

MEMS Oscillator-Spread Spectrum Function

SJK9005 Spread Spectrum MEMS Oscillator

1MHz~141MHz

Output: CMOS

Package: 2016~3225



Features

- Any frequency between 1MHz~141MHz accurate to 6 decimal places
- Spread options: Center spread: $\pm 0.125\sim\pm 2\%$; Down spread: $-0.25\sim-4\%$
- Low power consumption of 4.0mA typical at 1.8V
- LVCMOS output
- Programmable rise/fall time for EMI reduction: 8 options, 0.25~40ns
- Excellent total frequency stability: ± 20 ppm
- Application for IP camera, , etc
- RoHS Compliant /Pb Free



Standard Specifications

Item	Type	SJK9005 Spread Spectrum MEMS Oscillator
Output Type		LVCMOS
Load condition		15pF
Frequency Range		1MHz~141MHz
Supply Voltage		1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 2.25V~3.63V
Frequency Stability (All Condition)		± 20 ppm, ± 25 ppm, ± 50 ppm
Current Consumption		6.5mA max.
OE Disable Current		6.5mA max.
Stand-by Current		4.3 μ A max.
Symmetry		45~55%
0 Level Output Voltage (V _{OL})		0.1 \times V _{CC} max.
1 Level Output Voltage (V _{OH})		0.9 \times V _{CC} min.
Rise Time / Fall Time		2.5ns max.
OE Pin 0 Level Input Voltage (V _{IL})		0.3 \times V _{CC} max.
OE Pin 1 Level Input Voltage (V _{IH})		0.7 \times V _{CC} min.
Input Pull-up Impedance		50~150K Ω (Pin1 OE or ST logic high)
		2M Ω min. (Pin1 ST logic low)
Start-up Time		5ms max.
Enable/Disable Time		180ns max.
Resume Time		5ms max.
Spread Enable Time		4 μ s max.
Spread Disable Time		50 μ s max.
Cycle-to-Cycle Jitter		22ps max.
Spread Spectrum (%)		Center Spread: $\pm 0.125\sim\pm 2.060$ ($\pm 0.125\%$ step size); Down Spread: $-0.25\sim-4.28$ (-0.25% step size)
Spread Profile		Triangular /Hershey-kiss
Operating Temperature Range		$-20\sim+70^{\circ}\text{C}$, $-40\sim+85^{\circ}\text{C}$
Storage Temperature Range		$-65\sim+150^{\circ}\text{C}$
Package Size (L \times W \times H) (Unit: mm)		2.0 \times 1.6 \times 0.8, 2.5 \times 2.0 \times 0.8, 3.2 \times 2.5 \times 0.8
Footprint Package		4-Pin Package

MEMS Oscillator-Dimensions

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Package Size - Dimensions (Unit:mm)	Recommended Land Pattern (Unit: mm)
<p>SJK1532 For 1.5×0.8</p> <p>Pin No. Function 1 NC/ST/GND 2 Output 3 Vcc 4 GND</p>	<p>Ø0.25 (x4) SMD Pads Ø0.35 (x4) Solder mask Openings</p>
<p>SJK1630 For 2.0×1.2</p> <p>Pin No. Function 1 NC 2 GND 3 Output 4 Vcc</p>	
<p>SJK8008 SJK8009 SJK9005 SJK8918 SJK8919 For 2.0×1.6</p> <p>Pin No. Function 1 OE/ST/NC 2 GND 3 Output 4 Vcc</p>	
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK9005 SJK8918 SJK8919 For 2.5×2.0</p> <p>Pin No. Function 1 OE/ST/NC 2 GND 3 Output 4 Vcc</p>	
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK9005 SJK8918 SJK8919 For 3.2×2.5</p> <p>Pin No. Function 1 OE/ST/NC 2 GND 3 Output 4 Vcc</p>	
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK8918 SJK8919 For 5.0×3.2</p> <p>Pin No. Function 1 OE/ST/NC 2 GND 3 Output 4 Vcc</p>	