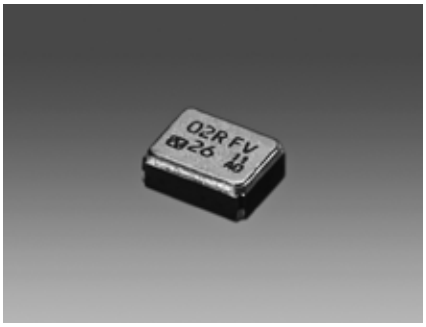
Crystal Oscillator

NT2016SA

Temperature Compensated Crystal Oscillator(TCXO) for high-precision GPS

■ Main Application

Smartphone / Mobile phone, Wireless module, and GPS / GNSS module, etc.



Pb Free

RoHS Compliant Directive 2011/65/EU

■ 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.)
- Ultra-compact and light with a height, cubic volume, and weight of Max. 0.8 mm, 0.0022 cm^3, and 0.008 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.
- With an AFC (Automatic Frequency Control) function. (Option)
- Conforms to AEC-Q100/200.

■ Specifications

Item \ Model	NT2016SA						
Nominal Frequency Range (MHz)	10 to 52						
Standard Frequency (MHz)	16.368	16.369	19.2	26	33.6	38.4	52
Supply Voltage [V_{CC}] (V)	+1.8						
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}/+1.8 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						
Specification Number	NSA3506A	NSA3506A	NSA3506A	NSA3506B	NSA3506B	NSA3506C	NSA3506D

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

*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.

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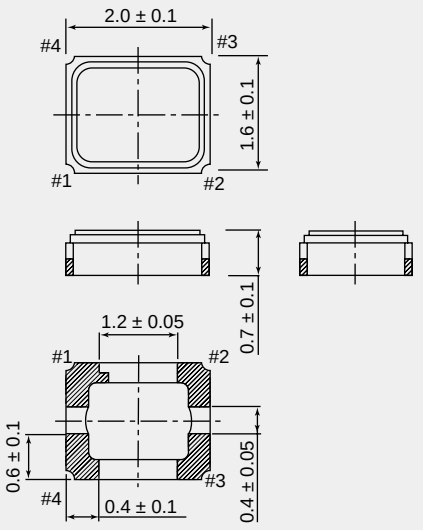

Terminal land connections

#1	NC or GND (ground recommended)
#2	GND
#3	OUTPUT
#4	V_{CC}

Land pattern (Typical)