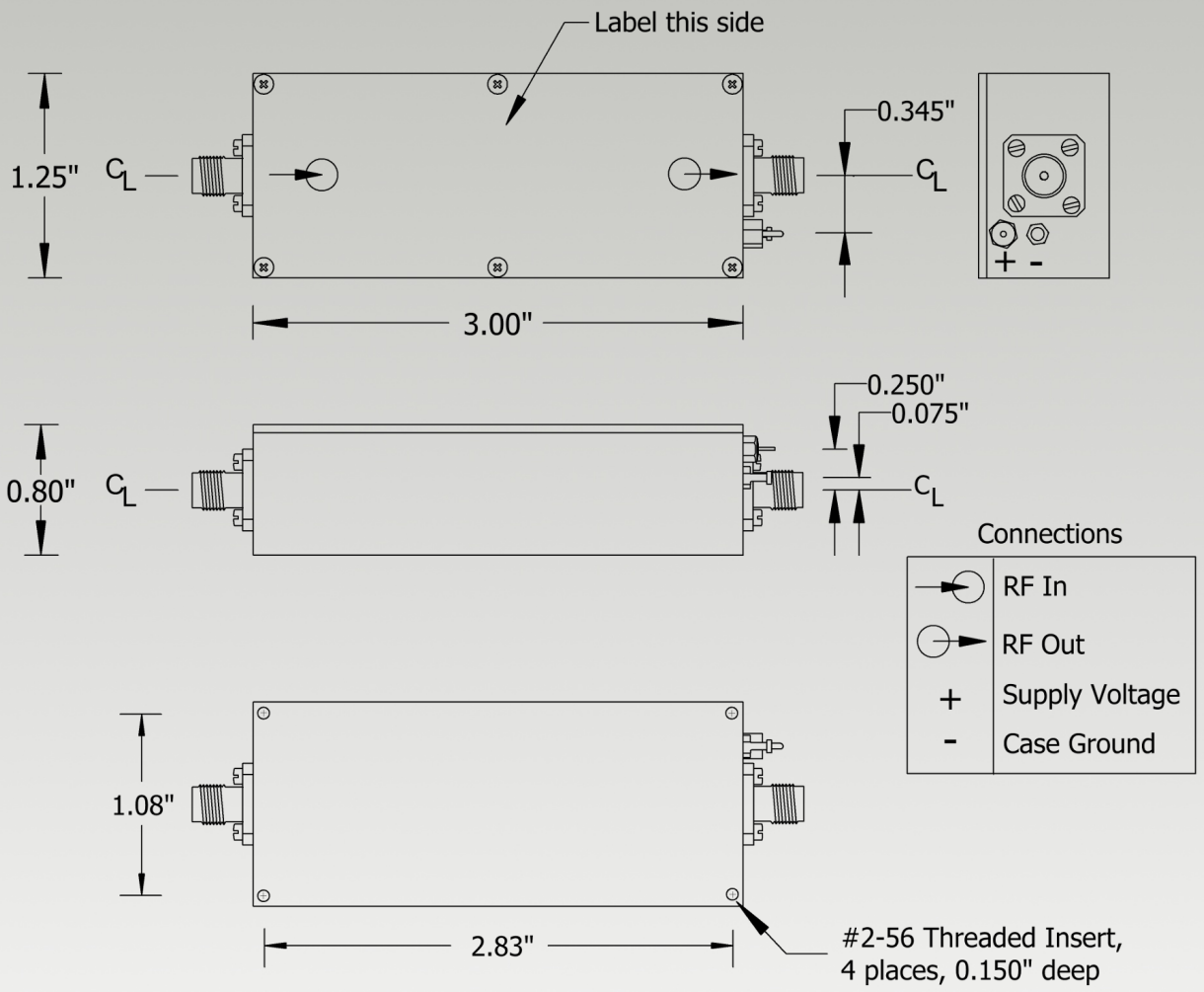

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