

TCXO (Temperature-Compensated Crystal Oscillator)

Surface Mount Type

NVT53

[5.0×3.2×1.50 mm]

NVT57

[7.0×5.0×2.00 mm]

Thru-hole

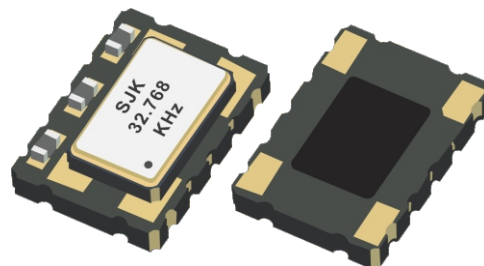
NVTFS

[20.4×12.8×7.8 mm]

TCXO
VC-TCXO
Output
Clipped sinewave
Supply Voltage
1.8V~5.0V
Frequency Range
32.768 kHz~60 MHz

Features

- SMD package or thru-hole package size with 5.0×3.2 (5032), 7.0×5.0 (7050), 20.4×12.8 (DIP 14), mm×mm
- Temperature Compensated Crystal Oscillators (TCXO)
- Operation voltage with 1.8V to 5.0V
- Low phase noise, ultra high stability
- RoHS Compliant
- Wide frequency range from 32.768 kHz to 60MHz
- VC-TCXO available
- Applications: Test equipment, Wireless communications, Military communication equipment, WiMAX, Industrial control, and more



Standard Specifications

Item / Type		NVT53 (SMD 5032 VC-TCXO /TCXO)	NVT57 (SMD 7050 VC-TCXO /TCXO)	NVTFS (DIP-14 VC-TCXO /TCXO)
Dimensions		5.0×3.2×1.50 mm	7.0×5.0×2.00 mm	20.4×12.8×7.8 mm
Output level		0.8Vp-p min. (Clipped Sinewave)		
Output load		10KΩ // 10pF		
Output frequency range		10 MHz~60 MHz	32.768 kHz~60 MHz	1.25 MHz~52 MHz
Supply voltage		1.8 V ~ 5.0 V	2.5 V ~ 5.0 V	2.5 V ~ 5.0 V
Frequency stability	Tolerance	±2.0 ppm max.		
	Temperature	±0.05 ppm ~ ±2.0 ppm max.		
	Supply voltage	±0.1 ppm max. (Vcc±5%)		
	Load coefficient	±0.1 ppm max.		
Operating temperature		-40~+85°C, or specify		
Supply consumption		4.0 mA max.		
VC-TCXO	Frequency control range	±8ppm to ±16ppm		
	Control voltage range	0.5~4.5V@5V, 0.5~2.5V@3.3V, 0.4V~2.4V@2.8V, 0.3~1.5V@1.8V		
	Input impedance	100 kΩ		
Symmetry		45% to 55%		40% to 60%
Start-up time		2.0ms max.		
Storage temperature		-40~+85°C		
Phase noise @ Offset 1kHz		-145dBc/Hz	-145dBc/Hz	-135dBc/Hz

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TCXO

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Output

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Supply Voltage

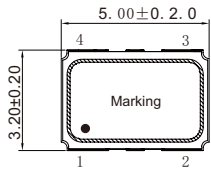
1.8V~5.0V

Frequency Range

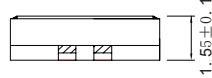
32.768 kHz~60 MHz

Outline Dimensions (Unit: mm)

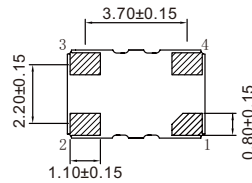
NVT53 (SMD 5032 VC-TCXO / TCXO)



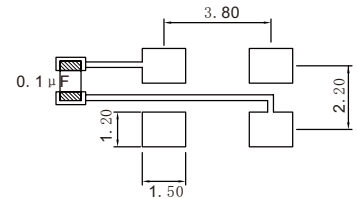
Top View



Side View

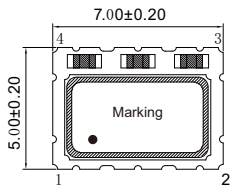


Bottom View

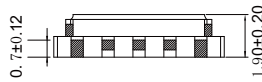


Top View Suggested Layout

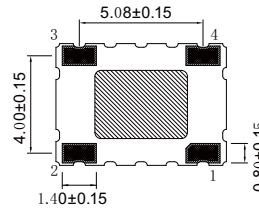
NVT57 (SMD 7050 VC-TCXO / TCXO)



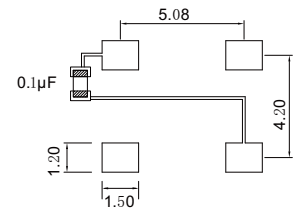
Top View



Side View



Bottom View



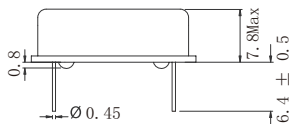
Top View Suggested Layout

NVTFS (Thru-Hole DIP 14 VC-TCXO / TCXO)

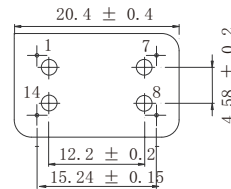


Pin 1 Symbol

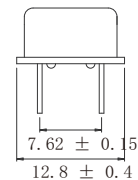
Top View



Side View



Bottom View



Recommended soldering pattern

Pin Map

Pin	Connection	Function
1	Vcon	VC-TCXO
	GND / NC	Ground or No connect
2	GND	Vcc power supply ground
3	Output	Oscillator output
4	Vcc	Power supply voltage