



# Crystal Oscillator

**NEW**

## NH25M25TE

Oven Controlled Crystal Oscillator (OCXO)  
for Fixed Communication Equipment

### Main Application

- Base stations for system mobile communications
- Optical transmission system
- Measuring instrument
- Synthesizer
- Exchanger
- High-end router

### Features

- Supports wide temperature range. (-40 to +85°C)
- Excellent long-term frequency stability. (10MHz : Max.  $\pm 30 \times 10^{-9}$ /year)
- Low near-carrier phase noise characteristics. (-100dBc / Hz at 1Hz offset)
- Hermetic sealing package for excellent environmental-proof performance.

Pb Free

RoHS Compliant  
Directive 2011/65/EU

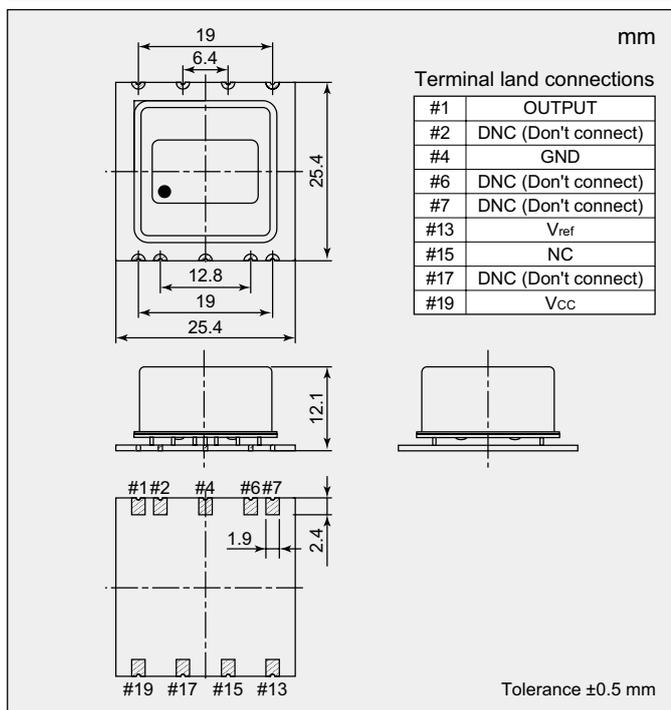


### Specifications

Item	Measurement condition	Model	NH25M25TE	
			10	20
Nominal Frequency (MHz)			10	20
Supply Voltage [V <sub>CC</sub> ] (V)			+5 $\pm 5$ %	+3.3 $\pm 5$ %
Power Consumption (W)	at start		Max. 3.3	
	when stable (+25 °C)		Max. 1.3	
Output Voltage			HCMOS level	
			V <sub>OL</sub> Max. 0.5 V, V <sub>OH</sub> Min. 3.5 V / V <sub>OL</sub> Max. 0.3 V, V <sub>OH</sub> Min. 2.4 V	
Symmetry (%)	at+(V <sub>OH</sub> + V <sub>OL</sub> ) / 2		40 to 60	
Load Impedance (pF)			15	
Operating Temperature Range (°C)			-40 to +85	
Storage Temperature Range (°C)			-40 to +85	
Stabilization Time	Stabilization Time (Frequency Stability) within $\pm 500 \times 10^{-9}$ after power on at +25°C, based on frequency after 60minutes operation.		Max. 90 seconds	
	Stabilization Time (Frequency Stability) within $\pm 100 \times 10^{-9}$ after power on at +25°C, based on frequency after 60minutes operation.		Max. 3 minutes	
Long-term Frequency Stability	Based on frequency after 30 days operation		Max. $\pm 1 \times 10^{-9}$ /day	
			Max. $\pm 30 \times 10^{-9}$ /year	Max. $\pm 80 \times 10^{-9}$ /year
Frequency/Temperature Characteristics	-40 to +85 °C		Max. $\pm 10 \times 10^{-9}$	
Frequency/Voltage Coefficient	(*1)		Max. $\pm 3 \times 10^{-9}$	
Frequency Tolerance	+25 °C		Max. $\pm 1 \times 10^{-6}$	
Specification Number			NSC5063A	NSC5063B

(\*1) 10MHz : V<sub>CC</sub> +5 V  $\pm 5$  %    20MHz : V<sub>CC</sub> +3.3 V  $\pm 5$  %

### Dimensions



### Reference Value

Phase Noise (at 10 MHz)	Offset Frequency	dBc/Hz
	1 Hz	Typ. -100
	10 Hz	Typ. -127
	100 Hz	Typ. -143
	1 kHz	Typ. -148
	10 kHz	Typ. -150

Phase Noise (at 20 MHz)	Offset Frequency	dBc/Hz
	1 Hz	Typ. -85
	10 Hz	Typ. -115
	100 Hz	Typ. -140
	1 kHz	Typ. -145
	10 kHz	Typ. -145

Short-term Frequency Stability	$\tau=1$	Typ. $8 \times 10^{-12}$
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We offer a test instrument(charge) for measuring accurately.

Please specify the model name, frequency, and specification number when you order products.  
For further questions regarding specifications, please feel free to contact us.