# **Crystal Oscillator**



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

#### ■ Main Application

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

Synthesizer

#### **■** 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

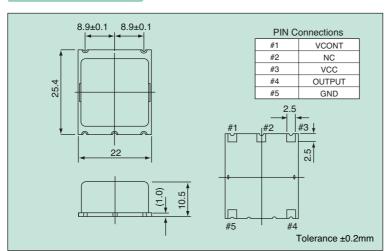
	Item Measuremer	nt condition Model	NH25M22WE
	Standard nominal frequency (MH	z)	19.44
	Power supply voltage		DC +3.3V
	Power consumption		2.4 W max. at the start and 1.2 W max. when stable (+25°C)
	Output level		HCMOS (Vol.: 0.4V max., Voh.: 2.4V min.)
	Load		10kΩ//15pF
	Duty Cycle (1/2Vcc)		40 to 60%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

#### **■** Reference Value

	Offset frequency	dBc/Hz
	1 Hz	-65 max.
Dhaga naisa (@10.44MLl=\	10 Hz	–95 max.
Phase noise (@19.44MHz)	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.