

PSE Technology Corporation SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	19.200000 MHz
PRODUCT TYPE	TYPE FL 3.2x2.5 SEAM SEALED CRYSTAL
SPEC. NO. (P/N)	FL1920031
CUSTOMER P/N	
ISSUE DATE	March 31, 2011
VERSION	С

APPROVED	PREPARED	QA
Alan Yang	Brenda	Canten
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 ***

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VERSION HISTORY

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
А	Nov.23,2010			Initial Release	
В	Mar.28,2011			Changed Max Drive Level from 100μW to 150μW & C0 from 5pF max to 1pF typ & TS from 17.5ppm/pF to 16ppm/pF typ.	
С	Mar.31,2011			Changed Aging from ±3ppm to ±2ppm	

E0-R-4-014 Rev. E

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ELECTRICAL SPECIFICATIONS

ltem	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	19.200000	MHz	
Mode of Oscillation	МО	AT Cut-Fundamental		
Calibration Load Capacitance	CL	8.5	pF	
Calibration Tolerance	FL	±10	ppm	at 25°C±3°C
Operating Temperature Range	TR	-20 to +70	°C	
Frequency Stability (Frequency Deviation over the Operating Temperature Range)	F/T	±10	ppm	Reference to the Frequency at 25°C
Operating Drive Level		10	μW	
Maximum Drive Level		150	μW	
Equivalent Series Resistance	ESR	50	Ω	Max.
Shunt Capacitance	C0	1	pF	Тур.
Trim Sensitivity	TS	16	ppm/pF	Тур.
Aging at 25°C		±2	ppm	Max, 1st year
Storage Temperature		-55 to +125	°C	
Insulation Resistance		500	МΩ	Min

* 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).

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RELIABILITY SPECIFICATIONS

MECHANICAL AND ENVIRONMENTAL RATINGS:

a) FINE LEAK TEST: JESD22-A109 (Condition 1A)

b) GROSS LEAK TEST: JESD22-A109 (Condition C)

c) MOISTURE RESISTANCE: JESD22-A113

d) SHOCK: JESD22-B104 (Condition B)

e) SOLDERABILITY: (RoHS version): J-STD-002

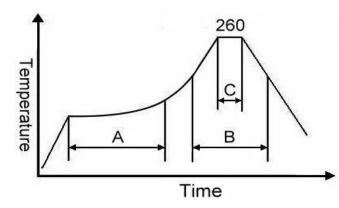
f) VIBRATION: JESD22-B103

g) SOLVENT RESISTANCE: JESD22-B107

h) RESISTANCE TO SOLDERING HEAT (RoHS version): J-STD-020D Table 5.2 Pb free devices (3 cycles max)

SUGGESTED IR REFLOW PROFILE

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



Note:				
	Stage	Temperature	Time	
Α	Preheat	150~200°C	60~120 Sec	
В	Primary Heat	217°C	60~150 Sec	
С	Peak	260°C	10 Sec	

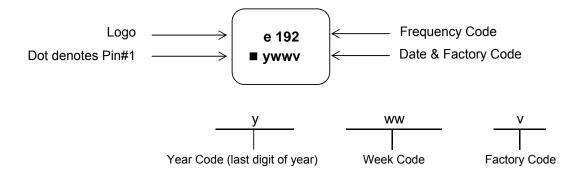
For soldering reflow profile and reliability test ratings go to: http://www.pericom.com/pdf/sre/reflow.pdf

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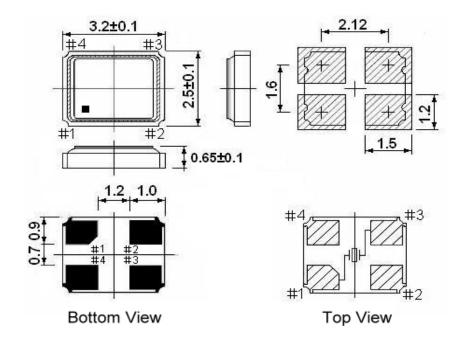
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MARKING



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



** Recommended - Pin 1 & 3 : CRYSTAL Pin 2 & 4 : GND

Note:

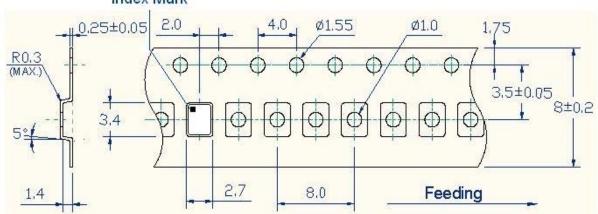
- 1. The marking dot denotes Pin#1.
- 2. Pin positions of the drawing is only for reference, and the Pin with chamfer is based on the real product.

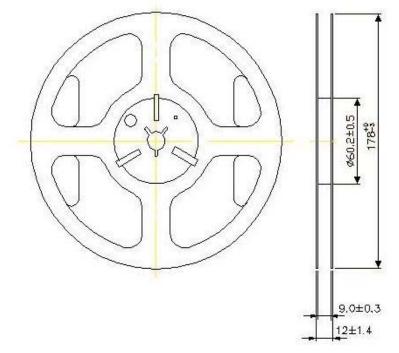
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Tape & Reel

Index Mark

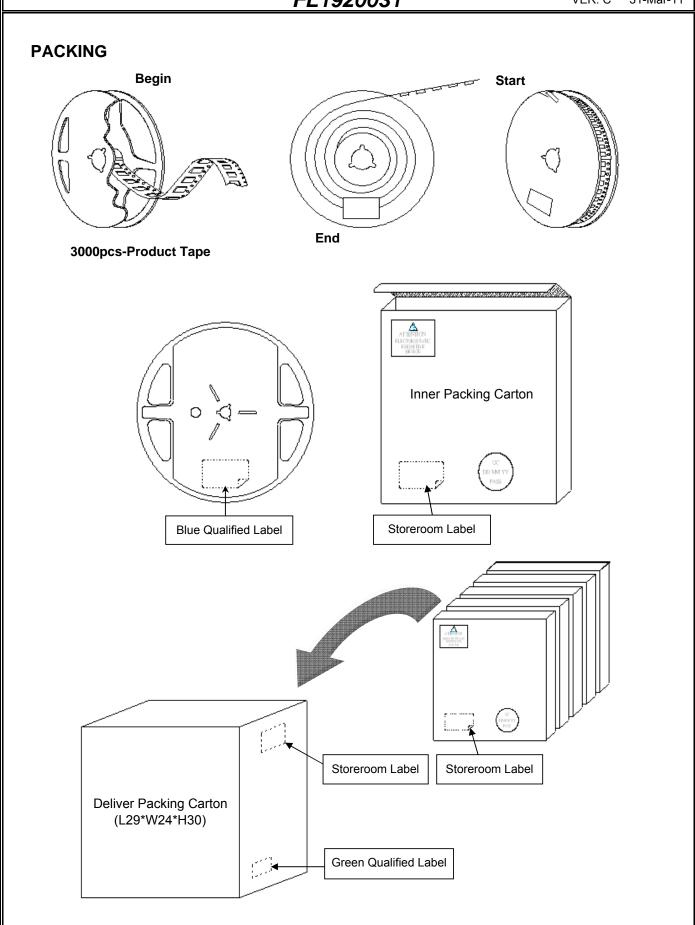




- 1. 230mm minimum leafer which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
- 2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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