

承 认 书

SPECIFICATION FOR APPROVAL

供应商名称/SUPPLIER:	深圳市亿圣邦科技有限公司
物料名称/PRODUCT NO. :	2. 4G+5G 双频 WIFI 天线
供应商型号/SUPPLIER NO. :	SLK-DS-BB-260I-G
汇智/鼎盛物料代码/ Huizhi/Ateko NO. :	A755PEX2402L
汇智/鼎盛规格描述/ Huizhi/Ateko DESCRIPTION:	2. 4G+5G 双频 WIFI 天线 IPEX wifi 双铜管天线 增益 2dBi 线长 260mm±5mm 天线总长 315mm±5mm 灰色 银锡线

汇智/鼎盛承认栏 Huizhi/Ateko APPROVAL			供应商承认栏 SUPPLIER APPROVAL		
质量部 QUALITY	工程部 R&D	安规 SAFTY	核准 APPROVED	检验 CHECKED	承办 DRAWING
			职位: 总经理	职位: 工程经理	职位: 工程师
			姓名: 林美财	姓名: 黄震	姓名: 刘才亮

公司: 惠州市汇智科技有限公司
CUSTOMER: Huizhou Huizhi Technology Co.,Ltd
地址: 惠州大亚湾泰宏工业园 C1 栋三楼
ADD: Third floor,building C1,Taihong Industrial,Daya Bay,Huizhou
电话/TEL: 0755-26740460
公司: 深圳市鼎盛光电有限公司
CUSTOMER: Shenzhen Ateko Photoelectricity Co.,Ltd
地址: 深圳市宝安区沙井街道黄埔社区镇头路黄埔润和工业园 F 栋
ADD: Building F,Huangpu Runhe Industrial Park,Zhentou Road,Huangpu Community,Shajing Sub-district,Bao'an District,Shenzhen
电话/TEL: 0755-81446315

公司: 深圳市亿圣邦科技有限公司
CUSTOMER: Shenzhen Yishengbang Technology Co., Ltd
地址: 深圳市宝安区深圳硬科技产业园 C 栋 101 101, Building C, Shenzhen Hard Technology Industrial Park, Bao'an District, Shenzhen
ADD: Technology Industrial Park, Bao'an District, Shenzhen
电话/TEL: 18025305599

Shenzhen Yishengbang Technology Co., Ltd

SPECIFICATION FOR APPROVAL

Customer Name: Shenzhen Ateko Photoelectricity Co., Ltd.

Material code: A755PEX2402L

Material Name: 2.4G+5G dual band WIFI antenna IPEX wifi dual copper tube antenna

Recognition date: 2023.7.31

Supplier Name: Shenzhen Yishengbang Technology Co., Ltd

Supplier part number: SLK-DS-BB-260I-G

Recognition signature					
Supplier Recognition			Shenzhen Ateko Photoelectricity Co., Ltd.		
Engineer	Auditing	Ratify	Engineer	Auditing	Ratify
Liucailiang	Huangzhen	Linmeicai			
Stamped and signed			Stamped and signed		
Date		2023.7.31	Date		
Instructions: <input type="checkbox"/> accept <input type="checkbox"/> Conditional acceptance					
Notes:					

Supplier Name: Shenzhen Yishengbang Technology Co., Ltd

Supplier address: 101, Building C, Shenzhen Hard Technology Industrial Park, Bao'an District, Shenzhen

Phone: 18025305599 Phone: 18666299104

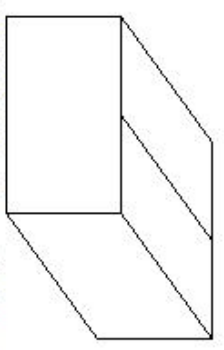
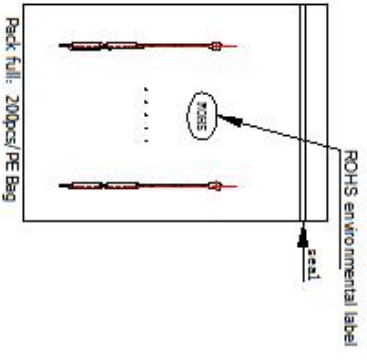
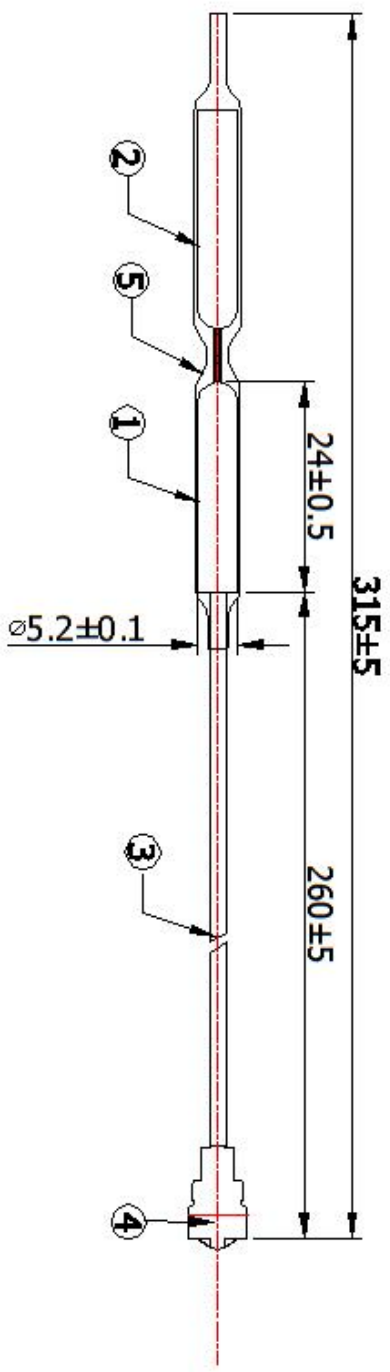
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5. Product drawings (unit: mm)

RoHS Compatible	CUSTOMER	Shenzhen Aeko Photoelectricity Co., Ltd
	PART NO	SLK-DS-BB-260I-G

REV.	Trim the contents	time
A	New edition issued	2024/03/21



1. 1PCS/ROHS label should be attached to the outer box label
2. 1PCS/ carton label should be affixed to the upper right corner of the microphane on the side of the carton

Specification:
 Frequency Rang:2.4~2.5/5.15~5.85GHz
 Return Loss:-9.5dB or less
 VSWR:2.0 Max
 Gain:2.0 dBi

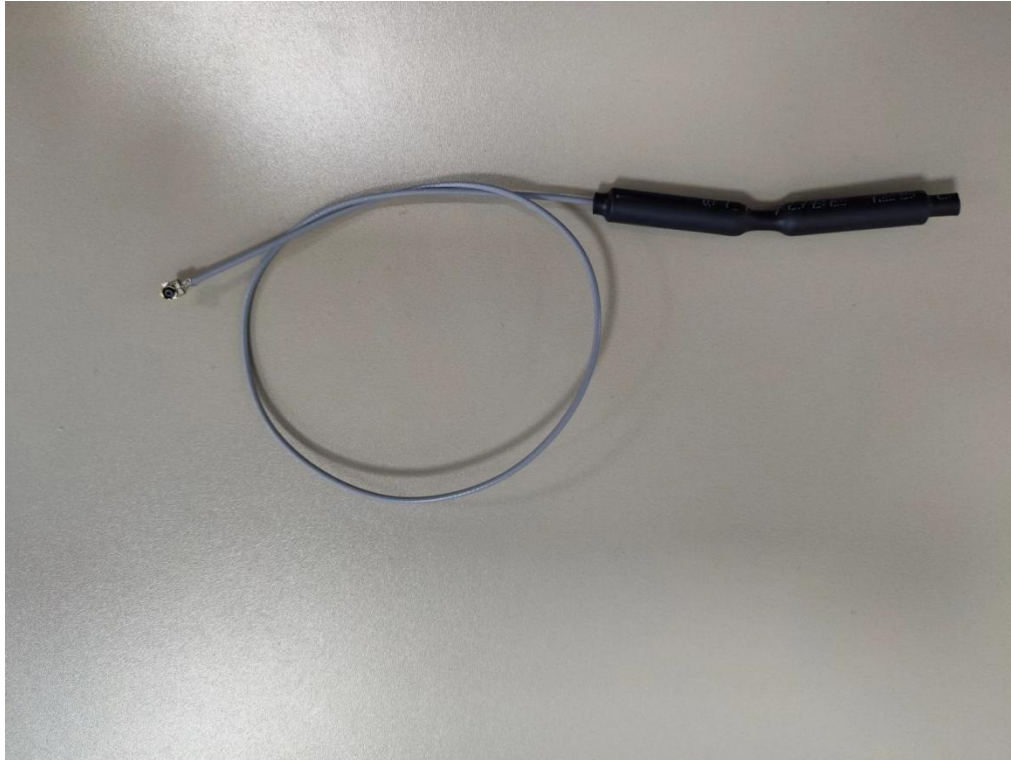
NO	specification	DESCRIPTION	QTY	remark
5	assembly	Di: 4.5mm L:60mm Black TYPE: 1.13mm	1	
4	WAF PLATE	FINISH: COPPER ALLOY WITH GOLD PLATING. INSULATOR: WHITE P.E.T U. 94V-0 BAKED. SERIAL: COPPER ALLOY WITH GOLD PLATING.	1	
3	Cable	MINI COAXIAL ØΦ: 1.13mm Silver	1	
2	Copper pipe 2	Copper alloy, øφ: 2x2.5mm	1	
1	Copper pipe 1	Copper alloy, øφ: 2x2.5mm	1	

TITLE	ZWB(copper tube) antenna		
PH:			
CUSTOMER:			
DATE:			
DEPART. NO.:			
DEPARTMENTS TOLERANCES UNLESS OTHERWISE NOTED	20% MAX	30% MAX	30% MAX
TOLERANCE	20% MAX	30% MAX	30% MAX
Shenzhen Yishengbang Technology Co., Ltd		SHEET: 1/1	SCALE: 1:1
APPROVED		CHECKED	

6. Physical pictures

SLK-DS-BB-260I-G

1 2 3 4



Product Code:

(1) Customer:

DS:Shenzhen Ateko Photoelectricity Co., Ltd.

(2) Antenna Name:

BB: Brass(5.2*24*1.1)

(3) Cable Length:

260I: 260*1.13MM

(4)Cable Color

G:Grey

7. Bill of Materials

Material code	SLK-DS-BB-260I-G		Product Name	WIFI Antenna
Serial Number	Material Name	Specifications model	Qualified supplier	Notes
1	RF cable	1.13 Black/Grey	Weibotong/Xigenuo	
2	Terminals	First generation terminals	Caimei/Qifukang	
3	Copper wire	Copper wire	Zhaohui	
4	Copper tube	Copper tube	Zhaohui	
5	Heat shrink tubing	Heat shrink tubing	Woer/Sanlian	

8. Material certification

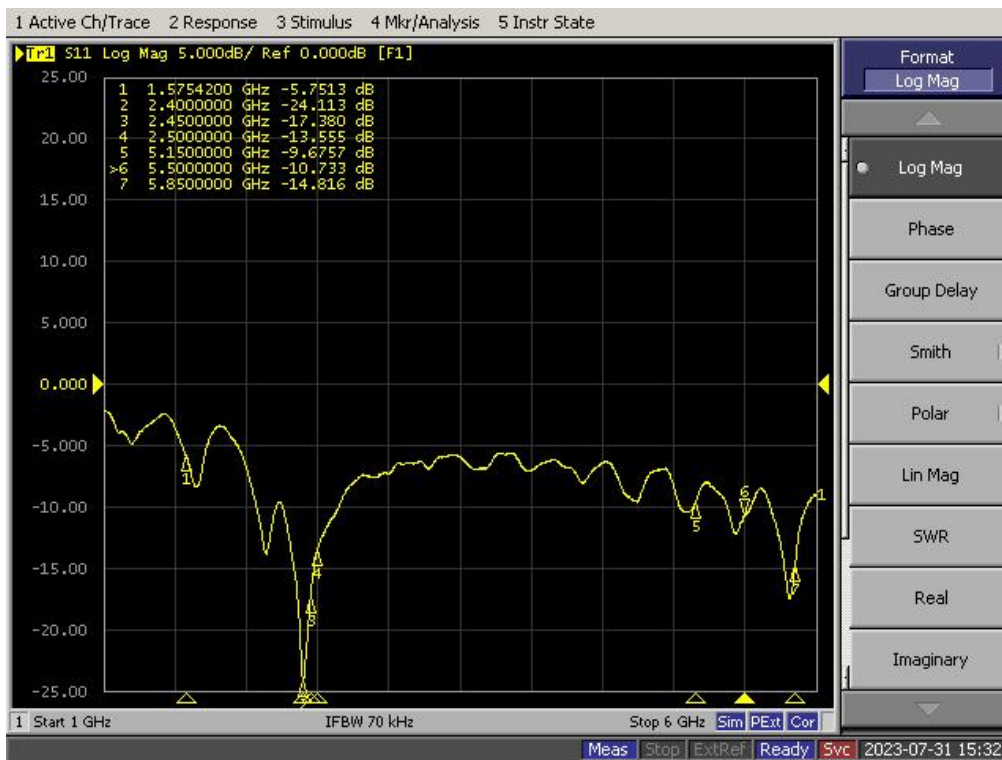
No.	Material name	Describe	Testing organization	Authentication code	Report test date	State
1	Copper tube	Copper tube	SGS	CANEC2300481702	2023/01/18	Effective
2	Heat shrink tubing	Heat shrink tubing	SGS	CANEC2226951412	2022/12/20	Effective
3	Tin wire	Tin wire	SGS	CANEC23005192206	2023/07/03	Effective
4	RF cable	RF cable	SGS	CANEC2301851703	2023/2/22	Effective
5	RF1 generation terminal	Nickel coating	CTI	A2220404860101002C	2022/09/17	Effective
) Gold plating (thickness \geq 1um)	CTI	A2220404860101001C	2022/09/17	Effective

9. Test report

9-1

Main technical specifications	
Frequency Range (MHZ)	2400-2500+5150-5850
Impedance(Ω)	50
Gain(dBi)	2 \pm 0.5
VSWR	\leq 2
Polarization	Linear
Radiation	Omni-directional
Connector Type	First generation terminals
Physical Properties	
Antenna cover	Copper
Operating Temp	-20 $^{\circ}$ C~+70 $^{\circ}$ C
Storage Temp	-20 $^{\circ}$ C~+70 $^{\circ}$ C

9-2.VSWR/S11

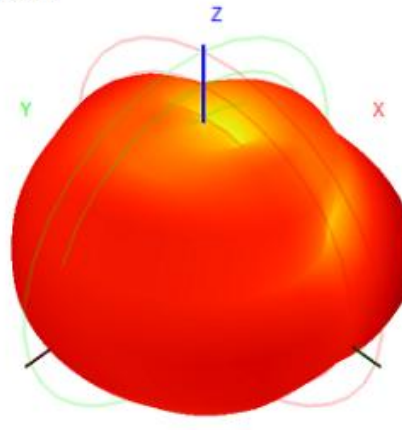
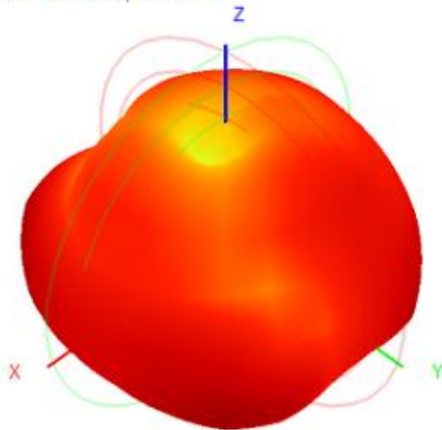


9-3.WIFI Antenna Gain/Efficiency/Radiation Pattern of 3D

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400.0	-2.01	3.86	62.98
2410.0	-1.88	3.89	64.91
2420.0	-1.86	3.87	65.23
2430.0	-1.86	3.44	65.17
2440.0	-2.22	3.34	60.01
2450.0	-2.27	3.21	59.29
2460.0	-2.12	3.41	61.35
2470.0	-2.36	3.04	58.13
2480.0	-2.28	2.84	59.22
2490.0	-2.33	2.43	58.48
2500.0	-2.49	1.72	56.39
5150.0	-3.46	0.90	45.05
5300.0	-3.51	0.65	44.61
5500.0	-3.42	1.12	45.46
5750.0	-2.98	3.39	50.30
5850.0	-2.88	3.36	51.48

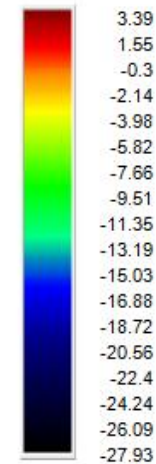
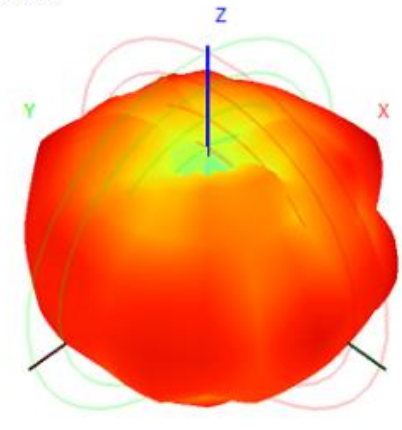
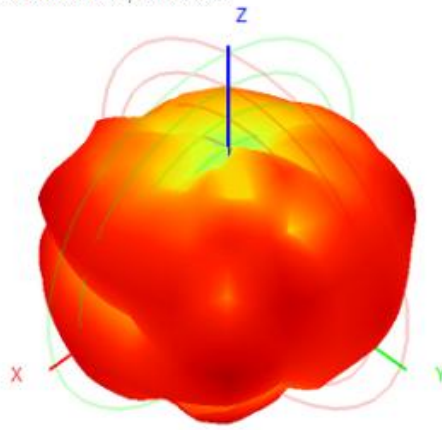
2450.0MHz H+V, Eff: 59.3%

Back View



5750.0MHz H+V, Eff: 50.3%

Back View



10. Inspection report

10-1 Sample key size inspection

Date: 2023-07-27

Customer Name	Shenzhen Ateko Photoelectricity Co.,Ltd.				
Supplier part number	SLK-DS-BB-260I-G				
No.	Exterior	Size			
		VSWR	Copper tube length	Total length of antenna	Exposed length of RF cable
1	OK	<2	24.03	316	261
2	OK	<2	24.02	315	261
3	OK	<2	24.02	316	261
4	OK	<2	24.01	316	260
5	OK	<2	24.02	315	260
Note: The standing wave ratio of the antenna is less than 2, and the dimensional tolerance is in accordance with the drawing specifications.					

10-2 Salt spray test

Test items	Salt spray test																			
Supplier part number	SLK-DS-BB-260I-G	Inspection quantity: 5PCS																		
detection time: 2023-07-27	TIME2023-07-28																			
Testing/Inspection Equipment: 1. HY-60D salt spray tester 2. HP-8753ES network analyzer																				
Test/inspection conditions: 1. The temperature inside the salt spray box is 35 ± 2 °C; Laboratory temperature 22-30 °C 2. The settling speed of salt spray is 1-2ML/h per 80cm area after 24h spray. The concentration of sodium chloride is 50 ± 10 g/L, and the PH value For 6.5/7.2																				
Judgment criteria: 1. The electrical test meets the standard requirements: the voltage standing wave ratio test is qualified; 2. The metal surface coating has no defects such as oxidation, peeling, cracking, separation, etc; Non metallic parts have no discoloration, deformation, delamination, cracking or other defects																				
<table border="1"><thead><tr><th>No.</th><th>Evaluation level</th><th>Bad description</th></tr></thead><tbody><tr><td>1</td><td>qualified</td><td>nothing</td></tr><tr><td>2</td><td>qualified</td><td>nothing</td></tr><tr><td>3</td><td>qualified</td><td>nothing</td></tr><tr><td>4</td><td>qualified</td><td>nothing</td></tr><tr><td>5</td><td>qualified</td><td>nothing</td></tr></tbody></table>			No.	Evaluation level	Bad description	1	qualified	nothing	2	qualified	nothing	3	qualified	nothing	4	qualified	nothing	5	qualified	nothing
No.	Evaluation level	Bad description																		
1	qualified	nothing																		
2	qualified	nothing																		
3	qualified	nothing																		
4	qualified	nothing																		
5	qualified	nothing																		
Test/Inspection Judgment: <input type="checkbox"/> qualified <input type="checkbox"/> Unqualified <input type="checkbox"/> Not making judgments																				
Tested by Wang Guoxing Reviewed by Guo Liang																				

10-3 Constant temperature and humidity test

Test items	Constant temperature and humidity test	
Supplier part number	SLK-DS-BB-260I-G	Inspection quantity: 5PCS
detection time: 2023-07-27		TIME2023-07-28

Testing/Inspection Equipment:

1. Programmable constant temperature and humidity test chamber
2. HP-8753ES network analyzer

Test/inspection conditions:

1. Test in an environment with room temperature of 25 °C and humidity of 65%
2. +80 ± 2 °C 85-90% RH/-30 ± 2 °C 0% RH for 2 hours, one cycle time of 24 hours

Judgment criteria:

1. The electrical test meets the standard requirements: the voltage standing wave ratio test is qualified;
2. The metal surface coating has no defects such as oxidation, peeling, cracking, separation, etc; Non metallic parts have no discoloration, deformation, delamination, cracking or other defects

No.	Evaluation level	Bad description
1	qualified	nothing
2	qualified	nothing
3	qualified	nothing
4	qualified	nothing
5	qualified	nothing

Test/Inspection Judgment: qualified Unqualified
 Not making judgments

Tested by Wang Guoxing Reviewed by Guo Liang

10-4 Pull test

Test items	pull test				
Supplier part number	SLK-DS-BB-260I-G				Inspection quantity: 5PCS
detection time: 2023-07-27					TIME2023-07-27
Testing/Inspection Equipment: 1. Tensile testing meter					
Test/inspection conditions: 1. Temperature: 18-25 °C 2. Humidity \leq 70% RH					
Test result: Qualified					
	Maintenance force between terminals and RF cables \geq 1kgf				
Test frequency	1	2	3	4	5
Test result	1.27	1.25	1.23	1.27	1.26
Test/Inspection Judgment: <input type="checkbox"/> qualified <input type="checkbox"/> Unqualified <input type="checkbox"/> Not making judgments					
Tested by Wang Guoxing Reviewed by Guo Liang					

11. Packaging method

Packaging Operation Instructions (Example)

Customer:	Product: 2.4G WIFI antenna IPEX WIFI single copper tube antenna	Color: Gray
Customer part number:	Part number: SLK-DS-B-245I-G	Date: 2023.7.31



1.50PCS per bundle



2.200PCS per bag.



4. Sealing the box.



3.Packing.

Note: Inner packaging: 200PCS per pack

Outer packaging: cardboard box size 380X380X180MM, 2400PCS per box.

According to the actual order quantity, there may be differences in the size of the cardboard boxes.

Create different inner and outer packaging labels according to different customers.

Engineering Department: Liu Cailiang Quality Department: Guo Liang Approval: Huang Zhen