

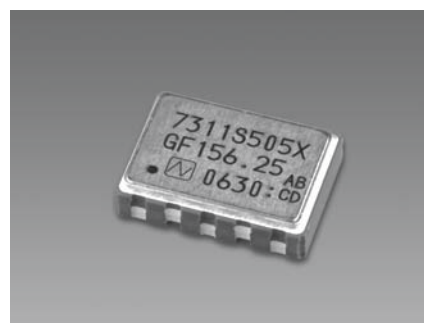
Model Name 7311S-DF Simple Packaged Crystal Oscillator (SPXO) 7300 Series

■ Main Application

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

■ Features

- Power supply voltage is 2.5V, LV-PECL output level.
- Output frequency range are 62.5 to 313 MHz.
- Ultra-compact with dimensions of 7.0 x 5.0 x 1.7 mm.
- Surface-mount crystal oscillator.



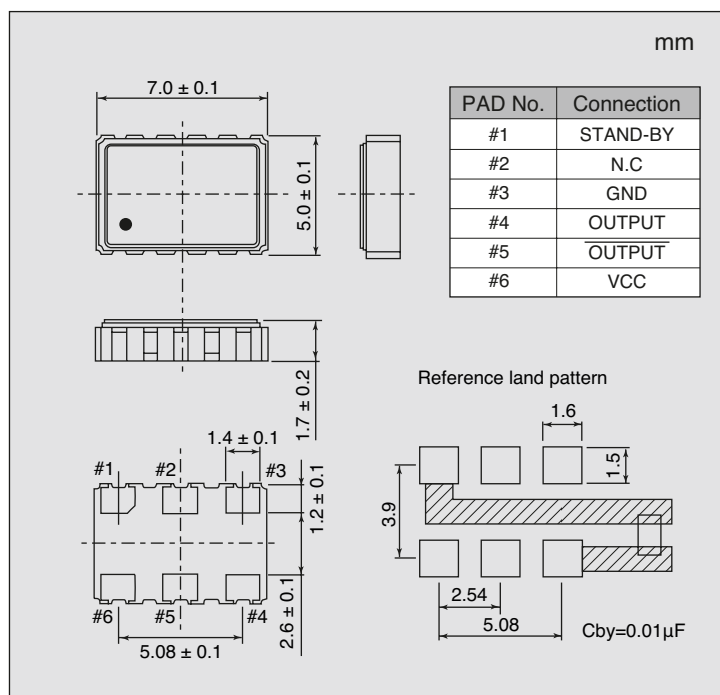
Pb
Free

RoHS Compliant
Directive 2002/95/EC

■ Specifications

Item	Model Classification	7311S	
		DF-XXXX (XXXX : 255R, 505X, 104X)	
Nominal frequency range (MHz)		62.5 to 220	220 to 313
Power supply voltage [VCC] (V)		$+3.3 \pm 10\%$	
Load (Ω)		50 (to VCC-2.0 V)	
Current consumption	During operation	Max. 90 mA (60 mA typ.)	
	During standby	Max. 30 μ A	
Output level		PECL level (Complementary)	
Operating temperature range ($^{\circ}$ C)		0 to +70, 0 to +85	0 to +85
Frequency stability		Max. $\pm 25 \times 10^{-6}/0$ to +70 $^{\circ}$ C (255R)	Max. $\pm 50 \times 10^{-6}/0$ to +85 $^{\circ}$ C (505X)
		Max. $\pm 50 \times 10^{-6}/0$ to +85 $^{\circ}$ C (505X)	Max. $\pm 100 \times 10^{-6}/0$ to +85 $^{\circ}$ C (104X)
		Max. $\pm 100 \times 10^{-6}/0$ to +85 $^{\circ}$ C (104X)	
Duty cycle (%)		45 to 55 (at 50 % Waveform)	
Phase jitter (RMS)		Max. 1 ps (12 kHz to 20 MHz)	
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	Oscillation output ON
Level L ($V_{IL} \leq 0.3 V_{CC}$)	High impedance

■ Number for specifying an order (+3.3V LV-PECL)

Comprehensive frequency stability	Nominal frequency range (MHz)	
	$62.5 \leq F < 220$	$220 \leq F \leq 313$
Max. $\pm 25 \times 10^{-6}/0$ to 70 $^{\circ}$ C	NSA3344A	—
Max. $\pm 50 \times 10^{-6}/0$ to 85 $^{\circ}$ C	NSA3345A	NSA3345E
Max. $\pm 100 \times 10^{-6}/0$ to 85 $^{\circ}$ C	NSA3346A	NSA3346E

■ How to Specify an Order

Model name	—	Frequency (up to 8 digits)	M	—	Number for specifying an order
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When ordering +3.3 V, Max. $\pm 100 \times 10^{-6}/0$ to 85 $^{\circ}$ C, 156.25 MHz
7311S-DF-104X-156.25M-NSA3346A

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/>).