



SPECIFICATION FOR APPROVAL/产品承认书

Customer Name 客户名称:	Shenzhen Chixiao Video Technology Co., Ltd. 深圳市赤霄视频科技有限公司
Customer P/N. 客户料号:	
Product Description 产品描述:	M5 Global Edition 4G main antenna for the receiving module M5全球版 4G主集天线
BGS P/N 博格斯料号:	CXS-065A (RA)
Manufacturer 制造商:	Shenzhen Bogesi Communication Technology Co., Ltd. 深圳市博格斯通信技术有限公司
Approve Date 承认日期:	October 30, 2025/2025年10月30日

BGS Sign and Seal/供应商签章	Customer Sign and Seal/客户签章
	

Change the content/变更内容	Version/版本	Date/日期
first edition/初版	RA	2025/9/28

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1. Antenna Specification/天线技术参数

1.1: Electrical Specification/电气特性

Freq.Range/频段范围（MHz）	690-960MHz； 1710-2690MHz
Impedance/阻抗（Ω）	50
VSWR/驻波比	<3
Directional/辐射方向	Omni directional
Polarization/极化方式	Linear
Gain/增益（dBi）	690-960MHz:-3.27
	1710-2690MHz: 1.42

1.2: Mechanical Specification/机械指标

Material/材质	FPC
RF Cable Type/射频线型号	N/A
Connector Type/连接器类型	N/A

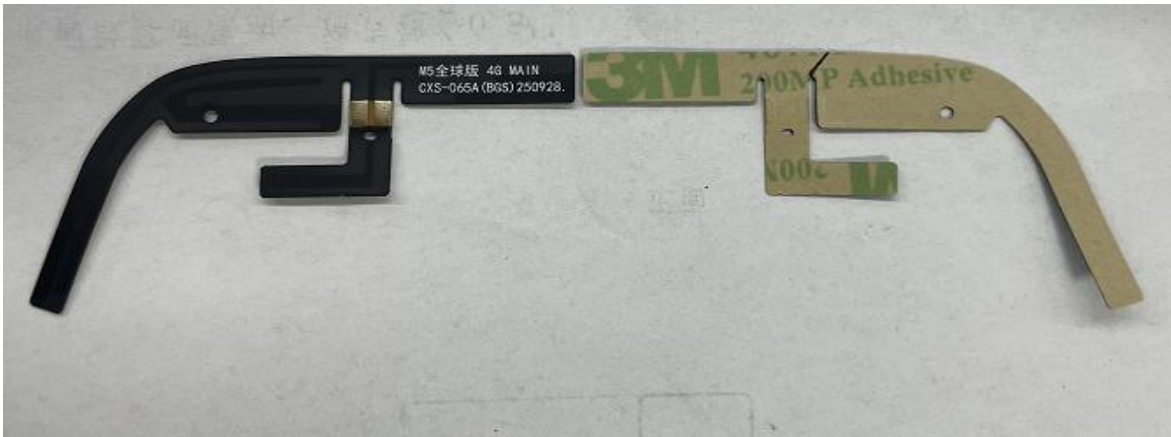
1.3: Environmental Specification/环境指标

Operation temp/工作温度	-40℃～+85℃
storage temperature/储存温度	-40℃～+85℃



2. Antenna Picture and Installation Instructions/天线图片及安装说明

2.1: Antenna Picture/天线图片



2.2: Installation Instructions/安装说明（下图天线仅作参考）

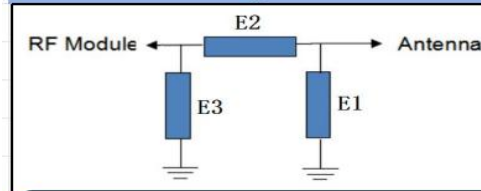




3.Test Report/测试报告

3.1: The matching circuits/匹配电路

4G antenna matching/4G天线匹配



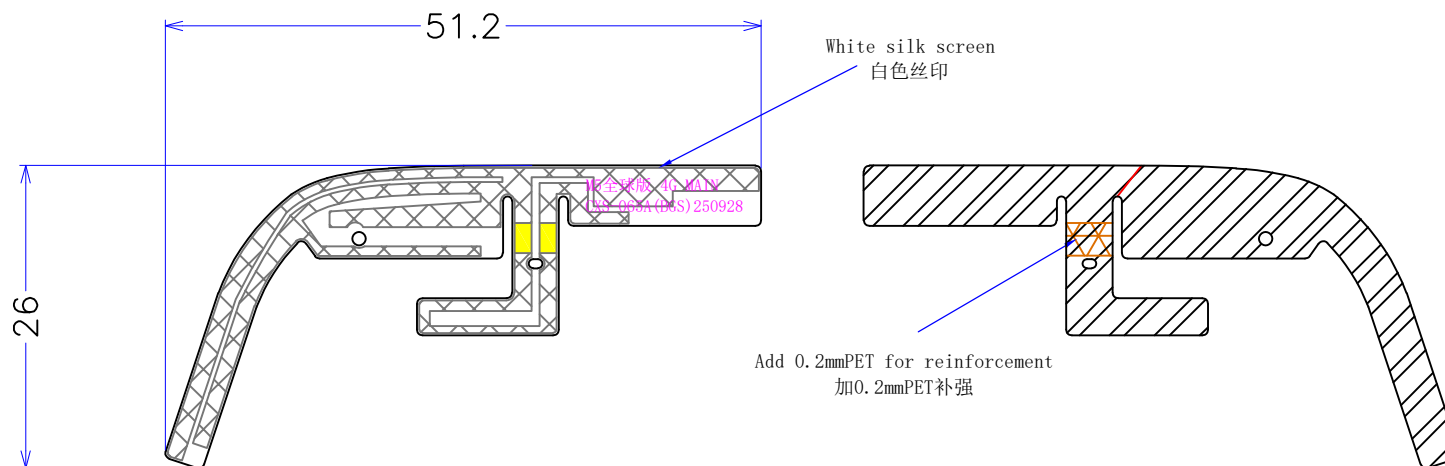
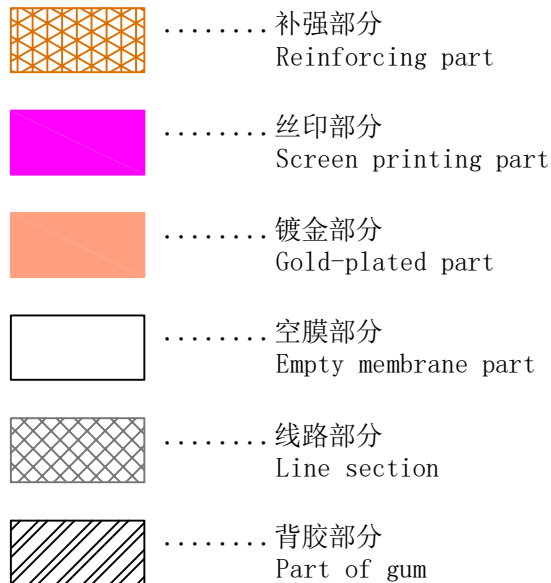
The 4G-MAIN antenna matching circuit is connected in parallel with 6.8NH and in series with 2.7PF.
4G-MAIN天线匹配电路并联6.8NH串联2.7PF

Element	5G-MAIN
	Value
E1(0402)	6.8NH
E2(0402)	2.7PF
E3(0402)	N/A

3.2: Antenna efficiency and gain/天线有源数据

4G antenna OTA test data
4G天线OTA测试数据

Band	Channel	TRP	TIS								
LTE1 (10M)	Low	15.39		LTE13 (10M)	Low	16.54		LTE38 (20M)	Low	16.8	
	Mid	15.94			Mid	16.4			Mid	16.48	
	High	16.58	-90.09		High	16.12	-66.4		High	16.53	-81.45
LTE2 (10M)	Low	16.05		LTE17 (10M)	Low	12.42		LTE39 (20M)	Low	15.12	
	Mid	15.41			Mid	12.94			Mid	14.52	
	High	14.49	-90.68		High	13.32	-65.3		High	14.71	-85.18
LTE3 (10M)	Low	18.26		LTE18 (10M)	Low	16.29		LTE40 (20M)	Low	17.32	
	Mid	18.62			Mid	17.78			Mid	16.63	
	High	17.63	-87.91		High	17.61	-83.76		High	15.27	-81.05
LTE4 (10M)	Low	18.14		LTE19 (10M)	Low	17.8		LTE41 (20M)	Low	16.56	
	Mid	18.27			Mid	17.22			Mid	16.78	
	High	18.74	-87.4		High	17.79	-81.08		High	16.56	-81.54
LTE5 (10M)	Low	17.74		LTE20 (10M)	Low	17.79		LTE66 (10M)	Low	17.94	
	Mid	16.99			Mid	17.27			Mid	18.12	
	High	17.06	-80.74		High	18	-78.79		High	18.36	-86.73
LTE7 (10M)	Low	14.11		LTE25 (10M)	Low	15.57					
	Mid	15.2			Mid	16.1					
	High	15.17	-87.36		High	16.18	-85.7				
LTE8 (10M)	Low	14.53		LTE26 (10M)	Low	16.43					
	Mid	12.81			Mid	17.06					
	High	14.64	-82.51		High	16.97	-79.83				
LTE9 (10M)	Low	18.69		LTE28 (10M)	Low	13.38					
	Mid	18.83			Mid	14.14					
	High	17.66	-85.47		High	14.47	-65.31				
LTE12 (5M)	Low	13.4		LTE38 (20M)	Low	16.8					
	Mid	13.99			Mid	16.48					
	High	13.74	-70.8		High	16.53	-81.45				

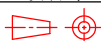


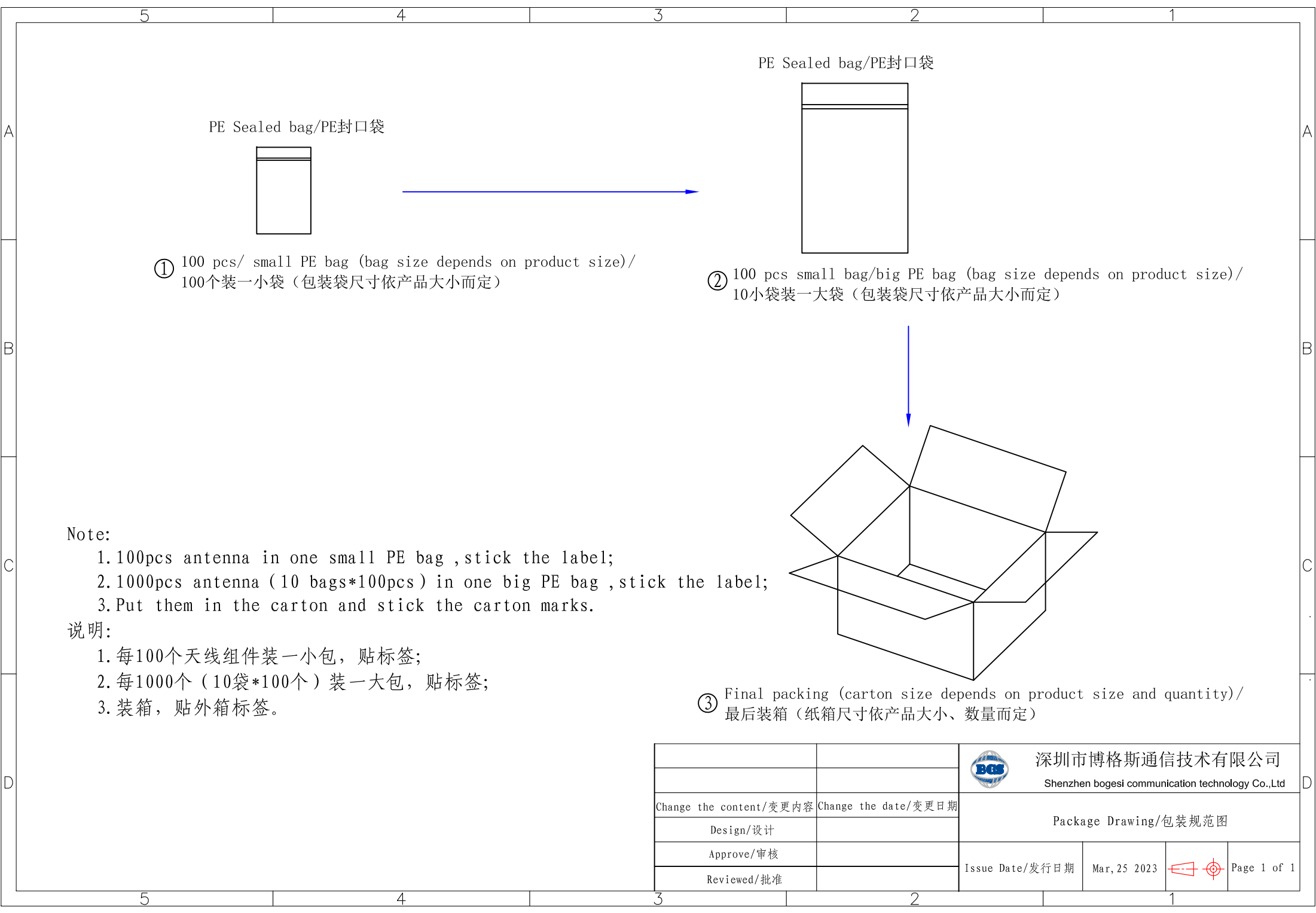
Requirements:

1. Material :FPC+PET, one and a half pairs of electrolytic copper, black oil printed on the surface, feed point gold-plated 0.5μ ".
2. Double-sided tape with 3M-467, the edge can not expose copper.
3. There can be no contaminants, scratches, black spots on the surface, and burrs and other phenomena on the edge.
4. Single package, 100PCS/ small package, 10 small packages and a large package.

要求:

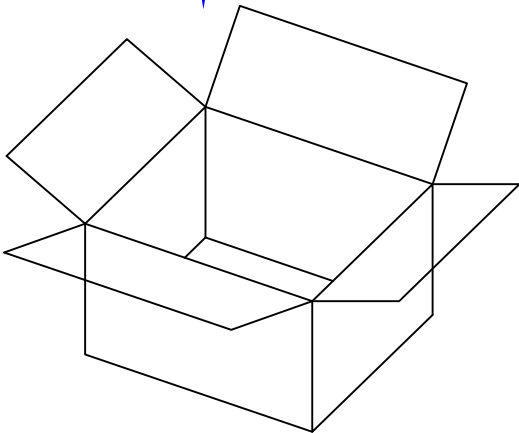
1. 材料:FPC+PET, 一对半电解铜, 表面印黑油, 馈点镀金 0.5μ "。
2. 双面胶用3M-467, 边缘不能露铜。
3. 表面不可以有污染物、擦伤、黑点, 边缘部分不能出现毛刺等现象。
4. 单个包装, 100PCS/小包, 10小包装一大包。

		 深圳市博格斯通信技术有限公司 Shenzhen bogesi communication technology Co.,Ltd			
Modify content 变更内容	Modify date 变更日期	Product NO. 产品编号	CXS-065A	Material is qualitative 材质	FPC+PET
limits of tolerance; Others less than ± 0.2 公差范围 其它不超过 ± 0.2	Designer 设计	Client NO. 零件编号	\	Version of this 版本	RA
	Auditing 审核	Part name 零件名称	Antenna 天线	Item no. 项目号	CXS-065
	Approve 核准	Publish date 发行日期	Sept 28, 2025		第1页 共1页 page 1/1



① 100 pcs/ small PE bag (bag size depends on product size)/
100个装一小袋 (包装袋尺寸依产品大小而定)

② 100 pcs small bag/big PE bag (bag size depends on product size)/
10小袋装一大袋 (包装袋尺寸依产品大小而定)



③ Final packing (carton size depends on product size and quantity)/
最后装箱 (纸箱尺寸依产品大小、数量而定)

- Note:
- 1.100pcs antenna in one small PE bag ,stick the label;
 - 2.1000pcs antenna (10 bags*100pcs) in one big PE bag ,stick the label;
 - 3.Put them in the carton and stick the carton marks.
- 说明:
- 1.每100个天线组件装一小包，贴标签;
 - 2.每1000个（10袋*100个）装一大包，贴标签;
 - 3.装箱，贴外箱标签。

		 深圳市博格斯通信技术有限公司 Shenzhen bogesi communication technology Co.,Ltd			
Change the content/变更内容	Change the date/变更日期	Package Drawing/包装规范图			
Design/设计		Issue Date/发行日期 Mar, 25 2023  Page 1 of 1			
Approve/审核					
Reviewed/批准					



6.ROHS Report/ROHS报告

Product Description 产品描述		M5 Global Edition 4G main antenna for the receiving module M5全球版 4G主集天线	BGS P/N 博格斯科号		CX5-065A			Declaration Date 宣告日期		2025/10/30	
No. 序号	Part name 部件名称	Homogeneous Material Name 均质材料名称	The homogeneous material contains the value of RoHS restricted substance (ppm) 均质物料内含有RoHS限制物质的量值 (ppm)						Certification number 检测报告编号	Test date 检测日期	
			Cd	Pb	Hg	Cr+6	PBB	PBDE			
1	FPC	Electrolytic flexible copper-clad foil substrate 有胶柔性覆铜板	ND	ND	ND	ND	ND	ND	SHAEC24028809006	2024/12/20	
2		Solder resist ink/阻焊油墨	ND	ND	ND	ND	ND	ND	ETR24600712	2024/6/13	
3		3M glue/3M胶	ND	ND	ND	ND	ND	ND	SHAEC24027480901	2024/12/6	
4		Gold/镀金	ND	ND	ND	ND	ND	ND	A2250164855101001E	2025/3/21	

Notes:

Material analysis expansion table is similar to our company's machine type BOM, which describes the composition of each material provided by the supplier, and then conducts RoHS control on each component (or the supplier shall conduct RoHS compliance management on his supplier, and provide tripartite inspection certificate).

A complete material analysis expansion table that includes:

- 1. Material expansion table: component composition decomposition
- 2. Third-party verification report of each component

说明:

材质分析展开表类似于我们公司的机种BOM，就供应商提供的每个物料进行组成说明，然后就每一种组成进行ROHS控制（或者说供应商要对他的供应商进行ROHS符合性管理，提供每三方检测证明）。

一份完整的材质分析展开表，它包括:

- 1 材质展开表:零件组成分解
- 2 各组成的第三方验证报告