SPEC NO.: CU-002SDIP

Specification

TO:STE508

Model Name: Crystal Unit

PART NO: S3215-32.768-9-20-150-E

CUSTOMER PART NO.: NX3215SA-32.768K-STD-MUA-4

APPROVAL SHEET

Approved?	Yes No.
Customer's comments are welcomed here. Pls return this copy as a certificate of your approval by Fax:+86-755-84528986 Approved By Date: _____	

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History Record

Date	Part No.	SPEC No.	Discription.	Remarks.
2012-2-1			Initial Issue	
RoHS Compliant Lead free Lead-free soldering	ISO9001:2000 ISO14001:2004	**Approved by**	**Check by**	**Design by**
		May-15-2007	**May-10-2005**	**Jan-16-1999**
Reversions	**Total Page**	Xu gang dong	Liu jun	Wang hon
CU-002SDIP				

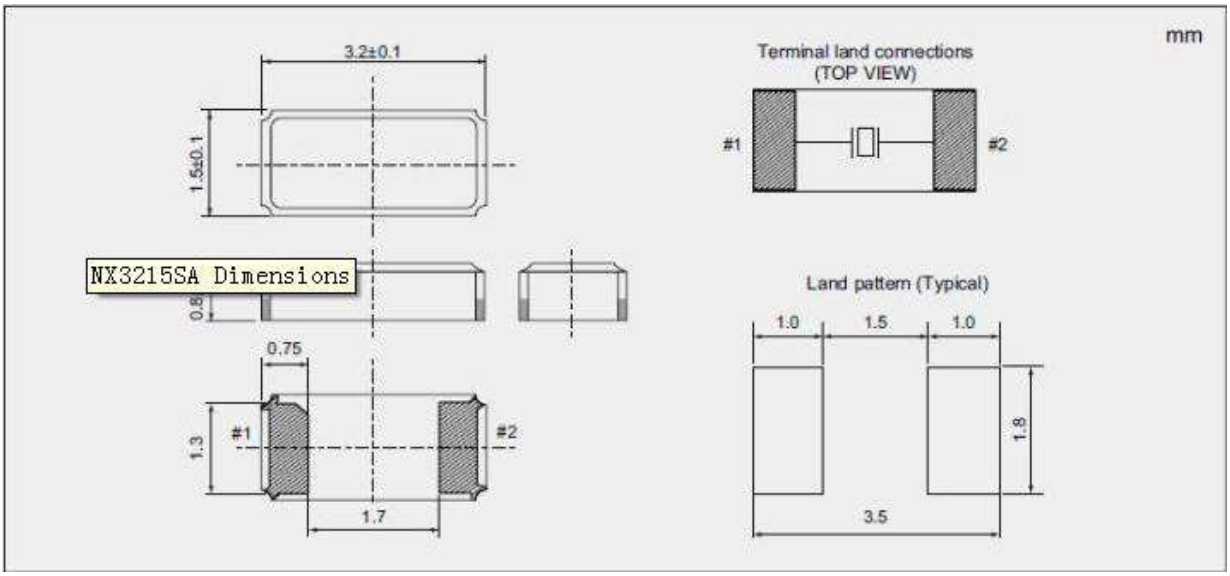
SPECIFICATION

1. This specification can cover the specification of crystal unit with Part No.: S3215-32.768-9-20-150-E

2. ELECTRICAL SPECIFICATION

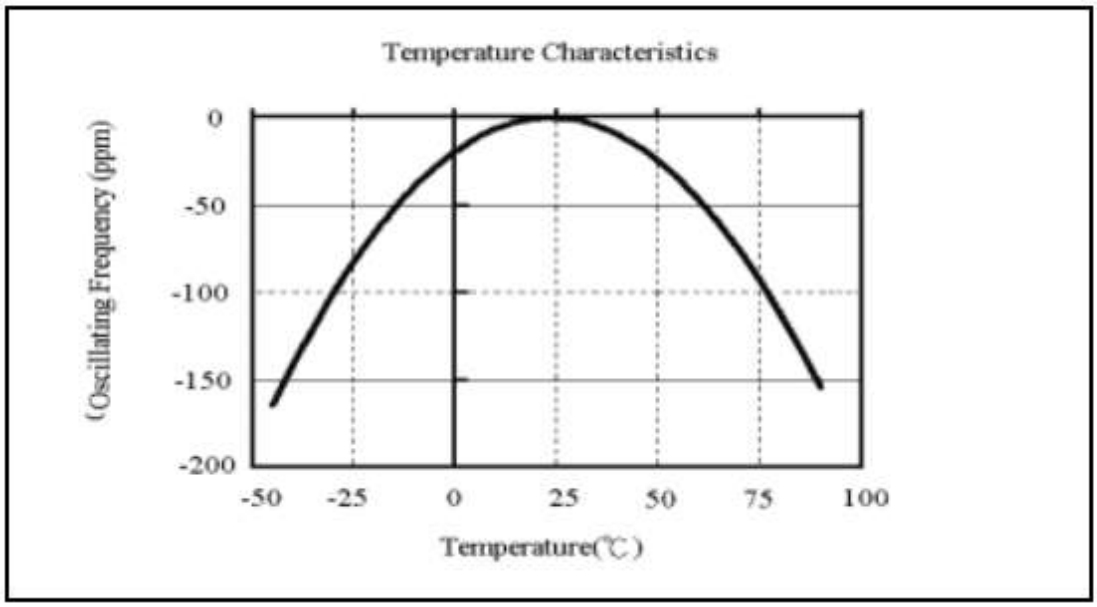
Nominal frequency	32.768 KHz
Frequency tolerance	±20ppm at 25 ± 2
Temperature characteristics	
-Turnover temperature	25± 5
-Temperature Coefficient	-0.045×10^{-6}/ ^{2} Max
Operating temperature	-40 to 85 degrees
Equiverent series resistance	70k ohms Max.
Load capacitance	9pF
Shunt capacitance	2.0pF Max.
Drive level	1.0uW Max
Storage temperature	-55 to 125 degrees
Aging(First year)	±3ppm Max.
Marking	Standard
Unit Net of Weight:	0.012g ± 0.0006g

3. DIMENSION (Unit: mm)

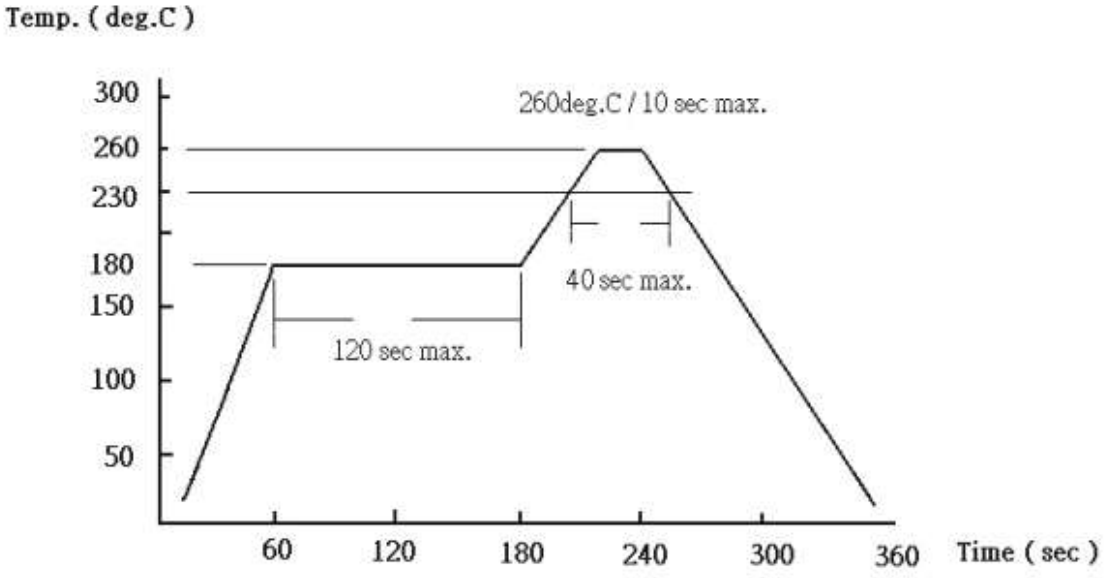


4.

Frequency VS Temperature

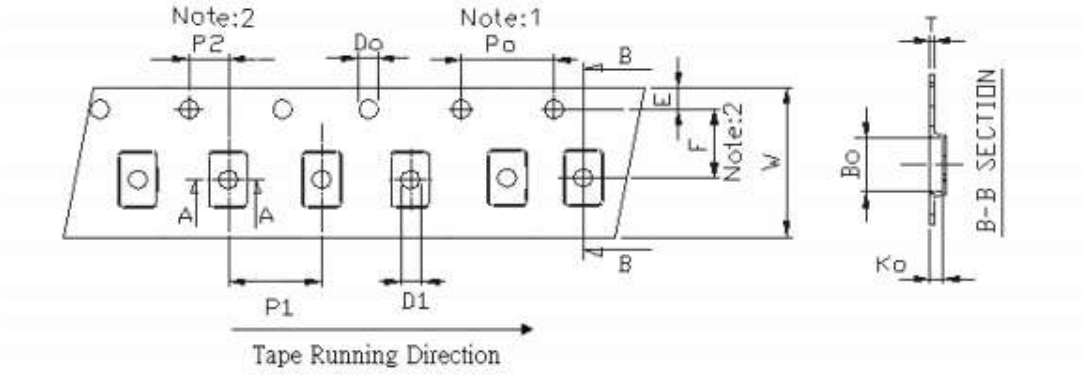


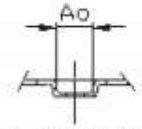
5.Reflow solder



6.TAPING AND REEL SPECIFICATION

Taping





Ao= 1.90± 0.10 mm

Bo= 3.60± 0.10 mm

Ko= 1.0± 0.10 mm

Unit: mm

Symbol	Spec.
K1	–
Po	4.0± 0.10
P1	4.0± 0.10
P2	2.0± 0.05
Do	1.50± 0.10
D1	$1.0^{+0.2}_{-0}$
E	1.75± 0.10
F	5.50± 0.05
10Po	40.0± 0.10
W	12.0± 0.2
T	0.30± 0.05

Notice:

1 10 Sprocket hole pitch cumulative tolerance is ±0.1mm

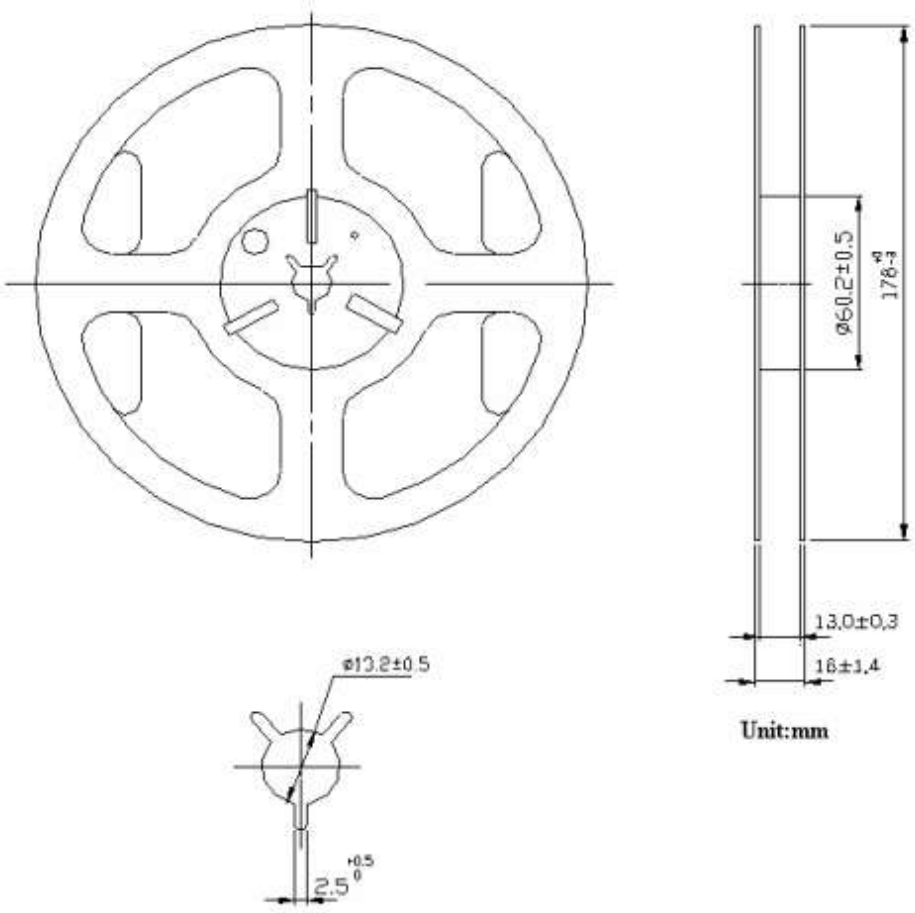
2. Pocket position relative to sprocket hole measured as true position of pocket not pocket hole.

3. Ao & Bo measured on a place 0.3mm above the bottom of the pocket to top surface of the carrier.

4. Ko measured from a plane on the inside bottom of the pocket to the top surface of the carrier

5. Carrier camber shall be not than 1mm per 100mm through a length of 250mm.

Reel



Unit:mm

Q'ty:3000pcs/reel

7.RELIABILITY TEST

Test Items	Test Condition	Specification	
		Dip	SMD
1. Gross Leak Test	FC-40 125℃/30sec	No continuous bubble	
2. Fine Leak Test	Bombing of He 4kg/cm^2 for 2 hours	Less than 5*10^-8atm.c.c./sec, Helium	
3. Drop Test	a ~19.999MHz(Fund.) →100 cm height b. 20~29.999MHz(Fund.) 50 cm height c. 30~ MHz(Fund.) 20 cm height on hard wooden surface / 3 times (thickness more than 30 mm)	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.
4. Vibration Test	Freq. range: 10~55Hz Peak to peak amplitude:1.5mm 3 direction(X,Y,Z) ，each 60min.	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.
5. Resistance to Soldering Test	a. IR Reflow furnace with the condition 2 times. Peak temp.260±3℃ ，10±1 sec.	NA	△F≦±10PPM , C.I within spec. For SMD type only.
	b. Dip terminals in a 245±5℃ solder station(pool) Dipping depth 0.5mm(Min) Dipping time 5±0.5 sec.	At least 90% by 30X magnification of each dipped area shall be covered by fresh solder. For DIP type only.	NA
6. Bending Test	Bending cycle : 1 cycle 0° -> 45° -> 0° -> 45° -> 0°	△F≦±5PPM , C.I within spec. For DIP type only.	NA
7. Shearing Test	Weight : 5N, Test duration : 10±1 sec	NA	△F≦±10PPM , C.I within spec. For SMD type only.
8. Low Temp. Exposure Test	-40±3℃, 240±12 hrs	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.
9. Aging Test	85±3℃, 240±12hrs	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.
10. High Temp. & Humidity Test	+85℃±5℃& 85%±5% R.H., 240±12 hrs	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.
11. Temperature Cycling Test	-25±3℃/15±3min ~ +85±3℃/15±3min 15cycles	△F≦± 10PPM , C.I within spec.	△F≦±10PPM , C.I within spec.