Crystal Oscillator NEW

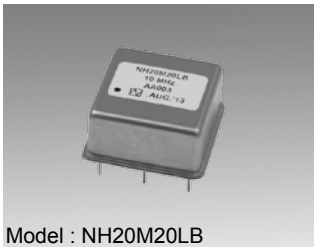
NDK Crystal Bridge to the Future

Model Name NH20M20LB / NH25M22TA

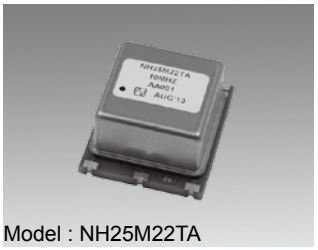
High Precision Oscillator (Twin-OCXO) for Fixed Communication Equipment

■ Main Application

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



Model : NH20M20LB



Model : NH25M22TA

■ Features

- Compact and excellent temperature characteristics.
- Excellent long-term frequency stability.
- Excellent phase noise characteristics.
- Hermetic sealing package for excellent environmental-proof performance.
- Supports wide temperature range (-40 to +85 °C)

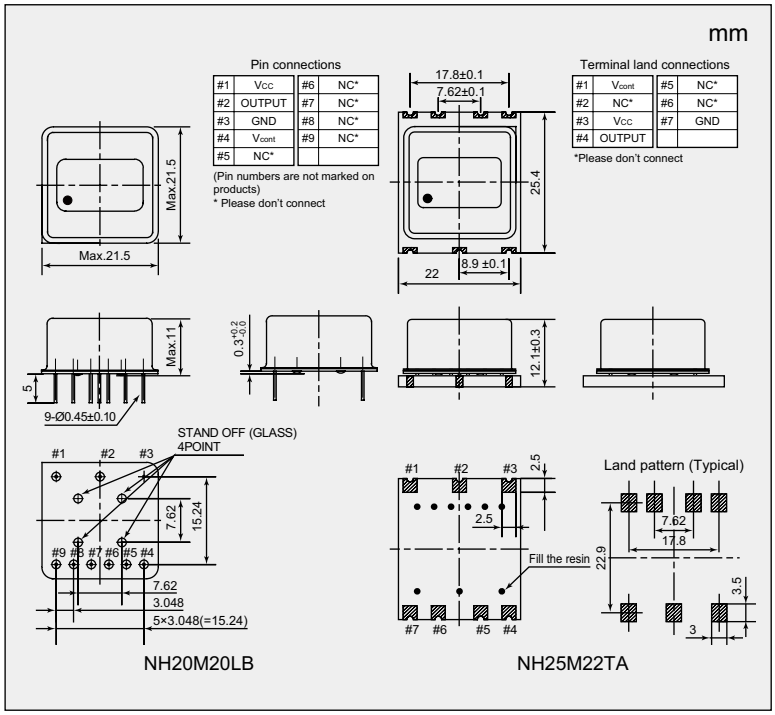
Pb Free

RoHS Compliant Directive 2011/65/EU

■ Specifications

Item \ Model / Measurement condition		NH20M20LB / NH25M22TA
Nominal frequency range (MHz)		5 to 40
Nominal frequency (MHz)		10, 12.8, 13, 16.384, 19.2, 20, 25, 26, 30.72, 38.4, 38.88, 40
Supply voltage [V_{CC}] (V)		+3.3 ± 5 %
Power consumption (W)	at start	Max. 4.0
	when stable (+25 °C)	Max. 1.2
Output voltage		LVCMOS (V_{OL} Max. 0.3 V, V_{OH} Min. 3 V)
Symmetry (%)	at 1/2 V_{CC}	45 to 55
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 ±100 ×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 30 days operation	Max. ±80×10^{-9}/year
Frequency/Temperature characteristics		Max. ±3×10^{-9}
Frequency/Voltage coefficient	V_{CC} +3.3 V ±5 %	Typ. ±5×10^{-9} (Max. ±10×10^{-9})
Frequency control range	V_{cont} +0 V to +2.8 V (@ +1.4V)	Max. ±1.0×10^{-6}
Frequency change polarity	Frequency change polarity	Positive
	Linearity	Typ. 1%

■ Dimensions



NH20M20LB NH25M22TA

■ Reference Value

	Offset frequency	dBc/Hz (Typ.)
Phase noise (at 10 MHz)	1 Hz	–80
	10 Hz	–105
	100 Hz	–130
	1 kHz	–150
	10 kHz	–160

The value of phase noise changes when the frequency changes.

■ List of Codes for Placing an Order

Model	NH20M20LB
Nominal frequency (MHz)	10, 12.8, 13, 16.384, 19.2, 20, 25, 26, 30.72, 38.4, 38.88, 40
Ordering Code	NH20M20LB–[ ]–NSA3577A

Model	NH25M22TA
Nominal frequency (MHz)	10, 12.8, 13, 16.384, 19.2, 20, 25, 26, 30.72, 38.4, 38.88, 40
Ordering Code	NH25M22TA–[ ]–NSA3566A

Please specify a NDK's nominal frequency in the square brackets.
(Example 10MHz : Please specify 10M in the square brackets.)
Frequencies other than the above are available.
Feel free to contact our sales representatives.