

NZ2520S Series

Model name

NZ2520SB Frequency stability of $\pm 20 \times 10^{-6}$.

Application

- For wireless LAN, UWB, and WIMAX
- For compact mobile information equipment, such as DVC, DSC, notebook PC, and PDA



Pb
Free

RoHS Compliant
Directive 2002/95/EC

Features

- Compact and light. Dimensions and weight: 2.5 x 2.0 mm, 0.9 mm, and 0.02 g.
- This crystal clock oscillator can support low frequencies (from 1.5 MHz); an achievement not easy for other crystal oscillators of the same size to equal.
- Automatic mounting by taping and IR reflow (lead-free) are possible.
- Lead-free.

Absolute maximum rating
Power supply voltage (V_{DD}) -0.5 to $+4.0$ V
Storage temperature range -55 to $+125$ °C

Specifications

Item		Model	NZ2520SB								
Output level			C-MOS								
Frequency range ¹		(MHz)	$1.5 \leq F < 10$	$10 \leq F < 20$	$20 \leq F < 30$	$30 \leq F < 40$	$40 \leq F < 50$	$50 \leq F < 60$	$60 \leq F < 70$	$70 \leq F \leq 80$	
Operating temperature range ²		(°C)	-10 to +60								
Frequency Stability		($\times 10^{-6}$)	± 20								
Current consumption max	During operation	+1.8 V, 25 °C	2.5	3.5	4.0	4.5	5.0	5.5	6.0	6.5	
		+2.5 V, 25 °C	3.0	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
		+3.0 V, 25 °C	3.5	4.5	5.0	5.5	6.0	6.5	7.5	8.5	
	During standby	+1.8 V to +3.3 V, 25 °C	(μ A)	10							
$V_{OL\ max}/V_{OH\ min}$		(V)	0.1 V_{DD} /0.9 V_{DD}								
$T_r\ max/T_f\ max$		(ns)	5/5								
Duty Cycle min. to max.		(%)	45 to 55								
Load (C_L) max		(pF)	15								
Oscillation start time max		(ms)	4								
Standby function			Available (tristate)								

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

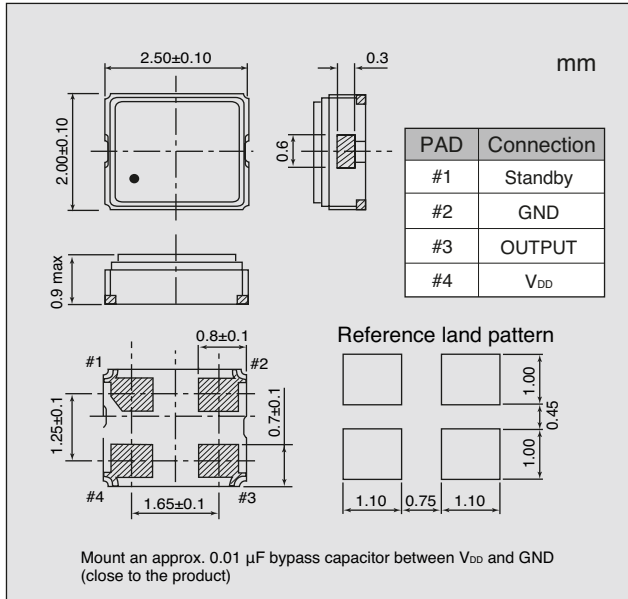
*2: If you require a product with an operating temperature range not given above, please contact us.

List of Codes for Placing an Order

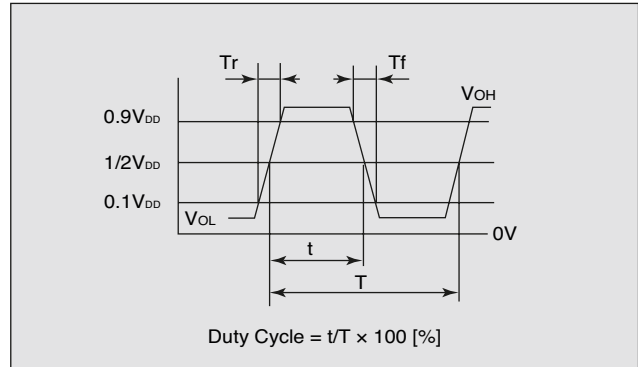
List of Codes for Placing an Order (The purchase order number differs according to the difference in power supply voltage.)		NSA3412D	NSA3413D	NSA3414D	NSA3415D
Power supply voltage [V_{DD}]	(V)	+1.8 \pm 0.1	+2.5 \pm 0.1	+3.0 \pm 0.1	+3.3 \pm 0.1

NZ2520S Series

■ 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 1: When ordering a product with model name: NZ2520SB, frequency: 20 MHz, frequency stability: $\pm 20 \times 10^{-6}$, and power supply voltage: 1.8 V

Ordering Code: NZ2520SB – 20.000000M – NSA3412D

Example 2: When ordering a product with model name: NZ2520SB, frequency: 20 MHz, frequency stability: $\pm 20 \times 10^{-6}$, and power supply voltage: 3.3 V

Ordering Code: NZ2520SB – 20.000000M – NSA3415D

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/>).