

A letter of recognition

DESCRIBE: JENESIS (SHEN ZHEN) CO., LTD (Koharu-MIC)

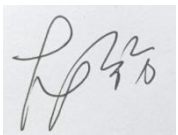
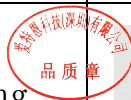
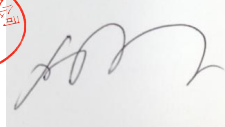
Customer NO: 14-008-010

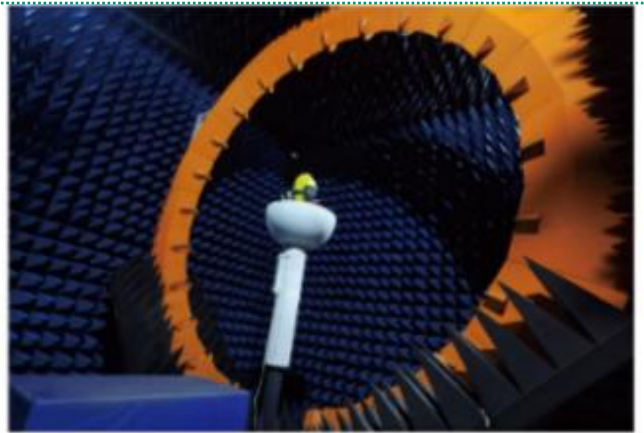
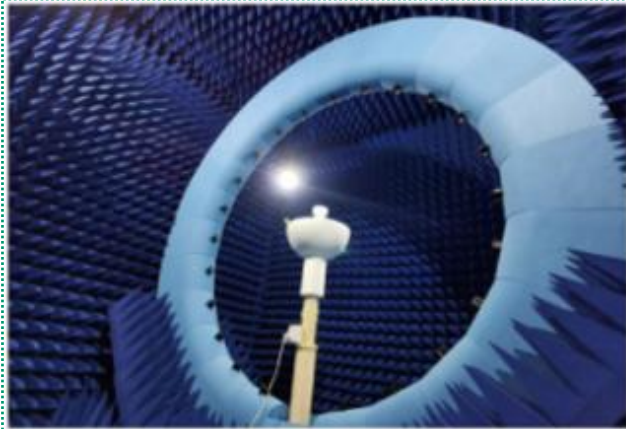
PART NO: ATC1358-CS003B70RA

Antenna type: WIFI/BT ANT ASM

DATE: 2023. 02. 15

PROVIDER: AT&C TECHNOLOGIES(SHENZHEN) CO. LTD

Customer Admit	confirm	ID Department	Test department	Structure section	Quality department
Supplier Admit	confirm	confirm	Proofreading	To examine	Approval
			Yangguochang	Xuliying 	



We have RF equipments as below

Anechoic Chamber

- Satimo 1ea
- SY24 1ea
- SAR 1ea
- KSS 2ea

Measurement

- 2G, 3G, 4G
- GPS
- Wifi
- Bluetooth(3.0) OTA
- NFC & WPC



Ant

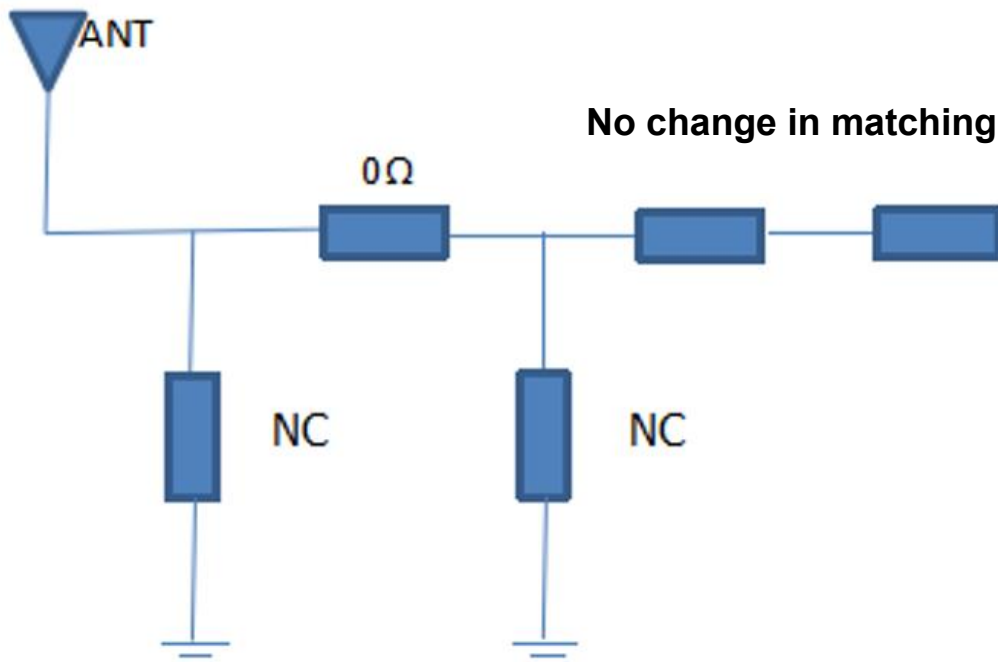
BOM

Customer	JENESIS	Written By	LNF	Orig. Date	2023.02.15
part Number	ATC1358-CS003B70RA	Revised By	SHIN	Revised Date	2023.02.15
Description	WIFI/BT ANT	Approved By	HJ	Approved Date	2023.02.15

Customer number	ATC number	Part name
14-008-0101	ATC1358-CS003B70RA	FPC +CABLE 55mm-MHF-2

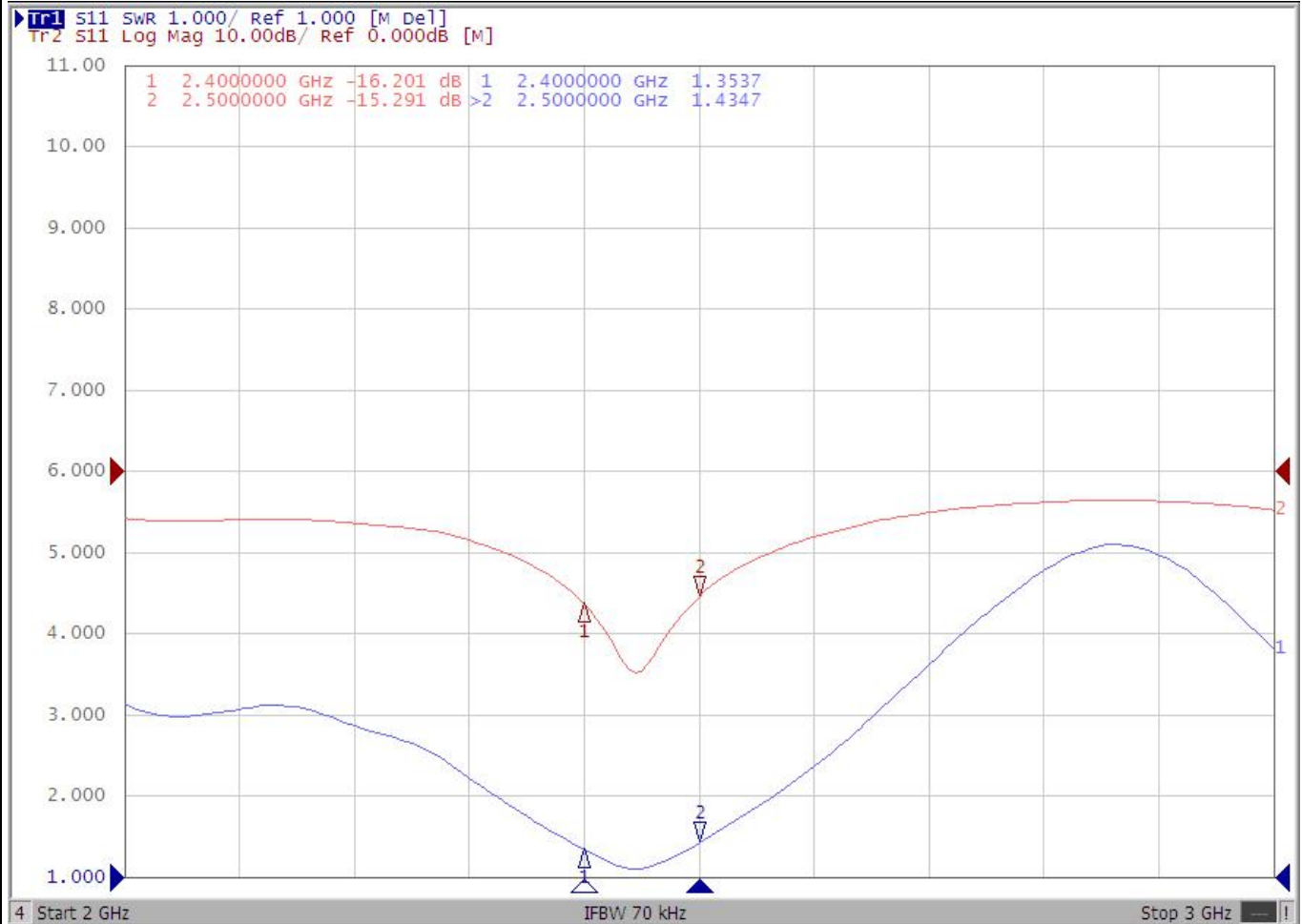
Matching circuit

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Antenna S11

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Antenna *Efficiency

Customer	JENESIS	Written By	LNF	Orig. Date	2023.02.15
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Description	WIFI/BT ANT	Approved By	HJ	Approved Date	2023.02.15

Frequency	Efficiency/%	Gain. dBi
2400	51%	1. 54
2410	52%	1. 79
2420	52%	2. 01
2430	53%	2. 21
2440	54%	2. 32
2450	55%	2. 36
2460	55%	2. 10
2470	54%	2. 24
2480	54%	2. 41
2490	53%	2. 37
2500	52%	1. 87

Antenna OTA TEST

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WIFI 11B-11M			
Band	Channels	TRP	TIS
1	2412	13.51	-78.67
6	2437	13.93	-80.01
11	2462	13.69	-78.94

BT			
Band	Channels	TRP	TIS
0	2402	3.65	-79.14
39	2441	4.78	-80.58
78	2480	3.42	-79.67

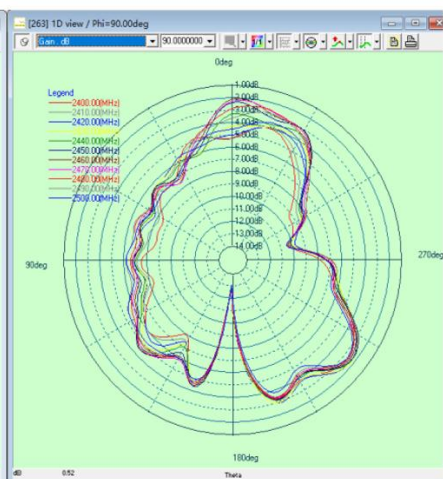
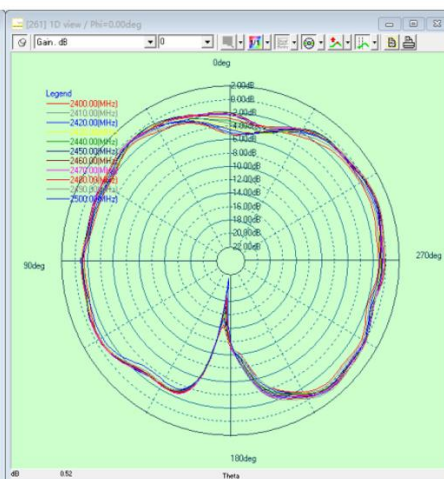
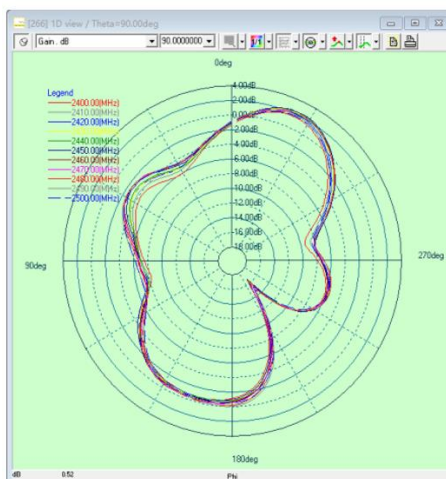
Directional pattern TEST

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Theta 90deg

Phi 0deg

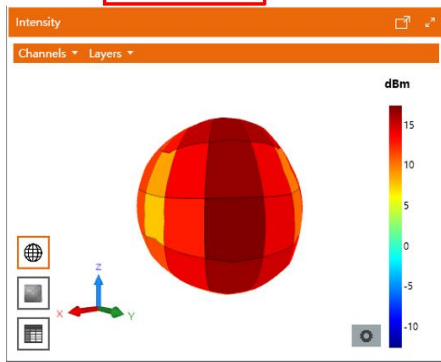
Phi 90deg



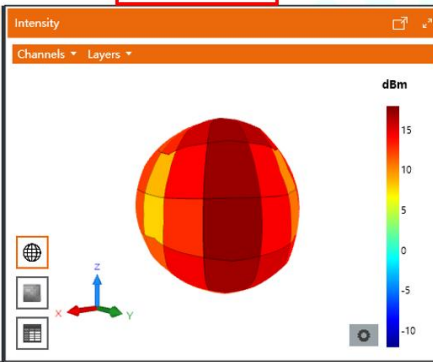
Active 3D diagram

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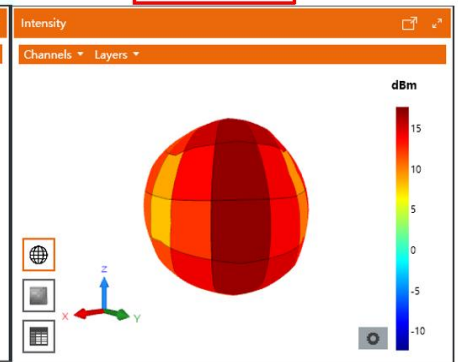
B1



B6

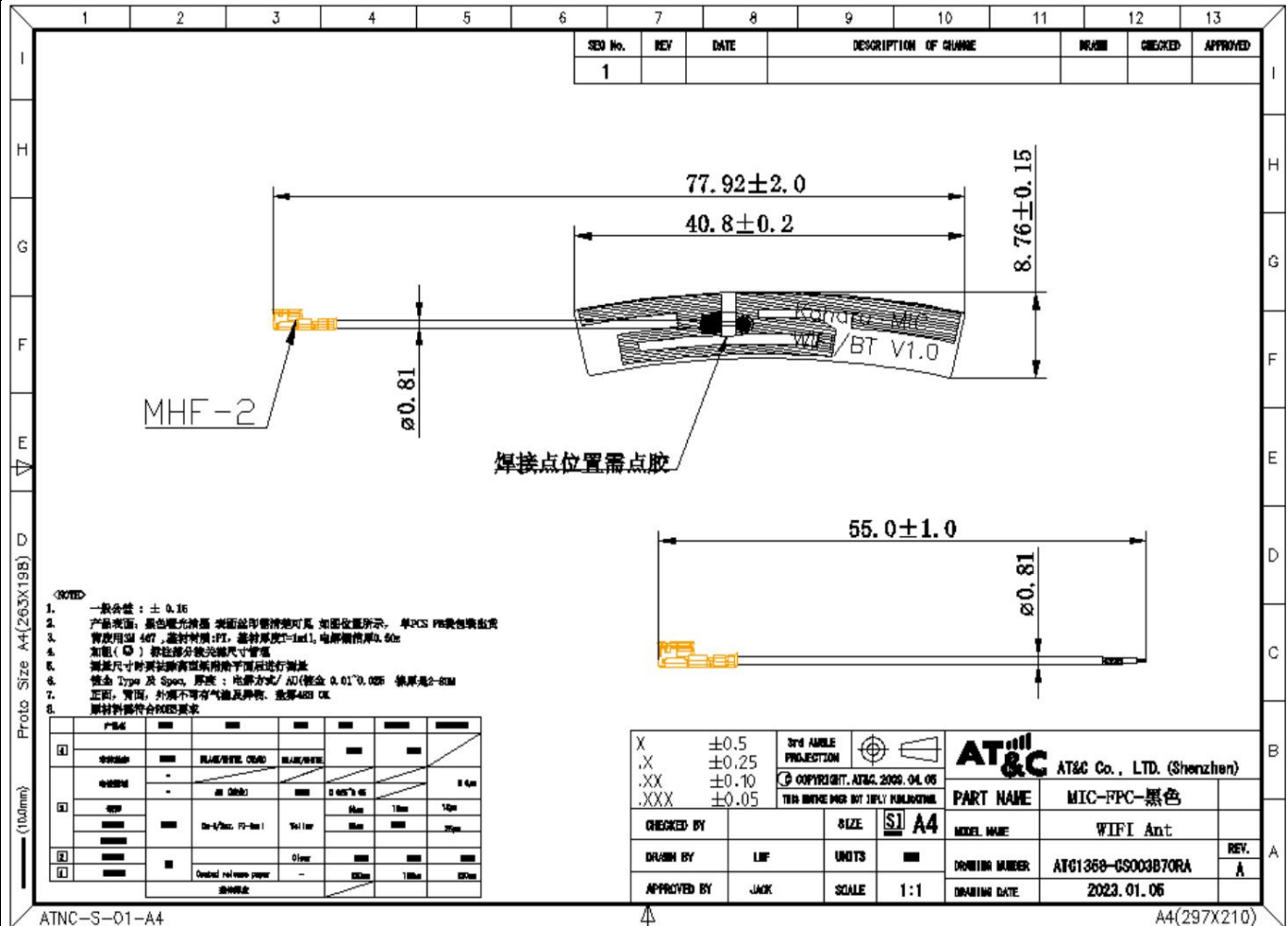


B11



BT Antenna Draw

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Antenna DrawDimension report

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Description	WIFI/BT ANT	Approved By	HJ	Approved Date	2023.02.15

Size information					Measuring sample			% Tolerance		Handling opinions			
num ber	Dime nsion prop erty	Dime nsion	Lower t olerance	Upper toleran ce	1	2	3	Upper	Lower	determi ne	Supplier review c omment s	Custome r review comment s	Measurin g tool
1	key point	77.92	-2.0	2.0	78.2	78.6	78.15			PASS			PJ
2	key point	40.8	-0.20	0.20	40.75	40.79	40.73			PASS			PJ
3	key point	8.76	-0.15	0.15	8.78	8.79	7.75			PASS			PJ
4	key point	0.81	-0.05	0.05	0.81	0.81	0.81			PASS			PJ

Production process

Production process flow chart

Product Name: antenna assembly

No	Process name	Use of equipment, fixture and tooling	Inspection items	Control factor	Reference standard	Inspection frequency
1	FPC incoming	Quadratic element or caliper	Key dimensions		Reference drawings	1
			Common appearance defects of FPC components		Refer to relevant inspection specifications	AQL0.65
			Black oil stripping		≥ 5Kg/f	2
			Material type, ROHS compliance		Reference drawings	Once
2	Cable incoming	Quadratic element or caliper	Key dimensions		Reference drawings	1
			Common appearance defects of coaxial line components		Refer to relevant inspection specifications	AQL0.65
			Wire end welding		Easy to weld, no oxidation, poor welding	2
			Material type, ROHS compliance		Reference drawings	Once
3	Cable welding	Soldering iron and tin wire	Soldering with iron	welding temperature	320±10℃	1
			Welding appearance		Do not short circuit, connect tin, wire skin scald	100%Self inspection
					False welding and false welding are not allowed	100%Self inspection
					Solder joint should not be less tin, more tin (large solder joint)	100%Self inspection
4	Network test	network analyzer	Test waveform compliance	Network parameters	The test waveform parameters of the product are consistent with the set waveform parameters, and the display of	100%
5	100% Appearance inspection And packaging	Cartons, pallets, labels, finished products to be packed	appearance		Refer to t8010 antenna inspection specification	100%
			Number of packages		Refer to relevant inspection specifications	100%
			Correct marking		Correct product name, quantity and related information	Once
6	OQC Delivery inspection	Quadratic element / caliper 3M glue	Key size and position of antenna		Reference drawings	Once
			Thickness and drawing adhesion		Refer to product drawing and PCB welding antenna inspection specification	Once
			Pull out force test of coaxial line		Refer to product drawing force test standard	Once
			Salt spray test		Refer to product salt spray test standard	Monthly / time
			Antenna appearance, packaging and labeling		Refer to T8600 antenna inspection specification	AQL0.65

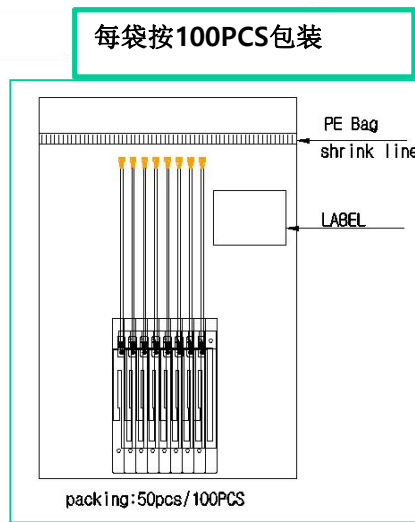


Test items

Customer	JENESIS	Written By	LNF	Orig. Date	2023.02.15
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Serial number	Test items	Specifications	Testing equipment	The measured data				
				SAMPLE # 1	SAMPLE # 2	SAMPLE # 3	SAMPLE # 4	SAMPLE # 5
1	Appearance	① 重点管理项目（主要不良类型） ② 不能有漏铜切断现像区域 ③ 公差±0.15mm 以内 ④ 不多胶铜短路胶 ⑤ 产品不能有划伤，脏污，印刷掉落 等	Visual inspection	OK	OK	OK	OK	OK
2	Color	① 要在颜色限度样本范围内 ② 时颜色不能有明显差异（上~下）	Visual inspection	OK	OK	OK	OK	OK
3	Packaging	Production date, Part No, etc incoming/outgoing daily check for consistency	Visual inspection	OK	OK	OK	OK	OK
4	Dimension measurement	Recognize the importance of drawing management dimension measurement	Second dimension, measuring instrument	OK	OK	OK	OK	OK
5	Thickness of copper layer	cu: 0.50z Pl1mial	Thickness gauge					
6	Harmful substances	要达到 Rohs 6大物质及Halogen物质基准 ※ 参照 XRF 分析日志	XRF Measuring instrument	OK	OK	OK	OK	OK
7	Performance	Test fixture performance to confirm	Network analyzer	OK	OK	OK	OK	OK

Packaging method



PART LIST

*包装图为示意图，不代表图片为实际产品

NO	DESCRIPTION	Q'TY	MATERIAL	REMARKS	REV.
1	ANTENNA	1/1000	PET	N/A	A
2	PAD OUT	1/4	SW A 5T	N/A	A
4	CARTOON BOX	-	SW A 5T	N/A	A
5	PACKING TAPE	-	PP	N/A	A

公司抬头	爱特恩科技（深圳）有限公司环保声明 AT&C TECHNOLOGIES(SHENZHEN)CO.,LTD Environmental Statement		
致安克创新科技股份有限公司To Anker Innovations Technology Co., Ltd.			
供应商名称Supplier Name: 爱特恩科技（深圳）有限公司/AT&C TECHNOLOGIES (SHENZHEN) CO., LTD			
产品型号/Part No: T811 3V	产品名称/Product Description: FPC		
物料编号/Part No:	材质描述/Material Description: PI+CU		
我司郑重申明：给安克创新科技股份有限公司供应的所有批次的产品/物料均符合以下环保法规的最新要求.如因不符合以下环保法规要求所造成的损失全部由我司承担。 We guarantee that all batches of products/material we ship to Anker Innovations Technology Co.,Ltd meet the latest environmental regulations as follwing,We will take all the loses if any products we supply can not meet following environmental regulations.			
涉及法规	化学物质(Cheical Substances)	spec (ppm)	是否满足 (Y/N)
RoHS指令	铅及其化合物 Lead and compounds	1000	Y
	镉及其化合物 Cadmium and its compounds	100	Y
	汞及其化合物 Mercury and its compounds	1000	Y
	6价铬的化合物 chromium(VI) compounds	1000	Y
	多溴联苯polybrominated biphenyls(PBB)	1000	Y
	多溴二苯醚polybrominated diphenylethers(PBDE)	1000	Y
	邻苯二甲酸二正丁酯Dibutyl phthalate (DBP)	1000	Y
	邻苯二甲酸丁基苯酯Butyl benzyl phthalate (BBP)	1000	Y
	邻苯二甲酸二(2-乙基己基)酯Bis(2-ethylhexyl) phthalate (DEHP)	1000	Y
	邻苯二甲酸二异丁酯Diisobutyl phthalate (DIBP)	1000	Y
REACH 法规(1907/2006) SVHC	REACH 法规(1907/2006) (若有更新, 以欧盟官方更新清单为准)	1000	Y
REACH 法规(1907/2006) 附录17 (如适用)	有机锡	1000	Y
	镍释放	1000	Y
	多环芳香烃 (18种PAHs)	参考法规	Y
包装指令packaging Directive	铅、镉、汞、六价铬的总和the sum of concentration levels of lead, cadmium, mercury and hexavalent chromium	100	Y
电池指令batteries and accumulators Directive	汞及其化合物 Mercury and its compounds in batteries and accumulators	5	N/A
	镉及其化合物 Cadmium and its compounds in batteries and accumulators	20	N/A
	电池中的铅及其化合物 Lead and compounds in batteries and accumulators	40	N/A
TSCA法规(40 CFR 751.401-751.413)	DecaBDE十溴联苯醚/HCBd六氯丁二烯/PIP (3:1) 苯酚/2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)2,4,6-三叔丁基苯酚	禁用	Y
加州65号文件Proposition 65 of California	铅 Pb 和邻苯类 (Dibutyl Phthalate (DBP), Benzylbutyl Phthalate (BBP), Di(2-ethylhexyl)phthalate(DEHP), Diisodecyl Phthalate (DIDP), Diisononyl Phthalate (DINP), Di-n-hexyl Phthalate (DnHP))	100	Y
持久性有机污染物 POPs(EU)2019/1021	六溴环十二烷 Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	100	Y
	短链氯化石蜡Alkanes C10-C13, chloro (short-chain chlorinated paraffins), SCCPs/MCCP,LCCP	1500	Y

供应商（法人或授权人）签字、盖章、签署时间Supplier (the legal representative or authorized officer) :

Signed by: (签名)

职位:

Seal: (盖公司印章)

Date: (日期)

公司抬头	爱特恩科技（深圳）有限公司环保声明 AT&C TECHNOLOGIES(SHENZHEN)CO.,LTD Environmental Statement		
致安克创新科技股份有限公司To Anker Innovations Technology Co., Ltd.			
供应商名称Supplier Name: 爱特恩科技（深圳）有限公司/AT&C TECHNOLOGIES (SHENZHEN) CO., LTD			
产品型号/Part No: T	产品名称/Product Description: 端子		
物料编号/Part No:	材质描述/Material Description: 1代/2代/3代/4代		
我司郑重申明：给安克创新科技股份有限公司供应的所有批次的产品/物料均符合以下环保法规的最新要求.如因不符合以下环保法规要求所造成的损失全部由我司承担。 We guarantee that all batches of products/material we ship to Anker Innovations Technology Co.,Ltd meet the latest environmental regulations as follwing.We will take all the loses if any products we supply can not meet following environmental regulations.			
涉及法规	化学物质(Cheical Substances)	spec (ppm)	是否满足 (Y/N)
RoHS指令	铅及其化合物 Lead and compounds	1000	Y
	镉及其化合物 Cadmium and its compounds	100	Y
	汞及其化合物 Mercury and its compounds	1000	Y
	6价铬的化合物 chromium(VI) compounds	1000	Y
	多溴联苯polybrominated biphenyls(PBB)	1000	Y
	多溴二苯醚polybrominated diphenylethers(PBDE)	1000	Y
	邻苯二甲酸二正丁酯Dibutyl phthalate (DBP)	1000	Y
	邻苯二甲酸丁基苄酯Butyl benzyl phthalate (BBP)	1000	Y
	邻苯二甲酸二(2-乙基己基)酯Bis(2-ethylhexyl) phthalate (DEHP)	1000	Y
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REACH 法规(1907/2006) 附录17 (如适用)	有机锡	1000	Y
	镍释放	1000	Y
	多环芳香烃 (18种PAHs)	参考法规	Y
包装指令packaging Directive	铅、镉、汞、六价铬的总和the sum of concentration levels of lead, cadmium, mercury and hexavalent chromium	100	N/A
电池指令batteries and accumulators Directive	汞及其化合物 Mercury and its compounds in batteries and accumulators	5	N/A
	镉及其化合物 Cadmium and its compounds in batteries and accumulators	20	N/A
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TSCA法规(40 CFR 751.401-751.413)	DecaBDE十溴联苯醚/HCBDD六氯丁二烯/PIP (3:1) 苯酚/2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)2,4,6-三叔丁基苯酚	禁用	N/A
加州65号文件Proposition 65 of California	铅 Pb 和邻苯类 (Dibutyl Phthalate (DBP), Benzylbutyl Phthalate (BBP), Di(2-ethylhexyl)phthalate(DEHP), Diisodecyl Phthalate (DIDP), Diisononyl Phthalate (DINP), Di-n-hexyl Phthalate (DnHP))	100	N/A
持久性有机污染物 POPs(EU)2019/1021	六溴环十二烷 Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	100	N/A
	短链氯化石蜡Alkanes C10-C13, chloro (short-chain chlorinated paraffins), SCCPs/MCCP.LCCP	1500	N/A

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产品型号/Part No:	产品名称/Product Description: 同轴线		
物料编号/Part No:	材质描述/Material Description: 1.13/0.81		
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	镍释放	1000	Y
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加州65号文件Proposition 65 of California	铅 Pb 和邻苯类 (Dibutyl Phthalate (DBP), Benzylbutyl Phthalate (BBP), Di(2-ethylhexyl)phthalate(DEHP), Diisodecyl Phthalate (DIDP), Diisononyl Phthalate (DINP), Di-n-hexyl Phthalate (DnHP))	100	Y
持久性有机污染物 POPs(EU)2019/1021	六溴环十二烷 Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	100	Y
	短链氯化石蜡Alkanes C10-C13, chloro (short-chain chlorinated paraffins), SCCPs/MCCP.LCCP	1500	Y

供应商（法人或授权人）签字、盖章、签署时间Supplier (the legal representative or authorized officer) :

Signed by: (签名)

职位:

Seal: (盖公司印章)

Date: (日期)

