

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

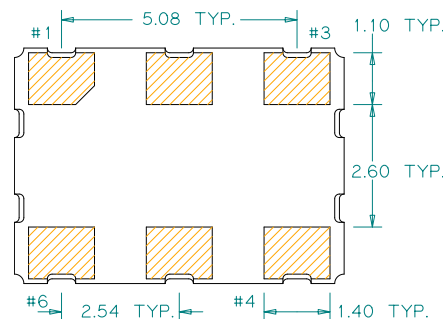
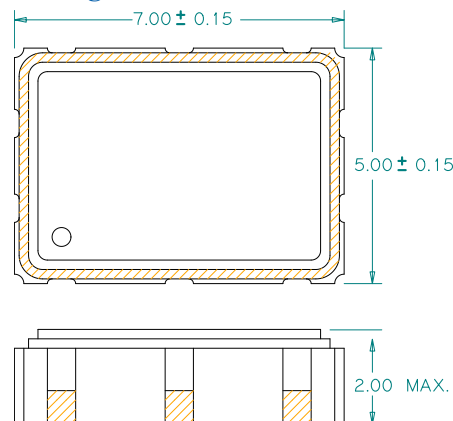
Product Description

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.

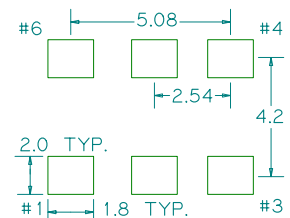
Applications

- 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	\bar{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, VOL			V _{CC} - 1.620	V	0 to +85°C
			V _{CC} - 1.555	V	-40 to 0°C
Output Logic 1, VOH	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:

- 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.
- For specifications other 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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [Diodes Incorporated](#) manufacturer:

Other Similar products are found below :

[601252](#) [F335-12](#) [F335-25](#) [F535L-33.333](#) [F535L-50](#) [ASV-20.000MHZ-LR-T](#) [ECS-2018-160-BN-TR](#) [EL13C7-H2F-125.00M](#) [MXO45HS-2C-66.6666MHZ](#) [SiT8209AI-32-33E-125.000000](#) [SM4420TEV-40.0M-T1K](#) [F335-24](#) [F335-40](#) [F535L-10](#) [F535L-16](#) [F535L-24](#) [F535L-27](#) [F535L-48](#) [PE7744DW-100.0M](#) [CSX-750FCC14745600T](#) [ASF1-3.686MHZ-N-K-S](#) [XO57CTECNA3M6864](#) [ECS-2100A-147.4](#) [601251](#) [EP16E7E2H26.000MTR](#) [SIT8918AA-11-33S-16.000000G](#) [XO3003](#) [9120AC-2D2-33E212.500000](#) [9102AI-243N25E100.00000](#) [8208AC-82-18E-25.00000](#) [ASDK2-32.768KHZ-LR-T3](#) [8008AI-72-XXE-24.545454E](#) [8004AC-13-33E-133.33000X](#) [AS-4.9152-16-SMD-TR](#) [ASFL1-48.000MHZ-LC-T](#) [SIT8920AM-31-33E-25.0000](#) [DSC1028DI2-019.2000](#) [9121AC-2C3-25E100.00000](#) [9102AI-233N33E100.00000X](#) [9102AI-233N25E200.00000](#) [9102AI-232H25S125.00000](#) [9102AI-133N25E200.00000](#) [9102AC-283N25E200.00000](#) [9001AC-33-33E1-30.0003921AI-2CF-33NZ125.000000](#) [5730-1SF](#) [PXA000010](#) [SIT1602BC-83-33E-10.000000Y](#) [8003AI-12-33S-40.00000Y](#) [1602BI-13-33S-19.200000E](#)