

Crystal Oscillator

Model Name NH25M22WB

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

■ Main Application

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

■ Features

- Compact, with a low height.
- A surface-mount (SMD) package. Reflow soldering is possible.
- Excellent phase noise characteristics. (19.2MHz : -135dBc/Hz at 1kHz)
- Excellent long-term frequency stability.($\pm 100 \times 10^{-9}$ /year)

RoHS Compliant
Directive 2011/65/EU



■ Specifications

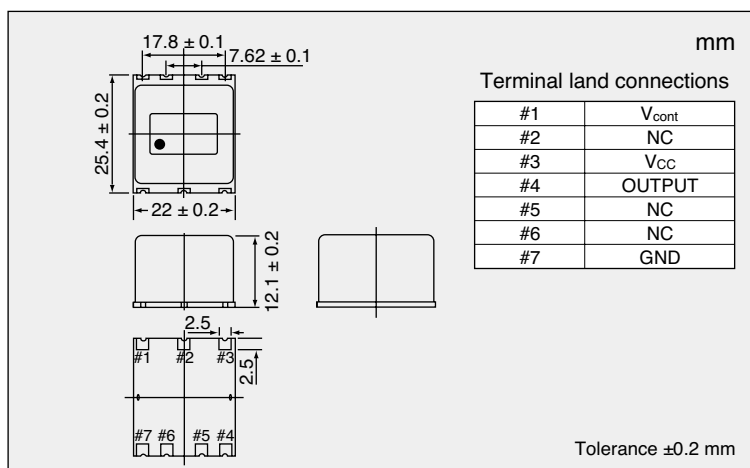
Item	Measurement condition	Model	NH25M22WB
Nominal frequency (MHz)			10, 19.2, 30.72
Supply voltage [V _{CC}] (V)			+3.3 \pm 5 %
Power consumption (W)	at start		Max. 2.7
	when stable (+25 °C)		Max. 1.4
Output voltage			HCMOS level (V _{OL} Max. 0.4 V, V _{OH} Min. 2.4 V)
Symmetry (%)	at 1/2 V _{CC}		40 to 60
Load impedance (pF)			15
Operating temperature range (°C)			-10 to +70
Storage temperature range (°C)			-40 to +85
Stabilization time	Stabilization Time (Frequency Stability) within $\pm 200 \times 10^{-9}$ after power on at +25 °C, based on frequency after 60minutes operation.		Max. 5 minutes
Long-term frequency stability	Based on frequency after 30 days operation		Max. $\pm 2 \times 10^{-9}$ /day
	Based on frequency after 30 days operation		Max. $\pm 100 \times 10^{-9}$ /year
Frequency/Temperature characteristics	-10 to +70 °C		Max. $\pm 20 \times 10^{-9}$
Frequency/Voltage coefficient	V _{CC} +3.3 V \pm 5 %		Max. $\pm 5 \times 10^{-9}$
Frequency control range	V _{cont} +1.4 \pm 1.4 V		Min. $\pm 1 \times 10^{-6}$
Frequency change polarity			Positive

■ Reference Value

Phase noise (at 19.2 MHz)	Offset frequency	dBc/Hz
	1 Hz	-70
	10 Hz	-100
	100 Hz	-120
	1 kHz	-135
	10 kHz	-135

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 30.72

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

■ List of Ordering Codes

Nominal frequency (MHz)	Ordering Code
10	NH25M22WB-10M-NSA3420A
19.2	NH25M22WB-19.2M-NSA3420A
30.72	NH25M22WB-30.72M-NSA3420A

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