

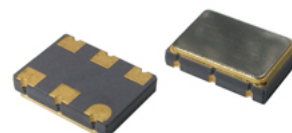
Datasheet

SX7LFB LVDS SURFACE MOUNT VOLTAGE CONTROLLED
CRYSTAL CLOCK OSCILLATOR

FEATURES

- Miniature package
- Low jitter multiplier circuit
- Wide pulling range
- Applications: SONET, xDSL, SDH, Set-top box, ...

7.0 x 5.0 x 1.8 mm



Item	Specification	
Frequency Range	38 MHz ~ 640 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 3.3 V	
Supply Current Idd	38 MHz ~ 100 MHz: 45 mA max. 100.01 MHz ~ 320 MHz : 60 mA max. 320.01 MHz ~ 640 MHz : 70 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)	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)	Offset	Frequency 156.250 MHz
	10 Hz	-62 dBc / Hz
	100 Hz	-92 dBc / Hz
	1 kHz	-120 dBc / Hz
	10kHz	-132 dBc / Hz
	100 kHz	-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	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

Datasheet

SX7LFB LVDS SURFACE MOUNT VOLTAGE CONTROLLED
CRYSTAL CLOCK OSCILLATOR

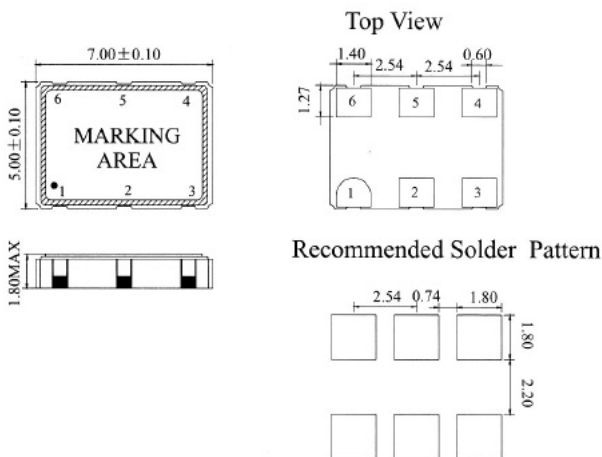
OPTIONS & ORDERING INFORMATION

SX7LFB

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