



# 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: 6/14/2005 (REV. NO: 2)

Product Name: SMD 4x2.5 16.0MHz Crystal Unit

TST Parts No.: TZ0621A

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

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

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

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

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

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

Approval by: \_\_\_\_\_ TF Yang

Date: \_\_\_\_\_ 6/14/2005



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## SMD 4.0x2.5 16.0MHz Crystal Unit

MODEL NO.: TZ0621A

REV. NO.:2

### Features:

- Surface Mount Seam Weld Package
- Excellent Reliability test
- Good Frequency Perturbation and Stability over Temperature

RoHS Compliant  
Lead free  
Lead-free soldering

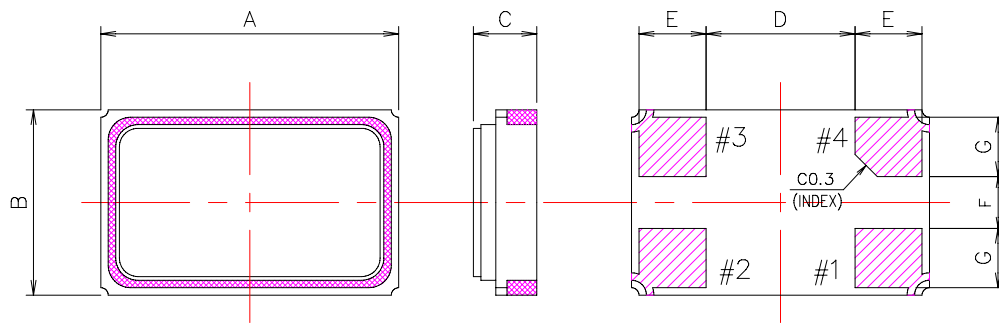
### Description and Applications:

Surface mount 4.0mmx2.5mm crystal unit for use in wireless telecommunications devices, especially for a need of ultra miniature package for mobility.

### Electrical Specifications:

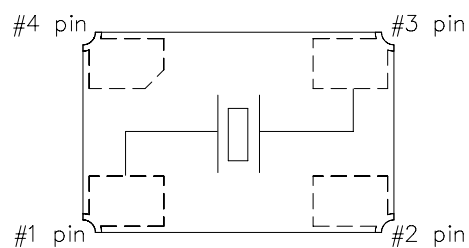
| TZ0621A                                                            | Specification            |
|--------------------------------------------------------------------|--------------------------|
| Nominal Frequency                                                  | 16.000000 MHz            |
| Mode of Oscillation                                                | Fundamental              |
| Storage Temperature Range                                          | -40°C to +125°C          |
| Operating Temperature Range                                        | 0°C to +125°C            |
| Frequency Perturbation                                             | +/-3.0 ppm               |
| Frequency Make Tolerance (FL)+Deviation over Operating Temperature | +/-40 ppm @ 25°C +/- 3°C |
| Equivalent Series Resistance (ESR)                                 | 60 $\Omega$ max.         |
| Drive Level                                                        | 100 uW nom.,             |
| Shunt capacitance (Co)                                             | 2.0 pF max               |
| Load Capacitance (CL)                                              | 16 pF                    |
| Marking                                                            | Laser marking            |

## Mechanical Dimensions (mm):



| ITEM<br>UNIT | A            | B            | C            | D           | E            | F           | G            |
|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
| mm           | 4.0<br>±0.10 | 2.5<br>±0.10 | 0.80<br>MAX. | 2.0<br>REF. | 0.9<br>±0.10 | 0.7<br>REF. | 0.8<br>±0.10 |

<PIN CONNECTION>  
TOP VIEW



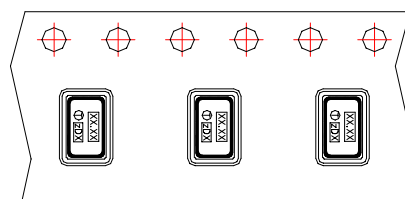
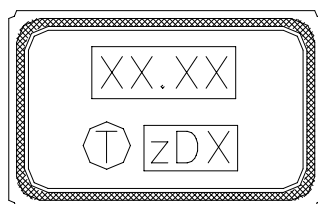
|        | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT         |
| #2 pin | GND            |
| #3 pin | IN/OUT         |
| #4 pin | GND            |

Marking #2, #4 is connected  
with metal cap of top.

## Marking:

Line 1: Frequency (16.00)

Line 2: TST Logo + Crystal Product Code + Date Code



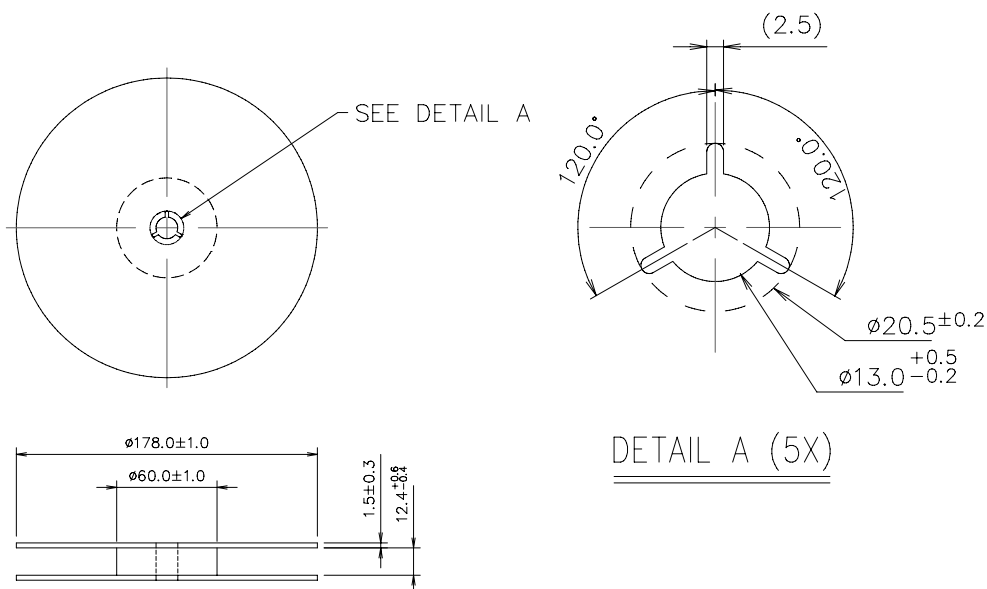
## Product Code Table

| Year         | 2001<br>2005 | 2002<br>2006 | 2003<br>2007 | 2004<br>2008 |
|--------------|--------------|--------------|--------------|--------------|
| Product Code | Z            | z            | ⌞            | ⌞            |

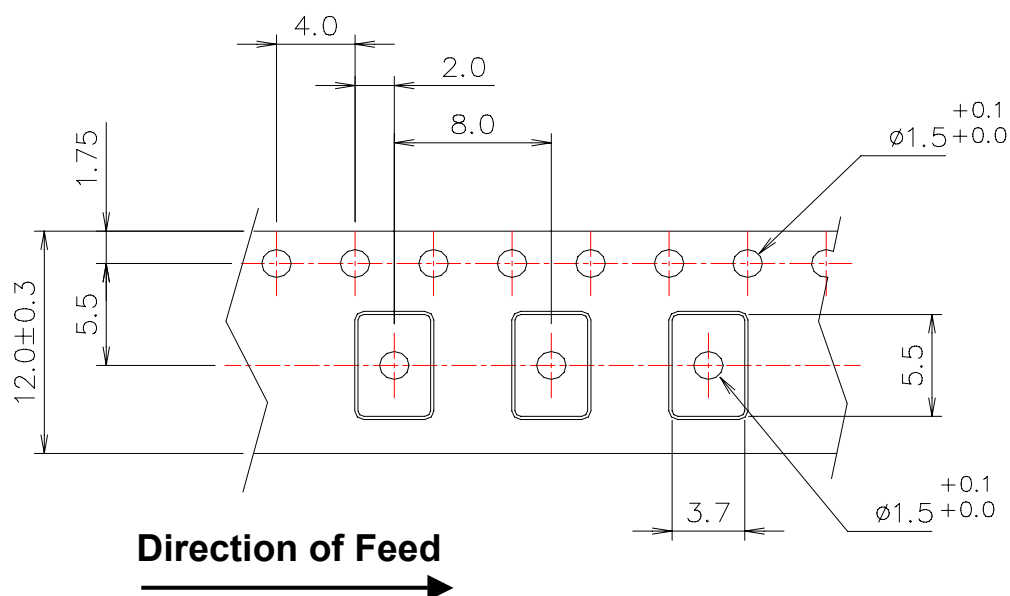
## Date Code Table

| 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    |

## Reel Dimensions (mm):



## Tape Dimensions (mm):



[NOTE]:

1. Unless otherwise specified tolerance on dimension  $\pm 0.1$  mm.
2. Material: conductive polystyrene.
3. Color: black.
4. 10 pitch cumulative tolerance  $\pm 0.2$  mm.

**Reflow Profile:**

