

Surface Mount Type

3H [3.2×2.5×1.00 mm]	5H [5.0×3.2×1.25 mm]	7H [7.0×5.0×1.45 mm]
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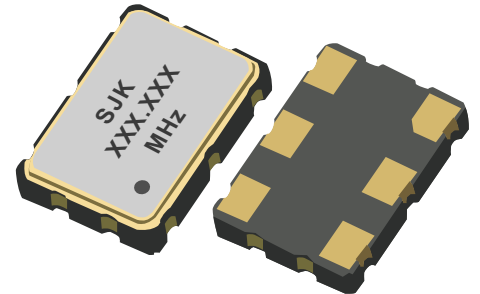
Output
HCSL

Supply Voltage
2.5V / 3.3V

Frequency Range
13.5 kHz~220 MHz

Features

- Surface mount package size 3.2×2.5 (3225), 5.0×3.2 (5032), 7.0×5.0 (7050), mm×mm
- Differential output Simple Package Crystal Oscillator (SPXO)
- HCSL output, frequency range from 13.5 KHz to 220 MHz
- 2.5V / 3.3V operating voltage
- RoHS Compliant
- Very low phase jitter: 0.2 pS, typical, 12 KHz~20 MHz
- Tri-state available
- Applications: Fiber channel, Storage area network, SONET, Server, Smart grid, Gigabit ethernet, and more



Standard Specifications

Item / Type	3H (SMD 3225 HCSL SPXO)	5H (SMD 5032 HCSL SPXO)	7H (SMD 7050 HCSL SPXO)
Dimensions	3.2×2.5×1.00 mm	5.0×3.2×1.20 mm	7.0×5.0×1.40 mm
Output	HCSL		
Output load	50Ω		
Output frequency range	13.5 KHz~220 MHz		
Supply voltage	2.5 V / 3.3 V		
Frequency tolerance (All condition)	±25 ppm, ±50 ppm, ±100 ppm		
Operating temperature	-20~+70°C, -40~+85°C		
Current consumption	30mA max.		
Disable current	15mA max.		
Symmetry	45 % to 55 %		
Output voltage Voh	0.75V Typ., 0.66V to 0.85V		
Output voltage Vol	0V Typ., -0.15V to 0.15V		
Input voltage Vih (min.)	70% Vcc min.		
Input voltage Vil (max.)	30% Vcc max.		
Rise time / Fall time	0.4ns max.		
Start-up time	10ms max.		
Storage temperature	-55~+125°C		
Phase jitter (12 KHz~20 MHz)	0.2 pSec Typ.		

Surface Mount Type

3J, 3D, 3H

[3.2×2.5×1.00 mm]

5J, 5D, 5H

[5.0×3.2×1.25 mm]

7J, 7B, 7H

[7.0×5.0×1.45 mm]

Output

LVPECL, LVDS, HCSSL

Supply Voltage

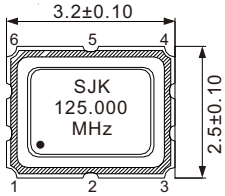
2.5V / 3.3V

Frequency Range

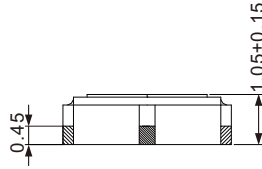
13.5 kHz~220 MHz

Outline Dimensions (Unit: mm)

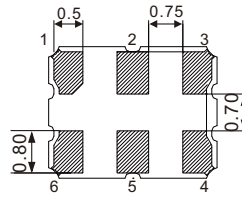
3J, 3D, 3H (3.2×2.5×1.00 mm)



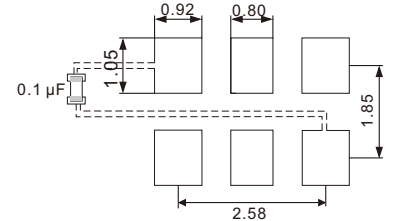
Top View



Side View

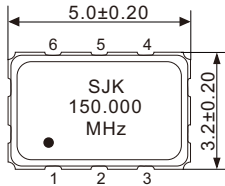


Bottom View

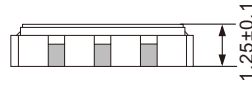


Footprint (Recommender)

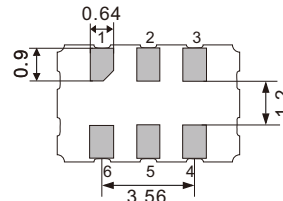
5J, 5D, 5H (5.0×3.2×1.25 mm)



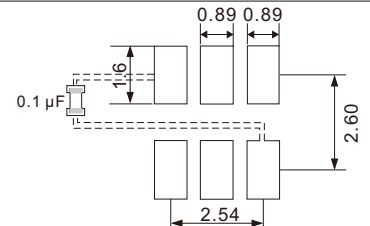
Top View



Side View

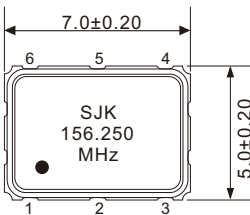


Bottom View

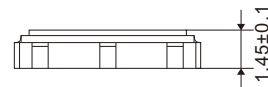


Footprint (Recommender)

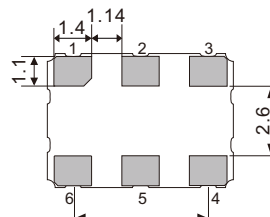
7J, 7B, 7H (7.0×5.0×1.45 mm)



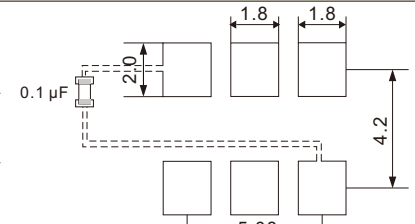
Top View



Side View



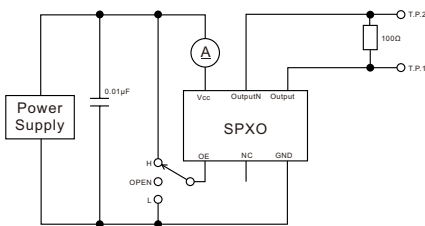
Bottom View



Footprint (Recommender)

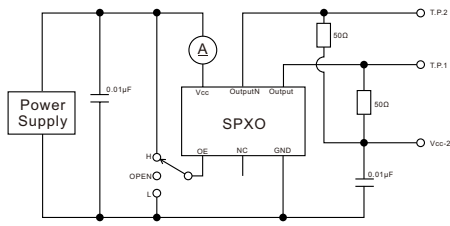
Measurement Circuit

3D, 5D, 7B



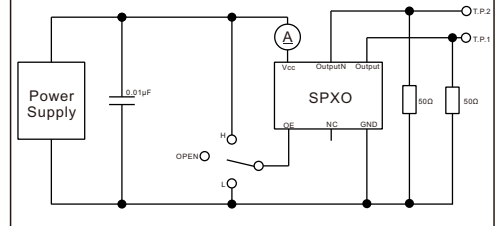
LVDS

3J, 5J, 7J



LVPECL

3H, 5H, 7H



HCSSL

Pin Map

Pin	Connection	Function
1	OE / Tri-State	“H” or “OPEN”: specified frequency output; “L”: output is high impedance
2	N.C.	No connect (Open or Vcc)
3	GND	Vcc power supply ground
4	OUT	Oscillator output
5	OutputN	Complementary oscillator output
6	Vcc	Power supply voltage