

VCXO (Voltage-Controlled Crystal Oscillator)

Surface Mount Type

NVC32

[3.2×2.5×0.90 mm]

NVC53

[5.0×3.2×1.25 mm]

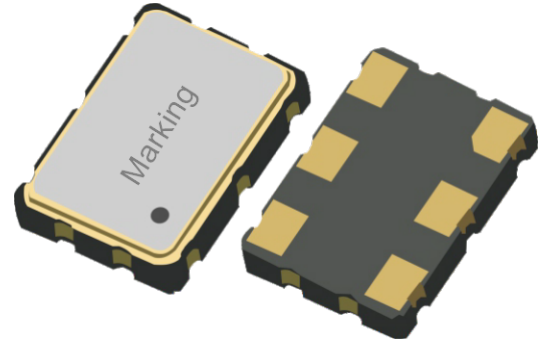
NVC57

[7.0×5.0×1.45 mm]

VCXO
Output
CMOS
Supply Voltage
2.5V / 3.3V
Frequency Range
10 MHz~250 MHz

Features

- Small size SMD VCXOs with 3.2×2.5 (3225), 5.0×3.2 (5032), 7.0×5.0 (7050), mm×mm; 6-pin or 4-pin package
- Voltage Controlled Crystal Oscillator (VCXO)
- CMOS output, frequency range from 10 MHz to 250 MHz
- Low power voltage: 3.3V, 2.5V options
- RoHS Compliant
- Low phase jitter typical: 0.8pS RMS from 12KHz to 20MHz
- Tri-state available
- Applications: High-speed ethernet, Fibre channel, HDTV, ATM, Set-top box, WiMAX, Server, SAS, SATA, and more



Standard Specifications

Item / Type	NVC32 (SMD 3225 VCXO)	NVC53 (SMD 5032 VCXO)	NVC57 (SMD 7050 VCXO)
Dimensions	3.2×2.5×0.90 mm	5.0×3.2×1.25 mm	7.0×5.0×1.45 mm
Output	CMOS		
Output load	15pF, or specify		
Output frequency range	10 MHz~250 MHz		
Supply voltage	2.5 V / 3.3 V		
Frequency tolerance	±25 ppm, ±50 ppm		
Operating temperature	-20~+70°C, -40~+85°C		
Supply current	50 mA max.	50 mA max.	50 mA max.
Symmetry	45 % to 55 %		
Output voltage Voh (min.) / Vol (max.)	90% Vcc min. / 10% Vcc max.		
Rise time /Fall time	5ns max.		
Start-up time	2ms max.		
RMS phase jitter (12kHz~20MHz)	1 pS max.		
Phase noise (@1kHz)	-107dBc/Hz	-105dBc/Hz	-105dBc/Hz
Storage temperature	-55~+125°C		
Absolute pulling range (APR)	±50ppm min., or specify		
Control voltage range	0.3V~3.0V@3.3V, 0.25V~2.25V@2.5V		
Linearity	10% max.		
Input impedance	1 MΩ min.		
Modulation bandwidth (BW)	10 kHz min.		

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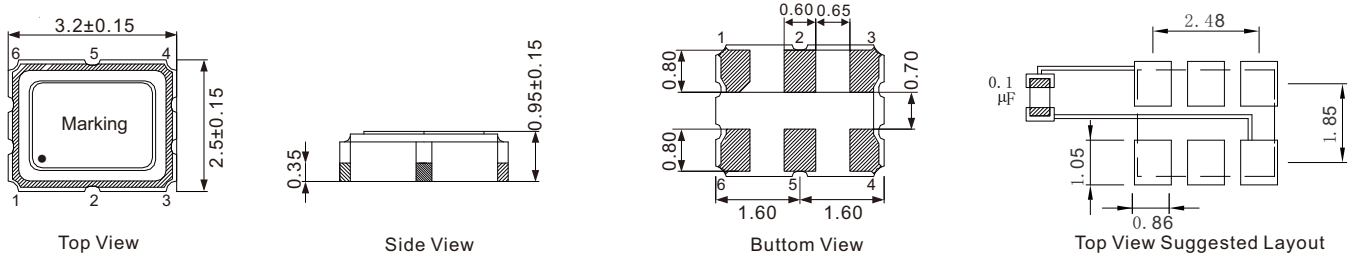
NVC57

[7.0×5.0×1.45 mm]

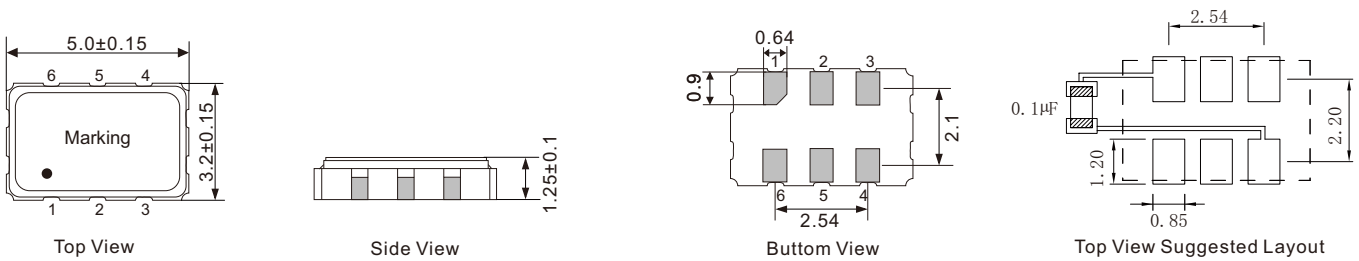
VCXO
Output
CMOS
Supply Voltage
2.5V / 3.3V
Frequency Range
32 kHz~125 MHz

Outline Dimensions (Unit: mm)

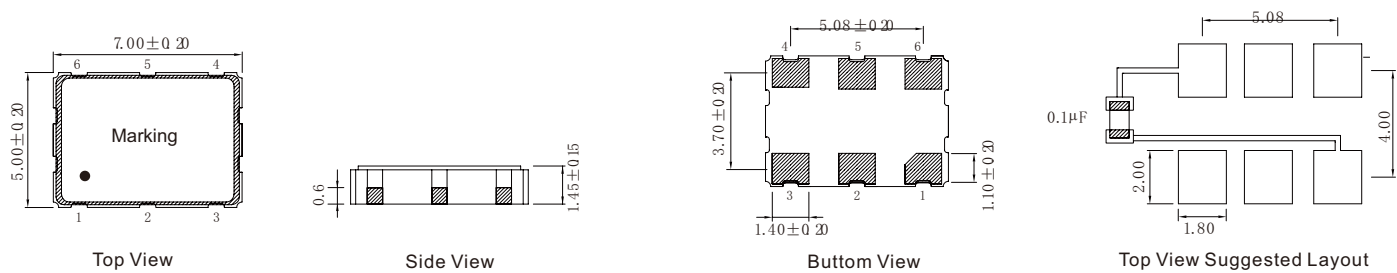
NVC32 (SMD 3225 VCXO)



NVC53 (SMD 5032 VCXO)



NVC57 (SMD 7050 VCXO)



Pin Map

6 Pad	Connection	Function
1	Vcont	Control voltage
2	OE / Tri-State	OE pin is "H" or "Open": specified frequency output; "L": Output high impedance
3	GND	Vcc power supply ground
4	Output	Oscillator output
5	N.C.	No connection
6	Vcc	Power supply voltage