



TAI-SAW TECHNOLOGY CO., LTD.

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Approval Sheet For Product Specification

Issued Date: 2005 Jan. 26 (REV NO.: 2.0)

Product Name: 7.0x5.0 PECL VCXO 155.52 MHz

TST Parts No.: TX0139A

Customer Parts No.: _____

| |
|---------------------|
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ Robert Chang

Approval by: _____ TF Yang

Date: _____ 2005/01/26



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7.0x5.0 PECL VCXO 155.52 MHz

MODEL NO.: TX0139A

REV. NO.:2.0

Features:

1. SMD type Voltage Controlled Crystal Oscillator.
2. High Frequency VCXO / 3.3V Operation / Complementary PECL Output
3. Optionable stand-by function for output (Tri-state output).
4. Main application: SONET, SDH, Gb Ethernet.

RoHS Compliant
Lead free
Lead-free soldering

Electrical Specifications:

Measurement shall be made under room temperature and humidity at below conditions.

Temperature: 25+/-3 °C

Humidity: Below 70% RH

Operating Temperature:-5 °C to +85 °C

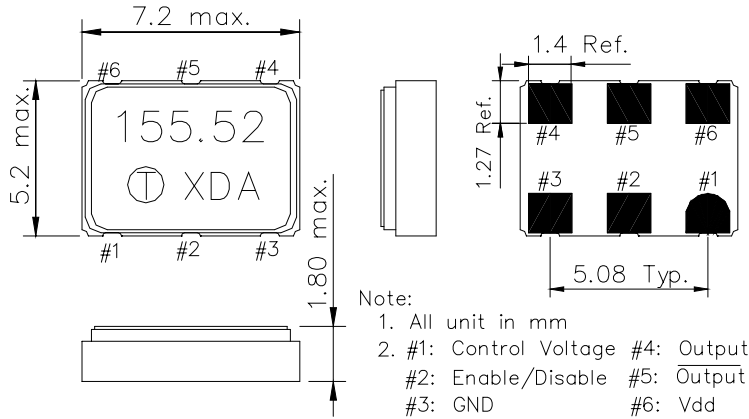
Storage Temperature: -40 °C to +85 °C

| Characteristics | Units | Minimum | Typical | Maximum |
|--|----------------------------|--|----------|------------------------|
| Center Frequency | MHz | - | 155.52 | - |
| Frequency Stability (#note 1) | ppm | -50 | - | 50 |
| Load | Ω | - | 50 | - |
| Supply Voltage (Vdd) | VDC | - | 3.3+/-5% | - |
| Current Consumption (#note 2) | mA | - | - | 80 |
| Control Voltage (Vt) | VDC | 0.3 | 1.65 | 3.0 |
| Frequency Pullability | ppm | +/-100 | - | - |
| Linearity | % | - | 5% | 10% |
| Output | | | | |
| Output Level | PECL Level (Complementary) | | | |
| Output Logic High | VDC | V _{dd} -1.025 | - | V _{dd} -0.880 |
| Output Logic Low | VDC | V _{dd} -1.810 | - | V _{dd} -1.620 |
| Symmetry (Duty Cycle) | % | 45% | 50% | 55% |
| Rise Time (10%→90% VDD) | nSec | - | 0.6 | 1.5 |
| Fall Time (90%→10% VDD) | nSec | - | 0.5 | 1.5 |
| Integrated Jitter RMS (Integrated 12kHz to 20MHz) | pSec | - | 3 | 5 |
| Phase Noise | dBc/Hz | -112dBc/Hz @ 1kHz -125dBc/Hz @ 10kHz -123dBc/Hz @ 100kHz | | |
| Enable/Disable Function | | PIN#2: High or Open, PIN#4,5:Enable PIN#2: Low, PIN#4,5:Disable | | |
| Package size | mm | 7.0x5.0x1.8 | | |

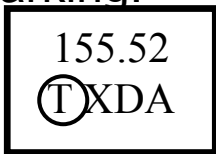
#Note 1: Frequency stability includes 25°C tolerance, operating temperature range, aging and voltage or load change.

#Note 2: Not includes output load bias current.

Mechanical Dimensions (mm):



Marking:



Line 1: 155.52

Line 2: Ⓣ XDA

Where X stand for product code and D for date code

1. Product Code Table:

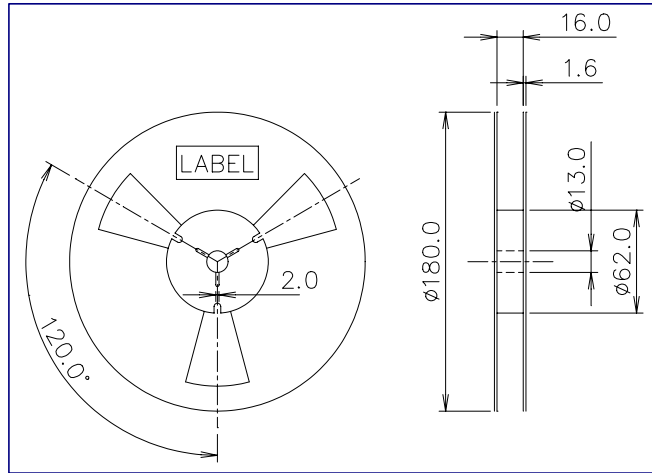
| Year | 2001 | 2002 | 2003 | 2004 |
|---------------------|----------|----------|-----------------|-----------------|
| | 2005 | 2006 | 2007 | 2008 |
| Product Code | X | x | <u>X</u> | <u>x</u> |

2. Date Code Table:

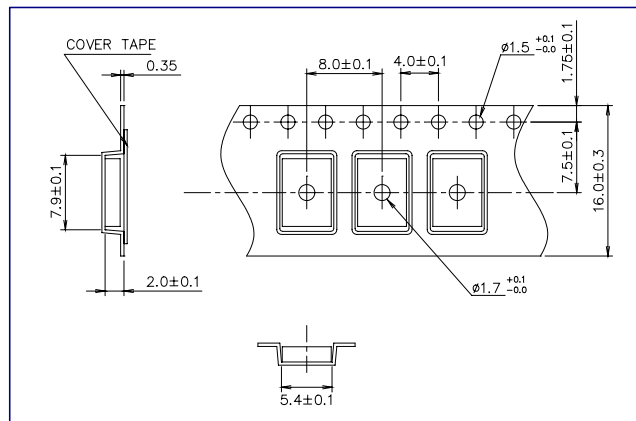
| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| WK14 | WK15 | WK16 | WK17 | WK18 | 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 |

Tape & Reel: Packing Quantity: 1k /Reel

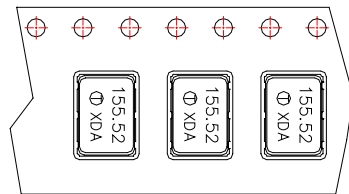
REEL DIMENSION (unit: mm)



TAPE DIMENSION (unit: mm)



PACKING DIRECTION



Soldering Reflow Profile

