

Shenzhen Xingbeihai Electronic
Technology Co., Ltd.

Name: Sample Approval

Ver: V1.0

date: 2022.07.29

Sample Approval Sheet

Project Name: BU-900M

Sample Name: 900M antenna

Sample SPEC: FPC Antenna + CABLE (L: 70.00 mm)

Customer PN.:

Transfer Date: 2022.07.29

Supplier Confirm	Project	Engineer	Quality
	xiaoqiang	huangzhenming	gushuang
date	2022.07.29	2022.07.29	2022.07.29

Customer confirm	PM	Electron	MD	PD	QE
date					

conclusion	☐ MP	☐ Limits use () K	☐ ROHS
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Supplier name: Shenzhen Xingbeihai Electronic Technology Co., Ltd.

The Supplier address: Shenzhen baoan district songgang street river community industry
five ways A building 2 floor

E-mail: sunjiwei@htc-wireless.com

TEL: 13923736137

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1. Specification overview

This specification describes the condition of built-in wifi antenna of Vtech BU-900. It is frequency band WiFi is manufactured by Shenzhen ZhongChuangKai Electronics co., LTD.。

2. Appearance



3. Electrical properties

3.1. Antenna frequency band

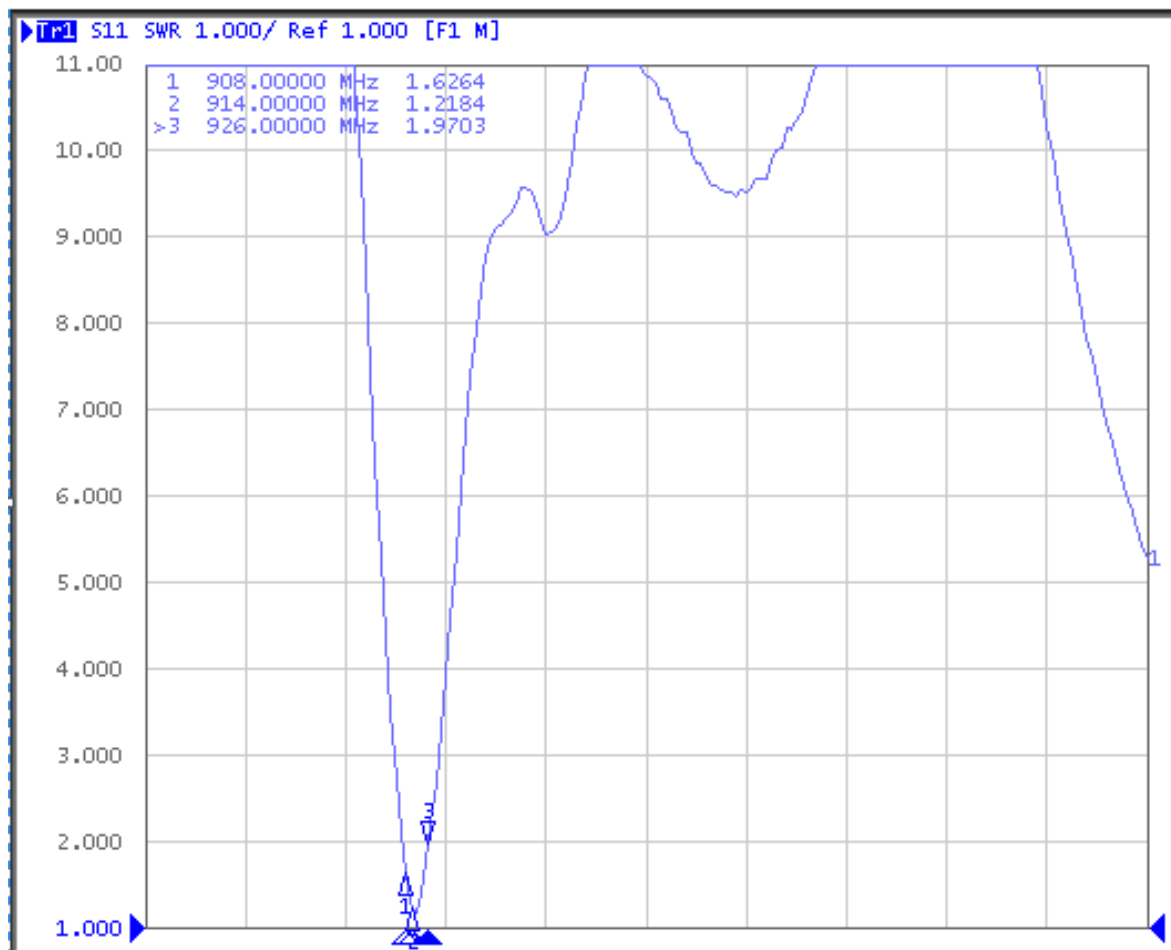
	900M
Emission spectrum(MHz)	908~926
Receiving frequency band(MHz)	908~926

3.2. Matching circuit

Matching circuit unchanged

3.3 Impedance requirements 50 ohm

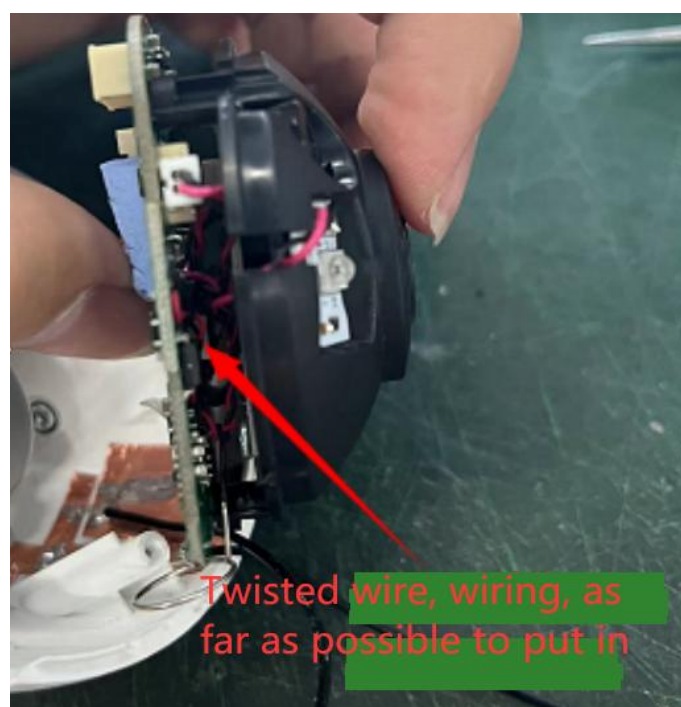
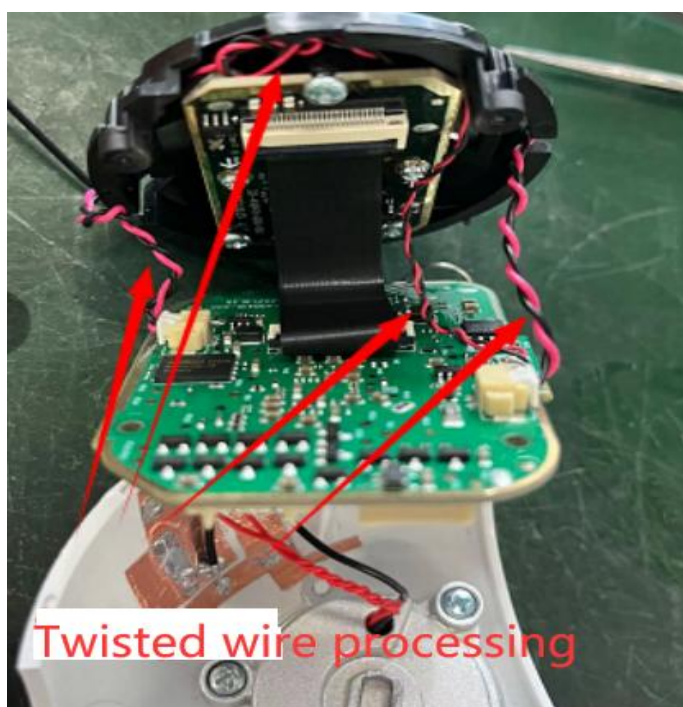
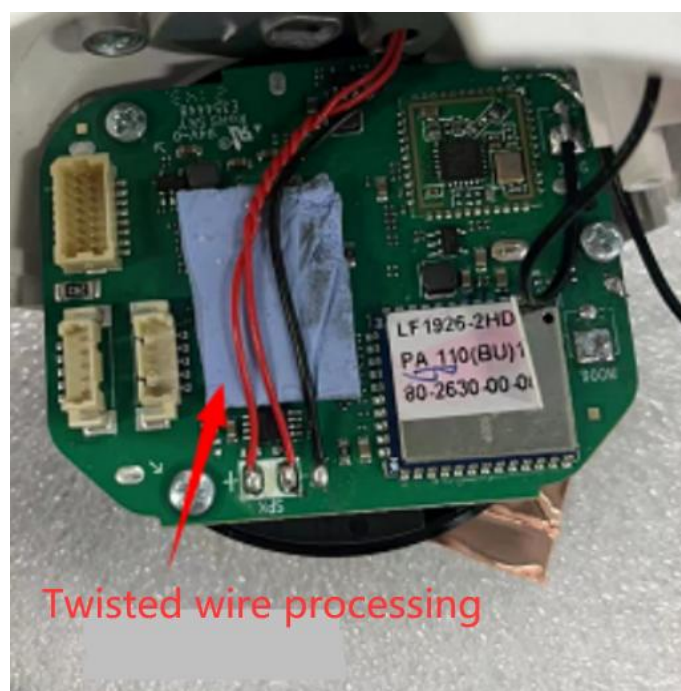
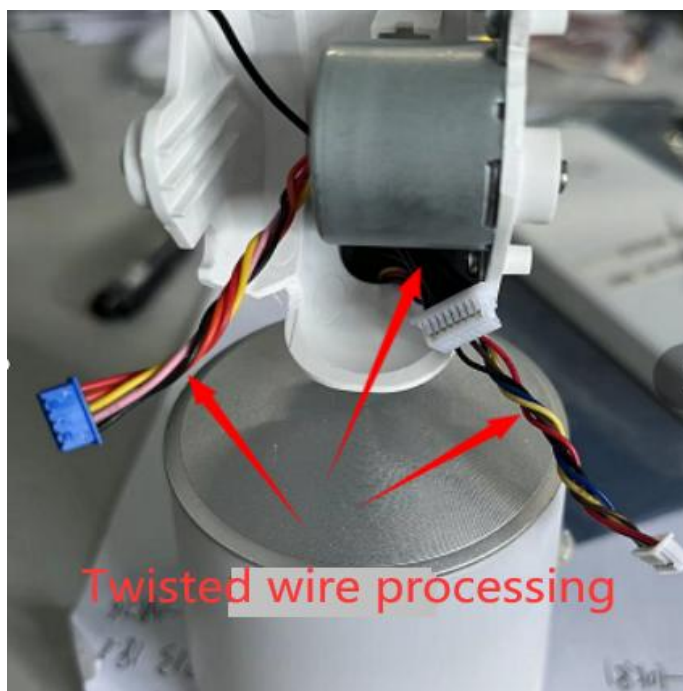
3.4 Passive standing wave diagram



3.5 Passive efficiency gains

Freq (MHz)	Effi (%)	Gain (dBi)
900	27.26	-0.39
905	27.36	-0.42
910	27.45	-0.35
915	27.55	-0.32
920	27.69	-0.29
925	28.52	-0.27
930	28.69	-0.25

3.6. Environmental treatment



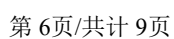
4 Appearance structure

4.1 Antenna material

Antenna material: FPC antenna, black ink, gold plating on exposed copper area.

Substrate + double sided adhesive tape + release paper

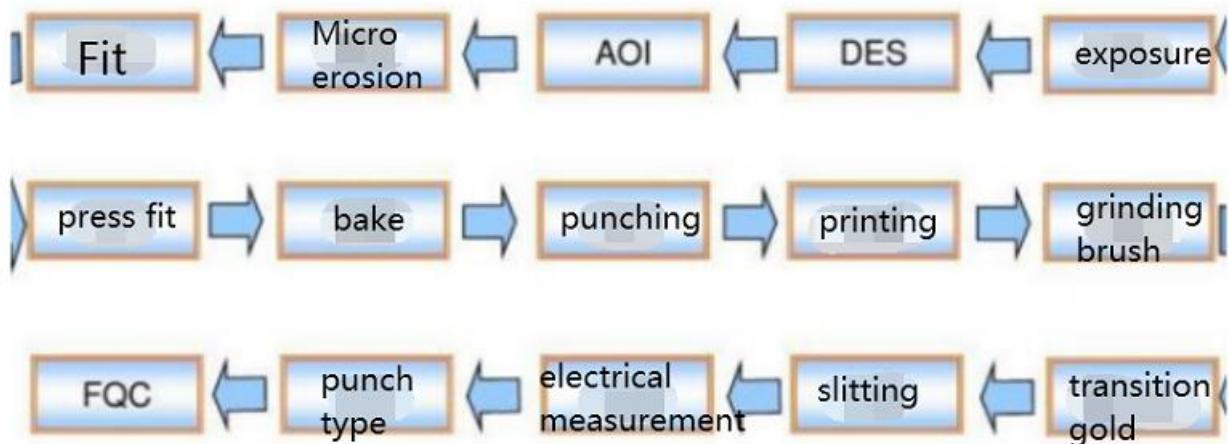
Cable line: Cable length is 70.00 mm, wire diameter 1.13 mm, teflon material; On both ends of the wire stripping immersion tin, one side welding on FPC antenna.



5. List of raw materials (BOM)

List of main materials								
number	Product information						Test report	
	Code (component Code)	Product name	重量 (g)	Name of raw material	Raw material No Chemical registration number	Raw material supplier	Certification company	Report no
1	FPC antenna	Copper foil substrate (PI)	0.0542	CU	SP14-033405-SH	Cai lungeti	SGS	SNA16-245544-02
			0.03	polyimide film				
2		Ink (black)	0.005	PRINT INK (Printing ink)	P800	Youli	SGS	
3		Adhesive paper	0.1132	3M	3M9471LSE	Weilihua	SGS	
4		Electrogold	/	additive	JSTD8001	Kingsoft	SGS	CAMEC1617433203
5	Coaxial line	wire rod	/	Teflon		Jiang Lian	SGS	
		Tabulation:	hejuan				sushaolong	

6. Production flow chart



7 .Reliability test report

Shenzhen Xingbeihai Electronic Technology Co., ltd.

Reliability test report

The customer	Vtech	The customer model	BU-900M	Product model	900M	DATE	2022/7/29	Inspector: GU
Number	Reliability project	The experimental method	Decision criteria	Cycle	number of experiments	1	2	3
1	Peel strength	Tension meter	From 70 to 80 n / 100 mm (paste) on ABS material	time/batch	5PCS	OK	OK	OK
2	The coating adhesion	Clean surface of FPC goldfinger, then on the surface of gold finger put new 3 #600 back glue, laminating surface to cover the surface of gold finger, and residual pressure must not have bubbles with his fingers. About 10 seconds, along with gold finger side into the direction of the Angle of 90 degrees quickly pull up the tape, and repeat this three times this action.	Check the surface gold finger without coating fall off phenomenon, there is no loss of coating film of adhesive tape.	1 time/batch	5PCS	OK	OK	OK
3	Salt fog	At 35 °C plus or minus 2 °C airtight environment, and the salt solution with a PH value of 6.5 to 7.25 (5% solution composition of 95% sodium chloride and distilled water) with 80 square centimeters to 10 cm in diameter of the atomizer in 16 hours average collection in 1 to 2 ml of spray amount, continuous spray after 48 hours to take out the test.	FPC not blister. Oxidation discoloration and rust.	1 time/batch	5PCS	OK	OK	OK
4	Bending test	Positive and negative bending 180°, 30 times	Still conduction after bending, performance is good.	1 time/batch	5PCS	OK	OK	OK
5	High and low temperature impact	Will be set to high and low temperature test chamber cold - 30 °C, the temperature is set to + 70 °C, the switching speed for 30 seconds, each holding 0.5 H, is set to 32. After the test after back 2 hours at room temperature.	Good electrical	1 time/batch	5PCS	OK	OK	OK
6	High temperature and high humidity test	Test environment: temperature of 60 plus or minus 2 °C; Humidity is 93 + / - 3% (RH); Place for 48 hours; Recovery time: 2 hours.	Good electrical	1 time/batch	5PCS	OK	OK	OK

Prepared : GU

checked by :XIAO

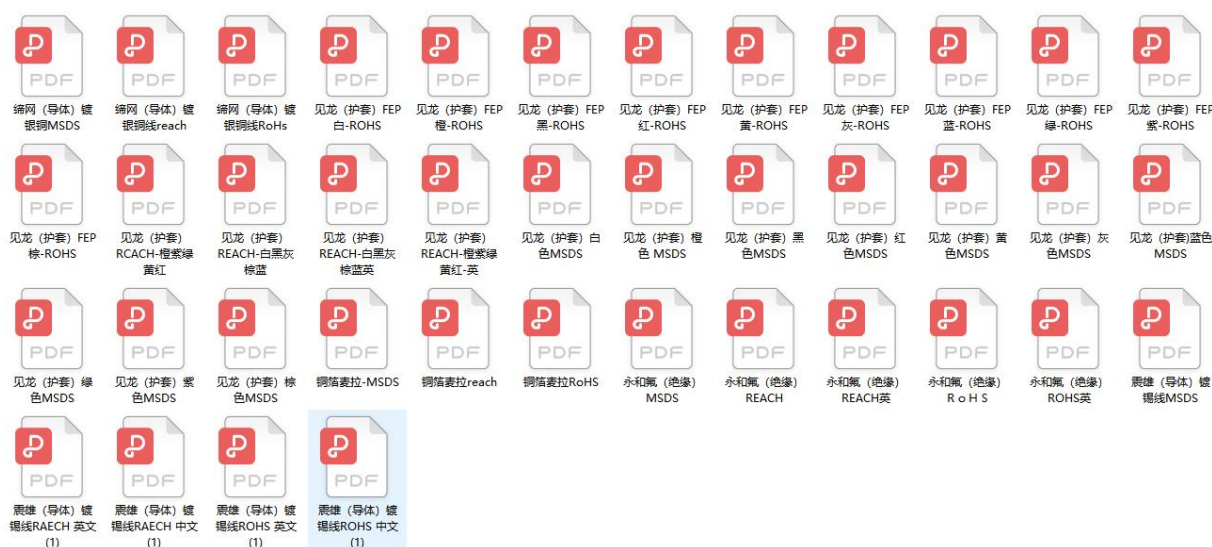
Control number: SR-FM-QRA-008

8 . GP test report of antenna and accessory materials (ROHS.SGS . MSDS) :

Some information of antenna:



Due to the large number of pages, the above RoHS. SGS. MSDS data will be provided in electronic form.



9 .Packing method

FPC + Cable antenna single PCS shipment, about 100 PCS, a small bag into a large bag again, the last is put into a small carton, a small box of about 3000 PCS antenna.

