

## Datasheet

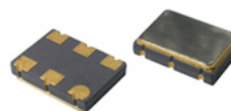
### SX3HK

### HCSL SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Miniature package
- Excellent Phase Noise
- Extremely low current consumption
- Applications : SONET, xDSL, SDH, Media box,...

3.2 x 2.5 x 1.0 mm



Item	Specification	
Frequency Range	13.5 MHz~200 MHz	
Output Logic	HCSL	
Overall Frequency Stability*	± 20 ppm ~ ± 100 ppm (see options)	
Operating Temperature Range	0 ~ +70°C commercial application (see options) -40 ~ +85°C industrial application (see options)	
Supply Voltage Vdd	+2.5V ±5%	+3.3V ±5%
Supply Current Idd	30 mA typ.; 50 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	0.15 ns typ. ; 0.4 ns max.	
Tri-state function	pin #1 = high or open pin #1 = low	pin #4 - #5 ==> oscillation pin #4 - #5 ==> high impedance
Start-up Time	3 ms typ. ; 10 ms max.	
Integrated Phase Jitter (12 kHz to 20 MHz band)	130 fs typ. ; 0.3 ns max	
Phase Noise (typical)	<b>Offset</b> 10 Hz 100 Hz 1 kHz 10 kHz 100 kHz	<b>Frequency 100.000 MHz</b> -70 dBc / Hz -101 dBc / Hz -126 dBc / Hz -139 dBc / Hz -145 dBc / Hz
Packing Unit	3000pcs / reel	
Soldering Condition	260°C , 10 sec x2 max	

**Customer specifications on request**

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

## OPTIONS & ORDERING INFORMATION

### SX3HK

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

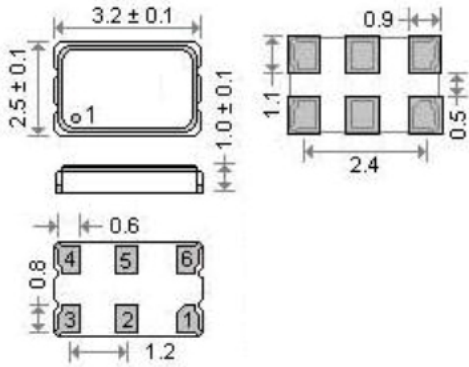
\* Note : Not all combinations are possible, please consult us.

Rev. 09-2012

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**OUTLINE DIMENSIONS**



**Pin Connections**

#1 : E/D  
#4 : Output

#2 : NC  
#5 : Complementary output

#3: GND  
#6: Vdd