

Model Name NV13M09WN

Voltage-Controlled Crystal Oscillator (VCXO) NV13M09W Series

■ Main Application

For basestation

■ Features

- SMD crystal oscillator with a glass epoxy circuit board and a metal lid.
- Frequency range : 75 to 800MHz. A wide frequency band. (PECL)
- Low jitter(Max. 1ps)
- Fundamental crystal units are designed. (Frequency Multiplying Model from 210MHz)
- Enable/Disable function is optional.
- Low power supply voltage (+3.3 V)

Pb
Free

RoHS Compliant
Directive 2011/65/EU



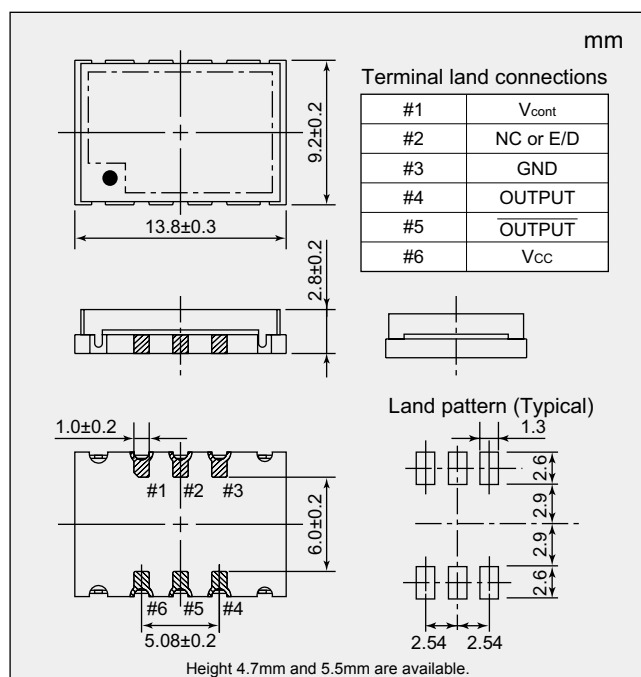
■ Specifications

Item	Model	NV13M09WN
Nominal frequency range (MHz)		$75 \leq f < 800$
Supply voltage [V _{CC}](V)		+3.3V±10%
Control voltage [V _{cont}](V)		+1.65±1.5
Current consumption (mA)		Max. 65
Output voltage		V _{OH} : Min. V _{CC} -1.02 V , V _{OL} : Max. V _{CC} -1.60 V
Symmetry (%)		45 to 55 (at 50%V _{out})
Rise time / Decay(fall)time		Max.1ns (20% to 80%)
Output load condition (PECL)		50Ω (V _{CC} -2V)
Operating temperature Range (°C)		-40 to +85
Storage temperature range (°C)		-55 to +125
Overall frequency tolerance (*1)		Max. $\pm 50 \times 10^{-6}$
Frequency control range		Min. $\pm 100 \times 10^{-6}$
Frequency change polarity		Positive
Linearity of frequency modulation deviation		Max. 5%
Input impedance		Min. 100kΩ
Phase jitter		Max. 1ps (12kHz to 20MHz)

*Please specify products with or without Enable/Disable function.

(*1) Overall frequency tolerance includes "Frequency/temperature characteristics", "Frequency tolerance", "Frequency/voltage coefficient", "Frequency/load coefficient" and "Long-term frequency stability(1 year)".

■ Dimensions



■ List of Enable / Disable function

Input (#2)	Output (#4, #5)
Low (V _{IL} ≤ V _{CC} -1.5V) or NC	Nominal frequency Output
High (V _{IH} ≥ V _{CC} -1.1V)	High Z

■ List of Ordering Codes

Ordering Code depends on with or without Enable/Disable function.

Frequency (MHz)	Ordering Code	
	Without Enable/Disable function	With Enable/Disable function
100	NV13M09WN-100M-NSA3529A	NV13M09WN-100M-NSA3529C
106.25	NV13M09WN-106.25M-NSA3529A	NV13M09WN-106.25M-NSA3529C
122.88	NV13M09WN-122.88M-NSA3529A	NV13M09WN-122.88M-NSA3529C
125	NV13M09WN-125M-NSA3529A	NV13M09WN-125M-NSA3529C
155.52	NV13M09WN-155.52M-NSA3529A	NV13M09WN-155.52M-NSA3529C
156.25	NV13M09WN-156.25M-NSA3529A	NV13M09WN-156.25M-NSA3529C
160	NV13M09WN-160M-NSA3529A	NV13M09WN-160M-NSA3529C
167.3316	NV13M09WN-167.3316M-NSA3529A	NV13M09WN-167.3316M-NSA3529C
184.32	NV13M09WN-184.32M-NSA3529A	NV13M09WN-184.32M-NSA3529C
200	NV13M09WN-200M-NSA3529A	NV13M09WN-200M-NSA3529C
245.76	NV13M09WN-245.76M-NSA3529B	NV13M09WN-245.76M-NSA3529D
320	NV13M09WN-320M-NSA3529B	NV13M09WN-320M-NSA3529D
368.64	NV13M09WN-368.64M-NSA3529B	NV13M09WN-368.64M-NSA3529D
491.52	NV13M09WN-491.52M-NSA3529B	NV13M09WN-491.52M-NSA3529D
622.08	NV13M09WN-622.08M-NSA3529B	NV13M09WN-622.08M-NSA3529D
640	NV13M09WN-640M-NSA3529B	NV13M09WN-640M-NSA3529D
644.5313	NV13M09WN-644.5313M-NSA3529B	NV13M09WN-644.5313M-NSA3529D
666.5143	NV13M09WN-666.5143M-NSA3529B	NV13M09WN-666.5143M-NSA3529D
669.3266	NV13M09WN-669.3266M-NSA3529B	NV13M09WN-669.3266M-NSA3529D
672.1627	NV13M09WN-672.1627M-NSA3529B	NV13M09WN-672.1627M-NSA3529D
693.483	NV13M09WN-693.483M-NSA3529B	NV13M09WN-693.483M-NSA3529D
696.4215	NV13M09WN-696.4215M-NSA3529B	NV13M09WN-696.4215M-NSA3529D
698.8123	NV13M09WN-698.8123M-NSA3529B	NV13M09WN-698.8123M-NSA3529D
764.4203	NV13M09WN-764.4203M-NSA3529B	NV13M09WN-764.4203M-NSA3529D
777.6	NV13M09WN-777.6M-NSA3529B	NV13M09WN-777.6M-NSA3529D
792.0087	NV13M09WN-792.0087M-NSA3529B	NV13M09WN-792.0087M-NSA3529D
794.728	NV13M09WN-794.728M-NSA3529B	NV13M09WN-794.728M-NSA3529D
800	NV13M09WN-800M-NSA3529B	NV13M09WN-800M-NSA3529D

The above frequencies are NDK's standard frequencies.

Frequencies other than the above are available. Feel free to contact our sales representatives.