



Antenna Part Specification

Customers:	Tianjian
Project name:	Aloha
Antenna type:	LDS
Antenna model:	SX230208-178EWG
Antenna version number:	Black:CCL1/White:CCL2
Version:	V1.0
Date:	2024.03.27
Manufacturer Address	505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china



Contents

I: The report of passive data	3
II: 3D Active test report of antenna	6
III: Matching circuit.....	6
VI: Environmental treatment	6
V: Structure file:	7

Change record			
Compile / change date	Reason for change	Changed content	Version
2024.03.27	First edition	First edition	V1.0

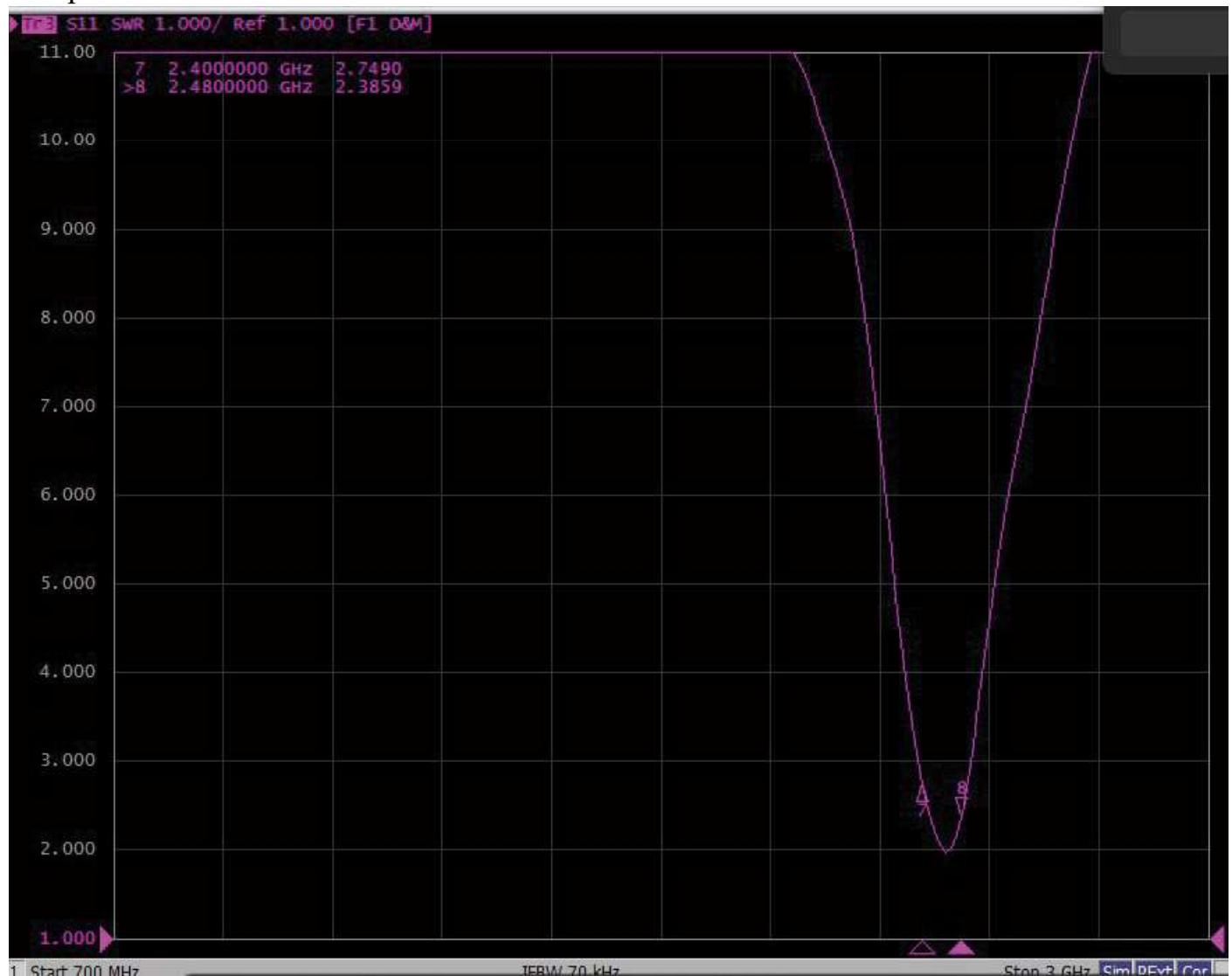


I: The report of passive data



Angilent E5071C

S11 parameter:

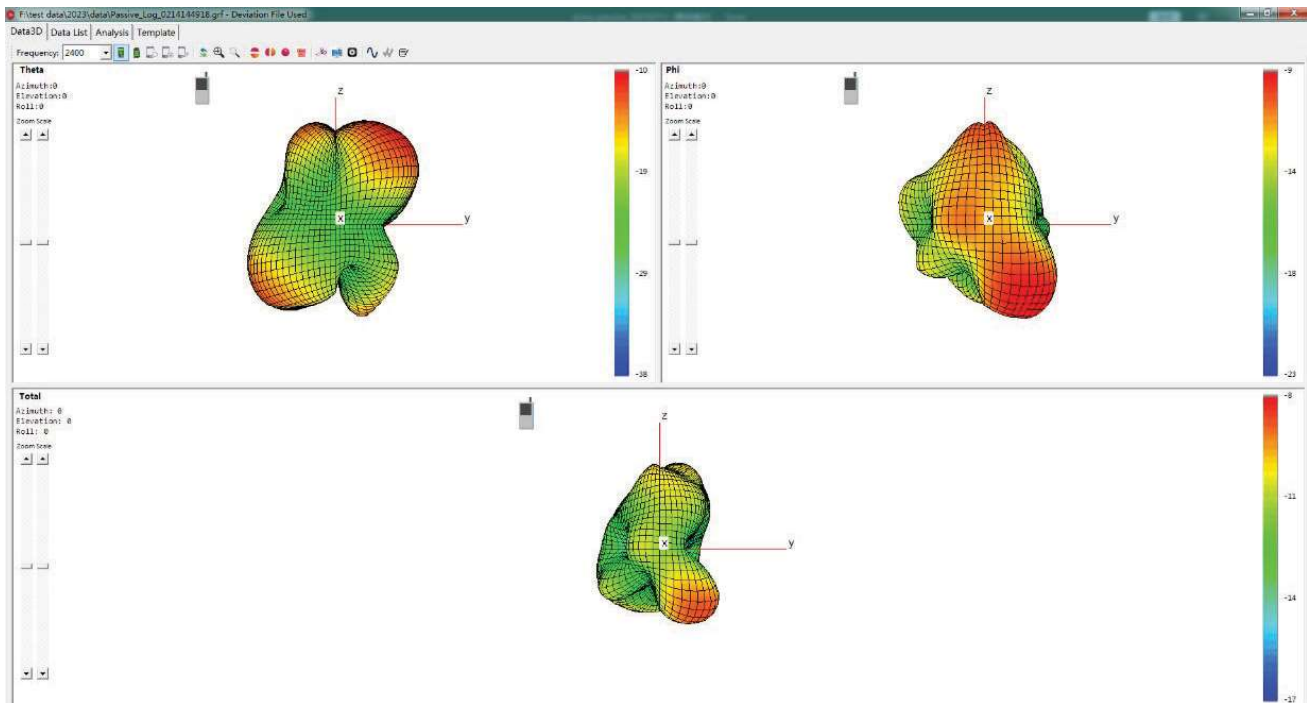




Efficiency:

Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	-3.3	-5.7	27.0%
2410	-2.9	-5.4	28.7%
2420	-2.8	-5.3	29.8%
2430	-3.1	-5.4	29.1%
2440	-3.3	-5.6	27.8%
2450	-3.5	-5.6	27.2%
2460	-3.7	-6.0	25.0%
2470	-3.8	-6.0	25.0%
2480	-4.1	-6.1	24.5%
Average value	-3.4	-5.7	27.1%

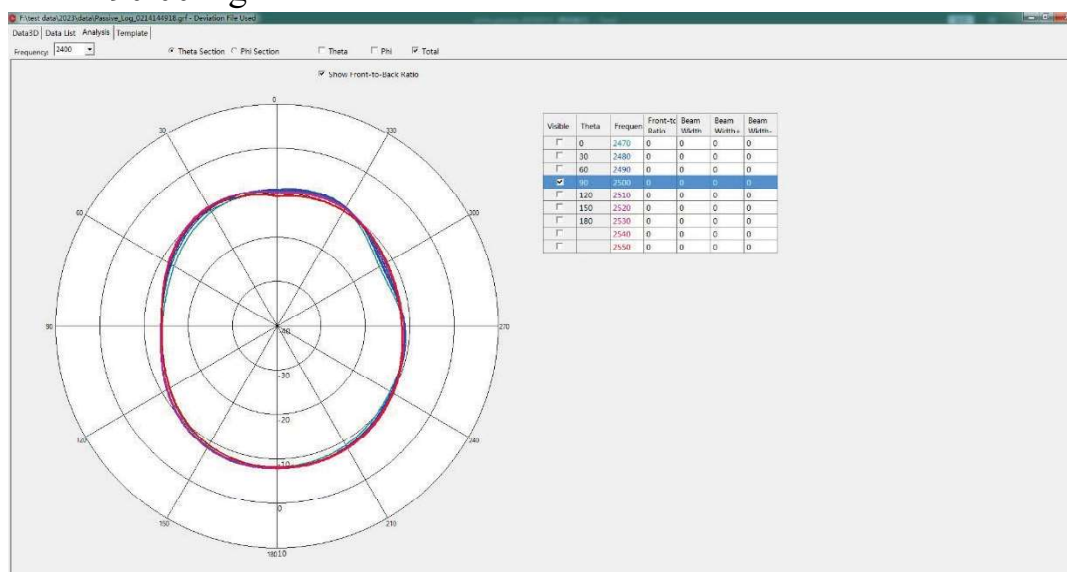
3D Antenna radiation pattern:



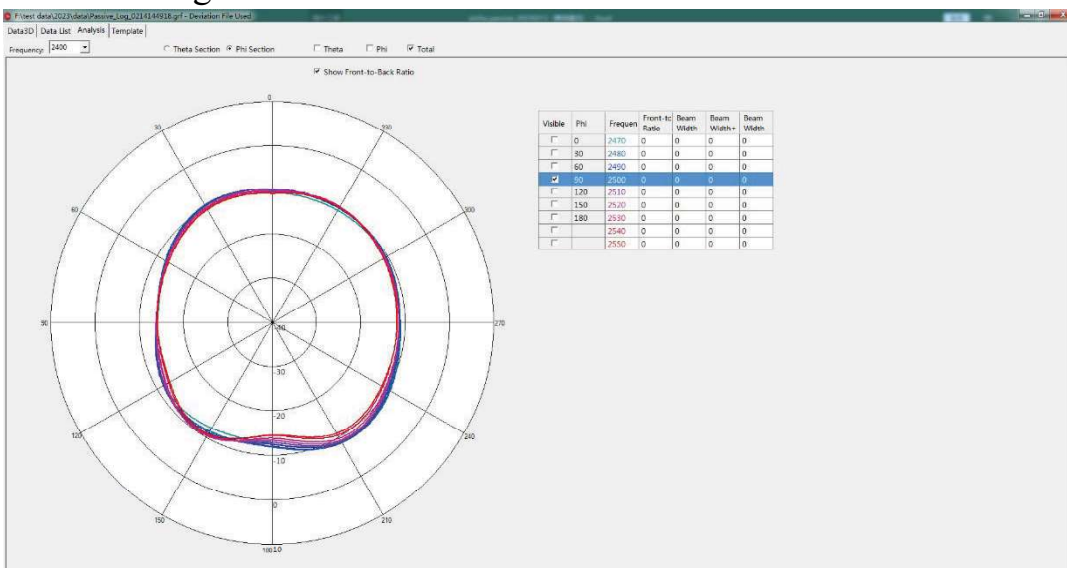


Antenna radiation pattern:

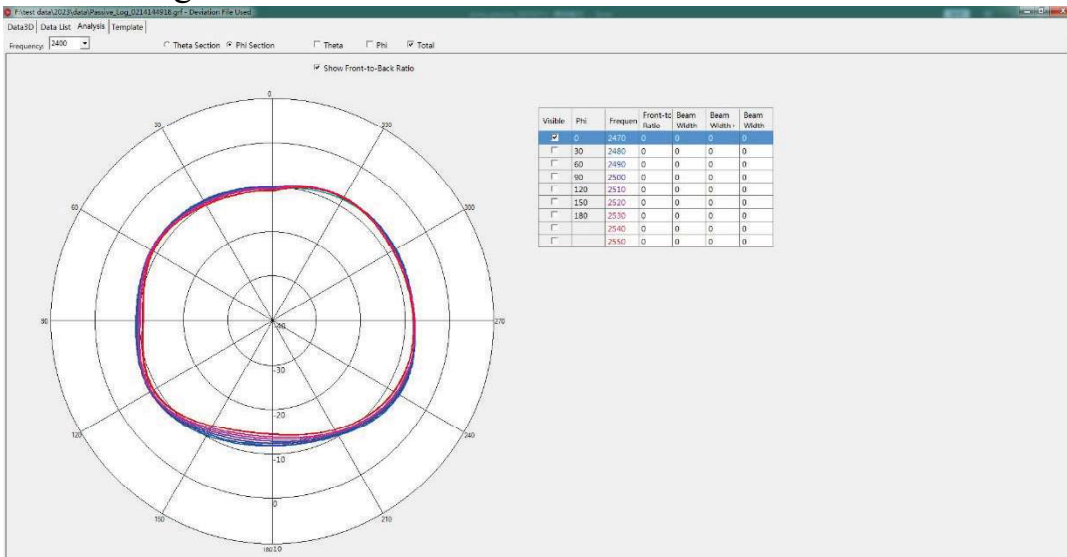
Theta=90.00deg



Phi=90.00deg



Phi=0.00deg





II: 3D Active test report of antenna

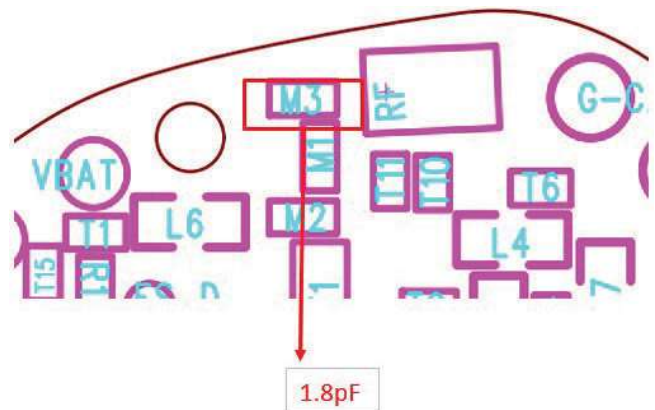
BT	Channel	TRP (dBm)	TIS(dBm)
L	CH 0	5.0	-88.2
	CH 39	6.4	-89.2
	CH 78	6.8	-89.3



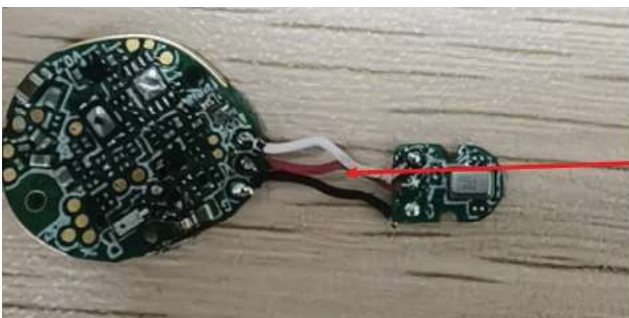
OTA Standard Chamber

III: Matching circuit

Element	Value
M3	1.8pF
M1	0Ω
M2	N/A



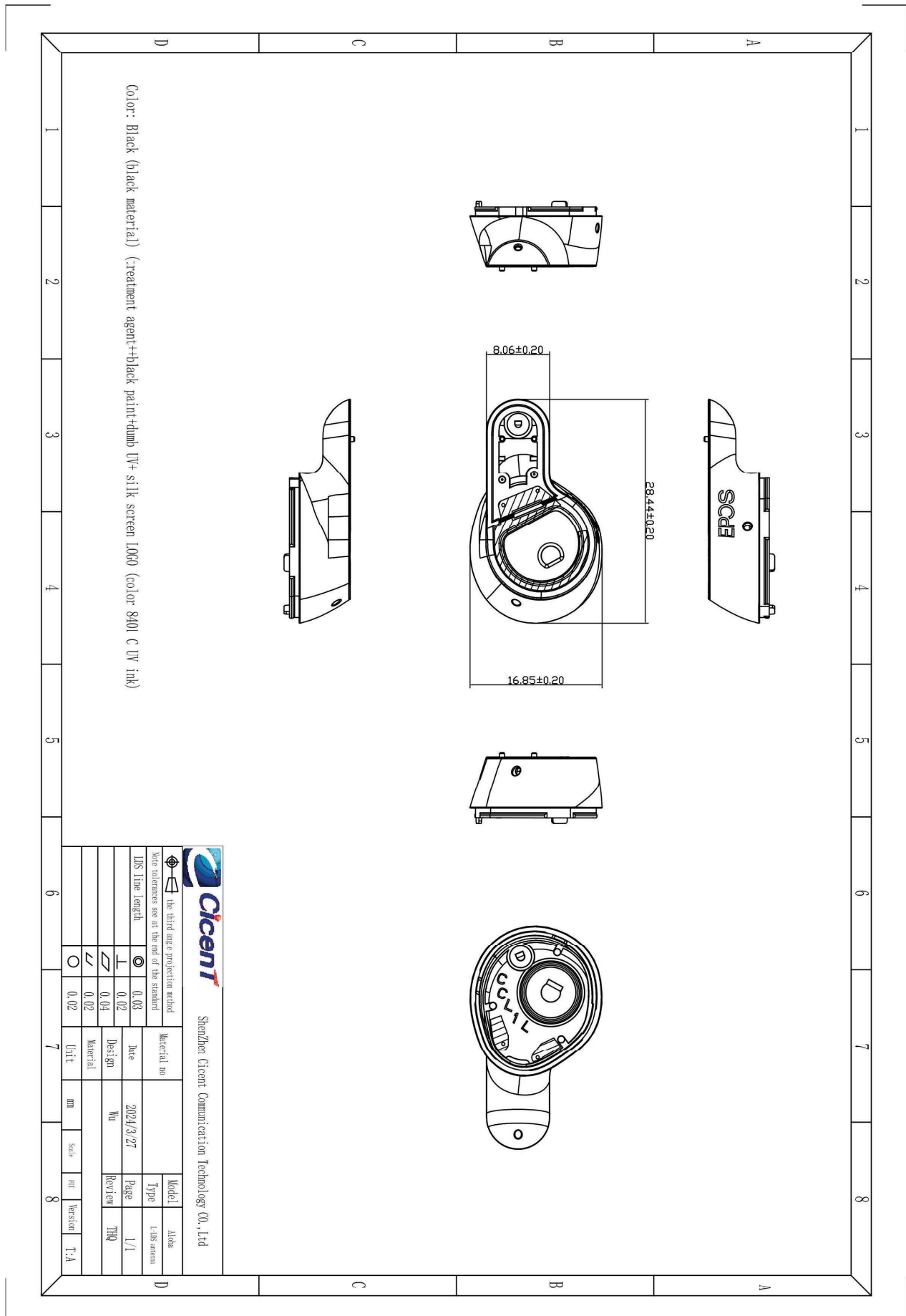
VI: Environmental treatment

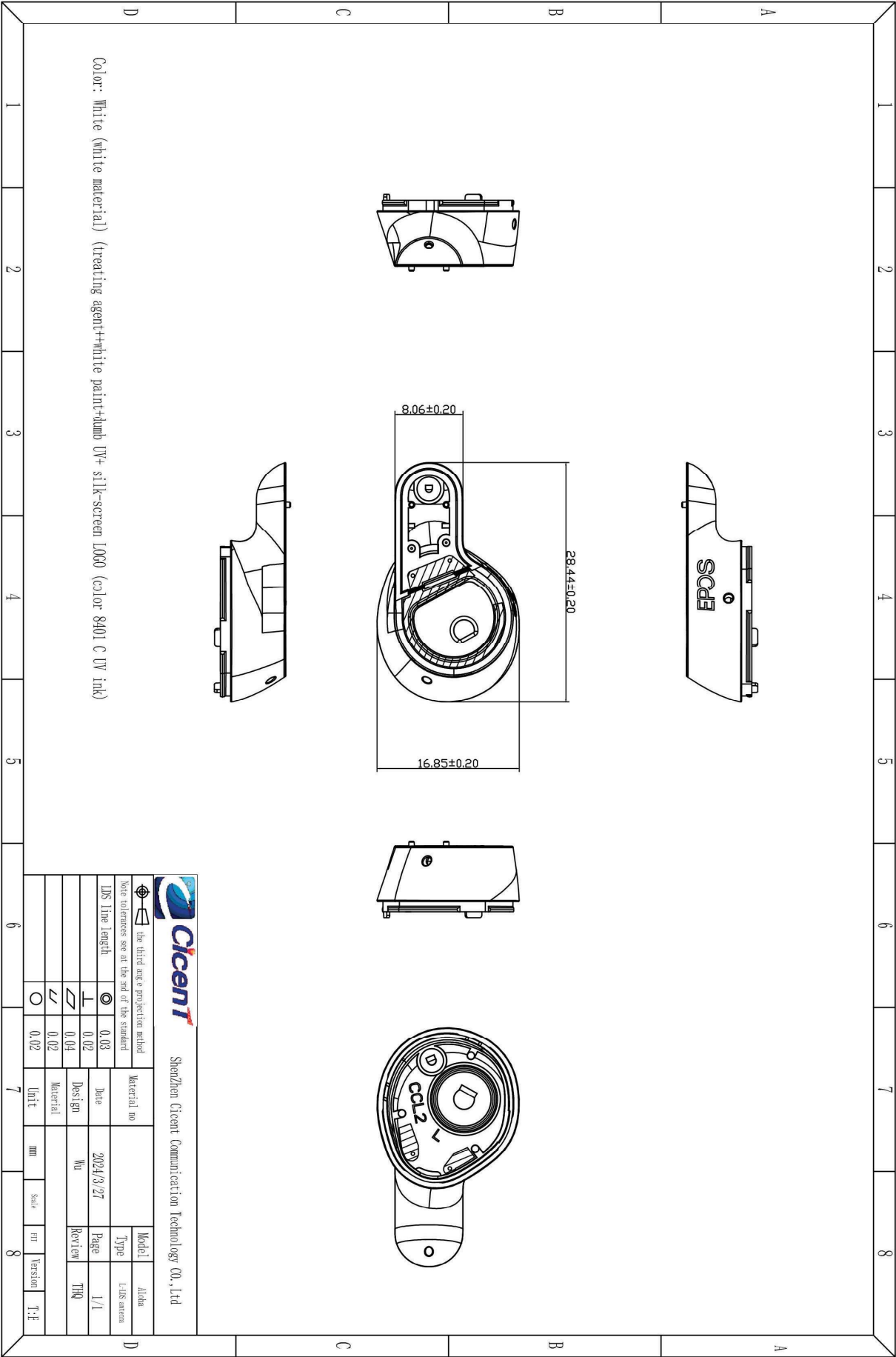


Ensure that the MIC connection line is around 9mm and press it under the MIC board as much as possible during assembly.



V: Structure file:







Antenna Part Specification

Customers:	Tianjian
Project name:	Aloha
Antenna type:	LDS
Antenna model:	SX230208-178EWG
Antenna version number:	Black:CCR1/White:CCR2
Version:	V1.0
Date:	2024.03.27
Manufacturer Address	505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china



Contents

I: The report of passive data	3
II: 3D Active test report of antenna	6
III: Matching circuit.....	6
VI: Environmental treatment	6
V: Structure file:	7

Change record			
Compile / change date	Reason for change	Changed content	Version
2024.03.27	First edition	First edition	V1.0

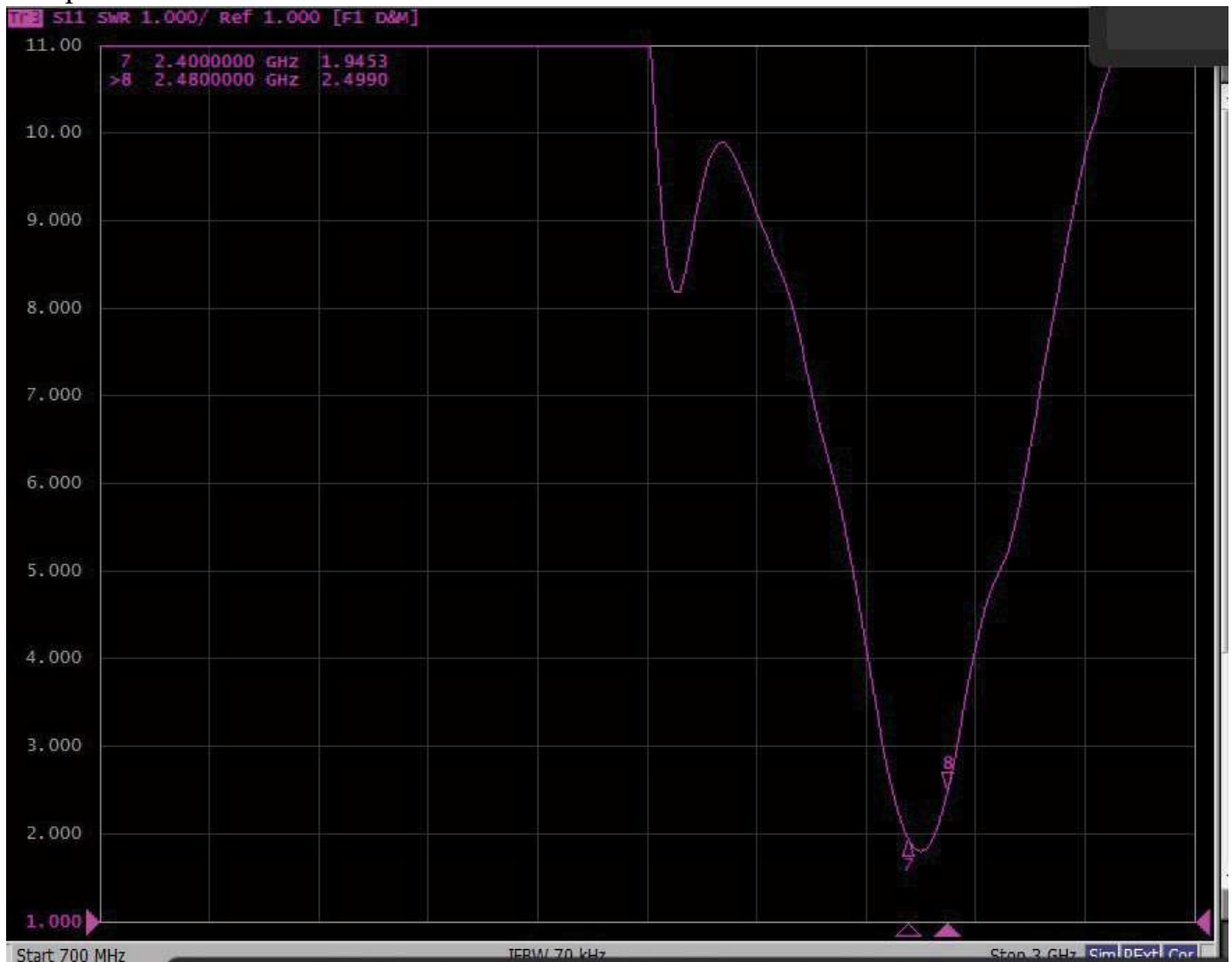


I: The report of passive data



Angilent E5071C

S11 parameter:

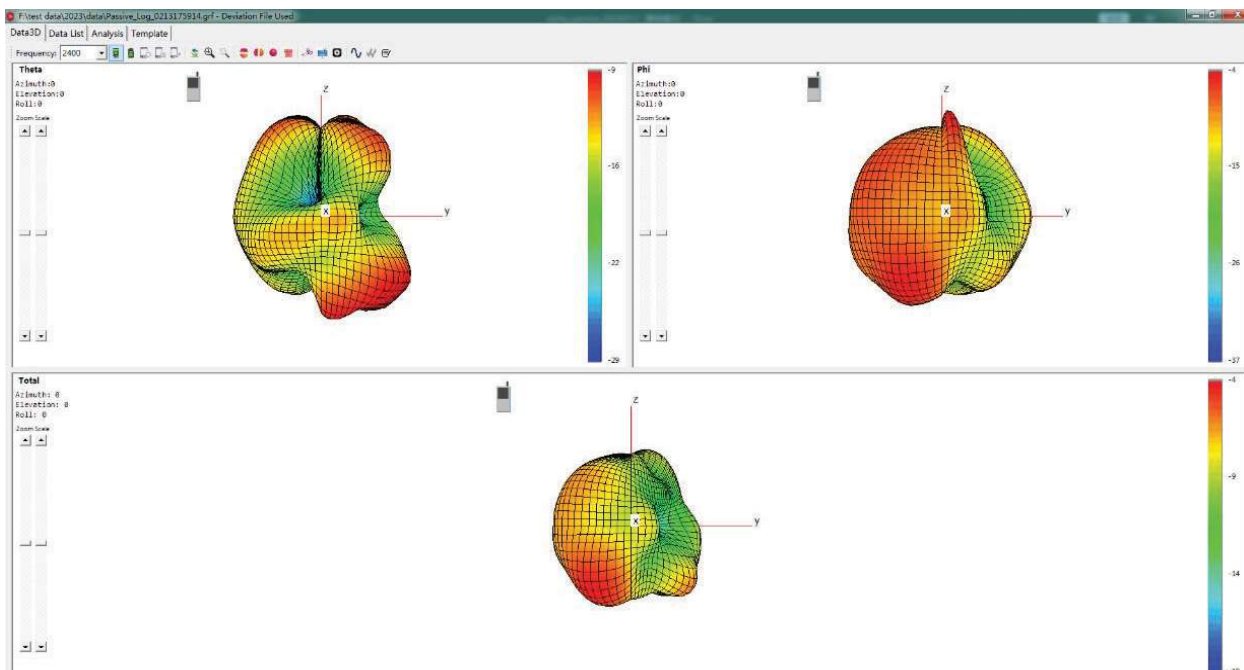




Efficiency:

R			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency
2400	-3.0	-6.8	21.1%
2410	-2.7	-6.6	22.1%
2420	-2.5	-6.3	23.5%
2430	-2.3	-6.1	24.7%
2440	-2.5	-6.0	25.0%
2450	-2.4	-5.9	25.5%
2460	-2.7	-6.0	25.3%
2470	-3.5	-6.3	23.4%
2480	-4.3	-6.6	21.7%
Average value	-2.9	-6.3	23.6%

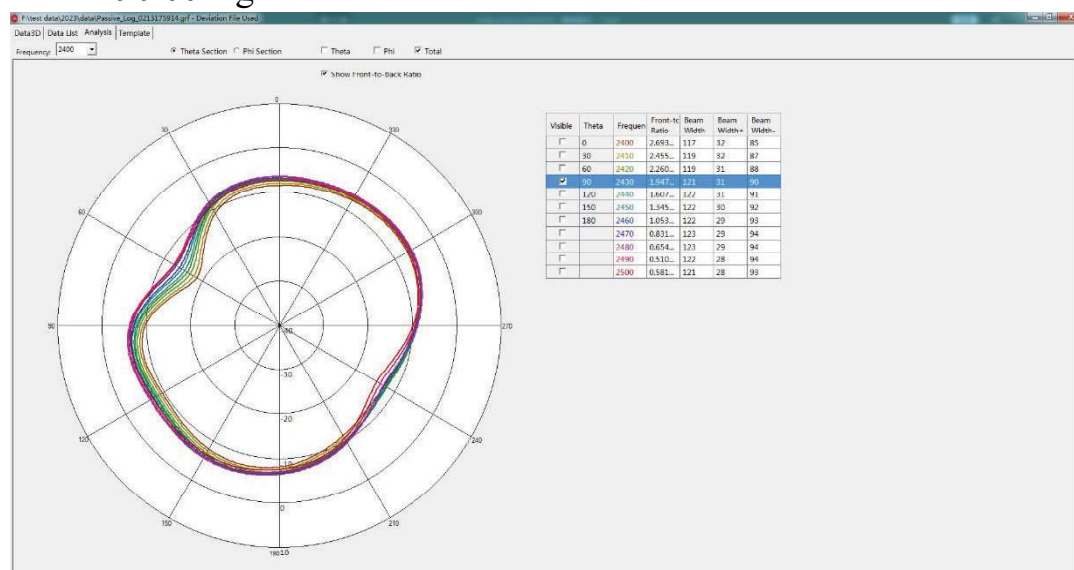
3D Antenna radiation pattern:



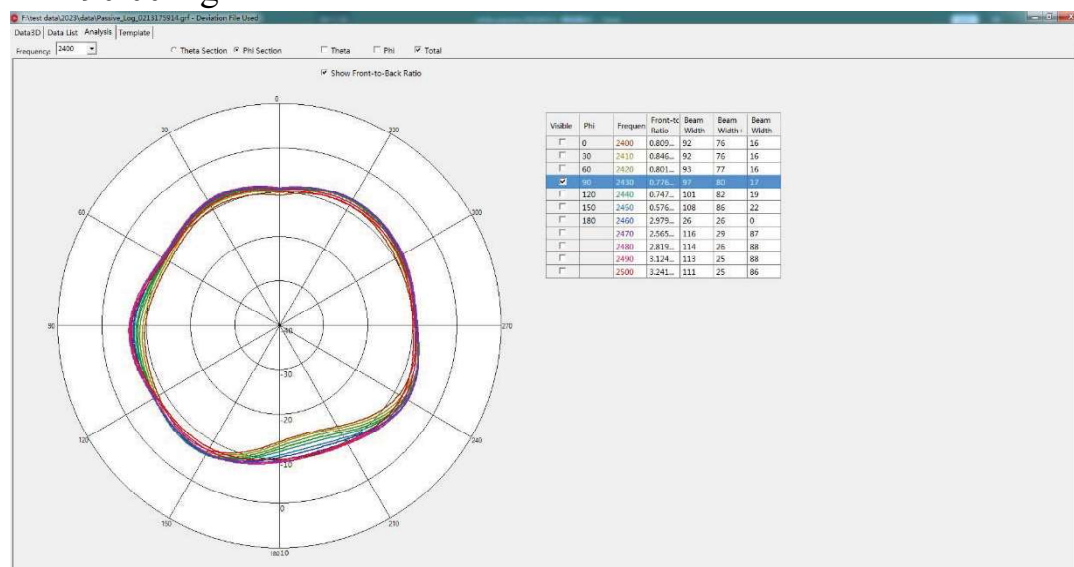


Antenna radiation pattern:

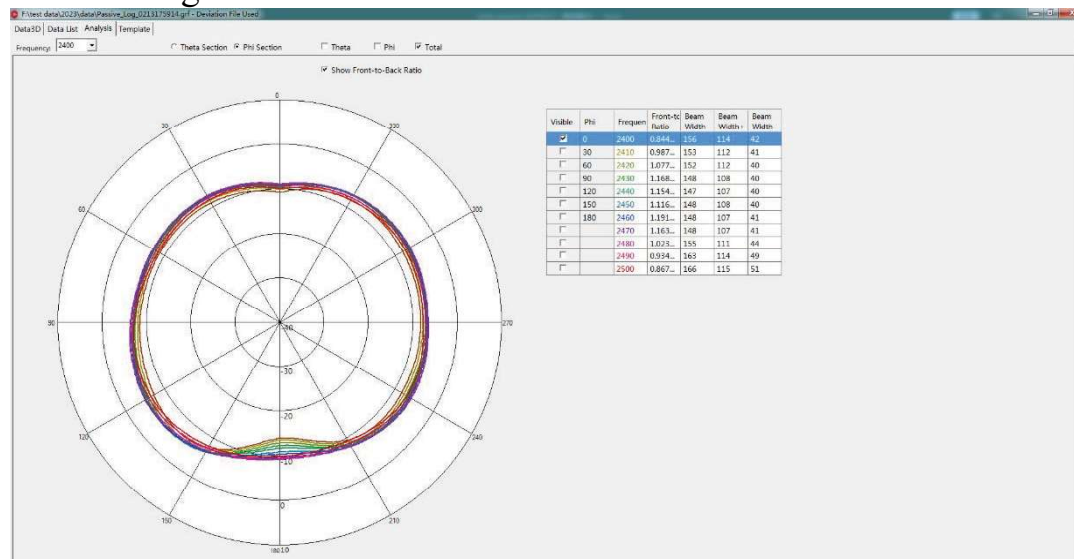
Theta=90.00deg



Phi=90.00deg



Phi=0.00deg





II: 3D Active test report of antenna

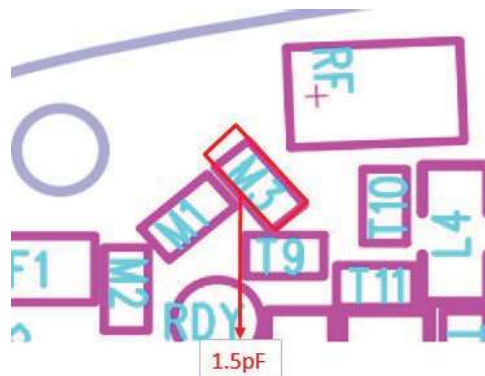
BT	Channel	TRP (dBm)	TIS(dBm)
R	CH 0	5.0	-87.8
	CH 39	6.6	-88.7
	CH 78	6.3	-88.5



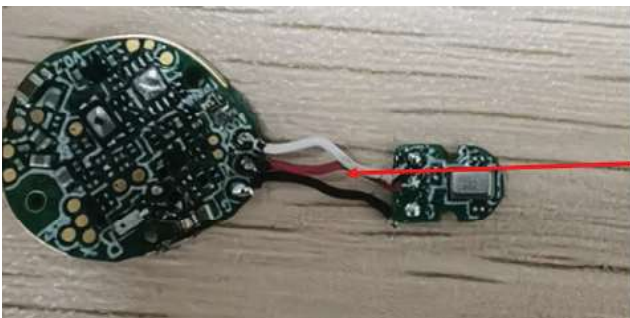
OTA Standard Chamber

III: Matching circuit

Element	Value
M3	1.5pF
M1	0Ω
M2	N/A



VI: Environmental treatment



Ensure that the MIC connection line is around 9mm and press it under the MIC board as much as possible during assembly.

V: Structure file:

