Crystal Clock Oscillator

NZ2520SEA — High-precision Crystal Clock Oscillator

■ Application

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

■ Features

This device is a new SPXO of hold over frequency tolerance as tight as ±15×10^{-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 Max. ±15×10^{-6} at –40 to +85°C.
- Harmonics level reduce.
- Conventional ratio about -17dBm at Output 40MHz, V_{CC} 2.8V, 2.4GHz band.
- Package Size : 2.5 × 2.0 × 0.9mm

Pb Free

RoHS Compliant
Directive 2011/65/EU

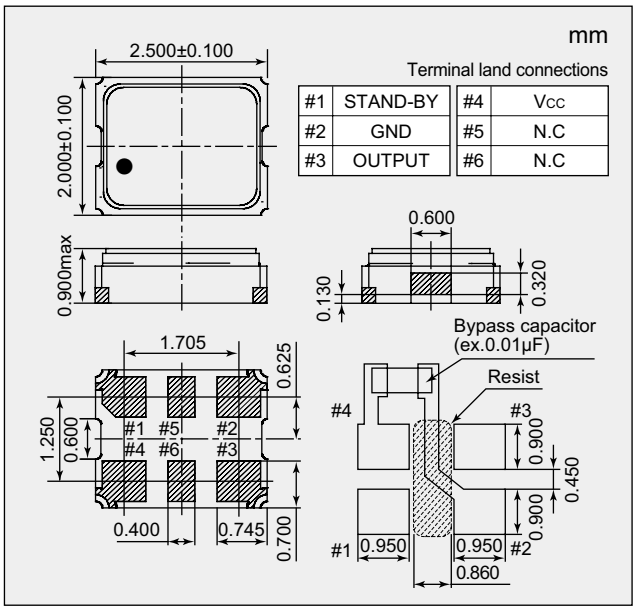
Absolute maximum rating	
Supply Voltage (V_{CC})	–0.6 to +6.0 V
Storage Temperature Range	–55 to +125 °C

■ Specifications

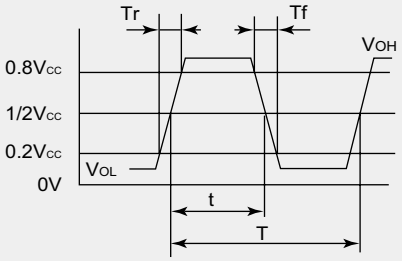
Item			Model	NZ2520SEA
Output Level				CMOS
Nominal Frequency Range			(MHz)	2.75 to 54
Overall Frequency Tolerance *1			(×10^{-6})	±15
Operating Temperature Range			(°C)	–40 to +85
Supply Voltage			(V)	+1.8 to +3.3
Current Consumption Max.	During Operation	+25 °C	(mA)	3.5 to 8.0
	During Standby	+25 °C	(μA)	10
V_{OL} Max. / V_{OH} Min.			(V)	0.2 V_{CC} / 0.8 V_{CC}
Tr Max. / Tf Max.			(ns)	5 / 5 (at 0.2 to 0.8V_{CC})
Symmetry Min. to Max.			(%)	45 to 55 (at 1/2V_{CC})
Load (C_L) Max.			(pF)	15
Start-up Time Max.			(ms)	10
Standby function				Available (Three-state)

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

■ Dimensions



■ Output Waveform <CMOS>



Symmetry = t/T × 100 [%]

■ Standby Function

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

Crystal Clock Oscillator

Crystal Bridge to the Future

NZ2520SEA High-precision Crystal Clock Oscillator

■ Specification Number

Overall Frequency Tolerance	Operating Temperature Range(°C)	Supply Voltage (V)			
		+1.8±0.18	+2.5±0.25	+3.0±0.3	+3.3±0.33
±15×10^{-6}	–40 to +85	NSA3513A	NSA3513B	NSA3513D	NSA3513C

Please specify the model name, frequency, and specification number when you order products.
For further questions regarding specifications, please feel free to contact us.