样品承认规格书

PART SHEET FORAPPROVAL

制造商名称： Manufacturer：	万物相连通讯襄阳有限公司 All things connected Communications Xiangyang Limited
供应商名称 Supplier:：	万物相连通讯襄阳有限公司 All things connected Communications Xiangyang Limited
产品名称： Part Description:	Patch ceramic antenna
规格型号： Model No:	WWXL-U 2400/2500-660
物料编码： Cust P/N:	360100239
日期： Issued Date：	2021.04.24

供应商确认Supplier confirmation

承办Made By	审核Engineer	批准Approver
黄荣军	黄胜	[illegible]

华曦达确认SDMC confirmation

承认原因： Approval Reason：	☐新物料New Part☐替代料Substitute Part			
承办Made By	审核Engineer			批准Approver
	品质Quality	研发R&D	业务Sales	

备注：签名表明提交样品获得承认，图纸规格已经受控。Note：Signature indicates that the submittedsample is approved and thedrawing/specification is now the controlling document.

地址：深圳市南山区高新科技园科技南十二路18号长虹科技大厦19层
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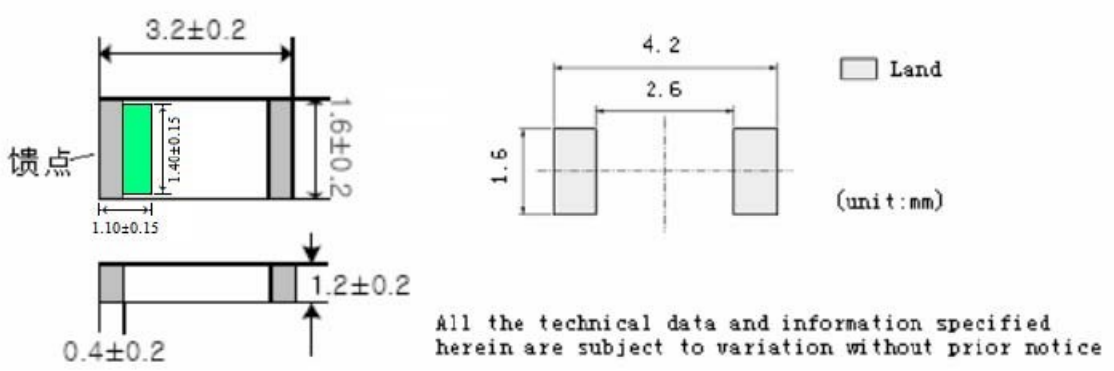
Specification for Antenna

1、 Scope

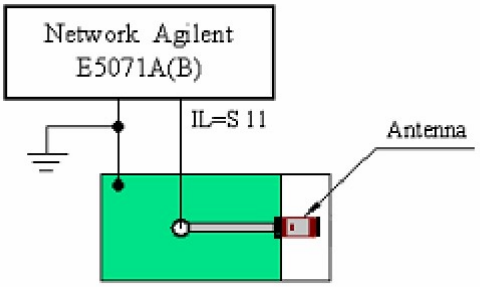
Antenna series are designed to be used in WLAN、Home RF、
Bluetooth、Module、etc., small size SMD chip design.

2、 Appearance and Dimensions

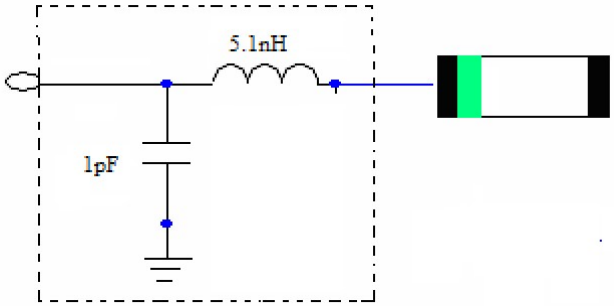


All the technical data and information specified herein are subject to variation without prior notice

3、Test Circuit and Testing Conditions



无匹配电路测试- 2.74GHz 中心频率
No Matching Circuit Testing

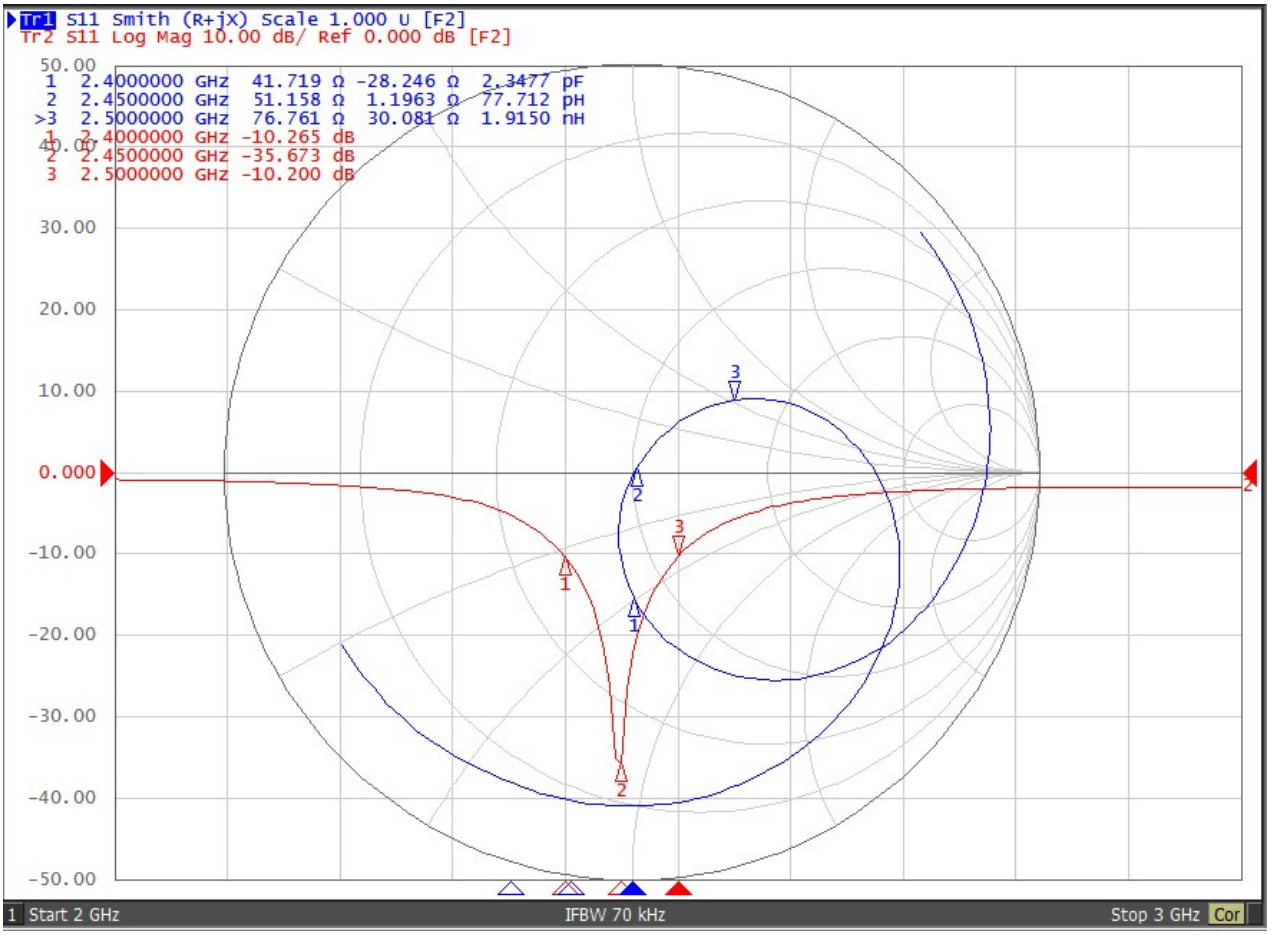


LC 匹配电路
LC Matching Circuit Testing

4、Electrical Characteristics

Name Patch ceramic antenna （WWXL2001001）		ModelType	
ELECTRICAL SPECTFICATIONS		MECHANICAL SPECTFICATIONS	
Central Frequency	2450MHz	Dimensions	3.2*1.6*1.2MM
After Matching	100 MHz (2400～2500MHz)	V.S.W.R (in BW)	≤2.0
Gain	0.41dBi	Polarization	Linear
Impedance	50 Ω	Azimuth Beam width	Omni-directional
Power Capacity	2W max	Limit Temperature	-40℃-+85℃
WorkingTemperature	-40℃ - +85℃		

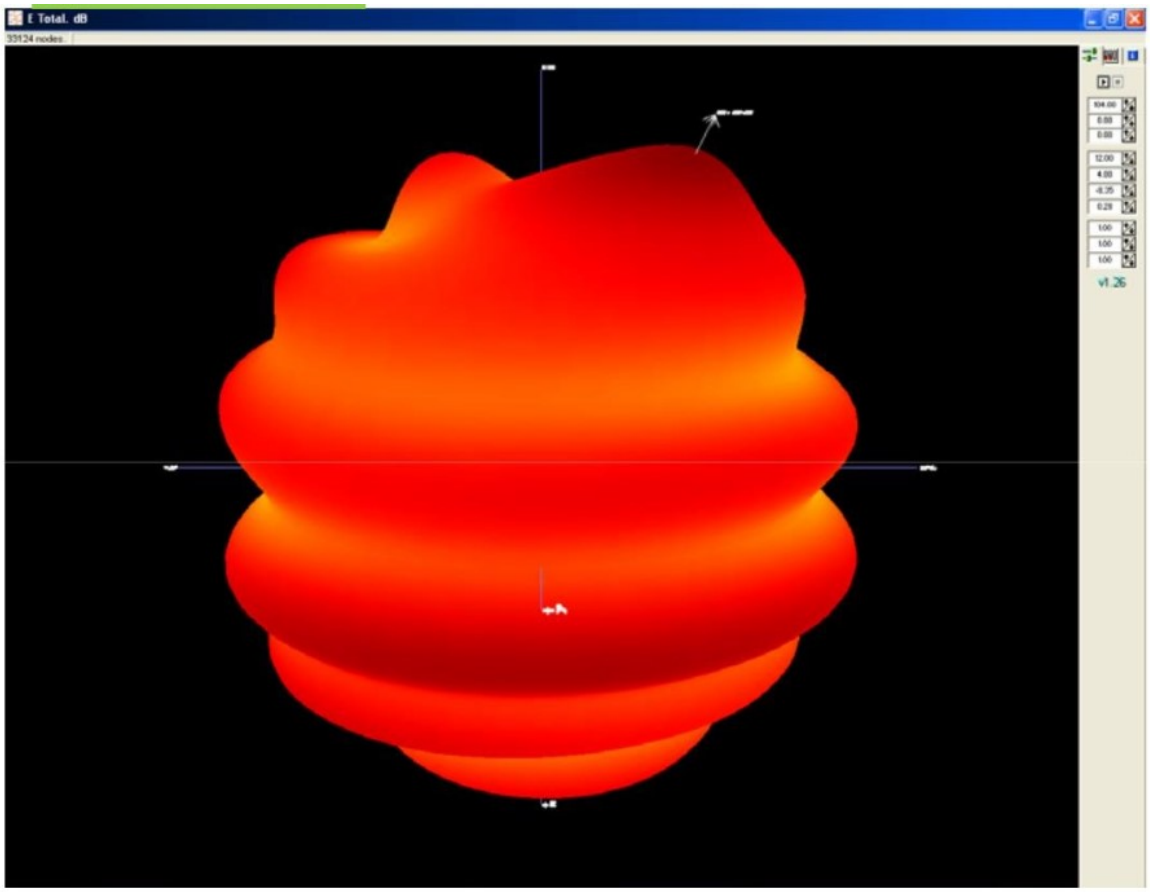
5、Characteristic curve



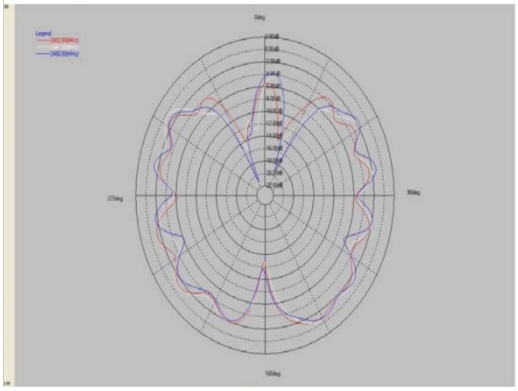
6、Gain, efficiency

Fre(MHz)	2402	2441	2480
Gain(dBi)	0.280	0.411	0.170
Efficiency (%)	50.5	50.6	48.8

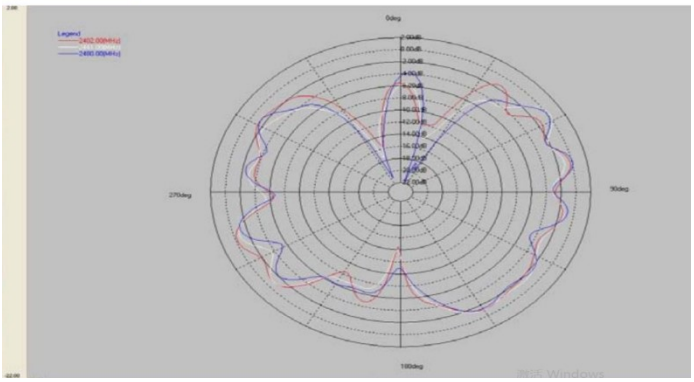
7、Directions



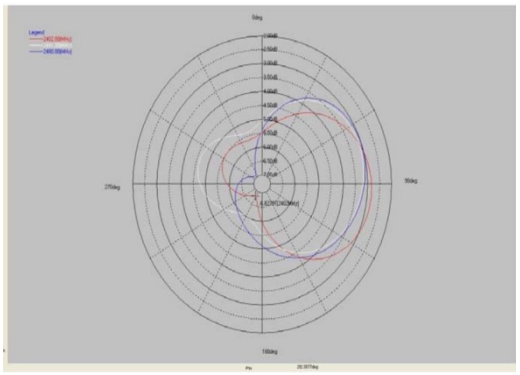
Phi=0



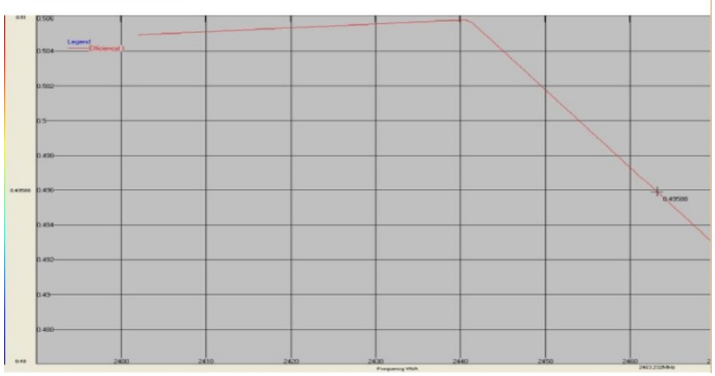
Phi=90



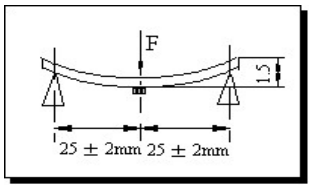
Theta=90



Efficiency



8、Reliable Performance

NO.	Item	Specifications	Test Methods	
6-1	Solder-Ability 可焊性	More than 90% of termination should be covered with new solder. 端电极焊锡覆盖率为 90%以上。	焊锡 Solder: Sn: Pb=	100:0
			焊锡温度 Temperature:	255℃+5℃/-0℃
			助焊剂 Flux: 松香 rosin	
			浸渍时间 Duration:	5±0.5s
6-2	Leaching Resistance 耐焊性	More than 75% of termination Should be covered with new solder. 端电极焊锡覆盖率为 75%以上。	焊锡 Solder: Sn: Pb=	100:0
			焊锡温度 Temperature:	270℃+2℃/-0℃
			助焊剂 Flux: 松香 rosin	
			浸渍时间 Duration:	10±0.5s
6-3	Terminal Strength 端头强度	The terminal and body should be no damage 端头和瓷体不应见损伤	The device should not be broken after tensile force of 1.0kg is slowly applied to pull a lead pin of the fixed device in the lead axis direction for 10±1 seconds. 在产品电极端子上或表面上应能承受 1kg 垂直拉力 10±1 秒	
6-4	Bending Strength 弯曲试验	No mechanical damage should be noticed 不应见机械损伤	Weld the product to the center part of the PCB with the thickness 1.6±0.2mm as the illustration shows, and keep exerting force arrow-ward on it at speed of: 1mm/S, and hold for 5±1S at the position of 1.5mm bending distance, so far, any peeling off of the product metal coating should not be detected. 将产品按图焊在 1.6±0.2mm 的 PCB 板中间，由箭头方向施力 1mm/S，弯曲距离 1.5mm，保持 5±1S，产品金属层无脱落。 	
6-5	Drop 跌落	Post Environmental Tolerance (环境试验后允许附加误差)	Drop 10 times on a concrete floor from a height of 1m. 从距混凝土地面 1m 高度自由落下，重复 3 次。	

6-6	Vibration 振动	1 Center Frequency 中心频率：±25 MHz； 2 Band Width 通带宽度： ±20 MHz； 3 Gain 增益：±0.2 dBi 4 V.S.W.R (in BW) 驻波比： ±0.5 dB；	频率 Frequency: 10 to 55Hz 振幅 Amplitude: 1.5mm 方向及时间 Direction and time: X, Y and Z directions for 2 hours each.
6-7	Humidity resistance 耐潮湿		a. 试验条件 Test condition 温度 Temp.: 60±2℃ 湿度 Humidity: 90%~95% 试验时间 Test time: 96±2 h b. 测量条件 Measurement method: 试验后常温常湿环境中放置（24±2）小时后测量。 The component should be stabilized at normal condition for (24±2) hours before test.
6-8	High temperature resistance 耐高温		a. 试验条件 Test condition 温度 Temp.: + 85±2℃ 试验时间 Test time: 96±2 h b. 测量条件 Measurement method: 试验后常温常湿环境中放置（24±2）小时后测量。 The component should be stabilized at normal condition for (24±2) hours before test.
6-9	Low temperature resistance 耐低温		a. 试验条件 Test condition 温度 Temp.: -40±2℃ 试验时间 Test time: 96±2 h b. 测量条件 Measurement method: 试验后常温常湿环境中放置（24±2）小时后测量。 The component should be stabilized at normal condition for (24±2) hours before test.
6-10	Thermal shock (Temperature cycle) 热冲击（温度循环）		a. 试验条件 Test condition 1) 温度 Temp.: -40℃, 时间 time: 30±3min 2) 温度 Temp.: +85℃, 时间 time: 30±3min 5 cycles b. 测量条件 Measurement method: 试验后常温常湿环境中放置（24±2）小时后测量。 The component should be stabilized at normal condition for (24±2) hours before test.

9、Recommended Soldering Conditions

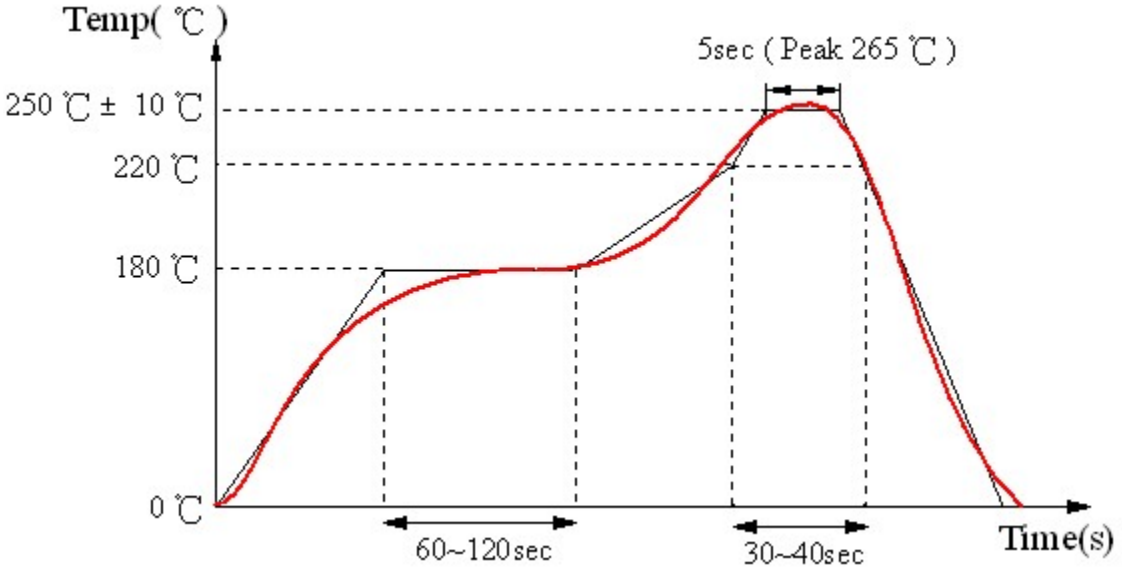
a、Flux, Solder

① Use rosin-based flux. Don’t use highly acidic flux with halide content exceeding 0.2wt% (chlorine conversion value).

② Use Sn solder.

b、Reflow soldering conditions

Pre-heating should be in such a way that the temperature difference between solder and product surface is limited to 150℃ max. Cooling into solvent after soldering also should be in such a way that temperature difference is limited to 100℃ max. Unwrought pre-heating may cause cracks on the product, resulting in the deterioration of products quality.



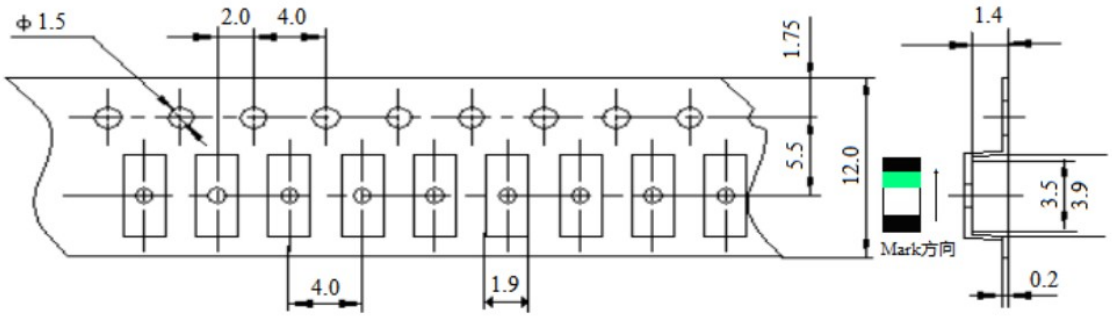
c、Reworking with soldering iron

The following conditions must be strictly followed when using a soldering iron.

预热 Pre-heating	150℃, 1 minute
尖端温度 Tip temperature	350℃ max
输出功率 Soldering iron output	80w max
电烙铁头尖端尺寸 End of soldering iron	φ3mm max
焊接时间 Soldering time	3 seconds max

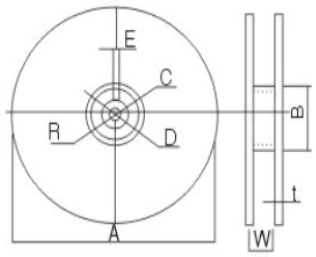
10、Packaging：

①编带尺寸 Dimensions of Tape:



②带轮尺寸 Dimensions of Reel

Unit: mm



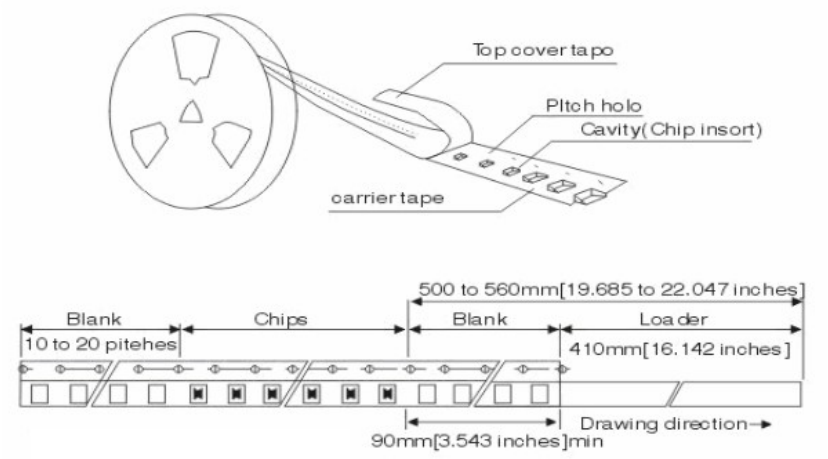
Reel material: PS (Polystyrene)

A	178±2
B	60±2
C	13.0±0.5
D	21.0±0.8
E	2.0±0.5
W	12.5±1.5
t	1.2±0.2
R	1.0±0.25

③ 编带抗拉强度 Pulling strength of tapes:

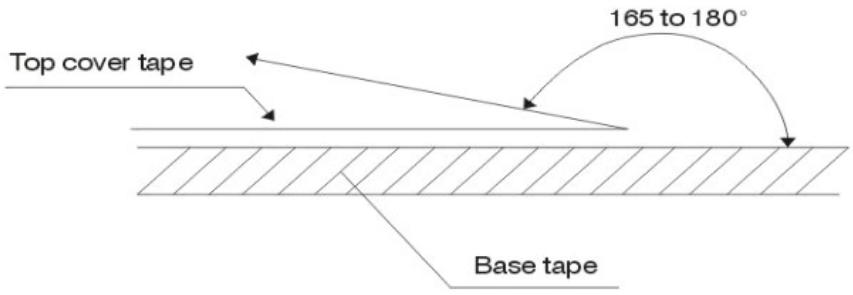
载带 Carrier tape	10N or more (1kgf or more)
上盖带 Cover tape	5N or more (1kgf or more)

④ 编带简图及拉伸方向 Taping figure and drawing direction:



⑤ 盖带的剥离强度 Peeling strength of cover tape:

盖带 Cover tape	0.3~0.7N (30gf~70gf)



测试条件 Test condition:

1) 剥离角度 peel angle: 165°~180° vs. carrier tape.
2) 剥离速度 peel speed: 300mm/min±10%.

⑥ 包装数量 Packaging quantities: 3000 PCS / Reel