



sample SPECIFICATIONS

Client :	Evy Eagle Travel
Project name :	EV-12X-A
Antenna category:	LDS antenna
Edition :	V1.0
Date :	2025.02.07
Supplier address:	505-506, Block A, Donglian Building, Chuangye 2nd Road, Bao'an District, Shenzhen
Supplier :	Shenzhen Sixun Communication Technology Co., Ltd.

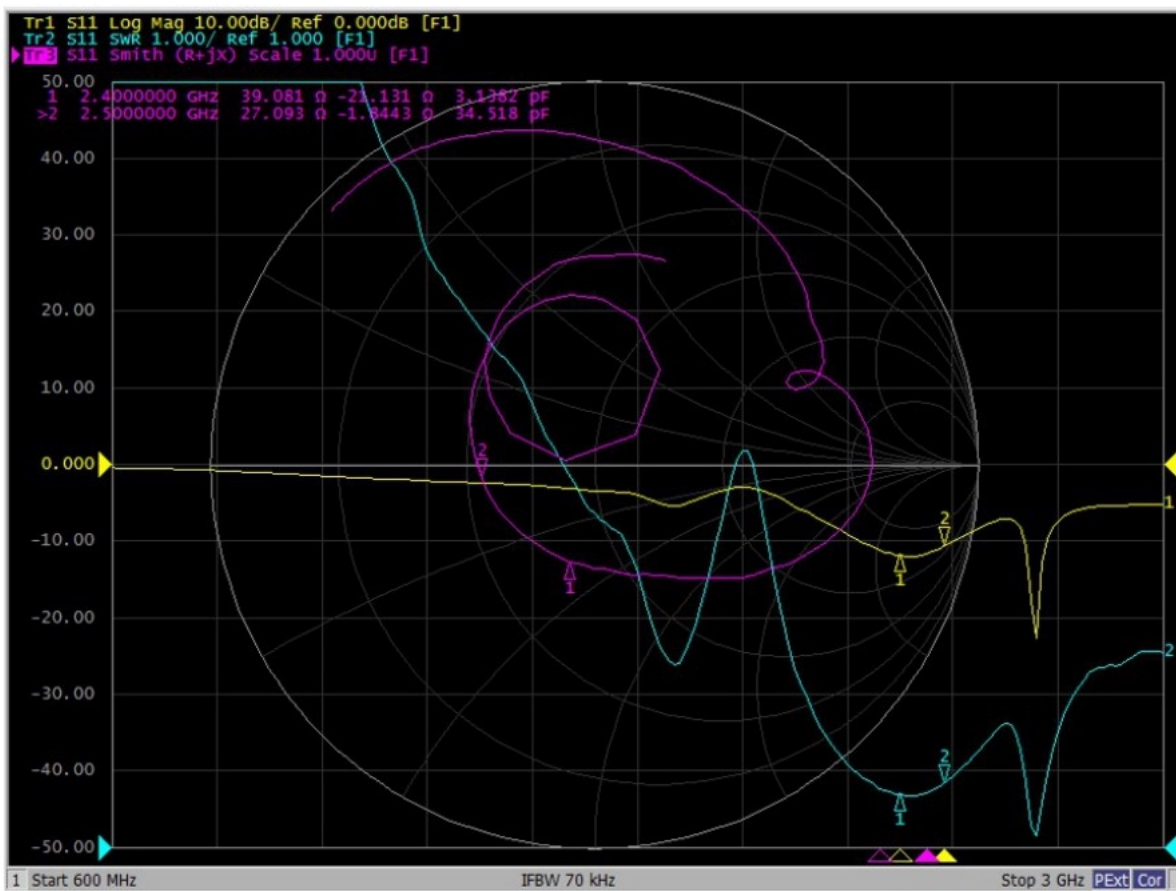


1. Passive Test Report



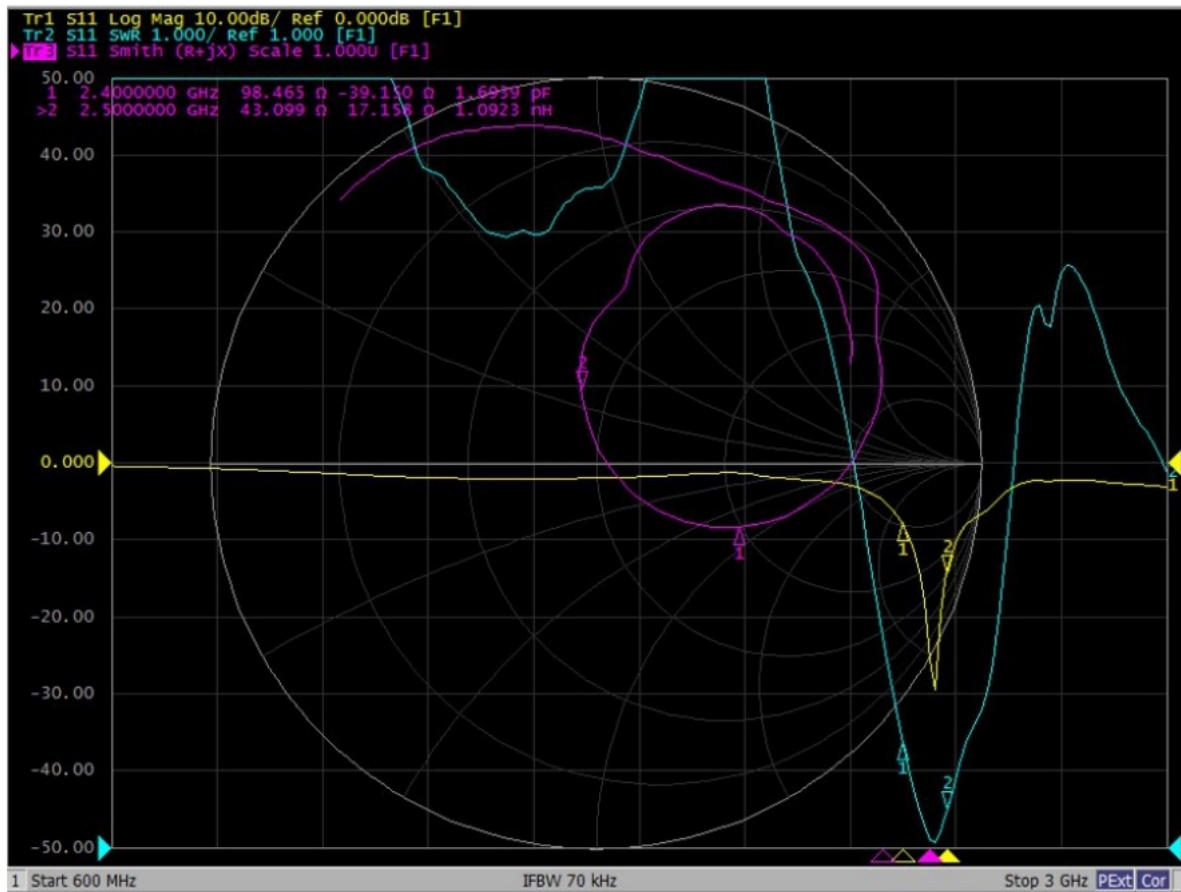
Angilent E5071C

WIFI antenna S parameters

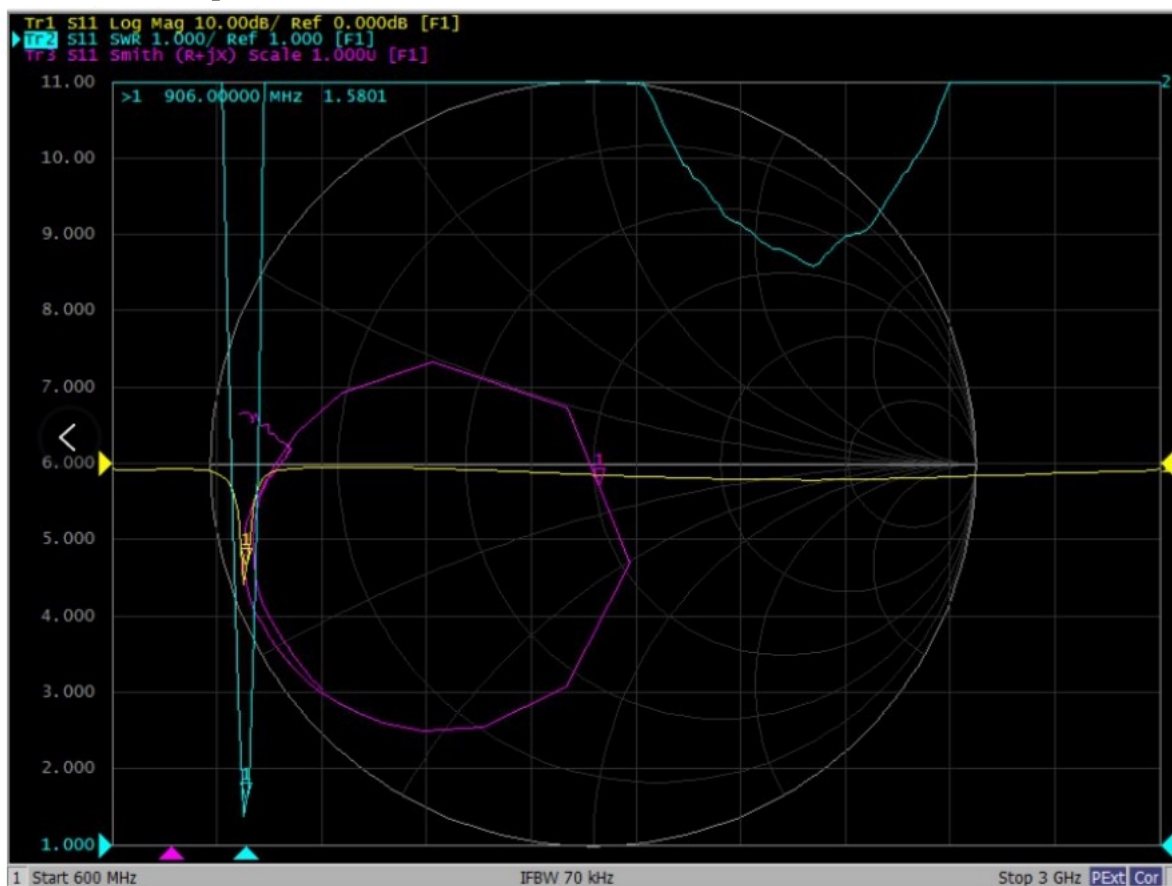




BT Antenna S Parameter



LORA antenna S parameters





Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]
 Tr3 S11 Smith (R+jX) Scale 1.000u [F1]

Point	Frequency (MHz)	SWR
1	700.00000	1.7802
2	750.00000	1.9877
3	1.7100000	2.3099
4	2.1700000	3.2176

1 Start 600 MHz IFBW 70 kHz Stop 3 GHz Sim PExt Co

MAIN: String 3.0pf, GND-5.6nh, Parasitic-0.2pF											
Freque- ncy point MHz	Produ- ctiven- ess %	Produc- tiveness (dB)	Gain (dBi)	Freque- ncy point MHz	Produ- ctiven- ess %	Produc- tiveness (dB)	Gain (dBi)	Freque- ncy point MHz	Produ- ctiven- ess %	Produc- tiveness (dB)	Gain (dBi)
700	10%	-10.12	-7.48	1710	46%	-3.36	-0.75	1950	43%	-3.68	0.61
710	10%	-9.96	-6.88	1730	48%	-3.18	-0.87	1970	42%	-3.77	0.92
720	11%	-9.50	-6.51	1750	53%	-2.73	-0.65	1990	40%	-3.94	1.06
730	12%	-9.21	-6.27	1770	47%	-3.26	-0.10	2010	37%	-4.28	1.45
740	12%	-9.17	-5.75	1790	49%	-3.13	-0.10	2030	37%	-4.33	1.48
750	12%	-9.10	-5.81	1810	45%	-3.50	0.53	2050	34%	-4.66	1.35
				1830	45%	-3.49	0.94	2070	34%	-4.66	1.50
				1850	45%	-3.50	0.84	2090	38%	-4.16	0.78
				1870	51%	-2.92	0.92	2110	36%	-4.39	0.45
				1890	47%	-3.24	0.59	2130	35%	-4.60	0.18
				1910	44%	-3.54	0.70	2150	33%	-4.86	-0.29
				1930	43%	-3.65	0.57	2170	32%	-4.89	-0.40

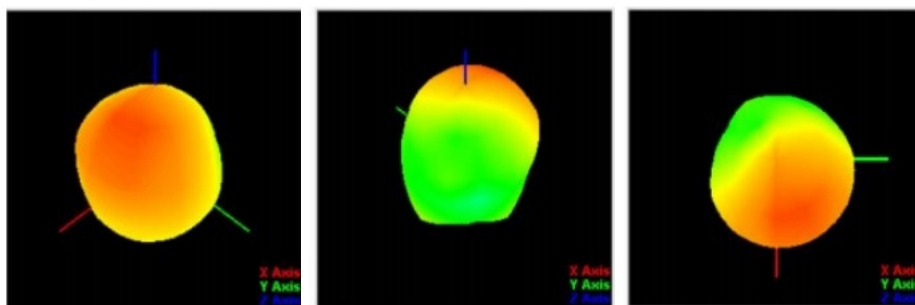


BT;0 Ω			
Frequency M H z	Productiveness %	Productiveness (dB)	Gain (dBi)
2400	36%	-4.43	-0.08
2410	37%	-4.36	-0.04
2420	37%	-4.30	0.17
2430	37%	-4.37	0.36
2440	34%	-4.73	0.52
2450	35%	-4.60	1.06
2460	36%	-4.42	1.49
2470	34%	-4.67	1.27
2480	35%	-4.60	1.38
2490	37%	-4.29	2.08
2500	35%	-4.57	2.01

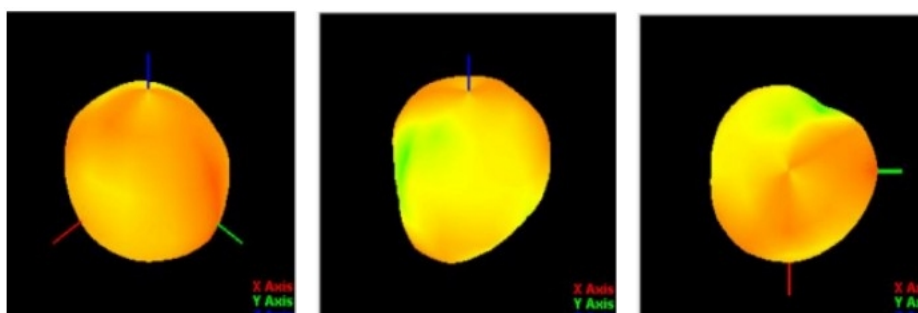
WIFI;0 Ω			
Frequency M H z	Productiveness %	Productiveness (dB)	Gain (dBi)
2400	43%	-3.69	0.98
2410	42%	-3.79	0.77
2420	41%	-3.86	0.71
2430	39%	-4.08	0.66
2440	37%	-4.29	0.50
2450	38%	-4.24	0.57
2460	36%	-4.40	0.46
2470	39%	-4.10	0.80
2480	41%	-3.85	1.14
2490	40%	-3.96	1.00
2500	41%	-3.92	0.86



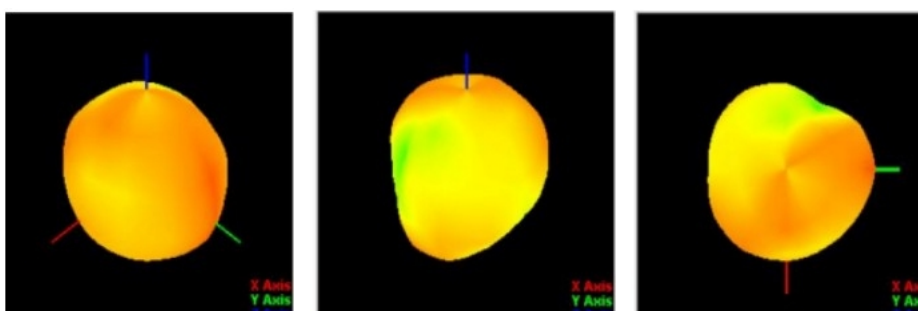
main antenna



antenna pattern -BT



Antenna Pattern-WiFi



NFC parameter -Smith



Frequency (MHZ)	13.56
Impedance	49.01 Ω



2: Antenna 3D Darkroom Data

OTA Data for the Entire Machine

Free Space (1#)	Channel	TRP (dBm)	TIS (dBm)
FDD B2	CH 18650	17.7	
	CH 18900	17.8	
	CH19150	17.9	-93.6
FDD B4	CH 20000	18.4	
	CH 20175	18.5	
	CH 20350	18.9	-92.8
FDD B12	CH23035	10.9	
	CH23095	11.5	
	CH23155	11.4	-87.2



Arm model	Channel	TRP (dBm)	TIS (dBm)
FDD B2	CH 18650	12.8	
	CH 18900	12.9	
	CH 19150	12.7	-87.2
FDD B4	CH 20000	12.2	
	CH 20175	12.3	
	CH 20350	12.8	-87.3
FDD B12	CH 23035	11.5	
	CH 23095	11.8	
	CH 23155	11.7	-87.3



样机放置于充电底座上 (通电)

Free space	Channel	TRP (dBm)	TIS (dBm)
FDD B2	CH 18650	17.4	
	CH 18900	18.1	
	CH 19150	18.2	-91.3
FDD B4	CH 20000	19.4	
	CH 20175	19.3	
	CH 20350	19.3	-93.9
FDD B12	CH 23035	19.1	
	CH 23095	19.0	
	CH 23155	19.0	-88.4



OTA Standard Chamber

III: Matching Circuit

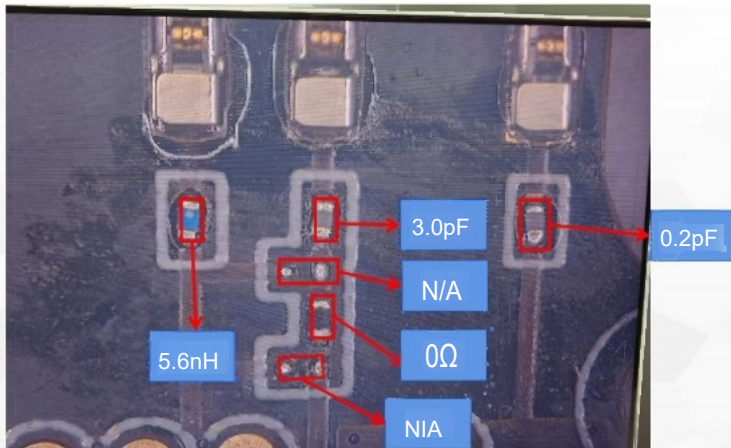
LORA antenna matching circuit



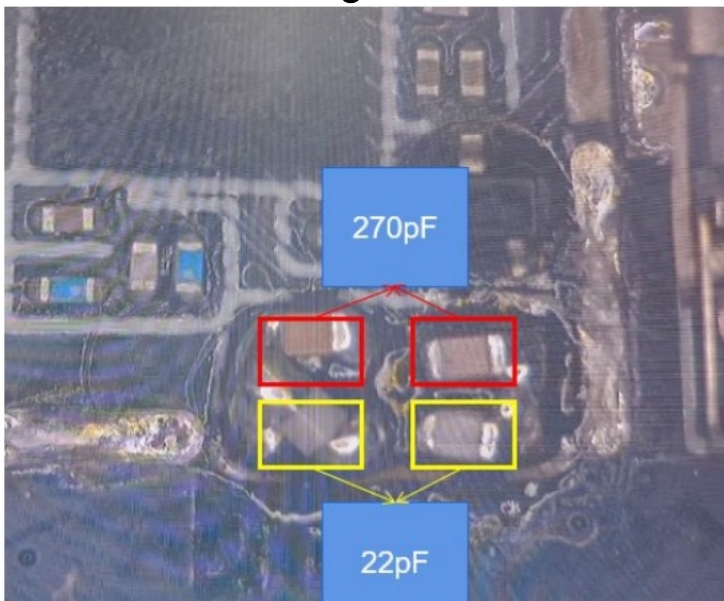
The LORA antenna requires a 10pF parallel connection, as shown in the figure above, with all other matching parameters remaining unchanged.



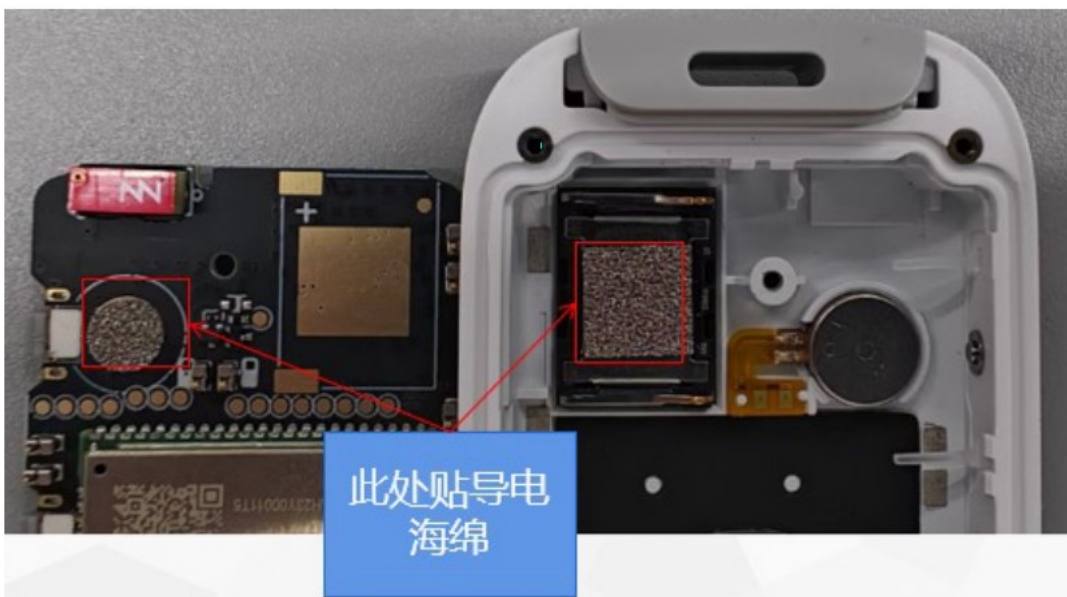
Main Antenna Matching Circuit

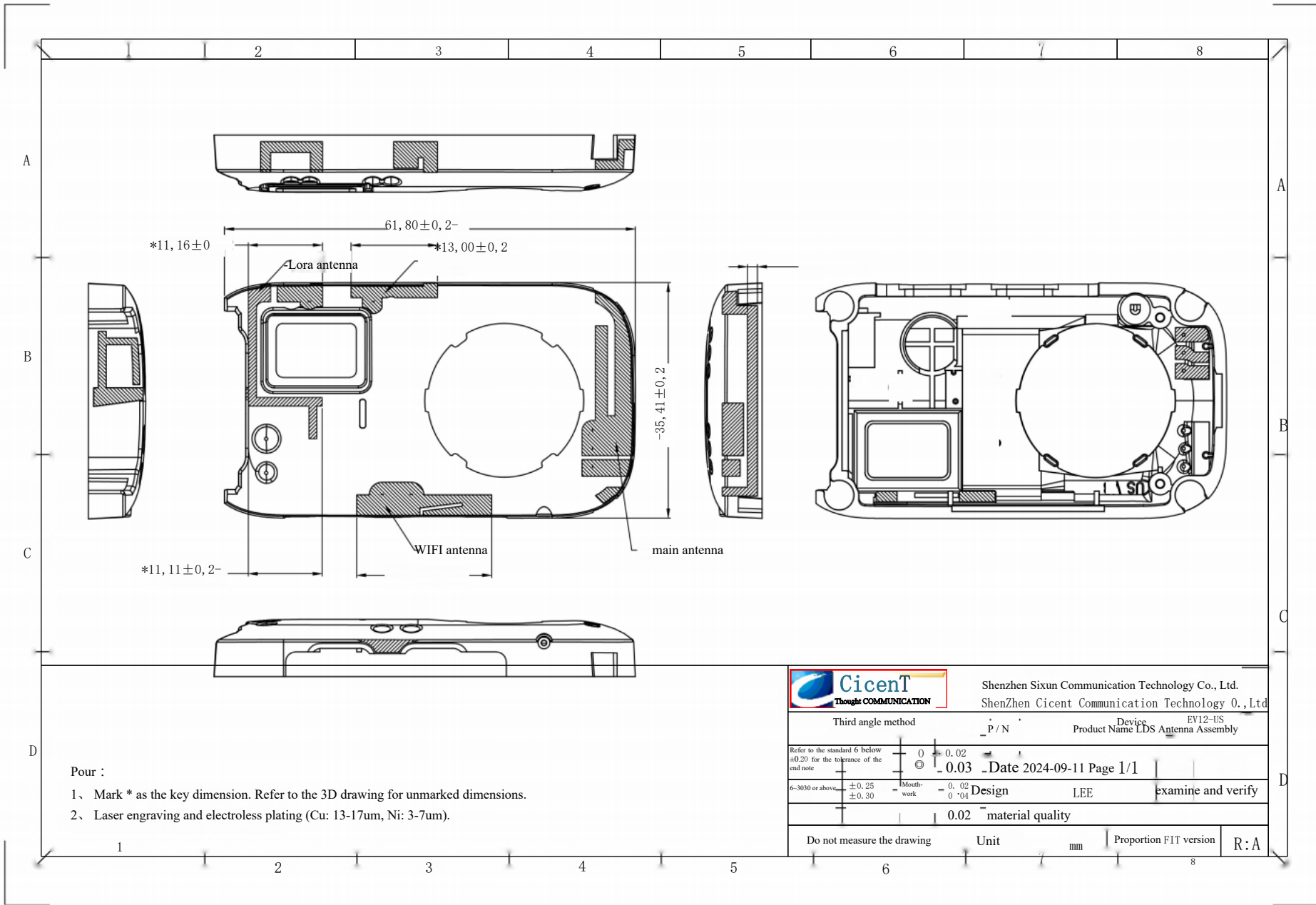


NFC Antenna Matching Circuit



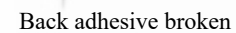
IV: Environmental Treatment





Pour :

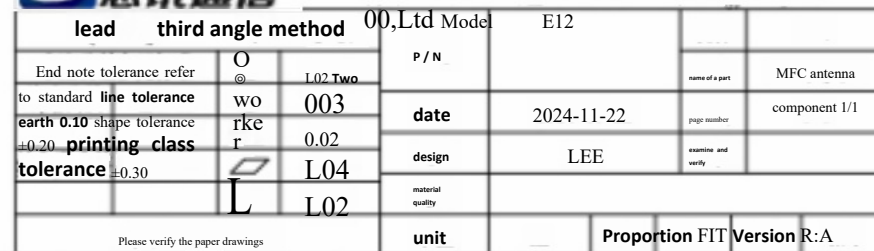
- 1、 Mark * as the key dimension. Refer to the 3D drawing for unmarked dimensions.
- 2、 Laser engraving and electroless plating (Cu: 13-17um, Ni: 3-7um).



front

front

 区域



Please verify the paper drawings