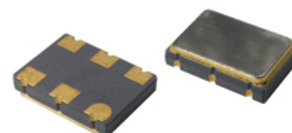


**Datasheet**

# SX7LWV LVDS SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL CLOCK OSCILLATOR

## FEATURES

- Miniature package
- Moderate jitter at low cost
- Multiplier circuit , PLL design
- Applications: SONET, xDSL, Video, ...

**7.0 x 5.0 x 1.8 mm**


Item	Specification	
Frequency Range	1 MHz ~ 800 MHz	
Output Logic	LVDS	
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%	
Supply Voltage Center	+1.65 V	
Control Voltage Range	0.0 V to 3.0 V	
Supply Current Idd	< 24 MHz : 25 mA max. 24.01 MHz ~ 96 MHz : 45 mA max. 96.01 MHz ~ 800 MHz : 80 mA max.	
Output Voltage HIGH VOH	1.43 V typ. ; 1.6 V max	
Output Voltage LOW VOL	1.1 V typ. ; 0.9 V min.	
Output Load	50 ohm from each output	
Symmetry	45 / 55 %	
Rise Time / Fall Time Fr / Ff	0.7 ns typ. ; 1.0 ns max.	
Tri-state Function	pin #2 = high or open pin #2 = low	pin #4 - pin#5 ==> oscillation pin #4 - pin#5 ==> high impedance
Start-up Time	3 ms typ. ; 10 ms max.	
Integrated Phase Jitter (12 kHz to 20 MHz band)	2.6 ps typical ; 4.0 ps max (For 155.520 MHz)	
Period Jitter RMS	4.3 ps typical (For 155.520 MHz)	
Period Jitter peak-to-peak	27.0 ps typical (For 155.520 MHz)	
Phase Noise (typical)	Offset	Frequency 155.520 MHz
	10 Hz	-60 dBc / Hz
	100 Hz	-90 dBc / Hz
	1 kHz	-115 dBc / Hz
	10kHz	-125 dBc / Hz
	100 kHz	-120 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	2 MΩ min.	
Packing Unit	1000pcs / 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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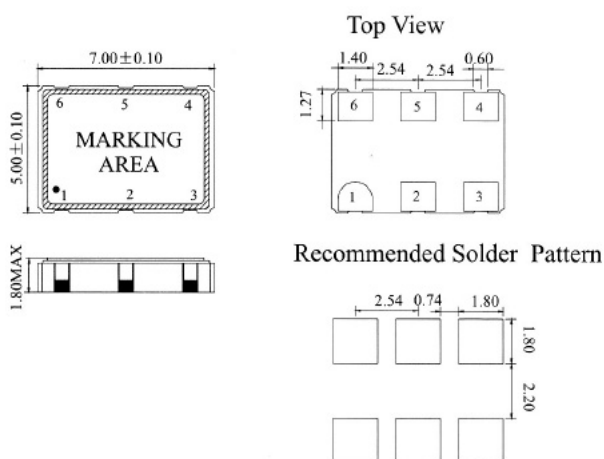
## OPTIONS & ORDERING INFORMATION

### SX7LWV

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, pin #2	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	#3: GND
	#4 : Output	#5 : Complementary Output	#6: Vdd