

VCXO (Voltage-Controlled Crystal Oscillator)

Surface Mount Type

NVCCM1490

NVCSW1490

[14.0×9.10×3.60 mm]

VCXO

Waveform

CMOS / Sine wave

Supply Current

30 mA max.

Supply Voltage

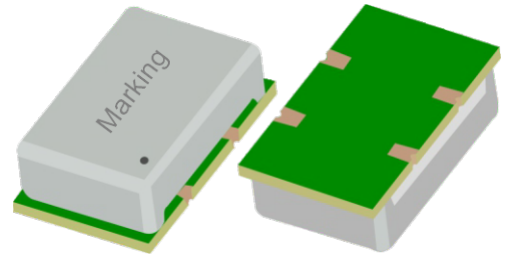
3.3V / 5.0V

Frequency Range

50 MHz~125 MHz

Features

- Small size package with 14.0×9.1×3.6 mm
- Voltage Controlled Crystal Oscillator (VCXO)
- Waveform with CMOS or Sine wave, frequency range from 50 MHz to 125 MHz
- 5V / 3.3V operating voltage
- RoHS Compliant
- Low phase noise, Low g-sensitivity, Low power consumption
- High frequency and high performance VCXO
- Applications: Test & measurement, Telecom system, Instrument, Satellite communication, base station, and more



Standard Specifications

Item / Type	NVCCM1490 (SMD VCXO)	NVCSW1490 (SMD VCXO)
Dimensions	14.0×9.10×3.60 mm	
Waveform	CMOS	Sine wave
Output load	15pF, or specify	50Ω
Output frequency range	50 MHz~125 MHz	
Supply voltage	3.3 V / 5.0 V	
Frequency tolerance	±25 ppm, ±35 ppm, ±100 ppm	
Operating temperature	-20~+70°C, -40~+85°C	
Supply current	30 mA max. (@3.3V)	30 mA max. (@5.0V)
Symmetry	45 % to 55 %	-
Output voltage Voh (min.) / Vol (max.)	90% Vcc min. / 10% Vcc max.	+10 dBm min.
Rise time /Fall time	3ns max.	-30 dBc with Harmonics
Start-up time	10ms max.	
RMS phase jitter (12kHz~20MHz)	1 pS max.	
Phase noise (@1kHz)	-140dBc/Hz max.	-142dBc/Hz max.
Storage temperature	-55~+125°C	
Absolute pulling range (APR)	±25ppm min.	±30ppm min.
Control voltage range	0.3V~3.0V@3.3V, 0.5V~4.5V@5.0V	
Linearity	10% max.	
Input impedance	1 MΩ Typ.	
Modulation bandwidth (BW)	1 kHz min.	5 kHz min.

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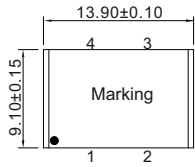
3.3V / 5.0V

Frequency Range

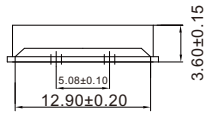
50 MHz~125 MHz

Outline Dimensions (Unit: mm)

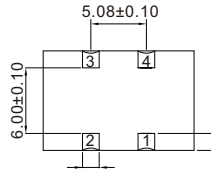
NVCCM1490 / NVCSW1490 (SMD 1490 VCXO)



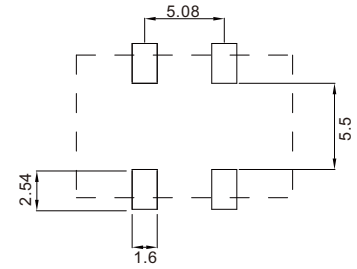
Top View



Side View



Bottom View



Top View Suggested Layout

Pin Map

Pin	Connection	Function
1	Vcon	Control voltage
2	GND	Vcc power supply ground
3	Output	Oscillator frequency output
4	Vcc	Power supply voltage