

PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER	_____
NOMINAL FREQUENCY	156.250000 MHz
PRODUCT TYPE	TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR
SPEC. NO. (P/N)	UX72F6214Z
CUSTOMER P/N	_____
ISSUE DATE	May 14, 2014
VERSION	A

APPROVED	PREPARED	QA
<i>Brenda</i>	<i>Nikbi Lu</i>	<i>Becky Lin</i>
APPROVED BY CUSTOMER :		AVL Status
Please return one copy with approval to PSE-TW		

PSE Technology Corporation

No.2, Tzu-Chiang 5th Rd, Chung Li Industrial Park,
 Chung Li City, Taoyuan County, Taiwan (R.O.C.)
 TEL: 886-3-451-8888
 FAX: 886-3-461-3865
<http://www.saronix-ecera.com.tw>

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

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

TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX72F6214Z

VER. A 14-May-14

ELECTRICAL SPECIFICATIONS

SRe Part Number : UX72F6214Z

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	F ₀	156.250000	MHz	
Frequency Stability	FT	± 50	ppm	**See note
Operating Temperature Range	TR	-40 to +85	°C	
Supply Voltage	V _{CC}	+3.3 ± 10.0%	V	
Logic Type	LT	LVPECL		
Supply Current, Output Enabled	I _{CC} /OE	85	mA	Max.
Supply Current, Output Disabled	I _{CC} /OD	100	µA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T _R /T _F	0.35	ns	Max. measured 20/80% of Waveform
Output Voltage "0" Level	V _{OL}	V _{CC} -1.620V	V	Max.
Output Voltage "1" Level	V _{OH}	V _{CC} -1.025V	V	Min.
Output Load		50Ω to V _{CC} -2V		
Jitter, Phase	RMS	0.07 / 0.1	ps	Typ. / Max. 12KHz ~ 20MHz Frequency Band
Jitter, Accumulated	RMS(1-σ)	4	ps	Typ. 20,000 Consecutive Periods
Jitter, Peak to Peak	Pk-Pk	30	ps	Max. 100,000 Random Periods
Start Up Time	ST	2	ms	Max. To 90% of final amplitude
Storage Temperature Range		-55 to +125	°C	

****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	0.8V _{CC}			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.2V _{CC}	V	Output is Hi-Z
Internal Pullup Resistance	30			KΩ	
Output Disable Delay			200	ns	

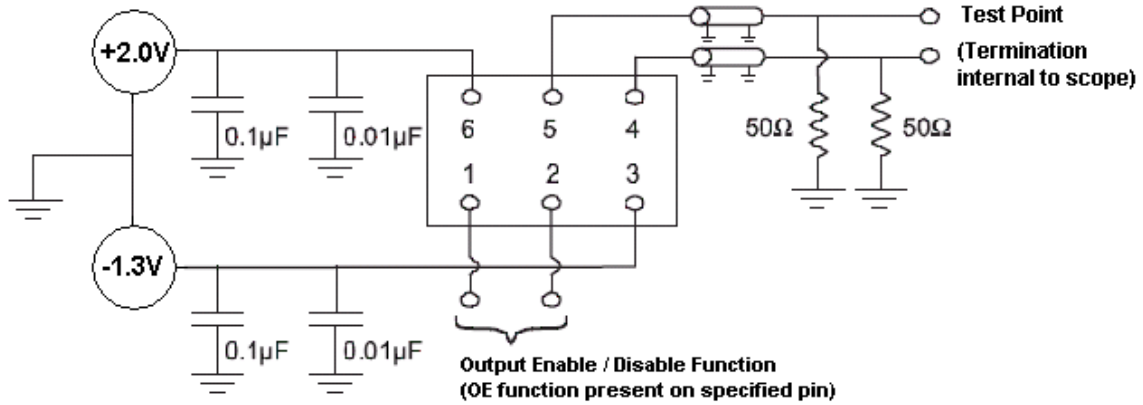


TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

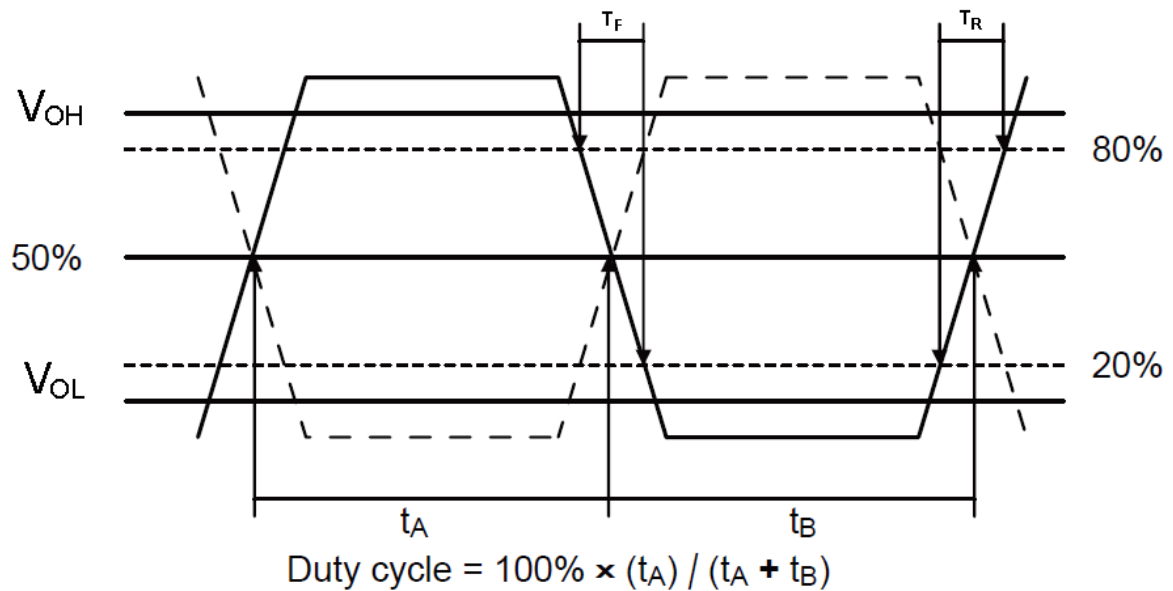
UX72F6214Z

VER. A 14-May-14

TEST CIRCUIT



OUTPUT WAVEFORM



TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX72F6214Z

VER. A 14-May-14

RELIABILITY SPECIFICATIONS

ENVIRONMENTAL:

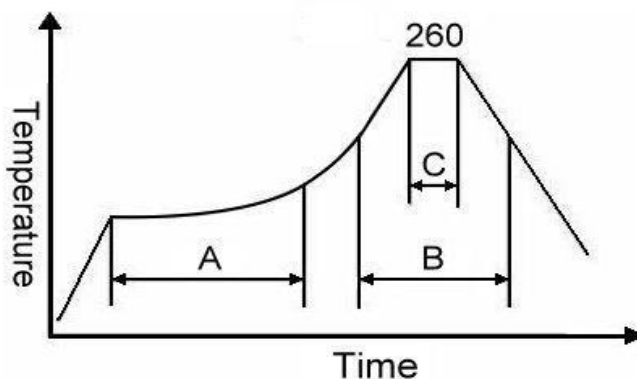
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb free, RoHS Compliant

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

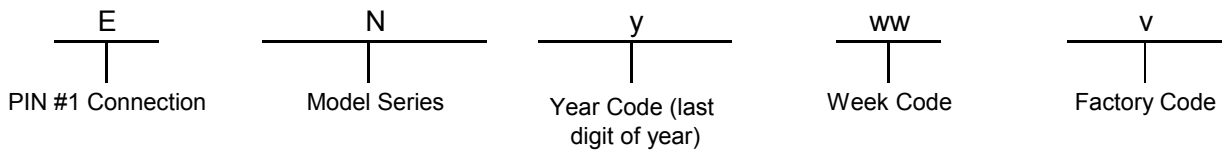
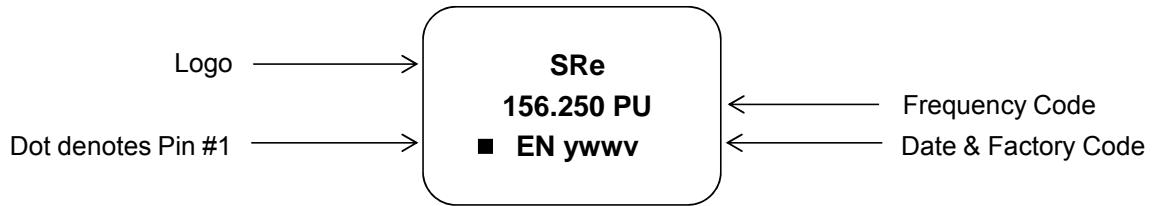
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

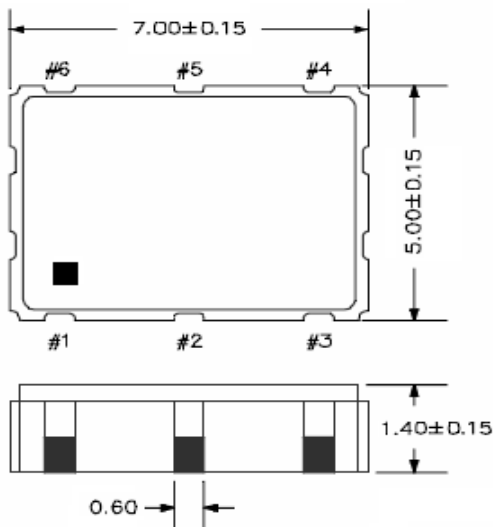
UX72F6214Z

VER. A 14-May-14

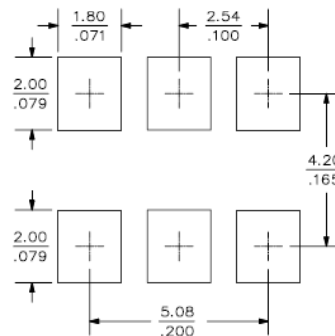
MARKING



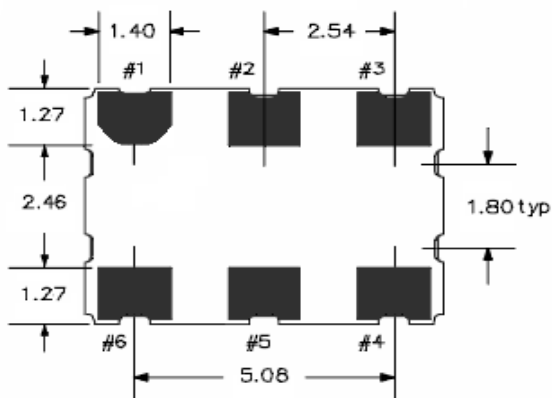
MECHANICAL DRAWINGS (Scale:None. Dimensions are in mm.)



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.



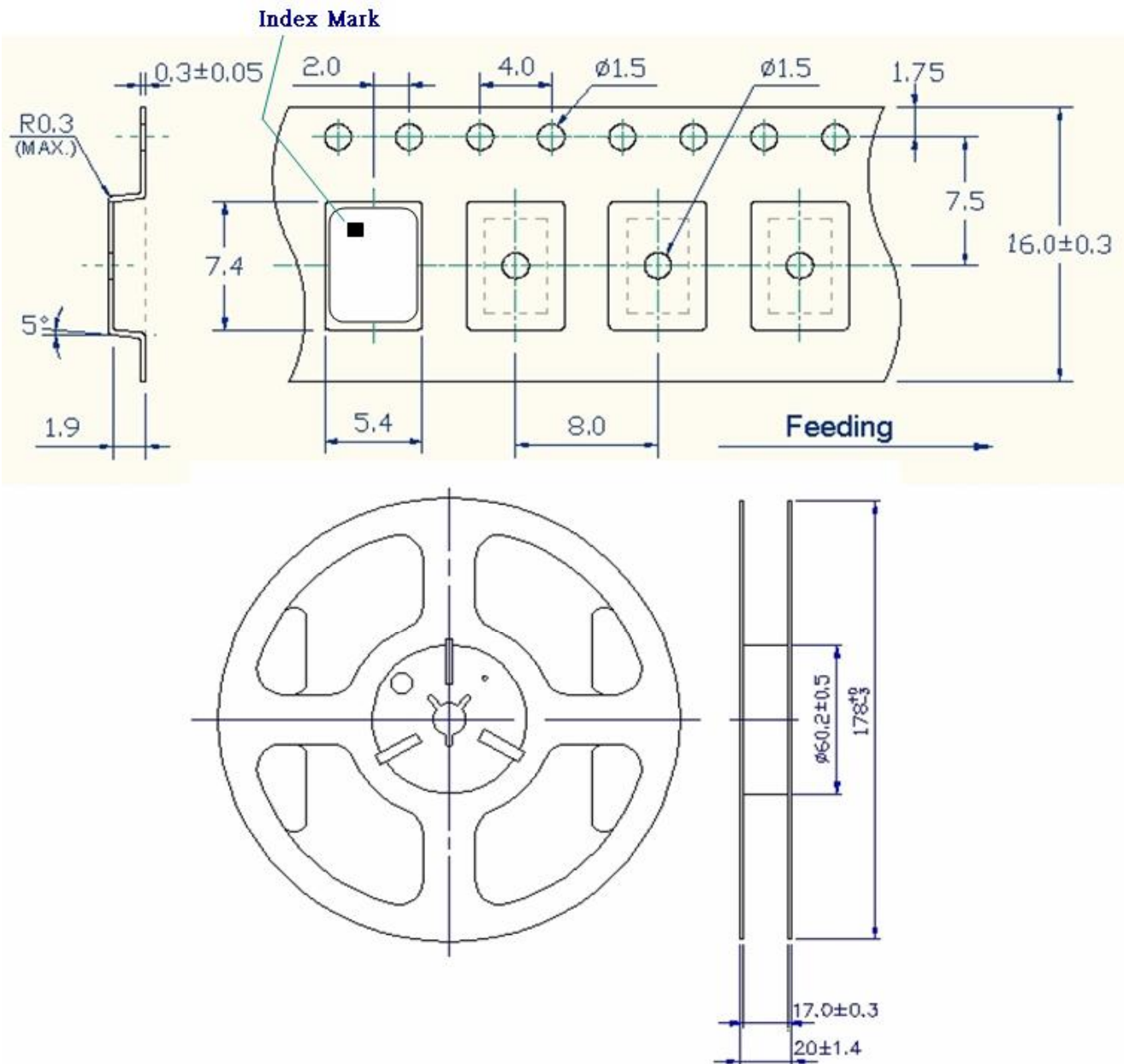
Pin	Function
1	OE
2	NC
3	V _{EE}
4	OUTPUT
5	OUTPUT N
6	V _{CC}

TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX72F6214Z

VER. A 14-May-14

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.

TYPE UX 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX72F6214Z

VER. A 14-May-14

PACKING

