

Crystal Oscillator

Model Name NH37M28LB

Oven-Controlled Crystal Oscillator (OCXO)
for Fixed Communication Equipment

Main Application

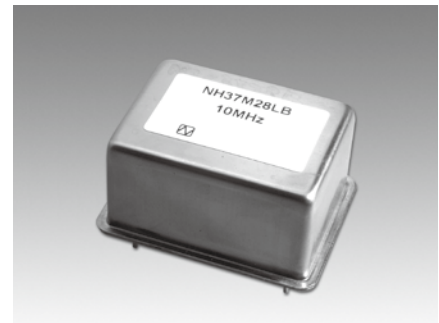
- Base stations mobile communication system
- Exchanger
- Measuring instrument
- Synthesizer
- High-end router

Features

- Compact.
- Excellent phase noise characteristics. (-145dBc/Hz at 1kHz)
- Excellent long-term frequency stability.($\pm 100 \times 10^{-9}$ /year)

Pb Free

RoHS Compliant
Directive 2011/65/EU



Specifications

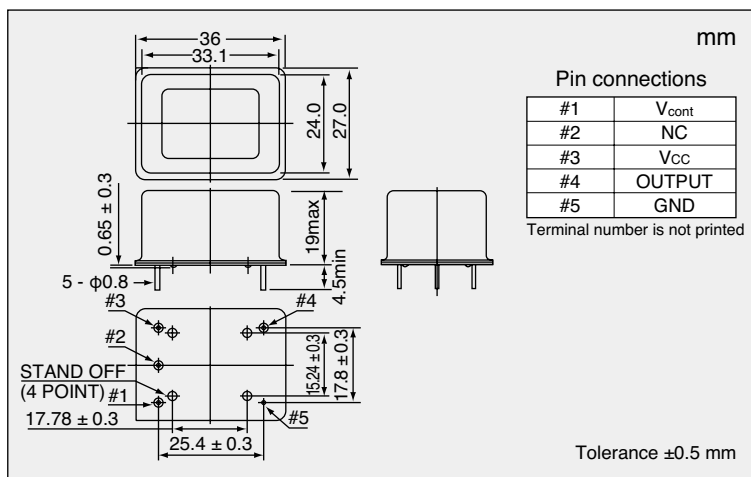
Item	Measurement condition	Model	NH37M28LB
Nominal frequency (MHz)			10
Supply voltage [V _{CC}] (V)			+5 ±5 %
Power consumption (W)	at start		Max. 3
	when stable (+25 °C)		Max. 1.3
Output voltage			HC MOS level (V _{OL} Max. 0.5 V, V _{OH} Min. 4.5 V)
Symmetry (%)	at 1/2 V _{CC}		40 to 60
Load impedance (pF)			15
Operating temperature range (°C)			-10 to +70
Storage temperature range (°C)			-40 to +85
Stabilization time	Stabilization Time (Frequency Stability) within $\pm 50 \times 10^{-9}$ after power on at +25°C, based on frequency after 60minutes operation.		Max. 5 minutes
Long-term frequency stability	Based on frequency after 72 hours operation		Max. $\pm 2 \times 10^{-9}$ /day
	Based on frequency after 72 hours operation		Max. $\pm 100 \times 10^{-9}$ /year
Frequency/Temperature characteristics	-10 to +70 °C		Max. $\pm 10 \times 10^{-9}$
Frequency/Voltage coefficient	V _{CC} +5 V ± 5 %		Max. $\pm 1 \times 10^{-9}$
Frequency control range	V _{cont} +2.5 ± 2.5 V		Min. $\pm 1 \times 10^{-6}$
Frequency change polarity			Positive

Reference Value

Phase noise (at 10 MHz)	Offset frequency	dBc/Hz
	1 Hz	-80
	10 Hz	-120
	100 Hz	-140
	1 kHz	-145
	10 kHz	-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 _{CC}] (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

Nominal 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.