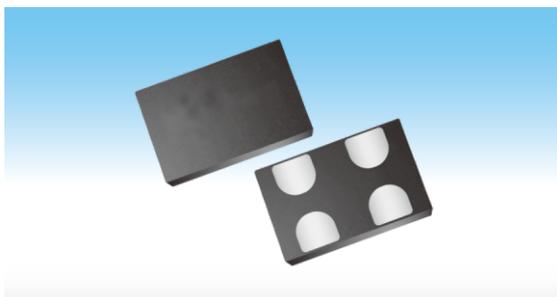


MEMS Oscillator-High Temperature

SJK8918/SJK8919 High-Temperature MEMS Oscillator 1MHz~137MHz Output: CMOS Package: 2016~7050



Features

- Any frequency from 1MHz~110MHz(SJK8918), 115MHz~137MHz (SJK8919), accurate to 6 decimal places
- Low power consumption of 3.5mA typical at 1.8V
- LVCMOS /LVTTTL compliant output
- Excellent total frequency stability: ± 20 ppm
- Operating temperature: $-40\sim+125^{\circ}\text{C}$, for AEC-Q100 oscillators
- Application for industrial, Medical, Industrial sensors, Motor servo, PLC, Asset tracking system, High temperature applications, etc
- RoHS Compliant /Pb Free



Standard Specifications

Item	Type	SJK8008 Low Power MEMS Oscillator	SJK8009 Low Power MEMS Oscillator
Output Type		LVCMOS /HCMOS	
Load condition		15pF	
Frequency Range		1MHz~110MHz	115.194001MHz~137MHz
Supply Voltage		1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 2.25V~3.63V	
Frequency Stability (All Condition)		± 20 ppm, ± 25 ppm, ± 30 ppm, ± 50 ppm	
Current Consumption		4.7mA max.	8mA max.
OE Disable Current		4.5mA max.	4.7mA max.
Stand-by Current		8.5 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		3ns 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		130ns max.	
Resume Time		5ms max.	
RMS Period Jitter		3ps max.	
Peak to Peak Period Jitter		25ps max.	30ps max.
RMS Phase Jitter (12KHz~20MHz)		2.0ps max.	
Long Term Jitter		100ps max.	
Cycle-to-Cycle Jitter		30ps max.	
Operating Temperature Range		$-40\sim+105^{\circ}\text{C}$, $-40\sim+125^{\circ}\text{C}$	
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, 5.0 \times 3.2 \times 0.8, 7.0 \times 5.0 \times 1.0	
Footprint Package		4-Pin Package	

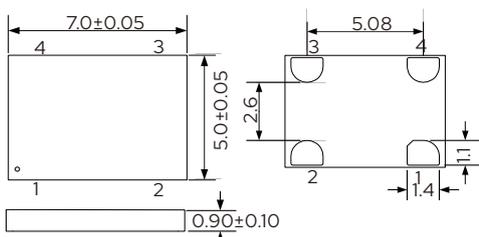
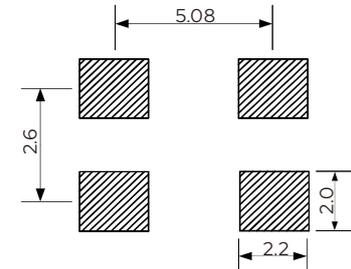
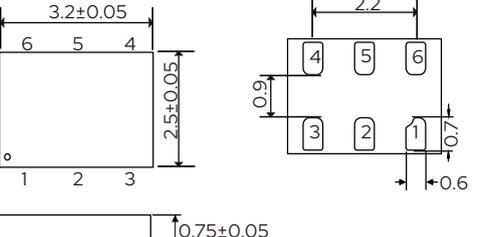
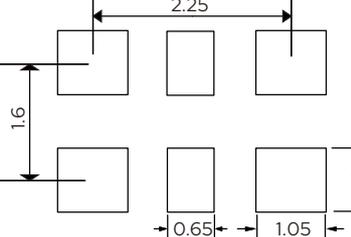
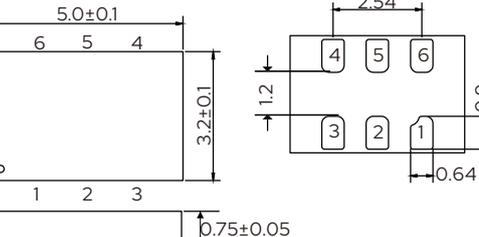
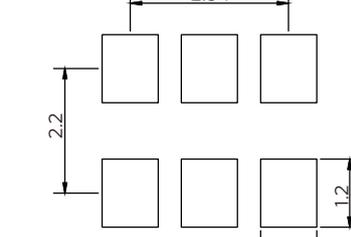
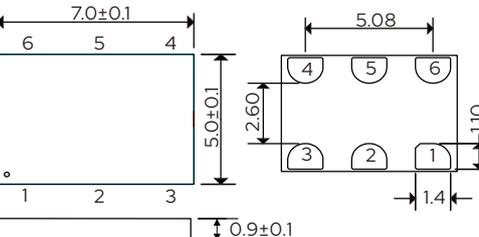
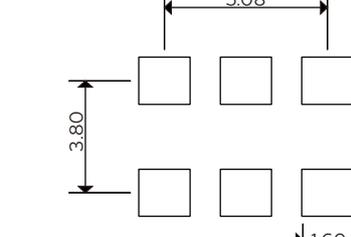
MEMS Oscillator-Dimensions

MEMS Oscillator Dimensions

Package Size - Dimensions (Unit:mm)	Recommended Land Pattern (Unit: mm)										
<p>SJK1532 For 1.5×0.8</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NC/ST/GND</td> </tr> <tr> <td>2</td> <td>Output</td> </tr> <tr> <td>3</td> <td>Vcc</td> </tr> <tr> <td>4</td> <td>GND</td> </tr> </tbody> </table>	Pin No.	Function	1	NC/ST/GND	2	Output	3	Vcc	4	GND	
Pin No.	Function										
1	NC/ST/GND										
2	Output										
3	Vcc										
4	GND										
<p>SJK1630 For 2.0×1.2</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>Output</td> </tr> <tr> <td>4</td> <td>Vcc</td> </tr> </tbody> </table>	Pin No.	Function	1	NC	2	GND	3	Output	4	Vcc	
Pin No.	Function										
1	NC										
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<p>SJK8008 SJK8009 SJK9005 SJK8918 SJK8919 For 2.0×1.6</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OE/ST/NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>Output</td> </tr> <tr> <td>4</td> <td>Vcc</td> </tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	GND	3	Output	4	Vcc	
Pin No.	Function										
1	OE/ST/NC										
2	GND										
3	Output										
4	Vcc										
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK9005 SJK8918 SJK8919 For 2.5×2.0</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OE/ST/NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>Output</td> </tr> <tr> <td>4</td> <td>Vcc</td> </tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	GND	3	Output	4	Vcc	
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2	GND										
3	Output										
4	Vcc										
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK9005 SJK8918 SJK8919 For 3.2×2.5</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OE/ST/NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>Output</td> </tr> <tr> <td>4</td> <td>Vcc</td> </tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	GND	3	Output	4	Vcc	
Pin No.	Function										
1	OE/ST/NC										
2	GND										
3	Output										
4	Vcc										
<p>SJK8008 SJK8009 SJK8208 SJK8209 SJK8918 SJK8919 For 5.0×3.2</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OE/ST/NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>Output</td> </tr> <tr> <td>4</td> <td>Vcc</td> </tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	GND	3	Output	4	Vcc	
Pin No.	Function										
1	OE/ST/NC										
2	GND										
3	Output										
4	Vcc										

MEMS Oscillator-Dimensions

MEMS Oscillator Dimensions

Package Size - Dimensions (Unit:mm)	Recommended Land Pattern (Unit: mm)														
 <p>7.0±0.05 5.0±0.05 0.90±0.10 5.08 2.6 1.4 1.1</p> <p>SJK8008 SJK8009 SJK8208 SJK8209 SJK8918 SJK8919 For 7.0×5.0</p> <table border="1" data-bbox="638 506 813 614"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr><td>1</td><td>OE/ST/NC</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>Output</td></tr> <tr><td>4</td><td>Vcc</td></tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	GND	3	Output	4	Vcc	 <p>5.08 2.6 2.2 2.0</p>				
Pin No.	Function														
1	OE/ST/NC														
2	GND														
3	Output														
4	Vcc														
 <p>3.2±0.05 2.5±0.05 0.75±0.05 2.2 0.9 0.7 0.6</p> <p>SJK9121 SJK9122 For 3.2×2.5</p> <table border="1" data-bbox="638 743 813 894"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr><td>1</td><td>OE/ST/NC</td></tr> <tr><td>2</td><td>NC</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>Output+</td></tr> <tr><td>5</td><td>Output-</td></tr> <tr><td>6</td><td>Vcc</td></tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	NC	3	GND	4	Output+	5	Output-	6	Vcc	 <p>2.25 1.6 1.0 0.65 1.05</p>
Pin No.	Function														
1	OE/ST/NC														
2	NC														
3	GND														
4	Output+														
5	Output-														
6	Vcc														
 <p>5.0±0.1 3.2±0.1 0.75±0.05 2.54 1.2 0.64 0.9</p> <p>SJK9121 SJK9122 For 5.0×3.2</p> <table border="1" data-bbox="638 1034 813 1185"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr><td>1</td><td>OE/ST/NC</td></tr> <tr><td>2</td><td>NC</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>Output+</td></tr> <tr><td>5</td><td>Output-</td></tr> <tr><td>6</td><td>Vcc</td></tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	NC	3	GND	4	Output+	5	Output-	6	Vcc	 <p>2.54 2.2 1.2 0.90</p>
Pin No.	Function														
1	OE/ST/NC														
2	NC														
3	GND														
4	Output+														
5	Output-														
6	Vcc														
 <p>7.0±0.1 5.0±0.1 0.9±0.1 5.08 2.60 1.10 1.4</p> <p>SJK9121 SJK9122 For 7.0×5.0</p> <table border="1" data-bbox="638 1325 813 1476"> <thead> <tr> <th>Pin No.</th> <th>Function</th> </tr> </thead> <tbody> <tr><td>1</td><td>OE/ST/NC</td></tr> <tr><td>2</td><td>NC</td></tr> <tr><td>3</td><td>GND</td></tr> <tr><td>4</td><td>Output+</td></tr> <tr><td>5</td><td>Output-</td></tr> <tr><td>6</td><td>Vcc</td></tr> </tbody> </table>	Pin No.	Function	1	OE/ST/NC	2	NC	3	GND	4	Output+	5	Output-	6	Vcc	 <p>5.08 3.80 1.60 1.60</p>
Pin No.	Function														
1	OE/ST/NC														
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