



PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER _____

NOMINAL FREQUENCY _____ 38.400000 MHz _____

PRODUCT TYPE _____ TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL _____

SPEC. NO. (P/N) _____ FW384WFIN1 _____

CUSTOMER P/N _____

ISSUE DATE _____ June 22, 2016 _____

VERSION _____ A _____

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

PSE Technology Corporation

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

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

Pericom Internal Reference NO. FW3840024Z

TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

FW384WFIN1

VER. A 22-Jun-16

VERSION HISTORY

Verision No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
A	Jun.22,2016			Initial Release	

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FW384WFIN1

VER. A 22-Jun-16

ELECTRICAL SPECIFICATIONS

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	38.400000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	7	pF	
Calibration Tolerance	FL	±10	ppm	at 27°C±3°C
Operating Temperature Range	TR	-30 to +90	°C	
Frequency Stability (Frequency Deviation over the Operating Temperature Range)	F/T	±12	ppm	Reference to the Frequency at 27°C
Operating Drive Level		10	μW	
Maximum Drive Level		200	μW	Max.
Equivalent Series Resistance	ESR	60	Ω	Max
Shunt Capacitance	C0	2	pF	Max
Aging at 25°C		±3	ppm	Max, 1st year
Storage Temperature		-55 to +125	°C	
Insulation Resistance		500	MΩ	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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FW384WFIN1

VER. A 22-Jun-16

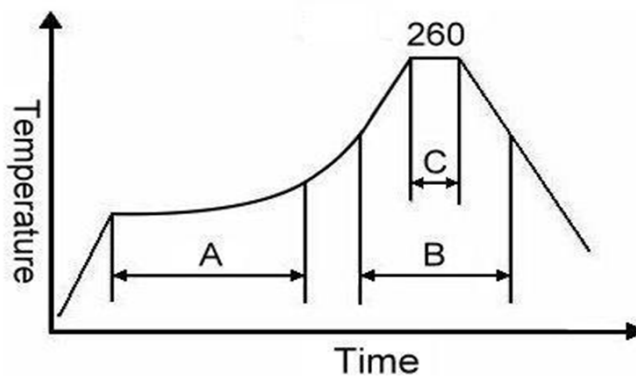
RELIABILITY SPECIFICATIONS

MECHANICAL AND ENVIRONMENTAL RATINGS:

- a) FINE LEAK TEST: JESD22-A109 (Condition 1A)
(3×10^{-9} Pa m³/s)
- 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
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

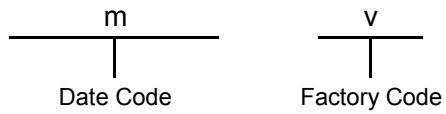
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

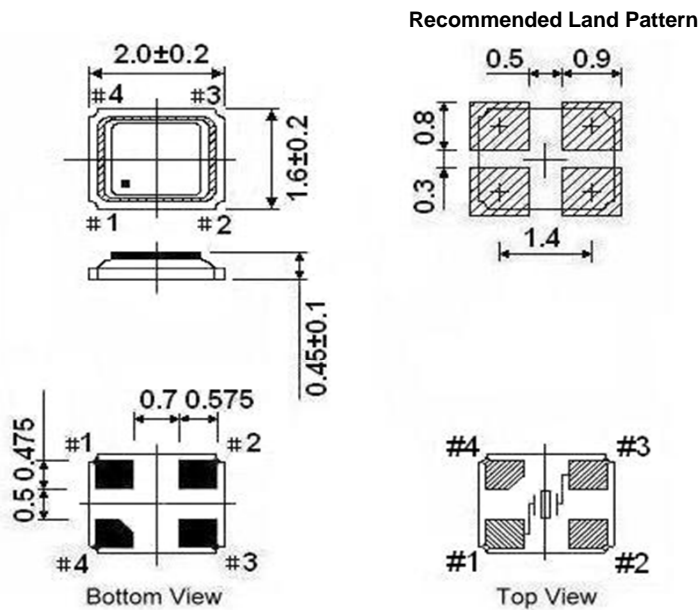
FW384WFIN1

VER. A 22-Jun-16

MARKING



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



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

Notes:

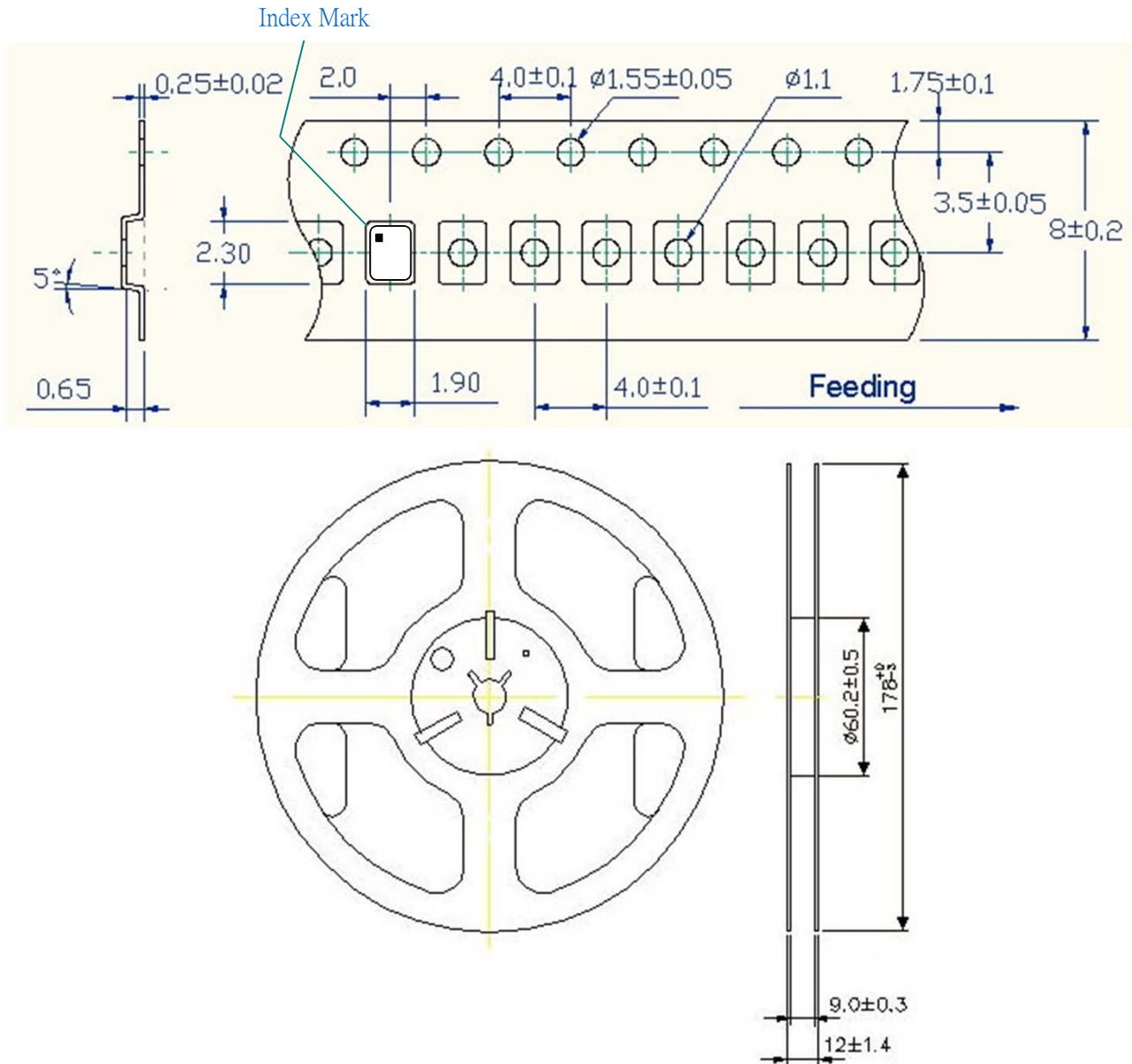
1. Package drawings are for reference only, and the appearances of objects may vary. Actual packages are based on the real product.
2. The marking dot denotes Pin#1.
3. The position and shape of the chamfer pin may vary and are based on the real product.

TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

FW384WFIN1

VER. A 22-Jun-16

Tape & Reel



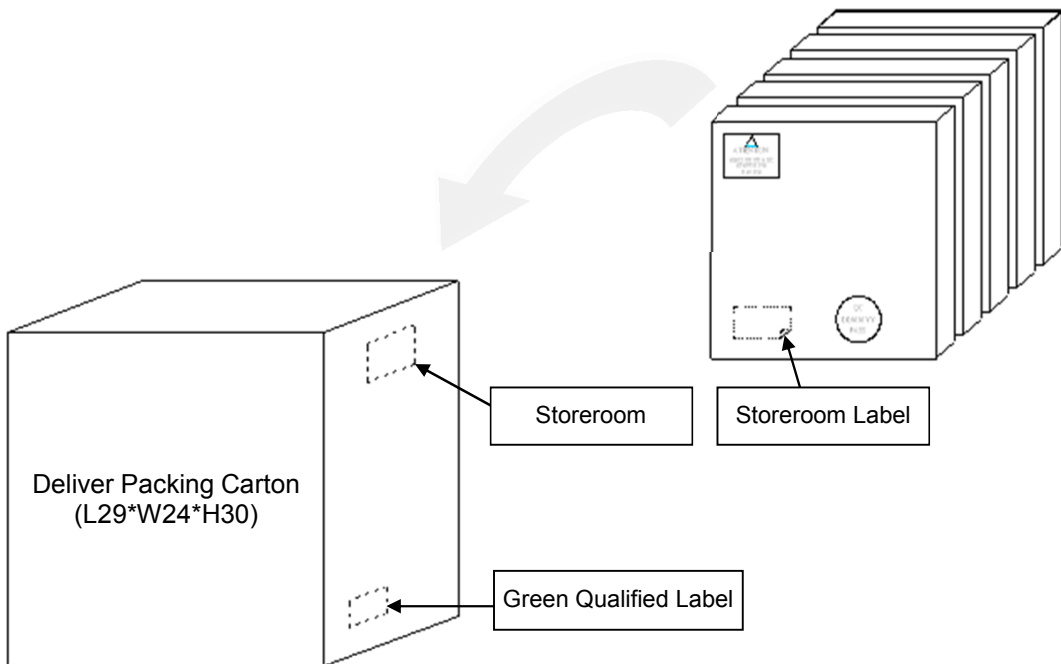
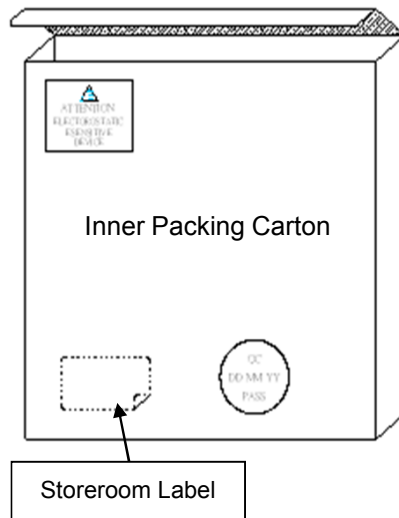
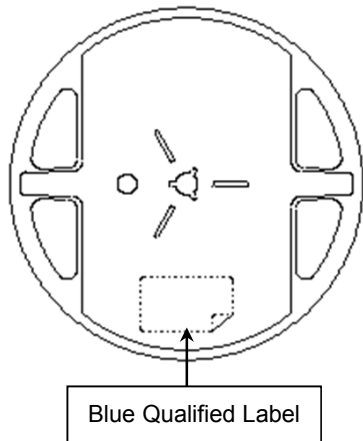
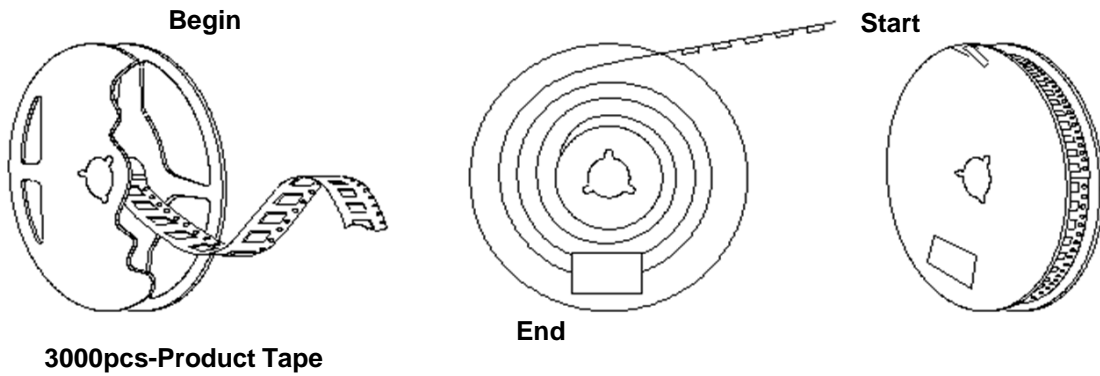
1. 230mm minimum leader which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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FW384WF1N1

VER. A 22-Jun-16

PACKING



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