



Blue Tops RF Modules > Low Noise Very High Frequency Quadrupler

Features:

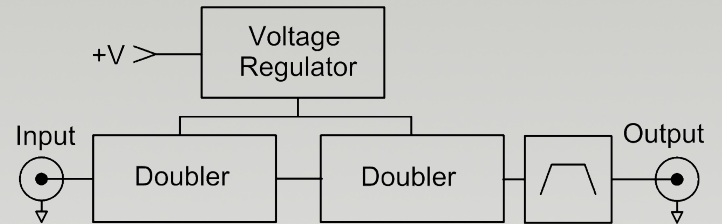
- Output Frequency to 500 MHz
- Multiplication Factor: x4
- Conversion Gain: 0 to +3 dB
- Intrinsic Phase Noise to -174 dBc/Hz
- Integral Bandpass Filter
- Low Power Consumption

Applications:

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

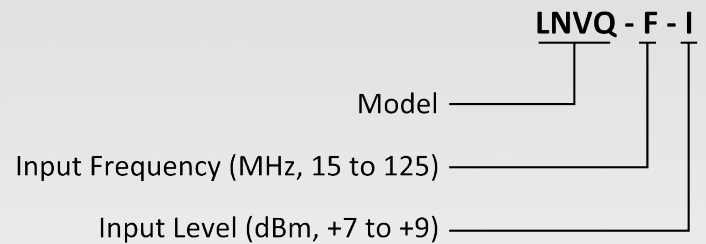
Description:

The LNVD is a fixed frequency VHF quadrupler that combines two LNVD doublers into a single package. The quadrupler exhibits exceptionally low phase noise performance and low conversion gain. The LNVD incorporates specially selected FETs and an output bandpass filter. With a total power consumption of only 60 mA, the LNVD is particularly useful in VHF x4 multiplication applications where power is limited.



Electrical Specifications	
Multiplication Factor	x4
Input Frequency	15 MHz to 125 MHz, fixed
Input Level	+7 dBm to +9 dBm, fixed (±1 dB)
Output Frequency	to 500 MHz
Conversion Gain	0 to +3 dB
Phase Noise, Residual (Intrinsic, Input Referred, 100 MHz Model)	-150 dBc/Hz (10 Hz offset) -174 dBc/Hz (100 kHz offset)
Harmonics	≤ -30 dBc
Sub-Harmonics	≤ -40 dBc
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	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-25-7	25 MHz	x4	+7 dBm	+7 to +10 dBm	100 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-25-9	25 MHz	x4	+9 dBm	+9 to +12 dBm	100 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-50-7	50 MHz	x4	+7 dBm	+7 to +10 dBm	200 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-50-9	50 MHz	x4	+9 dBm	+9 to +12 dBm	200 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-100-7	100 MHz	x4	+7 dBm	+7 to +10 dBm	400 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-100-9	100 MHz	x4	+9 dBm	+9 to +12 dBm	400 MHz	≤ -174 dBc/Hz	+15 VDC
LNVD-125-7	125 MHz	x4	+7 dBm	+7 to +10 dBm	500 MHz	≤ -173 dBc/Hz	+15 VDC
LNVD-125-9	125 MHz	x4	+9 dBm	+9 to +12 dBm	500 MHz	≤ -173 dBc/Hz	+15 VDC



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