Antenna Part Specification

Customer name：	Cosonic Intelligent Technologies Co.，Ltd.
Project name：	CE-2228B(T20)
Material category：	L-BT Antenna
Antenna type：	monopole
Version：	V1.0
Date：	2025.03.14
Manufacturer：	Shenzhen Cicent Communication Technology Co., Ltd.
Manufacturer Address：	505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china

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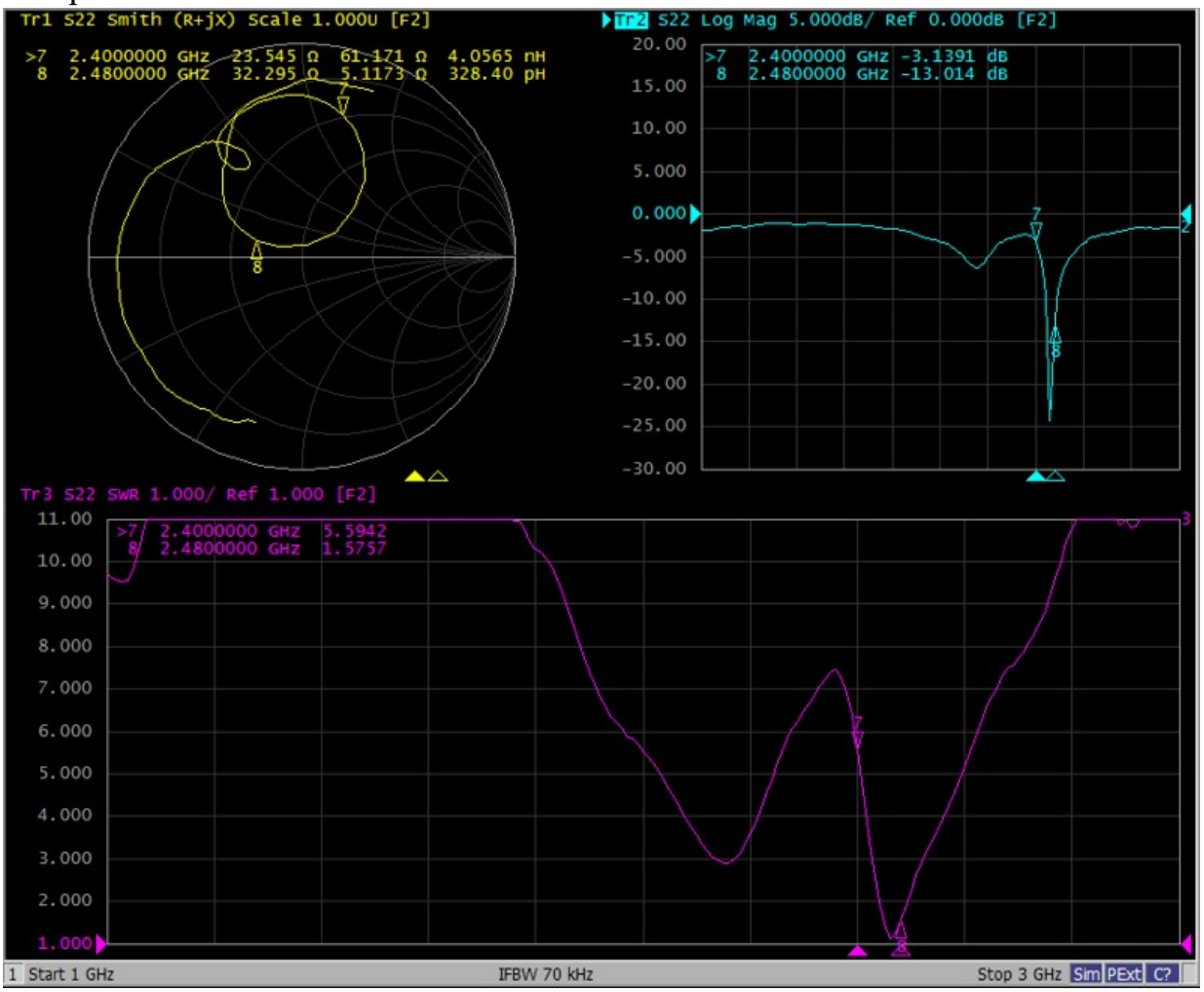
Change record			
Compile / change date	Reason for change	Changed content	Version
2025.03.14	First edition	First edition	V1.0

I: The report of passive data

Angilent E5071C

S11 parameter：



Left ear antenna efficiency and gain (free):

Frequency(MHz)	Gain (dBi)	efficiency (dB)	efficiency (%)
2400	-7.9	-11.4	7.3
2410	-7.1	-10.4	9.2
2420	-6.6	-9.6	11.1
2430	-6.2	-8.8	13.2
2440	-5.6	-7.7	17.0
2450	-4.8	-6.9	20.3
2460	-3.8	-6.0	25.1
2470	-3.6	-6.1	24.7
2480	-3.6	-6.4	23.0
AVG	-5.5	-8.1	16.8

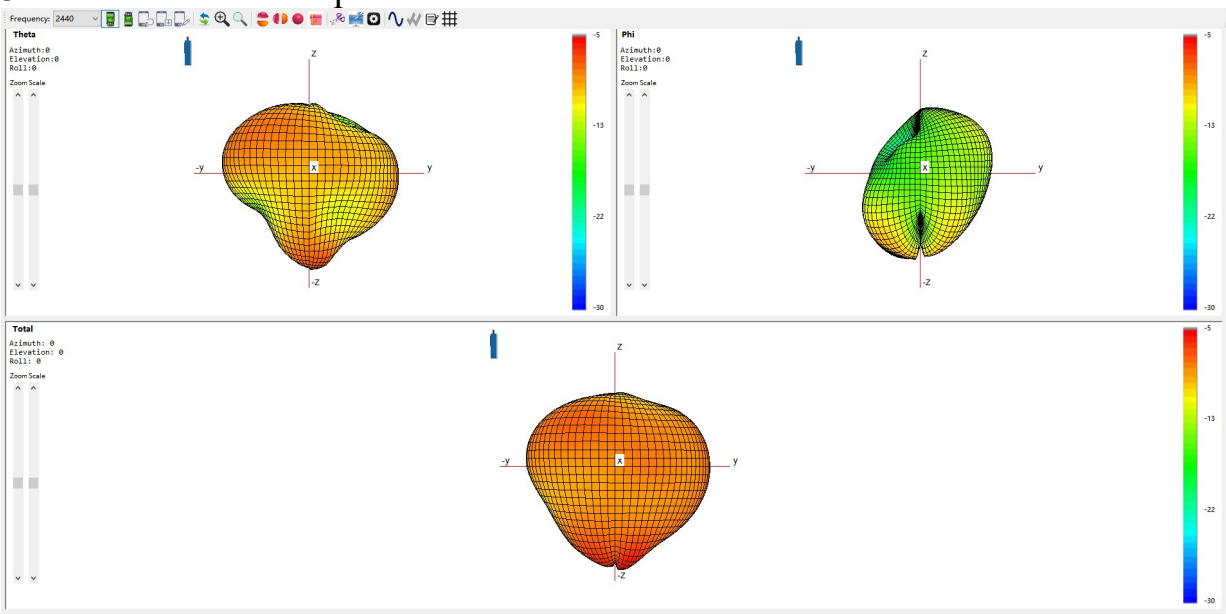
2400~2480MHz
Peak Gain:-3.6dBi Min Gain: -7.9dBi Avg Gain: -5.5dBi

Left ear antenna efficiency and gain (headform):

Frequency(MHz)	Gain (dBi)	efficiency (dB)	efficiency (%)
2400	-8.2	-14.0	4.0
2410	-7.1	-13.3	4.7
2420	-6.5	-12.6	5.5
2430	-6.0	-11.9	6.4
2440	-5.6	-11.2	7.6
2450	-5.5	-10.8	8.4
2460	-5.7	-10.8	8.2
2470	-6.3	-11.5	7.1
2480	-6.8	-12.1	6.2
AVG	-6.4	-12.0	6.5

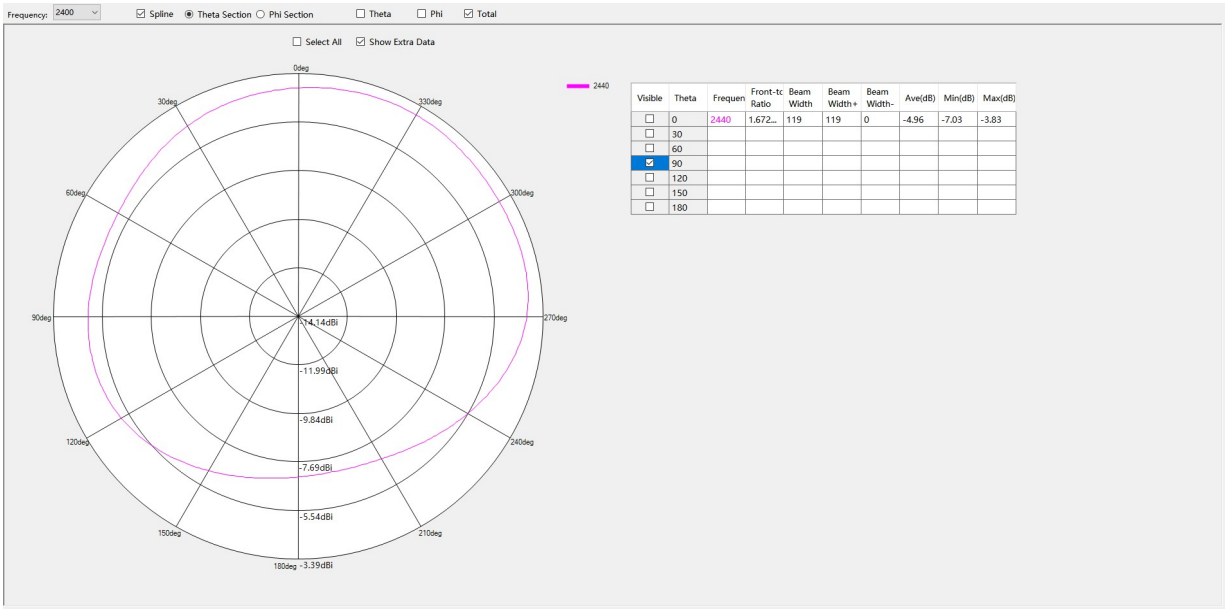
2400~2480MHz
Peak Gain:-5.5dBi Min Gain:-8.2dBi Avg Gain:-6.4dBi

3D Antenna radiation pattern:



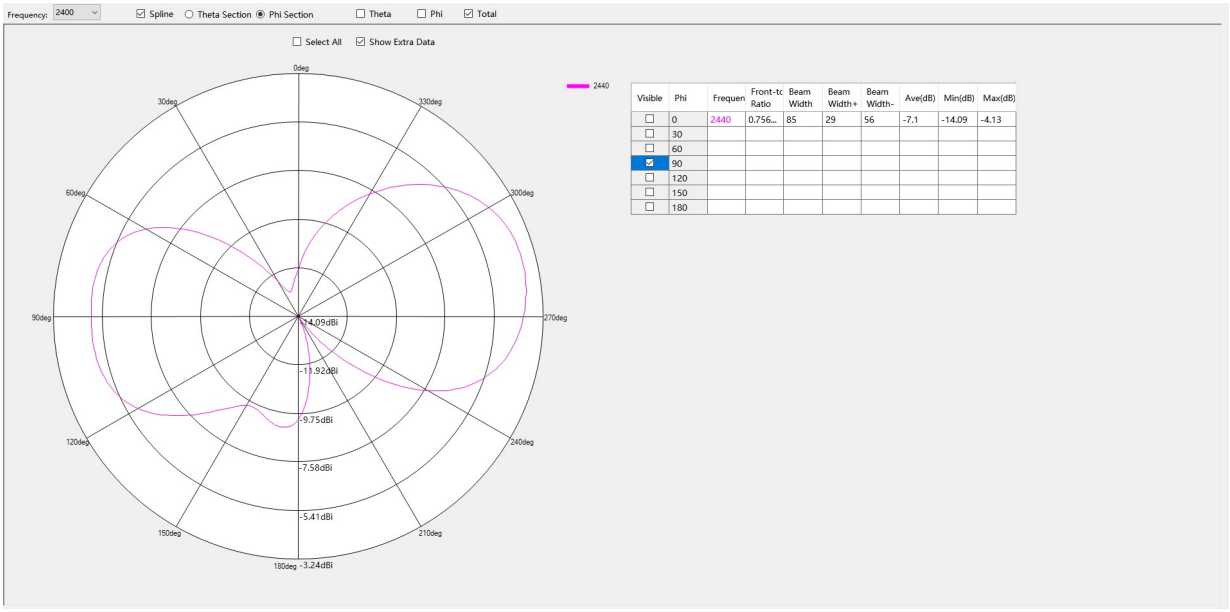
Antenna radiation pattern:

Theta=90.00deg



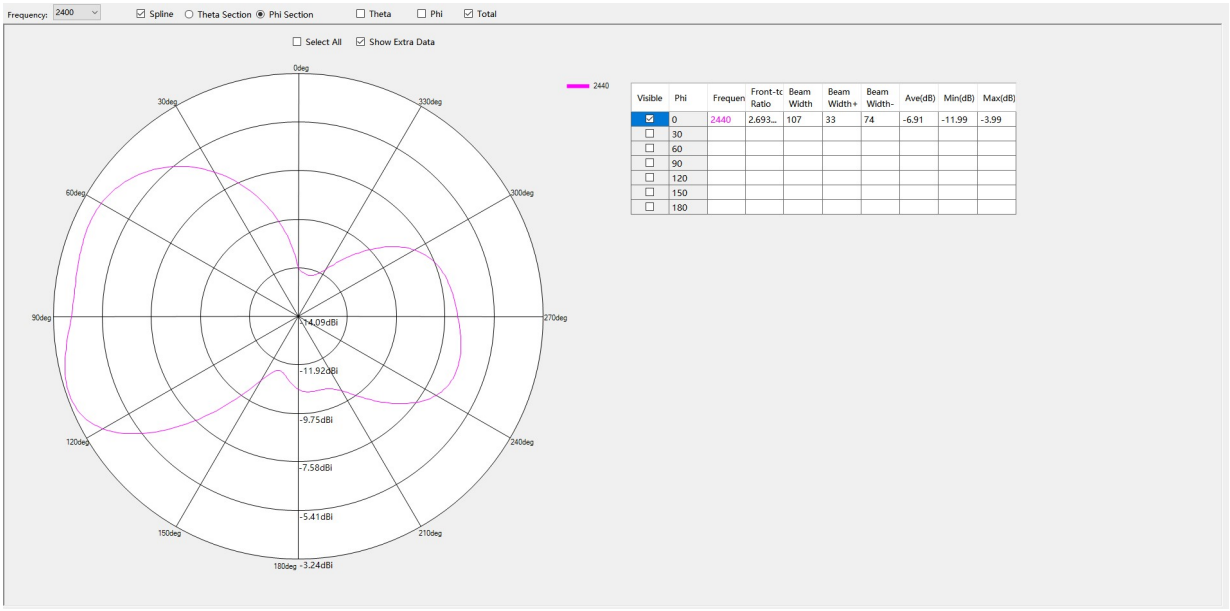
Visible	Theta	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☐	0	2440	1.672...	119	119	0	-4.96	-7.03	-3.83
☐	30								
☐	60								
☑	90								
☐	120								
☐	150								
☐	180								

Phi=90.00deg



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☐	0	2440	0.756...	85	29	56	-7.1	-14.09	-4.13
☐	30								
☐	60								
☑	90								
☐	120								
☐	150								
☐	180								

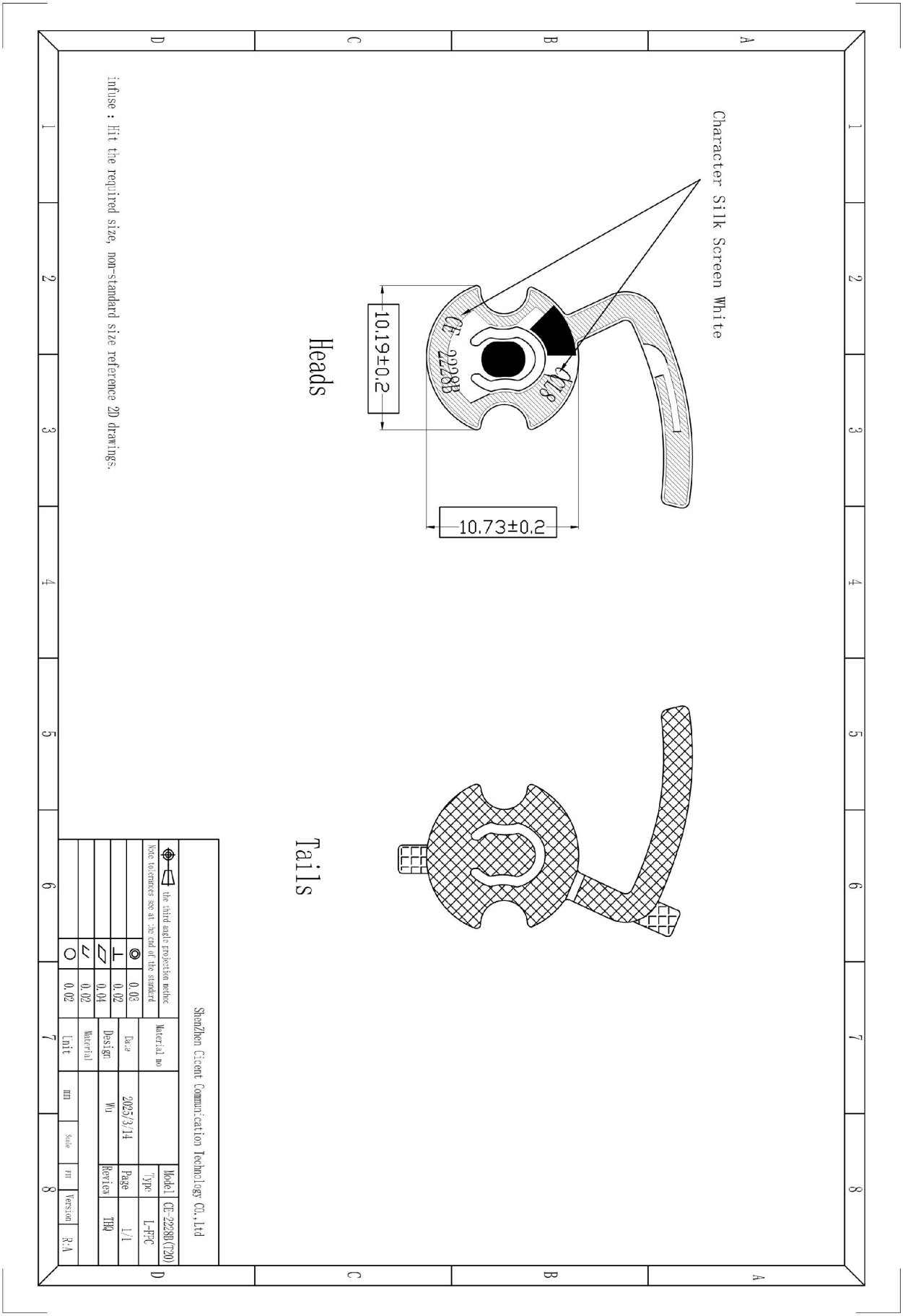
Phi=0.00deg



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☑	0	2440	2.693...	107	33	74	-6.91	-11.99	-3.99
☐	30								
☐	60								
☐	90								
☐	120								
☐	150								
☐	180								

II：Antenna active test data

50:1B:6A:EA:4C:51		free		headform	
1#	Channel	TRP	TIS	TRP	TIS
L	CH 0	1.2	-87.2	1.1	-86.4
	CH 39	6.3	-92.2	3.0	-87.8
	CH 78	8.1	-92.4	2.5	-86.6
	AVG	5.2	-90.6	2.2	-86.9

OTA Standard Chamber

Ⅳ：Structure file