

VCXO (Voltage-Controlled Crystal Oscillator)

Surface Mount Type

3S

[3.2×2.5×0.90 mm]

5S

[5.0×3.2×1.25 mm]

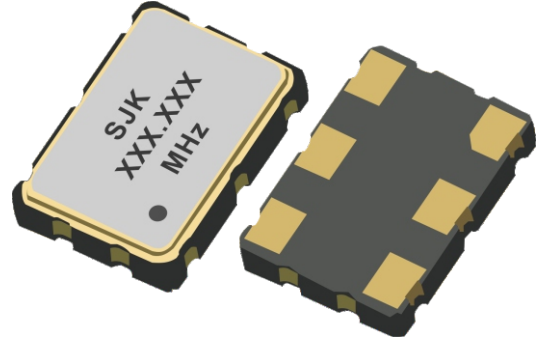
6S

[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	3S (SMD 3225 VCXO)	5S (SMD 5032 VCXO)	6S (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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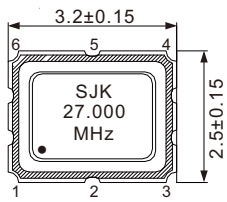
6S

[7.0×5.0×1.45 mm]

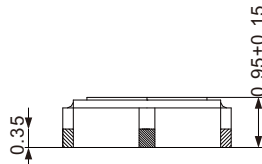
VCXO
Output
CMOS
Supply Voltage
2.5V / 3.3V
Frequency Range
32 kHz~125 MHz

Outline Dimensions (Unit: mm)

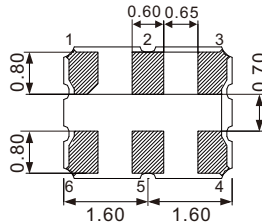
3S (SMD 3225 VCXO)



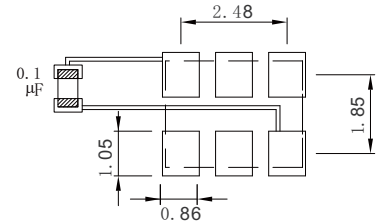
Top View



Side View

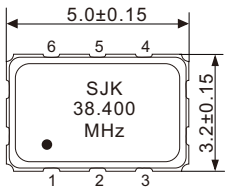


Bottom View

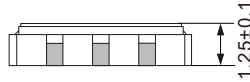


Top View Suggested Layout

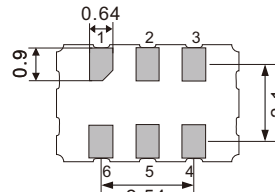
5S (SMD 5032 VCXO)



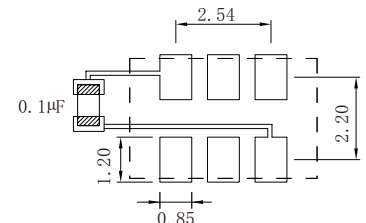
Top View



Side View

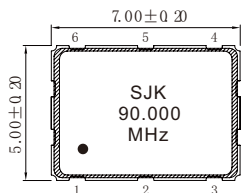


Bottom View

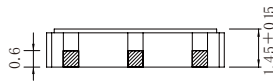


Top View Suggested Layout

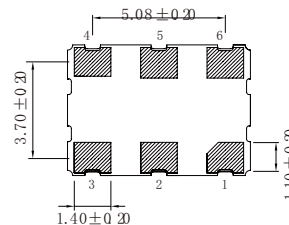
6S (SMD 7050 VCXO)



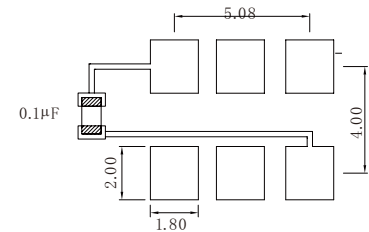
Top View



Side View



Bottom View



Top View Suggested Layout

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