

深圳市荣丰慧通电子有限公司
SHENZHEN ROFENG WISDOM ELECTRONIC CO.,LTD



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SPECIFICATIONS FOR APPROVAL

CUSTOMER: _____

CUSTOMER P/NO: _____

OUR MODEL NO: _____ SMD3225 27.120MHz 10pF

DESCRIPTION: _____ QUARTZ CRYSTAL SMD3225

SPECIFICATIONS NO: _____ RFW310EGL1---27.120MHz

OUR DRAWING NO: _____

FOR CUSTOMER MODEL: _____

DATE: _____ 2015-08-25

ENGINEERING DEPT:

APPROVED BY CUSTOMER :

SIGNATUER:

DATE:

DATE:

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QUARTZ CRYSTAL UNITS

SPECIFICATION

Client Name:

Product : Quartz Crystal Resonator

General Part Number and Client Part Number:

General : RFW310EGL1---27.120MHz

Client :

Manufacturer:

Shenzhen Rofeng Wisdom Electronic Co.,Ltd

Building 6,Wangtang Industrial Area Xinwei Village Xili Town Shenzhen City

Post Code: 518055

TEL +86-755-26000659 / FAX +86-755-26000024

Prepared	Checked	Approved

Remarks:

Product Liability, Quality Assurance and Right of the patent shall be under the responsibility of the Manufacturer mentioned above.

Client Acknowledgement:

Date of receipt :

Record of Change

	Issuing Date	Last	New	Page	Contents of	Reason	Remarks
		Version	Version	Item#	the Change		
1							
2							
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QUARTZ CRYSTAL UNITS

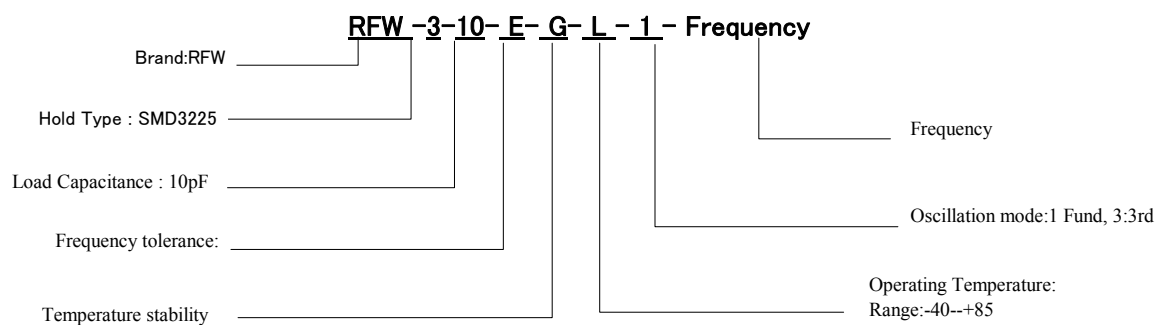


APPROVAL SHEET

SCOPE:

CUSTOMER:

PART NUMBER:



PART TYPE :

QUARTZ CRYSTAL (SMD3225)

PART NO DESCRIPTION

27.120MHz (±30ppm/±50ppm/-40~85°C/10pF)

SPECIFICATION OF QUARTZ CRYSTAL UNITS

1.HOLDER TYPE: SMD3225 27.120MHz

2.GENERAL

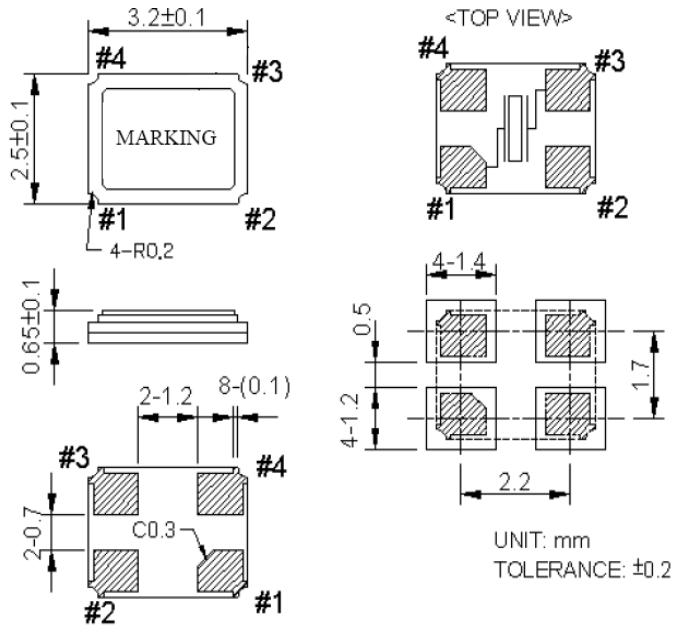
2-1 FREQUENCY (F0)	27.120MHz
2-2 MODE OF OSCILLATION (Mn)	Fundamental
2-3 OPERATION TEMPERATURE RANGE (T0)	-40--+85°C
2-4 STORAGE TEMPERATURE RANGE (Ts)	-40--+85°C
2-5 TEST SET	S&A 250B Network Analyzer
2-6 DRIVE LEVEL (DL)	10 μ W
2-7 LOADING CAPACITANCE (CL)	10pF

3.ELECTRICAL CHARACTERISTICS

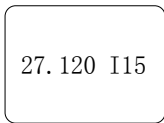
3-1 FREQUENCY TOLERANCE (Δf)	± 30ppm Max at 25±2°C
3-2 EQUIVALENT RESISTANCE (Rr)	50 Ω Max/Series
3-3 TEMPERATURE DRIFT (Tc)	± 50ppm/Max -40--+85°C
3-4 SHUNT CAPACITANCE (Co)	3.0pF/Max
3-5 MOTIONAL CAPACITANCE(C1)	N/A
3-6 INSULATION RESISTANCE	500M Ω min/DC100V± 15V
3-7 AGING RATE PER YEAR:	± 2ppm/Year
3-8 DLD2(0.01~100 μ W,10STEPS)	15 Ω /Max

4.DIMENSIONS AND MARKING

4.1 HOLDER TYPE AND DIMENSION (mm)



4.2 MARKING

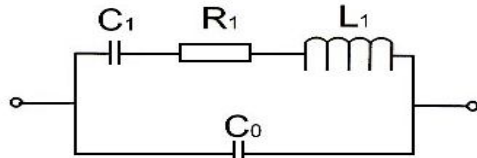


DATE CODE

A: January, B:Feb, C: March, D: April

"15" means 2015 year

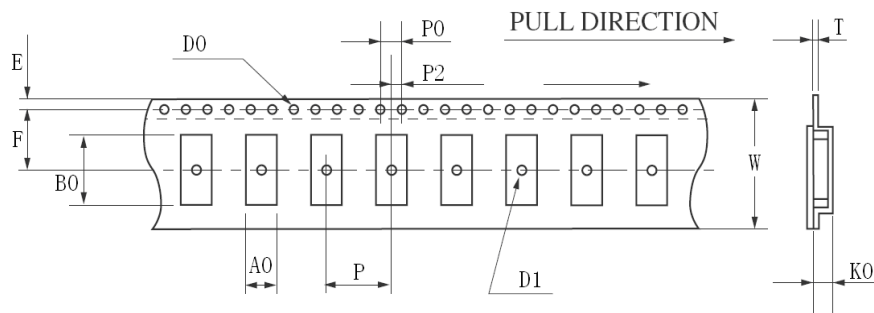
4.3 Equivalent Circuit :



Equivalent Circuit

4.4 THE SPELIFILATION OF TAPE PACKING

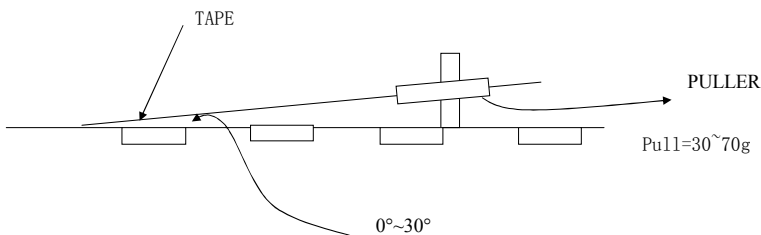
4.4.1 The packing requirements and methods of TAPE



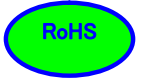
	6035	5032	4025	3225	2520
W	16.00±0.30	12.00±0.2	12.00±0.2	8.00±0.2	8.00±0.2
E	1.75±0.10	1.75±0.10	1.75±0.10	1.75±0.10	1.75±0.10
F	7.5±0.10	5.5±0.10	5.5±0.10	3.5±0.10	3.5±0.05
T	0.31±0.10	0.30±0.05	0.30±0.05	0.25±0.05	0.25±0.05
P	8.00±0.10	8.00±0.10	8.00±0.10	4.00±0.10	4.00±0.10
P0	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10
P2	2.00±0.10	2.00±0.10	2.00±0.10	2.00±0.10	2.00±0.05
D0	φ 1.50+0.10	φ 1.55+0.05	φ 1.50+0.10	φ 1.55+0.05	φ 1.55+0.05
D1	φ 1.50MIN	φ 1.50MIN	φ 1.50MIN	φ 1.00MIN	φ 1.00MIN
A0	3.95±0.10	3.60±0.10	2.90±0.10	2.70±0.10	2.25±0.05
K0	1.35±0.10	1.40±0.10	1.00±0.10	1.40±0.10	1.15±0.05
B0	6.50±0.10	5.40±0.10	4.40±0.10	3.40±0.10	2.70±0.05

4.4.2 Pull test of TAPE Packing

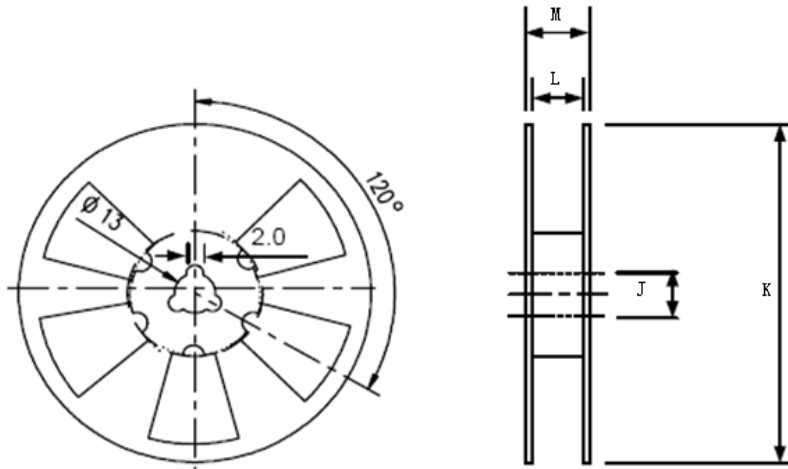
Tools: Puller and speed Monitor (2mm±1mm/sec)



QUARTZ CRYSTAL UNITS

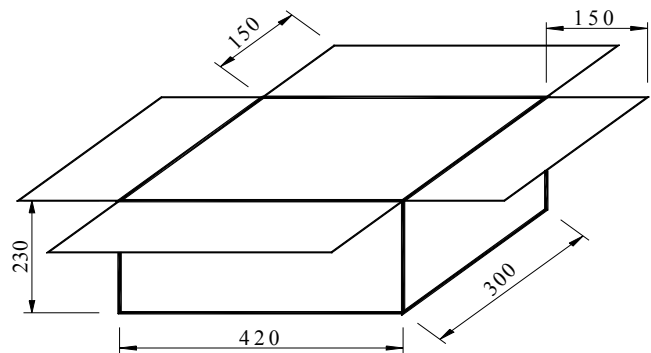
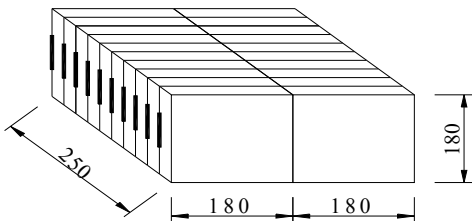
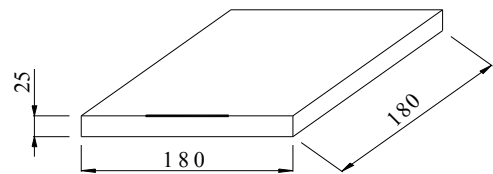
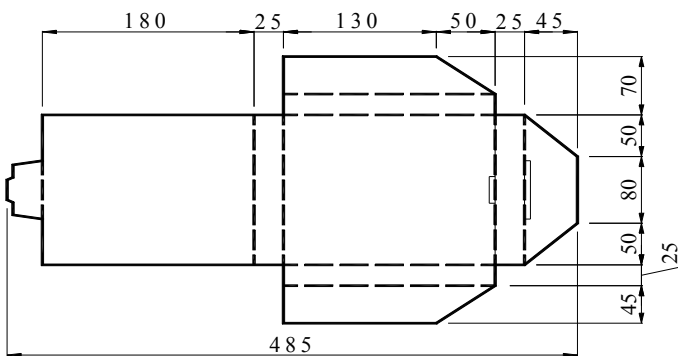


4.5 PACKING FOR APPROVAL



DIMENSIONS	J	K	L	M	pcs/Reel (unit:mm)
	13	178	8	11.5	Standard Reel Quality is 3,000pcs per reel

Carton Dimension (unit : mm)



20 Inner boxes = 1 Carton

120K pcs = 1 Carton

5.MECHANICAL ENDURANCE

Provided that measurement shall be carried out after letting it alone in the room temperature for 1 hour.

5.1.SHOCK

Electrical characteristics shall be satisfied after dropping three times from the height of 100cm onto the Concrete.

5.2.VIBRATION

Electrical characteristics shall be satisfied after supplying following vibration.

a).ENTIRE FREQUENCY RANGE	10~2000Hz
b).REPEATED PERIOD	1~2min
c).AMPLITUDE	1.52mm
d).DIRECTION	X.Y.Z
e).ACCELERATED SPEED	20g
f).PERIOD	4hours/Each Direction

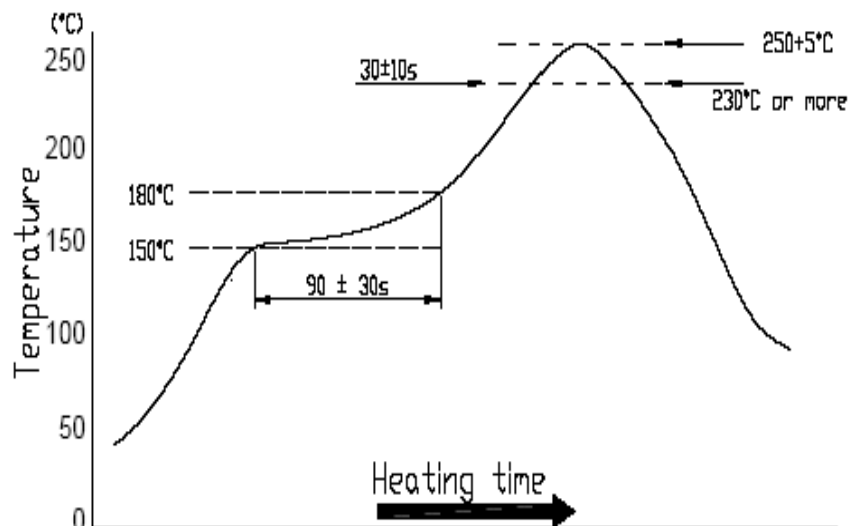
5.3.SEALING TIGHTNESS

Put the specimens in C_2H_5OH , raise pressure it with 0.5Mpa for 10 min,
test the insulation resistance at DC.100V, the result shall be over 500M Ω .
Electrical characteristics shall be satisfied and no sealing damage.

5.4.SOLDERING HEAT RESISTANCE

Electrical characteristics shall be satisfied .Without distinct looseness of terminals.

①.FLOW Soldering



②.SOLDERING DIP

Terminals/lead-wires of specimen shall be dipped into solder melter tank
at $+245^{\circ}\text{C}\pm 5^{\circ}\text{C}$ for 5 ± 0.5 sec.

③.SOLDER HEATING

Terminals/lead-wires of specimen shall be dipped into solder melter tank
at $+260^{\circ}\text{C}\pm 5^{\circ}\text{C}$ for 10 ± 1 sec.

5.5.ENVIRONMENTAL ENDURANCE

Provided that measurement shall be carried out after letting it
alone in the room temperature for 1 hour.

①HUMIDITY

Electrical characteristics shall be satisfied after letting it alone at $60\pm 2^{\circ}\text{C}$
in humidity of 95% for 500 hours.

②.STORAGE IN LOW TEMPRATURE

Electrical characteristics shall be satisfied after letting it alone at $-40\pm 3^{\circ}\text{C}$
for 168 hours.

③.STORAGE IN HIGH TEMPRATURE

Electrical characteristics shall be satisfied after letting it alone at $125\pm 2^{\circ}\text{C}$
for 168 hours.

④.TEMPERATURE CYCLE

Electrical characteristics shall be satisfied after supplying the following temperature
cycle(3cycle).Temperature shift from low to high, high to low shall be done in
 $1^{\circ}\text{C}/\text{sec}$.

