

# Crystal Oscillator

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

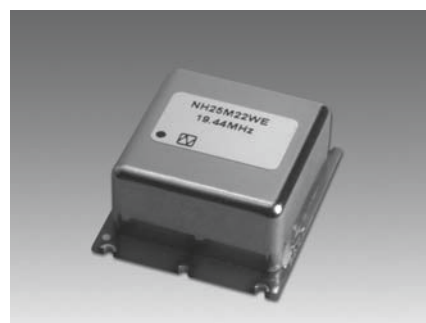
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### Main Application

- 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

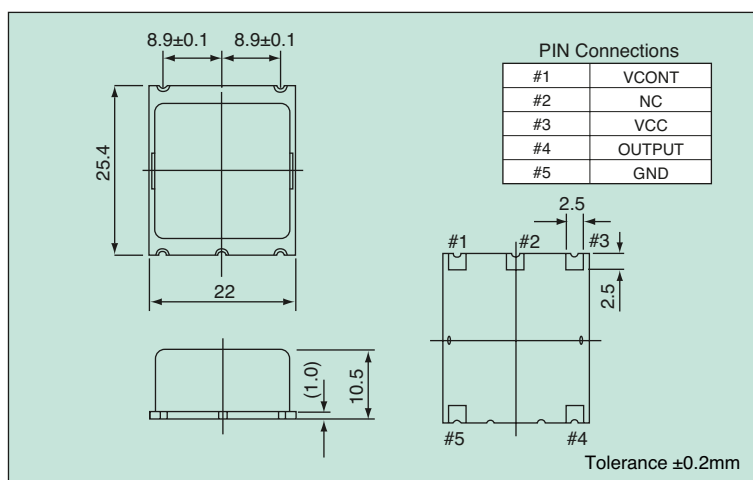
Item	Measurement condition	Model	NH25M22WE
Standard nominal frequency (MHz)			19.44
Power supply voltage			DC +3.3V
Power consumption			2.4 W max. at the start and 1.2 W max. when stable (+25°C)
Output level			HCMOS (V <sub>OL</sub> : 0.4V max., V <sub>OH</sub> : 2.4V min.)
Load			10kΩ//15pF
Duty Cycle (1/2V <sub>CC</sub> )			40 to 60%
Operating temperature range			-10 to +70°C
Frequency stability	Frequency warm-up characteristic	+25°C three minutes after power is on	±500×10 <sup>-9</sup> max.
	Aging	Based on frequency after 30 days operation	±10×10 <sup>-9</sup> /day max.
		Based on frequency after 30 days operation	±500×10 <sup>-9</sup> /year max.
	Frequency / temperature characteristic	-10 to +70°C	±100×10 <sup>-9</sup> max.
	Power supply variation characteristics	DC +3.3V±5%	±20×10 <sup>-9</sup> max.
Frequency control characteristic	0 to +2.8 V, positive polarity		±2.0×10 <sup>-6</sup> min.

### Reference Value

Phase noise (@19.44MHz)	Offset frequency	dBc/Hz
	1 Hz	-65 max.
	10 Hz	-95 max.
	100 Hz	-120 max.
	1k Hz	-125 max.
	10k Hz	-130 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 38.88

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.