

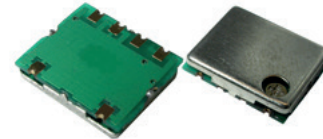
SP4CT

HCMOS SURFACE MOUNT TEMPERATURE COMPENSATED CRYSTAL CLOCK OSCILLATOR

FEATURES

- Metal SMD case
- Wide frequency range
- Mechanical trimmer option
- Applications: Reference clock, Communication equipment,...

11.4 x 9.6 x 2.5 mm



Item	Specification						
Frequency Range	1.0 MHz to 125.0 MHz						
Output Logic	CMOS						
Supply Voltage Vdd (see options)	+3.3 V ±5%		+5.0 V ±5%				
Supply Current Idd	40.0 mA max., frequency dependent						
Frequency Tolerance	With trimmer option: ±1.0 ppm at 25°C ±2°C (one hour after reflow) Without trimmer option: ±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	x	o	o	o	o	o
	-30° to +75°C	x	◇	o	o	o	o
	-30° to +85°C	x	◇	◇	o	o	o
	-40° to +85°C	x	◇	◇	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 Vdd			VOL ≤ 0.1 Vdd			
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 (typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	
	10.000 MHz	-95 dBc / Hz	-130 dBc / Hz	-140 dBc / Hz	-145 dBc / Hz	-150 dBc / Hz	
	20.000 MHz	-80 dBc / Hz	-120 dBc / Hz	-135 dBc / Hz	-140 dBc / Hz	-145 dBc / Hz	
	77.760 MHz	-75 dBc / Hz	-105 dBc / Hz	-120 dBc / Hz	-125 dBc / Hz	-120 dBc / Hz	
Mechanical Frequency Tuning (see options)	±3.0 ppm min. tuning						
Packing Unit	1000 pcs / reel						
Soldering Conditions	260°C, 10 sec x2 max						
	Customer specifications on request						

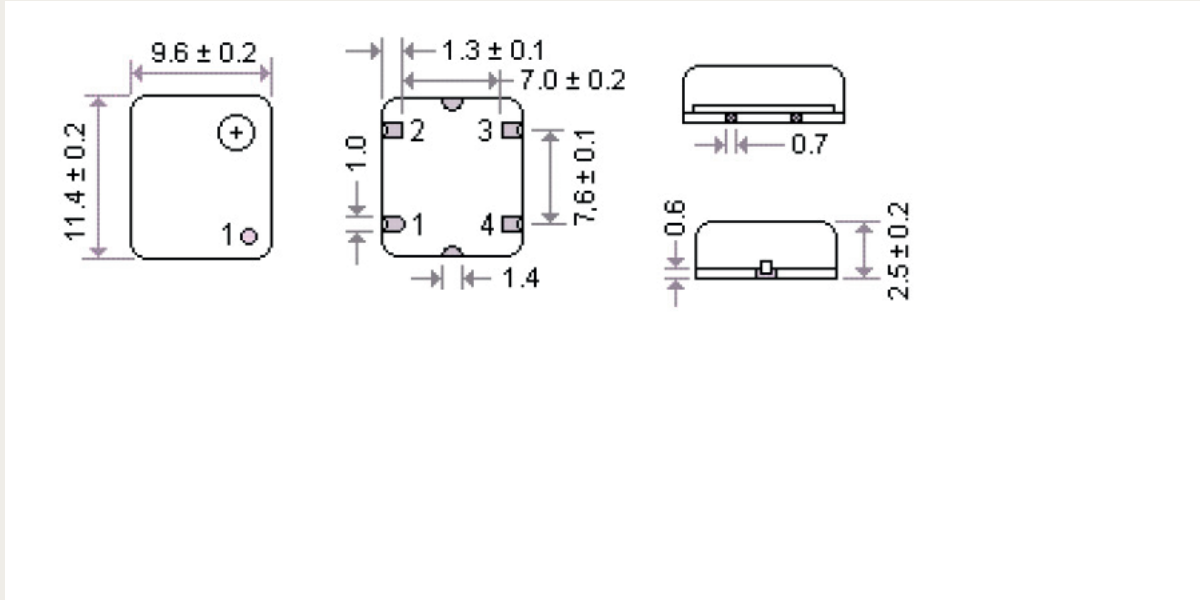
OPTIONS & ORDERING INFORMATION

SP4CT

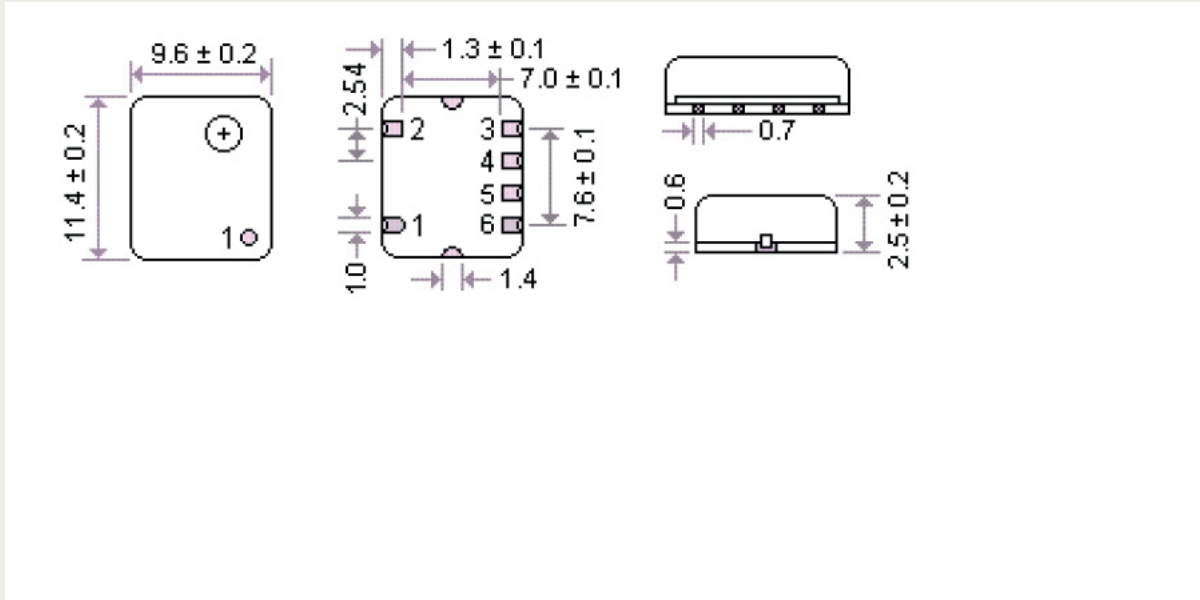
Supply Voltage	Operating Temp. *	Temperature Stability *	Tri-state Function	Package Type	Frequency in MHz	Mechanical Tuning
33 = +3.3V	C = 0° / +50°C	0.5 = ±0.5 ppm	F = No Tri-state	4P = 4-pad version	Please specify the frequency in MHz	Blanc = no trimmer
50 = +5.0V	D = -10° / +60°C	1.0 = ±1.0 ppm		6P = 4-pad version		-T = Trimmer option
	F = -20° / +70°C	1.5 = ±1.5 ppm				
	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.

OUTLINE DIMENSIONS



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



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