Crystal Oscillator

Model Name NT2520SB

Temperature-Compensated Crystal Oscillator (TCXO)
NT2520S Series (with high-precision GPS supported)

■ **Main Application**

For mobile terminals with high-precision GPS functions

■ **Features**

● A crystal oscillator with highly stable frequency / temperature characteristics best suited for GPS.
● Supports low power supply voltage. (Supports DC +1.7 V to +3.3 V.)
● Compact and light with a height, cubic volume, and weight of Max. 0.9 mm, 0.004 cm^3, 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 or Enable/ Disable function is available.

Pb Free

RoHS Compliant
Directive 2011/65/EU

■ **Specifications**

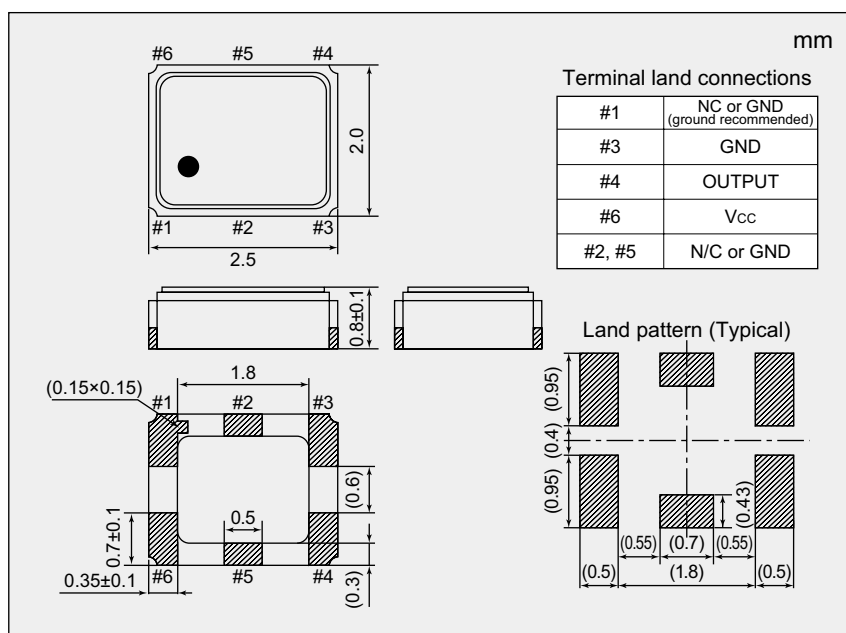| Item \ Model	NT2520SB		
Nominal frequency (MHz)	13 to 52		
Standard frequency (MHz)	16.368, 16.369, 19.2 , 26, 27.456	38.4	52
Supply voltage [Vcc] (V)	+1.8, +2.8		
Load impedance	10 kΩ//10 pF		
Current consumption (mA)	Max. 1.5	Max. 1.7	Max. 2.0
Output voltage	Min. 0.8 V(p-p) (DC Coupling *1)		
Frequency/Temperature characteristics	Max. ±0.5×10^{-6}		
Operating temperature range (°C)	−30 to +85		
Storage temperature range (°C)	−40 to +85		
Frequency/Voltage coefficient	Max. ±0.2×10^{-6}/Vcc±5 %		
Frequency/Load coefficient	Max. ±0.2×10^{-6}/(10 kΩ//10 pF) ±10 %		
Long-term frequency stability	Max. ±1.0×10^{-6}/year		

• Frequency setting conditions
  1. Frequencies are set at normal temperatures (+25±2 °C).
  2. Connect the #1 terminal of the oscillator to the ground that comes with the oscillator.

• If you require a product with a different frequency, power supply voltage, frequency control range, etc. to the standard specifications, please contact us with your enquiries.

*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**

Terminal land connections

#1	NC or GND (ground recommended)
#3	GND
#4	OUTPUT
#6	Vcc
#2, #5	N/C or GND

Land pattern (Typical)

■ **List of Ordering Codes**

[Supply voltage : +1.8V]

Frequency (MHz)	Ordering Code
16.368	NT2520SB-16.368M-NSA3467B
16.369	NT2520SB-16.369M-NSA3467B
19.2	NT2520SB-19.2M-NSA3467B
26	NT2520SB-26M-NSA3467C
27.546	NT2520SB-27.456M-NSA3467C
38.4	NT2520SB-38.4M-NSA3467D
52	NT2520SB-52M-NSA3467E

[Supply voltage : +2.8V]

Frequency (MHz)	Ordering Code
16.368	NT2520SB-16.368M-NSA3466B
16.369	NT2520SB-16.369M-NSA3466B
19.2	NT2520SB-19.2M-NSA3466B
26	NT2520SB-26M-NSA3466C
27.546	NT2520SB-27.456M-NSA3466C
38.4	NT2520SB-38.4M-NSA3466D
52	NT2520SA-52M-NSA3466E

The above frequencies are NDK's standard frequencies. Frequencies other than the above are available. Feel free to contact our sales representatives.