

样品承认规格书

PART SHEET FOR APPROVAL

| | |
|----------------------------|---|
| 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: | Built-in antenna 内置天线 |
| 规格型号: Model No: | WWXL6008653 |
| 物料编码: Cust P/N: | 360100311 |
| 日期: Issued Date: | 2022. 04. 24 |

供应商确认 Supplier confirmation

| | | |
|--------------|-------------|-------------|
| 承办 Made By | 审核 Engineer | 批准 Approver |
| HUANGRONGJUN | HUANGSHENG | TONGXIAOYAN |

华曦达确认 SDMC confirmation

| | | | |
|---------------------------|--|--------|-------------|
| 承认原因: Approval Reason: | <input type="checkbox"/> 新物料 New Part <input type="checkbox"/> 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 submitted sample is approved and the drawing/specification is now the controlling document.

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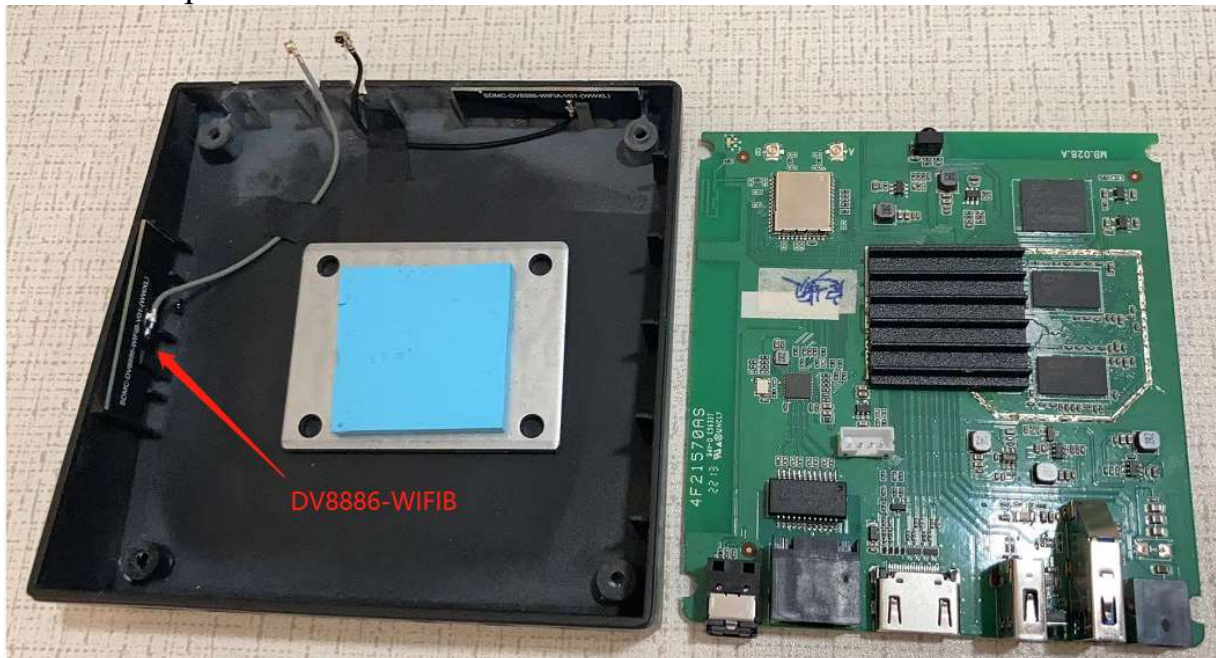
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Specification for Antenna 天线规格书

一、Product pictures产品图片



二、Test parameters产品测试参数

| | | | |
|--|------------------------|------------------------------------|---|
| 产品名称Name内置天线（WWXL6008653） | | 型号 ModelType WWXL-U 2400/5850-1261 | |
| 电气参数ELECTRICAL SPECTFICATIONS | | 机械参数 MECHANICAL SPECTFICATIONS | |
| 频率范围 FrequencyRange 2400-2500/5150-5850MHz | | 尺寸Dimensions | 40*12.5*0.8mm |
| 输入阻抗 Impedance | 50 Ω | 连接器型号Connector | IPEX |
| 驻波比 VSWR | ≤2.0 | 线长linelength | 85+1.5mm 1.13 Low loss line grey 低损耗线灰色 |
| 增益 Gain | ≥3.33/3.82dBi | 效率 Efficiency | ≥50% |
| 极化方式 Polarization | linear Vertical 线极化 | 工作温度WorkingTemperature | -45℃ - +85℃ |
| 辐射方向 Radiation | Omnidirectional 全向 | 存放温度Limit Temperature | -45℃ - +85℃ |

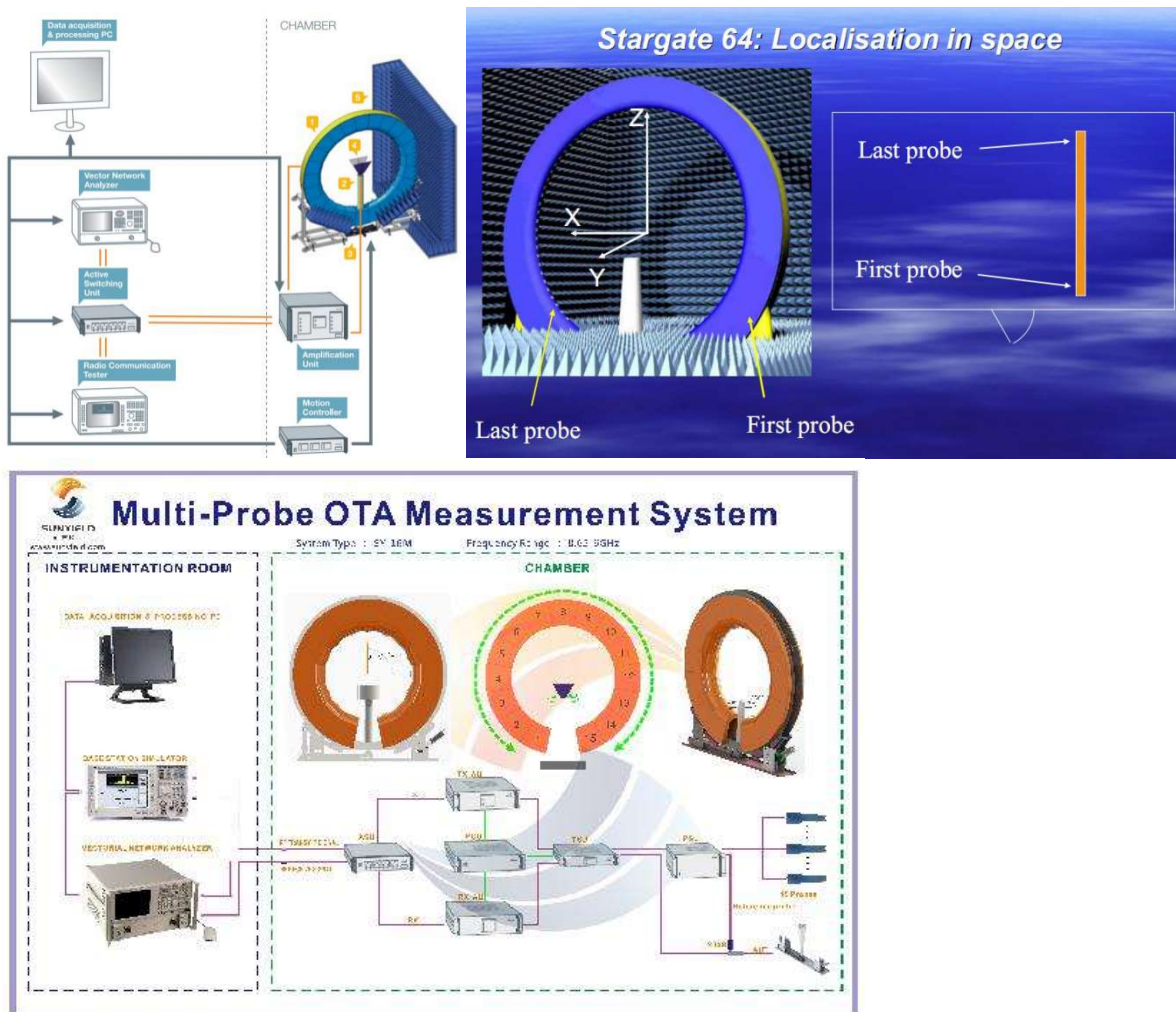
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三、Antenna test environment 天线测试环境

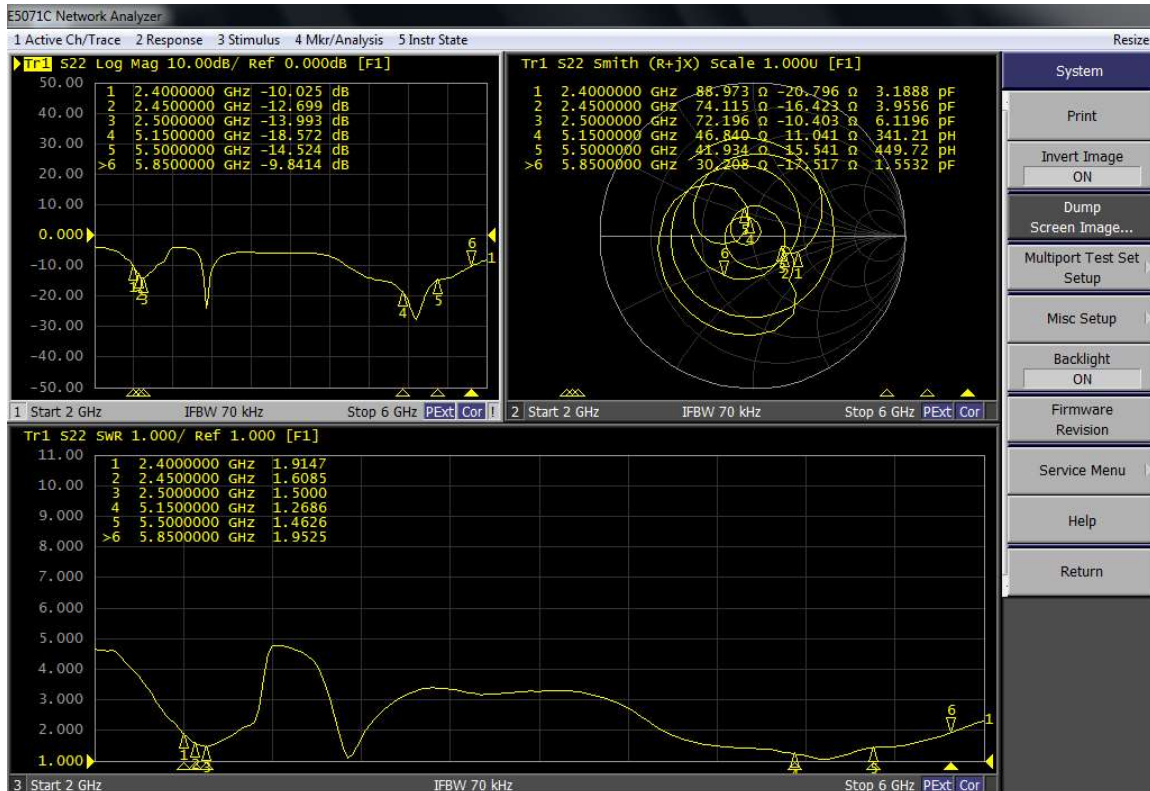


| | |
|---------------------------|--|
| test macro 测试系统: | SY-16M Antenna measurement system 天线测量系统 |
| testing environment 测试环境: | temperature 温度 22°C ± 3°C, humidity 湿度 50% ± 15% |
| testing equipment 测试设备: | Agilent 5071C Agilent 8960 Comprehensive measuring instrument 综测仪 Agilent CMW500 4G Comprehensive measuring instrument 综测仪 |

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四、Antenna Passive Parameters 天线无源参数:

1、VSWR驻波比图:



2、Gain and Efficiency 增益和效率:

| Gain&Efficiency&PhaseCenter 增益、效率和相位中心 | | | | | | | | |
|---|-------------------|----------------------|--------------------------|-------------------|----------------------|--------------------------|-------------------|----------------------|
| frequency 频率 (MHz) | gain 增 益 (dBi) | efficiency 效率 (%) | frequency 频率 (MHz) | gain 增 益 (dBi) | efficiency 效率 (%) | frequency 频率 (MHz) | gain 增 益 (dBi) | efficiency 效率 (%) |
| 2400 | 3.8 | 59.62 | 5150 | 4.25 | 64.68 | 5700 | 3.93 | 61.06 |
| 2410 | 3.53 | 57.91 | 5200 | 4.48 | 62.88 | 5750 | 3.93 | 60.98 |
| 2420 | 3.4 | 57.78 | 5250 | 4.42 | 65.43 | 5800 | 3.82 | 59.66 |
| 2430 | 3.33 | 58.3 | 5300 | 4.5 | 66.39 | 5850 | 3.83 | 58.01 |
| 2440 | 3.4 | 59.13 | 5350 | 4.51 | 66.5 | | | |
| 2450 | 3.39 | 59.63 | 5400 | 4.47 | 65.25 | | | |
| 2460 | 3.56 | 61.12 | 5450 | 4.47 | 64.24 | | | |
| 2470 | 3.6 | 61.68 | 5500 | 4.4 | 64.24 | | | |
| 2480 | 3.62 | 61.7 | 5550 | 4.29 | 64.25 | | | |
| 2490 | 3.69 | 62.59 | 5600 | 4.25 | 63.92 | | | |
| 2500 | 3.59 | 62.43 | 5650 | 4.02 | 62.01 | | | |

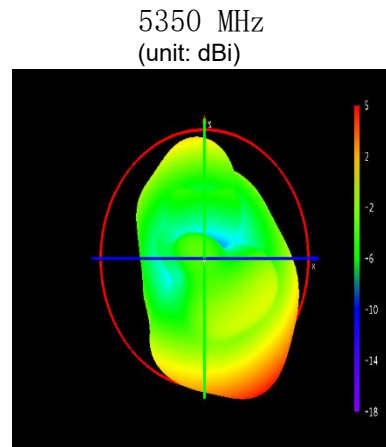
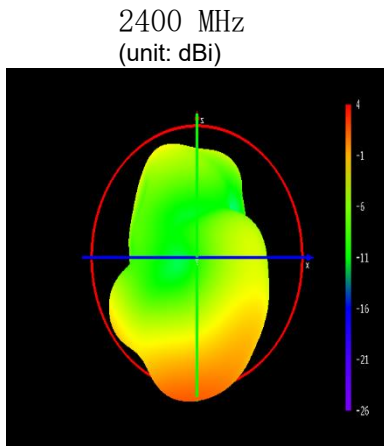
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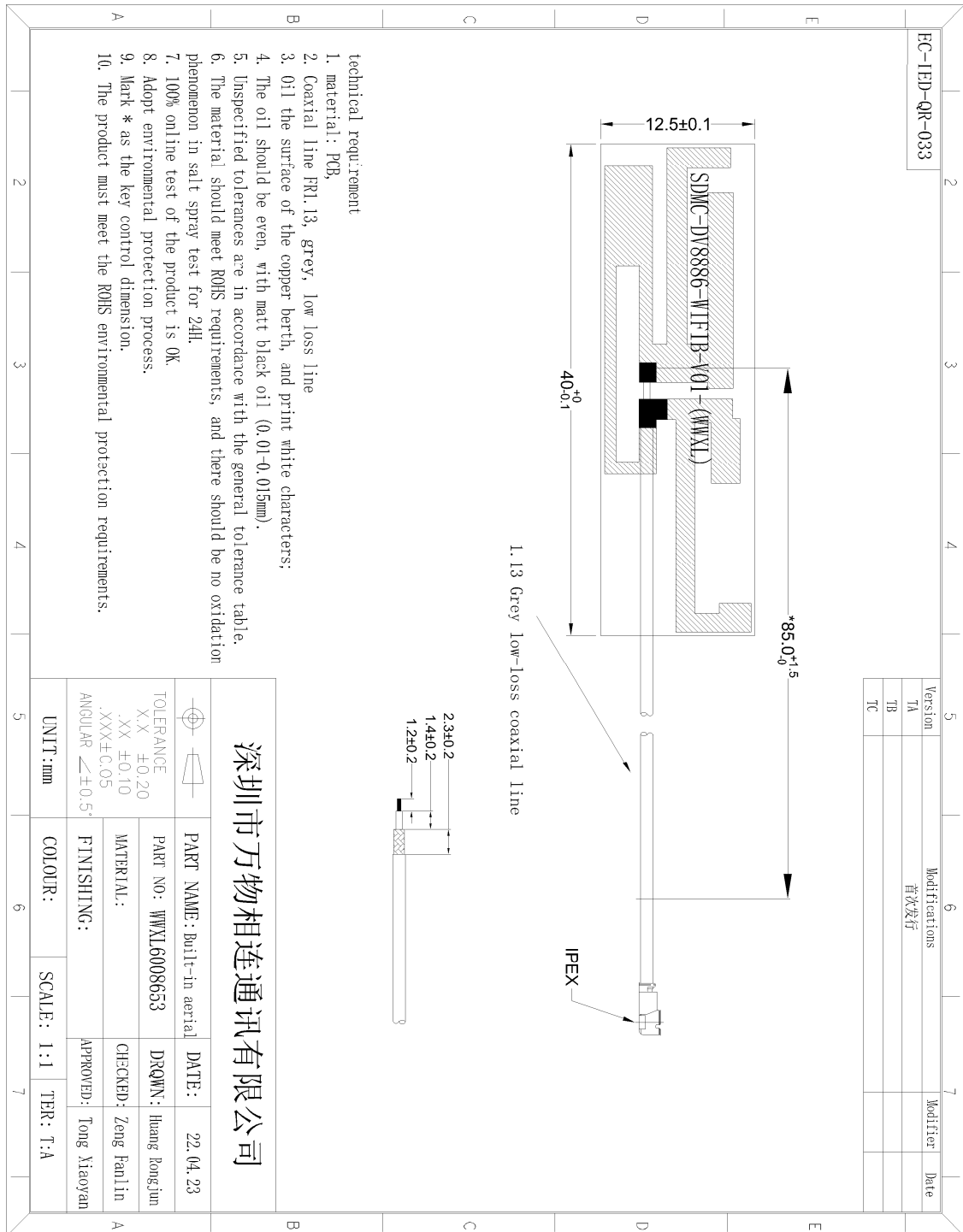
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3、3D directional diagram (Maximum):
WIFIB 2.4GHz/5.8GHz



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六、Drawing产品结构图



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七、Reliability testing环境可靠性试验报告

1 Environmental experiment环境试验

| High and low temperature and humidity test report | | | | | | |
|---|---|----------|------------------------------------|------------------|--------|--------------------|
| test project | High temperature, low temperature and constant humidity test | | | | | |
| name | Built-in antenna (WWXL6008653) | date | 2022.04.24 | | | |
| device | Constant temperature and humidity test box network analyzer | Quantity | 5PCS | | | |
| Inspectin standards | 1. There are no defects such as peeling off, cracks, wrinkles, etc. on the metal surface; non-metal parts must not have defects such as discoloration, cracking, deformation, degumming. 2. The electrical test meets the design requirements; the voltage standing wave ratio test is satisfactory. | | | | | |
| Test name | Pilot projects | request | experiment method | Actual test data | result | |
| | | | | | sample | Assessm ent result |
| High temperature test | Temperature (°C) | +85±3 | 9 according to GB2423.1-89 | +87 | 1 | qualified |
| | Test sample temperature stabilization time (H) | | | | 2 | qualified |
| | Test duration (h) | | | | 3 | qualified |
| | Recovery time (h) | | | | 4 | qualified |
| | | | | | 5 | qualified |
| Low temperature test | Temperature (°C) | -45±3 | 8th in accordance with GB2423.1-89 | -46 | 1 | qualified |
| | Test sample temperature stabilization time (h) | | | | 2 | qualified |
| | Test duration (h) | | | | 3 | qualified |
| | Recovery time (h) | | | | 4 | qualified |
| | | | | | 5 | qualified |
| Constant Damp Heat Test | Temperature (°C) | +40±2 | According to GB2423.3-93 Section 5 | +42 | 1 | qualified |
| | Relative | | | | 2 | qualified |
| | | | | | 3 | qualified |

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| | | | | | | |
|--|-------------------------------------|---|--------|-----|---|-----------|
| | humidity (%) | 1 | Method | 1.1 | 4 | qualified |
| | Test duration (h) Recovery time (h) | | | | 5 | qualified |

b. Salt spray test

| Salt fog test report | | | | |
|-----------------------------|---|------------------------------------|-------------------|---------|
| Test item | Salt spray test | | | |
| Name | Built-in antenna (WWXL6008653) | date of observation | 2022.04.24 | |
| Device name | Salt spray corrosion test box | Test quantity | 5 PCS | |
| Test method | The test samples were put into the modulated salt solution test chamber and salt spray corrosion chamber for continuous spray test | | | |
| Salt solution concentration | 52g/L | PH Value of Salt Solution: 6.5-7.2 | Test cycle: 24h | |
| Actual test data | 55g/L | PH Value of Salt Solution: 6.8 | Test cycle: 26h | |
| Test standard | Tests were carried out according to GB/T10125 "Artificial Atmosphere Corrosion Test and Salt Spray Test"; Results According to GB/T6461-2002 "Metal and other inorganic coatings on metal substrates after corrosion test are samples and specimens | | | |
| Test result | | | | |
| NO | Corrosion resistance grade | Actual test data | Assessment result | Remarks |
| 1 | Rp/Ra=10/10vsB | Rp/Ra=10/10vsB | qualified | |
| 2 | Rp/Ra=10/10vsB | Rp/Ra=10/10vsB | qualified | |
| 3 | Rp/Ra=10/10vsB | Rp/Ra=10/10vsB | qualified | |
| 4 | Rp/Ra=10/10vsB | Rp/Ra=10/10vsB | qualified | |
| 5 | Rp/Ra=10/10vsB | Rp/Ra=10/10vsB | qualified | |

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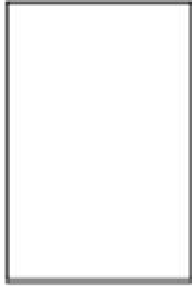
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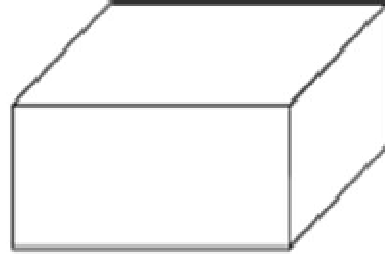
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八、Packing instructions 包装说明:

▼



100PCS/Pouch



30Pouch/1Caron