

# Crystal Oscillator

## Model Name NH25M22WB 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

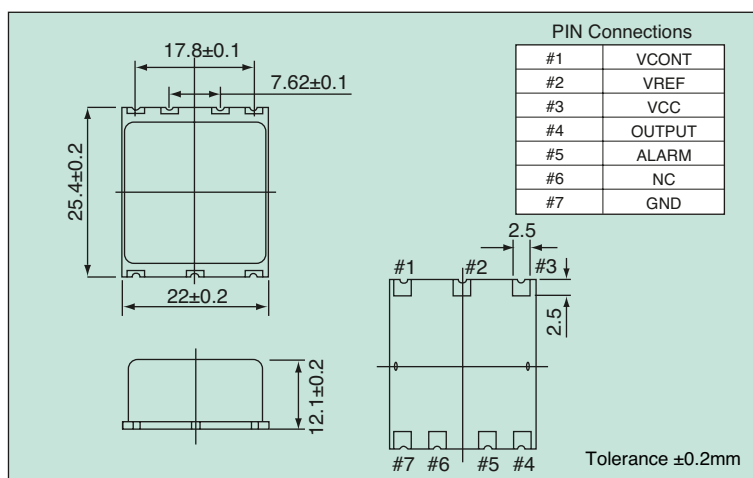
Item	Measurement condition	Model	NH25M22WB
Standard nominal frequency (MHz)			19.2
Power supply voltage			DC +3.3V
Power consumption			2.7 W max. at the start and 1.4 W max. when stable (+25°C)
Output level			HCMOS ( $V_{OL}$ : 0.4V max., $V_{OH}$ : 2.4V min.)
Load			10kΩ//30pF
Duty Cycle (1/2Vcc)			45 to 55%
Operating temperature range			-10 to +70°C
Frequency stability	Aging	Based on frequency after 30 days operation	$\pm 2 \times 10^{-9}$ /day max.
		Based on frequency after 30 days operation	$\pm 100 \times 10^{-9}$ /year max.
	Frequency / temperature characteristic	-10 to +70°C	$\pm 20 \times 10^{-9}$ max.
	Power supply variation characteristics	DC +3.3V±5%	$\pm 5 \times 10^{-9}$ max.
Frequency control characteristic	0 to +2.8 V, positive polarity		$\pm 1.0 \times 10^{-6}$ min.

### Reference Value

Phase noise (@19.2MHz)	Offset frequency	dBc/Hz
	1 Hz	-70 max.
	10 Hz	-100 max.
	100 Hz	-120 max.
	1k Hz	-135 max.
	10k Hz	-135 max.

The value of phase noise changes when the frequency changes.

### Dimensions



### List of Options

Power supply voltage	DC +5V
Nominal frequency (MHz)	10 to 20

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

### List of Ordering Codes

Frequency (MHz)	Ordering Code
19.2	NH25M22WB-19.2M-NSA3420A

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