

Crystal Oscillator

Model Name NH25M22WE Oven-Controlled Crystal Oscillator (OCXO) for Fixed Communication Equipment

Main Application

- Mobile communication base station
- Measuring instrument
- Synthesizer
- Exchanger
- High-end router

Features

- Compact, with a low height.
- A surface-mount (SMD) package.
- Reflow soldering is possible.
- Excellent phase noise characteristics.
- Excellent aging characteristics.

RoHS Compliant
Directive 2002/95/EC



Specifications

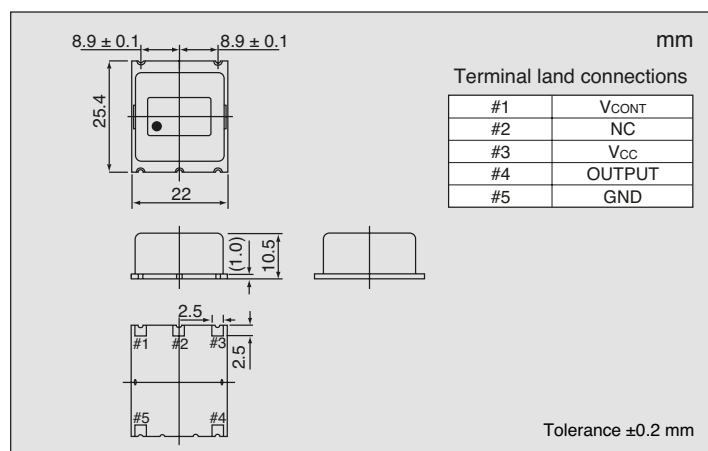
Item	Measurement condition	Model	NH25M22WE
Nominal frequency (MHz)			19.44
Supply voltage [V _{CC}] (V)			+3.3 ±5 %
Power consumption (W)	at start		Max. 2.4
	when stable (+25 °C)		Max. 1.2
Output voltage			HCMOS level (V _{OL} Max. 0.4 V, V _{OH} Min. 2.4 V)
Symmetry (%)	at 1/2 V _{CC}		40 to 60
Load impedance (pF)			15
Operating temperature range (°C)			-10 to +70
Frequency tolerance	Stabilization time	Stabilization Time (Frequency Stability) within ±500 ×10 ⁻⁹ after power on at +25°C, based on frequency after 60minutes operation.	5 minutes
	Long-term frequency stability	Based on frequency after 30 days operation	Max. ±10×10 ⁻⁹ /day
		Based on frequency after 30 days operation	Max. ±500×10 ⁻⁹ /year
	Frequency/Temperature characteristics	-10 °C to +70 °C	Max. ±100×10 ⁻⁹
Frequency/Voltage coefficient	V _{CC} +3.3 V ±5 %	Max. ±20×10 ⁻⁹	
Frequency control range	+1.4 ±1.4 V		Min. ±2×10 ⁻⁶
Frequency change polarity			Positive

Reference Value

Phase noise (at 19.44 MHz)	Offset frequency	dBc/Hz
	1 Hz	Max. -65
	10 Hz	Max. -95
	100 Hz	Max. -120
	1 kHz	Max. -125
	10 kHz	Max. -130

The value of phase noise changes when the frequency changes.

Dimensions



List of Options

Power supply voltage [V _{CC}] (V)	+5
Nominal frequency range (MHz)	10 to 20

For details of options, please feel free to contact our sales representatives.

List of Ordering Codes

Frequency (MHz)	Ordering Code
19.44	NH25M22WE-19.44M-NSA3417A

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