

NH14M09WA

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

Main Application

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

Features

- Compact.
- Excellent temperature characteristics.
- Excellent Long-term frequency stability.
- Excellent phase noise characteristics.
- Supports wide temperature range.

Pb Free

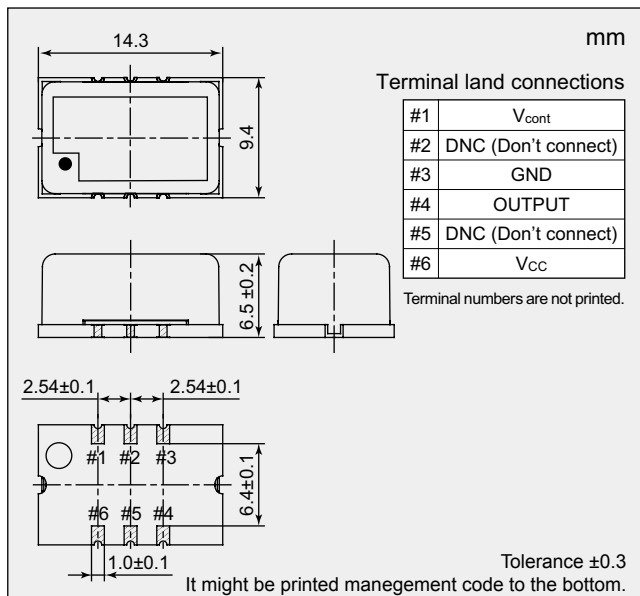
RoHS Compliant
Directive 2011/65/EU



Specifications

Item	Model	NH14M09WA			
Nominal Frequency Range (MHz)		5 to 40			
Nominal Frequency f_{nom} (MHz)		10, 12.8, 13, 19.2, 20, 25.6, 30.72, 38.88			
Supply Voltage V_{cc} (V)		+3.3			
Load Impedance C_L (pF)		15			
Operating Temperature Range T_{opr} (°C)		-20 to +70	-40 to +85		
Storage Temperature Range T_{str} (°C)		-40 to +85			
Power Consumption P_{cc} (W)	at start	Max. 2.0 (Typ. 1.3)			
	when stable, at +25 °C	Max. 1.0 (Typ. 0.6)			
Frequency Tolerance $\Delta f/f_{nom}$	at +25°C, V_{cont} = Center, before shipment	Max. 500×10^{-9}			
Frequency/Temperature Characteristics $\Delta f/f$	at Operating Temperature Range	Max. $\pm 10 \times 10^{-9}$	Max. $\pm 50 \times 10^{-9}$	Max. $\pm 10 \times 10^{-9}$	Max. $\pm 50 \times 10^{-9}$
Frequency/Voltage Coefficient $\Delta f/f$	$V_{cc} \pm 5\%$	Max. $\pm 10 \times 10^{-9}$ (Typ. $\pm 5 \times 10^{-9}$)			
Long-term Frequency Stability $\Delta f/f$	Based on frequency after 30 days operation	Max. $\pm 5 \times 10^{-9}$ / day			
		Max. $\pm 300 \times 10^{-9}$ / year			
Stabilization Time (min.)	Time within specified frequency tolerance after power on at +25°C, based on frequency after 60minutes operation.	Max. 3 / within $\pm 100 \times 10^{-9}$			
Frequency Control Range $\Delta f/f$		$V_{cont} = +1.5V \pm 1.3V$			
		Min. $\pm 5 \times 10^{-6}$			
Frequency Change Polarity		Positive			
Linearity (%)		Typ. ± 1			
Output Voltage		LVCMOS V_{OL} : Max. +0.3 V V_{OH} : Min. +3.0 V			
Symmetry (%)	at $(V_{OH} + V_{OL}) / 2$	45 to 55			
Specification Number		NSA3540A	NSA3540B	NSA3540C	NSA3540D

Dimensions



Reference Value

Phase noise (at 10 MHz)	Offset Frequency	dBc/Hz
	1 Hz	-75
	10 Hz	-100
	100 Hz	-125
	1 kHz	-150
10 kHz	-160	

We offer dedicated tool for evaluation of this product

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