

# Crystal Oscillator

## Model Name NV13M08YM

Voltage-Controlled Crystal Oscillator (VCXO) NV13M08Y Series

### Main Application

For , SDH-, and SONET-related equipment.

### Features

- A J lead-mount type SMD crystal oscillator.
- Frequency range : 10 to 125MHz. (CMOS)
- Fundamental crystal units are designed.
- Enable/Disable function is optional.
- Low power supply voltage(3.3 V)

Pb Free

RoHS Compliant  
Directive 2011/65/EU



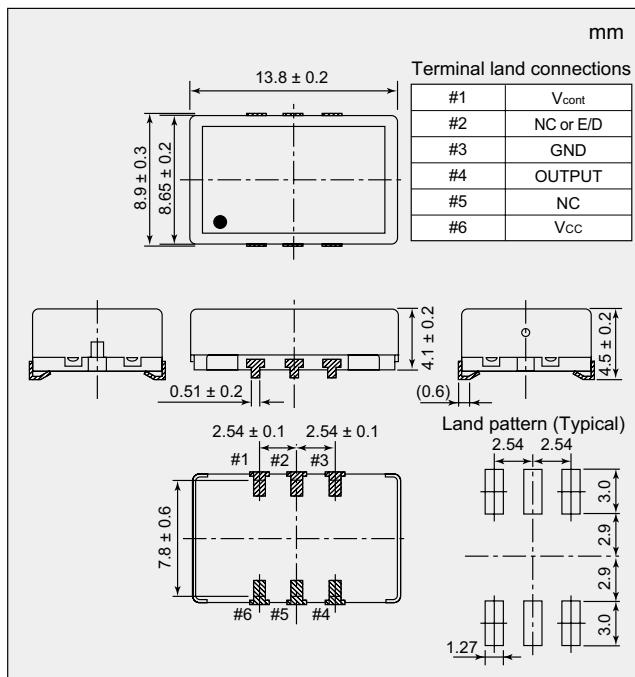
### Specifications

Item	Model	NV13M08YM			
		10 ≤ F < 20	20 ≤ F < 40	40 ≤ F < 60	60 ≤ F ≤ 125
Nominal frequency range (MHz)		10 ≤ F < 20	20 ≤ F < 40	40 ≤ F < 60	60 ≤ F ≤ 125
Supply voltage [V <sub>CC</sub> ](V)		+3.3 ±10%			
Control voltage [V <sub>cont</sub> ](V)		+1.65±1.5V			
Current consumption (mA)		Max. 15	Max. 20	Max. 20	Max. 30
Output voltage		V <sub>OH</sub> : Min. 90% V <sub>CC</sub> , V <sub>OL</sub> : Max. 10% V <sub>CC</sub>			
Symmetry (%)		45 to 55 (at 50 % V <sub>CC</sub> )			
Rise time / Decay (fall) time		Max. 7ns(10% to 90% V <sub>CC</sub> )	Max. 7ns(10% to 90% V <sub>CC</sub> )	Max. 7ns(10% to 90% V <sub>CC</sub> )	Max. 5ns(10% to 90% V <sub>CC</sub> )
Output load condition (CMOS)		15pF			
Operating temperature Range (°C)		-40 to +85			
Storage temperature range (°C)		-55 to +125			
Overall frequency tolerance (*1)		Max. ±45 × 10 <sup>-6</sup>			
Frequency control range		Min. ±100 × 10 <sup>-6</sup>			
Frequency change polarity		Positive			
Linearity of frequency modulation deviation		Max. 5%			
Input impedance		Min. 100kΩ			

\*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)
High (V <sub>IH</sub> ≥ 0.7 V <sub>CC</sub> ) or NC	Nominal frequency Output
Low (V <sub>IL</sub> ≤ 0.3V <sub>CC</sub> )	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
19.44	NV13M08YM-19.44M-NSA3530A	NV13M08YM-19.44M-NSA3530E
38.88	NV13M08YM-38.88M-NSA3530B	NV13M08YM-38.88M-NSA3530F
40	NV13M08YM-40M-NSA3530C	NV13M08YM-40M-NSA3530G
60	NV13M08YM-60M-NSA3530D	NV13M08YM-40M-NSA3530H
77.76	NV13M08YM-77.76M-NSA3530D	NV13M08YM-77.76M-NSA3530H
100	NV13M08YM-100M-NSA3530D	NV13M08YM-100M-NSA3530H
122.88	NV13M08YM-122.88M-NSA3530D	NV13M08YM-122.88M-NSA3530H
125	NV13M08YM-125M-NSA3530D	NV13M08YM-125M-NSA3530H

The above frequencies are NDK's standard frequencies.  
Frequencies other than the above are available.  
Feel free to contact our sales representatives.