



Antenna Part Specification

Project name:	LE Audio Starkey dongle
Antenna name:	Dongle antenna
Antenna type:	PIFA
Version:	V3.0
Date:	2026.04.16
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
2026.3.21	First edition	First edition	V1.0
2026.3.27	Update test data	Update test data	V2.0
2026.4.16	Antenna modification	Data update	V3.0

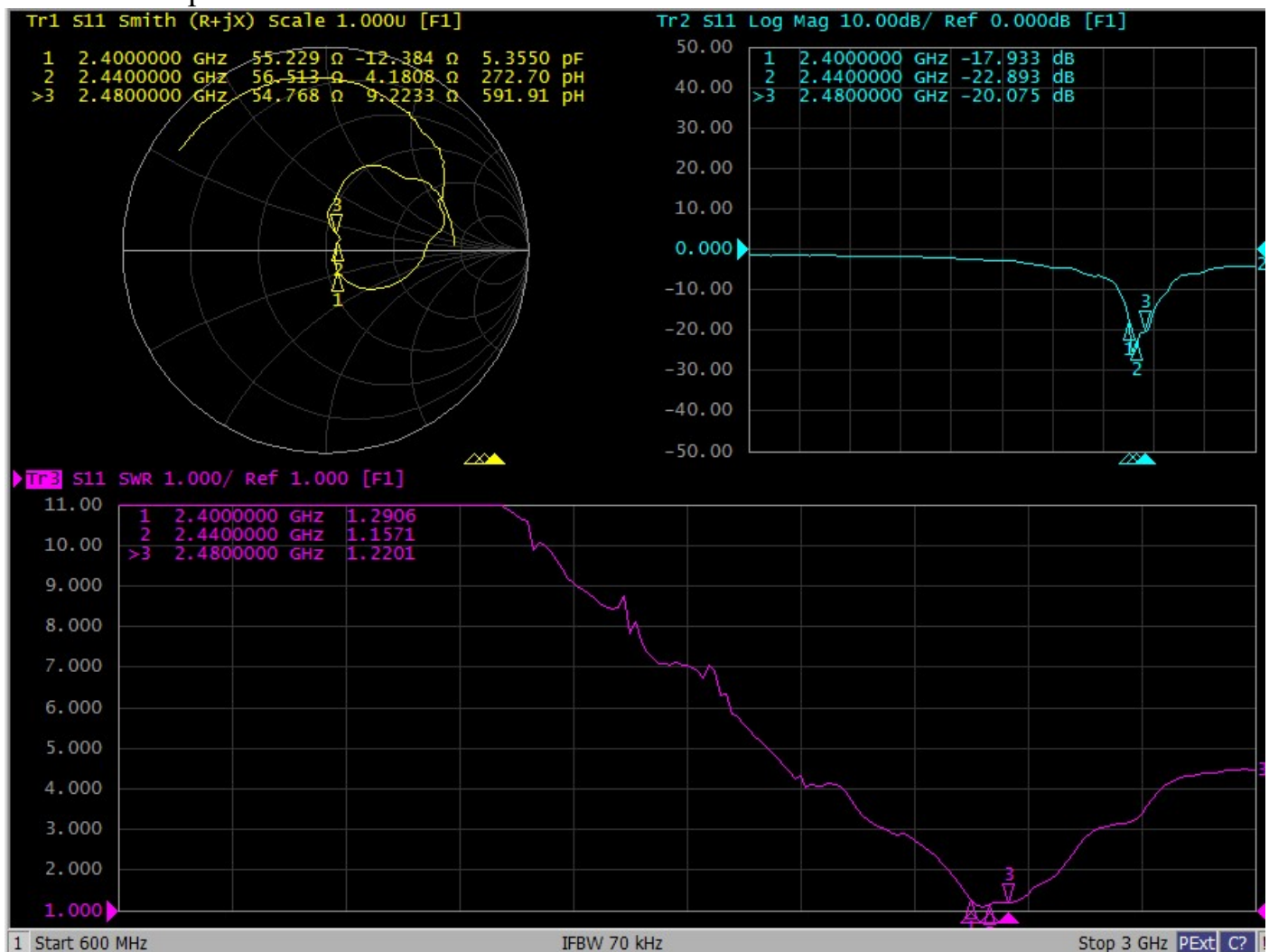


I: The report of passive data



Angilent E5071C

Antenna S11 parameter:

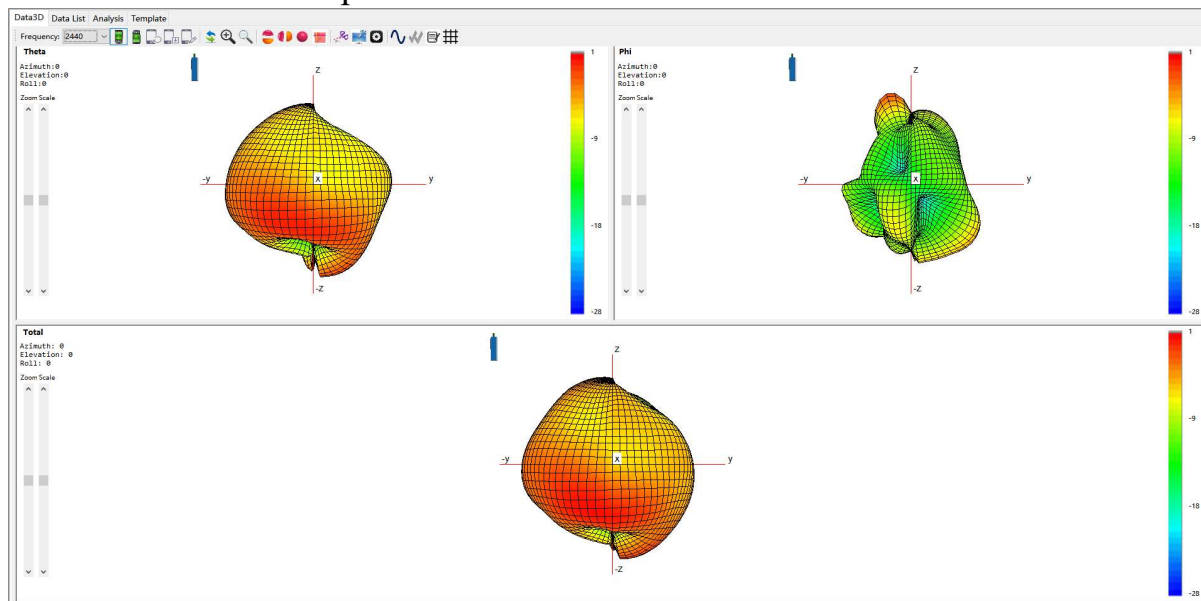




Antenna efficiency and gain:

Connect Xiaomi 12S Pro PIFA				
Frequency (MHz)	Directional coefficient D	Efficiency (dB)	Gain (dBi)	Efficiency (%)
2400	4.86	-4.89	-0.03	32.44
2410	4.73	-4.55	0.18	35.07
2420	4.60	-4.30	0.29	37.11
2430	4.52	-4.24	0.28	37.66
2440	4.58	-4.16	0.43	38.41
2450	4.60	-4.09	0.50	38.95
2460	4.60	-4.11	0.49	38.86
2470	4.71	-4.16	0.54	38.36
2480	4.75	-4.18	0.57	38.21
AVG	4.66	-4.30	0.36	37.23

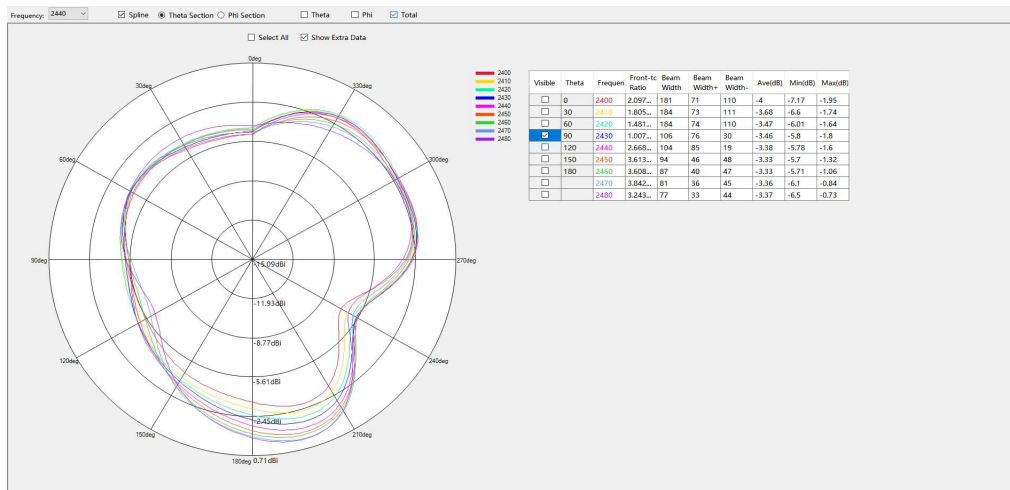
3D Antenna radiation pattern:



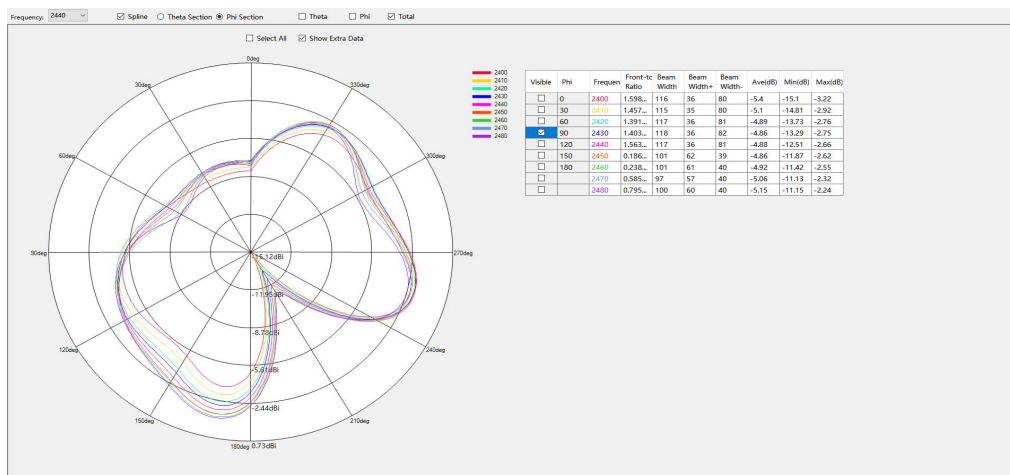


2D Antenna radiation pattern:

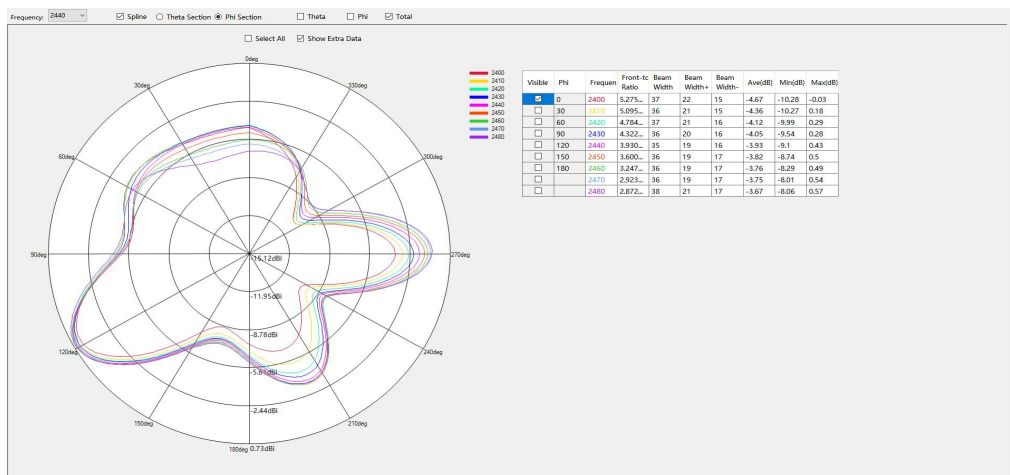
Theta = 90°



Phi=90°



Phi=0°

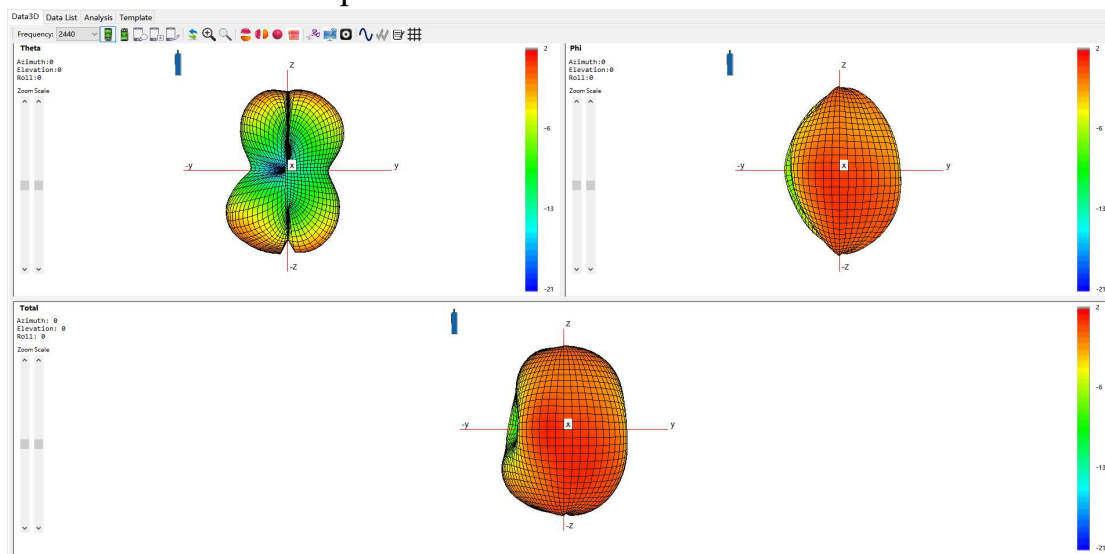




Antenna efficiency and gain:

Single dongle PIFA				
Frequency (MHz)	Directional coefficient D	Efficiency (dB)	Gain (dBi)	Efficiency (%)
2400	2.60	-1.97	0.63	63.52
2410	2.65	-1.86	0.79	65.14
2420	2.69	-1.74	0.95	67.01
2430	2.65	-1.74	0.90	66.92
2440	2.75	-1.73	1.02	67.18
2450	2.77	-1.75	1.02	66.82
2460	2.88	-1.83	1.04	65.56
2470	2.92	-1.92	0.99	64.24
2480	2.93	-1.94	0.98	63.91
AVG	2.76	-1.83	0.92	65.59

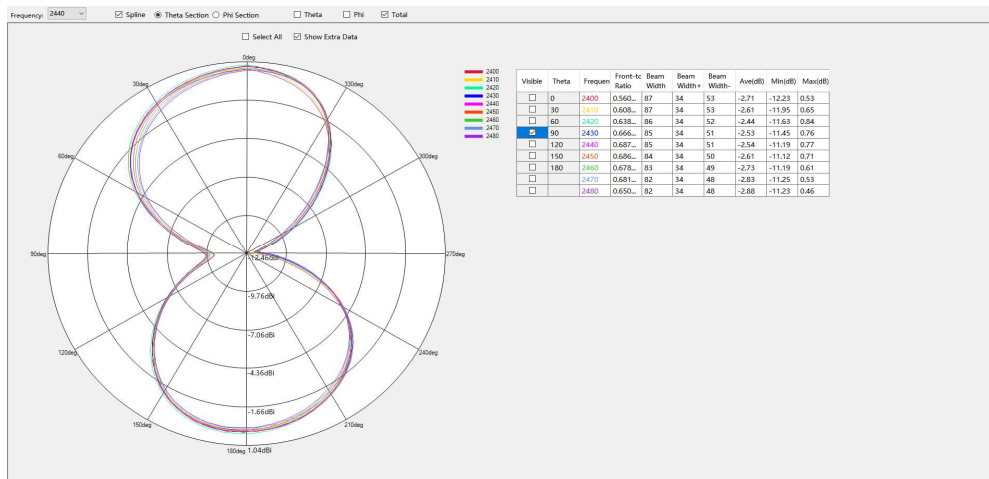
3D Antenna radiation pattern:



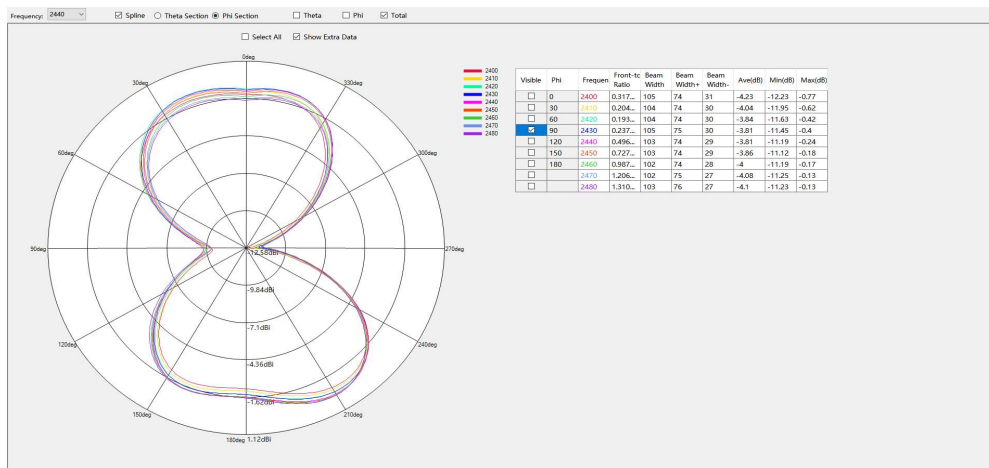


2D Antenna radiation pattern:

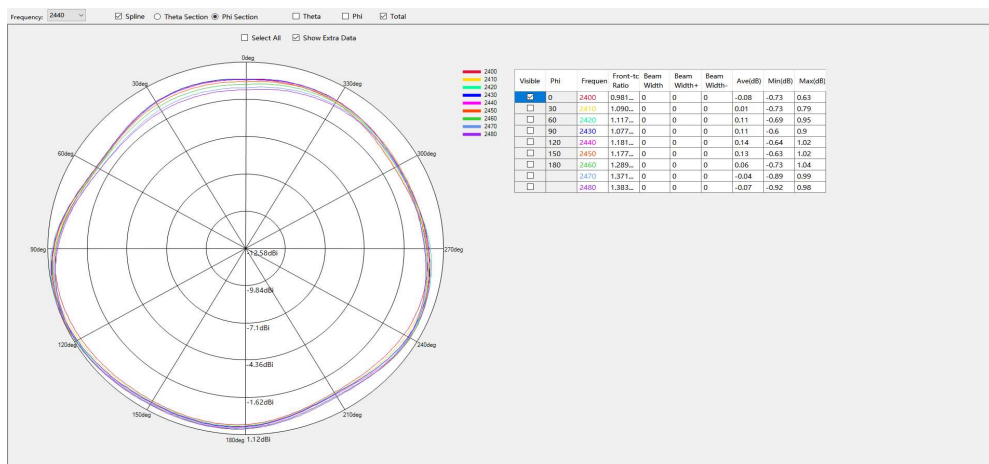
Theta = 90°



Phi=90°



Phi=0°





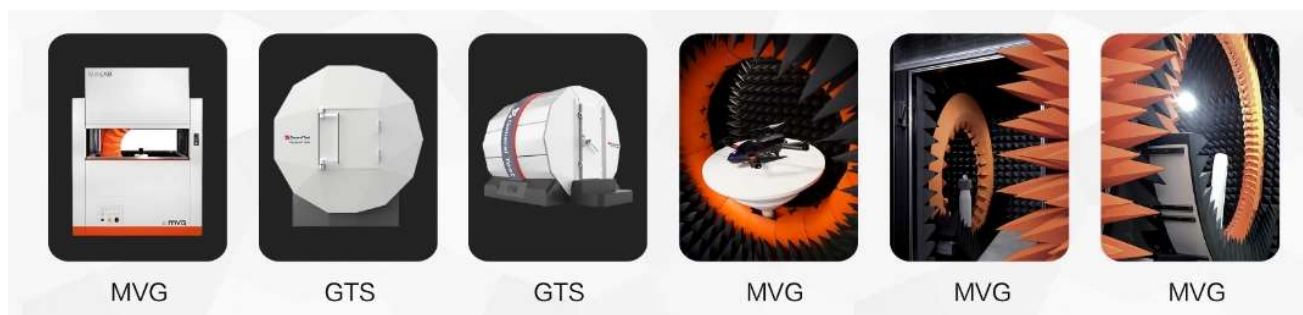
II: 3D Active test report of antenna

BR Mode			
Golden Machine 2#			
Xiaomi 12spro	Channel	TRP	TIS
BR	CH 0	-2.0	-95.0
	CH 39	-1.8	-95.2
	CH 78	-2.1	-95.1
1#			
Xiaomi 12spro	Channel	TRP	TIS
BR	CH 0	-2.5	-94.4
	CH 39	-2.7	-94.9
	CH 78	-2.8	-94.3
2#			
Xiaomi 12spro	Channel	TRP	TIS
BR	CH 0	-2.4	-94.4
	CH 39	-2.6	-94.8
	CH 78	-2.8	-94.4

BLE Mode			
Golden Machine 2#	1M PHY		
Xiaomi 12spro	Channel	TRP (dBm)	TIS (dBm)
BLE Mode	0	6.5	-96.2
	20	6.8	-97.1
	39	6.7	-96.6
	2M PHY		
	Channel	TRP (dBm)	TIS (dBm)
	0	6.8	-96.5
	20	6.7	-97.2
	39	6.3	-96.8

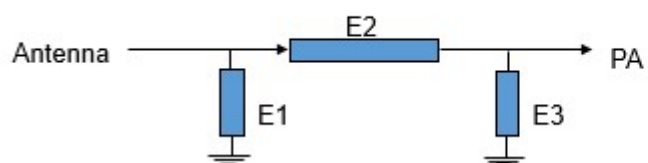
1#	1M PHY		
Xiaomi 12spro	Channel	TRP (dBm)	TIS (dBm)
BLE Mode	0	6.1	-96.3
	20	6.0	-96.9
	39	6.0	-96.2
	2M PHY		
	Channel	TRP (dBm)	TIS (dBm)
	0	6.1	-96.5
	20	6.0	-96.8
	39	5.8	-96.4

2#	1M PHY		
Xiaomi 12spro	Channel	TRP (dBm)	TIS (dBm)
BLE Mode	0	6.0	-96.0
	20	6.1	-96.6
	39	5.8	-96.3
	2M PHY		
	Channel	TRP (dBm)	TIS (dBm)
	0	6.3	-96.6
	20	6.3	-97.1
	39	5.7	-96.2



OTA Standard Chamber

III: Antenna matching circuit



Element	Value
E1(0201)	ESD
E2(0201)	100pF
E3(0201)	N/A



IV: Antenna structure diagram file

