

## NX3225GD

For Automotive

### ■ Features

A small surface-mount type crystal unit, ideal for an engine control CPU clock; delivering the high reliability that is particularly demanded by automotive. Compatible with low frequency range starting from 7.98 MHz.

- Compact and thin. (3.2 x 2.5 x 0.8mm)
- High resistance to solder cracking.
- Stable start-up characteristics even under extremely severe environmental conditions.
- Excellent environment-resistant performance, including heat, vibration and shock resistance.
- Meets the requirements for re-flow profiling using lead-free solder.
- Conforms to AEC-Q200.

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



### ■ Specifications

Item	Model	NX3225GD	
		Standard	Optional
Nominal Frequency (MHz)		$7.98 \leq F \leq 12$	$7.98 \leq F \leq 12$
Overtone Order		Fundamental	Fundamental
Frequency Tolerance (25 ±3 °C)		$\pm 50 \times 10^{-6}$	$\pm 50 \times 10^{-6}$
Frequency versus Temperature Characteristics (with reference to +25 °C)		$\pm 150 \times 10^{-6}$	$\pm 150 \times 10^{-6}$
Operating Temperature Range (°C)		-40 to +150	-40 to +150
Storage Temperature Range (°C)		-40 to +150	-40 to +150
Equivalent Series Resistance		Refer to *1	Refer to *1
Level of Drive (µW)		10 (Max. 200)	10 (Max. 200)
Load Capacitance (pF)		8	6 to 32
Frequency Aging (+25 °C)		---	Max. $\pm 10 \times 10^{-6}$ / year *2
Specifications Number		STD-CRA-3	Refer to *3

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

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

\*2 If you have any other requests, NDK will study it.

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

Ex. Model, Frequency (10.000000MHz 6digits), S1: Fundamental or S3: 3rd Overtone

- Operating Temperature Range (-40 to +150°C) - Frequency versus Temperature Characteristics ( $\pm 150 \times 10^{-6}$ )

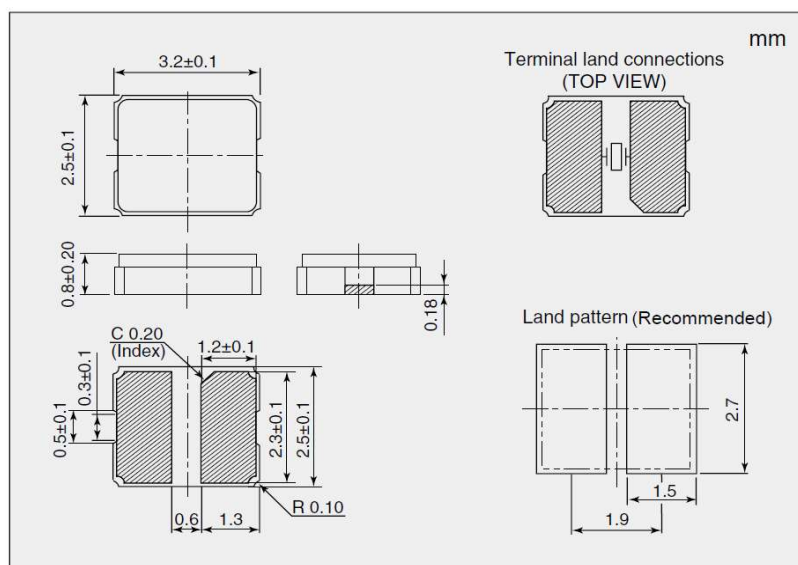
- Frequency Tolerance ( $\pm 50 \times 10^{-6}$ ) - Load Capacitance (8pF)

NX3225GD

10.000000MHz

S1-40150-150-50-8

### ■ Dimensions



#### \*1 Equivalent Series Resistance

Nominal Frequency (MHz)	Equivalent Series Resistance Max. (Ω)
$7.98 \leq F < 9.8$	500
$9.8 \leq F \leq 12$	300

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

Table 1

$f_{nom}$ (MHz)	NDK Spec Number	NDK Part Number	Prior NDK Part Number
8	STD-CRA-3	STDCRA3-8M	NX3225GD-8.000M-STD-CRA-3
10	STD-CRA-3	STDCRA3-10M	NX3225GD-10.000M-STD-CRA-3