

SX5SSF

LOW EMI SPREAD SPECTRUM CLOCK OSCILLATORS

FEATURES

- Reduce EMI by >12 dBc without changing your board layout.
- Drop-in replacement.
- Operates with a 1.8V Supply Voltage.
- Applications: Medical devices, Wireless LAN, Hand-held ID readers, SDCs,...

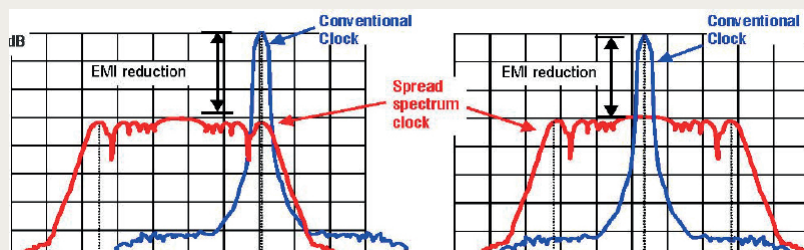
5.0 x 3.2 x 1.3 mm



Item	Specification		
Frequency Range	12.5 MHz ~ 42.0 MHz		
Spread Type (see options)	Total %	Down Spread (D)	Center Spread (C)
Spread Percentage (see options)	0.5%	-0.50%	±0.25%
	1%	-1%	±0.5%
	2%	-2%	±1.0%
EMI Reduction (Reduction is applied to the entire spectrum)	-12 dB typical (0.5% Spread) -16 dB typical (1% Spread) -18 dB typical (2% Spread)		
Modulation Carrier Frequency (Dither rate)	10 kHz min. ; 47 kHz max. Frequency dependent		
Output Logic	CMOS		
Overall Frequency Stability *	± 25 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	+1.8V ±0.15V		
Supply Current Idd	2 mA ~ 5 mA		
Output Level	VOH ≥ 0.9 Vdd	VOL ≤ 0.1 Vdd	
Output Load	15 pF		
Symmetry	40 / 60 %		
Rise Time / Fall Time Fr/Ff	2.5 ns max.		
Tri-state function	pin #1 = high or open pin #1 = low	pin #3 = oscillation pin #3 = high impedance	
Start-up Time	5 ms max.		
Cycle-to-cycle jitter	±100 ps max.		
Packing Unit	3000pcs / reel		
Soldering Condition	260°C , 10 sec x2 max		

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

MODULATION TYPES

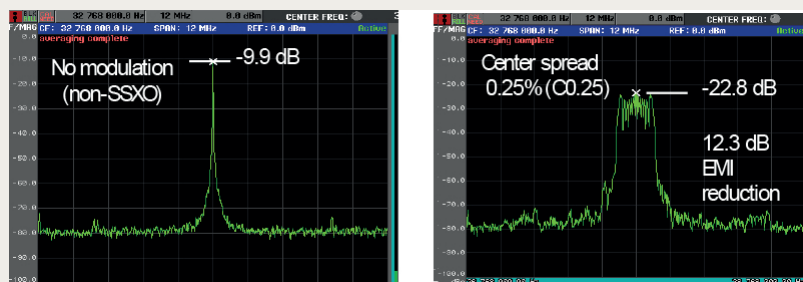


OPTIONS & ORDERING INFORMATION

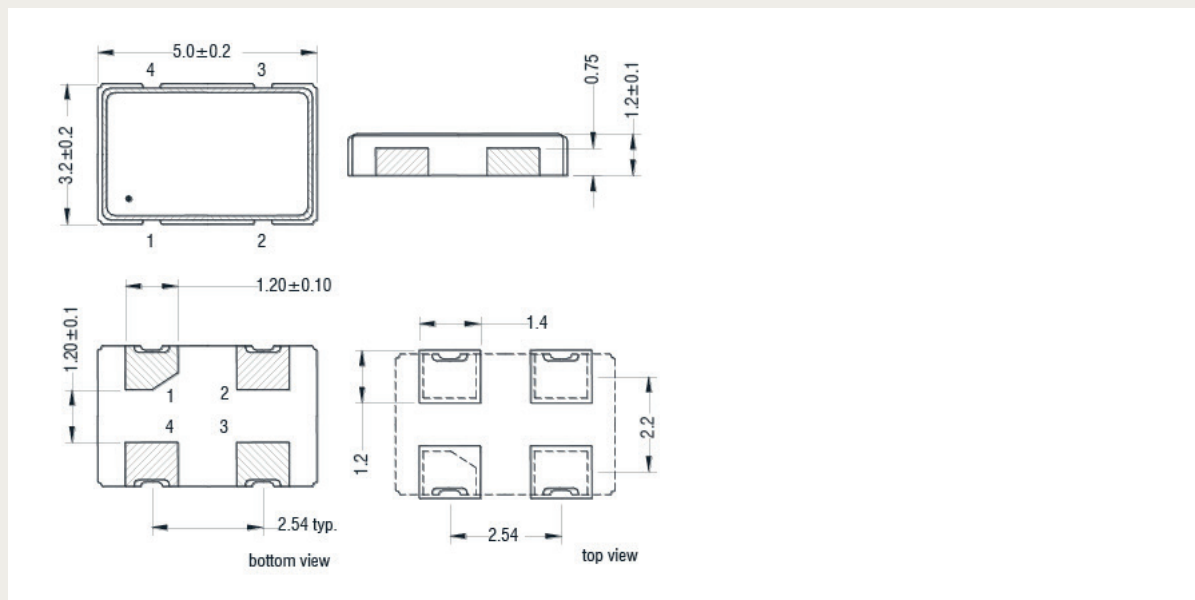
SX5SSF MHz
	Supply Voltage	Operating Temp.	Overall Stability	Tri-state Function	Spread Type	Frequency in MHz
	18 = +1.8V	E = 0° / +70°C K = -40° / +85°C	25 = ±25 ppm 50 = ±50 ppm 100 = ±100 ppm	E = Tri-state	D05 = Down Spread 0.5% D10 = Down Spread 1% D20 = Down Spread 2% C025 = Center Spread 0.5% C05 = Center Spread 1% C10 = Center Spread 2%	Please specify the frequency in MHz

If over-clocking is a problem to your system, please choose down spread

Example: 32.768 MHz at No Modulation and at
Center Spread 0.25 % : 12.3 dBc EMI reduction



OUTLINE DIMENSIONS



Pin Connections	#1 : E/D	#2 : GND	#3: Output	#4 : Vdd
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