



Blue Tops RF Modules > Low Noise Very High Frequency Doubler

Features:

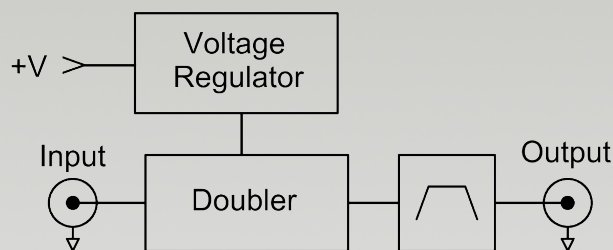
- Output Frequency to 320 MHz
- Multiplication Factor: x2
- Low Conversion Loss
- Intrinsic Phase Noise to -175 dBc/Hz
- Integral Bandpass Filter
- Low Power Consumption

Applications:

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

Description:

The LNVD is a fixed frequency VHF doubler designed for exceptionally low phase noise performance and low conversion loss. The LNVD incorporates an output bandpass filter and specially selected FETs. With a total power consumption of only 50 mA, the LNVD is particularly useful in VHF x2 multiplication applications where power is limited.



Electrical Specifications

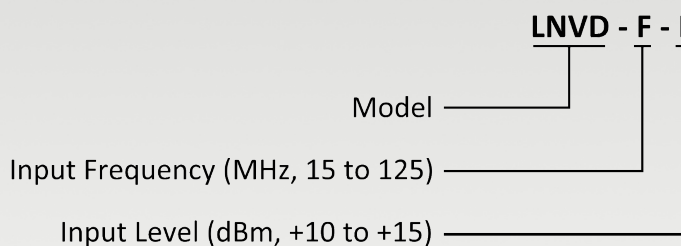
Multiplication Factor	x2
Input Frequency	15 MHz to 160 MHz, fixed
Input Level	+10 dBm to +13 dBm, fixed (± 1 dB)
Output Frequency	to 320 MHz
Conversion Loss	0 dB, typical (± 2 dB)
Phase Noise, Residual (Intrinsic, Input Referred, 100 MHz Model)	-150 dBc/Hz (10 Hz offset) -175 dBc/Hz (100 kHz offset)
Harmonics	≤ -30 dBc
Sub-Harmonics	≤ -40 dBc
Spurious (Excluding Supply Line Related Spurs)	≤ -80 dBc
Supply Voltage	+15 VDC $\pm 5\%$
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.

Ordering Information:

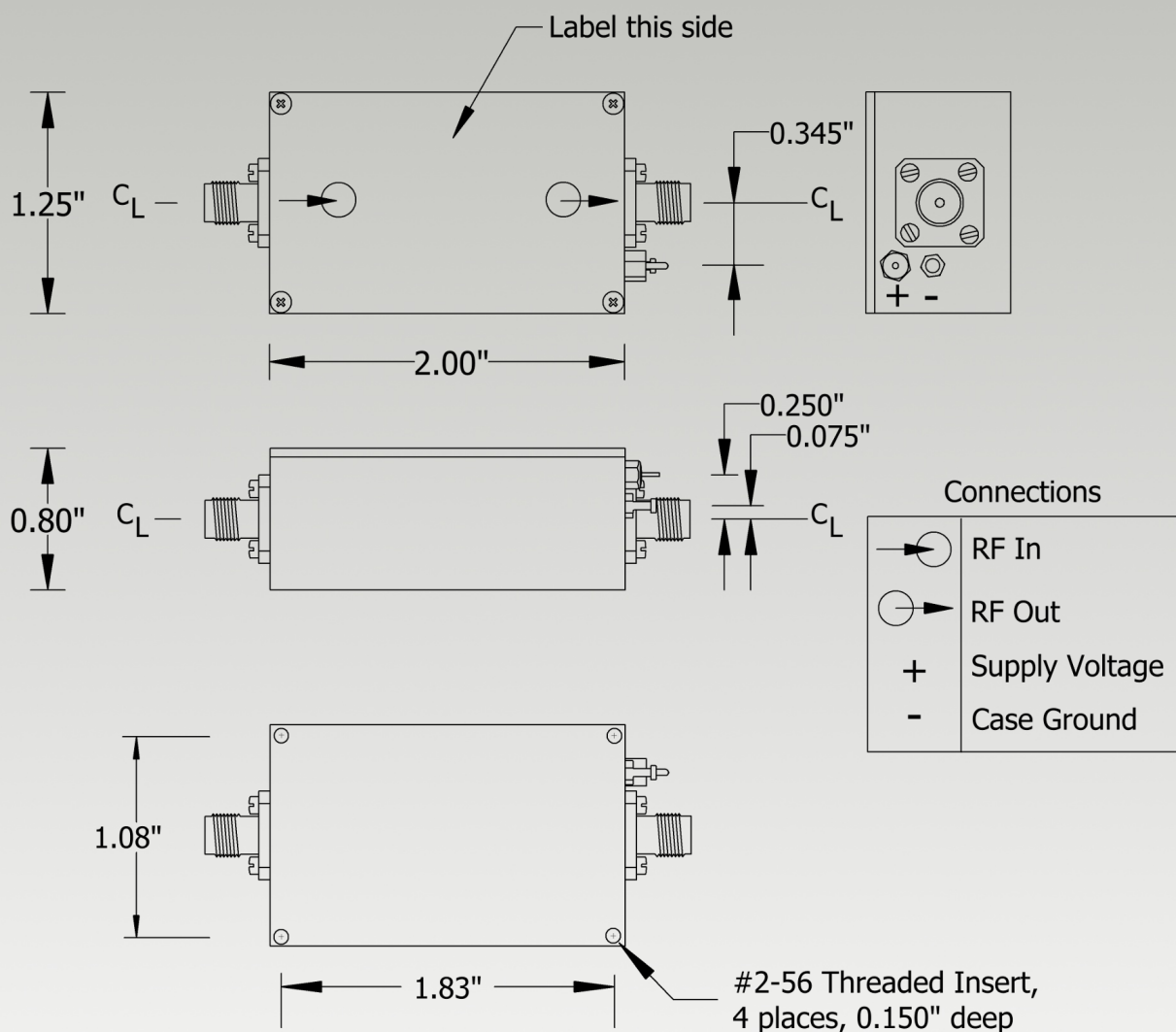


Standard P/N	Input Frequency	Multiplier Factor	Input Level	Output Level	Output Frequency	Input Referred Residual Phase Noise (100 kHz offset)	Supply Voltage
LNVD-25-10	25 MHz	x2	+10 dBm	+10 dBm	50 MHz	≤ -176 dBc/Hz	+15 VDC
LNVD-25-13	25 MHz	x2	+13 dBm	+13 dBm	50 MHz	≤ -176 dBc/Hz	+15 VDC
LNVD-50-10	50 MHz	x2	+10 dBm	+10 dBm	100 MHz	≤ -175 dBc/Hz	+15 VDC
LNVD-50-13	50 MHz	x2	+13 dBm	+13 dBm	100 MHz	≤ -175 dBc/Hz	+15 VDC
LNVD-100-10	100 MHz	x2	+10 dBm	+10 dBm	200 MHz	≤ -175 dBc/Hz	+15 VDC
LNVD-100-13	100 MHz	x2	+13 dBm	+13 dBm	200 MHz	≤ -175 dBc/Hz	+15 VDC
LNVD-125-10	125 MHz	x2	+10 dBm	+10 dBm	250 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-125-13	125 MHz	x2	+13 dBm	+13 dBm	250 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-160-10	160 MHz	x2	+10 dBm	+10 dBm	320 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-160-13	160 MHz	x2	+13 dBm	+13 dBm	320 MHz	≤ -174 dBc/Hz	+15 VDC





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