



# Specification

Manufacture: Shenzhen Si Xun communication Technology Co., LTD  
Address: A505/506, Donglian Building, Chuangye 2nd Road, Dalang Community, Xin 'an Street, Bao 'an District, Shenzhen

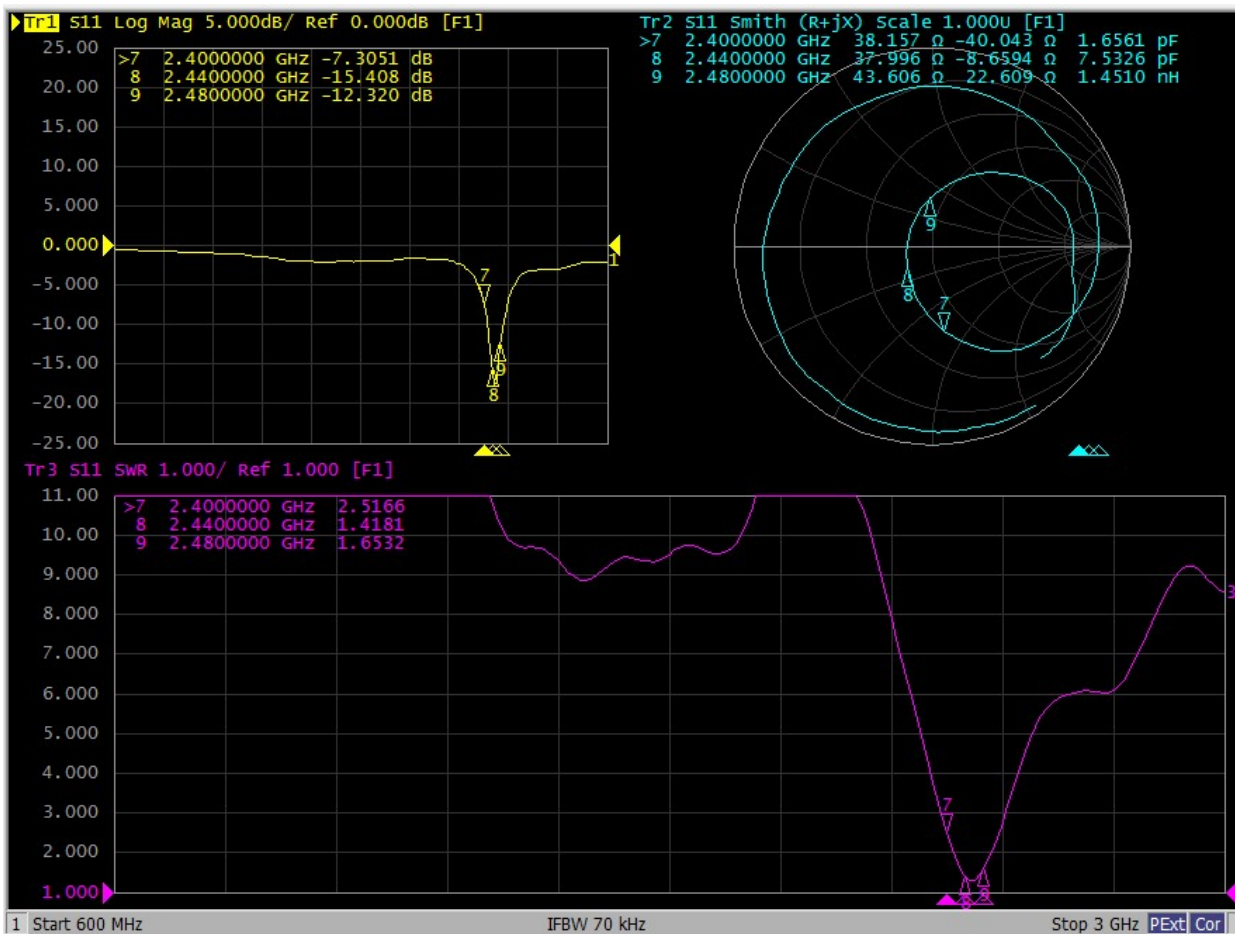
Client:	Cosonic
Project:	CE-2180N
Name:	BT Antenna
Type:	PIFA Antenna
Version:	V2.0
Date:	2024.01.12

一: Passive test report

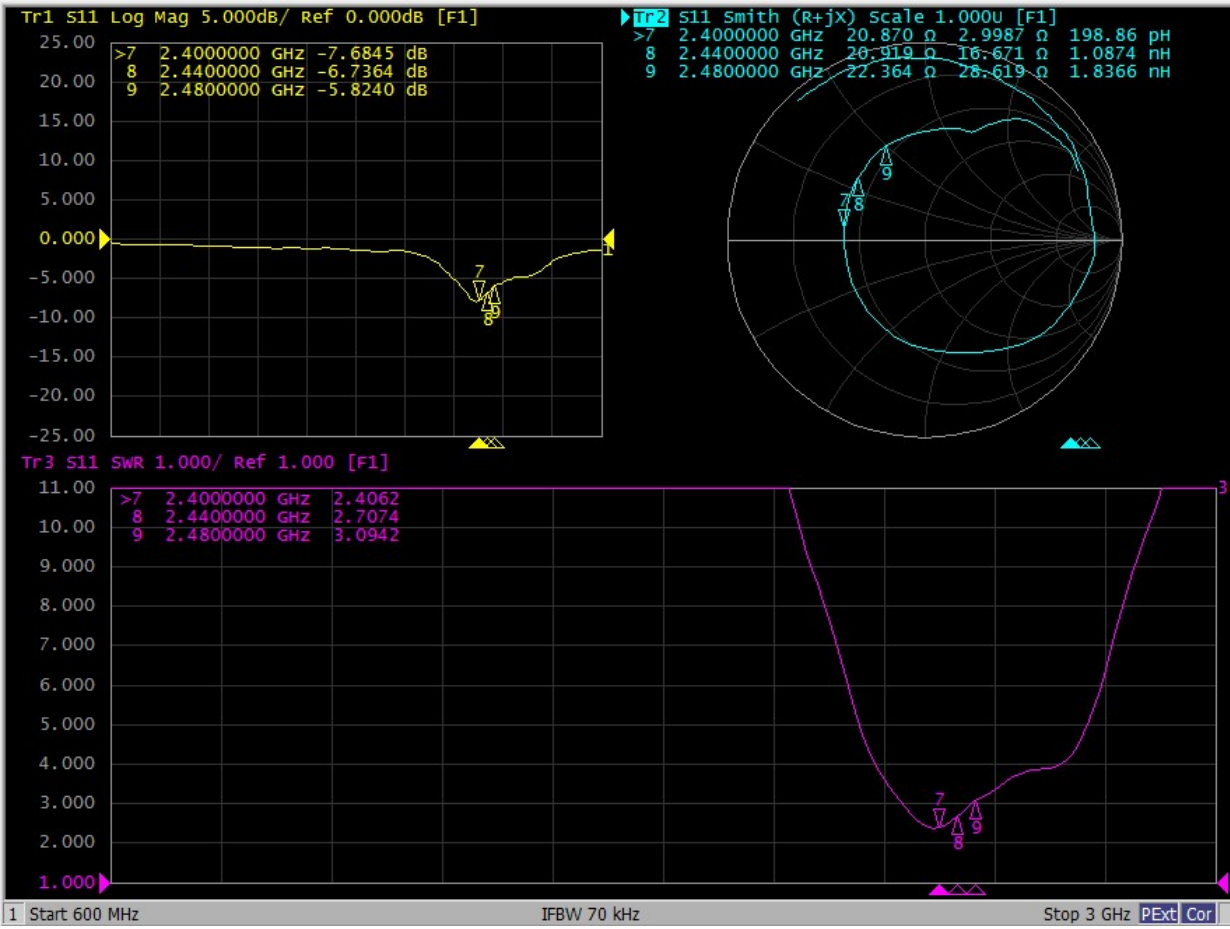


Angilent E5071C

BT Antenna S11 parameter



# WiFi Antenna S11 parameter



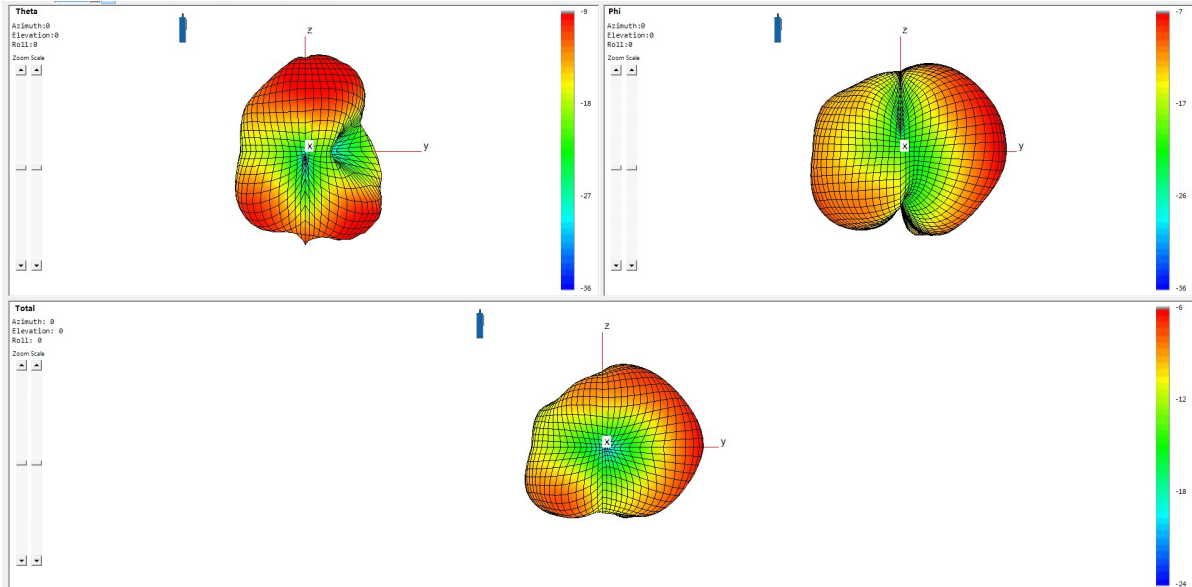
Left Earbuds BT Antenna efficiency and gain:

Left Earbuds Free Space				Left Earbuds HEAD			
Frequency MHz	GAIN(dBi)	efficiency(dB )	efficiency (%)	Frequency MHz	GAIN(dBi)	efficiency(dB )	efficiency (%)
2400	-5.47	-7.47	17.91	2400	-6.60	-11.42	7.22
2410	-5.17	-7.21	18.99	2410	-6.47	-11.19	7.60
2420	-5.02	-7.02	19.88	2420	-6.58	-11.02	7.91
2430	-4.42	-6.61	21.81	2430	-6.66	-11.07	7.81
2440	-4.22	-6.53	22.22	2440	-6.75	-11.18	7.63
2450	-3.91	-6.08	24.63	2450	-6.63	-11.11	7.75
2460	-3.48	-5.75	26.58	2460	-6.77	-11.31	7.39
2470	-3.49	-5.93	25.52	2470	-6.71	-11.22	7.55
2480	-3.59	-6.04	24.87	2480	-6.59	-11.21	7.56
Average	-4.31	-6.52	22.49	Average	-6.64	-11.19	7.60

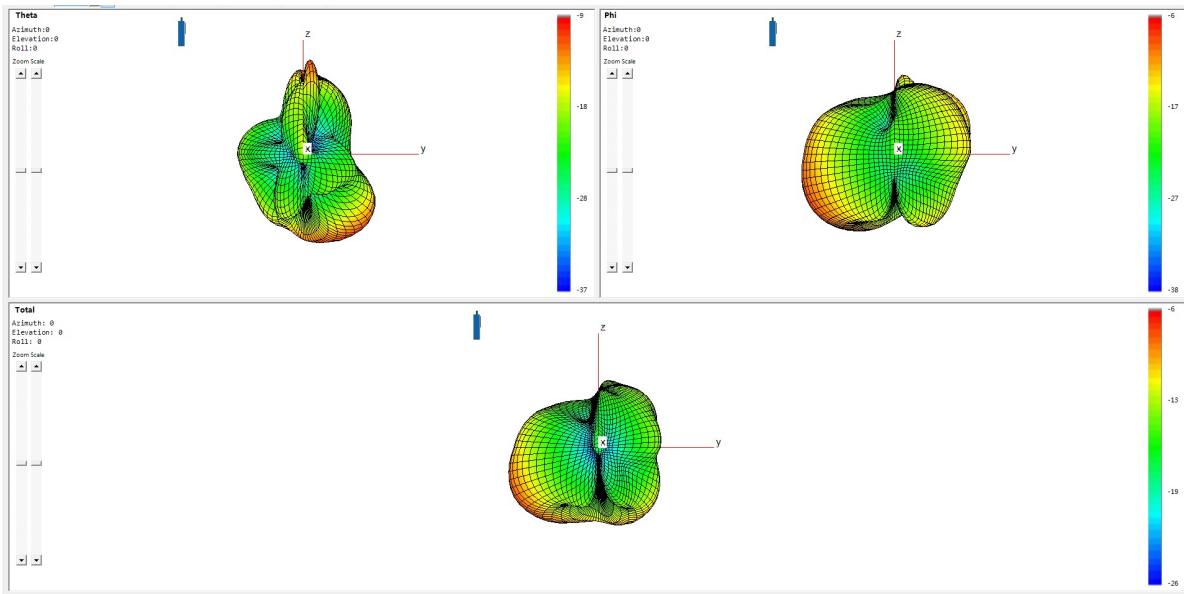
Right Earbuds BT Antenna efficiency and gain:

Left Earbuds Free Space				Left Earbuds HEAD			
Frequency MHz	GAIN(dBi)	efficiency(dB )	efficiency (%)	Frequency MHz	GAIN(dBi)	efficiency(dB )	efficiency (%)
2400	-5.86	-7.66	17.12	2400	-6.35	-11.59	6.93
2410	-5.63	-7.52	17.70	2410	-6.24	-11.59	6.93
2420	-5.65	-7.34	18.44	2420	-6.21	-11.61	6.90
2430	-5.63	-7.35	18.43	2430	-6.14	-11.70	6.76
2440	-5.40	-7.31	18.56	2440	-6.04	-11.76	6.67
2450	-5.10	-7.12	19.41	2450	-5.93	-11.72	6.73
2460	-5.24	-7.14	19.33	2460	-6.10	-11.85	6.53
2470	-5.03	-6.87	20.56	2470	-5.73	-11.60	6.91
2480	-4.77	-6.66	21.59	2480	-5.47	-11.41	7.23
Average	-5.37	-7.22	19.02	Average	-6.02	-11.65	6.84

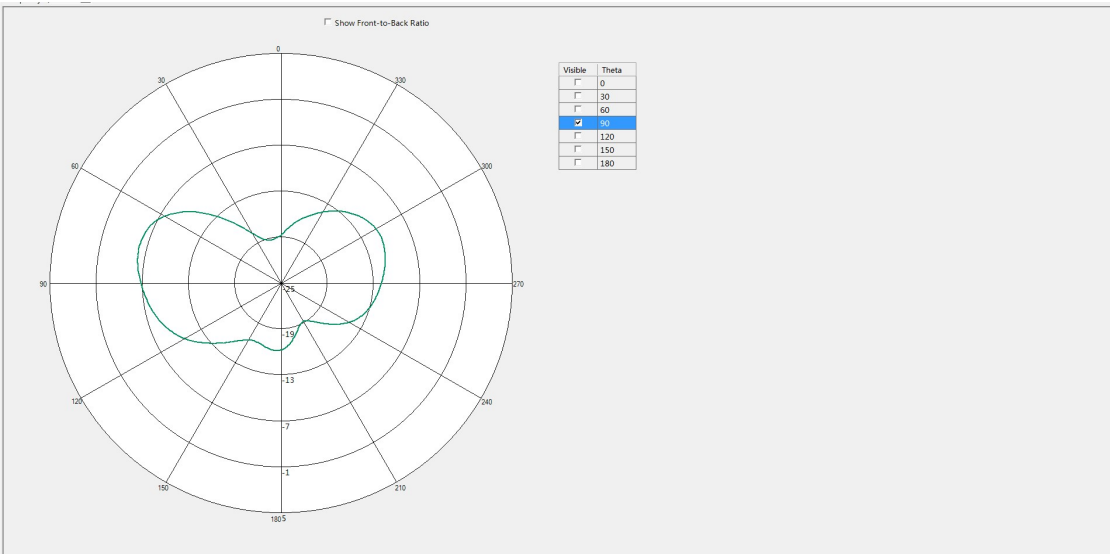
### Left Earbuds BT A n t e n n a 3D radiation pattern:



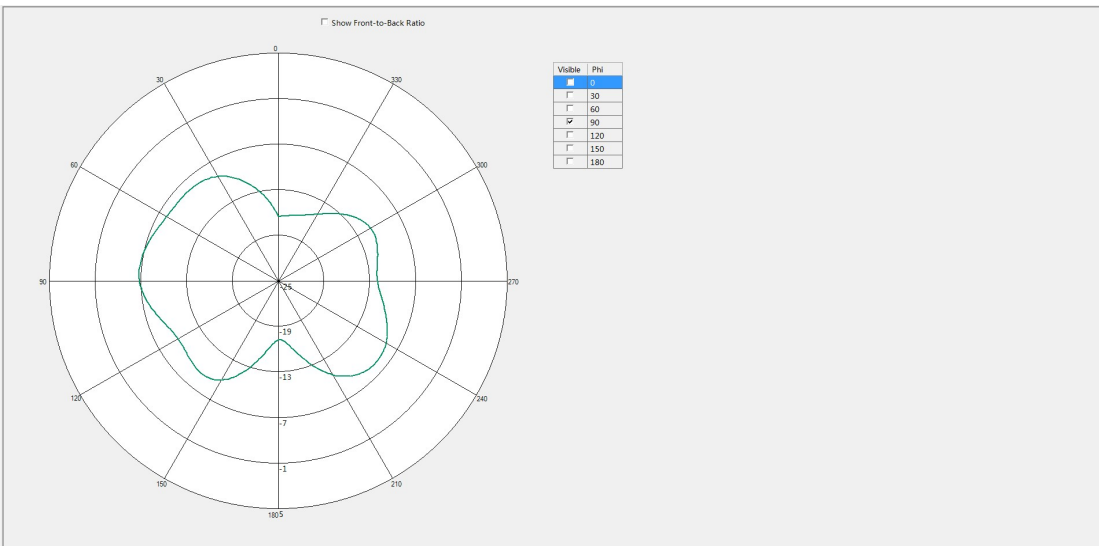
### Right Earbuds BT A n t e n n a 3D radiation pattern:



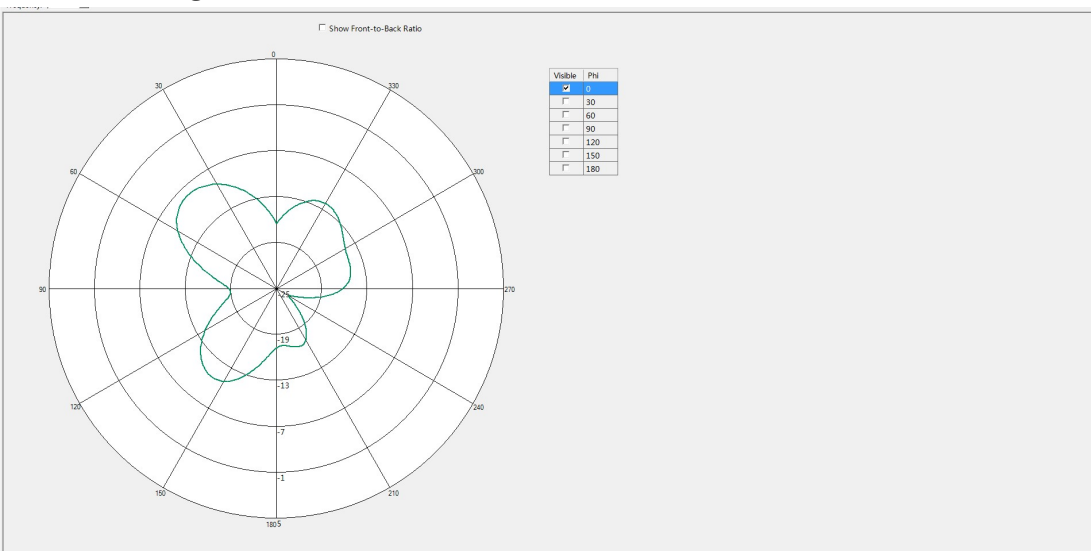
# Left EarbudsBT Antenna 2D radiation pattern: Theta=90.00deg



# Phi=90.00deg



# Phi=0.00deg





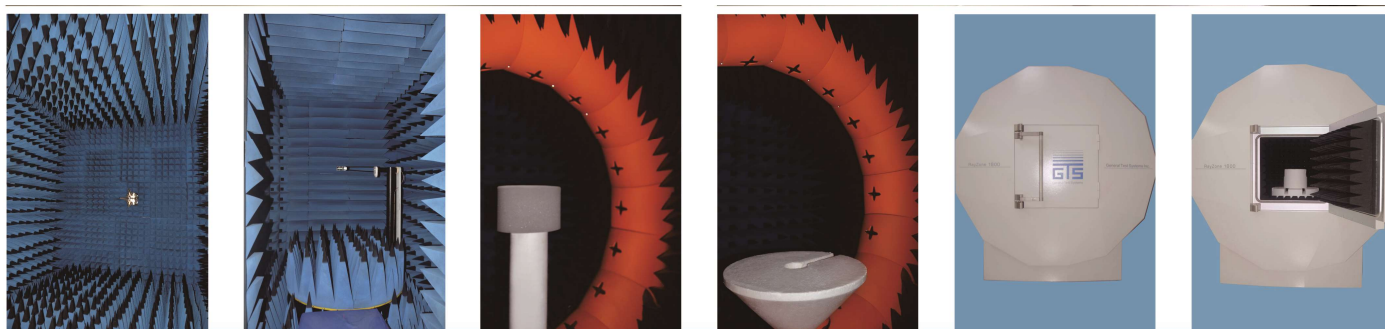
## 二: BT Antenna 3D OTA Test Data

L	Channel	TRP (dBm)	TIS (dBm)
Free Space	CH 0	-0.7	-87.3
	CH 39	1.7	-88.7
	CH 78	1.6	-88.4

L	Channel	TRP (dBm)	TIS (dBm)
Head	CH 0	-6.3	-81.1
	CH 39	-3.8	-82.9
	CH 78	-3.0	-82.9

R	Channel	TRP (dBm)	TIS (dBm)
Free Space	CH 0	-1.7	-86.9
	CH 39	1.1	-87.7
	CH 78	2.0	-88.2

R	Channel	TRP (dBm)	TIS (dBm)
Head	CH 0	-3.6	-82.2
	CH 39	-3.1	-82.2
	CH 78	-4.5	-81.5



OTA Standard Chamber



