

# Crystal Clock Oscillator **NEW**

## NZ2520S Series

## Low Phase Noise Type

### Model name

NZ2520SD Frequency stability of  $\pm 50 \times 10^{-6}$ .

### Application

- For wireless LAN



Pb Free

RoHS Compliant  
Directive 2002/95/EC

### Features

- Low phase noise, low voltage, low consumption current, and high stability, make this product ideal for wireless LAN.
- Compact and light. Dimensions and weight: 2.5 x 2.0 mm, 0.9 mm, and 0.02 g.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Lead-free.

Absolute maximum rating  
Power supply voltage ( $V_{DD}$ )  $-0.6$  to  $+6.0$  V  
Storage temperature range  $-55$  to  $+125$  °C

### Specifications

Item		Model	NZ2520SD	
Output level			C-MOS	
Frequency range <sup>*1</sup>		(MHz)	$20 \leq F < 30$	$30 \leq F \leq 40$
Operating temperature range <sup>*2</sup>		(°C)	$-40$ to $+85$	
Frequency Stability		( $\times 10^{-6}$ )	$\pm 50$	
Current consumption max	During operation	+3.3 V, 25 °C (mA)	4.5	5.5
	During standby	+3.3 V, 25 °C ( $\mu$ A)	10	
$V_{OL}$ max/ $V_{OH}$ min		(V)	$0.1 V_{DD}/0.9 V_{DD}$	
$T_r$ max/ $T_f$ max		(ns)	6/6	
Duty Cycle min. to max.		(%)	45 to 55	
Load ( $C_L$ ) max		(pF)	15	
Oscillation start time max		(ms)	4	
Standby function			Available (tristate)	
Phase noise		+3.3 V, 25 °C	$F_{out} \pm 1$ kHz : $-145$ (Typ) $F_{out} \pm 100$ kHz : $-158$ (Typ)	

\*1: If you require a product with a frequency not given above, please contact us.

\*2: If you require a product with an operating temperature range not given above, please contact us.

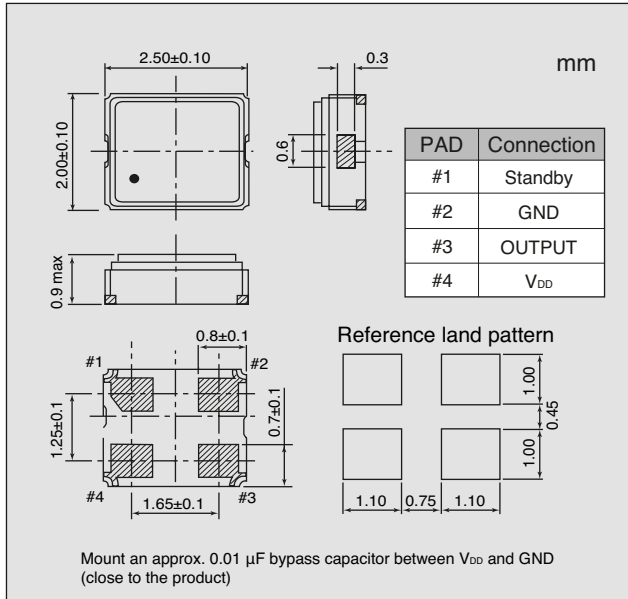
### List of Codes for Placing an Order

List of Codes for Placing an Order		NSA3449E
Power supply voltage [ $V_{DD}$ ]	(V)	$+3.3 \pm 0.33$

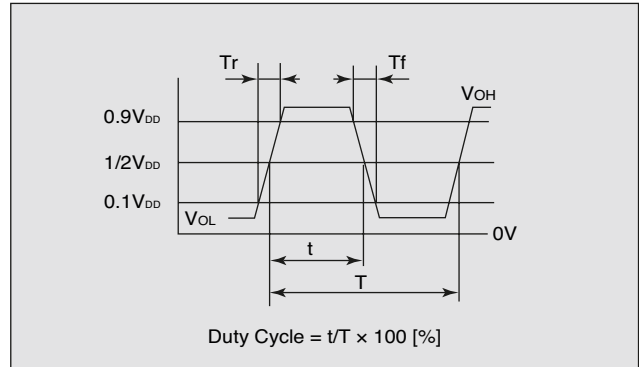
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Low Phase Noise Type

### ■ Dimensions



### ■ Output Waveform <C-MOS>



### ■ Standby Function

#1 Input	#3 Output
Level H ( $0.7 V_{DD} \leq V_{IH} \leq V_{DD}$ ) or OPEN is selected.	Oscillation output ON
Level L ( $V_{IL} \leq 0.3 V_{DD}$ ) is selected.	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 : When ordering a product with model name: NZ2520SD, frequency: 20 MHz, frequency stability:  $\pm 50 \times 10^{-6}$ ,  
and power supply voltage: 3.3 V  
Ordering Code: NZ2520SD – 20.000000M – NSA3449E

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/>).