

Crystal Oscillator

Model Name NT2016SA

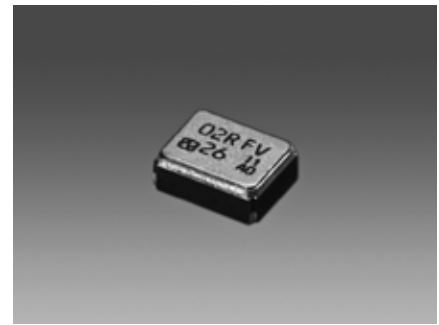
Temperature-Compensated Crystal Oscillator with AFC Function (VC-TCXO) NT2016S Series

Main Application

For mobile phones, etc.

Features

- Supports low power supply voltage. (Supports DC +1.8 V±0.1 V to 2.9 V±0.1 V.)
- Ultra-compact and light with a height, cubic volume, and weight of Max. 0.8 mm, 0.0022 cm³, and 0.008 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.



Pb Free

RoHS Compliant
Directive 2002/95/EC

Specifications

Item	Model	NT2016SA	
Nominal frequency (MHz)		16.368, 16.369, 19.2, 26, 27.456	38.4
Supply voltage [V _{CC}] (V)		+2.8	
Load impedance		10 kΩ/10 pF	
Current consumption (mA)		Max. 1.5	Max. 1.7
Output voltage		Min. 0.8 V(p-p) (DC Coupling *1)	
Frequency/Temperature characteristics		Max. ±2.0×10 ⁻⁶	
Operating temperature range (°C)		-30 to +85	
Storage temperature range (°C)		-40 to +85	
Frequency/Voltage coefficient		Max. ±0.2×10 ⁻⁶ /+2.8 V±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 control range		±9.0×10 ⁻⁶ to ±15.0×10 ⁻⁶ /+1.4 V±1 V *2	

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.

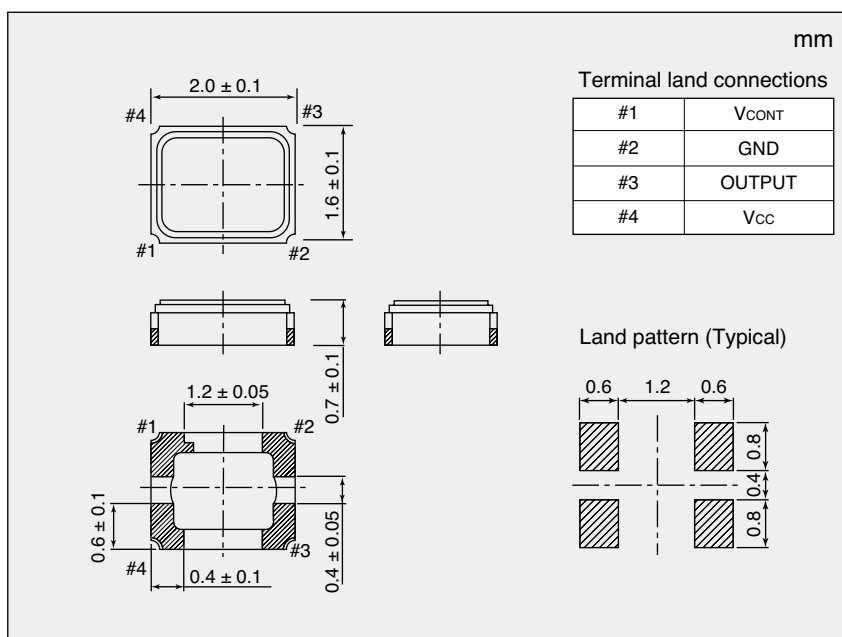
• If you require a product with a different frequency, power supply voltage, frequency control range, etc. to the standard specifications, please contact us with your enquiries.

• Products without 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
16.368	NT2016SA-16.368M-NSA3456A
16.369	NT2016SA-16.369M-NSA3456A
19.2	NT2016SA-19.2M-NSA3456A
26	NT2016SA-26M-NSA3456B
27.456	NT2016SA-27.456M-NSA3456B
38.4	NT2016SA-38.4M-NSA3456C

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