



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Approval Sheet For Product Specification

Issued Date: 5/3/2007 (REV. NO: 1)

Product Name: SMD 2.5x2.0 41.25MHz Crystal Unit

TST Parts No.: TZ1005A

Customer Parts No. : \_\_\_\_\_

Company: \_\_\_\_\_

Division: \_\_\_\_\_

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

Checked by: \_\_\_\_\_ Kelly Huang

Approval by: \_\_\_\_\_ Robert Chang

Date: \_\_\_\_\_ 5/3/2007



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## SMD 2.5x2.0 41.25MHz Crystal Unit

MODEL NO.: TZ1005A

REV. NO.: 1

### Features:

- Surface Mount Seam Weld Package
- Excellent Reliability Performance
- Ultra Miniature Package

RoHS Compliant  
Lead free  
Lead-free soldering

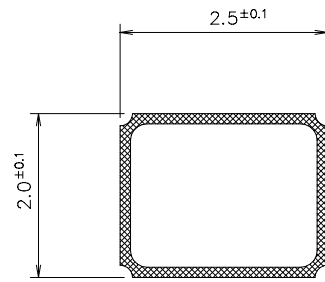
### Description and Applications:

Surface mount 2.5mmx2.0mm crystal unit for use in communications devices, especially for a need of ultra miniature package for mobility.

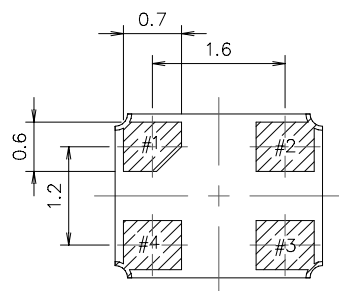
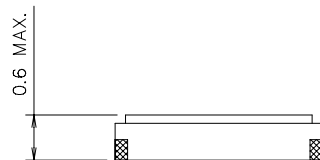
### Electrical Specifications:

| TZ1005A                                              | Specification                             |
|------------------------------------------------------|-------------------------------------------|
| Nominal Frequency                                    | 41.250000 MHz                             |
| Mode of Oscillation                                  | Fundamental                               |
| Storage Temperature Range                            | -40°C to +85°C                            |
| Operating Temperature Range                          | -20°C to +60°C                            |
| Frequency Stability over Operating Temperature Range | +/-10 ppm (referred to the value at 25°C) |
| Frequency Make Tolerance (FL)                        | +/-10 ppm @ 25°C +/- 3°C                  |
| Equivalent Series Resistance (ESR)                   | 50 $\Omega$ max                           |
| Nominal Drive Level                                  | 10 uW                                     |
| Shunt Capacitance (Co)                               | 5 pF max                                  |
| Load Capacitance (CL)                                | 10.0 pF                                   |
| Aging                                                | +/-1ppm                                   |
| Marking                                              | Laser Marking                             |

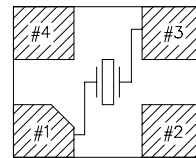
## Mechanical Dimensions (mm):



|        | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT         |
| #2 pin | GND            |
| #3 pin | IN/OUT         |
| #4 pin | GND            |

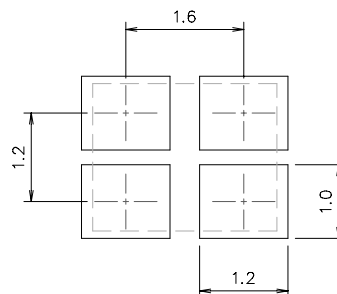


Internal Connections  
(Top View)



[NOTE] #2, #4 is connected with a cover  
(Please connect with a GND or a power supply)

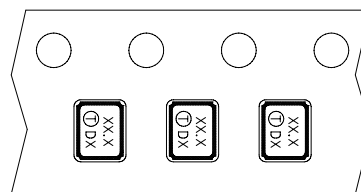
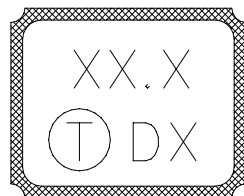
## Recommended Land Pattern: (unit: mm)



## Marking:

Line 1: Frequency (41.2)

Line 2: TST Logo + Date Code + Product Code



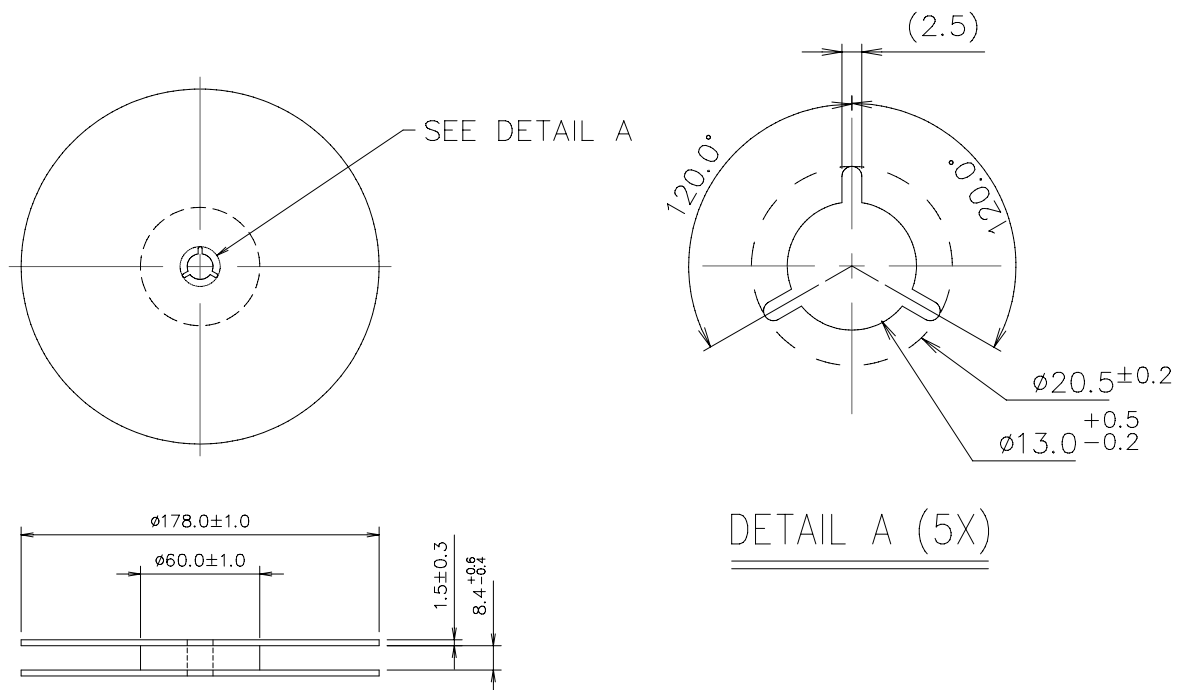
## Date Code Table

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
| A    | B    | C    | D    | E    | F    | G    | H    | I    | J    | K    | L    | M    |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N    | O    | P    | Q    | R    | S    | T    | U    | V    | W    | X    | Y    | Z    |
| WK27 | WK28 | WK29 | WK30 | WK31 | WK32 | WK33 | WK34 | WK35 | WK36 | WK37 | WK38 | WK39 |
| a    | b    | c    | d    | e    | f    | g    | h    | i    | j    | k    | l    | m    |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n    | o    | p    | q    | r    | s    | t    | u    | v    | w    | x    | y    | z    |

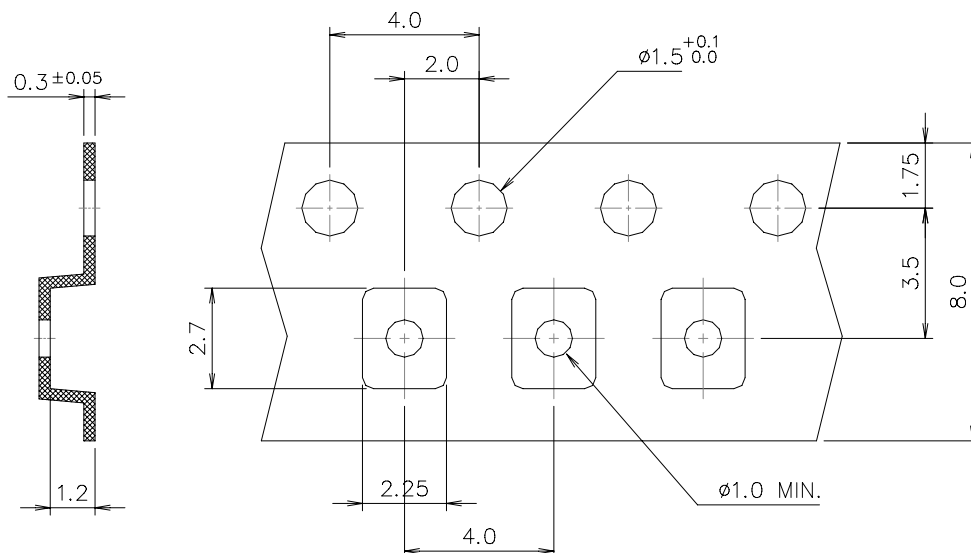
## Product Code Table

| Year         | 2001<br>2005 | 2002<br>2006 | 2003<br>2007 | 2004<br>2008 |
|--------------|--------------|--------------|--------------|--------------|
| Product Code | X            | x            | <u>X</u>     | <u>x</u>     |

## Reel Dimensions (mm):



### Tape Dimensions (mm):



[NOTE]:

1. Unless otherwise specified tolerance on dimension +/-0.1 mm.
2. Material: conductive polystyrene with color black.
3. 10 pitch cumulative tolerance +/-0.2 mm.

**Reflow Profile:**

