

# PSE Technology Corporation

## SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

NOMINAL FREQUENCY 125.000000 MHz


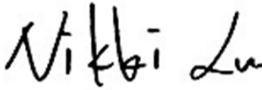
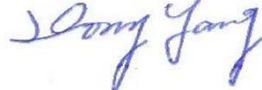
PRODUCT TYPE TYPE PX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

SPEC. NO. ( P/N ) PXC500007

CUSTOMER P/N \_\_\_\_\_

ISSUE DATE June 14, 2016

VERSION B

APPROVED	PREPARED	QA
		
APPROVED BY CUSTOMER :		AVL Status
Please return one copy with approval to PSE-TW		

### PSE Technology Corporation

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<http://www.saronix-ecera.com.tw>

- \*Pb-free
- \*RoHS Compliant
- \*HF-Halogen Free
- \*REACH Compliant

\*\*\* A company of  PERICOM Semiconductor Corporation \*\*\*



# TYPE PX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

**PXC500007**

VER. B 14-Jun-16

## ELECTRICAL SPECIFICATIONS

**SRe Part Number : PXC500007**

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	125.000000	MHz	
Frequency Stability	FT	± 50	ppm	**See note
Operating Temperature Range	TR	-20 to +70	°C	
Supply Voltage	V <sub>CC</sub>	+3.3 ± 10.0%	V	
Logic Type	LT	LVDS		
Supply Current, Output Enabled	I <sub>CC</sub> /OE	75	mA	Max.
Supply Current, Output Disabled	I <sub>CC</sub> /OD	30	uA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T <sub>R</sub> /T <sub>F</sub>	850	ps	Max. measured 20/80% of Waveform
Output Voltage "0" Level	V <sub>OL</sub>	0.90	V	Min.
Output Voltage "1" Level	V <sub>OH</sub>	1.60	V	Max.
Output Amplitude Differential	V <sub>pp</sub>	500 / 900	mV	Min. / Max. p-p
Output Load		100Ω & 5pF LVDS		
Jitter, Peak to Peak	Pk-Pk	25	ps	Max. 100,000 Random Periods
Start Up Time		10	ms	Max.
Storage Temperature Range		-55 to +125	°C	

※ This product doesn't include harmful substance that stipulated by SONY SS-00259 Level 1 and S-AT2-001 Level 1 standard. RoHS Compliant (Pb - Free).

**\*\*Stability includes all combinations of Operating Temperature, Load changes, rated Input (Supply) Voltage changes, Initial Calibration Tolerance (25°C), Aging (5 years at 40°C Average Effective Ambient Temperature), Shock and Vibration.**

### Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	0.7V <sub>CC</sub>			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.3V <sub>CC</sub>	V	Output is Hi-Z
Output Disable Delay			200	ns	
Output Enable Delay			2	ms	

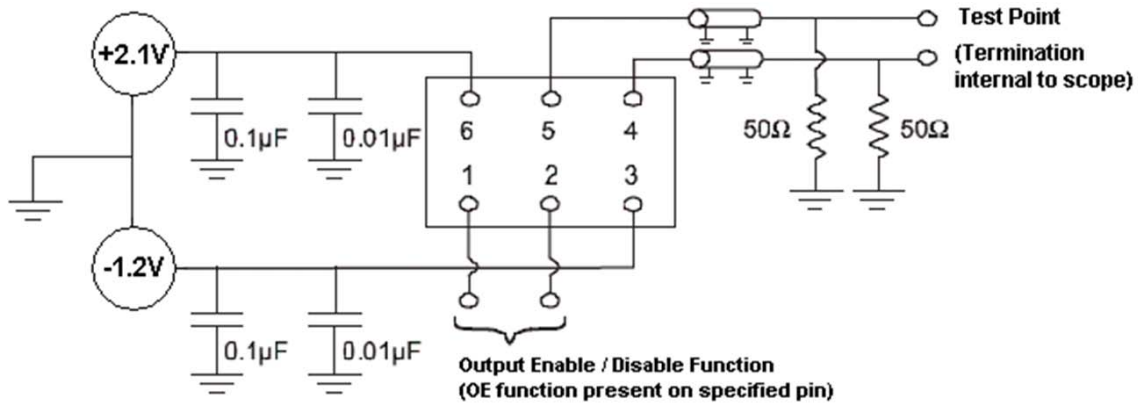


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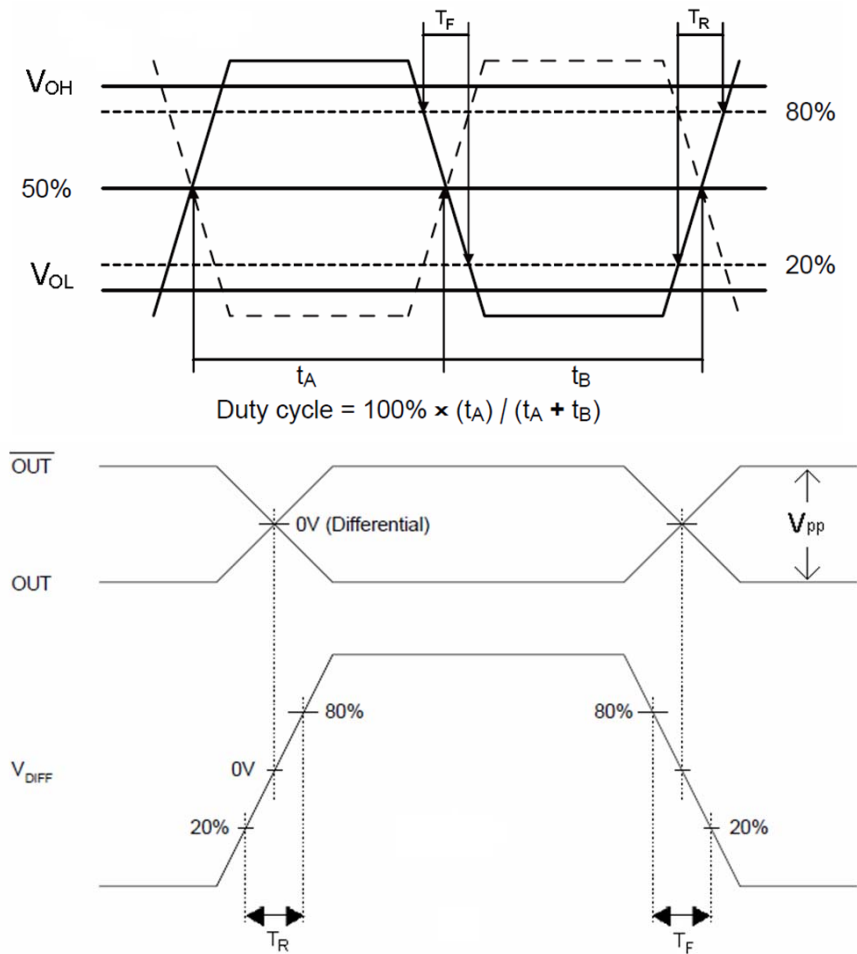
**PXC50007**

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## TEST CIRCUIT



## OUTPUT WAVEFORM



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## RELIABILITY SPECIFICATIONS

### ENVIRONMENTAL:

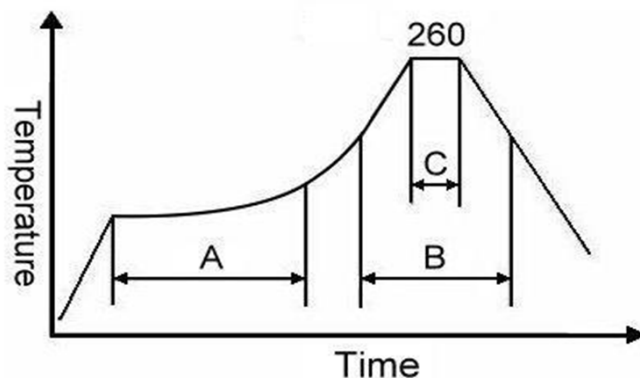
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb - free and RoHS/ Green Compliant.

### MECHANICAL:

- a) SHOCK: MIL-STD-883, Method 2002, Condition B
- b) SOLDERABILITY: JESD22-B102-D Method 2 (Preconditioning E)
- c) TERMINAL STRENGTH: MIL-STD-883, Method 2004, Test Condition D
- d) GROSS LEAK: MIL-STD-883, Method 1014, Condition C
- e) FINE LEAK: MIL-STD-883, Method 1014, Condition A2,  $R1=2 \times 10^{-8}$  atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

## SUGGESTED IR REFLOW PROFILE

\*As per IPC-JEDEC J-STD-020D



Note:

	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

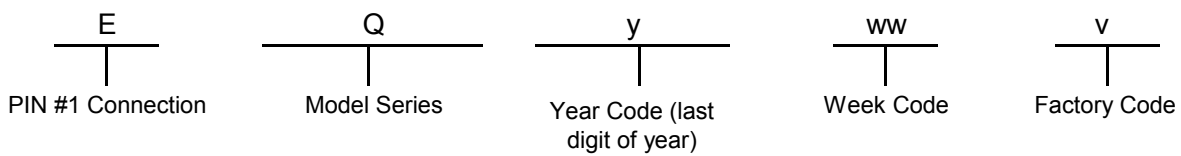
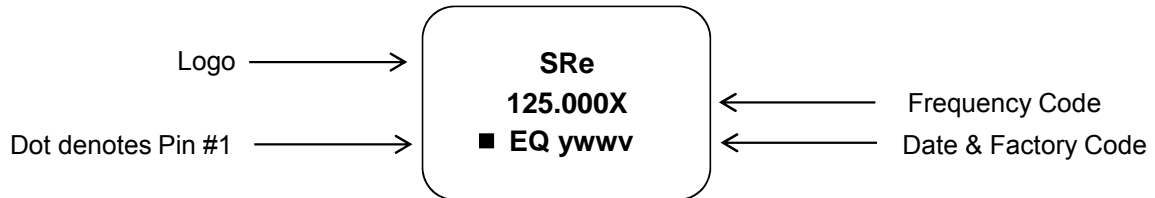
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

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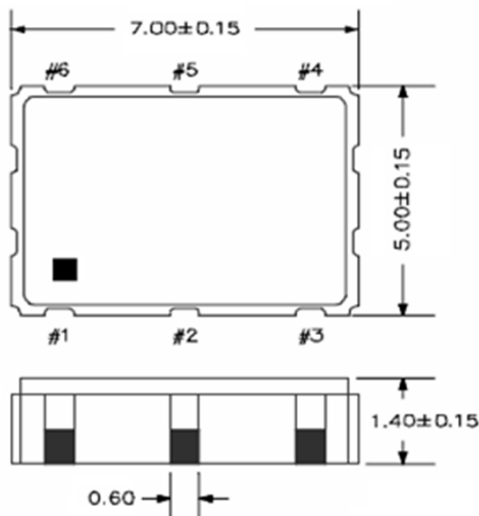
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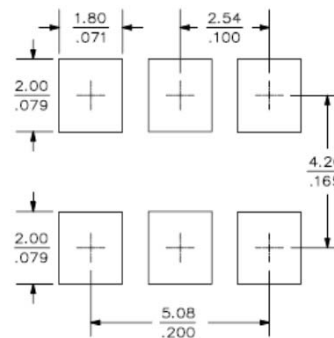
## MARKING



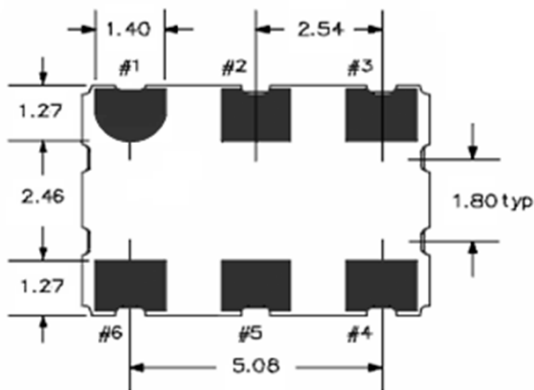
## MECHANICAL DRAWINGS ( Scale: None. Dimensions are in mm.)



### Recommended Land Pattern\*



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



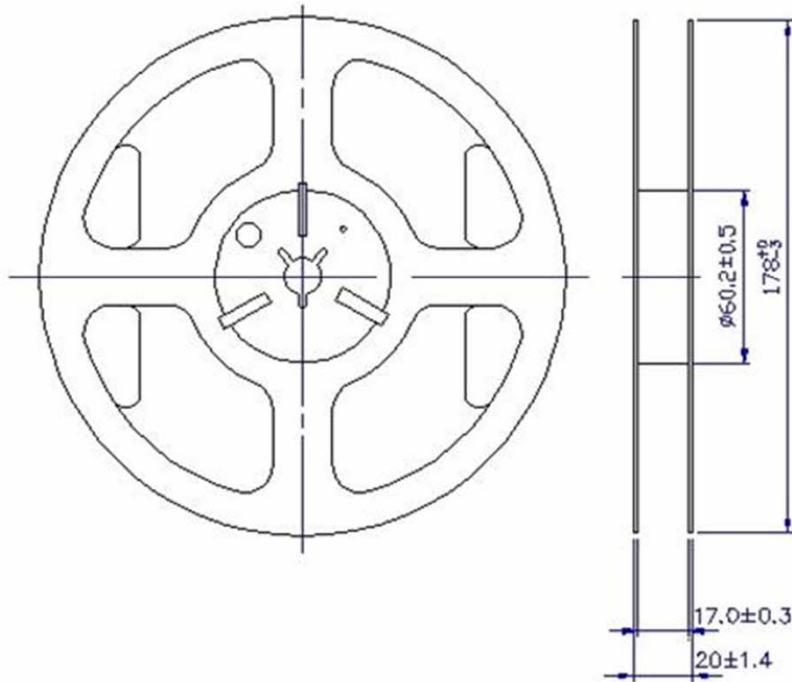
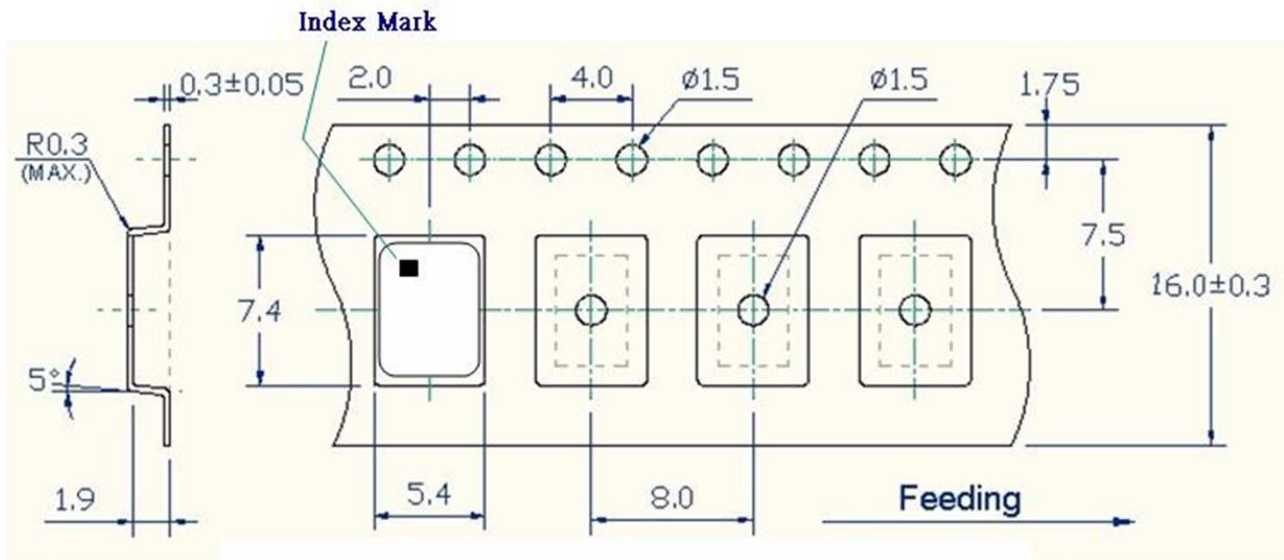
Pin	Function
1	EN
2	NC
3	V <sub>EE</sub>
4	OUTPUT
5	OUTPUT N
6	V <sub>CC</sub>

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## TAPE & REEL



1. 230mm minimum leafer which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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## PACKING

