

Crystal Oscillator

Model Name NH25M22WA

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

■ Main Application

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

■ Features

- Supports low power supply voltage.(3.3V)
- A surface-mount (SMD) package. Reflow soldering is possible.
- Excellent phase noise characteristics. (-125dBc/Hz at 1kHz)
- Excellent long-term frequency stability.(±50×10⁻⁹/year)

RoHS Compliant
Directive 2011/65/EU



■ Specifications

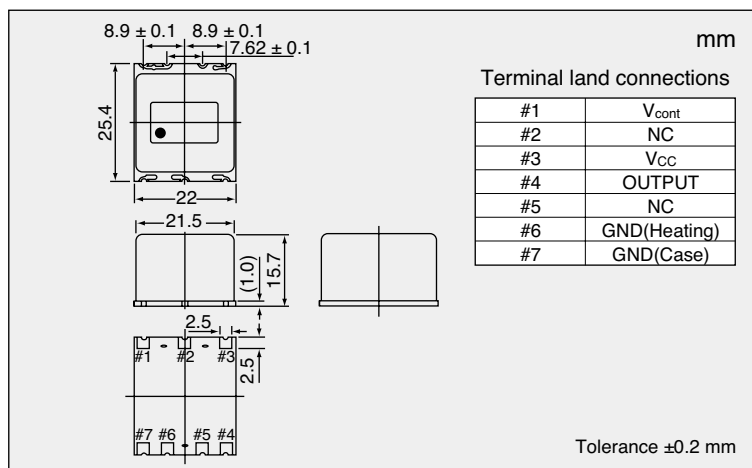
Item	Measurement condition	Model	NH25M22WA
Nominal frequency (MHz)			32.768
Supply voltage [V _{CC}] (V)			+3.3 ±5 %
Power consumption (W)	at start		Max. 3.0
	when stable (+25 °C)		Max. 1.3
Output voltage			HCMOS level (V _{OL} Max. 0.4 V, V _{OH} Min. 2.4 V)
Symmetry (%)	at 1/2 V _{CC}		40 to 60
Load impedance (pF)			15
Operating temperature range (°C)			-10 to +70
Storage temperature range (°C)			-40 to +85
Stabilization time	Stabilization Time (Frequency Stability) within ±50 ×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. ±2×10 ⁻⁹ /day
	Based on frequency after 30 days operation		Max. ±50×10 ⁻⁹ /year
Frequency/Temperature characteristics	-10 to +70 °C		Max. ±20×10 ⁻⁹
Frequency/Voltage coefficient	V _{CC} +3.3 V ± 5 %		Max. ±3×10 ⁻⁹
Frequency control range	V _{cont} +1.4 ± 1.4 V		Min. ±0.9×10 ⁻⁶
Frequency change polarity			Positive

■ Reference Value

Phase noise (at 32.768 MHz)	Offset frequency	dBc/Hz
	1 Hz	-65
	10 Hz	-95
	100 Hz	-115
	1 kHz	-125
	10 kHz	-140

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 40

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

■ List of Ordering Codes

Nominal frequency (MHz)	Ordering Code
32.768	NH25M22WA-32.768M-NSA3425A

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