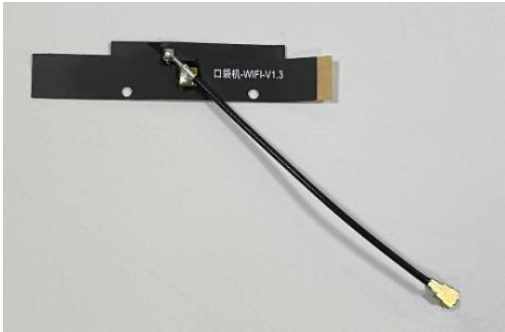




ShenZhen VLG Wireless TECHNOLOGY CO.,LTD

# SPECIFICATION

Project	Pocket Camera WIFI/BT Antenna		Frequency Band	2400-2500, 5150-5850MHz			
VLG SCT P/N	V1334-285-A-1		Version	A			
RF	jun.liu	Check	jun.liu	QC	hong.yu	Check	hong.yu
ME	xiaorui.chai		xiaorui.chai	PM	chunxin.wang		chunxin.wang
Date	October 11th, 2024						
Customer item P/N	Customer Project Name: Pocket Camera WIFI/BT Antenna						
	Customer Item No. :						
Customer Remark							
<b>VLG Wireless Technology</b>							
R&d project customer satisfaction survey (Customer please according to our research and development, a comment or PM management staff, supervise and urge us serve you better)							
RF	<input type="checkbox"/> satisfaction		<input type="checkbox"/> largely satisfactory		<input type="checkbox"/> Not satisfied		
ME	<input type="checkbox"/> satisfaction		<input type="checkbox"/> largely satisfactory		<input type="checkbox"/> Not satisfied		
PM	<input type="checkbox"/> satisfaction		<input type="checkbox"/> largely satisfactory		<input type="checkbox"/> Not satisfied		
Customer Suggestions:							
The antenna images : 							

<b>Design Specifications</b>	<b>Typical</b>	<b>Units</b>
<b>Antenna type</b>	FPC+Leadwire	
<b>working Frequency</b>	2400~2500, 5150-5850	MHz
<b>Gain</b>	-0.84 ~ 2.54	dBi
<b>Antenna efficiency</b>	22.17~ 50.03	%
<b>VSWR</b>	<4	
<b>Ploriaztion</b>	Linear polarization	
<b>Axial Ratio</b>	When the antenna is circular polarization, note the axial ratio in the working bandwidth	N/A
<b>Radiation pattern</b>	omnidirectional	
<b>impedance</b>	50 ohm	
<b>Power handling</b>	33	dBm
<b>Interface</b>	IPEX	
<b>Overall dimensions</b>	See drawing section	
<b>Weight</b>	no requirement	
<b>Operatin Temp</b>	-30 ----- 70	°C
<b>Storing Temp</b>	-30 ----- 70	°C

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# Pocket Camera WIFI/BT Antenna Specification

## 1、 Indication

The report mainly provides the test status of various electrical performance parameters of the Pocket Camera WIFI/BT Antenna. (As shown in Figure 1 below)



Figure 1 Pocket Camera WIFI/BT Antenna

## 2、 Electrical Performance

### 2.1 Specification standard

Pocket Camera WIFI/BT Antenna working band is at 2400-2500, 5150-5850 MHz.

### 2.2 Antenna matching circuit

Pocket Camera WIFI/BT Antenna matches the original matching circuit.

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## 2.3 VSWR Test

### A. Test setup

VSWR measurements (S11) were performed using Agilent E5071B Network Analyzer and the previously described test fixture. A ferrite-loaded coaxial cable was used to mitigate surface currents on the outside of the cabling. The testing was performed in free space ETS AMP8500S chamber.

### B. VSWR

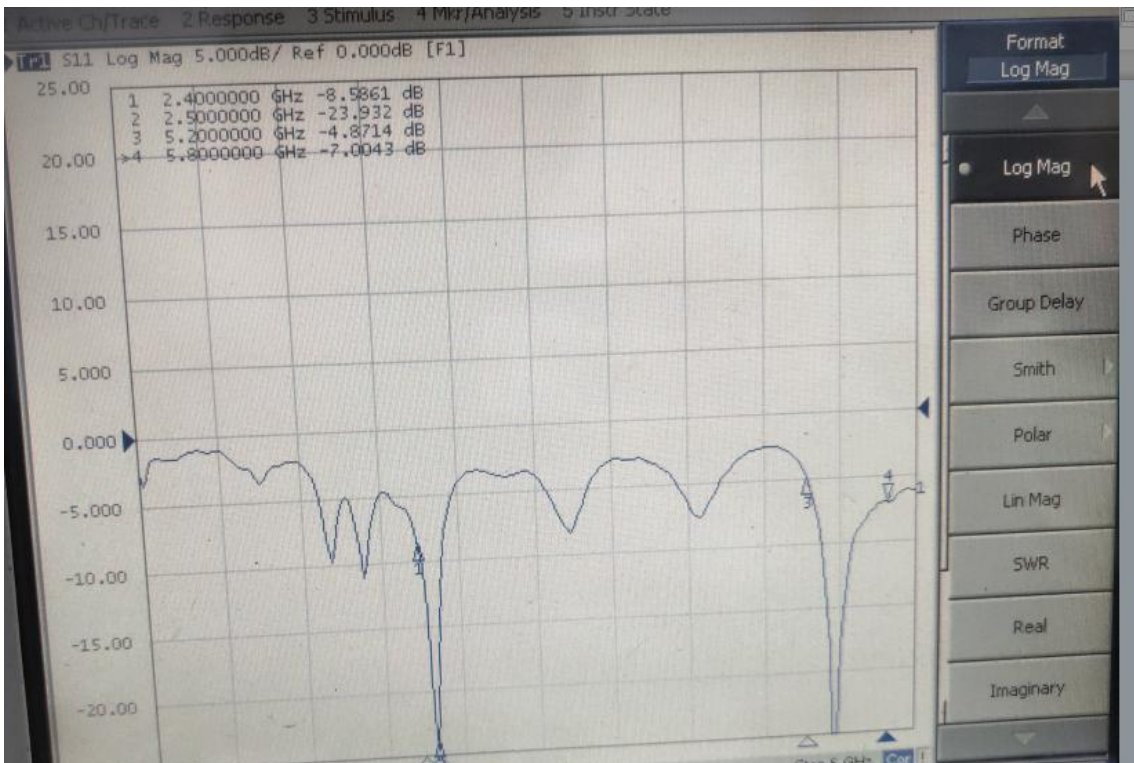
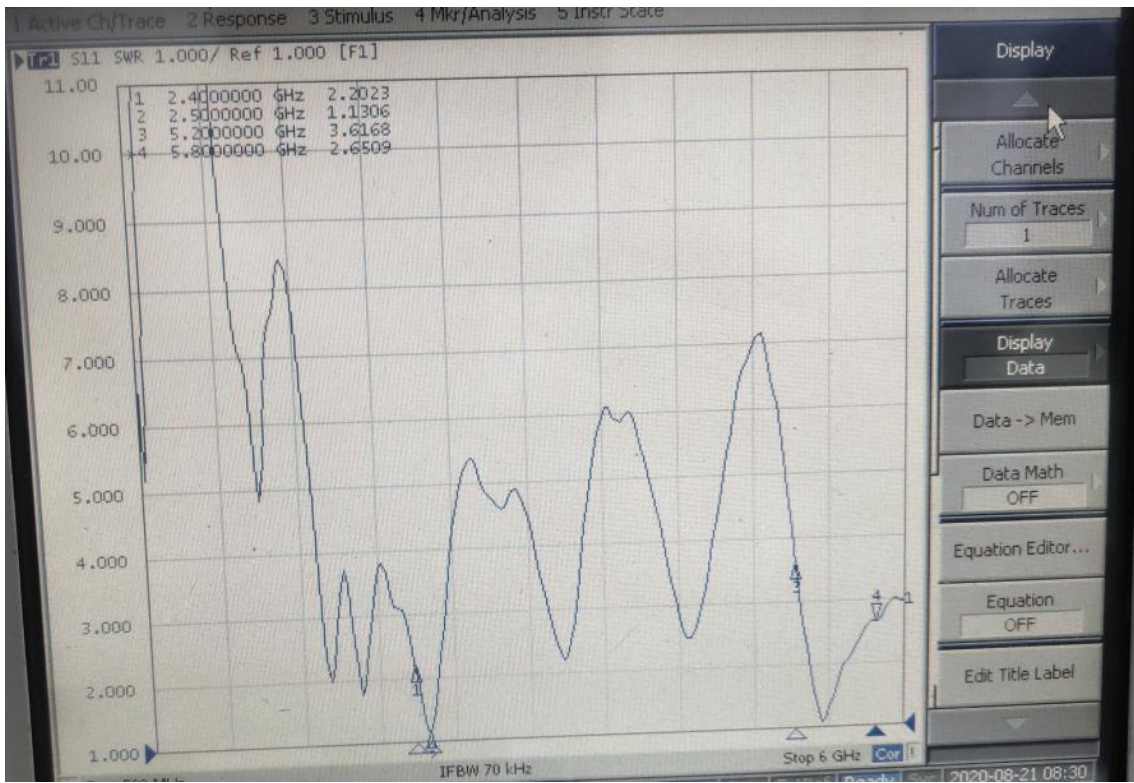
The table below shows the standing wave ratio value of the edge frequency of the working band of Pocket Camera WIFI/BT Antenna matches the original matching circuit.

Frequency band	frequency (MHz)	VSWR
<b>WiFi</b>	2400	2.20
	2500	1.13
	5200	3.61
	5800	2.65

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### 2.3.1 S11 parameter



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### 2.3.2 Antenna Passive Efficiency

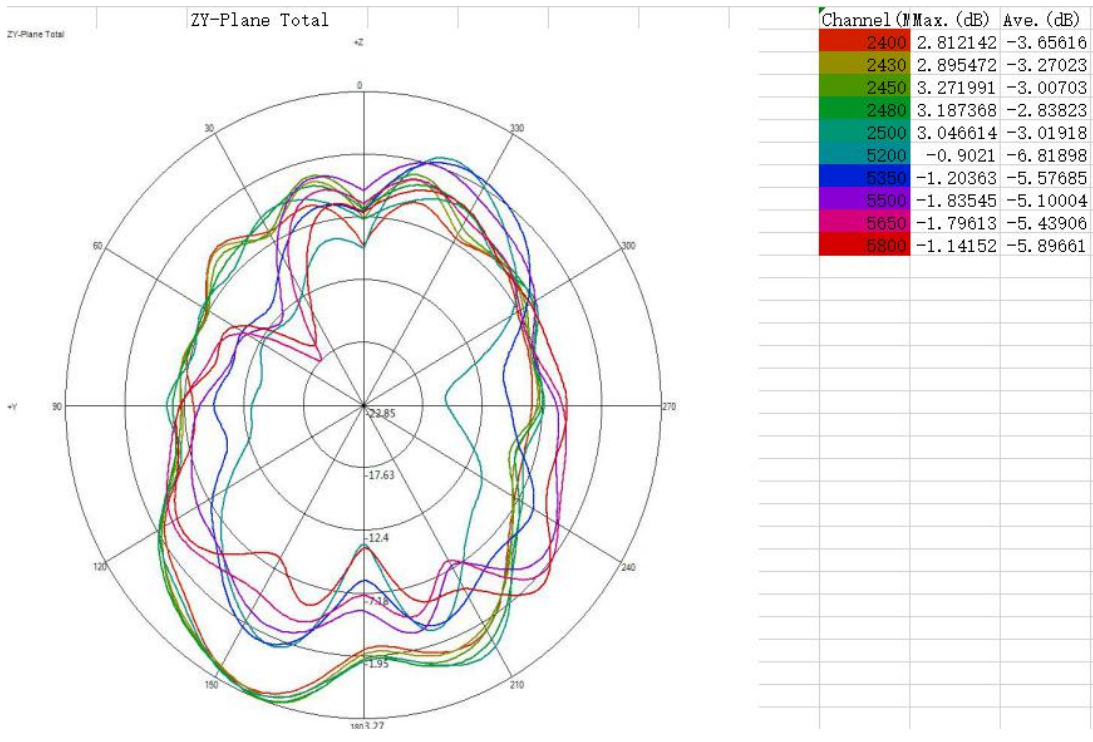
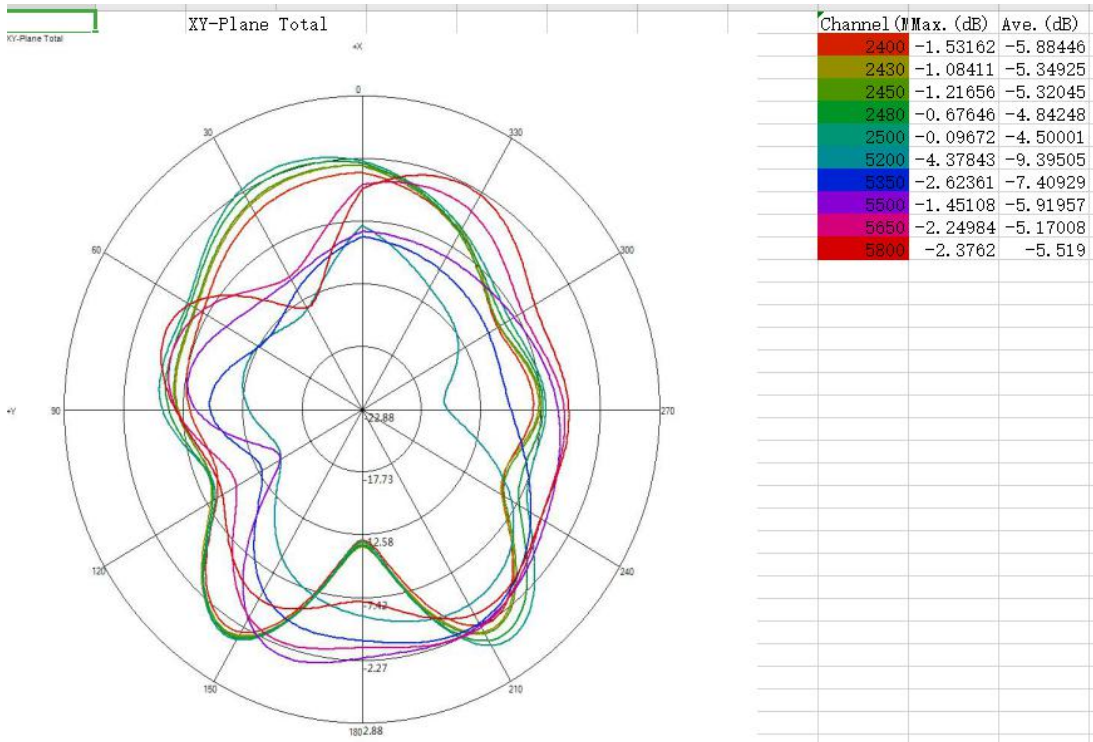
Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	0.08	-3.87	41.04
2410	0.03	-3.65	43.13
2420	0.21	-3.56	44.07
2430	0.46	-3.47	44.94
2440	0.48	-3.42	45.49
2450	0.45	-3.28	47.01
2460	0.62	-3.21	47.79
2470	0.80	-3.11	48.88
2480	0.98	-3.01	50.03
2490	1.09	-3.02	49.86
2500	1.33	-3.13	48.60
avg	0.59	-3.34	46.44

Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
5200.00	-0.84	-6.54	22.17
5250.00	-0.40	-5.81	26.24
5300.00	0.21	-5.17	30.40
5350.00	1.55	-4.52	35.35
5400.00	1.95	-3.88	40.90
5450.00	1.86	-3.88	40.92
5500.00	1.91	-4.07	39.14
5550.00	2.23	-4.36	36.63
5600.00	2.29	-4.33	36.88
5650.00	2.54	-4.29	37.20
5700.00	2.51	-4.24	37.69
5750.00	1.91	-4.25	37.57
5800.00	1.92	-4.64	34.33
AVG	1.90	-4.33	37.00

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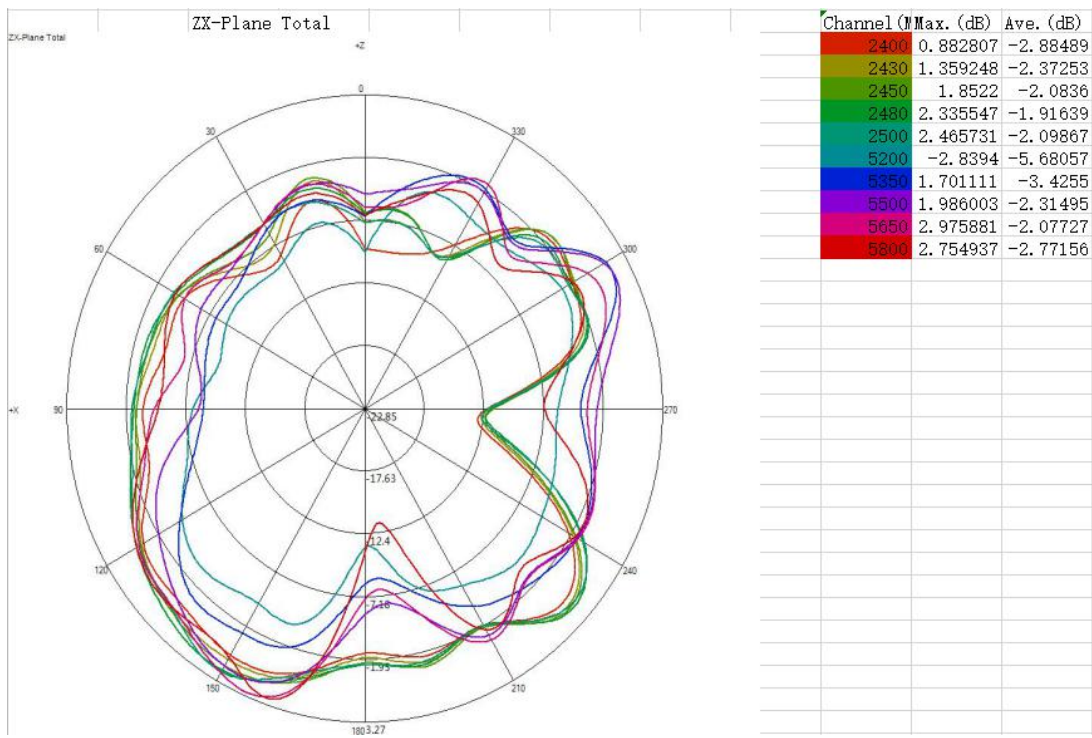
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### 2.3.3 Pattern



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### 3、 Suggestion And Solution

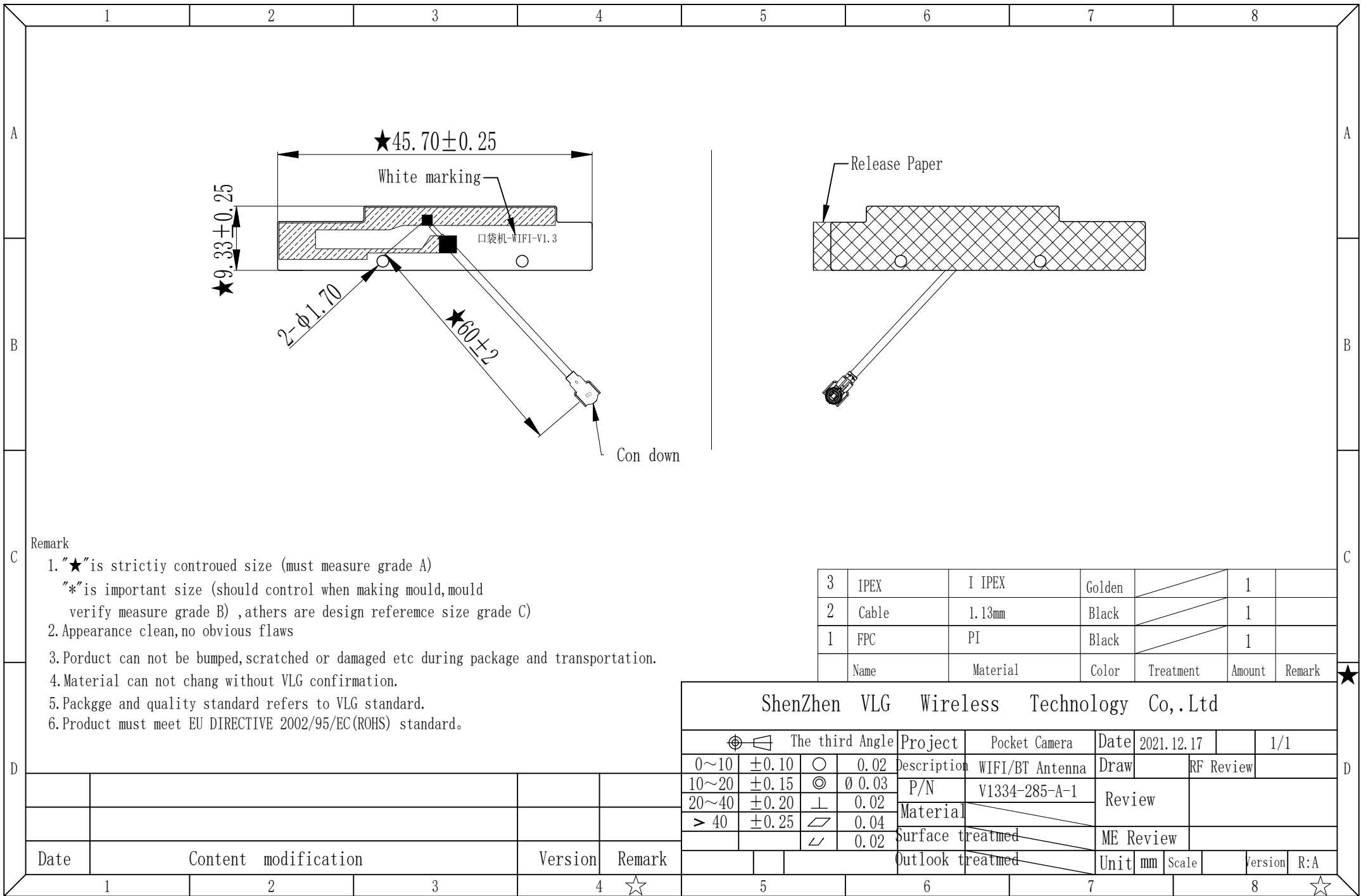
This report is according to the customer provide Pocket Camera WIFI/BT Antenna the final version of the electrical performance of antenna. As can be seen from the above test data, this antenna provides better electrical performance. We are looking forward to your confirmation. Thank you for your cooperation!

### 4、 Appearance Drawing

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Remark

1. "★" is strictly controlled size (must measure grade A)  
 "\*" is important size (should control when making mould, mould verify measure grade B), others are design reference size grade C)
2. Appearance clean, no obvious flaws
3. Product can not be bumped, scratched or damaged etc during package and transportation.
4. Material can not change without VLG confirmation.
5. Package and quality standard refers to VLG standard.
6. Product must meet EU DIRECTIVE 2002/95/EC (ROHS) standard.

3	IPEX	I IPEX	Golden		1	
2	Cable	1.13mm	Black		1	
1	FPC	PI	Black		1	
	Name	Material	Color	Treatment	Amount	Remark

ShenZhen VLG Wireless Technology Co., Ltd

The third Angle		Project	Pocket Camera	Date	2021.12.17	1/1	
0~10	±0.10	○	0.02	Description	WiFi/BT Antenna	Draw	RF Review
10~20	±0.15	◎	0.03	P/N	V1334-285-A-1	Review	
20~40	±0.20	⊥	0.02	Material		ME Review	
> 40	±0.25	∕	0.04	Surface treatment			
		∕	0.02	Outlook treatment		Unit	mm Scale
						Version	R:A

Date	Content modification	Version	Remark
1	2	3	4 ☆



# ShenZhen VLG Wireless Technology Co.,Ltd

## APPEARANCE PERFORMANCE AND RELIABLE TEST REPORT

Supplier Name		VLG		LOT size		N	
Customer Name		Hikvision		Sample QTY		5PCS	
Product Name		Pocket Camera WIFI/BT Antenna		Inspector		tao. jiang	
P/N		V1334-285-A-1		Inspection Date		December 17, 2021	
S/N	Inspection item	Description of test results					
1	Visual check	Appearance accord with the appearance criteria					
	Judgement results	<input checked="" type="checkbox"/> OK <span style="margin-left: 200px;"><input type="checkbox"/>NG</span>					
	Reliability test	(一)Constant temperature and humidity	Place the specified 24h at $60 \pm 2$ °C and 95% (RH) humidity; After taking out the sample, place it at room temperature for 2 hours.				
			Judgement: <input checked="" type="checkbox"/> OK <span style="margin-left: 100px;"><input type="checkbox"/>NG</span>				
		(二)Salt spray test	1、No mechanical damage 2、electrical performance conforms to the original test requirements 3、 Appearance is no rust and oxidati				
			Judgement: <input checked="" type="checkbox"/> OK <span style="margin-left: 100px;"><input type="checkbox"/>NG</span>				
Final conclusion		<input checked="" type="checkbox"/> OK <span style="margin-left: 200px;"><input type="checkbox"/>NG</span>					
		Final conclusion <input checked="" type="checkbox"/> OK <span style="margin-left: 200px;"><input type="checkbox"/>NG</span>					

Edition:A.0

Form NO. :VLG/QRF8.2-29/A.0

Inspection: tao. jiang

Review: hong. yu

## RoHS Limited Substance Composition Questionnaire

QR-QA20-08

**Supplier:** VLG Wireless TECHNOLOGY CO

Product information provided																
Material code		Material name/item		Supplier Material Number				Manufacturer						Green Material Identification		
		Pocket Camera WIFI/BT Antenna		V1334-285-A-1				VLG								
Product Composition Information																
NO.	Part name	Component material number	Component supplier	Third party testing report		Limited substance content PPM										Remarks
				date	number	Pb	Cd	Hg	Cr <sup>6+</sup>	PBB	PBDE	DBP	BBP	DEHP	DIBP	
1	Pocket Camera WIFI/BT Antenna	VLG				○	○	○	○	○	○	○	○	○	○	
<p>Note: Pls. use 0, X to show whether the 6 content lines are up to standard; 0 is OK; X is NO.                      PPM Limit: Cd&lt;100PPM; Pd/Hg/Cr6+/PBB/PBDE&lt;1000PPM                      Pd/Hg/Cr6+/Cd&lt;100PPM for packing material.                      The supplier must fill out the list completely and stamp; The supplier is the direct business                      If the limited use material is overproof but conforming to exemption clause, pls. clarify at remark line.</p>																

Filler: hong.yu

Filler's company/Dept.: Shen Zhen WeiLiGu QA Dept.

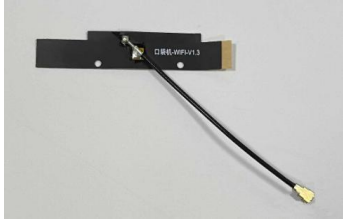
Checker: hong.yu

# Out-of-factory packaging requirements

General requirements:

- 1.Customer name, project name, model number
- 2.Caption inside and outside the box, packing when shipment, layer number, single number, etc
- 3.This packaging materials given in the note column name, quantity, etc
- 4.Quality department head to sign and date

PE bag



1.Packaging method



1.Packaging method



3.Carton packaging



4.Outer box label



5.Outer Container Shape



6.Front of packing box

Productmaterialno:	V1334-285-A-1
Product name:	Pocket Camera WIFI/BT Antenna
Product version:	R:A
Packaging method:	PE bag + clapboard + carton
Signer:	hong.yu December 17, 2021