

## NP2520SAB

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 : LVPECL
- Excellent low phase jitter (Max. 60fs @156.25MHz)

Pb Free

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

Absolute maximum rating  
Supply Voltage (V<sub>CC</sub>) -0.3 to +4.0 V  
Storage Temperature Range -55 to +125 °C

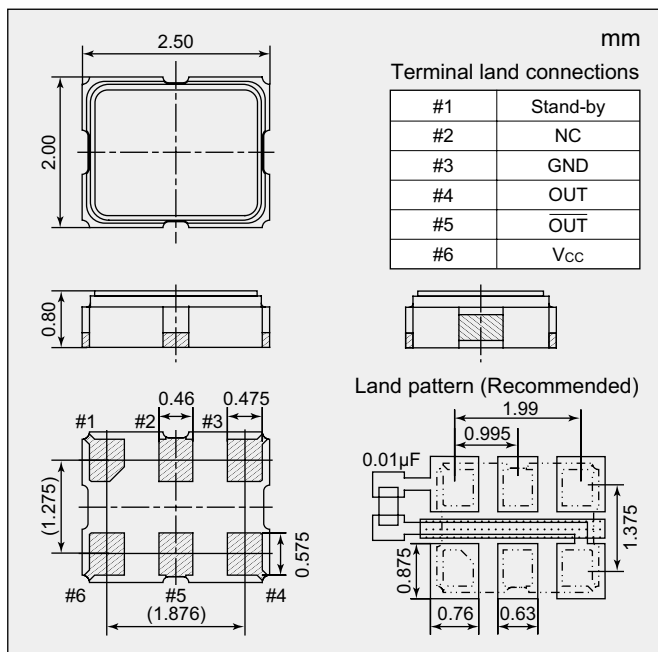


### ■ Specifications

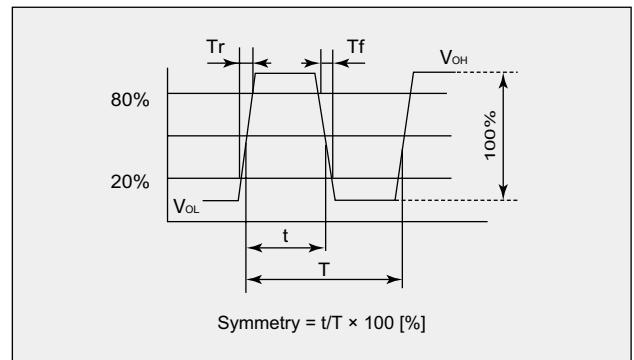
Item	Model	NP2520SAB
Output Specification		LVPECL
Nominal Frequency Range (MHz)		100 to 170
Standard Frequency Range (MHz)		156.25
Overall Frequency Tolerance *1		Max. $\pm 50 \times 10^{-6}$
Operating Temperature Range (°C)		-40 to +85
Supply Voltage [V <sub>CC</sub> ] (V)		+2.5 $\pm$ 5 %      +3.3 $\pm$ 10 %
Current Consumption	Enable (mA)    +25°C	Max. 60 (STAND-BY=V <sub>CC</sub> or OPEN, R <sub>L</sub> =50Ω)
	Stand-by (μA)    +25°C	Max. 30 (STAND-BY=GND)
Output Voltage (V)		V <sub>OL</sub> : Max. V <sub>CC</sub> -1.5
		V <sub>OH</sub> : Min. V <sub>CC</sub> -1.1
Rise Time / Fall Time (ns)		Max. 0.5 (20 to 80% Waveform)
Symmetry (%)		45 to 55 (at 50% Waveform)
Output Load (Ω)		50 (Terminated to V <sub>CC</sub> -2.0V)
Start-up Time (ms)		Max. 10
Phase Jitter (fs)	+3.3V, +25°C	Max.60 (156.25MHz) (Offset Frequency : 12kHz to 20MHz)
Specification Number		NSC5326A      NSC5326B

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

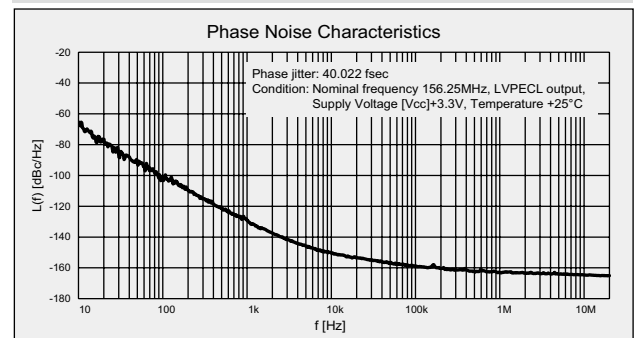
### ■ Dimensions



### ■ Output waveform



### ■ Phase Noise Characteristics



### ■ Standby Function Table (Three-state)

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

Please specify the model name, frequency, and specification number when you order products.  
For further questions regarding specifications, please feel free to contact us.