

Crystal oscillator for 5G

NP2520SB Simple Packaged Crystal Oscillator (SPXO)

Main Application

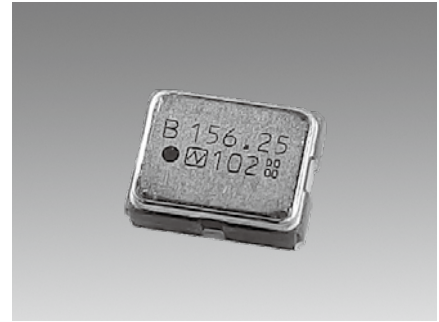
For 5G compatible device, Optical Communication, Optical Transceiver, WDM equipment

Features

- Differential Output SPXO
- Compact dimension 2.5 × 2.0 × 0.8 mm
- Supply Voltage : +2.5V or +3.3V
- Output Specification : LVDS
- Excellent low phase jitter (Max. 100fs @156.25MHz)

Pb Free

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



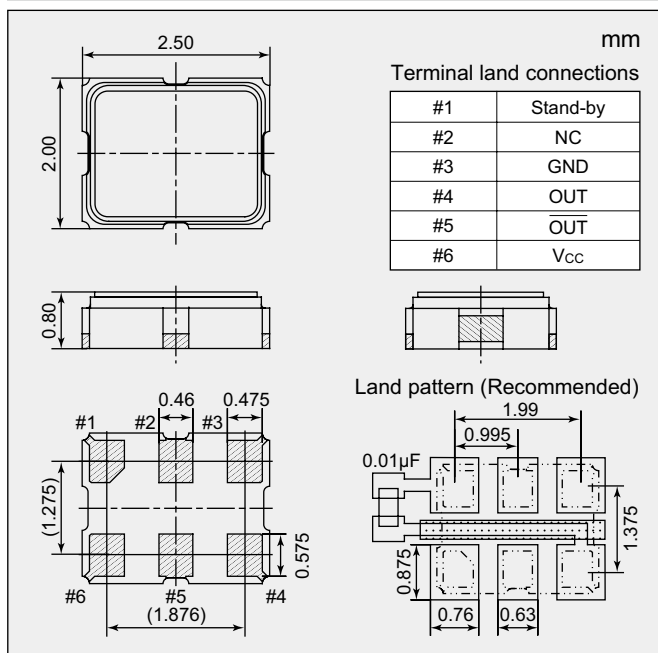
Absolute maximum rating
Supply Voltage (V_{CC}) -0.3 to +4.0 V
Storage Temperature Range -55 to +125 °C

Specifications

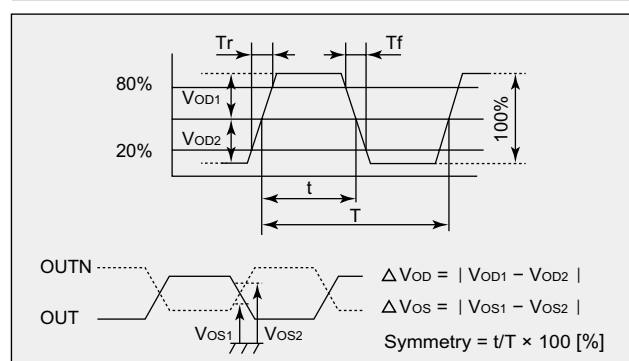
Item	Model	NP2520SB
Output Specification		LVDS
Nominal Frequency Range (MHz)		100 to 170
Standard Frequency (MHz)		156.25
Overall Frequency Tolerance *1		Max. ±50 × 10 ⁻⁶
Operating Temperature Range (°C)		-40 to +85
Supply Voltage [V _{CC}] (V)		+2.5 ± 5 % +3.3 ± 10 %
Current Consumption	Enable (mA) +25°C	Max. 40 (STAND-BY=V _{CC} or OPEN, R _L =100Ω)
	Stand-by (µA) +25°C	Max. 30 (STAND-BY=GND)
Output Voltage		V _{OD1} : V _{OD2} : +0.247 to +0.454V (Differential output voltage) ΔV _{OD} : Max. 50mV (Differential output voltage) V _{OS1} , V _{OS2} : +1.125 to +1.375V (Differential output voltage) ΔV _{OS} : Max. 50mV (Differential output voltage)
Rise Time / Fall Time (ns)		Max. 0.4 (20 to 80% Waveform)
Symmetry (%)		45 to 55 (at 50% Waveform)
Output Load [R _L] (Ω)		100 (Differential output voltage)
Start-up Time (ms)		Max. 10
Phase Jitter (fs)	+3.3V, +25°C	Max. 100 (156.25MHz) (Offset Frequency : 12kHz to 20MHz)
Specification Number		NSC5301A NSC5301B

*1 : The frequency stability includes initial frequency tolerance, temperature variation, and supply variation.

Dimensions



Output waveform



Standby Function Table (Three-state)

#1 Input	#4 and #5 output
Level H (V _{IH} ≥ 0.7 V _{CC}) or OPEN	Oscillation output ON
Level L (V _{IL} ≤ 0.3 V _{CC})	High impedance

Contact Us

Standard catalog specifications are listed for the products listed. Custom is available upon request. Mail : 5g-sl@ndk.com