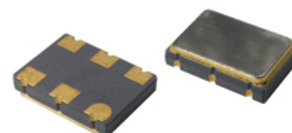


**Datasheet**

# SX7CFV HCMOS SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR

## FEATURES

- SMD package
- Phase jitter less then 0.5 ps
- Tri-state function
- Applications: Optical, SONET, xDSL, SDH, ...

**7.0 x 5.0 x 1.8 mm**


Item	Specification	
Frequency Range	50.0 MHz ~ 640.0 MHz	
Output Logic	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	+3.3 V ±5%	
Control Voltage Center	+1.65 V	
Control Voltage Range	0.3V to 3.0V	
Supply Current Idd	40 mA max.	
Output Level	VOH ≥ 0.9 Vdd	VOL ≤ 0.1 Vdd
Output Load	15pF	
Symmetry	45 / 55%	
Rise Time / Fall Time Fr/Ff	0.7 ns typ.	
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)	0.4 ps typical ; 0.5 ps max (For 156.250 MHz)	
Period Jitter RMS	3.0 ps typical ; 5.0 ps max (For 156.250 MHz)	
Period Jitter peak-to-peak	20.0 ps typical ; 30.0 ps max (For 156.250 MHz)	
Phase Noise (typical)	<b>Offset</b>	<b>Frequency 156.250 MHz</b>
	10 Hz	-62 dBc / Hz
	100 Hz	-92 dBc / Hz
	1 kHz	-120 dBc / Hz
	10 kHz	-132 dBc / Hz
	100kHz	-128 dBc / Hz
Frequency Pulling Range	standard ±80 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	25 kHz min. (-3 dB)	
Input Impedance	60 kΩ min.	
Packing Unit	1000 pcs / reel	
Soldering Condition	260 °C , 10 sec x2 max	

**Customer specifications on request**

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

Rev. 09-2012

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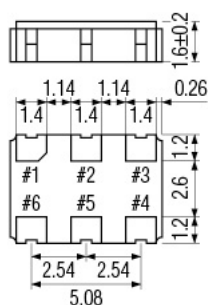
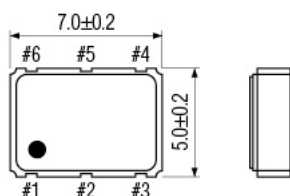
## OPTIONS & ORDERING INFORMATION

SX7CFV

Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Package type	Pulling *	Frequency in MHz
33 = +3.3 V	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 at pad #2 F = No Tri-state	6P = 6-pad version	80 = ±80 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



### Pin Connections

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