PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	16.369000 MHz
PRODUCT TYPE	TYPE WT 3.2X2.5 TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR
SPEC. NO. (P/N)	WT325EP0016.369000
CUSTOMER P/N	
ISSUE DATE	November 10, 2012
VERSION	02

APPROVED	PREPARED	QA
Alan Yang	Brenda	Becky Lin
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* ***

Pericom Internal Reference NO. WT3516324A

VERSION HISTORY

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
01	Sep.28,2012			Initial Release	
02	Nov.10,2012			Changed SPEC. NO. (P/N) from WT3516324A to WT325EP0016.369000	

TYPE WT 3.2X2.5 TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

WT325EP0016.369000

VER. 02 10-Nov-12

ELECTRICAL SPECIFICATIONS

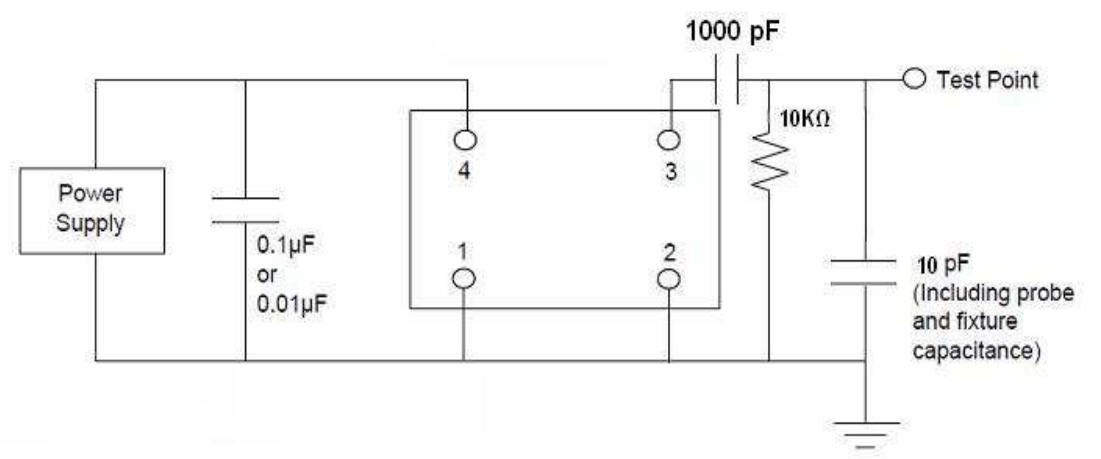
SRe Part Number : WT325EP0016.369000

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	16.369000	MHz	
Operating Temperature Range	TR	-40 to +85	°C	
Storage Temperature Range		-40 to +85	°C	
Supply Voltage	V_{DD}	+2.85 ± 5.0%	V	
Frequency Stability(-30°C to +85°C)	FT	± 0.5	ppm	vs. Temperature (Refer to the mid-point between minimum and maximum frequency values over the specified temperature range)
Frequency Stability(-40°C to -30°C)	FT	± 3	ppm	
Frequency Stability		± 0.2	ppm	vs. Load varied 10pF//10kΩ±10%
Frequency Stability		± 0.1	ppm	vs. Supply Voltage varied Vdd±5% at 25°C
Frequency Tolerance		± 2.0	ppm	Max. After 2 times reflow (Refer to nominal frequency)
Frequency Slope		± 0.3	ppm/°C	Max. (measurement every 2°C from -30°C to +85°C)
Static Temperature Hysteresis		± 0.6	ppm	Max.
Aging		±1	ppm	per year at 25°C
Logic Type	LT	Clipped Sinewave		
Supply Current	I_{DD}	2	mA	Max.
Start Up Time v.s Output Level		2.5	msec	Max, 90% of specified output level
Output Voltage		0.8 to 1.4	Vp-p	
Output Load Resistance		10	KΩ	9KΩ Min / 11KΩ Max
Output Load Capacitance		10	pF	9pF Min / 11pF Max
Harmonics		-7	dBc	Max.
Phase Noise		-130	dBc/Hz	Max, at 1kHz offset

※ 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).

PERICOM SaRonix-eCera

TEST CIRCUIT



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 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

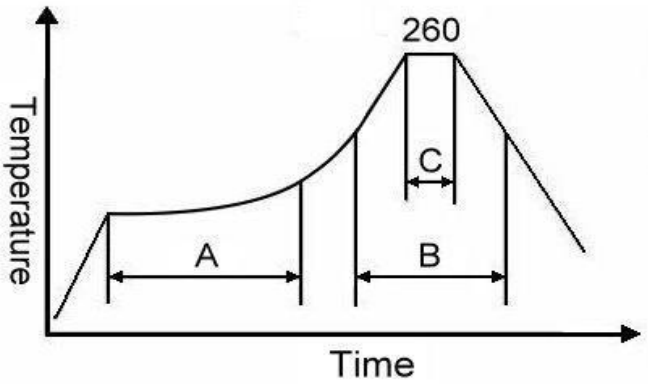
d) GROSS LEAK: MIL-STD-883, Method 1014, Condition C

e) FINE LEAK: MIL-STD-883, Method 1014, Condition A2, R1=2x10^{-8} atm cc/s

f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE

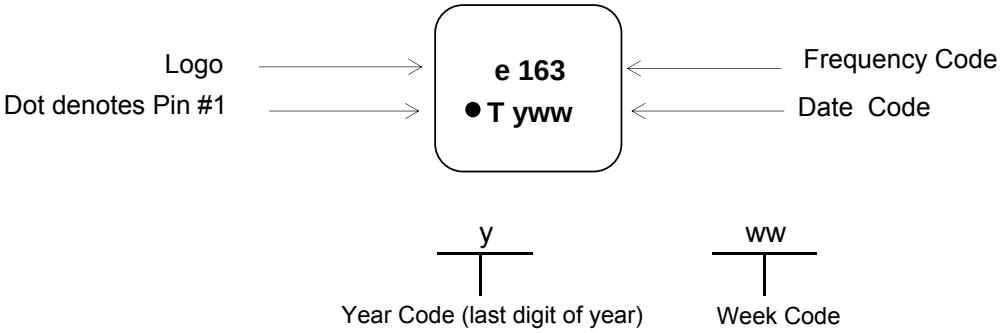
*As per IPC-JEDEC J-STD-020D



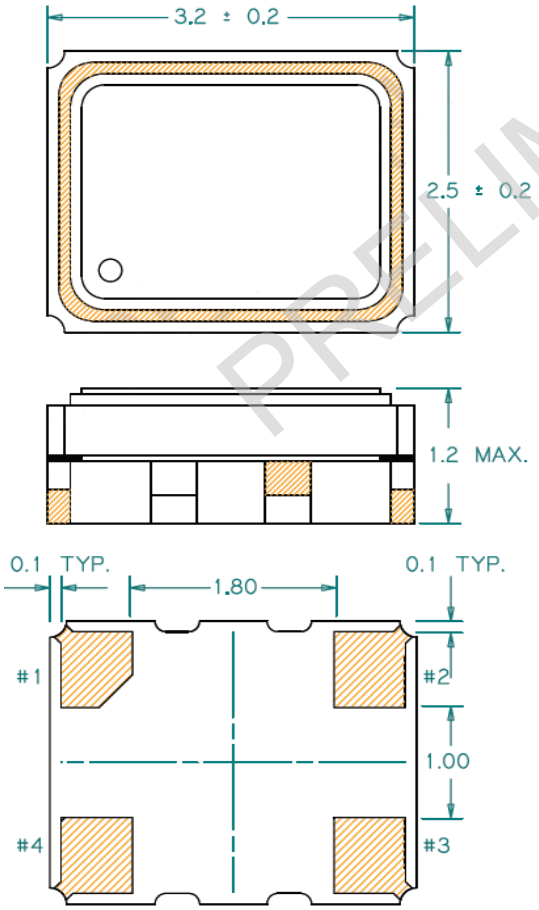
Note:

	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

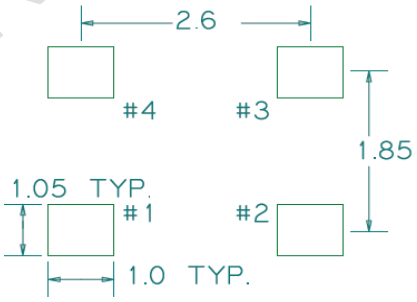
MARKING



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



Recommended Land Pattern:

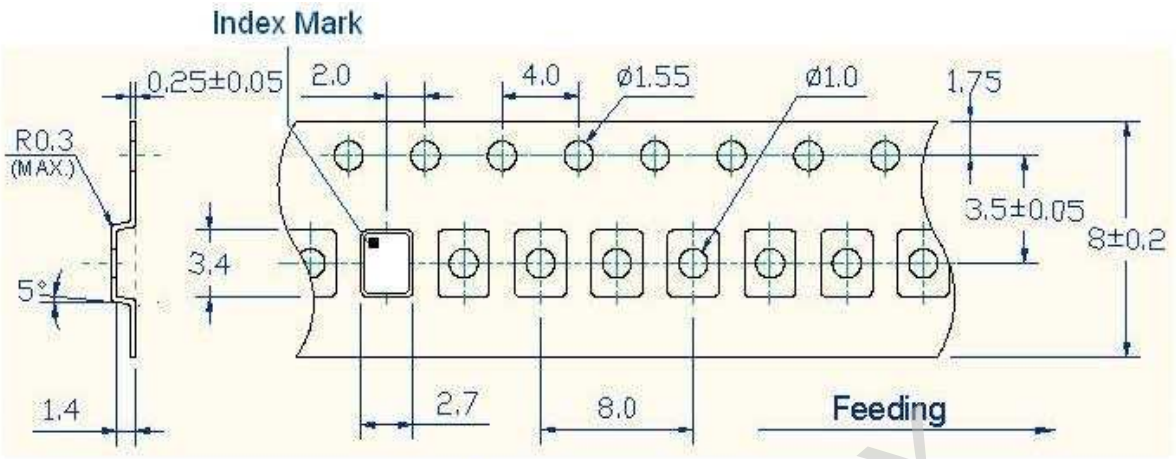


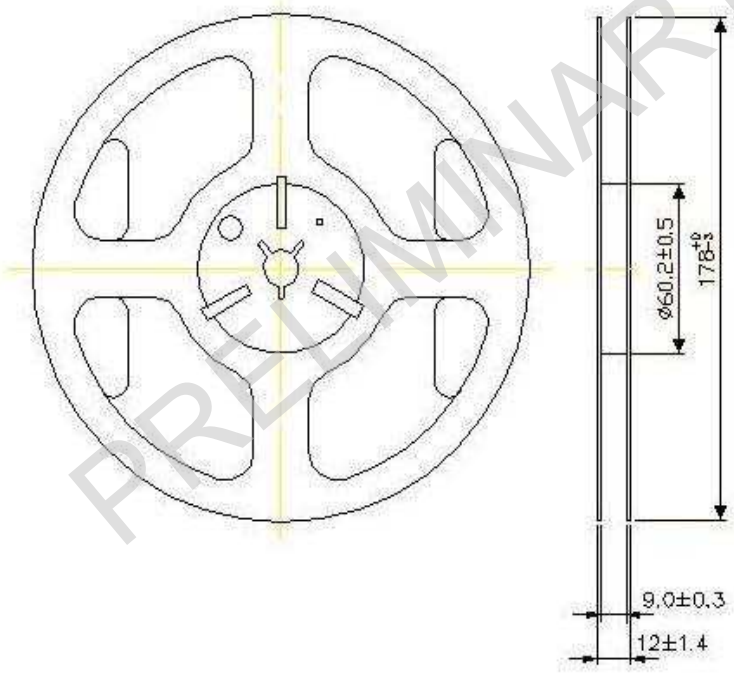
Pin Functions:

Pin	Function
1	Ground
2	Ground
3	Output
4	V_{DD}

* NOTE
#1 pad. Must be connected to ground on your circuit, otherwise oscillation frequency will shift from the output frequency specified.

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.

PACKING