Crystal Oscillator

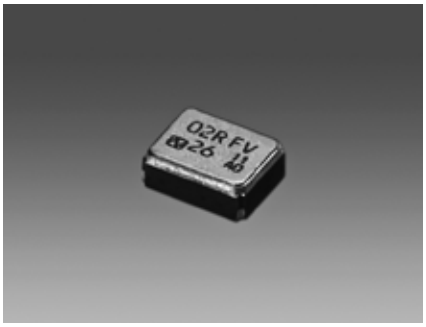
Crystal Bridge to the Future

NT2016SB

Temperature Compensated Crystal Oscillator(TCXO) with E/D function 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 Enable / Disable(Stand-by) function.
- Conforms to AEC-Q100/200.

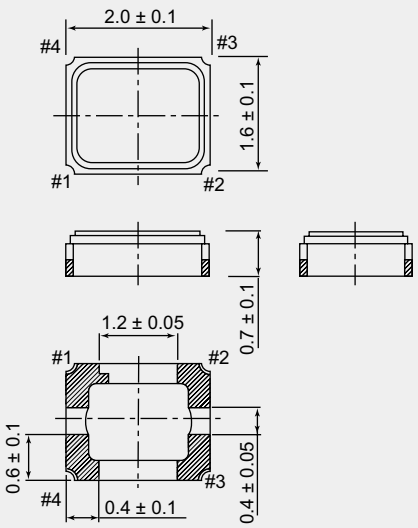
■ Specifications

Item \ Model		NT2016SB						
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	Enable (mA)	Max. 1.5					Max. 1.7	Max. 2.0
	Disable (μA)	Max. 2						
Output Voltage		Min. 0.8 V(p-p) (DC Coupling *1)						
Frequency/Temperature Characteristics		Max. $\pm0.5\times10^{-6}$						
Operating Temperature Range (°C)		–30 to +85						
Storage Temperature Range (°C)		–40 to +85						
Frequency/Voltage Coefficient		Max. $\pm0.1\times10^{-6}$/+1.8 V±5 %						
Frequency/Load Coefficient		Max. $\pm0.1\times10^{-6}$/(10 kΩ//10 pF) ±10 %						
Long-term Frequency Stability		Max. $\pm1.0\times10^{-6}$/year						
Enable/Disable Function		Enable : 80%V_{CC} to V_{CC}, Disable : 0V to 20% V_{CC}						
Specification Number		NSA3561A	NSA3561A	NSA3561A	NSA3561B	NSA3561B	NSA3561C	NSA3561D

•Frequency setting conditions : Frequencies are set at normal temperatures (+25±2 °C).
*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

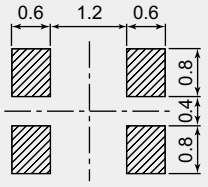
mm



Terminal land connections

#1	Enable/Disable
#2	GND
#3	OUTPUT
#4	V_{CC}

Land pattern (Typical)



Please specify the model name, frequency, and specification number when you order products. For further questions regarding specifications, please feel free to contact us.