

SX5SS

LOW EMI SPREAD SPECTRUM CLOCK OSCILLATORS

FEATURES

- Reduce EMI by >15 dBc without changing your board layout.
- Drop-in replacement.
- Wide frequency range.
- Applications: GPS, Wireless LAN, Mobile phone, SDCs,...

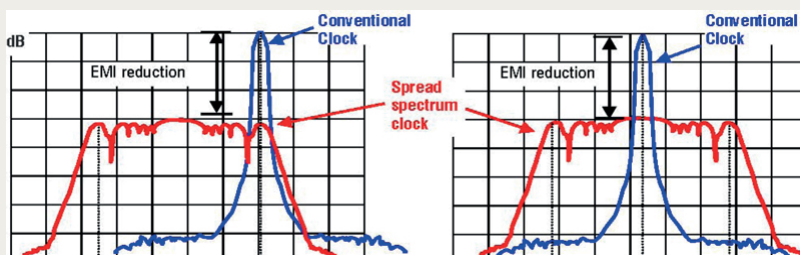
5.0 x 3.2 x 1.3 mm



Item	Specification		
Frequency Range	6.0 MHz ~ 200.0 MHz		
Spread Type (see options)	Total %	Down Spread (D)	Center Spread (C)
Spread Percentage (see options)	1%	-1%	±0.5%
	3%	-3%	±1.5%
EMI Reduction (Reduction is applied to the entire spectrum)	-9 dBc min. 100 MHz at Center Spread 0.5% -15 dBc min. 100 MHz at Center Spread 1.5% With respect to the dB level when no modulation.		
Modulation Carrier Frequency (Dither rate)	6.9 kHz min. ; 55.5 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	+3.3V ±5%		
Supply Current Idd	7 mA ~ 20 mA		
Output Level	VOH ≥ 0.9 Vdd	VOL ≤ 0.1 Vdd	
Output Load	15 pF		
Symmetry	45 / 55 %		
Rise Time / Fall Time Fr/Ff	4 ns max.		
Tri-state function	pin #1 = high or open pin #1 = low	pin #3 = oscillation pin #3 = high impedance	
Start-up Time	10 ms max.		
Cycle-to-cycle jitter	±250 ps typical ; ±300 ps max.		
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

MODULATION TYPES

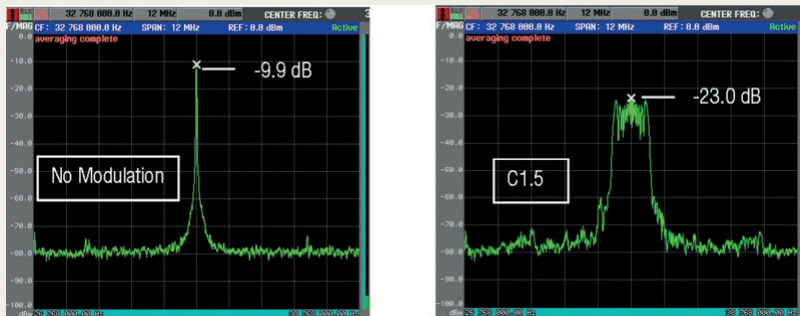


OPTIONS & ORDERING INFORMATION

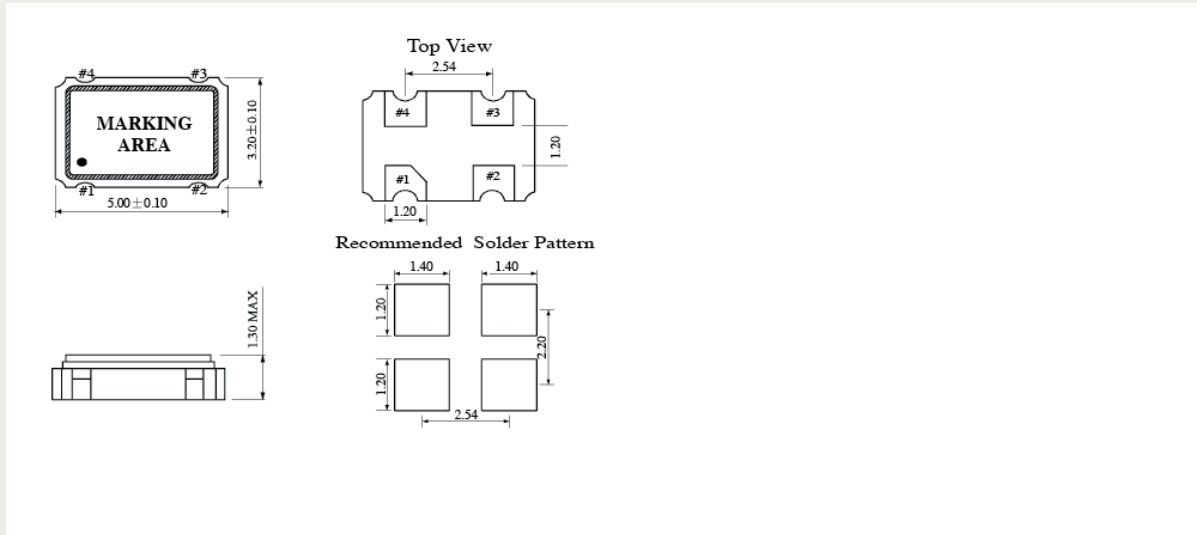
SX5SS MHz
Supply Voltage	Operating Temp.	Overall Stability	Tri-state Function	Spread Type	Frequency in MHz	
33 = +3.3V	E = 0° / +70°C K = -40° / +85°C	25 = ±25 ppm 50 = ±50 ppm 100 = ±100 ppm	E = Tri-state	D1 = Down Spread 1% D3 = Down Spread 3% C0.5 = Center Spread 1% C1.5 = Center Spread 3%	Please 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 1.5 % : 13.1 dBc EMI reduction



OUTLINE DIMENSIONS



Pin Connections

#1 : E/D

#2 : GND

#3: Output

#4 : Vcc