

(RoHS)

产 品 规 格 书

SPECIFICATION FOR APPROVAL

客户名称
Customer Name: _____

产品名称
Product Name: 贴片石英晶体谐振器

产品型号:
Product Type: SMD 3225 (4PIN)

标称频率
Nominal Freq: 12.288000MHz

产品编号
Part Coding: 7325-1228A2010-00

规格书编号:
Specification P/N: XTY0292-7033

客户料号:
Customer P/N: C389826

日期:
Date: 2019-06-15

客户承认
Approved By Customer:

签章
Signature:

日期
Date:



深圳市新天源电子有限公司

SHENZHEN XINTIANYUAN ELECTRONICS CO., LTD.

地 址： 深圳市宝安区石岩镇塘头宏发工业园1栋5楼

Add: 5/f.,Block 1,Hongfa Industrial Estate,Tangtou village,Shiyan Town,Baoan district,Shenzhen,Guangdong,China.

电话Tel: 0755-27650903 传真Fax: 0755-29833253

联系人: 王后勤 (小姐) 手机: 13728612903

E-mail: xyt@chinaxy.cn 网 址: [//www.chinaxy.cn](http://www.chinaxy.cn)

批准
Accepted

审核
Checked

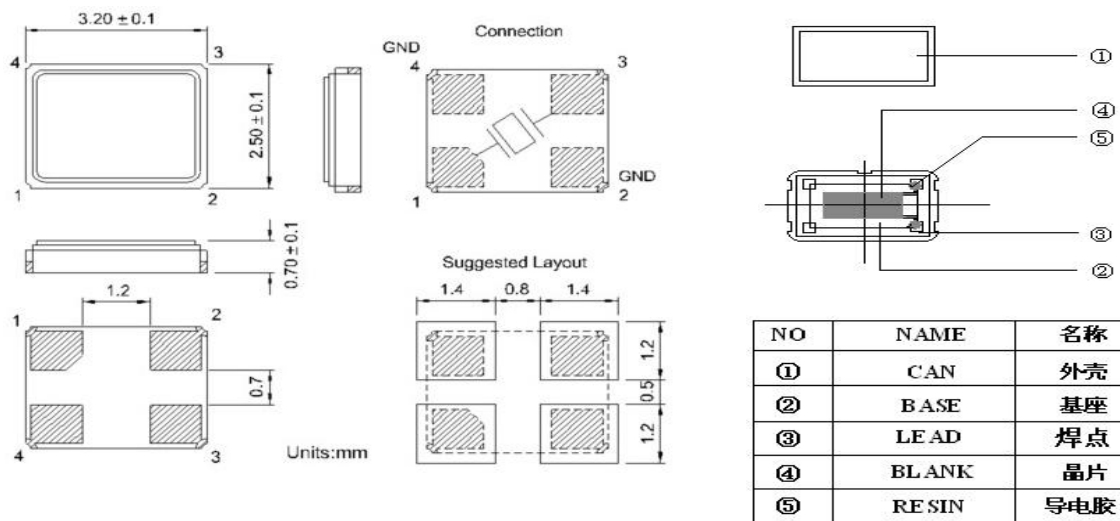
编制
Issued 陈梅东

深圳市新天源电子有限公司 Shenzhen Xintianyuan Electronics Co., Ltd.	石英晶体谐振器规格书 Specification of Quartz Crystal	NO: XTY0292-7033
	无源 SMD3225 4pin	Date: 2019/06/15
一、石英晶体规格参数 Quartz Crystal Specification Parameters		
1、产品型号 Holder Type	SMD 3225 (4pin)	
2、标称频率 Nominal Frequency	12.288000MHz	
3、振动模式： Mode of Oscillation	Fundamental	
4、调整频差 Frequency Tolerance at 25°C ± 2°C	±10ppm at 25°C ± 2°C	
5、等效电阻 Equivalent Resistance (ESR)	≤ 60 Ω	
6、负载电容 Load Capacitance (CL)	20pF	
7、温度频差 Temperature Characteristics	± 20ppm	
8、工作温度范围 Operating Temperature range	-40 ~ +85°C	
9、储存温度范围 Storage Temperature range	-55 ~ +125°C	
10、激励功率 Drive Level	100uW	
11、静态电容 Shunt Capacitance (C0)	< 4.0pF	
12、绝缘电阻 Insulation Resistance	≥ 500MΩ (DC100V ± 15V)	
13、测试仪器 Measure Instrument	250B	
14、年老化率 Aging Rate a Year	≤ ± 3ppm/年	

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二、石英晶体尺寸、结构

Quartz Crystal Dimensions And Structure



三、石英晶体印字

Quartz Crystal Marking



印字: Marking

XTY: 新天源

Y为年(year): 8:2018; 9:2019...

M为月(Month): A:1; B:2...

P为负载 CL:20: 20pF

FF. FFFM为频率Frequency: 27.000M

例8C20: 8为2018年, C为3月, 20为20pF;

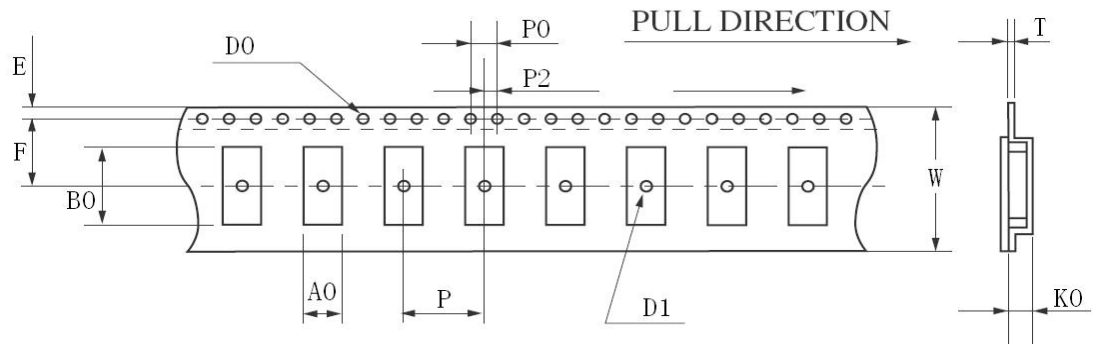
年、月、负载代码:

年	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
代码	5	6	7	8	9	0	1	2	3	4	5	6
月	1	2	3	4	5	6	7	8	9	10	11	12
代码	A	B	C	D	E	F	G	H	I	J	K	L
负载	9pF	10pF	11pF	12pF	13pF	14pF	15pF	16pF	17pF	18pF	19pF	SERIES
代码	9	10	11	12	13	14	15	16	17	18	19	S

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四、包装要求 Packaging

1. 编带 Tape



Type	W	E	F	T	P	P0	P2	D0	D1	A0	KO	B0
SMD 3225	8.00	1.75	3.50	0.25	4.00	4.00	2.00	∅1.5	∅1.0	2.75	0.95	3.50

Unit: mm

2. 轮 Reel



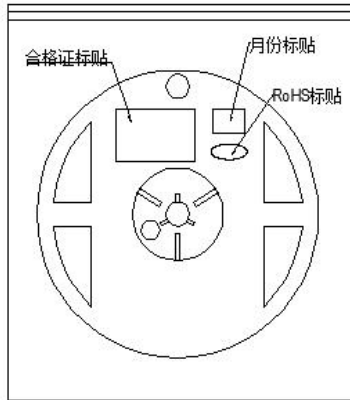
Type	A	B	C	D	N	W1	T1
SMD 3225	∅178	2.5	∅13	∅22.2	∅60	8.5	1.0

Unit: mm

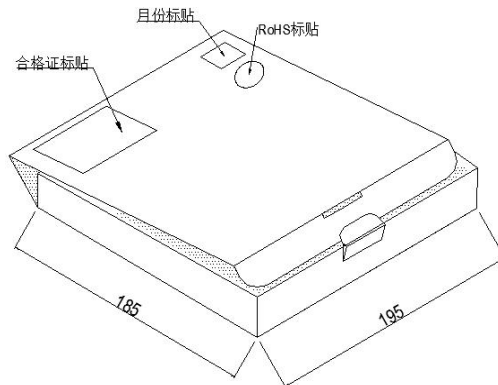
深圳市新天源电子有限公司 Shenzhen Xintianyuan Electronics Co.,Ltd.	石英晶体谐振器规格书 Specification of Quartz Crystal	NO: XTY0292-7033
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3. 包装
Package

3000只/1卷
3000pcs/Reel



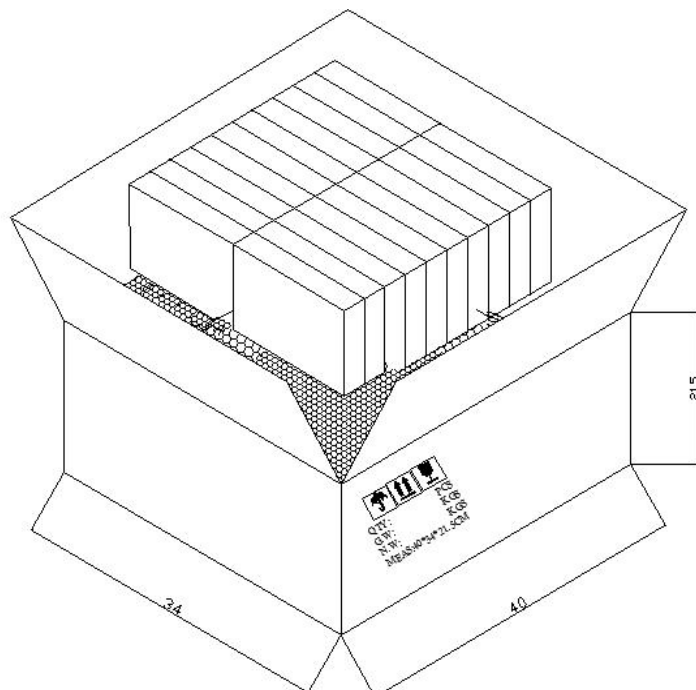
1轮=1盒
1Reel=1Box
Units: mm



合格证	
频率:	型号:
负载:	电阻:
频差:	数量:
日期:	供应商:
批号:	编号:
订单号:	料号:

包装箱
Shipping Carton

40*34*21.5 (20 Box)
27*20*32.2 (12 Box)
27*20*20 (8 Box)
Units: cm



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五、石英晶体可靠性
Reliability Test

NO.	测试项目 Test Item	可靠性条件 Testing Condition	判定标准 Determinant Criteria
1.	跌落 Dropping Test	从75cm高度跌落到30mm厚硬木板上，跌落三次 Drop the resonators from 75cm height to 30mm thick hardwood board, 3times.	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
2.	振动 Vibration	频率 Frequency:10~60Hz; 幅度 Amplitude:0.75mm; 周期 Cycle time:10-55-10Hz: 1min; 振动方向 Direction:X, Y, Z; 振动时间 Duration: 每个方向2小时 2 h/direction.	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
3.	高温 Heat Resistance	温度Temperature: $125^\circ\text{C} \pm 10^\circ\text{C}$ 时间Time: 720 ± 24 Hours	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
4.	低温 Cold Resistance	温度Temperature: $-40^\circ\text{C} \pm 10^\circ\text{C}$ 时间Time: 720 ± 24 Hours	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
5.	回流焊 (2次) Reflow (2times)	 <p>回流焊Reflow $260^\circ\text{C} \pm 5^\circ\text{C} \leq 10\text{s}$</p>	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
6.	耐焊接热 Resistance To Soldering Heat	焊接温度Soldering Heat: $320^\circ\text{C} \pm 10^\circ\text{C}$ 测试时间Test Time: $3.5\text{s} \pm 0.5\text{s}$;	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)
7.	气密性 Leakage	用氦质谱仪进行检测，试验气体: He; 真空度: $1 \times 10^{-3}\text{Pa}$; Helium mass-mass-spectrometer detector, and vacuum and reach $1 \times 10^{-3}\text{Pa}$;	$\leq 1 \times 10^{-8}\text{atm} \cdot \text{cc/S}$
8.	高温高湿 Constant Temperature and Humidity	在温度 $60^\circ\text{C} \pm 5^\circ\text{C}$ ，湿度90%~99%，储存720小时，取出2小时后测试; Stored at $60^\circ\text{C} \pm 5^\circ\text{C}$, Humidity 90%~99% For a period of minimum 720hours. Then $25^\circ\text{C} \pm 3^\circ\text{C}$ and 2 hours before testing	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger) Appearance OK
9.	温度冲击 Temperature Shock	低温Low $-40^\circ\text{C} \pm 2^\circ\text{C}$ (120min) \leftrightarrow 高温High $85^\circ\text{C} \pm 2^\circ\text{C}$ (120min); 循环10次; For 10 cycles	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq \pm 10\%$ or $5\ \Omega$ (whichever is larger)