

Crystal Clock Oscillator NEW

NZ2520S Series

High-precision Crystal Clock Oscillator

Model name

NZ2520SEA Overall frequency tolerance of $\pm 15 \times 10^{-6}$.

Application

- WiLAN, WiMAX, Bluetooth, PLC, UWB, Car-electronics connection.

Features

This device is a new SPXO of hold over frequency tolerance as tight as $\pm 15 \times 10^{-6}$ (-40 to +85°C) by building a temperature compensating circuit in it. CMOS output despite temperature compensated circuit. This device reduces harmonics level to prevent the interference with the radio frequency by the wireless communication use.

- Overall frequency tolerance $\pm 15 \times 10^{-6}$ max. at -40 to +85°C.
- CMOS output
- Harmonics level reduce.
- Conventional ratio about -17dBm at Output 40MHz, V_{CC} 2.8V, 2.4GHz band.
- Supply voltage : $1.8 \pm 0.09V$, $2.5 \pm 0.125V$, $3.3 \pm 0.165V$. *1
- Package Size : 2.5 x 2.0 x 0.8mm

*1: Please specify one supply voltage.



Pb Free

RoHS Compliant
Directive 2011/65/EU

Absolute maximum rating
Supply voltage (V_{CC}) -0.6 to +6.0 V
Storage temperature range -55 to +125 °C

Specifications

Item		Model	NZ2520SEA				
Output level			CMOS				
Nominal frequency range *2		(MHz)	$2.75 \leq F < 11$	$11 \leq F < 22$	$22 \leq F < 30$	$30 \leq F < 40$	$40 \leq F \leq 54$
Operating temperature range *3		(°C)	-40 to +85				
Overall frequency tolerance *4 max		($\times 10^{-6}$)	± 15				
Current consumption max	During operation	+1.8 V, 25 °C	3.5	4.0	4.5	5.0	6.0
		+2.5 V, 25 °C	4.0	4.5	5.0	5.5	6.5
Current consumption max	During standby	+3.3 V, 25 °C	4.5	5.0	5.5	6.0	8.0
		+1.8 V to +3.3 V, 25 °C	10				
V_{OL} max/ V_{OH} min		(V)	$0.2 V_{CC} / 0.8 V_{CC}$				
T_r max/ T_f max		(ns)	5/5 (at 0.2 to 0.8 V_{CC})				
Symmetry min. to max.		(%)	45 to 55 (at 1/2 V_{CC})				
Load (C_L) max		(pF)	15				
Start-up time max		(ms)	10				
Standby function			Available (Three-state)				

*2: If you require a product with a frequency not given above, please contact us.

*3: If you require a product with an operating temperature range not given above, please contact us.

*4: Inclusive of 25°C tolerance, temp. characteristics, and supply voltage change.

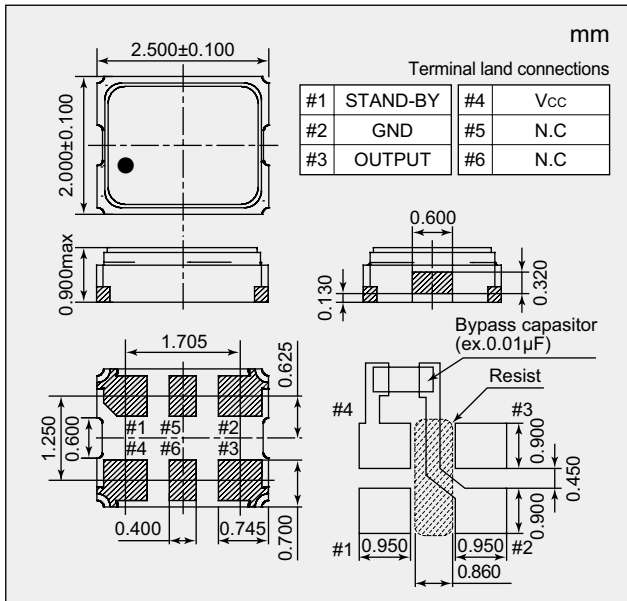
List of Codes for Placing an Order

Supply voltage (V_{CC})	(V)	+1.8±0.09	+2.5±0.125	+3.3±0.165
List of Codes for Placing an Order		NSA3513A	NSA3515B	NSA3513C

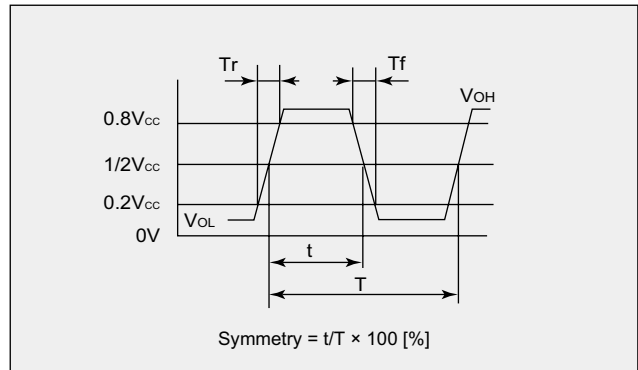
NZ2520S Series

High-precision Crystal Clock Oscillator

■ Dimensions



■ Output Waveform <CMOS>



■ Standby Function

#1 Input	#3 Output
Level H ($0.8 V_{CC} \leq V_{IH} \leq V_{CC}$) or OPEN	Operating
Level L ($V_{IL} \leq 0.2 V_{CC}$)	High impedance

■ How to Specify an Order

When ordering our products, specify them with an "Ordering Code" that consists of the following:

Model name – Frequency (up to 9 digits) M – Number for specifying an order

Example 1: When ordering a product with model name: NZ2520SEA, frequency: 26 MHz, power supply voltage: +2.5 V

Ordering Code: NZ2520SEA – 26.000000M – NSA3513B

Example 2: When ordering a product with model name: NZ2520SEA, frequency: 26 MHz, and power supply voltage: +3.3 V

Ordering Code: NZ2520SEA – 26.000000M – NSA3513C

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (<http://www.ndk.com/>).