

Datasheet

SX5CTM HCMOS SURFACE MOUNT TEMPERATURE COMPENSATED CRYSTAL CLOCK OSCILLATOR

FEATURES

5.0 x 3.2 x 2.3 mm

- Miniature package
- Good Phase noise, > 32.768 MHz is PLL design
- Low cost
- Applications: Mobile phones, Portable radio equipment, ...



Item	Specification						
Frequency Range	1.25 MHz to 156.0 MHz						
Output Logic	CMOS						
Standard Frequency	10.000 ; 12.800 ; 13.000 ; 14.7456 ; 16.000 ; 16.384 ; 19.200 ; 19.440 ; 19.680 20.000 ; 25.000 ; 27.000 ; 38.880 ; 40.000 ; 54.000 ; 77.760 ; 125,000 ; 155.520						
Supply Voltage V _{dd} (see options)		+2.8 V ±5%	+3.0 V ±5%	+3.3 V ±5%	+5.0 V ±5%		
Supply Current I _{dd}	1.25 ~ 10 MHz	2.0 mA max.	2.0 mA max.	2.0 mA max.	5.0 mA max.		
	~ 33 MHz	10 mA max.	10 mA max.	10 mA max.	10 mA max.		
	~ 80 MHz	11 mA max.	14 mA max.	14 mA max.	24 mA max.		
	~ 156 MHz	19 mA max.	23 mA max.	23 mA max.	36 mA max.		
Frequency Tolerance	±2.0 ppm at 25°C ±2°C (one hour after reflow)						
Frequency Stability vs Temperature (see options)		±0.5 ppm	±1.0 ppm	±1.5 ppm	±2.0 ppm	±2.5 ppm	±3.0 ppm
	0° to +50°C	o	o	o	o	o	o
	-10° to +60°C	◇	o	o	o	o	o
	-20° to +70°C	◇	o	o	o	o	o
	-30° to +75°C	◇	o	o	o	o	o
	-30° to +85°C	◇	o	o	o	o	o
	-40° to +85°C	x	◇	o	o	o	o
	o = available		◇ = please contact us		x = not available		
Frequency Stability vs Aging	±1.0 ppm max. per year at 25°C						
Frequency Stability vs Voltage Change	±0.3 ppm max., for a ±5% input voltage change						
Frequency Stability vs Load Change	±0.3 ppm max., for a ±10% load condition change						
Output Level	VOH ≥ 0.9 V _{dd}			VOL ≤ 0.1 V _{dd}			
Output Load	15 pF						
Symmetry	45 / 55%						
Rise Time / Fall Time Fr / Ff	10 ns max.						
Start-up Time	5 ms typ., 10 ms max.						
Phase noise	Offset / dBc / Hz	10 Hz	100 Hz	1 kHz	10 kHz [□]	100 kHz [□]	
	(typical)						
	10.000 MHz	-96 dBc / Hz	-122 dBc / Hz	-138 dBc / Hz	-145 dBc / Hz	-150 dBc / Hz	
	77.760 MHz	-74 dBc / Hz	-105 dBc / Hz	-120 dBc / Hz	-124 dBc / Hz	-120 dBc / Hz	
	155.520 MHz	-68 dBc / Hz	-96 dBc / Hz	-110 dBc / Hz	-117 dBc / Hz	-112 dBc / Hz	
Packing Unit	1000 pcs / reel						
Soldering Conditions	260°C, 10 sec x2 max						
	Customer specifications on request						

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OPTIONS & ORDERING INFORMATION

SX5CTM

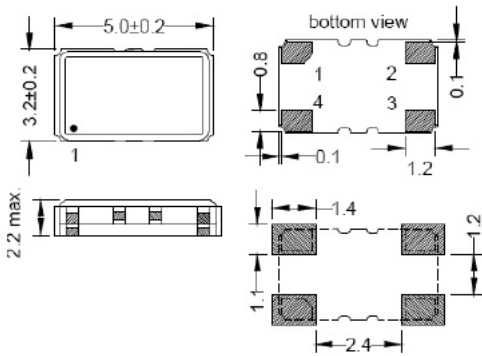
Supply Voltage	Operating Temp. *	Temperature Stability *	Tri-state Function	Package Type	Frequency in MHz
28 = +2.8V	C = 0° / +50°C	0.5 = ±0.5 ppm	F = No Tri-state	4P = 4-pad version 6P = 6-pad version	Please specify the frequency in MHz
30 = +3.0V	D = -10° / +60°C	1.0 = ±1.0 ppm			
33 = +3.3V	F = -20° / +70°C	1.5 = ±1.5 ppm			
50 = +5.0V	G = -30° / +75°C	2.0 = ±2.0 ppm			
	H = -30° / +85°C	2.5 = ±2.5 ppm			
	K = -40° / +85°C	3.0 = ±3.0 ppm			

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

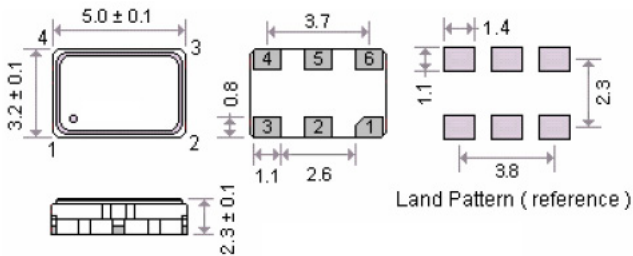
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OUTLINE DIMENSIONS



Pin Connections #1 : NC #2 : GND #3: Output #4 : Vdd



Pin Connections #1 : NC #2 : NC #3: GND #4 : Output #5 : NC #6: Vdd

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