



Antenna Part Specification

Project name:	Irobot
Material category:	WIFI Antenna
Version:	V1.0
Date:	2024.06.26



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Change record			
Compile / change date	Reason for change	Changed content	Version
2024.06.26	First edition	First edition	V1.0

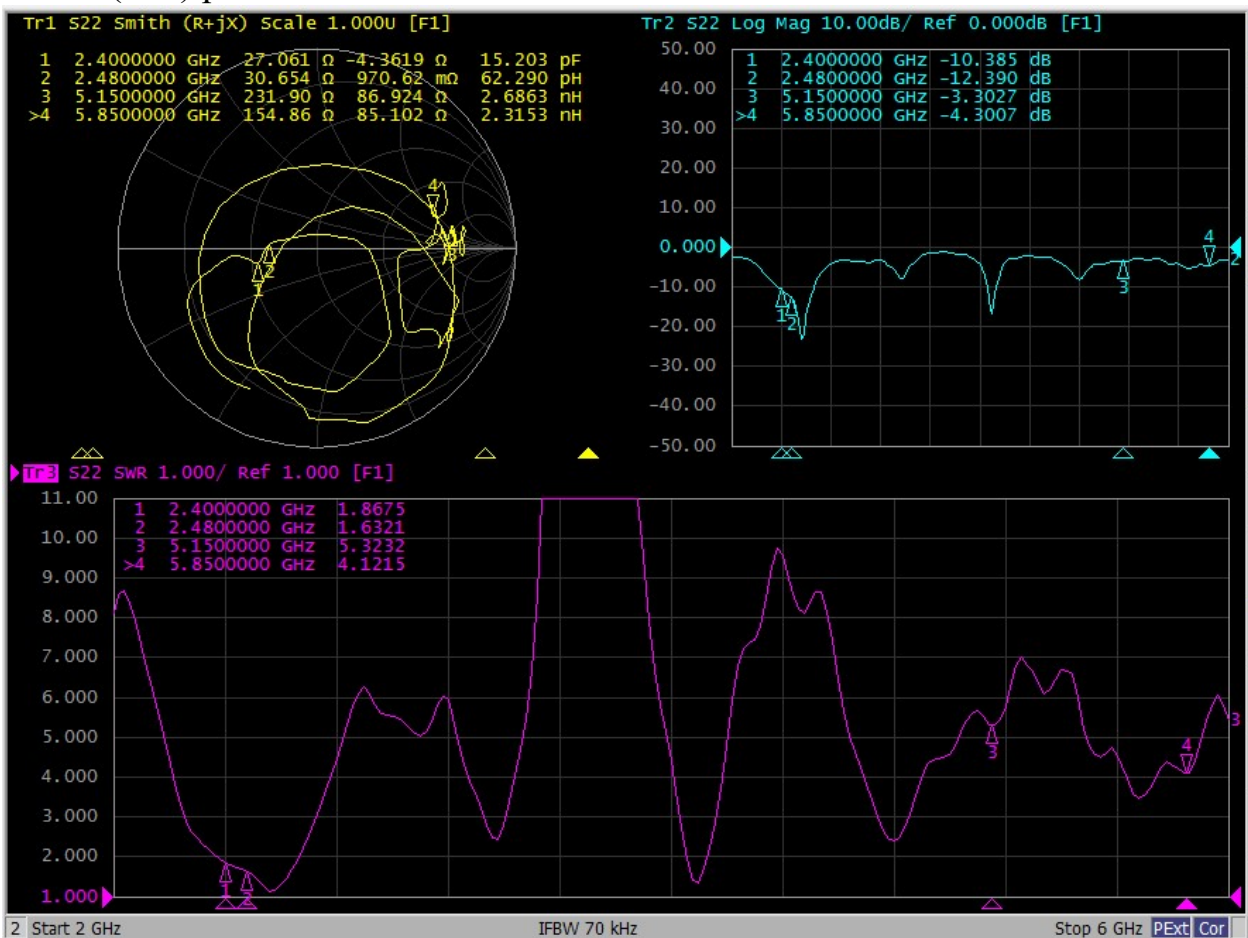


I: The report of passive data



Angilent E5071C

VSWR(S11) parameter:





Efficiency (2.4G) :

2.4G			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	0.90	-1.80	66.10
2405	1.00	-1.80	66.20
2410	1.10	-1.80	66.60
2415	1.30	-1.80	66.80
2420	1.30	-1.70	66.90
2425	1.20	-1.80	66.50
2430	1.10	-1.80	65.50
2435	1.10	-1.90	64.20
2440	1.10	-1.90	64.10
2445	1.40	-1.90	65.00
2450	1.60	-1.90	65.30
2455	1.70	-1.90	64.30
2460	1.70	-2.00	63.20
2465	1.70	-1.90	64.60
2470	1.90	-1.60	68.60
2475	2.10	-1.40	73.00
2480	2.10	-1.30	74.70
2485	2.10	-1.30	73.50
2490	2.20	-1.50	71.60
2495	2.30	-1.60	70.00
2500	2.30	-1.60	69.60
AVG	1.60	-1.70	67.40



Efficiency (5150-5250MHz) :

5150-5250MHz			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
5150	0.6	-5.5	28.4
5155	0.5	-5.6	27.8
5160	0.4	-5.7	26.8
5165	0.2	-5.9	25.9
5170	0.2	-6.0	25.3
5175	0.2	-6.1	24.8
5180	0.2	-6.2	24.2
5185	0.0	-6.3	23.6
5190	0.0	-6.3	23.6
5195	0.1	-6.1	24.4
5200	0.3	-5.9	25.4
5205	0.6	-5.7	26.7
5210	0.6	-5.6	27.6
5215	0.8	-5.5	28.2
5220	0.9	-5.5	28.4
5225	0.9	-5.5	28.1
5230	0.8	-5.6	27.8
5235	0.8	-5.6	27.7
5240	0.8	-5.6	27.6
5245	0.8	-5.6	27.8
5250	0.9	-5.4	28.7
AVG	0.5	-5.8	26.6

Efficiency (5250-5350MHz) :

5250-5350MHz			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
5250	0.9	-5.4	28.7
5255	1.0	-5.3	29.7
5260	1.1	-5.1	30.7
5265	1.1	-5.1	31.0
5270	1.1	-5.2	30.1
5275	1.0	-5.4	28.9
5280	0.9	-5.5	28.0
5285	0.9	-5.6	27.7
5290	0.9	-5.6	27.5
5295	0.9	-5.6	27.8
5300	1.0	-5.5	28.3
5305	1.2	-5.3	29.3
5310	1.3	-5.2	30.0
5315	1.5	-5.2	30.4
5320	1.5	-5.2	30.0
5325	1.4	-5.4	29.1
5330	1.3	-5.6	27.8
5335	1.3	-5.7	26.8
5340	1.1	-5.9	25.7
5345	1.0	-6.0	25.0
5350	1.1	-6.0	25.2
AVG	1.1	-5.5	28.5



Efficiency (5470-5725MHz) :

5470-5725MHz			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
5470	1.8	-4.8	33.3
5475	2.0	-4.7	33.7
5480	1.7	-5.0	31.9
5485	1.5	-5.3	29.7
5490	1.4	-5.4	28.7
5495	1.5	-5.4	29.2
5500	1.7	-5.3	29.8
5505	1.6	-5.3	29.4
5510	1.4	-5.5	28.5
5515	1.5	-5.4	29.1
5520	1.8	-5.1	31.2
5525	2.1	-4.8	32.8
5530	2.3	-4.7	33.5
5535	2.1	-4.9	32.5
5540	1.9	-5.2	30.5
5545	1.8	-5.2	30.3
5550	1.9	-5.1	31.1
5555	2.0	-4.9	32.2
5560	2.2	-4.8	33.2
5565	2.3	-4.7	33.7
5570	2.5	-4.5	35.1
5575	2.7	-4.3	36.8
5580	2.8	-4.3	37.2
5585	2.7	-4.4	35.9
5590	2.4	-4.7	33.8
5595	2.0	-5.0	31.8
5600	1.8	-5.1	30.8
5605	1.7	-5.1	31.2
5610	1.5	-5.0	31.3
5615	1.5	-5.2	30.5
5620	1.4	-5.3	29.4
5625	1.3	-5.3	29.5
5630	1.7	-5.0	31.5
5635	2.0	-4.7	33.9
5640	2.1	-4.7	33.7
5645	1.8	-5.1	30.9
5650	1.6	-5.3	29.2
5655	1.7	-5.2	30.4
5660	2.0	-4.7	33.6
5665	2.1	-4.6	35.0
5670	1.9	-4.8	33.1
5675	1.6	-5.1	30.8
5680	1.5	-5.1	30.6
5685	1.6	-5.0	31.5
5690	1.7	-4.9	32.3
5695	1.8	-4.9	32.4
5700	1.8	-4.8	32.8
5705	1.7	-4.8	33.0
5710	1.7	-4.8	33.0
5715	1.5	-4.9	32.6
5720	1.5	-4.9	32.5
5725	1.7	-4.7	33.7
AVG	1.8	-5.0	32.0

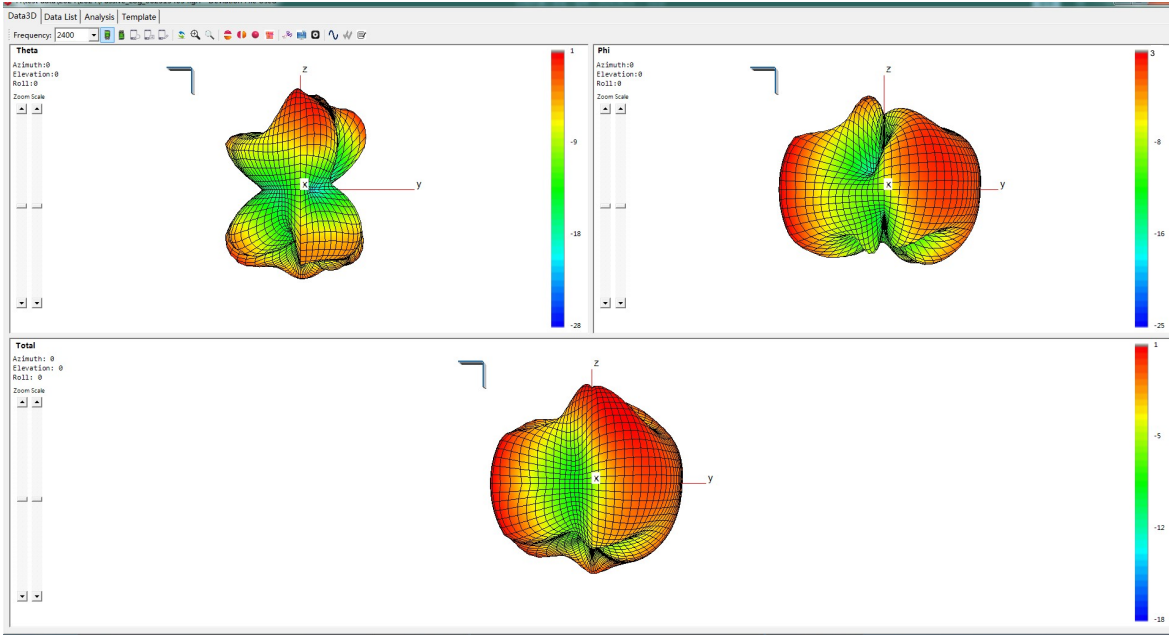


Efficiency (5725-5850MHz) :

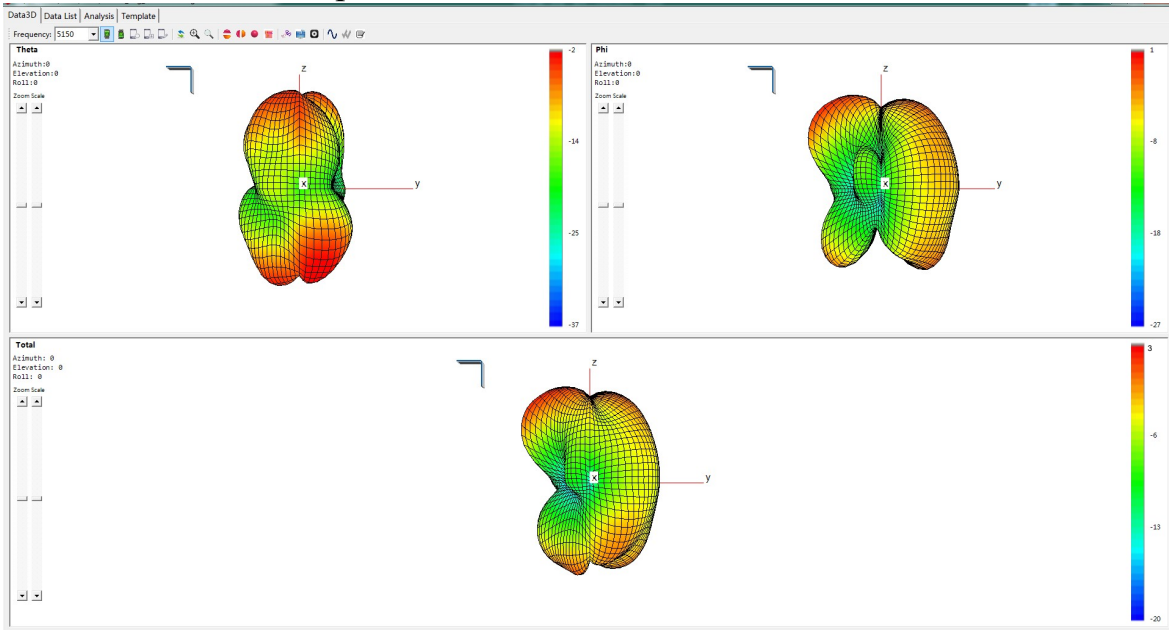
5725-5850MHz			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
5725	1.7	-4.7	33.7
5730	1.8	-4.6	34.8
5735	2.0	-4.5	35.5
5740	2.1	-4.4	36.3
5745	2.1	-4.3	37.0
5750	2.3	-4.2	38.0
5755	2.3	-4.2	37.7
5760	2.1	-4.4	36.1
5765	1.8	-4.7	33.9
5770	1.7	-4.8	32.9
5775	1.6	-4.9	32.0
5780	1.4	-5.0	31.6
5785	1.4	-4.9	32.1
5790	1.4	-4.9	32.5
5795	1.4	-4.9	32.7
5800	1.4	-4.9	32.6
5805	1.4	-4.9	32.4
5810	1.4	-4.9	32.3
5815	1.5	-4.9	32.1
5820	1.5	-4.8	32.9
5825	1.7	-4.7	33.8
5830	1.7	-4.7	33.8
5835	1.9	-4.7	33.8
5840	1.9	-4.6	34.3
5845	2.0	-4.6	34.3
5850	2.0	-4.6	34.9
AVG	1.7	-4.7	34.0



3D Antenna radiation pattern (2.4G) :

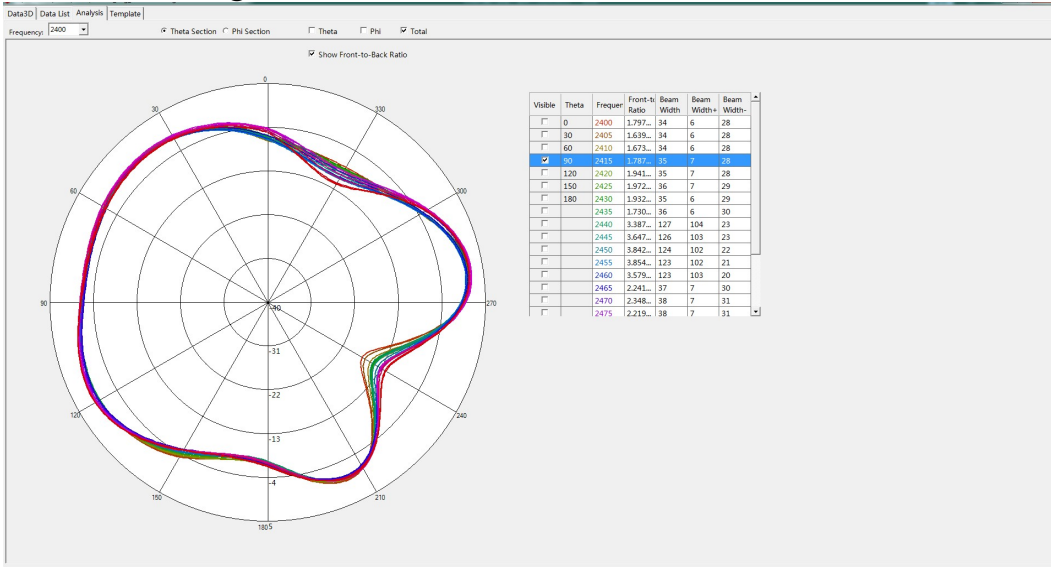


3D Antenna radiation pattern (5G) :

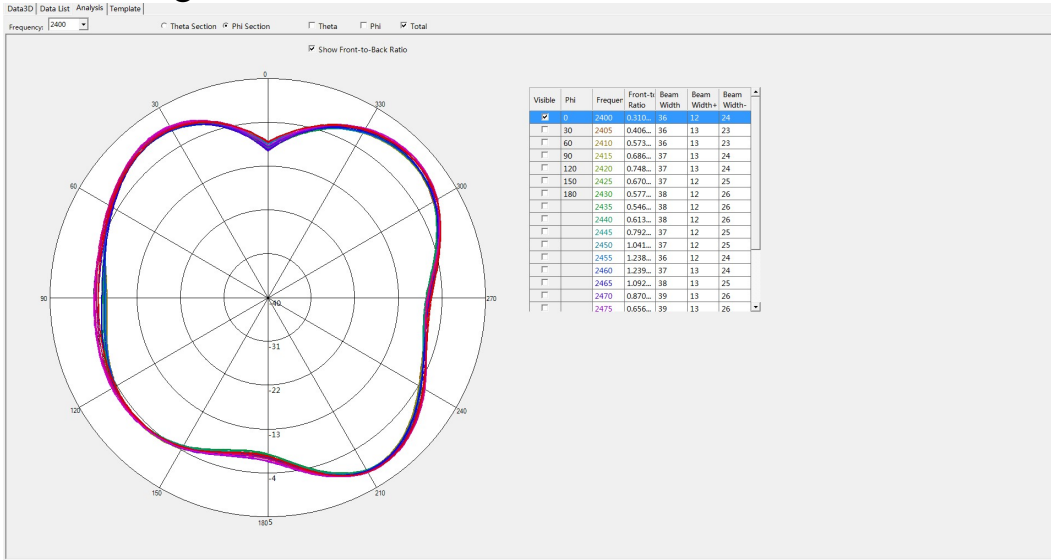




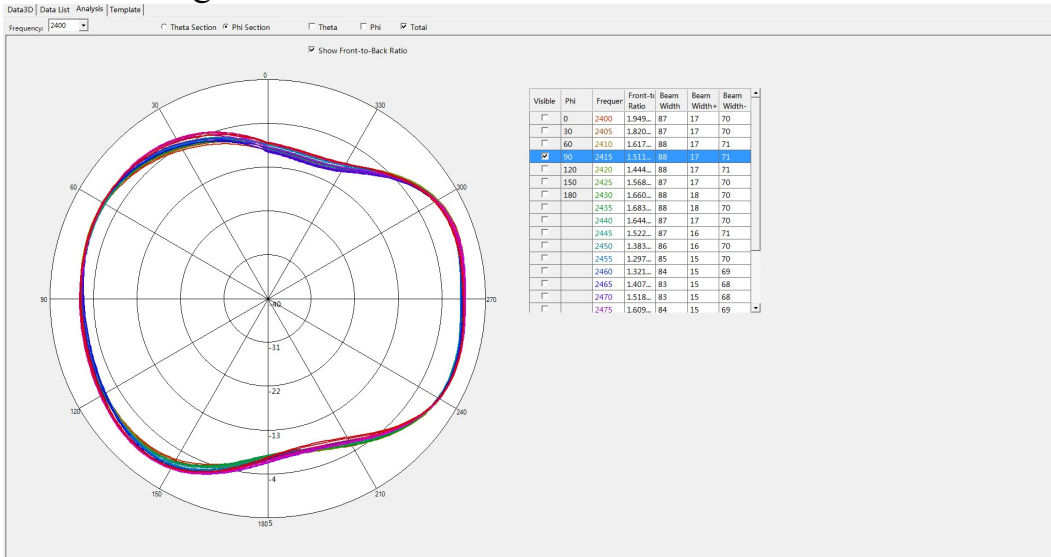
Antenna radiation pattern (2.4G) : Theta=90.00deg



Phi=0.00deg

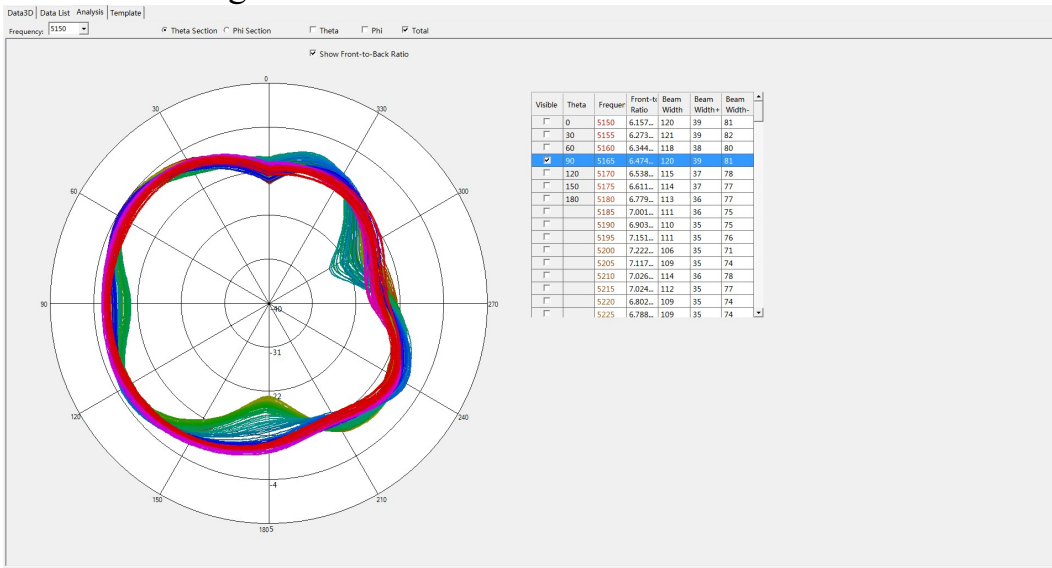


Phi=90.00deg

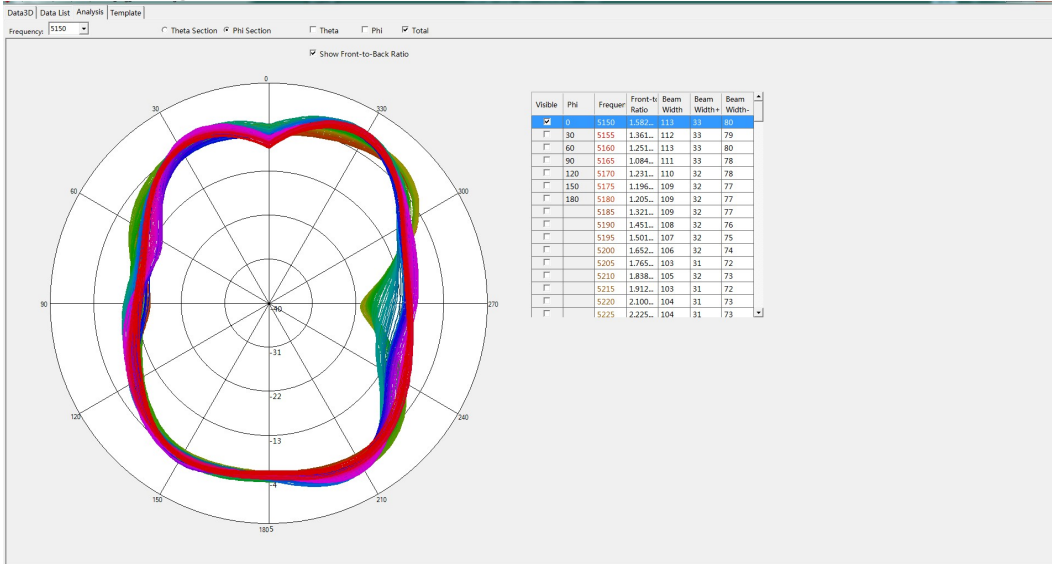




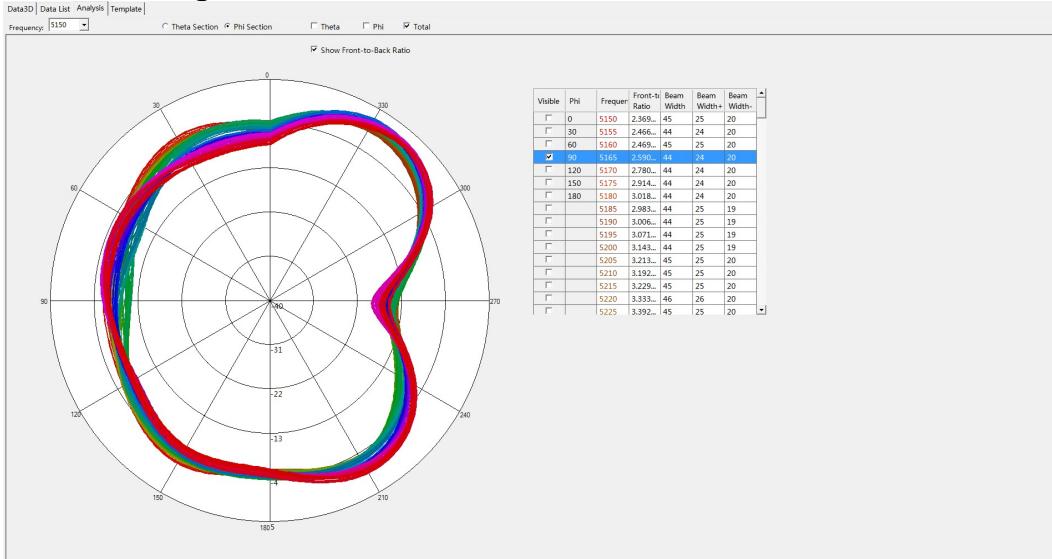
Antenna radiation pattern (5G) : Theta=90.00deg



Phi=0.00deg



Phi=90.00deg



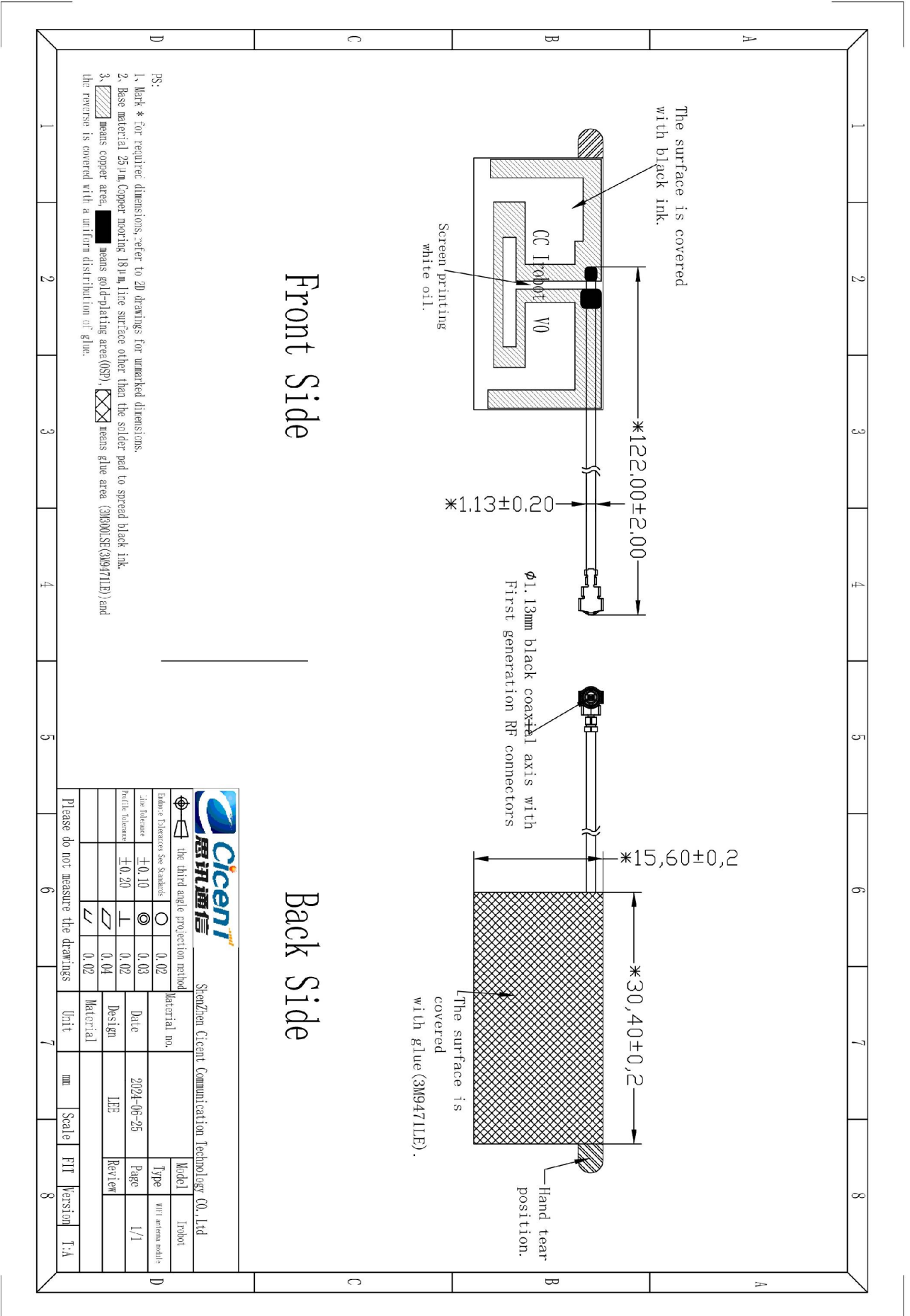


II: Antenna position





III: Structure file



- RS:
1. Mark * for required dimensions, refer to 2D drawings for unmarked dimensions.
 2. Base material 25 μm Copper plating 18 μm, line surface other than the solder pad to spread black ink.
 3. means copper area, means gold-plating area (OSP), means glue area (3M9471LE) and the reverse is covered with a uniform distribution of glue.

		Shenzhen Cicent Communication Technology Co., Ltd	
	the third angle projection method	Material no.	Model
Factor Release	See Standard	Type	TR08
Die Release	±0.10	0.03	Type
Profile Release	±0.20	0.02	Date
		0.04	2024-06-25
		0.02	Design
		0.02	LEE
			Review
			Material
Please do not measure the drawings		Unit	mm
		Scale	1:1
		PTT	Version
			T.A