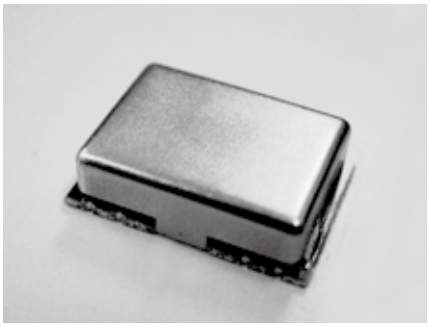
Crystal Oscillator

Model Name NW19M12WA/B

Frequency Controlled Crystal Oscillator (FCXO)
Clock Generator Modules

■ Main Application

GSM (GPRS, EDGE), Communications equipment



■ Features

- Output frequency in sync with input frequency can be obtained.
- Lock status can be monitored with VCXO control voltage monitor output used.

RoHS Compliant
Directive 2011/65/EU

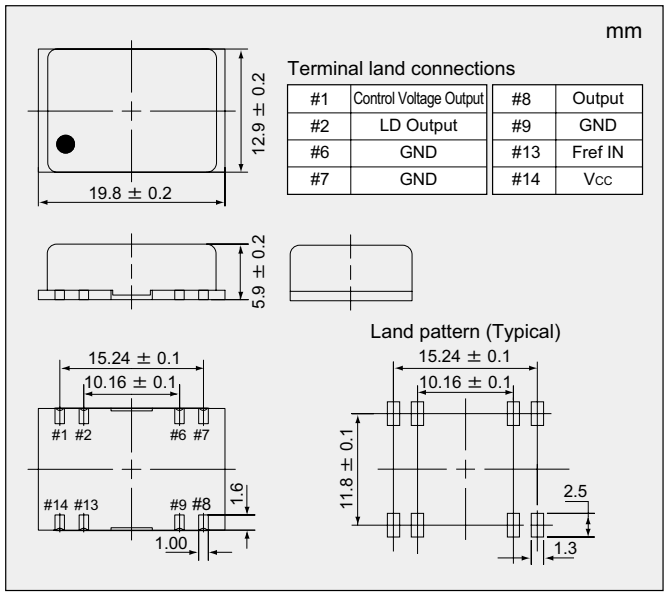
■ Specifications

Item \ Model			NW19M12WA	NW19M12WB
Supply voltage [V_{CC}] (V)			+3.3 ± 5 %	
Current consumption (mA)			Max. 40	Max. 50
Operating temperature range (°C)			−10 to +75	
Storage Temperature Range (°C)			−20 to +85	
Input level (Vp-p)			0.5 to 2.0	
Input reference frequency (MHz)			32.768	61.44
Input reference frequency stability			Max. 2.0 ×10^{-6}	
Input impedance (kΩ)			Min. 2.0	
Output level			CMOS	
Output frequency (MHz)			104	122.88
Symmetry (%)			45 to 55 (1/2V_{CC}, at 25 °C)	
Lock detect output			L : PLL out of lock, H : PLL in lock	
Phase noise (@PLL Lock) (dBc/Hz)	Frequency offset	10 Hz	Typ. −80	Typ. −75
		100 Hz	Typ. −110	Typ. −97
		1 kHz	Typ. −136	Typ. −129
		10 kHz	Typ. −148	Typ. −147
		100 kHz	Typ. −151	Typ. −150

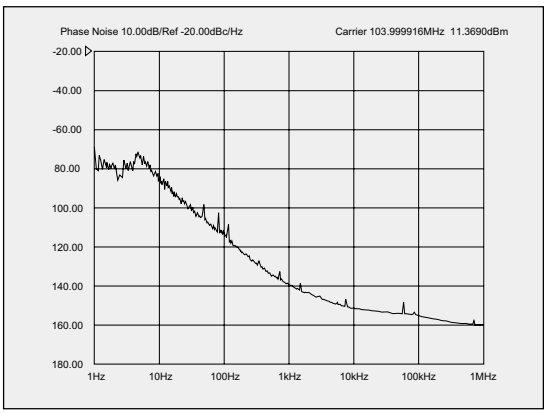
■ List of Ordering Codes

Input reference frequency (MHz)	Output frequency (MHz)	Ordering Code
32.768	104.0	NW19M12WA-104M-NSA3435A
61.44	122.88	NW19M12WB-122.88M-NSA3435B

■ Dimensions



■ Phase noise (Example 104MHz)



■ Phase Noise Measurement Block (104 MHz)