Crystal Oscillator

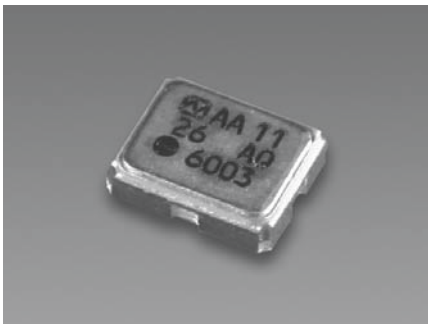
Crystal Bridge to the Future

Model Name NT2520SA

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

■ Main Application

For mobile terminals with high-precision GPS functions



Pb Free

RoHS Compliant
Directive 2002/95/EC

■ Features

- A crystal oscillator with highly stable frequency / temperature characteristics best suited for GPS.
- Supports low power supply voltage. (Supports DC +2.4 V±0.1 V to +3.2 V±0.1 V.)
- Ultra-compact and light with a height, cubic volume, and weight of Max. 0.8 mm, 0.0035 cm^3, and 0.013 g, respectively.
- Low power consumption.
- A surface-mount crystal oscillator. (Reflow soldering is possible.)
- Lead-free. Meets the requirements for re-flow profiling using lead-free solder.

■ Specifications

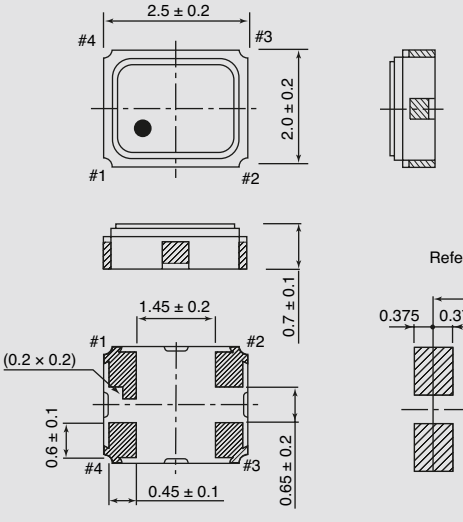
Item \ Model	NT2520SA
Standard nominal frequency (MHz)	13 to 27.456
Supply voltage [VCC] (V)	+2.8
Load	10 kΩ//10 pF
Current consumption (mA)	Max. 1.5
Output voltage	Min. 0.8 V(P-P) (DC Coupling *1)
Frequency stability	Max. ±0.5×10^{-6}
Operating temperature range (°C)	–30 to +85
Supply variation	Max. ±0.2×10^{-6}/+2.8 V±5 %
Load variation	Max. ±0.2×10^{-6}/(10 kΩ//10 pF) ±10 %
Aging	Max. ±1.0×10^{-6}/year

- Frequency setting conditions
  1. Frequencies are set at normal temperatures (+25±2 °C).
  2. Frequencies are set with a printed board that has a ground pattern attached to the underside of an oscillator.
  3. 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 characteristic, etc. to the standard specifications, please contact us with your enquiries.
- Products with the AFC (Automatic Frequency Control) function are available. If you require such a product, please contact us.

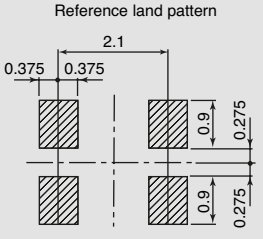
*1. A DC-cut capacitor is not embedded in this crystal oscillator. Connect a DC-cut capacitor (1,000 pF) to the line-out terminal of the oscillator.

■ Dimensions

mm



PAD No.	Connection
#1	(GND)*2
#2	GND
#3	OUTPUT
#4	VCC



*2 : #1 pad. must be connected to ground.

■ List of Ordering Codes

Frequency (MHz)	Ordering Code
13	NT2520SA-13M-NSA3410A
16.368	NT2520SA-16.368M-NSA3410A
16.369	NT2520SA-16.369M-NSA3410A
16.8	NT2520SA-16.8M-NSA3410A
19.2	NT2520SA-19.2M-NSA3410A
24.5535	NT2520SA-24.5535M-NSA3410A
26	NT2520SA-26M-NSA3410A
27.456	NT2520SA-27.456M-NSA3410A

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