

# SX5CVTG HCMOS SURFACE MOUNT VCTCXO

## FEATURES

5.0 x 3.2 x 1.85 mm

- Miniature package
- High precision for -40° to +85°C , ± 0.20 ppm
- ± 0.05 ppm -10° to +70°C
- Applications: Femtocell, Base stations, Stratum 3, ...



Item	Specification																														
Frequency Range	10.0 MHz to 52.0 MHz																														
Standard Frequency	10.000 ; 12.800 ; 19.200 ; 20.000 ; 26.000																														
Output Logic	CMOS																														
Supply Voltage Vdd (see options)	+2.5 V ±5%      +3.3 V ±5%																														
Supply Current Idd	6.0 mA max.																														
Frequency Tolerance	±2.0 ppm max. at 25°C ±2°C (one hour after reflow)																														
Frequency Stability vs Temperature (see options)	<table border="1"> <thead> <tr> <th></th> <th>±0.05 ppm</th> <th>±0.10 ppm</th> <th>±0.20 ppm</th> <th>±0.28 ppm</th> <th>±0.50 ppm</th> </tr> </thead> <tbody> <tr> <td>0° to +50°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-10° to +60°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-20° to +70°C</td> <td>◊</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-40° to +85°C</td> <td>x</td> <td>x</td> <td>◊</td> <td>o</td> <td>o</td> </tr> </tbody> </table> <p>o = available      ◊ = please contact us      x = not available</p>		±0.05 ppm	±0.10 ppm	±0.20 ppm	±0.28 ppm	±0.50 ppm	0° to +50°C	o	o	o	o	o	-10° to +60°C	o	o	o	o	o	-20° to +70°C	◊	o	o	o	o	-40° to +85°C	x	x	◊	o	o
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Frequency Stability vs Aging	±1.0 ppm max. per year at 25°C																														
Frequency Stability vs Voltage Change	±0.2 ppm max., for a ±5% input voltage change																														
Frequency Stability vs Load Change	±0.2 ppm max., for a ±10% load condition change																														
Output Level	VOH ≥ 0.9 Vdd      VOL ≤ 0.1 Vdd																														
Output Load	15 pF																														
Symmetry	45 / 55%																														
Rise Time / Fall Time Fr / Ff	10 ns max.																														
Start-up Time	2.0 ms max.																														
Phase Noise	<table border="1"> <thead> <tr> <th>Offset / dBc / Hz</th> <th>100 Hz</th> <th>1 kHz</th> <th>10 kHz</th> </tr> </thead> <tbody> <tr> <td>(typical)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12.800 MHz</td> <td>-125 dBc / Hz</td> <td>-145 dBc / Hz</td> <td>-150 dBc / Hz</td> </tr> </tbody> </table>	Offset / dBc / Hz	100 Hz	1 kHz	10 kHz	(typical)				12.800 MHz	-125 dBc / Hz	-145 dBc / Hz	-150 dBc / Hz																		
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Voltage Control Function	<p><b>Control Voltage Range</b>      Center voltage +1.5 V, range ±1.0V</p> <p><b>Frequency Pulling Range</b>      ±5 ppm min. ~ ±10 ppm max.</p> <p><b>Linearity</b>      10 % max.</p> <p><b>Slope Polarity</b>      Positive</p> <p><b>Input Impedance</b>      50 kΩ min.</p> <p><b>Modulation Bandwidth</b>      20 kHz min. (at -3 dB)</p>																														
Packing Unit	1000 pcs / reel																														
Soldering Condition	260°C, 10 sec x2 max																														
	<b>Customer specifications on request</b>																														

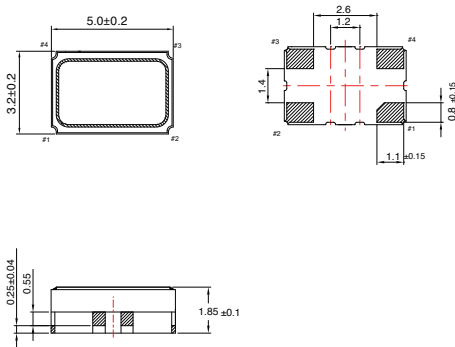
## OPTIONS & ORDERING INFORMATION

### SX5CVTG

Supply Voltage *	Operating Temp. *	Temperature Stability *	Tri-state Function	Package type	Pulling	..... MHz
<b>25</b> = +2.5V	<b>C</b> = 0° / +50°C	<b>0.05</b> = ±0.05 ppm	<b>F</b> = No Tri-state	<b>4P</b> = 4-pad version	<b>05</b> = ±5 ppm min.	Please specify the frequency in MHz
<b>33</b> = +3.3V	<b>D</b> = -10° / +60°C	<b>0.10</b> = ±0.10 ppm				
	<b>F</b> = -10° / +70°C	<b>0.20</b> = ±0.20 ppm				
	<b>K</b> = -40° / +85°C	<b>0.28</b> = ±0.28 ppm				
		<b>0.50</b> = ±0.50 ppm				

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

## OUTLINE DIMENSIONS



#### Pin Connections

#1 : Control voltage

#2 : GND

#3 : Output

#4 : Vdd