

Datasheet

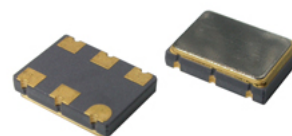
SX7EF

LVPECL SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR

FEATURES

- Miniature package
- Low jitter multiplier circuit
- Application : 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	LVPECL	
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	+2.5V ±5%	+3.3V ±5%
Supply Current Idd	38 MHz ~ 100 MHz : 65 mA max. 100.01 MHz ~ 320 MHz : 80 mA max. 320.01 MHz ~ 640 MHz : 90 mA max.	
Output Voltage HIGH VOH	Vdd -1.025 V min. ; Vdd -0.95 V typ. ; Vdd -0.88 V max	
Output Voltage LOW VOL	Vdd -1.810 V min. ; Vdd -1.70 V typ. ; Vdd -1.62 V max	
Output Load	50 ohm to Vdd-2V	
Symmetry	45/55%	
Rise Time/Fall Time Fr/Ff	0.4 ns typ. ; 0.5 ns max.	
Tri-state function	pin #1 or #2= high or open pin #1 or #2= low	pin #4 - #5 ==> oscillation pin #4 - #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 10 Hz 100 Hz 1 kHz 10 kHz 100 kHz	Frequency 156.250 MHz -62 dBc / Hz -92 dBc / Hz -120 dBc / Hz -132 dBc / Hz -128 dBc / Hz
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.

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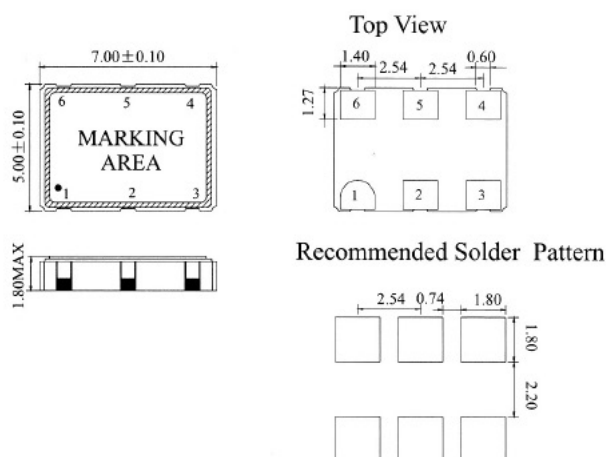
OPTIONS & ORDERING INFORMATION

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Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Frequency in MHz
25 = +2.5V	E = 0°/+70°C	20 = ±20 ppm	E1 = Tri-state, pin 1	Please specify the frequency in MHz
33 = +3.3V	F = -20°/+70°C	25 = ±25 ppm	E2 = Tri-state, pin 2	
	K = -40°/+85°C	30 = ±30 ppm		
		50 = ±50 ppm		
		100 = ±100 ppm		

* Note : Not all combinations are possible, please consult us.

OUTLINE DIMENSIONS (mm)



Pin Connections	#1 : E/D or NC	#2 : E/D or NC	#3: GND
	#4 : Output	#5 : Complementary output	#6: Vdd