

Y61 Antenna Approval Document Summary

Antenna Approval Document Summary

Summary Date: 2026-07-09

1. Manufacturer and Address Information

Supplier: Shenzhen Kuruijie Communication Technology Co., Ltd.

Address: Room 407-409, Block C, Building 5, Guanghuaqiang Creative Industrial Park,
Guangming District, Shenzhen

Tel: 15220074510

2. Antenna Product Overview

This project includes 5 types of antenna components. Details are as follows:

No.	Antenna Name	Model/Part No.	Drawing No.	Dimensions (mm)	Material	Color
1	Main Antenna	KRJ-Y61-MG-TA	KRJ-Y61-MAIN-V1.0	78.83±0.15 × 8.94±0.15	FPC	Matte Black
2	Diversity Antenna	KRJ-Y61-DIV-TA	KRJ-Y61-DIV-V1.0	22.63±0.15 × 9.10±0.15	FPC	Matte Black
3	Tri-combo Antenna	KRJ-Y61-GWB-TA	KRJ-Y61-GWB-V1.0	41.22±0.15 × 9.10±0.15	FPC	Matte Black
4	NFC Antenna	KRJ-NFC-TA	Y55-NFC Double-Sided Board	44.82 × 32.71 × 4.46	FPC	Matte Black
5	Coaxial Cable	KRJ-Y61-011-TA	4th Gen Terminal Co-directional Coaxial Cable	Total Length 123±0.5, Φ0.81	Coaxial Cable	Black

Sample Photos:

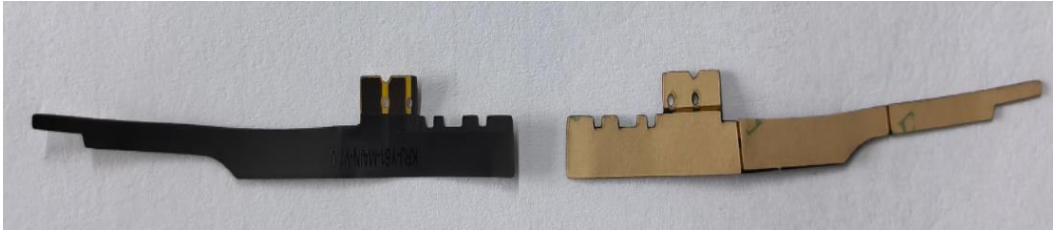


Figure 2-1: Main Antenna Sample (Front/Back)

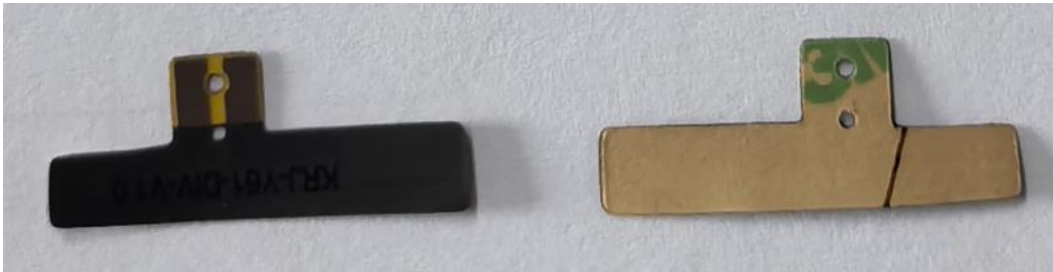


Figure 2-2: Diversity Antenna Sample (Front/Back)



Figure 2-3: Tri-combo Antenna Sample (Front/Back)



Figure 2-4: NFC Antenna Sample (Front/Back)

3. 2D Engineering Drawings and Dimensions

2D engineering drawings for each antenna component (including outline dimensions, material, surface treatment, and other key information):

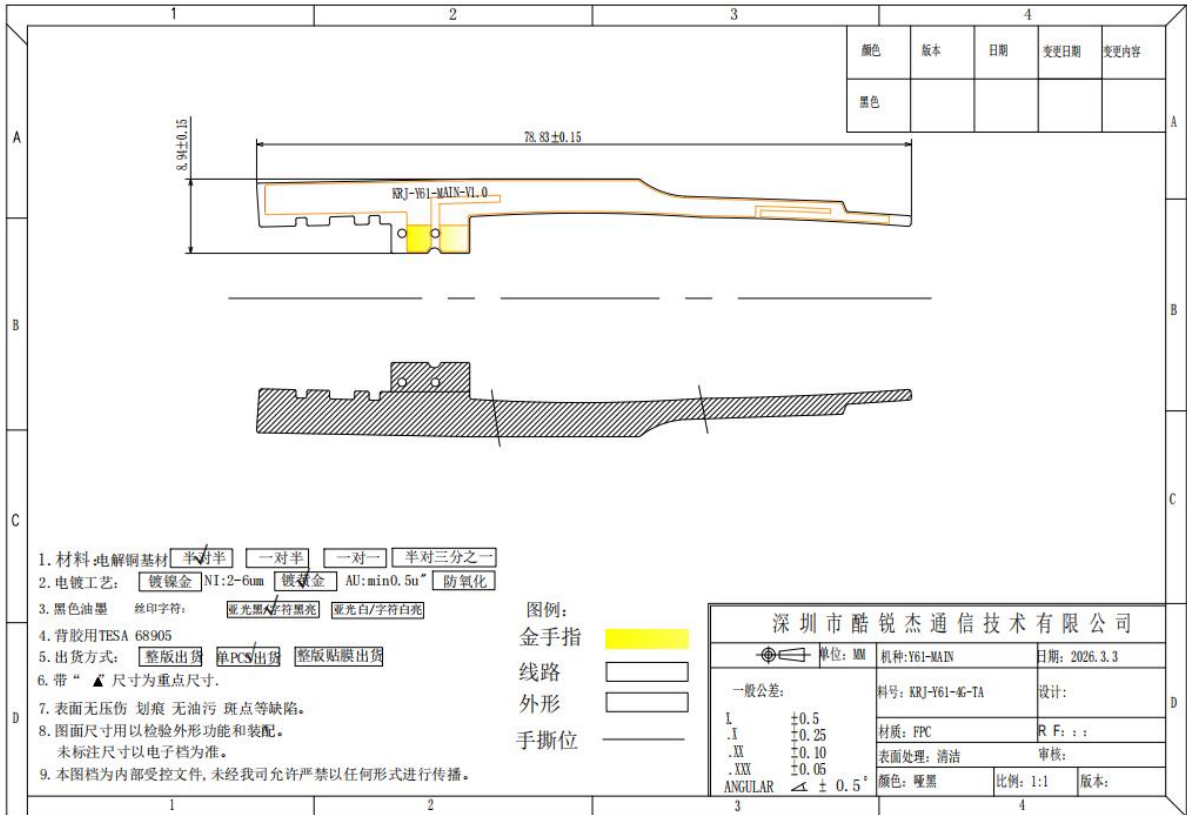


Figure 3-1: Main Antenna 2D Engineering Drawing (KRJ-Y61-MAIN-V1.0)

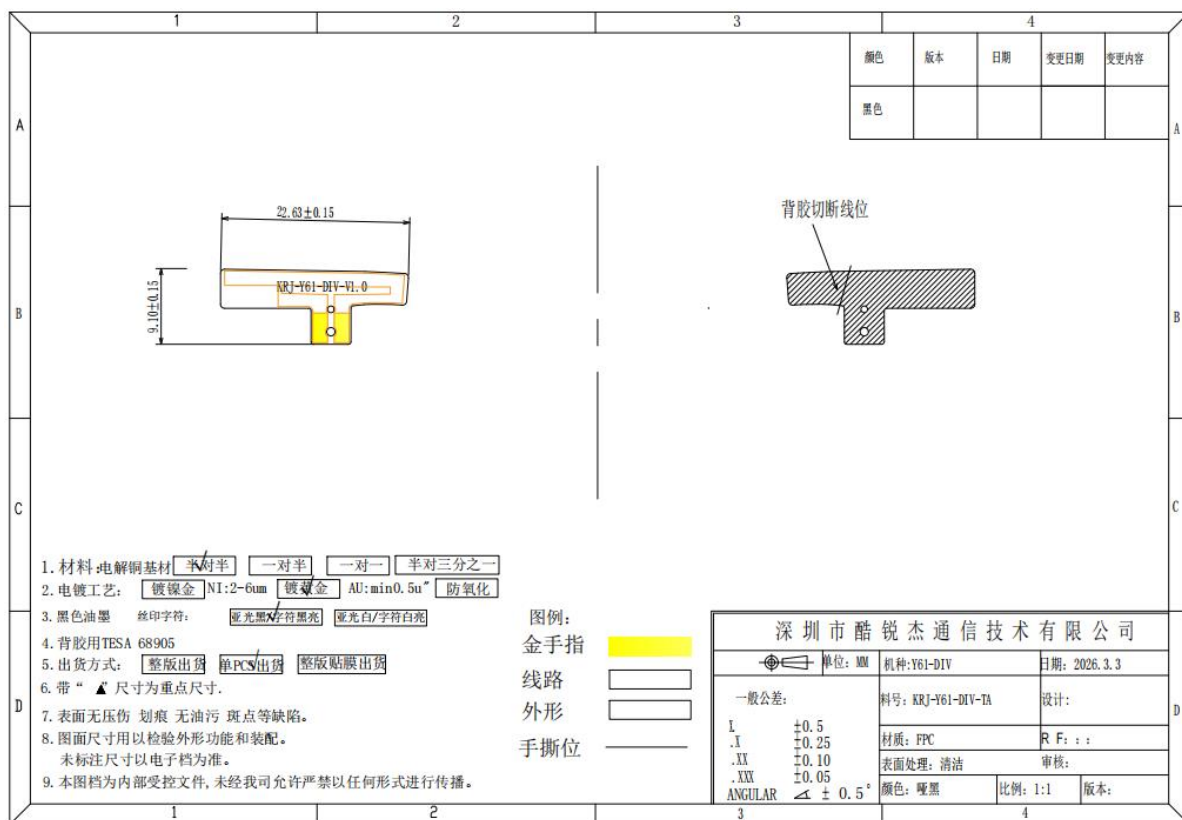


Figure 3-2: Diversity Antenna 2D Engineering Drawing (KRJ-Y61-DIV-V1.0)

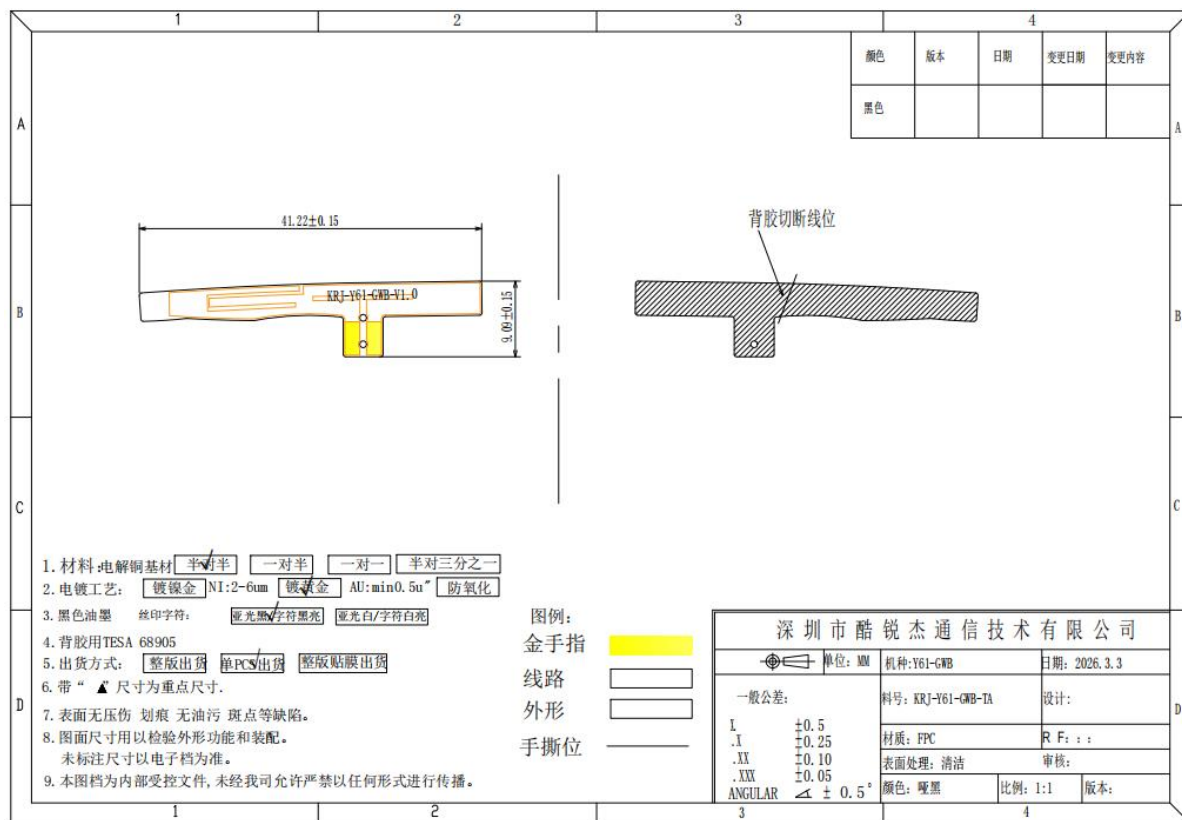


Figure 3-3: Tri-combo Antenna 2D Engineering Drawing (KRJ-Y61-GWB-V1.0)

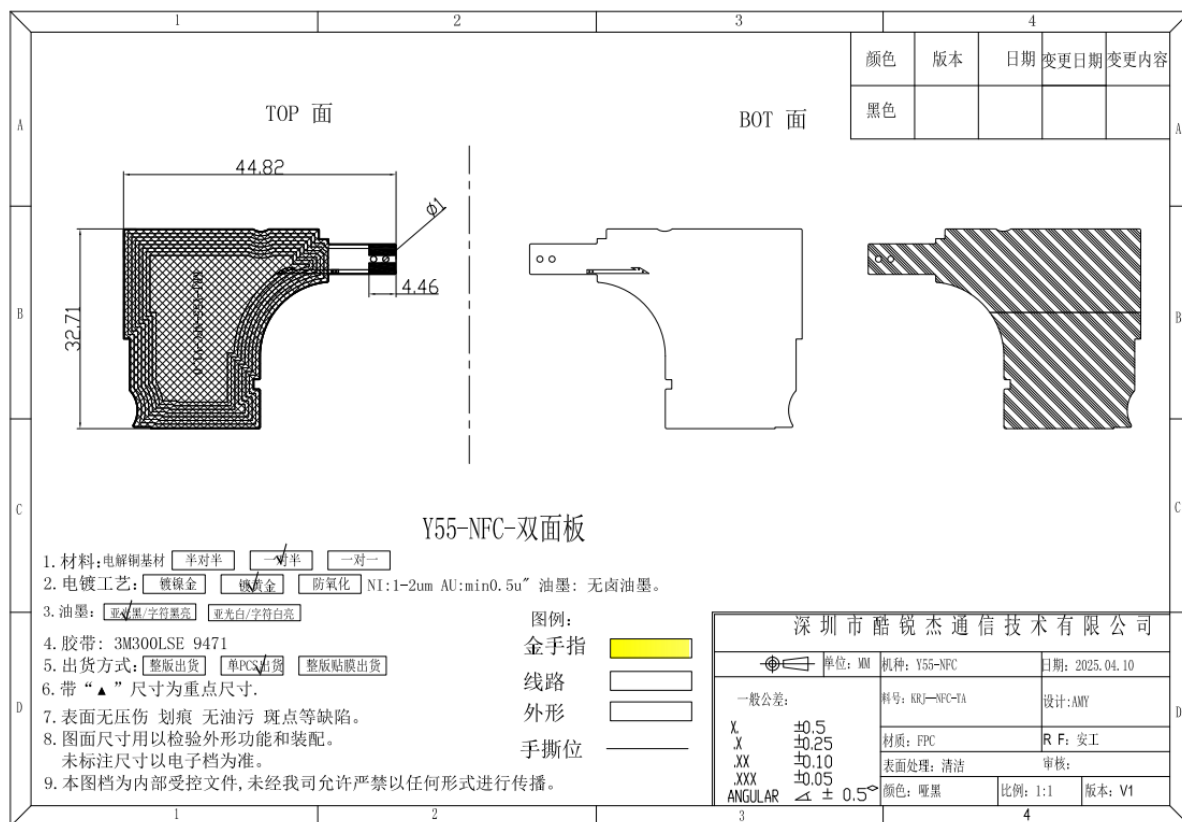


Figure 3-4: NFC Antenna 2D Engineering Drawing (Y55-NFC Double-Sided Board)

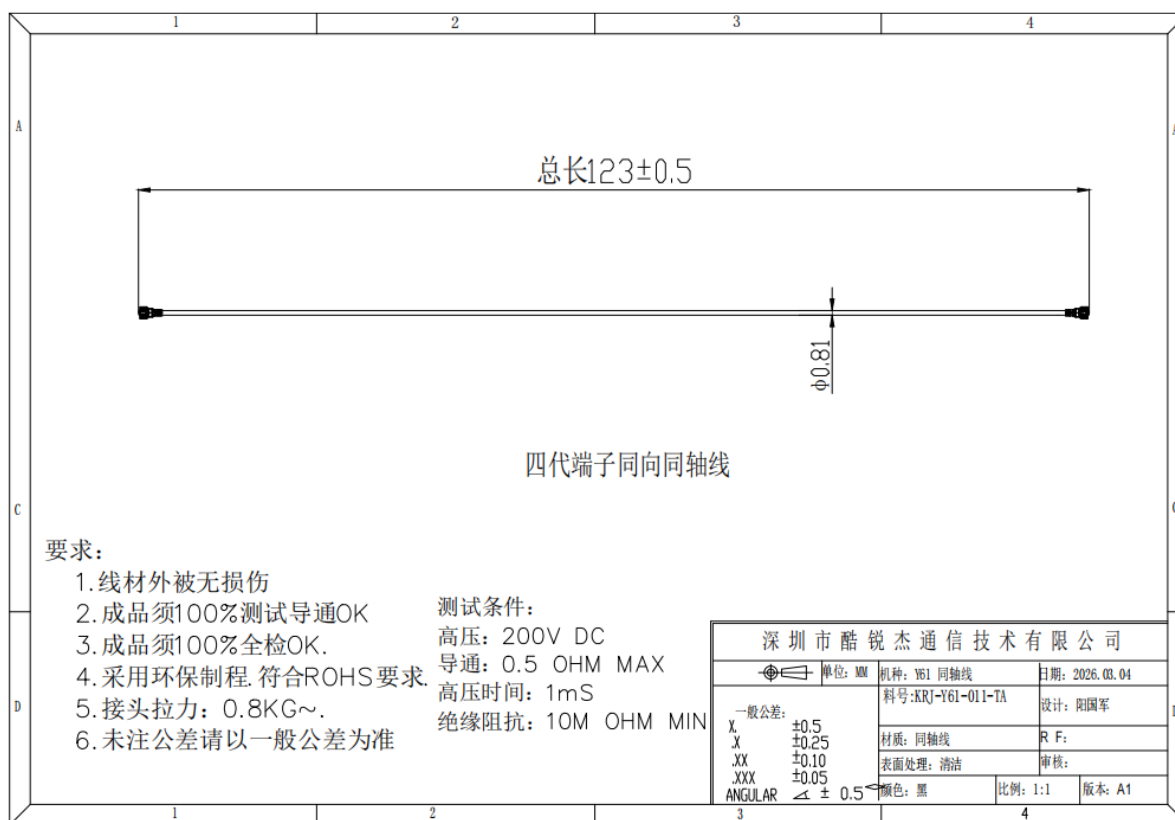


Figure 3-5: Coaxial Cable 2D Engineering Drawing (4th Gen Terminal Co-directional Coaxial Cable)

4. Main Antenna Gain and Performance Data

4.1 Active Test: TRP/TIS (Total Radiated Power / Total Isotropic Sensitivity)

2G/3G TRP/TIS Test Results:

Band/2G	CH	TRP	TIS	Band/3G	CH	TRP	TIS
GSM850	128	26.32		W1	9612	18.37	
	190				9750		
	251	26.71	-102.25		9888	17.55	-104.67
GSM900	975	27.04		W2	9262	18.12	
	38				9400		
	124	27.47	-104.76		9538	18.23	-105.44
DCS1800	512	25.01		W4	1312	18.22	
	699				1413		
	885	25.24	-104.65		1513	18.45	-104.8
PCS1900	512	25.78		W5	4132	17.2	
	661				4183		
	810	25.51	-103.05		4233	17.41	-103.27
				W8	2712	17.22	
					2788		
					2863	17.54	-104.44

Figure 4-1: Main Antenna 2G/3G TRP/TIS Test Data

4G LTE TRP/TIS Test Results:

Band	CH	TRP	TIS	Band	CH	TRP	TIS	Band	CH	TRP	TIS
B1	18050	18.35		B12	23050	16.12		B66	132022	17.42	
	18300				23090				132322		
	18550	17.44	-92.88		23130	16.01	-90.08		132622	17.34	-91.34
B2	18650	18.51		B13				B34	36250	18.12	
	18900				23230	16.55	-90.85		36275		
	19150	18.45	-92.25						36300	18.08	-90.67
B3	19250	18.54		B17	23780	16.06		B38	37850	18.13	
	19575				23790				38000		
	19900	18.47	-93.21		23800	16.03	-90.4		38150	18.23	-90.56
B4	20000	18.28		B20	24200	17.45		B39	38350	18.34	
	20175				24300				38450		
	20350	18.45	-93.75		24400	17.64	-90.57		38550	18.04	-92.14
B5	20450	17.45		B25	26090	18.15		B40	38750	17.25	
	20525				26365				39150		
	20600	17.34	-91.01		26640	18.24	-91.21		39550	17.1	-90.65
B7	20850	17.95		B26	26740	17.43		B41	40340	17.79	
	21100				26865				40620		
	21350	18.01	-91.41		26990	17.21	-90.23		41140	17.56	-90.67
B8	21500	17.35		B28	27260	16.12					
	21625				27435						
	21750	18.28	-91.75		27610	16.34	-91.34				

Figure 4-2: Main Antenna 4G LTE TRP/TIS Test Data

4.2 Passive Test: S11/Return Loss

主天线无源图

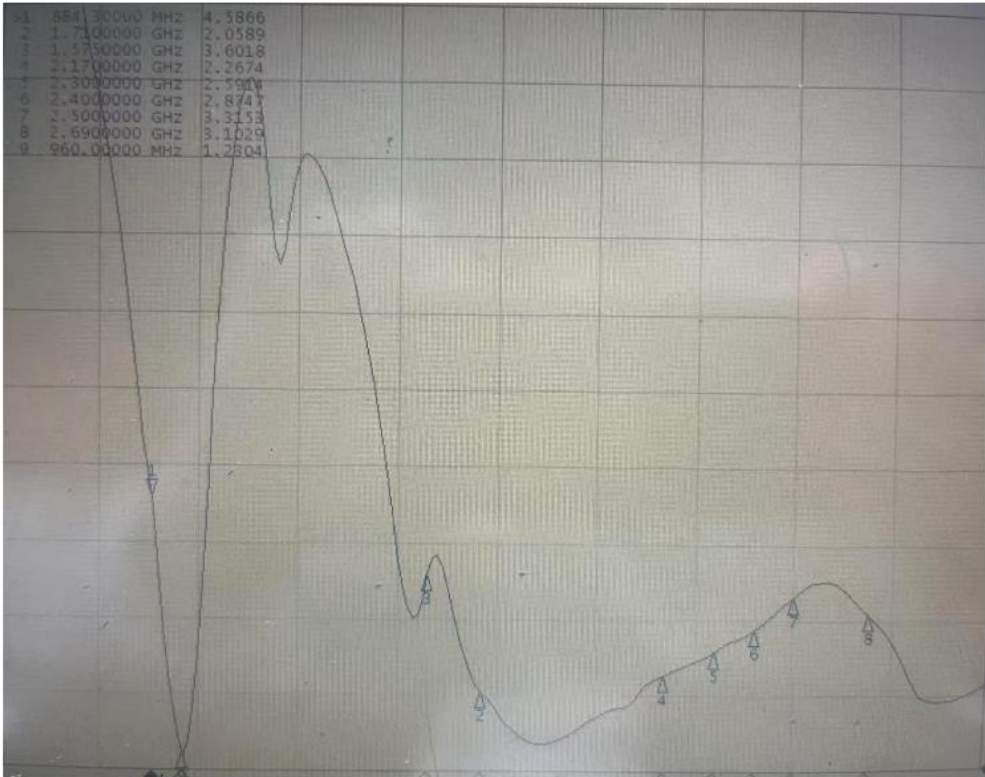


Figure 4-3: Main Antenna Passive Plot (S11/Return Loss)

4.3 Efficiency and Gain

主天线效率增益

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	15.29	-8.16	-3.5	1810	45.83	-2.53	1.74	2300	46.38	-3.34	1.16
710	15.9	-7.99	-3.41	1820	47.13	-2.43	1.76	2310	41.32	-3.84	0.96
720	18.96	-7.22	-2.82	1830	48.2	-2.35	1.74	2320	38.6	-4.13	0.66
730	18.71	-7.28	-3.11	1840	48.53	-2.33	1.79	2330	40.47	-3.93	0.94
740	20.14	-6.96	-2.69	1850	49.26	-2.27	1.71	2340	36.62	-4.36	0.69
750	23.36	-6.32	-1.71	1860	48.4	-2.34	1.81	2350	39.41	-4.04	1.14
760	23.39	-6.31	-1.57	1870	49.41	-2.26	1.93	2360	37.56	-4.25	1.06
770	24.01	-6.2	-1.26	1880	52.73	-2.03	2.46	2370	30.55	-5.15	0.22
780	26.68	-5.74	-0.75	1890	50.58	-2.18	2.44	2380	31.95	-4.96	0.45
790	30.07	-5.22	0.13	1900	51.62	-2.1	2.62	2390	30.07	-5.22	0.13
800	31.82	-4.97	0.32	1910	50.44	-2.19	2.67	2400	31.82	-4.97	0.32
810	31.73	-4.99	0.28	1920	52.55	-2.04	2.86	2410	31.73	-4.99	0.28
820	30.99	-5.09	0.16	1930	53.6	-1.97	2.97	2420	30.99	-5.09	0.16
830	32.28	-4.91	0.31	1940	54.43	-1.91	3.01	2430	32.28	-4.91	0.31
840	31.41	-5.03	0.08	1950	57.58	-1.7	3.1	2440	31.41	-5.03	0.08
850	33.66	-4.73	0.21	1960	58.09	-1.67	3.02	2450	33.66	-4.73	0.21
860	32.28	-4.91	0.31	1970	58.55	-1.64	2.98	2460	32.98	-4.82	-0.05
870	33.44	-4.76	-0.31	1980	61.08	-1.48	3.1	2470	33.59	-4.74	-0.13
880	40.97	-3.87	0.46	1990	61.83	-1.44	3.18	2480	32.61	-4.87	-0.4
890	44.98	-3.1	1.55	2000	64.6	-1.27	3.26	2490	33.14	-4.8	-0.34
900	48.26	-2.66	2.41	2010	61.62	-1.45	2.95	2500	32.78	-4.84	-0.43
910	51.04	-2.22	2.84	2020	63.35	-1.35	2.97	2510	32.85	-4.83	-0.43
920	50.82	-2.16	2.47	2030	60.14	-1.54	2.67	2520	33.14	-4.8	-0.35
930	51.92	-1.88	2.28	2040	57.45	-1.71	2.42	2530	30.73	-5.12	-0.63
940	47.51	-1.9	1.95	2050	54.57	-1.9	2.13	2540	31.8	-4.98	-0.43
950	46.69	-1.83	1.88	2060	46.25	-2.5	1.55	2550	29.86	-5.25	-0.68
960	45.91	-2.01	1.67	2070	45.42	-2.56	1.54	2560	30.85	-5.11	-0.53
1700	33.48	-3.62	0.13	2080	48.71	-3.12	1.09	2570	30.88	-5.1	-0.51
1710	35.85	-4.46	-0.13	2090	50.19	-2.99	1.25	2580	28.16	-5.5	-0.93
1720	36224	-4.41	0.06	2100	46.73	-3.3	0.99	2590	29.72	-5.27	-0.73
1730	31.16	-4.07	0.41	2110	45	-3.47	0.88	2600	26.81	-5.72	-1.21
1740	35.57	-3.92	0.62	2120	44.36	-3.53	0.81	2610	27.84	-5.55	-0.98
1750	34.69	-3.6	1.02	2130	42.08	-3.76	0.53	2620	26.84	-5.71	-1.12
1760	35.16	-3.45	1.13	2140	43.41	-3.62	0.71	2630	24.12	-6.18	-1.53
1770	38.57	-3.14	1.56	2150	41.64	-3.81	0.69	2640	24.21	-6.16	-1.48
1780	40.42	-2.97	1.5	2160	41.45	-3.82	0.77	2650	21.38	-6.7	-2.04
1790	42.76	-2.78	1.73	2170	39.74	-4.01	0.69	2660	22.63	-6.45	-1.78
1800	545	-2.6	1.65	2180	38.63	-4.13	0.61	2670	20.96	-6.79	-2.13
				2190	39.35	-4.05	0.75	2680	19.62	-7.07	-2.36
				2200	29.58	-5.29	-0.59	2690	19.25	-7.16	-2.37
								2700	20	-6.99	-2.21

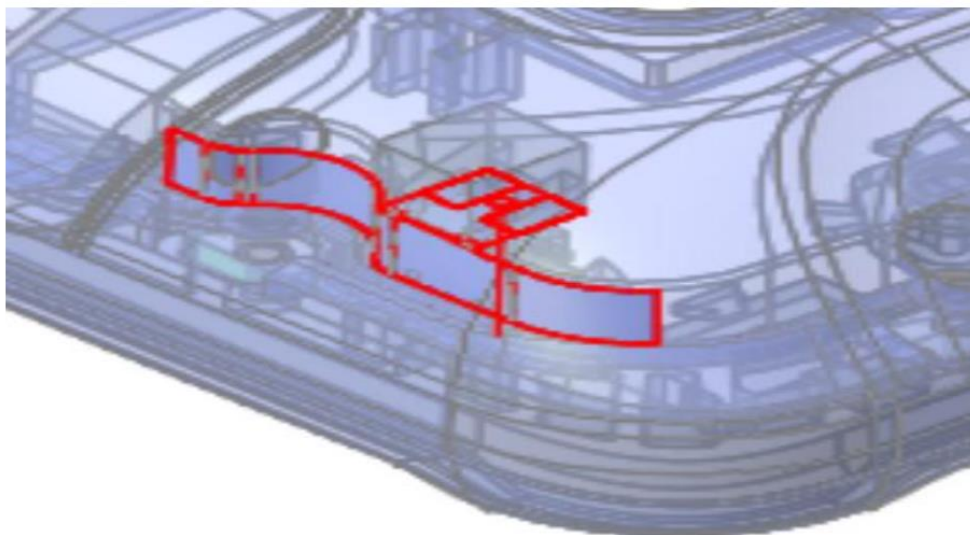
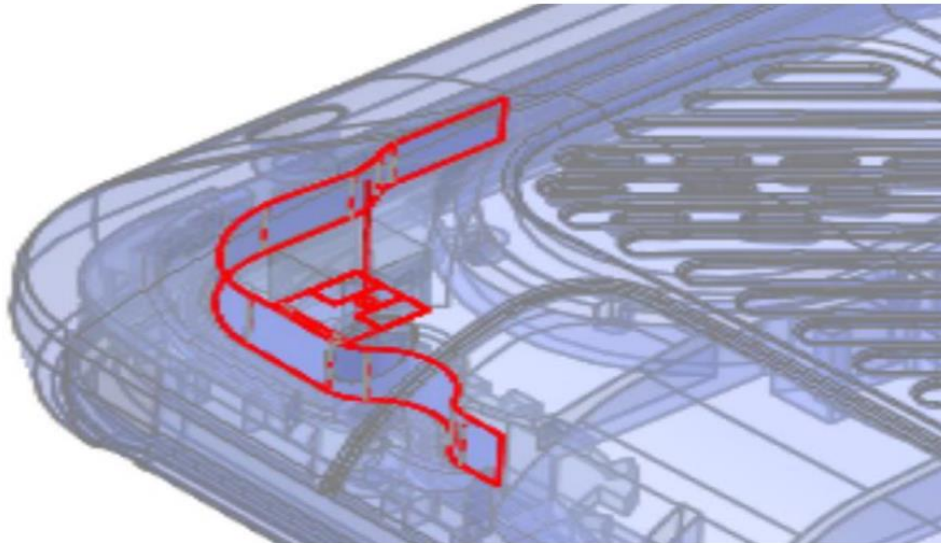
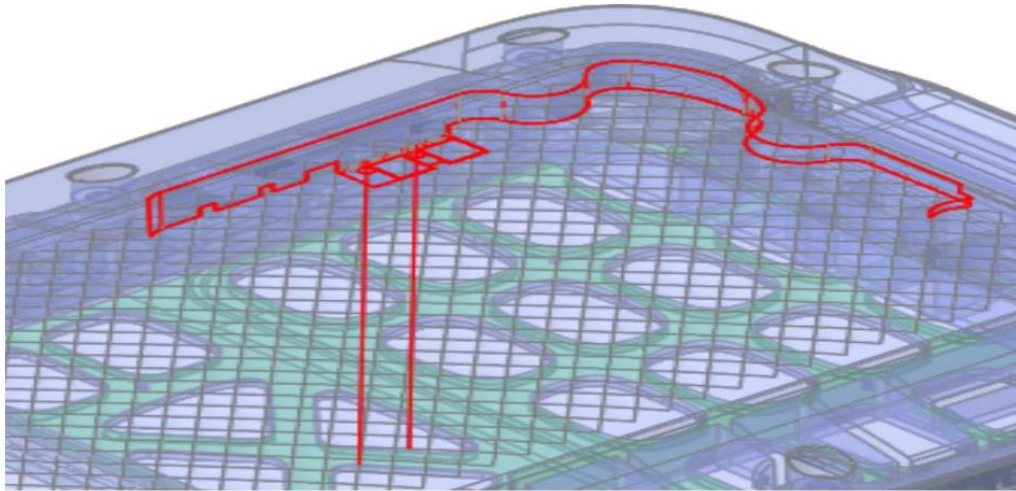
Shenzhen Kuruijie Communication Technologies Co.,Ltd

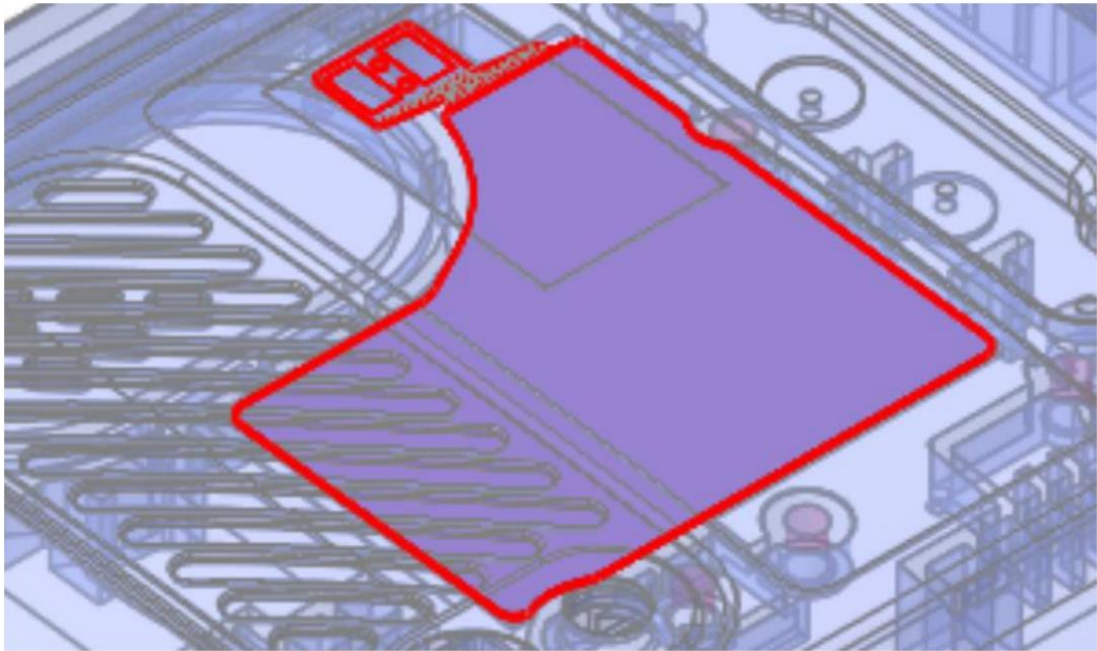
Figure 4-4: Main Antenna Efficiency and Gain Table (700-2700 MHz)

Main Antenna Gain Highlights: Peak efficiency ~64% (at ~2000 MHz), peak gain ~3.26 dBi.

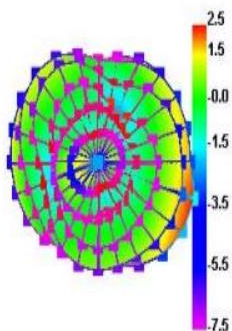
NFC Antenna Gain: Only radiated measurements are used to show compliance with FCC limits for fundamental and spurious emissions..

3D Drawing – Main Antenna

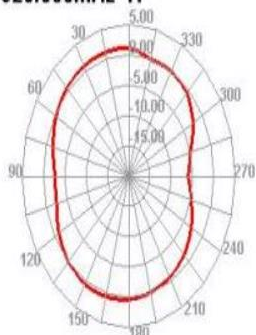




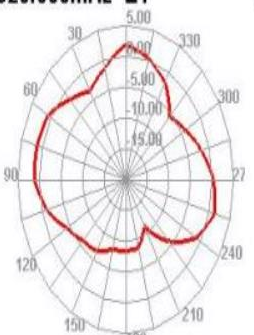
920.000MHz



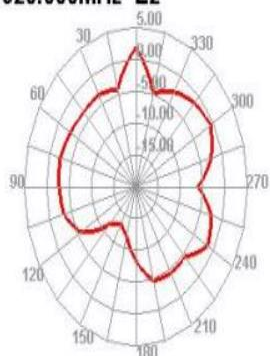
920.000MHz H



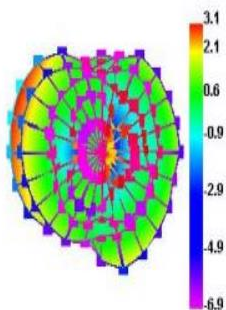
920.000MHz E1



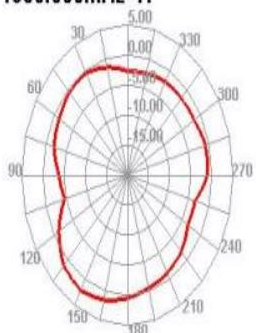
920.000MHz E2



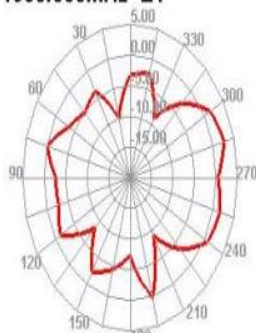
1950.000MHz



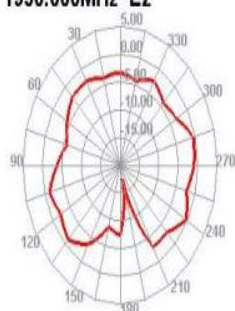
1950.000MHz H



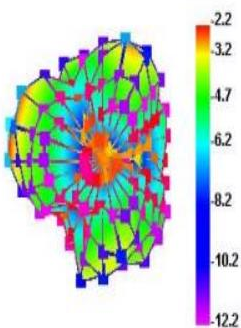
1950.000MHz E1



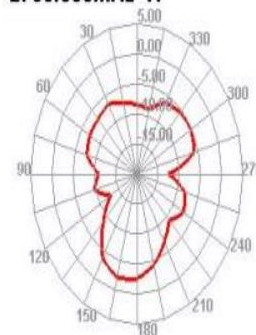
1950.000MHz E2



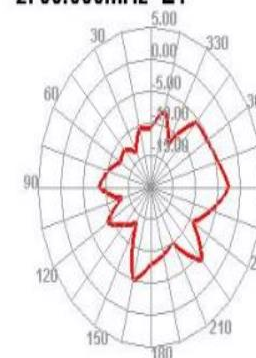
2700.000MHz



2700.000MHz H



2700.000MHz E1



2700.000MHz E2

