



Blue Tops RF Modules > Low Noise Frequency Divider

Features:

- Input Frequency to 500 MHz
- Division Factors: 2 to 13
- Output Waveform: Sine or Logic
- Intrinsic Phase Noise to -165 dBc/Hz
- Optional Output Bandpass Filter
- Low Power Consumption

Applications:

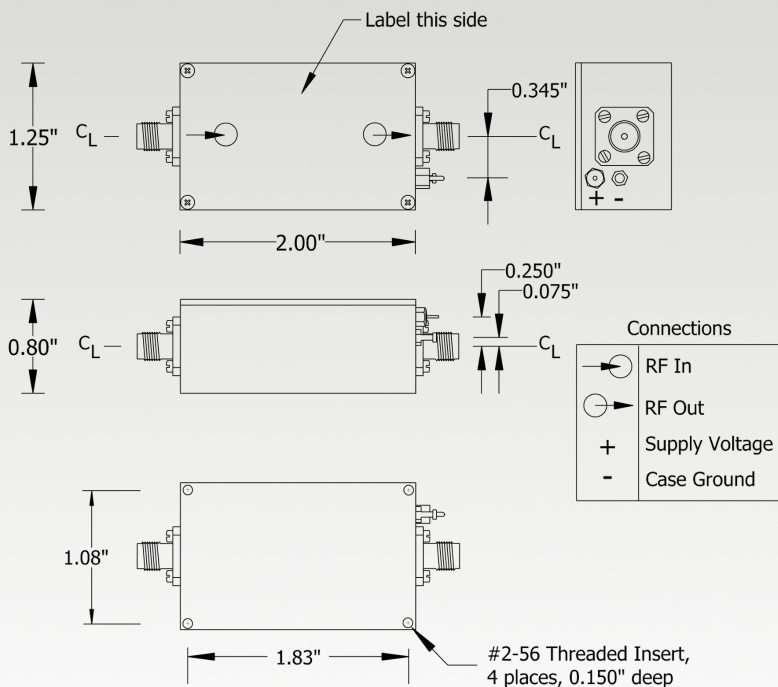
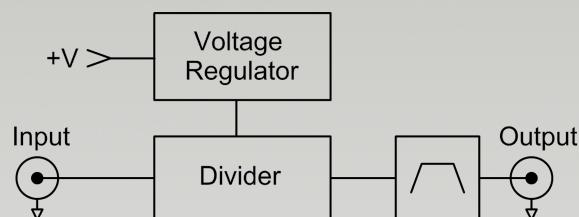
- Synthesizer Building Block
- Communication Systems
- Radar Systems
- Electronic Warfare Systems

Description:

The LNFD2 is a frequency divider module with a division factor of 2 to 13 for input frequencies up to 500 MHz. This module features a divider, 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 (CMOS Logic output).



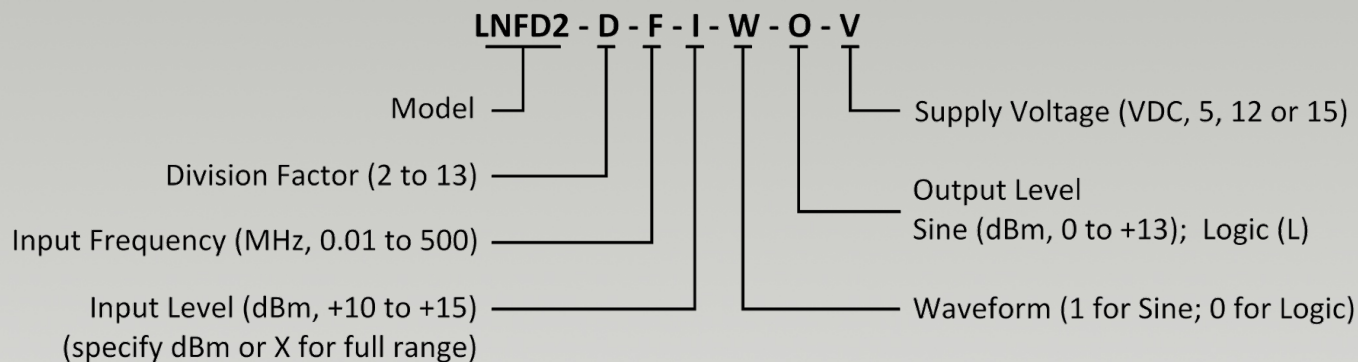
Electrical Specifications						
Input Frequency (Specify)	10 kHz to 500 MHz, fixed					
Division Factor (Specify)	2	3	4	5	6	7
Max Input Frequency:	200 MHz	300 MHz	400 MHz	500 MHz	500 MHz	500 MHz
	8	9	10	11	12	13
Max Input Frequency:	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz	500 MHz
Input Level	+10 dBm to +15 dBm					
Output Frequency	2.5 MHz to 100 MHz (sine)					
	to 100 MHz (logic)					
Output Waveform	Sine or CMOS Logic					
Output Level	Sine:	to +13 dBm (± 1 dB) into 50 ohms				
	Logic:	CMOS Logic				
Phase Noise, Residual (Intrinsic, Output Referred, 500 MHz/5 Model)	-165 dBc/Hz (100 kHz offset)					
Harmonics	≤ -30 dBc (sine)					
Sub-Harmonics	≤ -50 dBc (sine)					
Spurious (Excluding P/S Line Related Spurs)	≤ -80 dBc					
Supply Voltage (Select)	+ 12 VDC $\pm 5\%$ or +15 VDC $\pm 5\%$ (internal voltage regulator included)					
	+5 ± 0.5 VDC (not regulated; low noise supply recommended)					
Current Draw	≤ 50 mA					
Operating Temperature	0 to +50°C					
Storage Temperature	-40 to +85°C					
Mechanical						
Dimensions	2" 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 specified. Other options include SMA male, right angle SMAs, BNC female and others. Contact factory for custom configurations.						





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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
LNFD2-2-200-10-1-10-12	200 MHz	÷2	+10 dBm	+10 dBm	100 MHz	≤ -165 dBc/Hz	+12 VDC
LNFD2-4-200-13-1-13-15	200 MHz	÷4	+13 dBm	+13 dBm	50 MHz	≤ -165 dBc/Hz	+15 VDC
LNFD2-4-320-X-1-13-12	320 MHz	÷4	+10 to +15 dBm	+13 dBm	80 MHz	≤ -165 dBc/Hz	+12 VDC
LNFD2-5-320-10-1-10-15	320 MHz	÷5	+10 dBm	+10 dBm	64 MHz	≤ -165 dBc/Hz	+15 VDC
LNFD2-5-500-X-1-13-15	500 MHz	÷5	+10 to +15 dBm	+13 dBm	100 MHz	≤ -165 dBc/Hz	+15 VDC
LNFD2-8-256-10-0-L-5	256 MHz	÷8	+10 dBm	CMOS Logic	32 MHz	≤ -165 dBc/Hz	+5 VDC
LNFD2-8-320-13-1-13-15	320 MHz	÷8	+13 dBm	+13 dBm	40 MHz	≤ -165 dBc/Hz	+15 VDC
LNFD2-10-500-10-1-13-15	500 MHz	÷10	+10 dBm	+13 dBm	50 MHz	≤ -165 dBc/Hz	+15 VDC
LNFD2-12-120-13-0-L-5	120 MHz	÷12	+13 dBm	CMOS Logic	10 MHz	≤ -165 dBc/Hz	+5 VDC
LNFD2-12-300-10-1-10-15	300 MHz	÷12	+10 dBm	+10 dBm	25 MHz	≤ -165 dBc/Hz	+15 VDC

