

Crystal Oscillator

NT14M09TA

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

■ Main Application

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

■ Features

- Low current consumption (Max. 35mA) and high stability ($\pm 50 \times 10^{-9}/-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$).
- Excellent long-term frequency stability.
- Excellent phase noise characteristics.
- Hermetic sealing package for excellent environmental-proof performance.
- Same foot pattern as the same size OCXO (foot pattern compatible).



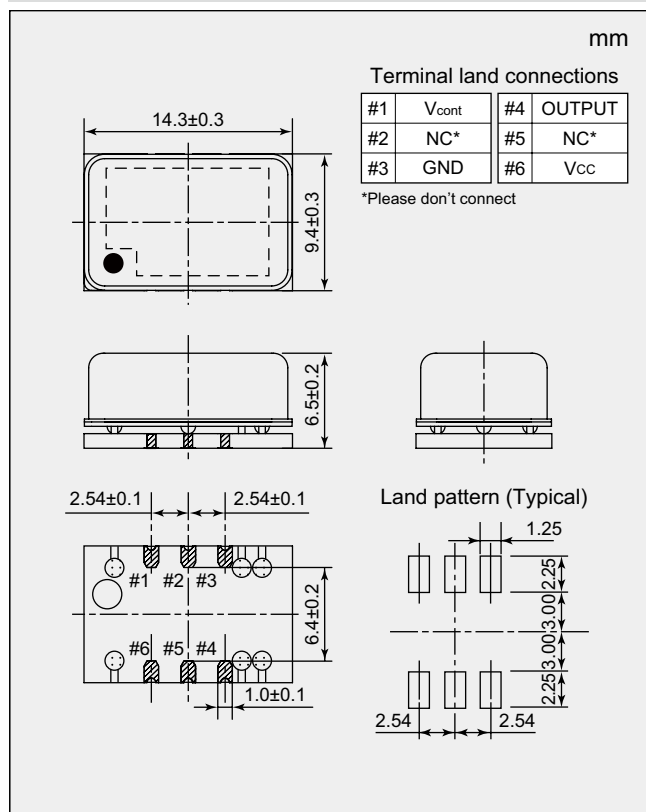
Pb
Free

RoHS Compliant
Directive 2011/65/EU

■ Specifications

Item	Measurement condition	Model	NT14M09TA
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 $\pm$ 5 %
Current consumption(mA)			Max. 35
Output voltage			LVC MOS (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
Long-term frequency stability	Based on frequency after 24hours operation		Max. $\pm 200 \times 10^{-9}/\text{year}$
Frequency/Temperature characteristics			Max. $\pm 50 \times 10^{-9}$
Frequency/Voltage coefficient	V _{CC} +3.3 V $\pm$ 5 %		Typ. $\pm 5 \times 10^{-9}$ (Max. $\pm 10 \times 10^{-9}$)
Frequency control range	V _{Cont} +0.2 V to + 2.8V (@1.5 V)		Max. $\pm 5.0 \times 10^{-6}$
Frequency change polarity	Frequency change polarity		Positive
	Linearity		Typ. 1%

■ Dimensions



■ Reference Value

Phase noise (at 10 MHz)	Offset frequency	dBc/Hz (typ.)
	1 Hz	-70
	10 Hz	-100
	100 Hz	-125
	1 kHz	-150
	10 kHz	-160

The value of phase noise changes when the frequency changes.

■ List of Ordering Codes

Nominal frequency (MHz)	Ordering Code
10	NT14M09TA-10M-NSA3543A
12.8	NT14M09TA-12.8M-NSA3543A
13	NT14M09TA-13M-NSA3543A
16.384	NT14M09TA-16.384M-NSA3543A
19.2	NT14M09TA-19.2M-NSA3543A
20	NT14M09TA-20M-NSA3543A
25	NT14M09TA-25M-NSA3543A
26	NT14M09TA-26M-NSA3543A
30.72	NT14M09TA-30.72M-NSA3543A
38.4	NT14M09TA-38.4M-NSA3543A
38.88	NT14M09TA-38.88M-NSA3543A
40	NT14M09TA-40M-NSA3543A

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