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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!



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## PSE Technology Corporation

### SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

NOMINAL FREQUENCY 180.550000 MHz




PRODUCT TYPE TYPE UX 5.0x3.2 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

SPEC. NO. ( P/N ) UX5210501Z

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

ISSUE DATE January 22, 2015

VERSION 01

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

#### PSE Technology Corporation

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\*RoHS Exception  
\*HF-Halogen Free  
\*REACH Compliant

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

## TYPE UX 5.0x3.2 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

***UX52I0501Z***

VER. 01      22-Jan-15

## VERSION HISTORY

[illegible]

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**UX52I0501Z**

VER. 01 22-Jan-15

## ELECTRICAL SPECIFICATIONS

**SRe Part Number : UX52I0501Z**

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	180.550000	MHz	
Frequency Stability	FT	± 50	ppm	**See note
Operating Temperature Range	TR	-40 to +85	°C	
Supply Voltage	V <sub>CC</sub>	+3.3 ± 10.0%	V	
Logic Type	LT	LVPECL		
Supply Current, Output Enabled	I <sub>CC</sub> /OE	80	mA	Max.
Supply Current, Output Disabled	I <sub>CC</sub> /OD	10	mA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T <sub>R</sub> /T <sub>F</sub>	0.85	ns	Max. measured 20/80% of Waveform
Output Voltage "0" Level	V <sub>OL</sub>	V <sub>CC</sub> -1.620V	V	Max.
Output Voltage "1" Level	V <sub>OH</sub>	V <sub>CC</sub> -1.025V	V	Min.
Output Load		50Ω to V <sub>CC</sub> -2V		
Jitter, Phase	RMS	0.2	ps	Typ. 12KHz ~ 20MHz Frequency Band
Jitter, Accumulated	RMS(1-σ)	8	ps	Typ. 20,000 Consecutive Periods
Jitter, Peak to Peak	Pk-Pk	50	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 (1 year at 25°C Average Effective Ambient Temperature), Shock and Vibration.**

### Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	2			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.8	V	Output is Hi-Z
Internal Pullup Resistance	50			KΩ	
Output Disable Delay			100	ns	
Output Enable Delay			100	ns	

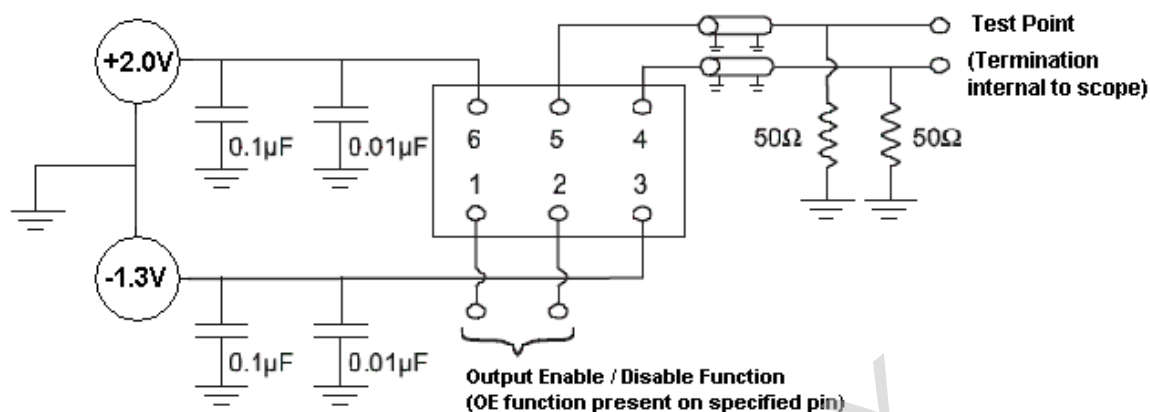


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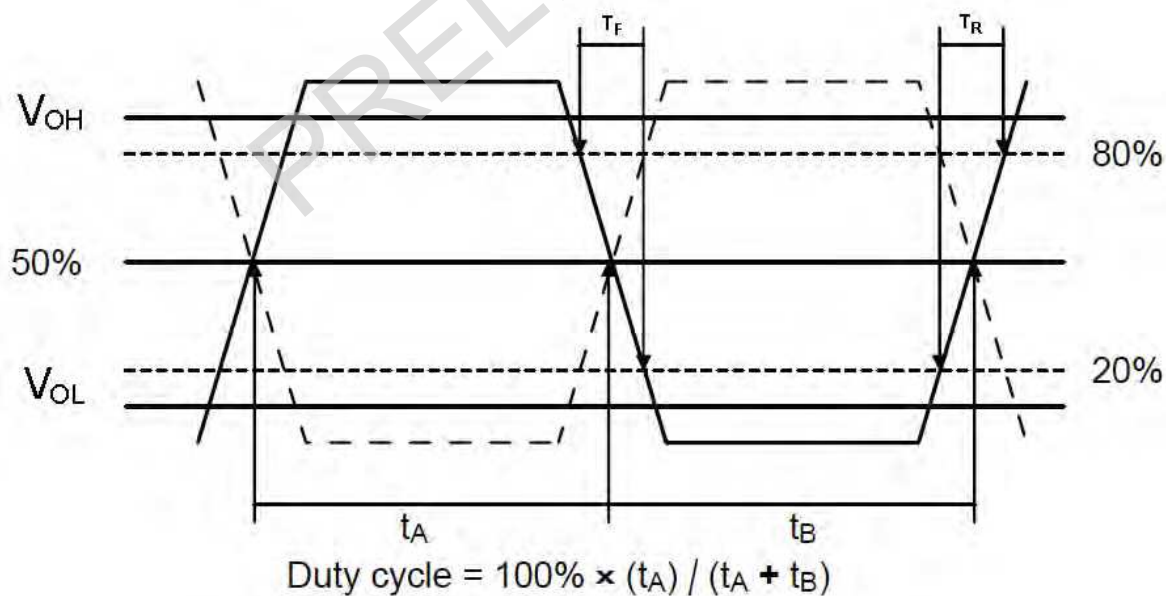
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## TEST CIRCUIT



## OUTPUT WAVEFORM



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## RELIABILITY SPECIFICATIONS

### ENVIRONMENTAL:

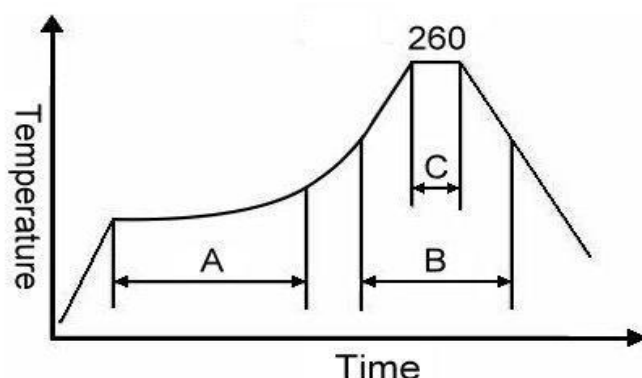
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: RoHS Compliant by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

### 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

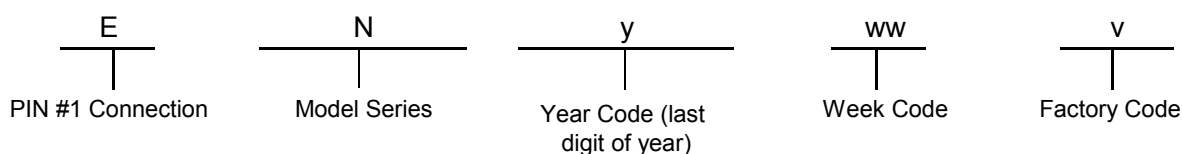
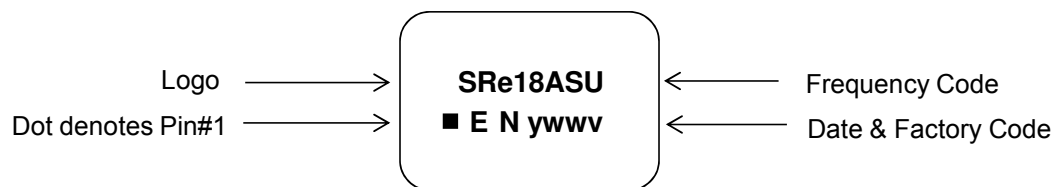
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

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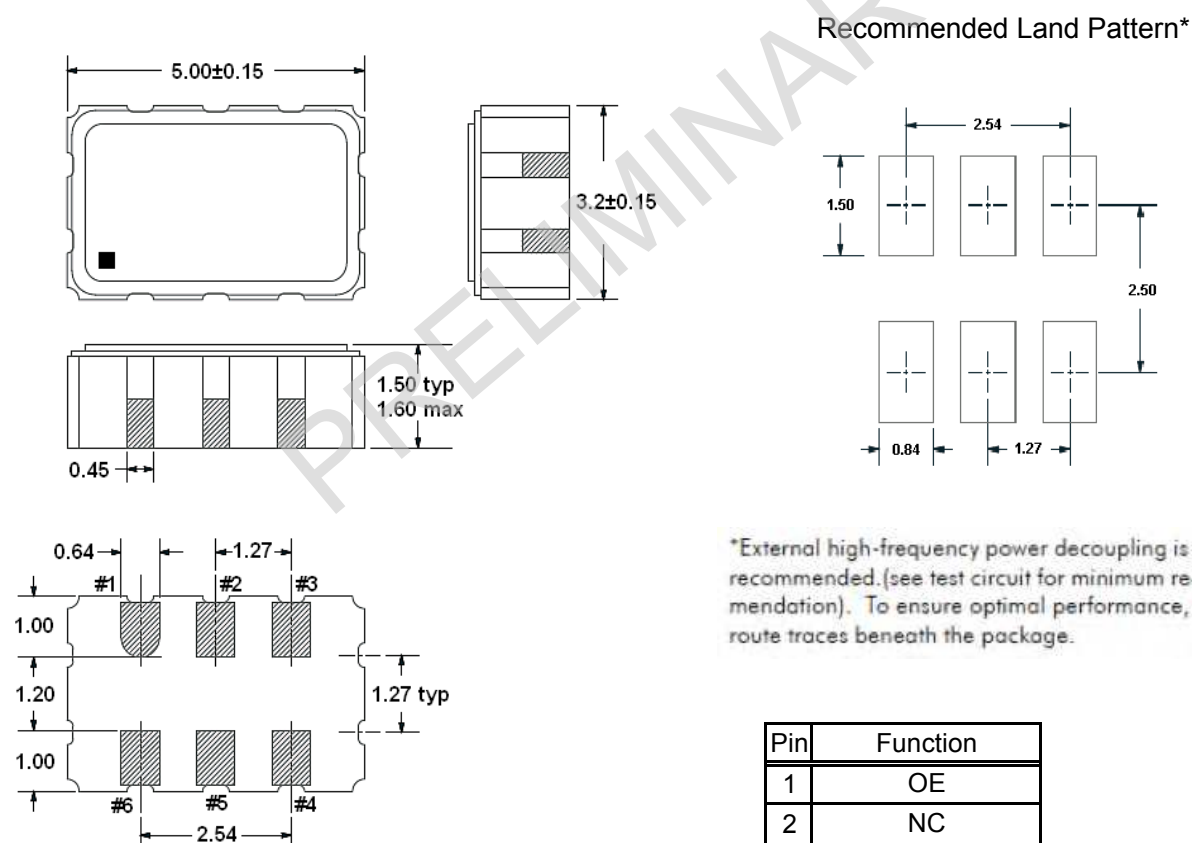
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## MARKING



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



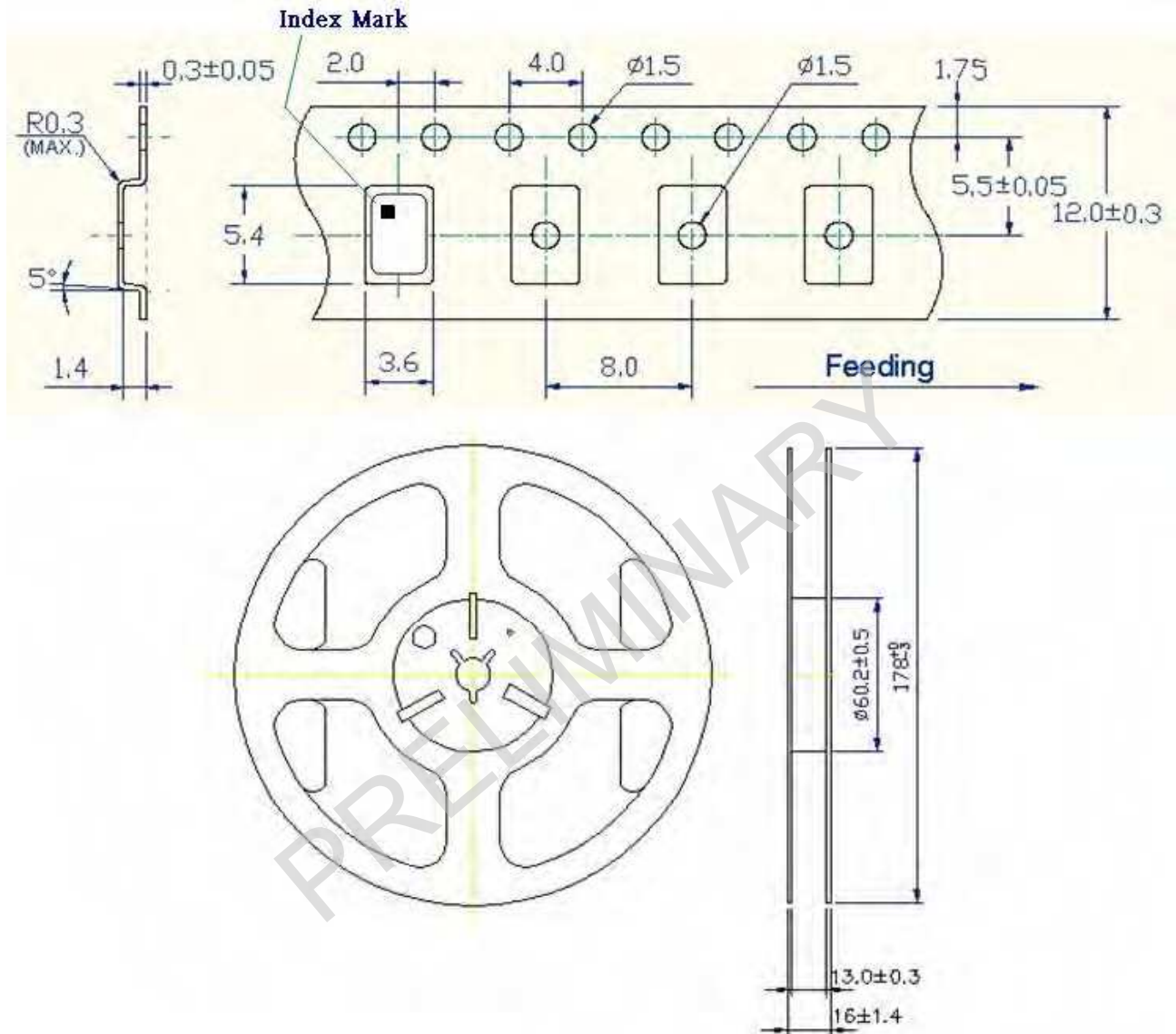
Pin	Function
1	OE
2	NC
3	V <sub>EE</sub>
4	OUTPUT
5	OUTPUT N
6	V <sub>CC</sub>

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## TAPE&REEL



1. 230mm minimum leader 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

