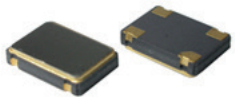
SX3SSF LOW EMI SPREAD SPECTRUM CLOCK OSCILLATORS

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,…

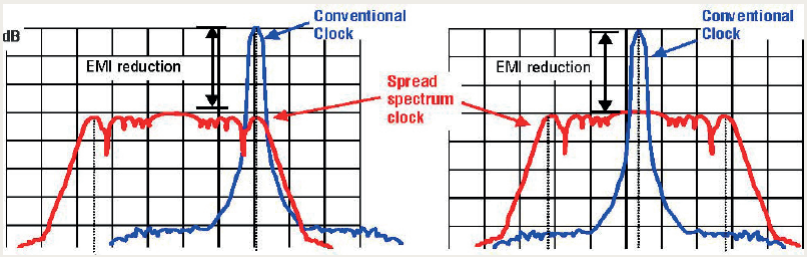
3.2 x 2.5 x 1.1 mm



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% 1% 2%	-0.50% -1% -2%	±0.25% ±0.5% ±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

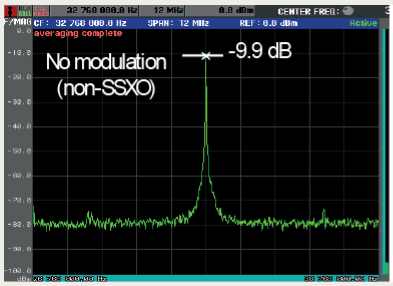


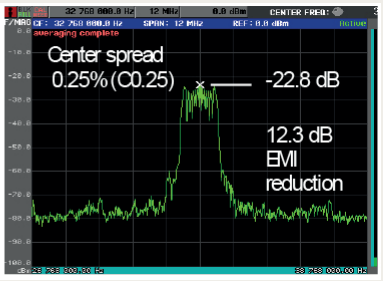
OPTIONS & ORDERING INFORMATION

SX3SSF	.....	.....	.....	.....	..... -	..... 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

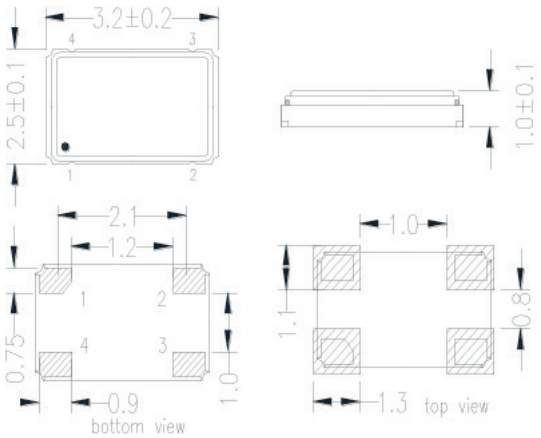
If over-clocking is a problem to your system, please choose down spread

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