

NH37M28LN

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

Main Application

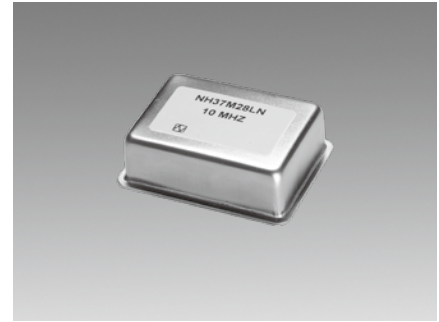
- Base stations for system mobile communications
- High-end router
- Synthesizer
- Measuring instrument
- Exchanger

Features

- Low height and excellent temperature characteristics.
- Supports wide temperature range.
- Frequency adjustment by digital control method (I²C control). (Voltage control method (V_{cont}) is also possible.)

Pb Free

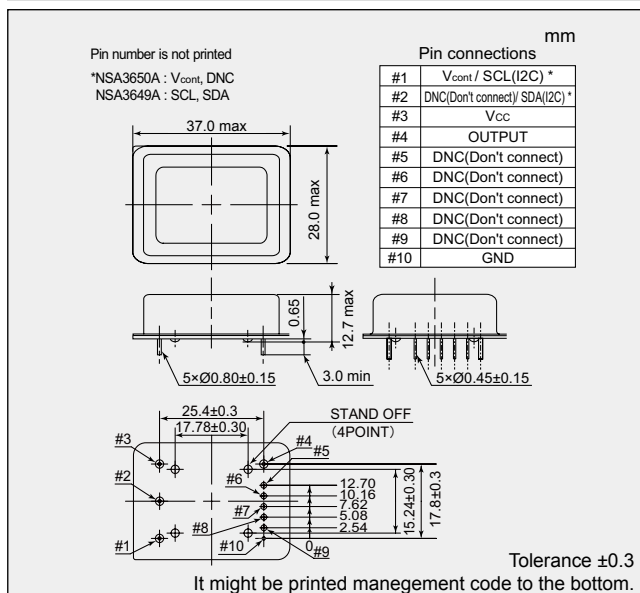
RoHS Compliant
Directive 2011/65/EU



Specifications

Item	Model	NH37M28LN	
Nominal Frequency f_{nom} (MHz)		10	
Supply Voltage V_{cc} (V)		+5	
Load Impedance C_L (pF)		15	
Operating Temperature Range T_{opr} (°C)		-40 to +85	
Storage Temperature Range T_{str} (°C)		-40 to +85	
Power Consumption P_{cc} (W)	at start	Max. 3.5 (Typ. 3.0)	
	when stable, at +25 °C	Max. 1.6	
Frequency Tolerance $\Delta f/f_{nom}$	at +25°C, V_{cont} = Center, before shipment	Max. 25×10^{-9}	
Frequency/Temperature Characteristics $\Delta f/f$	at Operating Temperature Range	Max. $\pm 0.5 \times 10^{-9}$	
Frequency/Voltage Coefficient $\Delta f/f$	$V_{cc} \pm 5\%$	Max. $\pm 0.2 \times 10^{-9}$	
Long-term Frequency Stability $\Delta f/f$	Based on frequency after 7 days operation	Max. $\pm 0.2 \times 10^{-9}$ / day	
		Max. $\pm 50 \times 10^{-9}$ / year	
Stabilization Time (min.)	Time within specified frequency tolerance after power on at +25°C, based on frequency after 60minutes operation.	Max. 5 / within $\pm 10 \times 10^{-9}$	
Frequency Control Method		Analog Control	Digital Control (I ² C)
Frequency Control Range $\Delta f/f$		$V_{cont} = +2.5V \pm 2.5V$	0x800000 to 0x7FFFFF Center : 0x000000
		± 0.3 to $\pm 0.5 \times 10^{-6}$	± 0.3 to $\pm 0.5 \times 10^{-6}$
Frequency Change Polarity		Positive	
Linearity (%)		Max. ± 5	
Output Voltage		LVCMOS V_{OL} : Max. +0.4 V V_{OH} : Min. +2.4 V	
Symmetry (%)	at ($V_{OH} + V_{OL}$) / 2	45 to 55	
Specification Number		NSA3650A	NSA3649A

Dimensions



Reference Value

	Offset Frequency	dBc/Hz
Phase Noise (at 10 MHz)	1 Hz	Typ. -83
	10 Hz	Typ. -110
	100 Hz	Typ. -135
	1 kHz	Typ. -152
	10 kHz	Typ. -157
	100 kHz	Typ. -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.