SP4CVT HCMOS SURFACE MOUNT VCTCXO

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 = availabe ◊ **=** 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		
Voltage Control Function (see options)	**Control Voltage Range**	Center voltage +1.65 V, range ±1.35V	Center voltage +2.50 V, range ±2.0V
	Frequency Pulling Range	±5 ppm min. ~ ±10 ppm min.	
	Linearity	10 % max.	
	Slope Polarity	Positive	
	Input Impedance	10 kΩ min.	
Packing Unit	1000 pcs / reel		
Soldering Conditions	260°C, 10 sec x2 max		
	Customer specifications on request		

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SYSTEM CERTIFICATION ISO 9001 SGS

OPTIONS & ORDERING INFORMATION

SP4CVT

.....	.....	- ..... -	.....	.....	..... -	..... MHz	.....
Supply Voltage	Operating Temp. *	Temperature Stability*	Tri-state Function	Package Type	Pulling **	Frequency in MHz	Mechanical Tuning
33 = +3.3V **50 =** +5.0V	**C =** 0° / +50°C **D =** -10° / +60°C **F =** -20° / +70°C **G =** -30° / +75°C **H =** -30° / +85°C **K =** -40° / +85°C	**0.5 =** ±0.5 ppm **1.0 =** ±1.0 ppm **1.5 =** ±1.5 ppm **2.0 =** ±2.0 ppm **2.5 =** ±2.5 ppm **3.0 =** ±3.0 ppm	**F =** No Tri-state	**4P =** 4-pad version **6P =** 4-pad version	**05 =** ±5 ppm min. **10 =** ±10 ppm min.	Please specify the frequency in MHz	**Blanc =** no trimmer **-T =** Trimmer option

(*) Note : Not all combinations are possible, please consult us.
(**) Other pulling range is available on customer specification.

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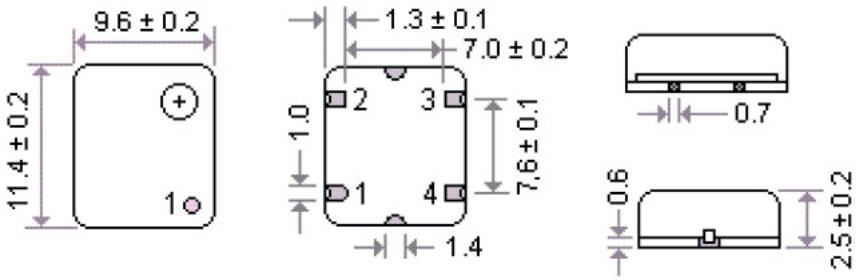
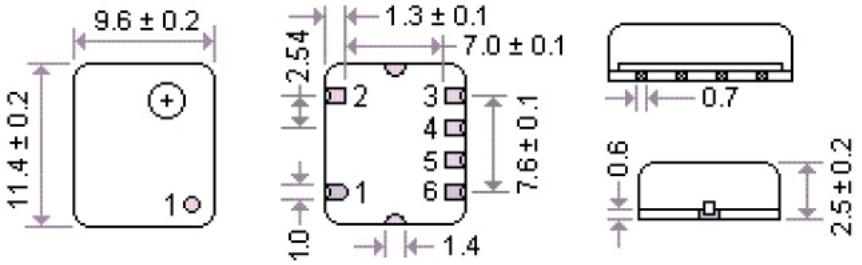
OUTLINE DIMENSIONS



Pin Connections	#1 : Control voltage	#2 : GND	#3: Output	#4 : Vdd



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

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