



ShenZhen VLG Wireless TECHNOLOGY CO.,LTD

Address : 4/F, B5 Building, Taohuayuan Technology & Innovation Ecological Park, Xixiang, Baoan, Shenzhen

SPECIFICATION

Project	Pocket Camera WIFI/BT Antenna			Frequency Band	2400-2500MHz		
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	December 17, 2021						
Customer item P/N	Customer Project Name: Pocket Camera WIFI/BT Antenna						
	Customer Item No. :						
Customer Remark							
VLG Wireless Technology							
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	☐ satisfaction		☐ largely satisfactory		☐ Not satisfied		
ME	☐ satisfaction		☐ largely satisfactory		☐ Not satisfied		
PM	☐ satisfaction		☐ largely satisfactory		☐ Not satisfied		
Customer Suggestions:							
The antenna images 							

Design Specifications	Typical	Units
Antenna type	FPC+Leadwire	
working Frequency	2400~2500	MHz
Gain	0.03 ~ 1.33	dBi
Antenna efficiency	41.04 ~ 50.03	%
VSWR	<4	
Ploriaztion	Linear polarization	
Axial Ratio	When the antenna is circular polarization, note the axial ratio in the working bandwidth	N/A
Radiation pattern	omnidirectional	
impedance	50 ohm	
Power handling	33	dBm
Interface	IPEX	
Overall dimensions	See drawing section	
Weight	no requirement	
Operatin Temp	-30 ----- 70	°
Storing Temp	-30 ----- 70	°

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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 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

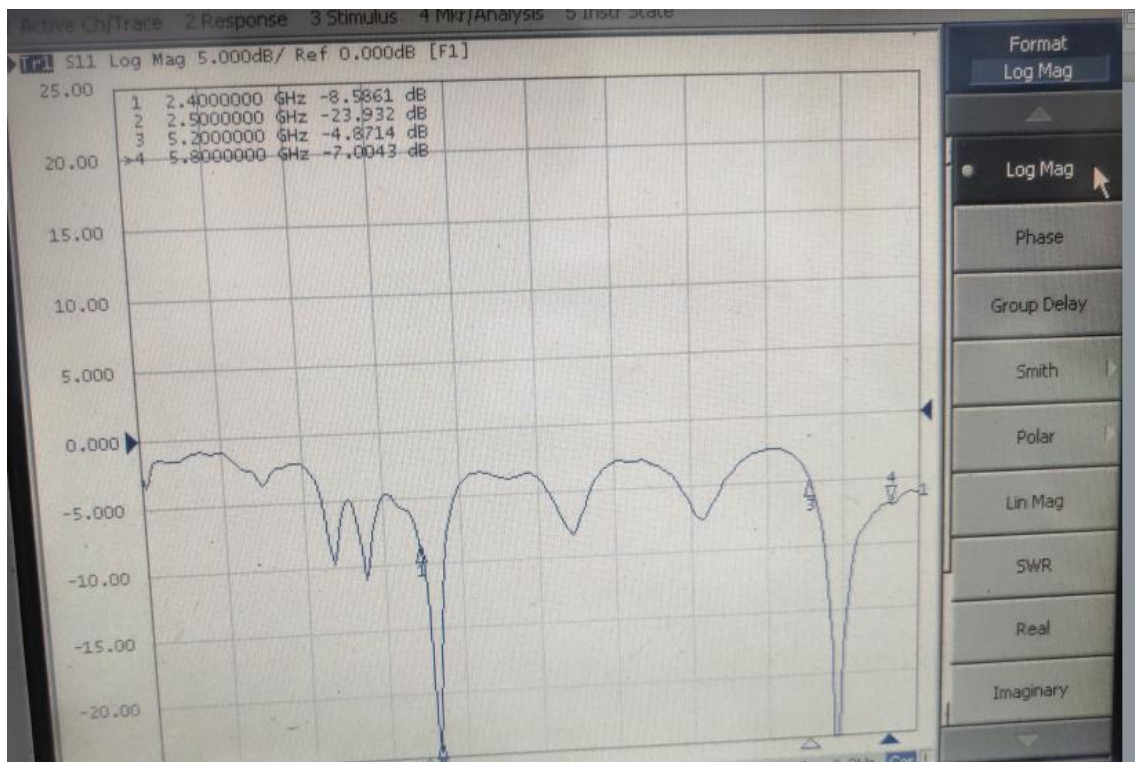
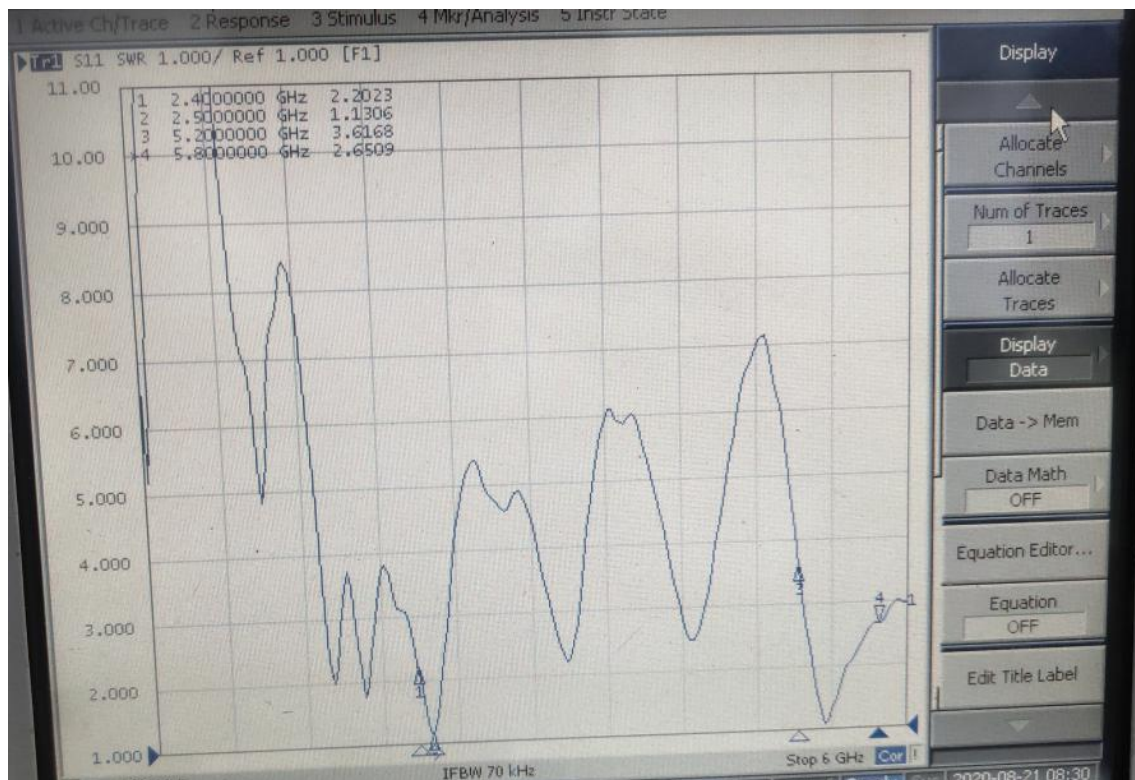
The table below shows the standing wave ratio value of the edge frequency of the working band of Pocket Camera WIFI/BT Antenna matches the original matching circuit.

Frequency band	frequency (MHz)	VSWR
WiFi	2400	2.20
	2500	1.13

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2.3.1 S11 parameter



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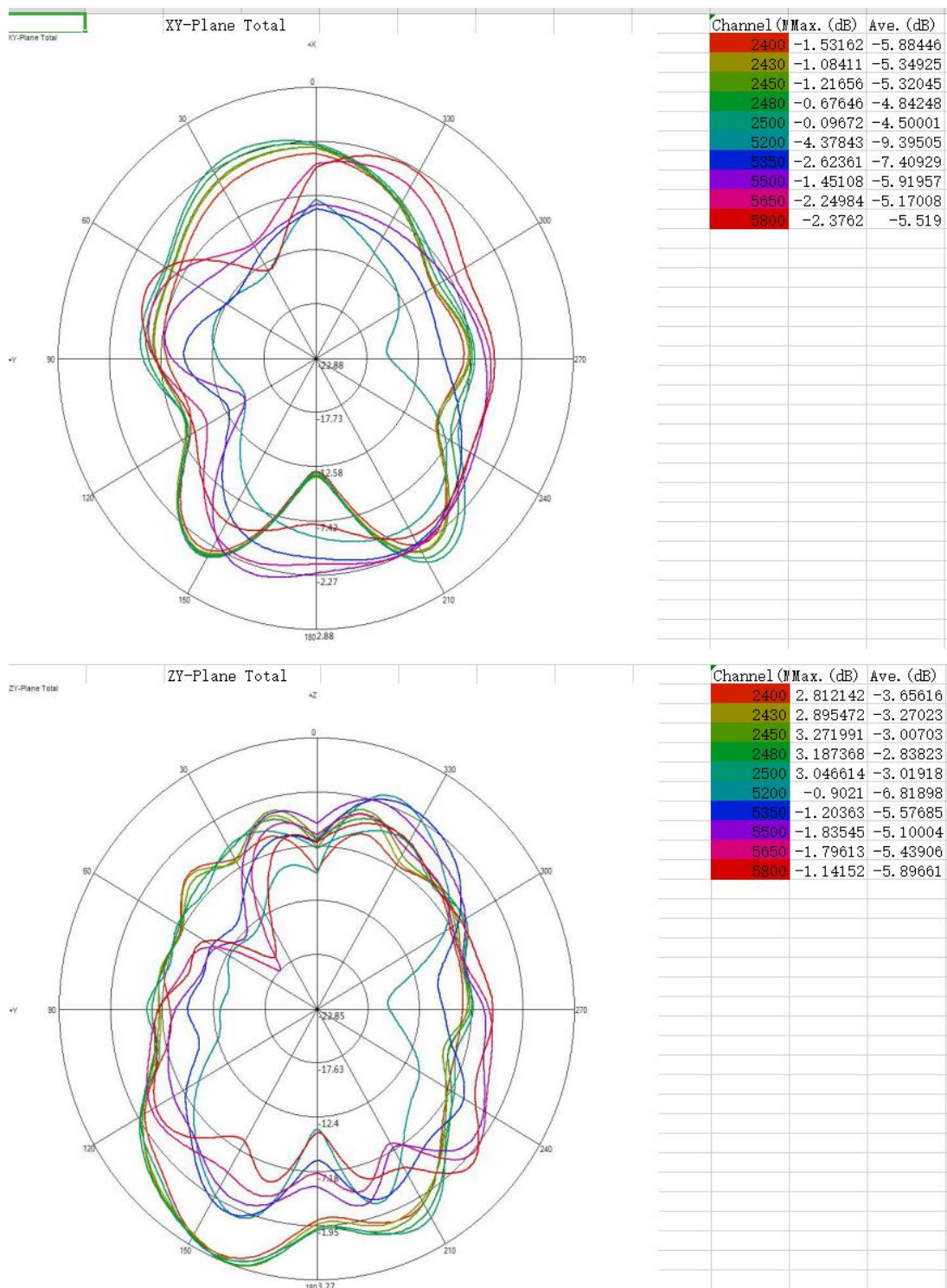
2.3.2 Antenna Passive Efficiency

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

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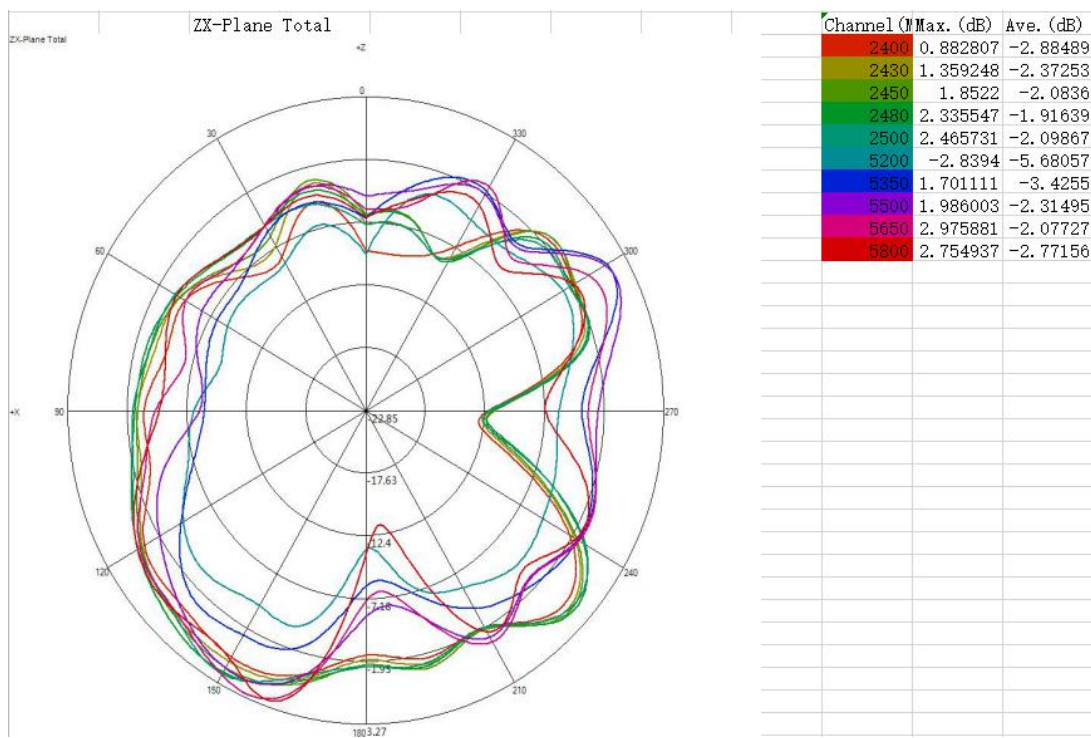
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2.3.3 Pattern



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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.

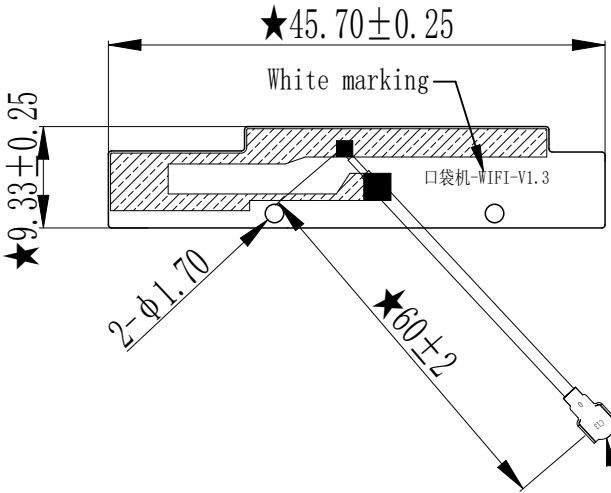
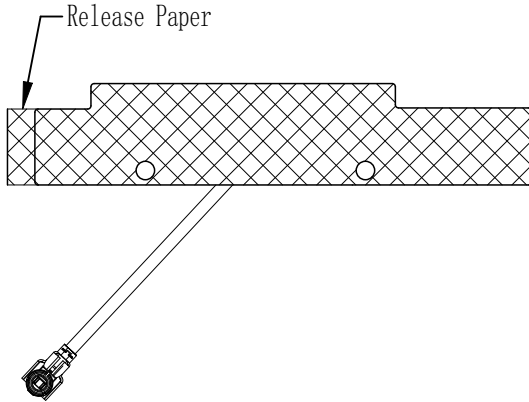
As can be seen from the above test data, this antenna provides better electrical performance.

We are looking forward to your confirmation. Thank you for your cooperation!

4、Appearance Drawing

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	1	2	3	4	5	6	7	8																																																																				
A	 ★45.70±0.25 White marking 口袋机-WIFI-V1.3 ★9.33±0.25 2-φ1.70 ★60±2 Con down  Release Paper																																																																											
B																																																																												
C	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.				<table border="1"><tbody><tr><td>3</td><td>IPEX</td><td>I IPEX</td><td>Golden</td><td></td><td>1</td><td></td></tr><tr><td>2</td><td>Cable</td><td>1.13mm</td><td>Black</td><td></td><td>1</td><td></td></tr><tr><td>1</td><td>FPC</td><td>PI</td><td>Black</td><td></td><td>1</td><td></td></tr><tr><td></td><td>Name</td><td>Material</td><td>Color</td><td>Treatment</td><td>Amount</td><td>Remark</td></tr></tbody></table>				3	IPEX	I IPEX	Golden		1		2	Cable	1.13mm	Black		1		1	FPC	PI	Black		1			Name	Material	Color	Treatment	Amount	Remark																																								
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ShenZhen VLG Wireless Technology Co.,Ltd

SAMPLE SIZE TEST REPORT

Customer		/		Product name		Pocket Camera WIFI/BT Antenna			Product type		FPC+Leadwire	
Supplier		VLG		P/N		V1334-285-A-1			Inspector		tao. jiang	
Drawing edition		R: A		UNIT		mm			Inspection date		December 17, 2021	
S/N	Test item	Test standard		Actual measurement size					judge	Test instrument	DIE No.	Remark
				1	2	3	4	5				
1	Appearance	Cosmetic defect phenomenon briefly		OK	OK	OK	OK	OK	OK	Visual		
		★	45.70 ± 0.25	45.68	45.65	45.65	45.69	45.68	OK	PM		
		★	9.33 ± 0.25	9.30	9.30	9.35	9.31	9.32	OK	PM		
		★	60.00 ± 2.00	60.20	60.10	60.20	60.15	60.20	OK	PM		
			1.70	1.70	1.70	1.70	1.70	1.70	OK	PM		
Final conclusion: OK ☒ NG ☐												

Cosmetic defect phenomenon briefly : A—Exposed copper、B—Deformation、C—Scratch、D—Mixed color、E—back glue 、F—Color difference、G—Virtual welding 、H—Dirty、I—skewed hole、J—Burr、K—Press mark、L—Deformation、L—Shrink、N—Broken pillars 、O—Dot、P—Rusty、Q—Electroplating bad、R—No bumps

Detecting instrument: PG—Plug(circular hole)gauge、RG—R gauge、SG—Block gauge、LG—ring gauge、DC—Digital caliper、PM—Two dimensional

Editon:A.0

Form NO.:VLG/QRF8.2-28/A.0

Check: tao. jiang

Review: hong. yu

ShenZhen VLG Wireless Technology Co.,Ltd
APPEARANCE PERFORMANCE AND RELIABLE TEST REPORT

Supplier Name		VLG		LOT size		N	
Customer Name		/		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		☒ OK ☐ NG				
	Reliability test	(一)Constant temperature and humidity	Place the specified 24h at 60 ± 2 ℃ and 95% (RH) humidity; After taking out the sample, place it at room temperature for 2 hours.				
			Judgement: ☒ OK ☐ NG 1、No mechanical damage 2、electrical performance conforms to the original test requirements 3、 Appearance is no rust and oxidati Judgement: ☒ OK ☐ NG				
		(二)Salt spray test	Put in salt spray testing machine, can't overlap between sample and sample, the sample horizontal tilt 60-80 degrees as soon as possible. In temperature 35 ℃ + 2 ℃, humidity > 85% airtight environment, PH value within the scope of 6.5 to 7.2, with 5% plus or minus 1% Nacl solution for spray after 24h, rinse off with clear water after the sample of the dry, place 2 h .				
			1、No mechanical damage 2、electrical performance conforms to the original test requirements 3、 Appearance is no rust and oxidati Judgement: ☒ OK ☐ NG				
Final conclusion			☒ OK ☐ NG				
			Final conclusion ☒ OK ☐ NG				

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 ⁶⁺	PBB	PBDE	DBP	BBP	DEHP	DIBP	
1	Pocket Camera WIFI/BT Antenna	VLG				○	○	○	○	○	○	○	○	○	○	

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<100PPM; Pd/Hg/Cr6+/PBB/PBDE<1000PPM
Pd/Hg/Cr6+/Cd<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.

Filler: hong.yu

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

Checker: hong.yu