

# Crystal Oscillator

## NT2520SB

Temperature Compensated Crystal Oscillator(TCXO)  
for high-precision GPS

### Main Application

Smartphone / Mobile phone, Wireless module, and GPS / GNSS module, etc.

### Features

- A crystal oscillator with highly stable frequency / temperature characteristics best suited for GPS.
- Supports low power supply voltage. (Supports DC +1.7V to +3.3V. Standard specification : +1.8V)
- Compact and light with a height, cubic volume, and weight of Max. 0.9 mm, 0.004 cm<sup>3</sup>, and 0.014 g, respectively.
- A surface-mount crystal oscillator. (Reflow soldering is possible.)
- Lead-free. Meets the requirements for re-flow profiling using lead-free solder.
- Products with the AFC (Automatic Frequency Control) function is available.



Pb Free

RoHS Compliant  
Directive 2011/65/EU  
Directive (EU) 2015/863

### Specifications

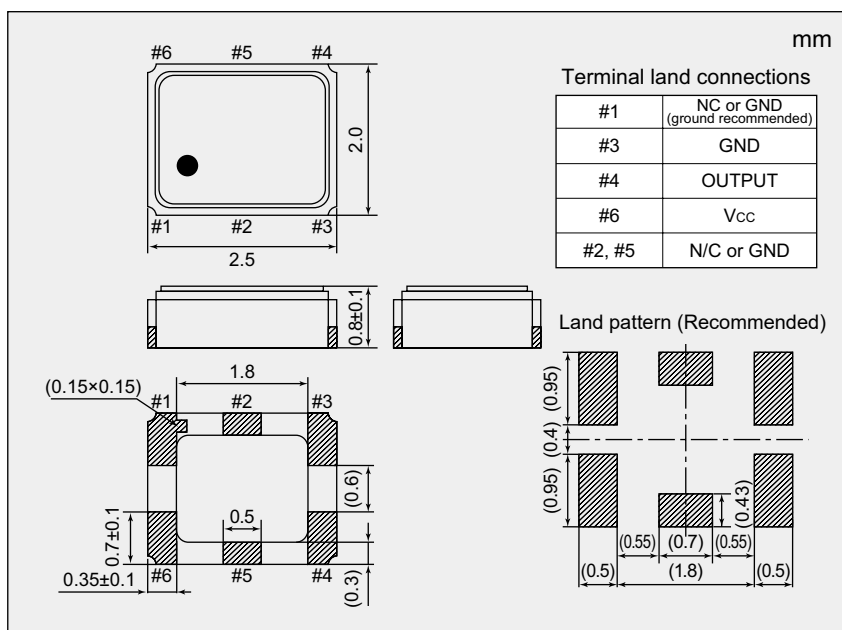
Item	Model	NT2520SB						
Nominal Frequency (MHz)		10 to 52						
Standard Frequency (MHz)		16.368	16.369	19.2	26	32	38.4	52
Supply Voltage [V <sub>cc</sub> ] (V)		+1.8						
Load Impedance		10 kΩ//10 pF						
Current Consumption (mA)		Max. 1.5			Max. 1.7		Max. 2.0	
Output Voltage		Min. 0.8 V(p-p) (DC Coupling *1)						
Frequency/Temperature Characteristics		Max. $\pm 0.5 \times 10^{-6}$						
Operating Temperature Range (°C)		-30 to +85						
Storage Temperature Range (°C)		-40 to +85						
Frequency/Voltage Coefficient		Max. $\pm 0.2 \times 10^{-6} / V_{cc} \pm 5\%$						
Frequency/Load Coefficient		Max. $\pm 0.2 \times 10^{-6} / (10 \text{ k}\Omega // 10 \text{ pF}) \pm 10\%$						
Long-term Frequency Stability		Max. $\pm 1.0 \times 10^{-6} / \text{year}$						
Specification Number		NSC5319A	NSC5319A	NSC5319A	NSC5319B	NSA5319C	NSC5319C	NSC5319D

\* Frequency setting conditions : Frequencies are set at normal temperatures (+25±2 °C).

Connect the #1 terminal of the oscillator to the ground that comes with the oscillator.

\*1. A DC-cut capacitor is not embedded in this crystal oscillator. Connect a DC-cut capacitor (1,000 pF) to the line-out terminal of the oscillator.

### Dimensions



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