

## NH14M09TA

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

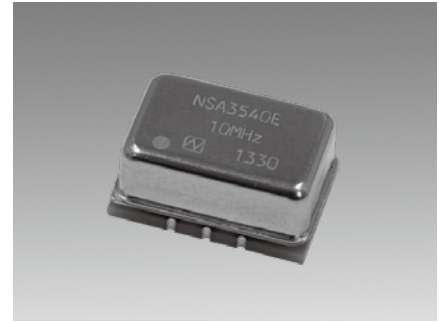
### Main Application

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

### Features

- Compact and excellent temperature characteristics.
- Excellent long-term frequency stability.
- Excellent phase noise characteristics.
- Supports wide temperature range.
- Hermetic sealing package for excellent environmental-proof performance.

RoHS Compliant  
Directive 2011/65/EU  
Directive (EU) 2015/863

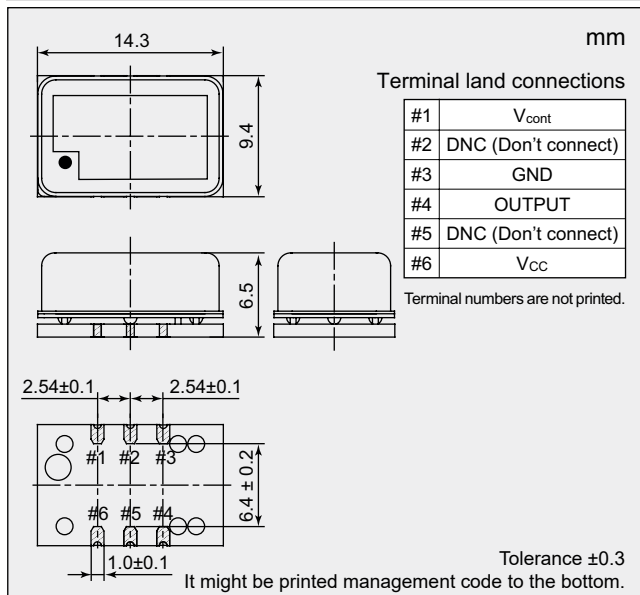


### Specifications

Item	Model	NH14M09TA		
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. $500 \times 10^{-9}$		
Frequency/Temperature Characteristics $\Delta f/f$	at Operating Temperature Range	Max. $\pm 10 \times 10^{-9}$	Max. $\pm 10 \times 10^{-9}$	Max. $\pm 20 \times 10^{-9}$
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. $\pm 1$		
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		NSA3540F	NSA3540E	NSC5070A

\* Digital frequency control by I2C interface is available.

### 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 (charge) 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.