

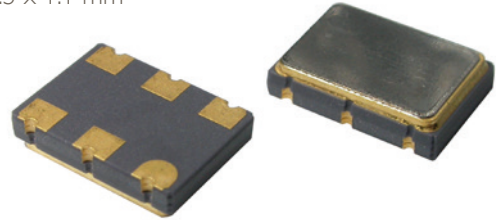
**SX3CQV**

**HCMOS SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR**

**FEATURES**

- SMD package
- Phase jitter less then 0.6 ps
- Tri-state function
- Applications : Optical , SONET , xDSL , SDH , ....

3.2 x 2.5 x 1.1 mm



Item	Specification	
Frequency Range	50.0 MHz ~ 245.0 MHz	
Output Signal	CMOS	
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%
Control voltage center	+1.25V	+1.65V
Control voltage range	0.2V to 2.3V	0.3V to 3.0V
Supply Current Idd	40 mA max ( depends of frequency )	
Output Level	VOH ≥ 0.9Vdd	VOL ≤ 0.1Vdd
Output Load	15 pF	
Symmetry	45 / 55 %	
Rise / Fall time Fr/Ff	3.0 ns max.	
Tri-state function	pin #2 = high or open pin #2 = low	pin #4 ==> oscillation pin #4 ==> high impedance
Start-up Time	10 ms max.	
Integrated Phase Jitter ( 12 kHz to 20 MHz )	0.6 ps typical	
Phase Noise ( typical )	<b>Offset</b> 10 Hz 100 Hz 1 kHz 10 kHz 100 kHz	<b>Frequency 122.880 MHz</b> -68 dBc / Hz -99 dBc / Hz -115 dBc / Hz -125 dBc / Hz -130 dBc / Hz
Frequency Pulling Range	standard ±90 ppm min. ; ±100 ppm min. ; ±150 ppm min. ( see options )	
Linearity	6% typical ; 10% max.	
Slope Polarity	Positive ( Increasing control voltage always increases output frequency )	
Modulation bandwidth	10 kHz min ( -3 dB )	
Input impedance	1 MΩ typ.	
Packing Unit	1000pcs / reel	
Soldering Condition	260°C , 10 sec x2 max	

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

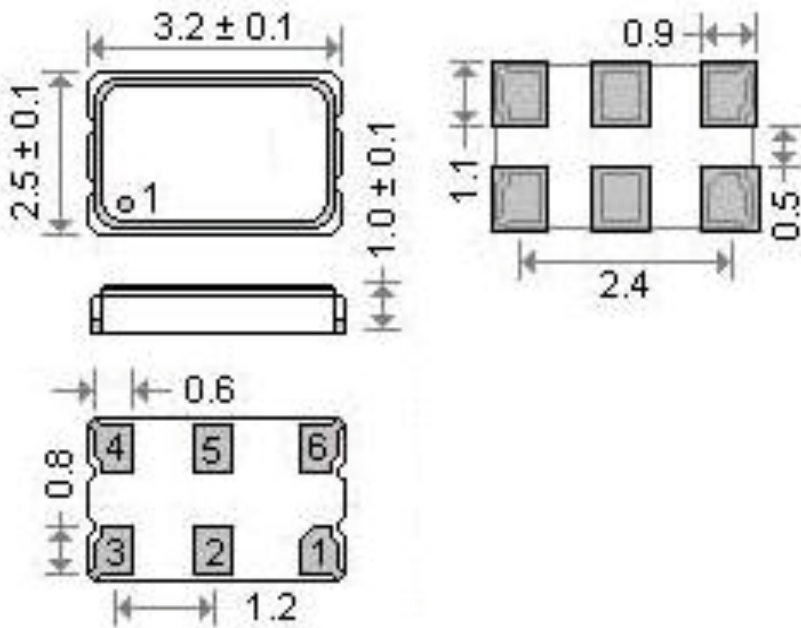
**Customer specifications on request**

## OPTIONS & ORDERING INFORMATION

SX3CQV						MHz
Supply Voltage *	Operating Temp. *	Overall Stability *	Tri-state Function	Package type	Pulling *	Frequency in MHz
25 = +2.5V 33 = +3.3V	E = 0° / +70°C F = -20° / +70°C K = -40° / +85°C	20 = ±20 ppm 25 = ±25 ppm 30 = ±30 ppm 50 = ±50 ppm 100 = ±100 ppm	E2 = Tri-state , pad #2 F = No Tri-state	6P = 6-pad version	90 = ±90 ppm min. 100 = ±100 ppm min. 150 = ±150 ppm min.	Please specify the frequency in MHz

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

## OUTLINE DIMENSIONS (MM)



### Pin Connections

- #1 : Control voltage
- #2 : E/D or NC
- #3: GND
- #4 : Output
- #5 : NC
- #6 : Vdd