

# Crystal Oscillator

## Model Name NH37M28LB Oven-Controlled Crystal Oscillator (OCXO) for Fixed Communication Equipment

### Main Application

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

### Features

- Compact.
- Excellent rise characteristics.
- Excellent phase noise characteristics.
- Excellent aging characteristics.

**RoHS Compliant**  
Directive 2002/95/EC



### Specifications

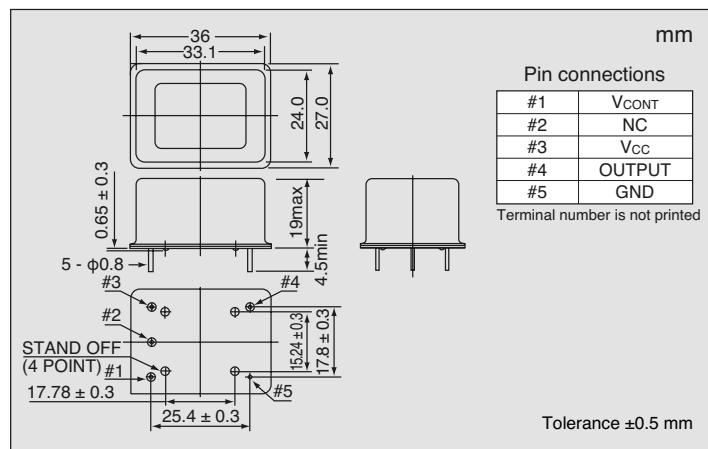
Item	Measurement condition	Model	NH37M28LB
Nominal frequency (MHz)			10
Supply voltage [V <sub>CC</sub> ] (V)			+5 ±5 %
Power consumption (W)	at start		Max. 3
	when stable (+25 °C)		Max. 1.3
Output voltage			HCMOS level (V <sub>OL</sub> Max. 0.5 V, V <sub>OH</sub> Min. 4.5 V)
Symmetry (%)	at 1/2 V <sub>CC</sub>		40 to 60
Load impedance (pF)			15
Operating temperature range (°C)			-10 to +70
Frequency tolerance	Stabilization time	Stabilization Time (Frequency Stability) within ±50 ×10 <sup>-9</sup> after power on at +25°C, based on frequency after 60minutes operation.	5 minutes
	Long-term frequency stability	Based on frequency after 72 hours operation	Max. ±2×10 <sup>-9</sup> /day
		Based on frequency after 72 hours operation	Max. ±100×10 <sup>-9</sup> /year
	Frequency/Temperature characteristics	-10 °C to +70 °C	Max. ±10×10 <sup>-9</sup>
Frequency/Voltage coefficient	V <sub>CC</sub> +5 V ±5 %	Max. ±1×10 <sup>-9</sup>	
Frequency control range	+2.5 ±2.5 V		Min. ±1×10 <sup>-6</sup>
Frequency change polarity			Positive

### Reference Value

Phase noise (at 10 MHz)	Offset frequency	dBc/Hz
	1 Hz	Max. -80
	10 Hz	Max. -120
	100 Hz	Max. -140
	1 kHz	Max. -145
	10 kHz	Max. -150

The value of phase noise changes when the frequency changes.

### Dimensions



### List of Options

Operating temperature range (°C)	-40 to +70
Power supply voltage [V <sub>CC</sub> ] (V)	+3.3
Nominal frequency range (MHz)	10 to 40

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

### List of Ordering Codes

Frequency (MHz)	Ordering Code
10	NH37M28LB-10M-NSA3423A

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