

3.3V CMOS Low-Jitter 25 MHz SASx/SATAx

FKSSD1025



3.2 x 2.5mm Ceramic SMD

ASSP XO™ Storage



Product Features

- Very low Pk to Pk jitter - 50ps Max
- Low output current - 10mA Max
- Low power standby mode
- RoHS Compliant

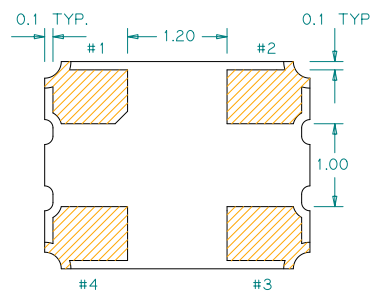
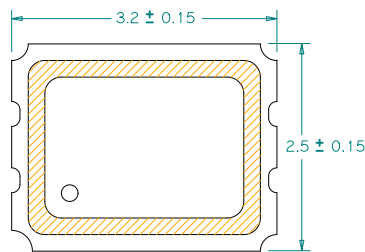
Product Description

This is an enhanced 3.3V, 25MHz crystal clock oscillator with superb jitter and low operating current for Solid State Drive reference clock applications.

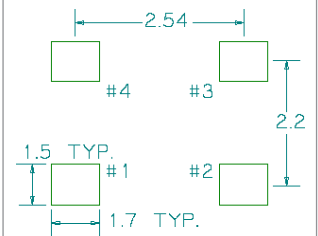
Applications

- Solid State Drive (SSD)

Package:



Recommended Land Pattern:



Pin Functions:

Pin	Function
1	OE Function
2	Ground
3	Clock Output
4	V _{DD}

*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:
FKSSD1025

Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		25.0		MHz	
Supply Voltage V _{DD}	2.97	3.3	3.63	V	
Supply Current, Output Enabled			10	mA	
Supply Current, Output Disabled			10	μA	
Frequency Stability			±25	ppm	See Note 1 below
Operating Temperature Range	-10		+70	°C	
Output Logic 0, V _{OL}			10% V _{DD}	V	
Output Logic 1, V _{OH}	90% V _{DD}			V	
Output Load			15	pF	
Duty Cycle	45		55	%	Measured 50% V _{DD}
Rise and Fall Time			10	ns	Measured 20/80% of waveform
Jitter, pk-pk			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 (1 year at 25°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	0.7 V _{DD}			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V _{DD}	V	Output is Hi-Z
Internal Pullup Resistance	30			kΩ	
Output Disable Delay			100	ns	
Output Enable Delay		0.1	1	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/FKSSD1025/>

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

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

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_3225_xo.pdf