

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







# PERICOM<sup>®</sup> SaRonix-eCera<sup>®</sup>

# **PSE Technology Corporation**

# SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	75.000000 MHz
PRODUCT TYPE	TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR
SPEC. NO. ( P/N )	FN7500043
CUSTOMER P/N	
ISSUE DATE	May 10, 2011
VERSION	D

APPROVED	PREPARED	QA
Alan Yang	Brenda	Canthur
APPROVED BY	CUSTOMER:	AVL Status
Please return one copy v	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 \*\*\*

E0-R-4-014 Rev. E Page i

# TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR FN7500043 VER. D 10-May-11

# **VERSION HISTORY**

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
А	Aug.3,2009			Initial Release	
В	May.19,2010			Revise the Output waveform	
С	Oct.4,2010			New Logo	
D	May.10,2011			Added Start Up Time: 10ms max & Updated Suggested IR Reflow Profile	

E0-R-4-014 Rev. E

# TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

FN7500043

VER. D 10-May-11

#### **ELECTRICAL SPECIFICATIONS**

SRe Part Number: FN7500043

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	75.000000	MHz	
Frequency Stability	FT	± 25	ppm	**See note
Operating Temperature Range	TR	-20 to +70	°C	
Supply Voltage	$V_{DD}$	+1.8 ± 5.0%	V	
Logic Type	LT	LVCMOS		
Supply Current, Output Enabled	I <sub>DD</sub> /OE	20	mA	Max.
Supply Current, Output Disabled	I <sub>DD</sub> /OD	100	μΑ	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T <sub>R</sub> /T <sub>F</sub>	2.5	ns	Max. measured 20/80% of Waveform
Output Voltage "0" Level	V <sub>OL</sub>	10% V <sub>DD</sub>	V	Max.
Output Voltage "1" Level	V <sub>OH</sub>	90% V <sub>DD</sub>	V	Min.
Output Load	CL	15	pF	Max
Jitter, Phase	RMS(1-σ)	1	ps	Max, 12KHz ~ 20MHz Frequency Band
Jitter, Accumulated	RMS(1-σ)	3	ps	Max, 20,000 Consecutive Periods
Jitter, Peak to Peak	Pk-Pk	30	ps	Max, 100,000 Random Periods
Start Up Time		10	ms	Max.
Storage Temperature Range		-55°C to +125°C	°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).

#### Output Enable / Disable Function

Parameter	Min.	Тур.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	$0.7V_{DD}$			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			$0.3V_{DD}$	V	Output is Hi-Z
Internal Pullup Resistance	30			ΚΩ	
Output Disable Delay			200	ns	
Output Enable Delay			2	ms	



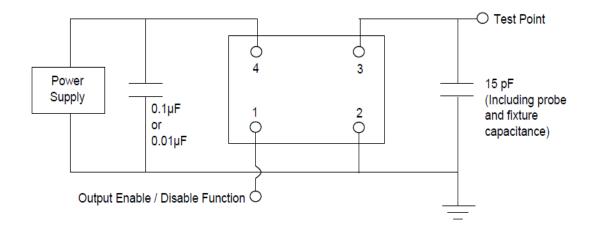
E0-R-4-014 Rev. E Page 1

<sup>\*\*</sup>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.

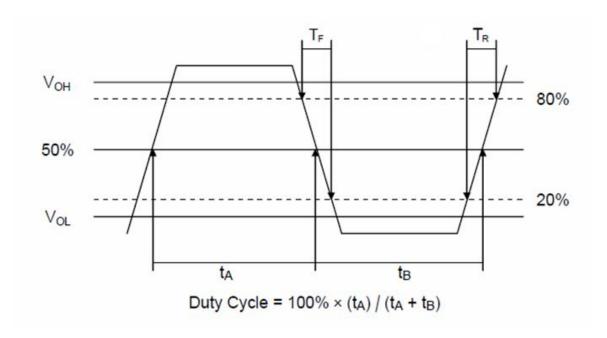
# TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR FN7500043

VER. D 10-May-11

### **TEST CIRCUIT**



#### **OUTPUT WAVEFORM**



E0-R-4-014 Rev. E Page 2

# TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

# FN7500043

VER. D 10-May-11

#### **RELIABILITY SPECIFICATIONS**

#### **ENVIRONMENTAL:**

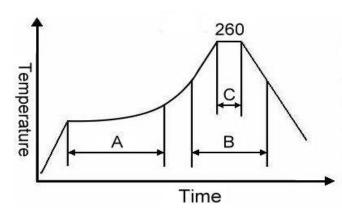
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb free and RoHS Compliant.

#### **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<sup>-8</sup> atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

#### SUGGESTED IR REFLOW PROFILE

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



	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

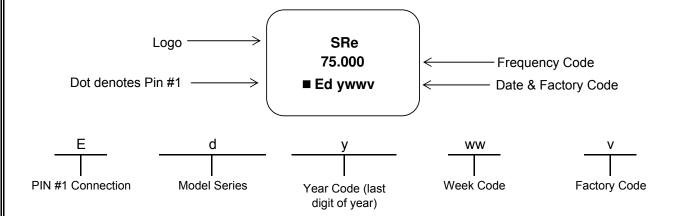
For soldering reflow profile and reliability test ratings go to: <a href="http://www.pericom.com/pdf/sre/reflow.pdf">http://www.pericom.com/pdf/sre/reflow.pdf</a>

## TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

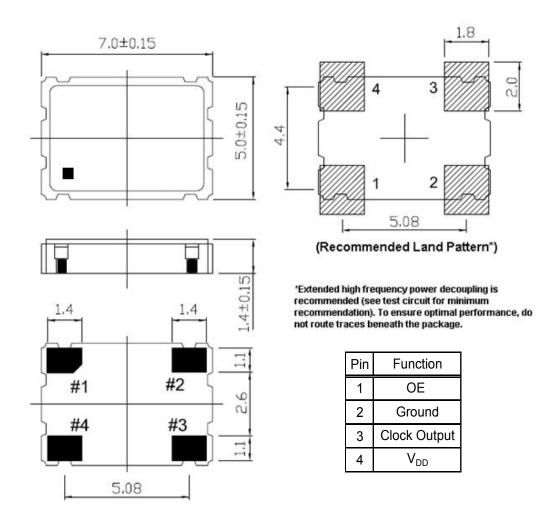
# FN7500043

VER. D 10-May-11

#### **MARKING**



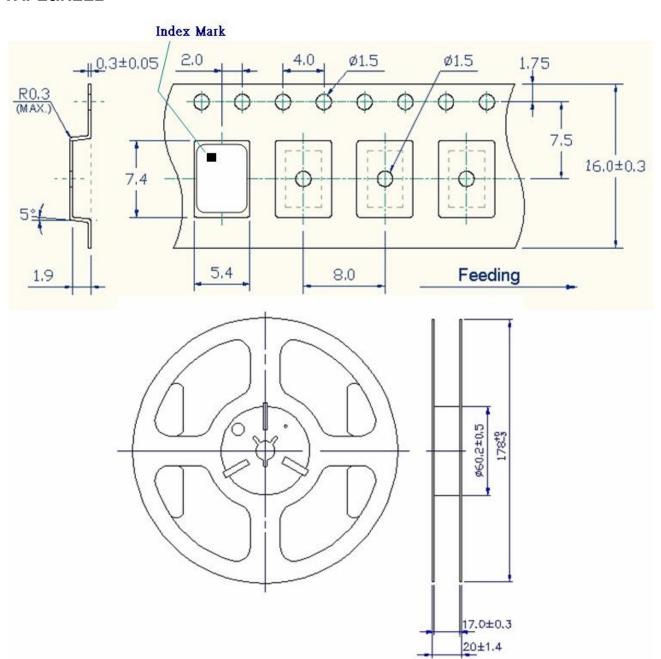
## **MECHANICAL DRAWINGS** (Scale: None. Dimensions are in mm.)



# TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR FN7500043

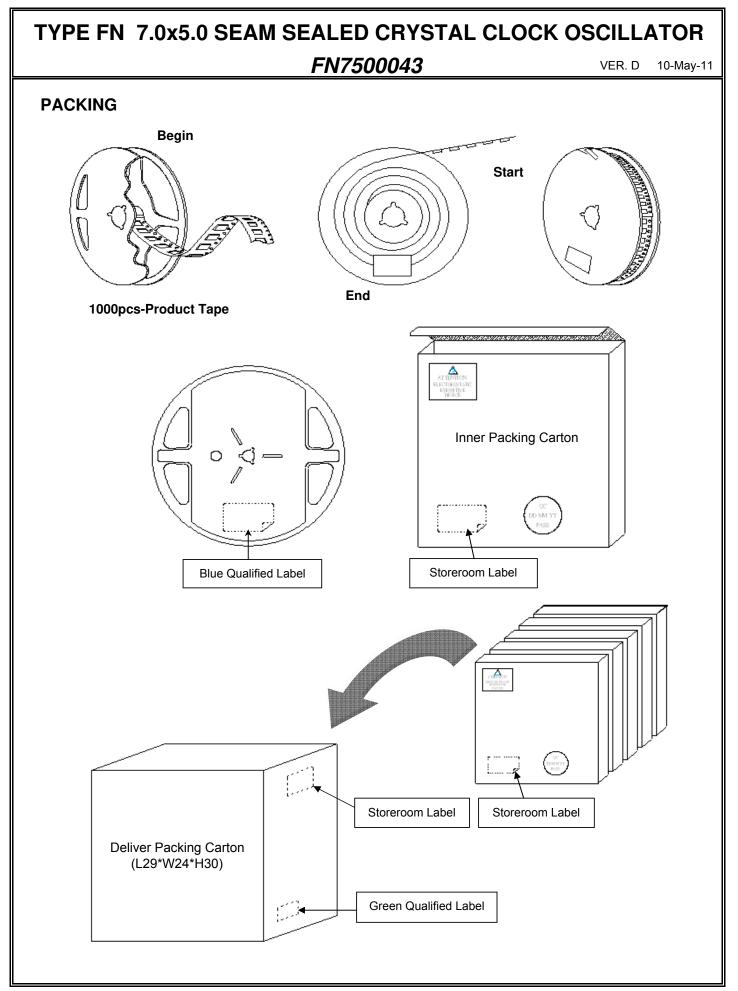
#### VER. D 10-May-11

#### **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.

E0-R-4-014 Rev. E Page 5



E0-R-4-014 Rev. E Page 6