# **Crystal Oscillator**



# Model Name NT2520SA Temperature-Compensated Crystal Oscillator with AFC Function (VC-TCXO) NT2520S Series

# Main Application

For mobile phones, etc.

## Features

- Supports low power supply voltage. (Supports DC +2.4±0.1 V to +3.4 V±5%.)
- Ultra-compact and light with a height, cubic volume, and weight of 0.8 mm max., 0.0035 cm<sup>3</sup>, and 0.013 g, respectively.
- With an AFC (Automatic Frequency Control) function.
- 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

Model	NT2520SA
Standard nominal frequency (MHz)	13 to 26MHz
Power supply voltage	+2.8V DC
Load	10kΩ//10pF
Consumption current	1.5mA max
Output level	0.8V(P-P) min (DC superimposition *1)
Frequency / temperature characteristic	±2.5×10 <sup>-6</sup> max
	–30 to +75°C
Power supply variation characteristics	±0.2×10 <sup>-6</sup> max/+2.8V±5%
Load variation characteristics	±0.2×10 <sup>-6</sup> max /(10kΩ//10pF)±10%
Aging	±1.0×10 <sup>-6</sup> max/year
Frequency control characteristics	±9.0×10 <sup>-6</sup> to ±15.0×10 <sup>-6</sup> /+1.4V±1V *2



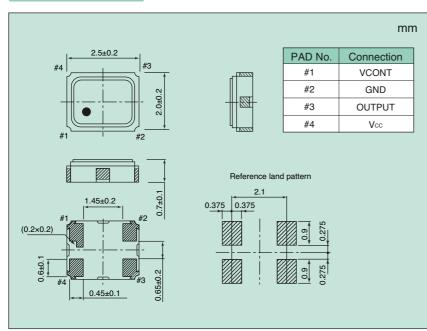
Free Dire

RoHS Compliant Directive 2002/95/EC

#### · Frequency setting conditions

- 1. Frequencies are set at normal temperatures (+25 $\pm$ 2°C).
- 2. Frequencies are set with a printed board that has a ground pattern attached to the underside of an 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.
- \*2. This is a representative specification. The specifications may change according to the frequency that you request.

# Dimensions



### List of Ordering Codes

Frequency (MHz)	Ordering Code
13	NT2520SA-13M-NSA3400B
19.2	NT2520SA-19.2M-NSA3400B
26	NT2520SA-26M-NSA3400B

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