



Crystal Bridge to the Future

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

For mobile terminals with high-precision GPS functions

- 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 cm³, 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

Item	Model	NT2520SB		
Nominal Frequency (MHz)		13 to 52		
Standard Frequency (MHz)		16.368, 16.369, 19.2, 26, 33.6	38.4	52
Supply Voltage [V _{CC}] (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. $\pm 0.5 \times 10^{-6}$		
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. $\pm 1.0 \times 10^{-6}/\text{year}$		

- Frequency setting conditions
 1. Frequencies are set at normal temperatures ($+25 \pm 2$ °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.

[illegible]

[Supply voltage : +1.8V]

Frequency (MHz)	Ordering Code
16.368	NT2520SB-16.368M-NSA3557A
16.369	NT2520SB-16.369M-NSA3557A
19.2	NT2520SB-19.2M-NSA3557A
26	NT2520SB-26M-NSA3557B
33.6	NT2520SB-33.6M-NSA3557B
38.4	NT2520SB-38.4M-NSA3557C
52	NT2520SB-52M-NSA3557D

[Supply voltage : +2.8V]

Frequency (MHz)	Ordering Code
16.368	NT2520SB-16.368M-NSA3556A
16.369	NT2520SB-16.369M-NSA3556A
19.2	NT2520SB-19.2M-NSA3556A
26	NT2520SB-26M-NSA3556B
33.6	NT2520SB-33.6M-NSA3556B
38.4	NT2520SB-38.4M-NSA3556C
52	NT2520SB-52M-NSA3556D

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