

# Crystal Oscillator

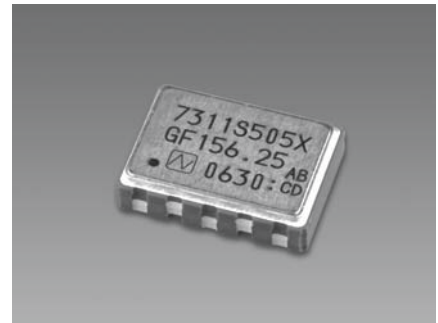
## Model Name 7311S-DG Simple Packaged Crystal Oscillator (SPXO) 7300 Series

### Main Application

For SONET-, SDH-, and GbEthernet-related equipment

### Features

- Power supply voltage and LVDS output level are 3.3 V and 62.5 to 220 MHz, respectively.
- Ultra-compact with the dimensions of 7.0 x 5.0 x 1.7 mm.
- A surface-mount crystal oscillator.



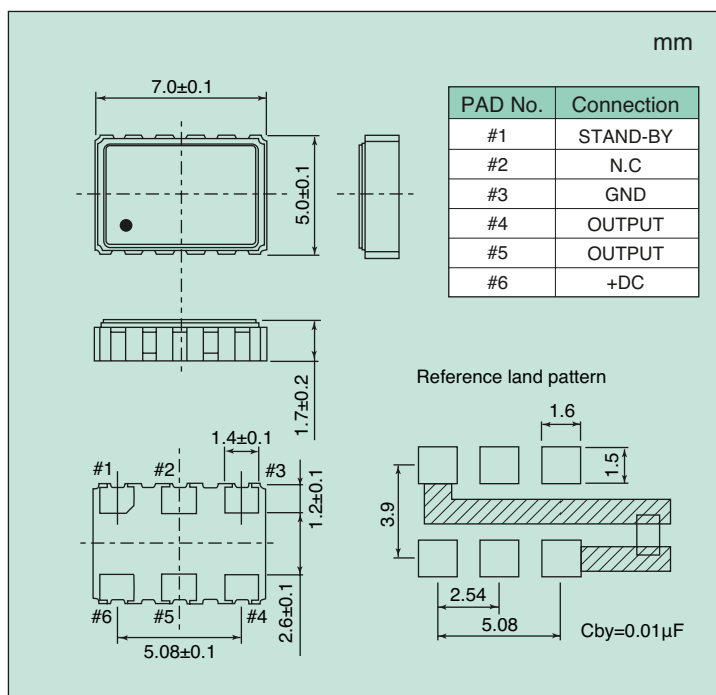
Pb Free

RoHS Compliant  
Directive 2002/95/EC

### Specifications

Item	Model Classification	7311S-DG-XXXX XXXX : 255R, 505X, 104X
Standard nominal frequency (MHz)		106.25, 125, 155.252, 156.25, 161.1328, 187.5, 212.5
Power supply voltage		+3.3V DC $\pm 10\%$
Load		100 $\Omega$ (Pad #4-#5)
Operating temperature range		0 to 70°C, 0 to 85°C
Comprehensive frequency stability		$\pm 25 \times 10^{-6}$ max / 0 to 70°C (255R)
		$\pm 50 \times 10^{-6}$ max / 0 to 85°C (505X)
		$\pm 100 \times 10^{-6}$ max / 0 to 85°C (104X)
Consumption current	During operation	48mA typ. (65mA max)
	During standby	30 $\mu$ A max.
Output level		LVDS level (Complementary)
Duty cycle		45 to 55% (at Waveform)
Phase jitter (1 $\sigma$ )		1ps max. (12KHz to 20MHz)
Standby function (tristate)		Available

### Dimensions



### Standby Function Table (Tristate)

#1 Input	#4 and #5 output
Level H ( $V_{IH} \geq 0.7 V_{CC}$ ) or OPEN is selected.	Oscillation output ON
Level L ( $V_{IL} \leq 0.3 V_{CC}$ )	High impedance

### Number for specifying an order (+3.3V LVDS)

Comprehensive frequency stability	Nominal frequency range (MHz)
	$62.5 \leq F < 220$
$\pm 25 \times 10^{-6}$ max/0 to 70°C	NSA3344C
$\pm 50 \times 10^{-6}$ max/0 to 85°C	NSA3345C
$\pm 100 \times 10^{-6}$ max/0 to 85°C	NSA3346C

### How to Specify an Order

Model name	-	Frequency (up to 9 digits)	M	-	Number for specifying an order
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When ordering +3.3V,  $\pm 100 \times 10^{-6}$  max/0 to 85°C, 125MHz  
7311S-DG-104X-125.000000M-NSA3346C

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (<http://www.ndk.com/>).