Crystal Oscillator

Model Name NH25M22WC   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.
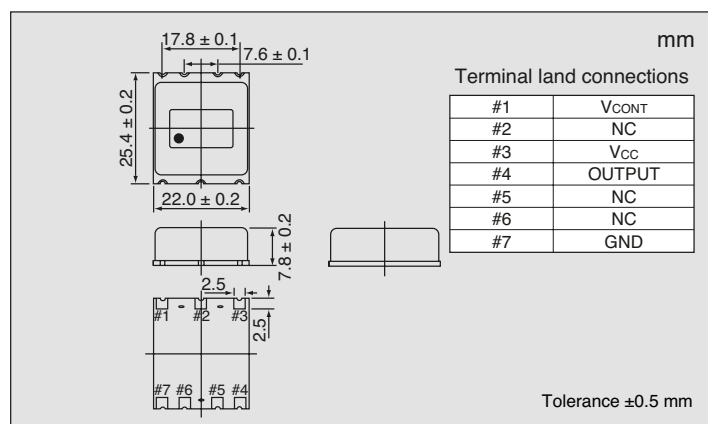
RoHS Compliant
Directive 2002/95/EC

■ Specifications

Item / Measurement condition		Model NH25M22WC
Nominal frequency (MHz)		10
Supply voltage [V_{CC}] (V)		+5 ±5 %
Power consumption (W)	at start	Max. 3
	when stable (+25 °C)	Max. 2
Output voltage		HCMOS level (V_{OL} Max. 0.5 V, V_{OH} Min. 4.5 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 ±200 ×10^{-9} after power on at +25°C , based on frequency after 60minutes operation.	5 minutes
Frequency tolerance — Long-term frequency stability	Based on frequency after 30 days operation	Max. ±2×10^{-9}/day
	Based on frequency after 30 days operation	Max. ±100×10^{-9}/year
Frequency tolerance — Frequency/Temperature characteristics	−10 °C to +70 °C	Max. ±20×10^{-9}
Frequency tolerance — Frequency/Voltage coefficient	V_{CC} +5 V±5 %	Max. ±10×10^{-9}
Frequency control range	+2.5 ±2.5 V	Min. ±1×10^{-6}
Frequency change polarity		Positive

■ Reference Value

Phase noise (at 10 MHz)	Offset frequency	dBc/Hz
	1 Hz	Max. −70
	10 Hz	Max. −100
	100 Hz	Max. −120
	1 kHz	Max. −135
	10 kHz	Max. −135

The value of phase noise changes when the frequency changes.

■ Dimensions

mm

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17.8 ± 0.1
7.6 ± 0.1
25.4 ± 0.2
22.0 ± 0.2
7.8 ± 0.2
2.5
2.5
#1  #2  #3
#7 #6  #5 #4
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Tolerance ±0.5 mm

Terminal land connections

Pin	Function
#1	V_{CONT}
#2	NC
#3	V_{CC}
#4	OUTPUT
#5	NC
#6	NC
#7	GND

■ List of Options

Power supply voltage [V_{CC}] (V)	+3.3
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
10	NH25M22WC-10M-NSA3419A

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

NIHON DEMPA KOGYO CO.,LTD.

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