# **Crystal Oscillator**



# **NT2016SA**

Temperature Compensated Crystal Oscillator with AFC function(VC-TCXO)

## **■** Main Application

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

#### **■** Features

- Supports low power supply voltage.
  (Supports DC +1.7V to +3.3V. Standard specification : +1.8V)
- 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.





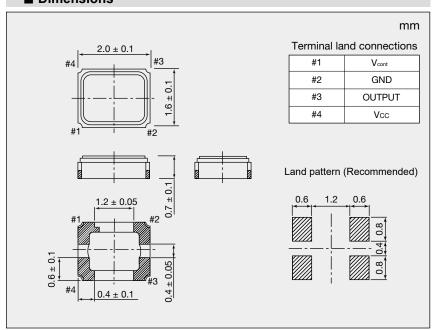


### **■** Specifications

Item Model	NT2016SA						
Nominal Frequency Range (MHz)	10 to 52						
Standard Frequency (MHz)	16.368	16.369	19.2	26	32	38.4	52
Supply Voltage [Vcc] (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. ±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 <sup>-6</sup> /+1.8 V±5 %						
Frequency/Load Coefficient	Max. ±0.2×10 <sup>-6</sup> /(10 kΩ//10 pF) ±10 %						
Long-term Frequency Stability	Max. ±1.0×10 <sup>-6</sup> /year						
Frequency Control Range	±7.0×10 <sup>-6</sup> to ±13.0×10 <sup>-6</sup> /+0.9 V±0.8 V						
Specification Number	NSC5320A	NSC5320A	NSC5320A	NSC5320B	NSC5320C	NSC5320C	NSC5320D

- Frequency setting conditions : Frequencies are set at normal temperatures (+25±2 °C).
- Products without the AFC (Automatic Frequency Control) function are available. If you require such a product, please contact us.

# **■** Dimensions



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

<sup>\*1.</sup> 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.