

SHENZHEN XIN LINGKE TECHNOLOGY CO.,LTD

SPECIFICATION FOR APPROVAL

Customer:geruiyate

Description: X20L-101

P/N:	main antenna: KPTDGSM-X20L-101-11 WIFI/BT antenna: KPTDGWB-X20L-101-11 Diversity antenna: KPTDDIV-X20L-101-11	SENDING DATE	2022.9.7
SUPPLIERS P/N		APPROVED NO.	
Customer hardware		Client project	X20L-101
customer structure		Customer quality	
RF Engineer		Structural engineer	

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Project:x20l-101		Writed by: Zhang_shibin	X20L-101 antenna Specification for Approval
Date:: 2022.9.7			
Revision	V2.0	Supervised by: LI peng	
Mould			
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1 Summary

This report describes the characteristics of antenna for the geruiyate by Shenzhen xin lingke Technology Co., Ltd. The phablet model is X20L-101 and the range of frequency is GSM four frequency/W2/4/5/B2/3/4/5/7/8/28/GPS /WIFI/BT . The antenna model is PIFA and located inside the handset.

1.1 Match circuit

No change.

2 Configuring settings

TX Power and RX Sensitivity

The data of TX Power and Rx Sensitivity is 3D result measured in microwave eanechoic chamber by the Anritsu8820c.

TRP、TIS

Band	Channel	TRP	TIS	Band	Channel	TRP	TIS
B2	L	17.97		B7	L	18.24	
	M	17.54			M	18.34	
	H	17.8	-92.14		H	18.87	-92.41
B3	L	18.19		B28	L	7.2	
	M	18.21			M	9.07	-89.15
	H	18.01	-92.17				
B4	L	18.31					
	M	18.21					
	H	18.02	-93.24				
B5	L	15.65					
	M	15.73					
	H	15.32	-86.24				

Band	Channel	TRP	TIS	Band	Channel	TRP	TIS
850	L	25.71		W2	L	16.65	
	M	25.35			M	16.72	
	H	24.85	-101.11		H	16.99	-105.32
1800	L	25.54		W4	L	18.02	
	M	26.24			M	18.21	
	H	25.75	-103.99		H	18.04	-105.21
1900	L	24.01		W5	L	16.02	
	M	24.21			M	16.11	
	H	24.21	-105.01		H	16	-105.08

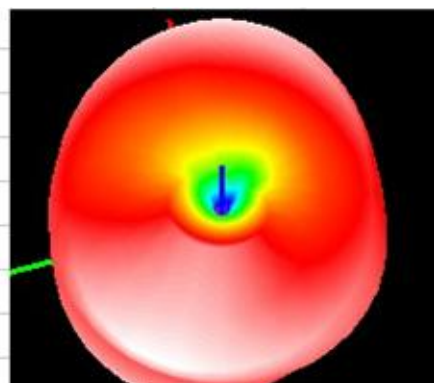
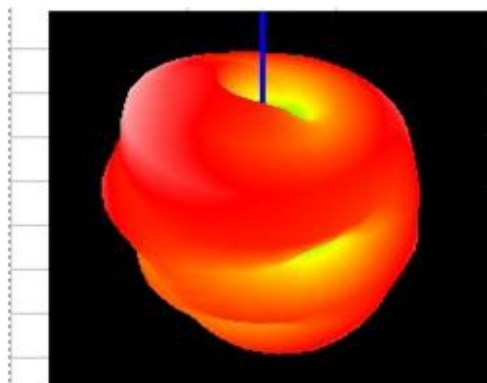
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2.4G WIFI	802.11b (11M)			5G WIFI	802.11a (54M)			
channel	1	7	13	channel	36	64	149	165
TRP	12.07	12.75	12.93	TRP	9.01	8.02	9.51	8.84
TIS			-82.35	TIS				-69.78

Passive Test For WiFi Antenna(2.4G)				Passive Test For WiFi main Antenna(5G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	74.6	-1.3	1.5	5150	46.0	-3.4	0.9
2410	75.7	-1.2	0.7	5200	45.4	-3.4	0.2
2420	75.7	-1.2	0.7	5250	41.6	-3.8	1.2
2430	74.5	-1.3	0.9	5300	38.8	-4.1	1.2
2440	73.8	-1.3	0.9	5350	39.8	-4.0	1.4
2450	77.6	-1.1	0.3	5400	43.6	-3.6	0.1
2460	76.4	-1.2	1.4	5450	42.1	-3.8	1.5
2470	75.2	-1.2	1.4	5500	37.0	-4.3	0.6
2480	72.4	-1.4	0.1	5550	36.8	-4.3	0.2
2490	73.0	-1.4	0.1	5600	37.8	-4.2	0.7
2500	72.3	-1.4	1.0	5650	36.8	-4.8	0.2
				5700	36.5	-4.8	1.3
				5750	38.6	-4.1	0.2
				5800	40.6	-3.9	1.2
				5850	40.0	-4.0	1.1

2.4G WIFI Max Gai:1.5dBi

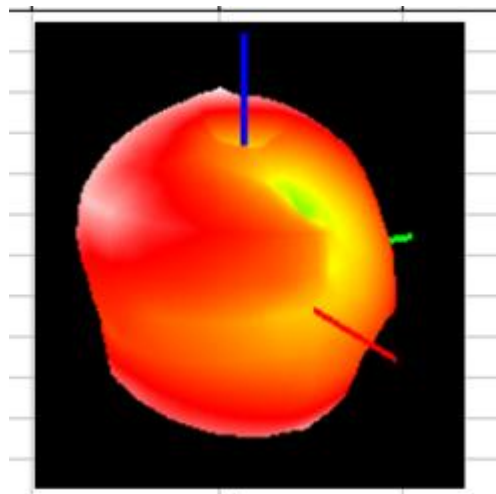
5G WIFI Max Gai:1.5dBi



Main Antenna

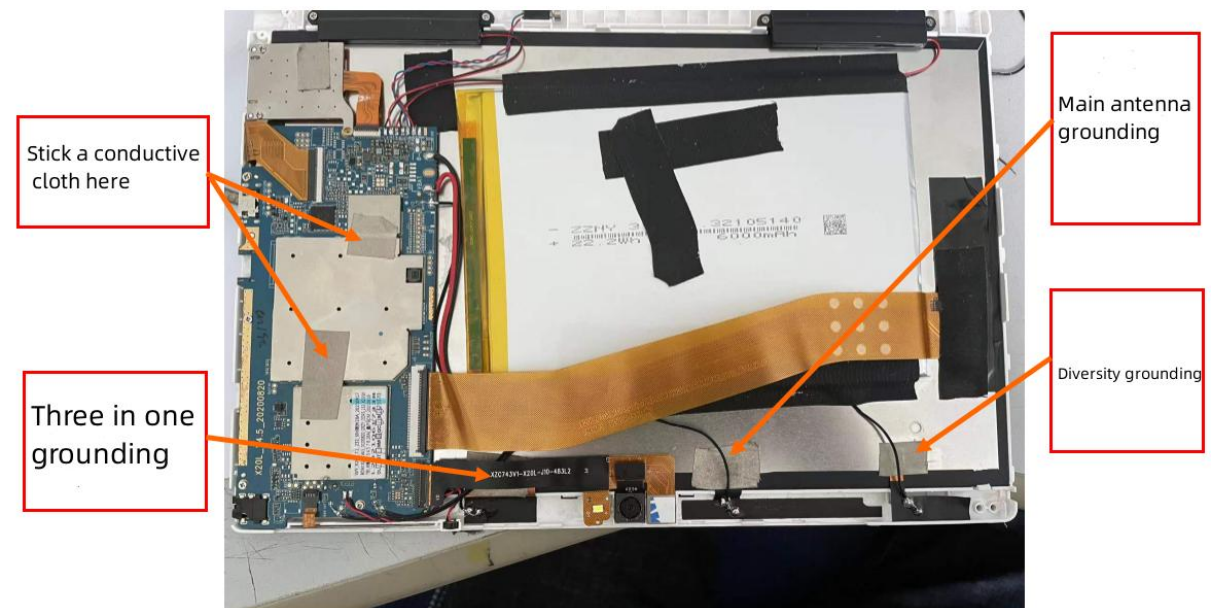
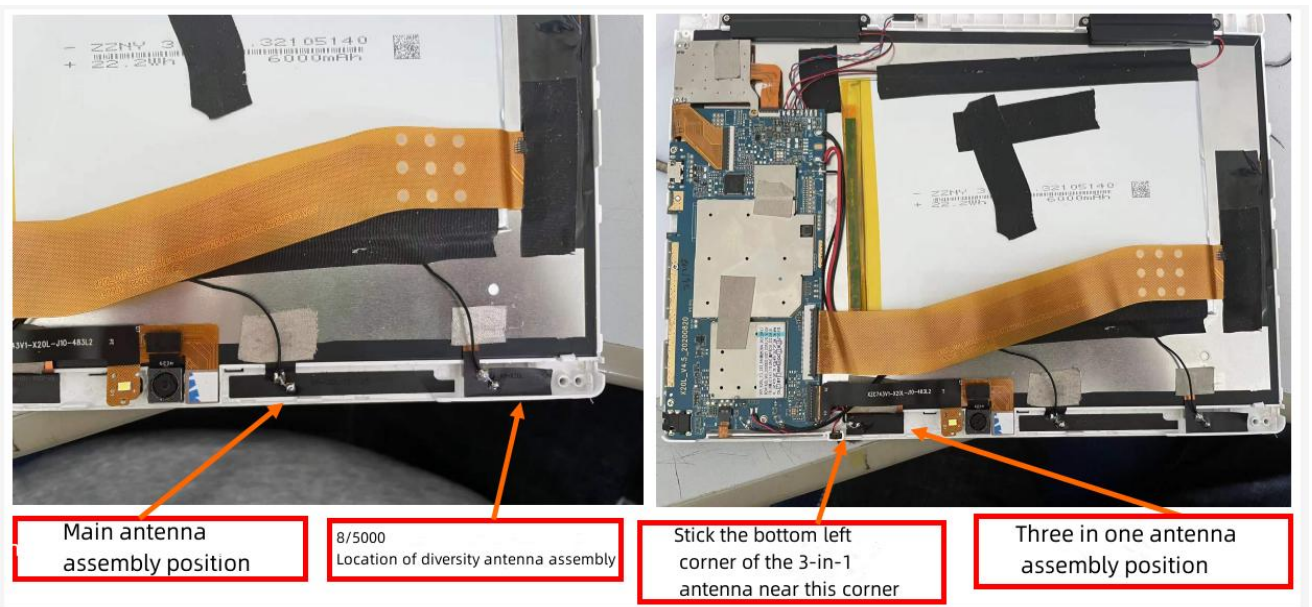
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Marker (MHz)	700	750	800	850	950	1710	1800	1900
Gain (dBi)	1.18	1.03	1.08	0.37	0.78	1.20	1.08	0.97
Efficien (%)	42.7	50.3	50.5	57.0	61.5	70.9	72.0	72.9
Marker (MHz)	2000	2100	2200	2300	2400	2500	2600	2700
Gain (dBi)	0.38	0.97	0.64	1.18	0.69	0.38	0.46	0.99
Efficien (%)	58.6	57.2	66.0	58.1	49.7	55.2	59.6	51.3



3. Environmental treatment

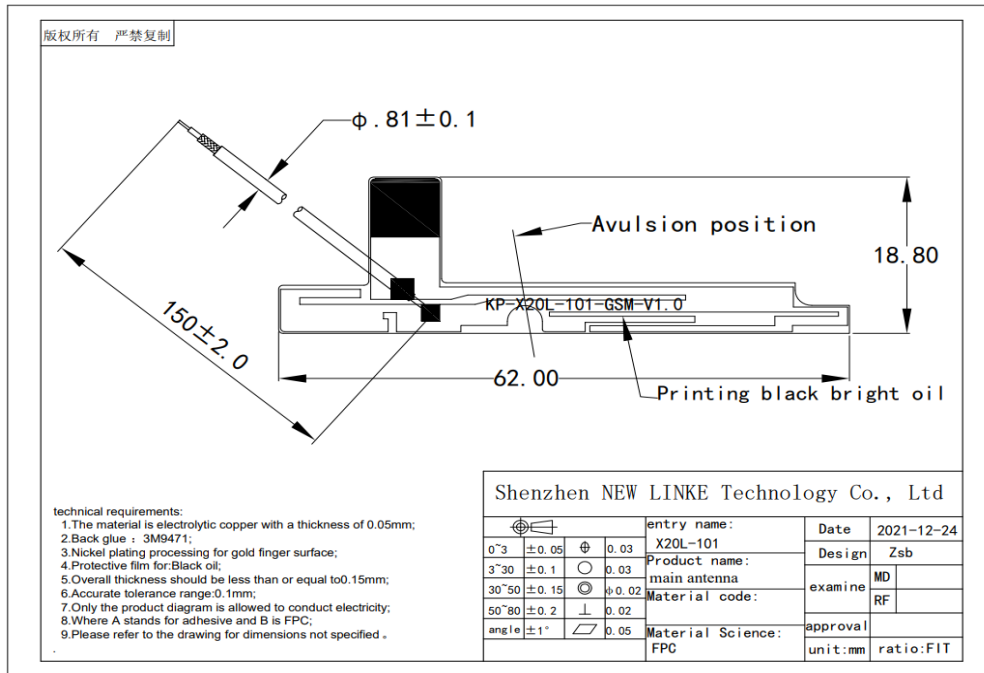
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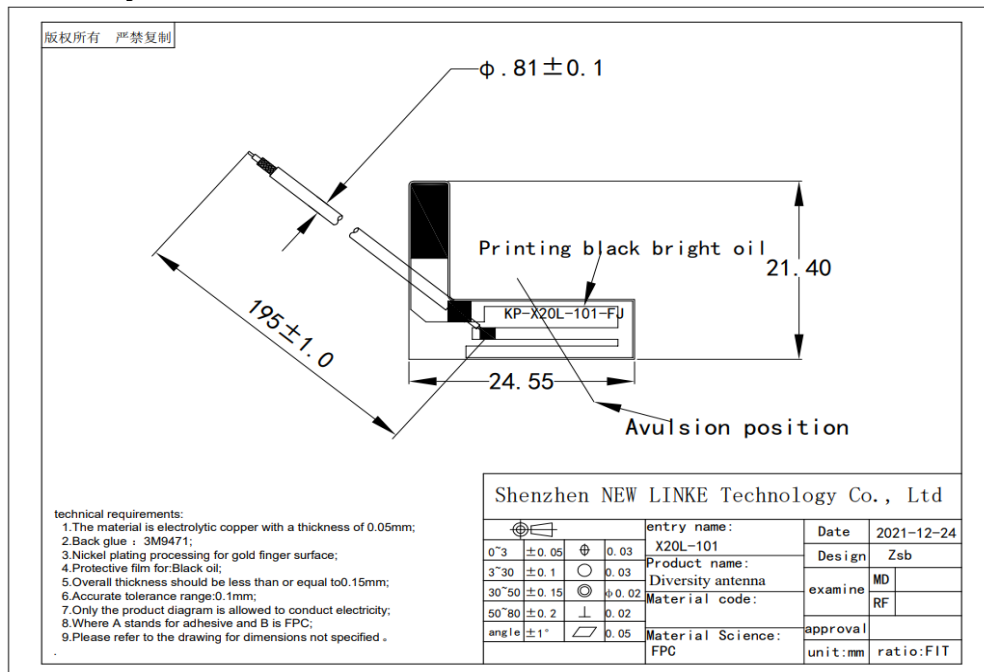
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4. Assembling picture

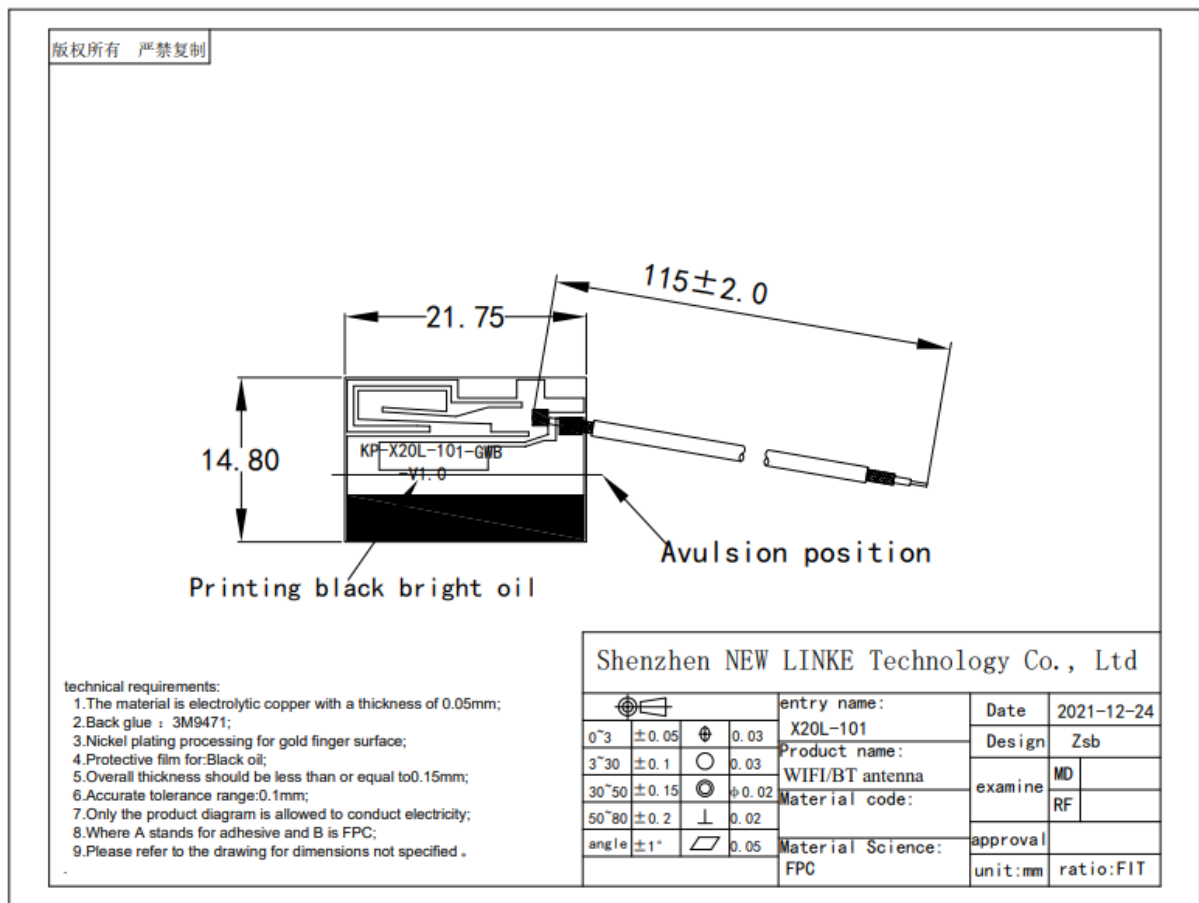
Main Antenna



Diversity antenna/WIFI/BT antenna



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Antenna tested Report with all dimension

Salt Fog Test Report

Handset Model	X20L-101			Tested Quantity	5PCS		
Standard	GB2423. 18			Product material	FPC		
Tested Items	Required Standard	Actual value	Result	Tested Items	Required Standard	Actual value	Result
Tester Model	KD-60	KD-60	OK	Tested Period	24H	24H	OK
Salt Fog Test Type	NSS Neutral NSS	NSS Neutral NSS	OK	Salt Fog Box Temperature	35° C	35℃	OK
Salt PH	6.5-7.2	6.8	OK	amount of precipitation of	1-2ml	1.8ml	OK

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				Salt fog (H. 80C)			
Fog spit type	Continue d fog	Continue d fog	OK	Material	FPC	FPC	OK
Volume of salt	5%/NaCL	5%/NaCL	OK	Compressed air pressure	1±0.1KG/CM2	1	OK
saturated temperature	47° C	47℃	OK	Sample location angel	90°	90°	OK
Observed Period	Observed phenomenon						
4H	NA						
12H	NA						
24H	NA						
Judged Standard: Judged by the method of GB5944-86, over Level 9 is qualified.							
Final Tested Result	Qualified ✓			Unqualified			
Tested by	Benyuan He	Supervi sed by	Aibing Wang	Approved by			
Remark: normal salt fog tested methods is NSS,AASS and CASS.							

Shipment Mode

Material Type	Package Mode	Picture for example
FPC	1、 full page package for shipment 2、 Release paper+ PET plastics bags packed 3、 100sheets/bag	

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