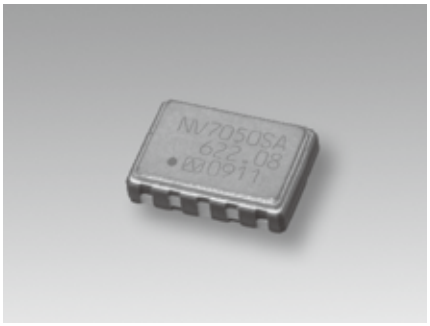
Crystal Oscillator

Model Name NV7050SA

Voltage-Controlled Crystal Oscillator (VCXO)

■ Main Application

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



■ Features

- A ceramics-package(Dimensions : 7.0×5.0mm). Frequency up to 700 MHz .
- Wide Pull Range: Absolute Pull Range(APR): Min. ±100×10^{-6}
- Low power supply voltage(+3.3 V)

Pb Free

RoHS Compliant
Directive 2011/65/EU

■ Specifications

Item \ Model	NV7050SA	
Nominal frequency range [f] (MHz)	170 ≤ F < 400	400 ≤ F ≤ 700
Supply voltage [V_{CC}] (V)	+3.3 ±10%	
Current consumption (mA)	Max. 100	
Output level	LVPECL	
Symmetry (%)	40 to 60 (at 50 % Vout)	
Output load condition	50Ω (V_{CC} - 2.0V)	
Operating temperature range (°C)	−40 to +85	
Storage temperature range (°C)	−55 to +125	
Overall frequency tolerance	Max. ±50 × 10^{-6}	
Absolute Pull Range(APR) / Control voltage	Min. ±100 × 10^{-6} / +1.65±1.65V	
Frequency change polarity	Positive	
Input impedance	Min. 100kΩ	
	Max. 100fs (12kHz to 20MHz)	Max. 150fs (12kHz to 20MHz)

■ List of Stand-by function

Input (#2)	Output (#4, #5)
High (V_{IH} ≥ V_{CC}-1.1V) or NC	Output On
Low (V_{IL} ≤ V_{CC} -1.5V)	Output Off

■ Reference Value

	Offset Frequency	Typ. (622.08 MHz)
Phase noise	10 Hz	−44 dBc/Hz
	100 Hz	−73 dBc/Hz
	1 kHz	−101 dBc/Hz
	10 kHz	−123 dBc/Hz
	100 kHz	−142 dBc/Hz
	1 MHz	−151 dBc/Hz

The value of phase noise changes when the frequency changes.

■ List of Ordering Codes

Frequency (MHz)	Ordering Code
200	NV7050SA-200M-NSA3459B
204.8	NV7050SA-204.8M-NSA3459B
245.76	NV7050SA-245.76M-NSA3459B
311.04	NV7050SA-311.04M-NSA3459B
368.64	NV7050SA-368.64M-NSA3459B
400	NV7050SA-400M-NSA3459A
409.6	NV7050SA-409.6M-NSA3459A
491.52	NV7050SA-491.52M-NSA3459A
614.4	NV7050SA-614.4M-NSA3459A
622.08	NV7050SA-622.08M-NSA3459A
644.5313	NV7050SA-644.5313M-NSA3459A
666.5143	NV7050SA-666.5143M-NSA3459A
669.3266	NV7050SA-669.3266M-NSA3459A
672.1627	NV7050SA-672.1627M-NSA3459A
690.5692	NV7050SA-690.5692M-NSA3459A
693.483	NV7050SA-693.483M-NSA3459A
696.4215	NV7050SA-696.4215M-NSA3459A
700	NV7050SA-700M-NSA3459A

The above frequencies are NDK's standard frequencies.
Frequencies other than the above are available.
Feel free to contact our sales representatives.

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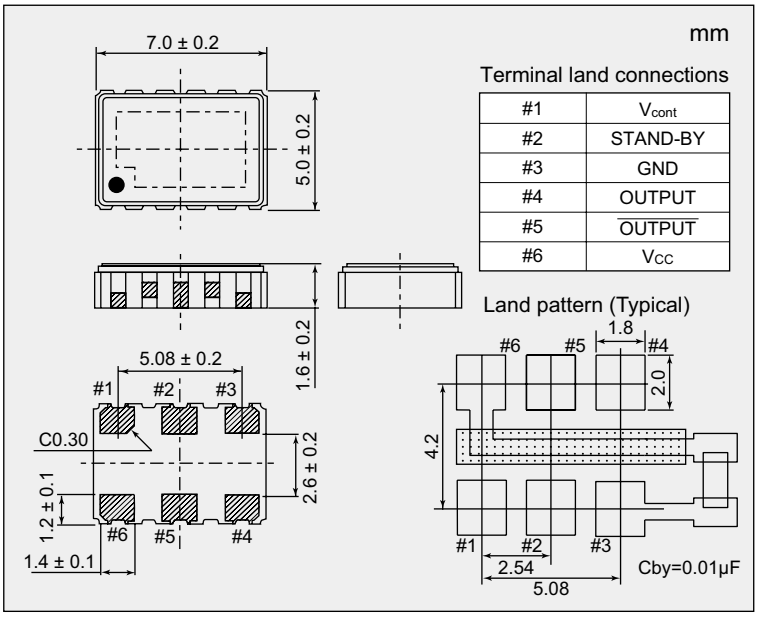
■ Dimensions



■ Phase noise characteristic