



Antenna Part Specification

Customers:	Tianjian
Project name:	Scala Dongle-XBOX
Material category:	BT Antenna
Antenna type:	PIFA Antenna
Version:	V2.0
Antenna version number:	CC SS-XBOX Dongle BOX-PC
Date:	2024.06.25



Catalogue

I: The report of passive data	3
II: 3D Active test report of antenna	9
III: Matching circuit.....	9
IV: Installation precautions	9
V: Structure file	10

Change record			
Compile / change date	Reason for change	Changed content	Versio n
2024.03.23	First edition	First edition	V1.0
2024.06.25	Antenna optimization	Change the route and increase the route size	V2.0

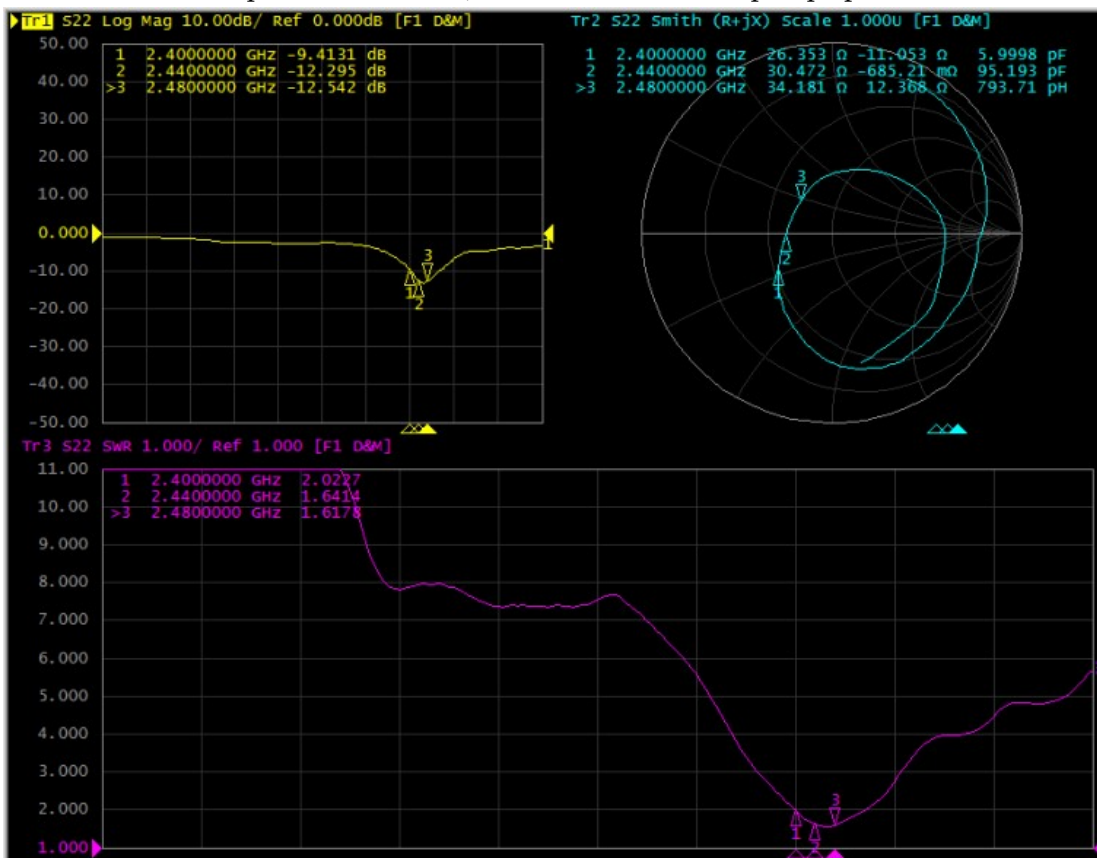


I: The report of passive data



Angilent E5071C

BT antenna S parameters (connected to laptop plastic shell computer)





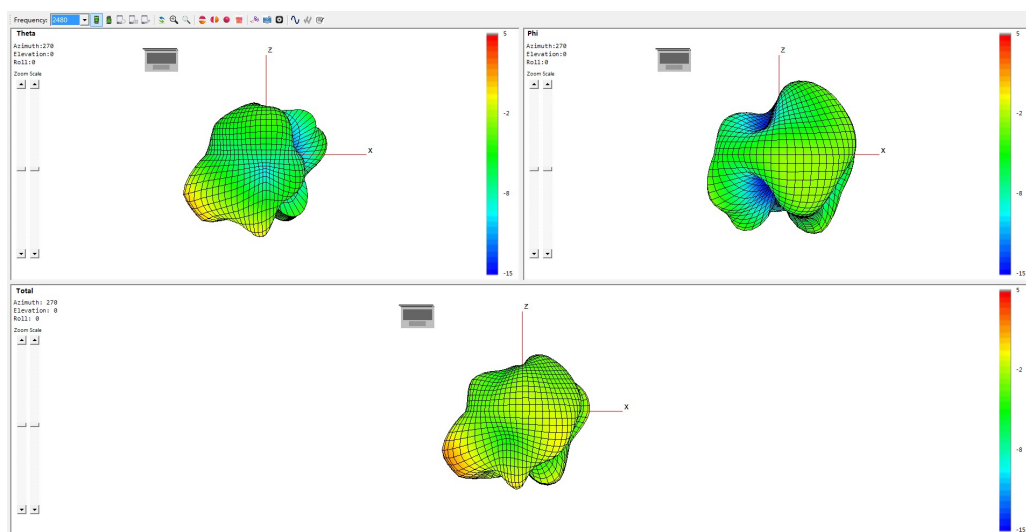
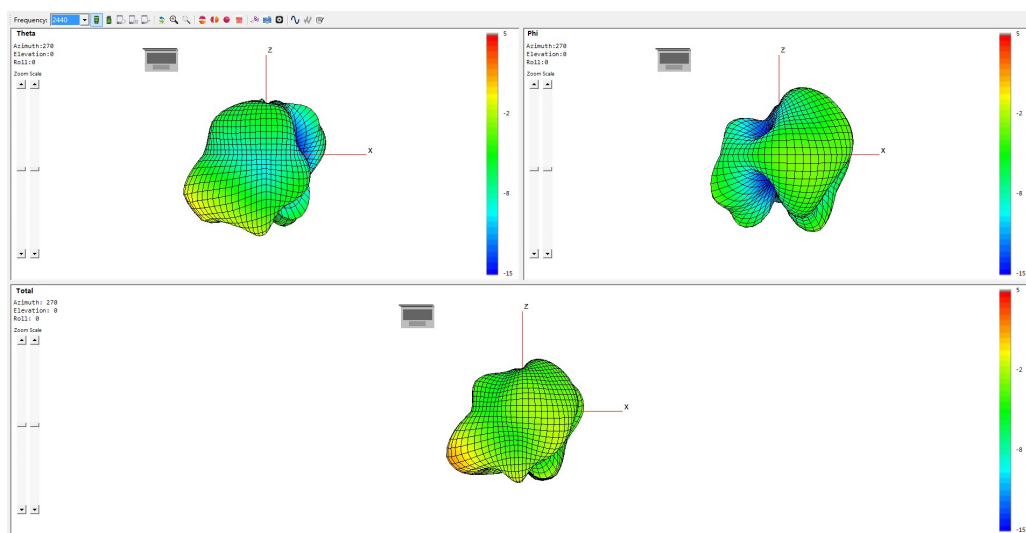
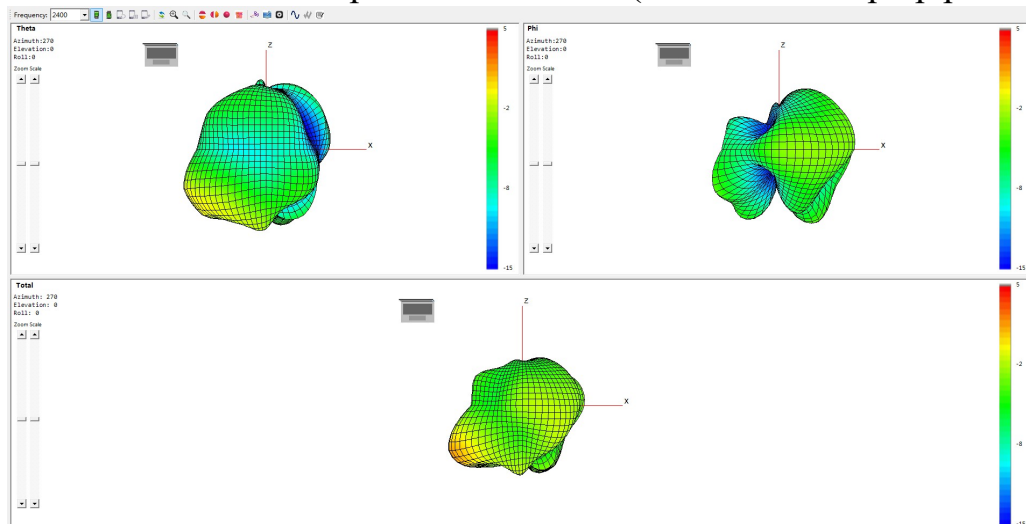
BT antenna efficiency and gain:

Connect laptop - plastic shell computer

Frequency point MHz	efficiency %	efficiency (dB)	gain (dBi)
2400	39%	-4.1	1.5
2410	40%	-4.0	1.6
2420	41%	-3.9	1.6
2430	40%	-4.0	1.4
2440	39%	-4.1	1.2
2450	41%	-3.9	1.4
2460	41%	-3.9	1.3
2470	42%	-3.8	1.5
2480	43%	-3.6	1.6
average value	40.6%	-3.9	1.4

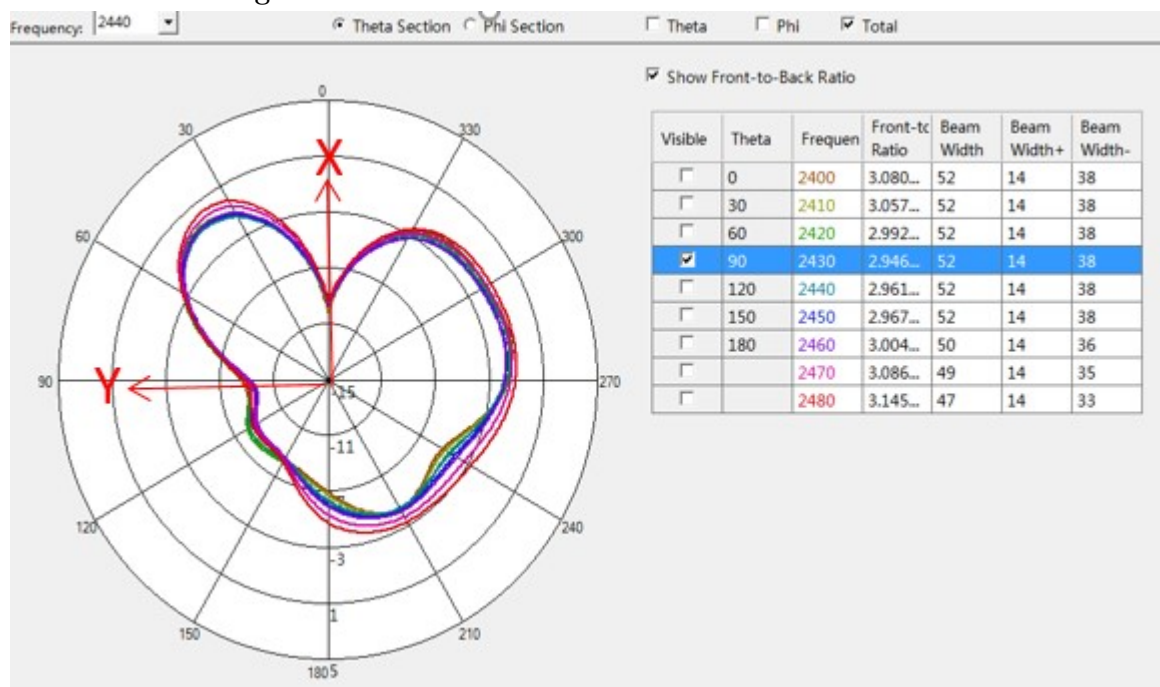


Passive 3D directional pattern of antenna (connected to laptop plastic shell computer):





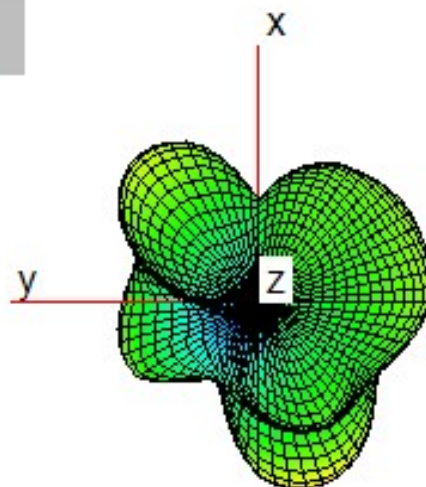
Passive 2D directional pattern of antenna (connected to laptop plastic shell computer):
Theta=90.00deg



Total

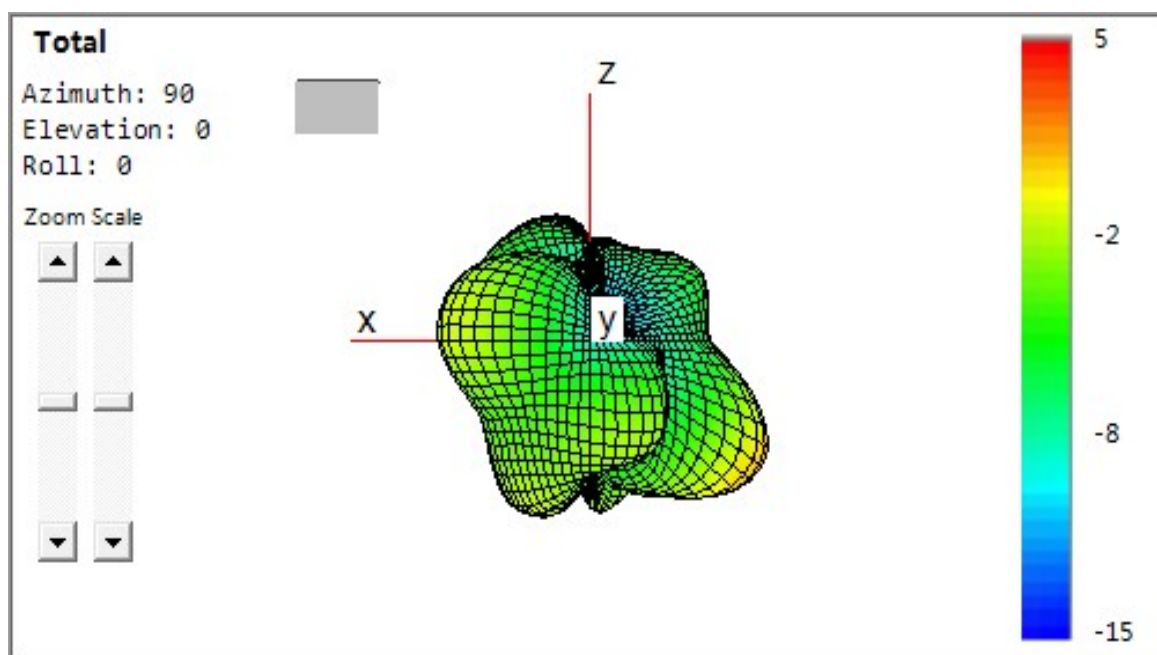
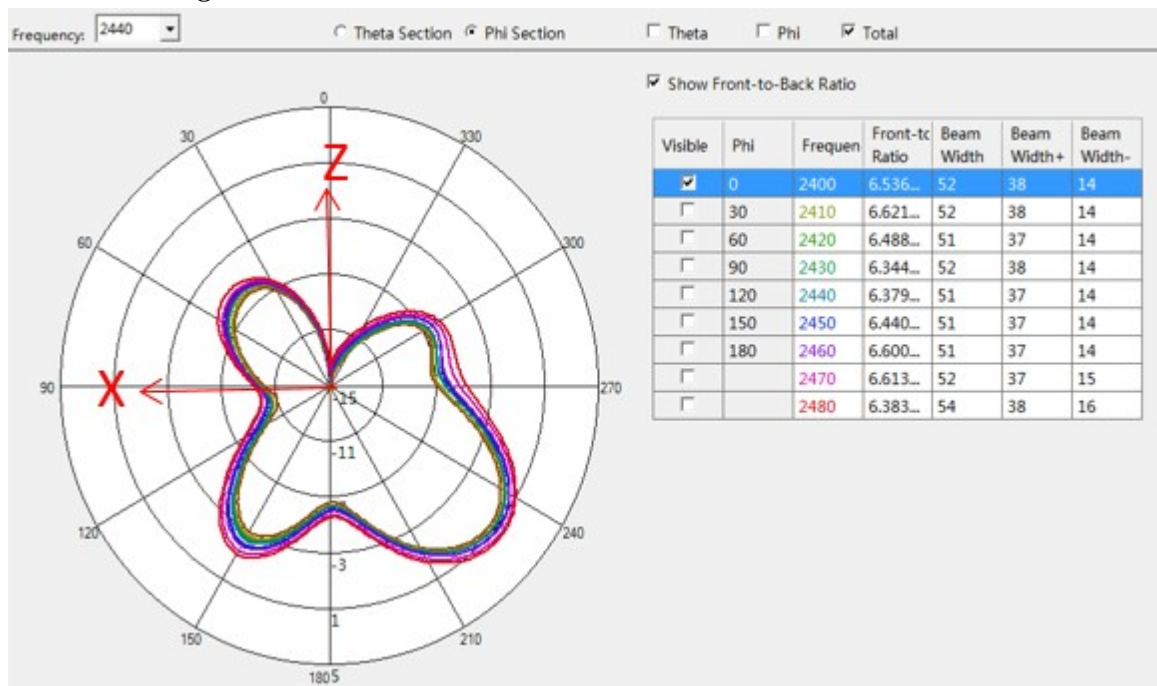
Azimuth: 180
Elevation: 90
Roll: 0

Zoom Scale



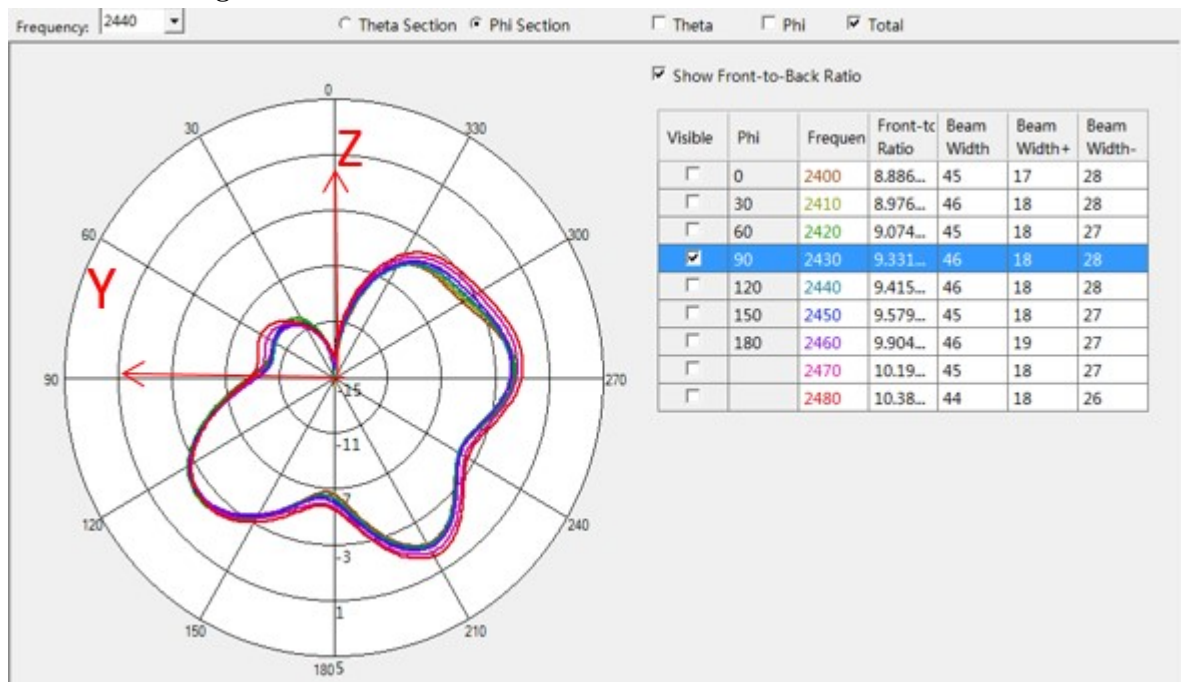


Phi=0.00deg





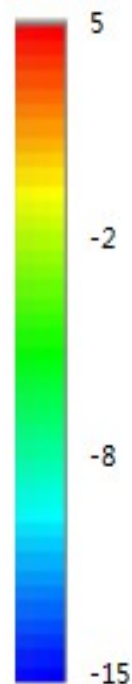
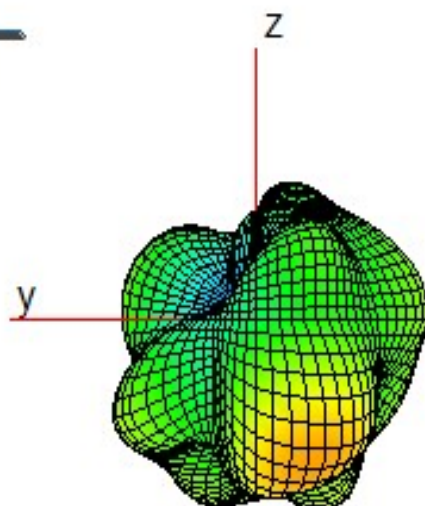
Phi=90.00deg



Total

Azimuth: 180
Elevation: 0
Roll: 0

Zoom Scale





II: 3D Active test report of antenna

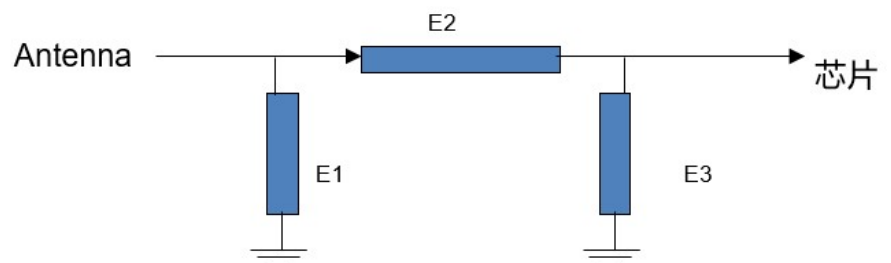
	Channel	TRP (dBm)	TIS (dBm)
Dongle-XBOX	CH 0	2.1	-81.9
	CH 39	3.8	-85.3
	CH 78	4.4	-84.8



OTA Standard Chamber

III: Matching circuit

Element	Value
E1(0201)	N/A
E2(0201)	0Ω
E3(0201)	N/A



IV: Installation precautions



Two antenna pins are required



V: Structure file

