Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

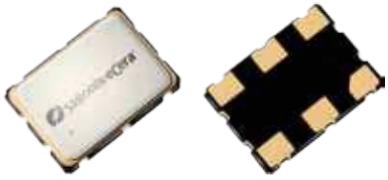
SaRonix-eCera™

ASSP XO™

Application Specific Crystal Oscillator 7.0 x 5.0mm

3.3V PECL Low Jitter 150MHz SAS-2 XO

SNSAS2150



ASSP XO™ for Networking

7.0 x 5.0mm Ceramic SMD

Product Features

- Very low phase jitter - 0.5ps RMS
- Thicker crystal for improved reliability
- Pb-free & RoHS compliant
- Industrial temperature range

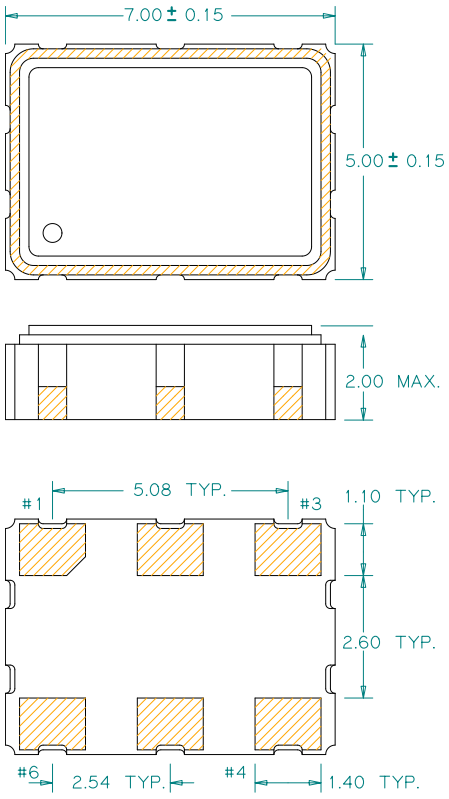
Product Description

The SN series 3.3V, 150MHz crystal clock oscillator achieves superb jitter for Serial Attached SCSI (SAS-1 & SAS-2) applications. The output clock signal, generated internally with a patented oscillator design, is compatible with LVPECL logic levels. The device, available on tape and reel, is contained in a 7.0 x 5.0mm surface-mount ceramic package.

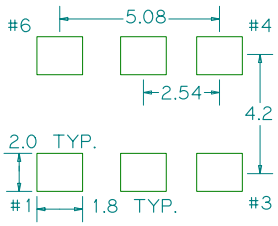
Applications

- SAS-2 Host Bus Adapter (HBA)
- SAS-2 Expander
- SAS-2 RAID System

Package:



Recommended Land Pattern:



Pin Functions:

Pin	Function
1	OE
2	NC
3	V_{EE}
4	Q Output
5	$\overline{Q}$ Output
6	V_{CC}

*Extended high frequency power decoupling is recommended (see test circuit for minimum recommendation). To ensure optimal performance, do not route RF traces beneath the package.

Part Ordering Information:

SNSAS2150

Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		150		MHz	
Supply Voltage	2.97	3.30	3.63	V	
Supply Current, Output Enabled		45	70	mA	
Supply Current, Output Disabled			25	mA	
Frequency Stability			±50	ppm	See Note 1 below
Operating Temperature Range	-20		+70	°C	
Output Logic 0, V_{OL}			V_{CC} – 1.620	V	0 to +85°C
			V_{CC} – 1.555	V	-40 to 0°C
Output Logic 1, V_{OH}	V_{CC} – 1.025			V	0 to +85°C
	V_{CC} – 1.085			V	-40 to +0°C
Output Load	50Ω to V_{CC} – 2V				output requires termination
Duty Cycle	45		55	%	Measured 50% V_{DD}
Rise and Fall Time		0.3	0.6	ns	Measured 20/80% of waveform
Jitter, Phase RMS (1-σ)		0.2	0.5	ps	12 kHz to 20 MHz frequency band
Jitter, pk–pk		35	50	ps	100,000 random periods

Notes:
1. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (5 year at 40°C average effective ambient temperature), shock and vibration.
2. For specifications othere than those listed, please contact sales.

Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	2.2			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.8	V	Outputs disabled to Hi-Z
Internal Pullup Resistance	50			kΩ	
Output Disable Delay			200	ns	
Output Enable Delay			10	ms	

Absolute Maximum Ratings

Parameter	Min.	Typ.	Max.	Units	Notes
Storage Temperature	-55		+125	°C	

For the latest product information visit: http://www.pericom.com/products/timing/oscillators/SNSAS2150/

For test circuit go to: http://www.pericom.com/pdf/sre/tc_pecl.pdf

For soldering reflow profile and reliability test ratings go to: http://www.pericom.com/pdf/sre/reflow.pdf

For typical phase noise go to: http://www.pericom.com/pdf/sre/pn_SNSAS2150.pdf

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_7050.pdf