

## SX3SS

## 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,...

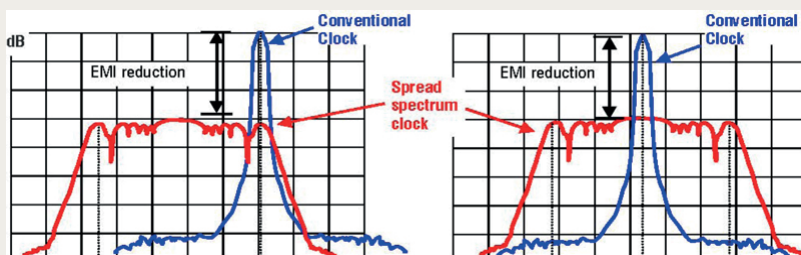
3.2 x 2.5 x 1.0 mm



Item	Specification		
Frequency Range	6.0 MHz ~ 200.0 MHz		
Spread Type ( see options )	Total %	<b>Down Spread ( D )</b>	<b>Center Spread ( C )</b>
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	+1.8V ±10%	+2.5V ±10%	+3.3V ±10%
Supply Current Idd	7 mA ~ 35 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.		
Packing Unit	1000pcs / reel		
Soldering Condition	260°C , 10 sec x2 max		
	<b>Customer specifications on request</b>		

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

### MODULATION TYPES

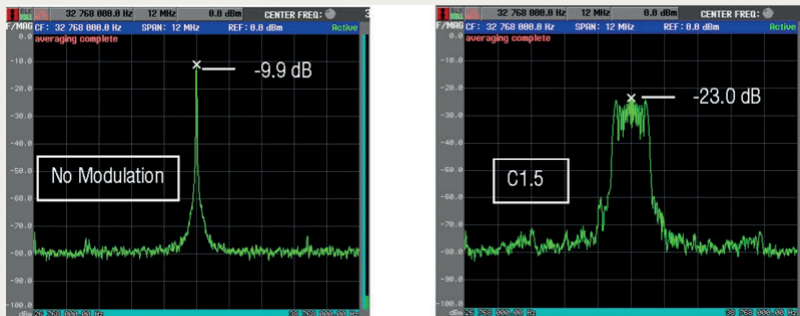


## OPTIONS & ORDERING INFORMATION

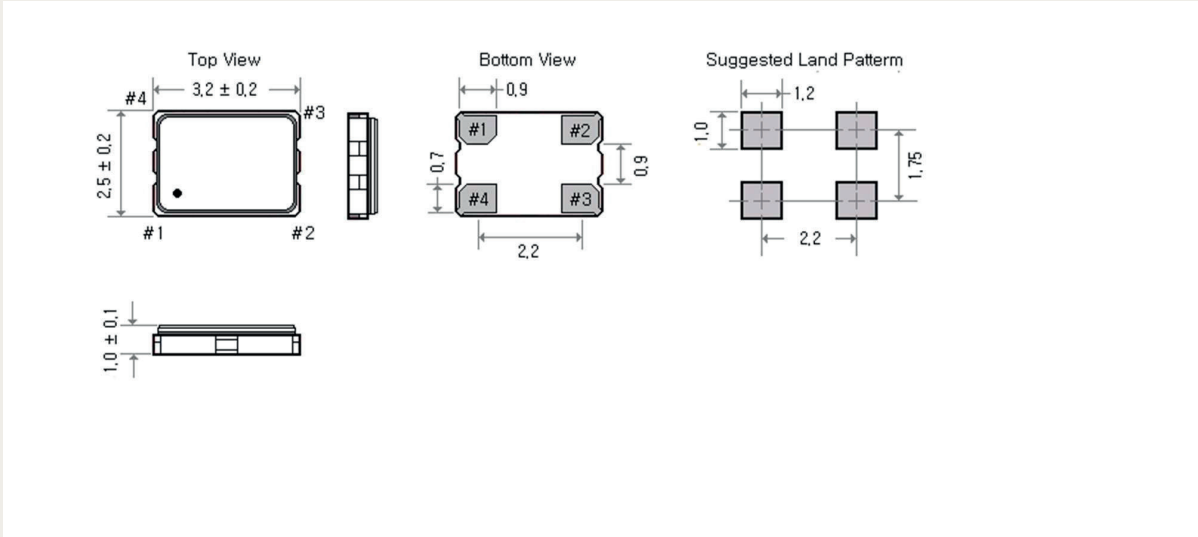
Supply Voltage	Operating Temp.	Overall Stability	Tri-state Function	Spread Type	Frequency in MHz
18 = +1.8V	E = 0° / +70°C	25 = ±25 ppm	E = Tri-state	D1 = Down Spread 1%	Please specify the frequency in MHz
25 = +2.5V	K = -40° / +85°C	50 = ±50 ppm		D3 = Down Spread 3%	
33 = +3.3V		100 = ±100 ppm		C0.5 = Center Spread 1%	
				C1.5 = Center Spread 3%	

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