# **Crystal Oscillator**



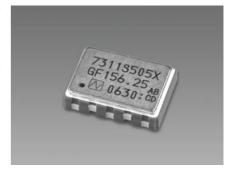
## Model Name 7311S-DG Simple Packaged Crystal Oscillator (SPXO) 7300 Series

#### ■ 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.



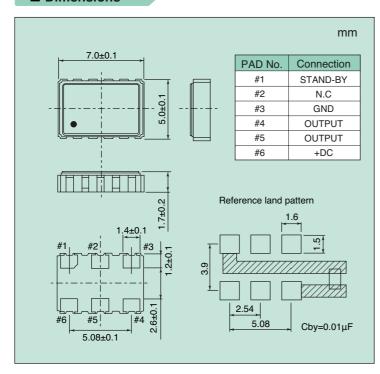




#### **■** Specifications

	Model	7311S-DG-XXXX
Item	Classification	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 ±10%
Load		100Ω (Pad #4-#5)
Operating temperature range		0 to 70°C, 0 to 85°C
Comprehensive frequency stability		±25×10-6max / 0 to 70°C (255R)
		±50×10 <sup>-6</sup> max / 0 to 85°C (505X)
		±100×10 <sup>-6</sup> max / 0 to 85°C (104X)
Consumption current	During operation	48mA typ. (65mA max)
	During standby	30μA max.
Output level		LVDS level (Complementary)
Duty cycle		45 to 55% (at Waveform)
Phase jitter (1σ)		1ps max. (12KHz to 20MHz)
Standby function (tristate)		Available

#### **■** Dimensions



### **■** Standby Function Table (Tristate)

#1 Input	#4 and #5 output
Level H (V <sub>IH</sub> ≥ 0.7 V <sub>cc</sub> )	Oscillation output ON
or OPEN is selected.	
Level L (V <sub>IL</sub> ≤ 0.3 V <sub>∞</sub> )	High impedance

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

Comprehensive	Nominal frequency range (MHz)			
frequency stability	62.5 ≤ F < 220			
±25×10 <sup>-6</sup> max/0 to 70°C	NSA3344C			
±50×10 <sup>-6</sup> max/0 to 85°C	NSA3345C			
±100×10 <sup>-6</sup> max/0 to 85°C	NSA3346C			

#### ■ How to Specify an Order

Model name – Frequency (up to 9 digits) M – Number for specifying an order

When ordering +3.3V,  $\pm 100\times 10^{-6} max/0$  to  $85^{\circ}C$ , 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/).