# **Crystal Units**



# NX3225SA For OA / AV Mobile Communications/ Short-range Wireless

Pb Free

RoHS Compliant Directive 2011/65/EU Directive (EU) 2015/863

## Features

- Ideal for such as bluetooth, Wifi, smartphone and tablet pc.
- •Compact and thin. (3.2 × 2.5 × 0.55 mm typ.)
- Excellent environmental characteristics, including heat and shock resistance.
- •Lead-free. Meets the requirements for re-flow profiling using lead-free solder.



#### Specifications

Item Model	NX3225SA			
Standard	Standard		Optional	
Nominal Frequency (MHz)	12 to 64	16 to 54	40 to 150	12 to 64
Overtone Order	Fundamental	Fundamental	3rd overtone	Fundamental
Frequency Tolerance (25 ±3 °C)	±15 × 10⁻6	±10 × 10 <sup>-6</sup>	±20 × 10 <sup>-6</sup>	±10 × 10 <sup>-6</sup>
Frequency versus Temperature Characteristics (with reference to +25 °C)	±25 × 10⁻⁰	±10 × 10 <sup>-6</sup>	±25 × 10⁻⁵	±25 × 10⁻⁰ (Temp extended case, *1)
Operating Temperature Range (°C)	-40 to +85	-20 to +75	-40 to +85	-40 to +85 *1
Storage Temperature Range	-40 to +85		-40 to +85	
Equivalent Series Resistance	Refer to *2	Refer to *3	Refer to *4	Refer to *1
Level of Drive (µW)	10 (Max. 200)		10 (Max. 200)	
Load Capacitance (pF)	8	10	Series resonance	6 to 32
Frequency Aging (+25°C)				Max. ±3 × 10 <sup>-6</sup> / year *1
Specifications Number	STD-CSR-6	STD-CSQ-1	STD-CSR-7	Refer to *5

Please specify the model name, frequency, and specification number when you order products.

For further questions regarding specifications, please feel free to contact us.

\*1 If you have any other requests, NDK will study it.

\*5 Ordering information: Overtone Order Fundamental / 3rd Overtone, the Operating Temperature Range, Frequency versus Temperature Characteristics, Frequency Tolerance, and Load Capacitance.

Ex. Model, Frequency (24.000000MHz 6digits), S1: Fundamental or S3 : 3rd overtone

- Operating Temperature Range (-40 to +85°C) - Frequency versus Temperature Characteristics (±25 × 10<sup>-6</sup>)

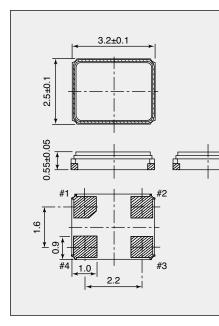
- Frequency Tolerance  $(\pm 10 \times 10^{-6})$  - Load Capacitance (8pF)

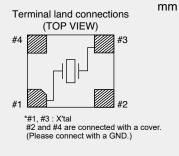
NX3225SA

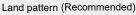
24.000000MHz

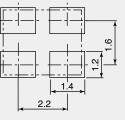
S1-4085-25-10-8

### Dimensions









	Overtone Order	Nominal Frequency (MHz)	Equivalent Series Resistance Max. (Ω)	
*2	Fundamental	12 to 13	100	
		13 to 20	80	
		20 to 64	50	
*3	Fundamental	16 to 20	80	
		20 to 54	50	
*4	3rd overtone	40 to 100	140	
		100 to 150	100	

Equivalent Series Resistance

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