

# SX2HJK HCSL SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Ultra Miniature package
- Femto second integrated phase jitter, 50 fs typical
- Superior phase noise

2.5 x 2.0 x 1.0 mm



Item	Specification														
Frequency Range	100 MHz~250 MHz														
Output Logic	HCSL														
Overall Frequency Stability*	± 25 ppm ~ ± 100 ppm (see options)														
Operating Temperature Range	-20 ~ +70 °C commercial application (see options) -40 ~ +85 °C industrial application (see options)														
Supply Voltage Vdd	+1.8V ±5%      +2.5V ±5%      +3.3V ±10%														
Supply Current Idd	30 mA typ.; 40 mA max.														
Output Voltage HIGH VOH	660 mV min. ; 740 mV typ. ; 850 mV max.														
Output Voltage LOW VOL	-150 mV min. ; 0 mV typ. ; 150 mV max.														
Output Load	100 ohm between output and complementary output														
Symmetry	45/55%														
Rise Time / Fall Time Fr/Ff	0.2 ns typ. ; 0.6 ns max.														
Tri-state function	pin #1 = high or open      pin #4 - #5 ==> oscillation pin #1 = low      pin #4 - #5 ==> disable														
Start-up Time	1 ms typ. ; 5 ms max.														
Integrated Phase Jitter (12 kHz to 20 MHz band)	50 fs typ. , 300 fs max														
Phase Noise (typical)	<table border="0"> <tr> <td><b>Offset</b></td> <td><b>Frequency 125.000 MHz</b></td> </tr> <tr> <td>100 Hz</td> <td>-114 dBc / Hz</td> </tr> <tr> <td>1 kHz</td> <td>-135 dBc / Hz</td> </tr> <tr> <td>10 kHz</td> <td>-147 dBc / Hz</td> </tr> <tr> <td>100 kHz</td> <td>-157 dBc / Hz</td> </tr> <tr> <td>1 MHz</td> <td>-163 dBc / Hz</td> </tr> <tr> <td>10 MHz</td> <td>-164 dBc / Hz</td> </tr> </table>	<b>Offset</b>	<b>Frequency 125.000 MHz</b>	100 Hz	-114 dBc / Hz	1 kHz	-135 dBc / Hz	10 kHz	-147 dBc / Hz	100 kHz	-157 dBc / Hz	1 MHz	-163 dBc / Hz	10 MHz	-164 dBc / Hz
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Packing Unit	1000pcs / reel														
Soldering Condition	260 °C , 10 sec x2 max														
	<b>Customer specifications on request</b>														

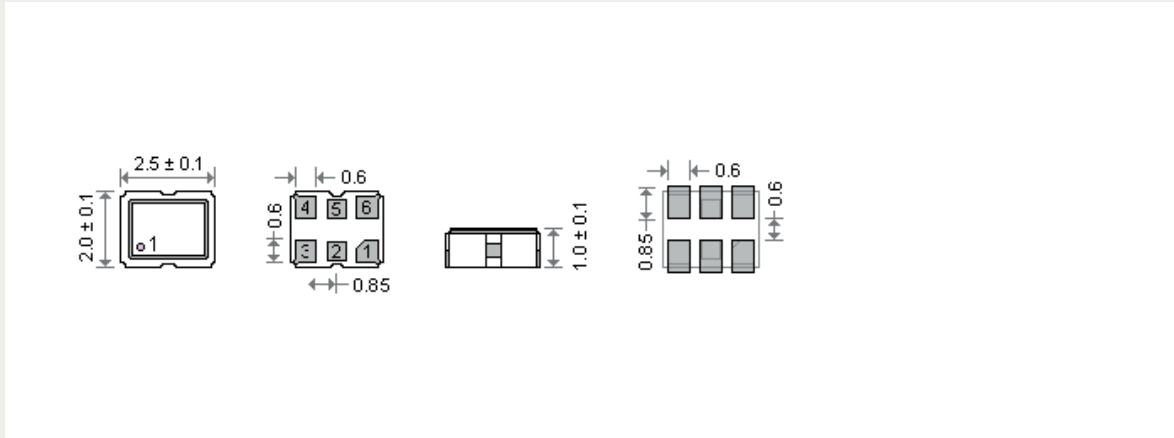
(\*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

## OPTIONS & ORDERING INFORMATION

SX2HJK	.....	.....	.....	..... MHz
Supply Voltage *	Operating Temp. *	Overall Stability *	Tri-state Function	Frequency in MHz
18 = +1.8V	E = 0°/+70 °C	25 = ±25 ppm	E = Tri-state	Please specify the frequency in MHz
25 = +2.5V	F = -20°/+70 °C	30 = ±30 ppm		
33 = +3.3V	K = -40°/+85 °C	50 = ±50 ppm		
		100 = ± 100ppm		

\* Note : Not all combinations are possible, please consult us.

## OUTLINE DIMENSIONS



### Pin Connections

#1 : E/D

#4 : Output

#2 : NC

#5 : Complementary output

#3: GND

#6: Vdd