

# SPECIFICATION FOR APPROVAL

CN: 0

CUSTOMER : \_\_\_\_\_  
PRODUCT TYPE : SMD GLASS SEALING X'TAL 3.2\*2.5  
NOMINAL FREQ. : 40.000000MHz  
TXC P/N : AV40070001  
REVISION : A1  
CUSTOMER P/N : \_\_\_\_\_  
PM / SALES : \_\_\_\_\_  
DATE : \_\_\_\_\_  
CUSTOMER SIGNATURE & Date \_\_\_\_\_  
\_\_\_\_\_

- (1) TXC requires one copy returned with signature and title of authorized individual that signifies acceptance of the attached specifications.
- (2) Orders received and accepted by TXC after return of signed copy of specification will be produced per these specifications.
- (3) Any changes to these specifications must be agreed upon by both parties and new revision of the Product Specification Sheet will be issued.
- (4) Any issuance of purchase order prior to consigning back the Approval page of "Specification Sheets" from customers will be regarded as the agreement on the contents of these specifications.

**MSL:Level 1  
RoHS Compliant**

Pb used in sealing glass material is exempt from EU directive

# PRODUCT SPECIFICATION SHEET

CN: \_\_\_\_\_

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 NOMINAL FREQ. : 40.000000MHz  
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PE/RD	QA	MFG
<i>Wen yuan Chang</i>	<i>ZhongLin Wu</i>	<i>Zhi Jun Wu</i>
Wen yuan Chang	ZhongLin Wu	Zhi jun Wu
<i>17-Sep-17</i>	<i>17-Sep-17</i>	<i>17-Sep-17</i>

**NOTE:**

- (1)The green product standard set by TXC is based upon the international standards. Related information is publicly described on the TXC's Website, and updated regularly. The document is compliant with the latest green product quality system directives at the time.
- (2)Revision "Sx" is for engineering samples only. PE/RD's approval required.
- (3)Revision "Ax" is production ready. PE, QA and MFG's approval required

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## Spec Sheet Contents

No.	Content	Page
1	ELECTRICAL SPECIFICATIONS	P.3
2	DIMENSIONS	P.4
3	MARKING	P.4
4	FACTORY LOCATION	P.4
5	SUGGESTED REFLOW PROFILE& MANUAL SOLDER CONDITION	P.4
6	STRUCTURE ILLUSTRATION	P.5
7	EMBOSS CARRIER TAPE & REEL	P.6
8	PACKING	P.7
9	RELIABILITY SPECIFICATIONS	P.8~9

## ■ ELECTRICAL SPECIFICATIONS

### Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurement and tests are as follow:

Ambient temperature :  $25 \pm 5^{\circ}\text{C}$   
 Relative humidity : 40%~70%

If there is any doubt about the results, measurement shall be made within the following limits:

Ambient temperature :  $25 \pm 3^{\circ}\text{C}$   
 Relative humidity : 40%~70%

### Measure equipment

Electrical characteristics measured by S&A250B or equivalent.

### Crystal cutting type

The crystal is using AT CUT (thickness shear mode).

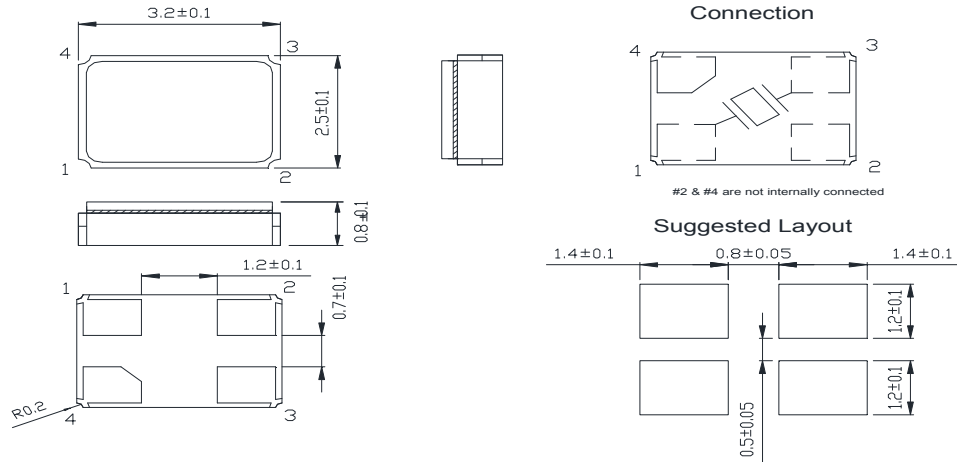
### Unit Weight:

0.020±0.002 g/pcs

	Parameters	SYM.	Electrical Spec.				Notes
			MIN	TYP	MAX	UNITS	
1	Nominal Frequency	FL	40.000000			MHz	-
2	Oscillation Mode	-	Fundamental			-	-
3	Load Capacitance	CL	8			pF	-
4	Frequency Tolerance	-	±20			ppm	at $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$
5	Frequency Stability	-	±50			ppm	Over Operating Temp. Range (Reference $25^{\circ}\text{C}$ )
6	Operating Temperature	-	-40	~	125	$^{\circ}\text{C}$	-
7	Aging	-	±3			ppm	1st Year at $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$
8	Drive Level	DL	10	100	200	uW	-
9	Series Resonant Resistance	Rr	-	-	50	$\Omega$	-
10	Shunt Capacitance	C0	-	-	2	pF	-
11	Insulation Resistance	-	500	-	-	M $\Omega$	at DC 100V
12	Storage Temperature Range	-	-40	~	125	$^{\circ}\text{C}$	-

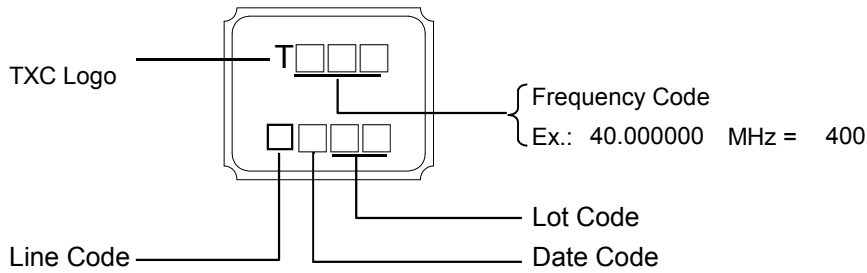
**■ DIMENSIONS**

(Unit:mm)



\*Coplanarity of solderable areas Camber 0.10 mm Max

**■ MARKING**



Production Location:China(Ningbo)

Month Code:

YEAR					MONTH											
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2005	2009	2013	2017	2021	A	B	C	D	E	F	G	H	J	K	L	M
2006	2010	2014	2018	2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2007	2011	2015	2019	2023	a	b	c	d	e	f	g	h	j	k	l	m
2008	2012	2016	2020	2024	n	p	q	r	s	t	u	v	w	x	y	z

\*This month code will be cycled every four years

**■ SUGGESTED REFLOW PROFILE**

Solder melting point :220±10 °C, 60 sec. Min.

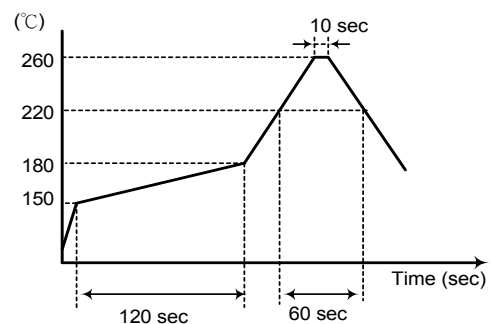
Peak Temperature: 260 ± 5 °C, 10 sec. Max.

**■ SUGGESTED MANUAL SOLDER CONDITION**

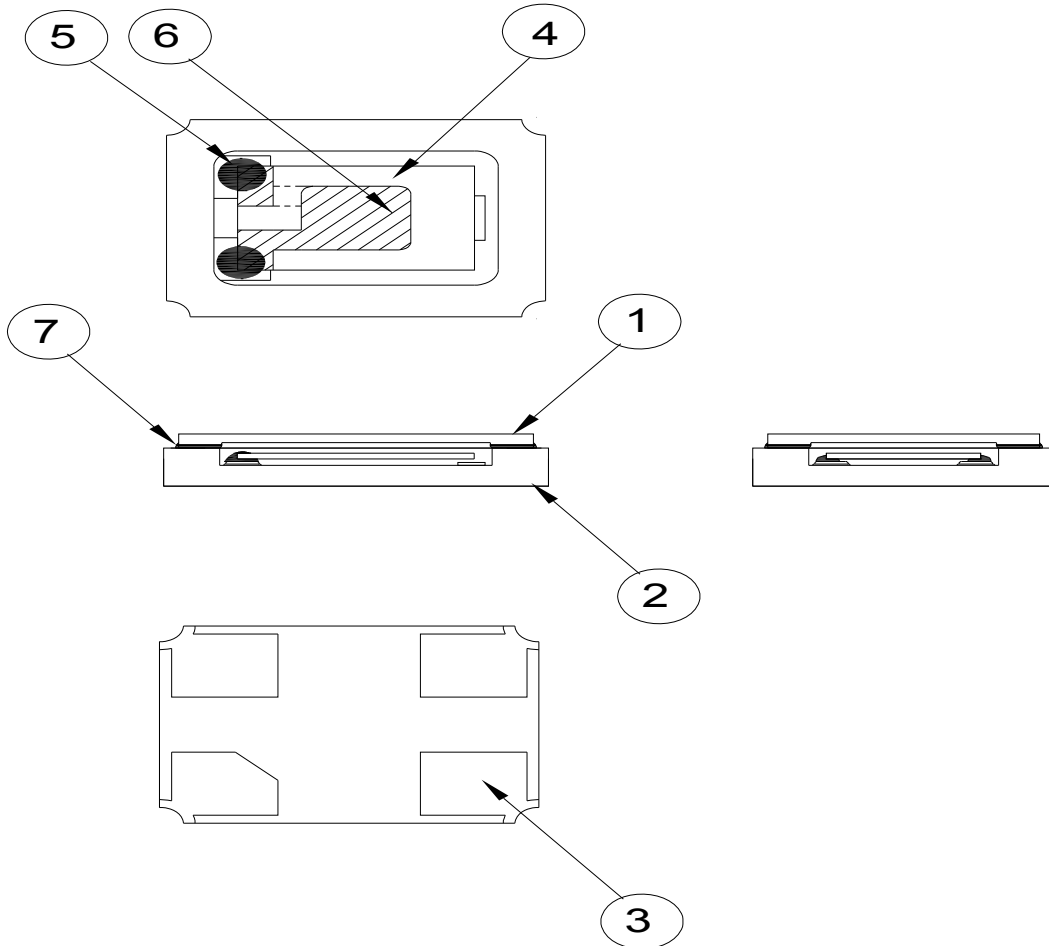
Temperature: 350 ± 10 °C

Time: 3 sec.

Re-solder times: twice

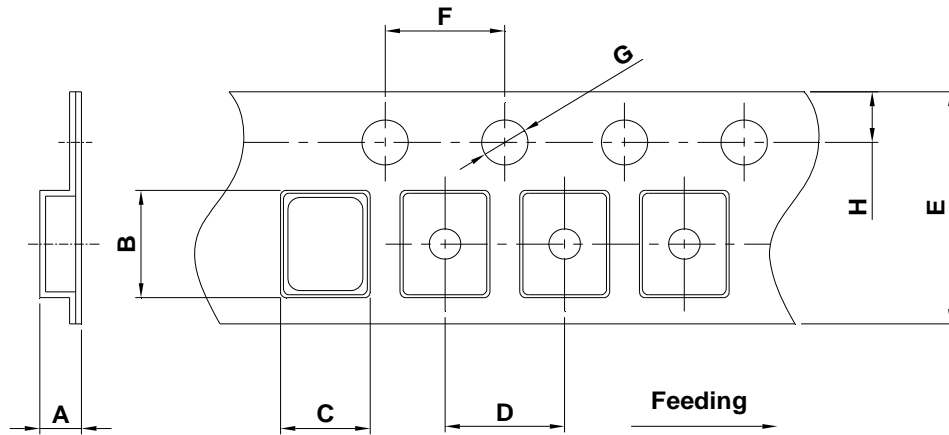


■ **STRUCTURE ILLUSTRATION**



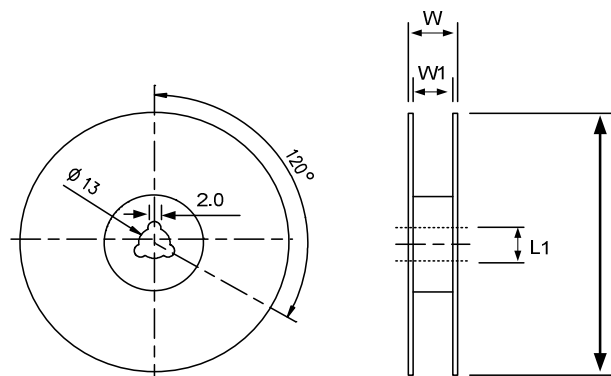
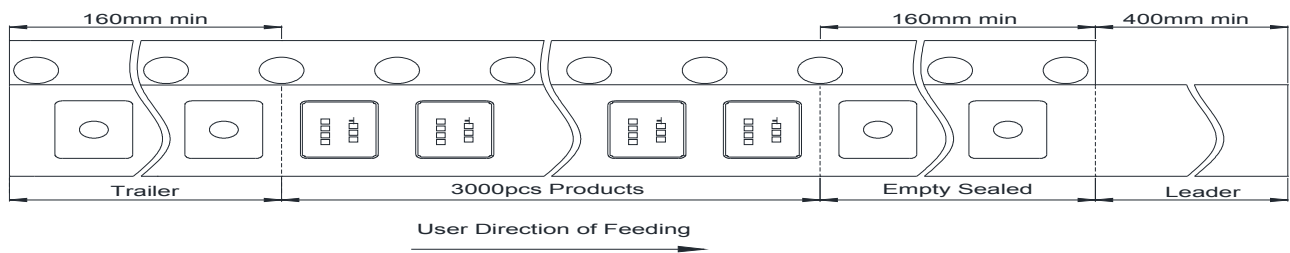
NO	COMPONENTS	MATERIALS	FINISH/SPECIFICATIONS
1	Cap	Ceramic (Al <sub>2</sub> O <sub>3</sub> )	-
2	Package	Ceramic (Al <sub>2</sub> O <sub>3</sub> )	-
3	PAD	Au	Tungsten metalize + Ni plating + Au plating
4	Crystal blank	SiO <sub>2</sub>	-
5	Conductive adhesive	Resin+Ag	-
6	Electrode	Noble Metal	-
7	Sealing Glass	Glass(PbO)	-

**EMBOSS CARRIER TAPE & REEL**



DIMENSIONS	A	B	C	D	E	F	G	H	(UNIT : mm)
	1.65 ±0.10	3.40 ±0.10	2.70 ±0.10	4.00 ±0.10	8.00 ±0.20	4.00 ±0.10	1.55 ±0.10	1.75 ±0.10	

REMARK :



DIMENSIONS	L	L1	W	W1	(UNIT : mm)
	178±1.00	13±0.50	11.5±0.20	8±0.10	



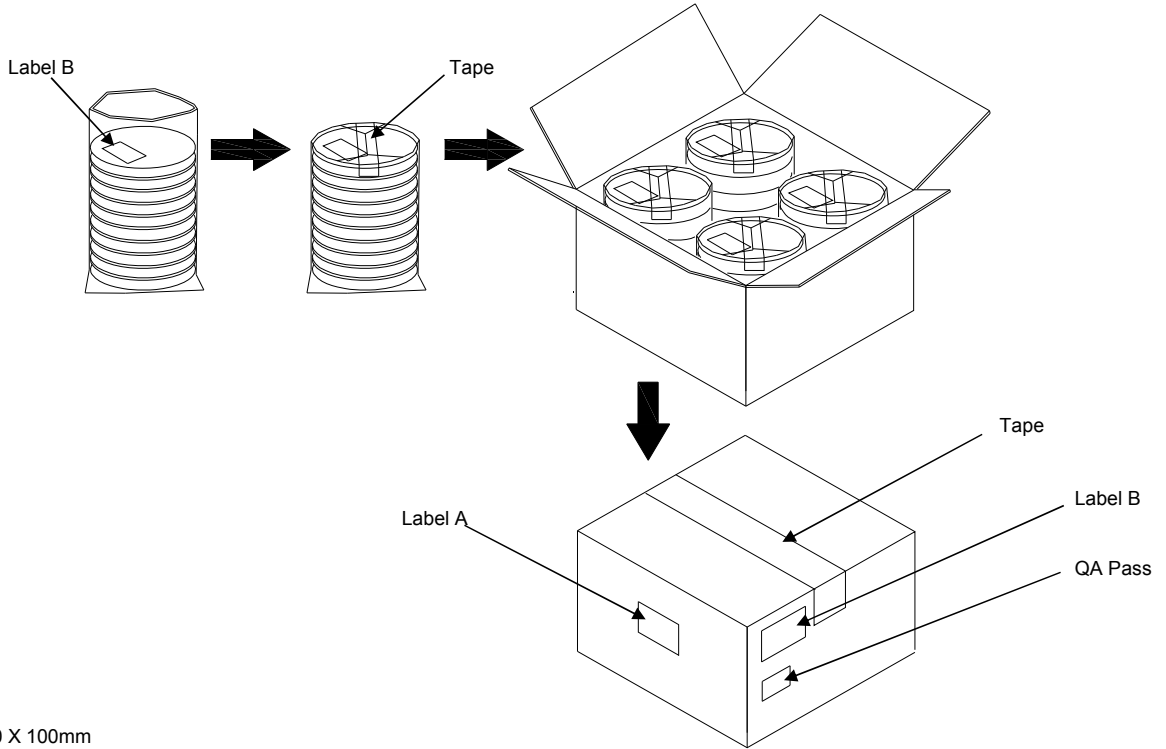
**PACKING**

Reel Quantity :

- 1. Reel X 6 (6 Reels)
- 2. Reel X 12 (12 Reels)
- 3. Reel X 25 (12 Reels + 13 Reels)
- 4. Reel X 50 (12 Reelsx2 + 13 Reelsx2)

Box Size:

- 1. L200 X W200 X H140mm
- 2. L200 X W200 X H250mm
- 3. L400 X W200 X H250mm
- 4. L400 X W400 X H280mm



(Label A) Size:100 X 100mm

<h1 style="margin: 0;">TXC</h1>	
Inv No: 00096815	
Po No: 21106326- 24- 1	
Part No: <span style="font-family: monospace;">□□□□□□□□</span>	
Qty: 40000 PCS	
C/No: 157- 44	

(Label B) Size:80 X 40mm

TXC CORPORATION		QA PASS
DATE CODE: <span style="font-family: monospace;">□□□□□□□□</span>	QTY: <span style="font-family: monospace;">□□□□</span>	2011/09/02
LOT NO: <span style="font-family: monospace;">□□□□□□□□</span>	<b>RoHS</b>	
PART NO: <span style="font-family: monospace;">□□□□□□□□</span>	<b>HF</b>	
FREQ: <span style="font-family: monospace;">□□□□□□□□</span>		

**[STORAGE]**

- 1. Don't be caught in the rain.
- 2. The storage environment shall be 5°C ~40°C temperature and 30% ~ 75%RH humidity and free from the sun shine.
- 3. If customers have special requirements, we can paste labels according to it.



**RELIABILITY SPECIFICATIONS**

Specifications	
A	Frequency change: Within $\pm 5$ ppm or in customer's specification.
B	Frequency change: Within $\pm 10$ ppm or in customer's specification.
C	Equivalent series resistance(E.S.R) change: Within $\pm 15\%$ or $10\Omega$ (larger value).
D	After conditioning , quartz crystal units shall be subjected to standard atmospheric conditions for 24 hour, and measured.
E	Minimum 95% of immersed terminal shall be covered with new uniform solder.
F	No damage on specimen

**Measurement condition**

Electrical characteristics measured by S&A250B or equivalent.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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*Click to view products by [TXC Corporation manufacturer](#):*

Other Similar products are found below :

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[FL2000085](#) [9B-15.360MBBK-B](#) [9C-7.680MBBK-T](#) [ASH7K-32.768KHZ](#) [AT-41.600MAGQ-T](#) [BTD1062E05A-513](#) [LFX TAL066198Cutt](#)  
[9C-14.31818MBBK-T](#) [FA-238 50.0000MB30X-K3](#) [FC-12M 32.7680KA-AC3](#) [SSPT7F-9PF20-R](#) [FX325BS-38.88EEM1201](#)  
[LFX TAL065253Cutt](#) [LFX TAL066431Cutt](#) [XT9S20ANA14M7456](#) [XT9SNLANA16M](#) [646G-24-2](#) [7A-24.576MBBK-T](#) [7B-30.000MBBK-T](#)  
[WX26-32.768K-6PF](#) [9B-14.31818MBBK-B](#) [CD1AM](#) [7B-25.000MAAE-T](#) [7A-14.31818MBBK-T](#) [6504-202-1501](#) [6526-202-1501](#) [FA-118T](#)  
[27.1200MB50P-K0](#) [FC-135R 32.7680KA-A3](#) [ABM12-104-37.400MHZT](#) [ABLS-10.000MHZ-D3W-T](#) [BTJ112E01E-513](#) [BTJ722K01C-7067](#)  
[BTL-20-513](#) [TSX-3225 24.0000MF15X-AC](#) [TSX-3225 16.0000MF18X-AC](#) [BTJ120E02C](#) [BTL-12-513](#) [7A-10.000MBBK-T](#) [7A-](#)  
[11.0592MBBK-T](#) [ABM12-103-24.000MHZT](#) [CS325S25000000ABJT](#) [ABM3B-25.000MHZ-B2-X-T](#) [FC-135 32.7680KA-A5](#) [FX0800015](#)