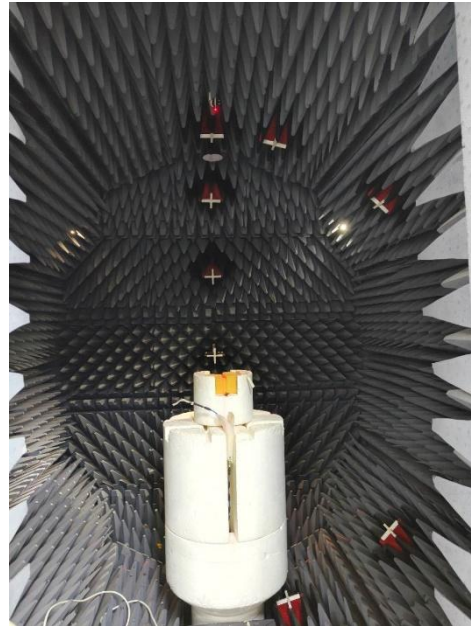


Test setup:

1. antenna chamber information

a) chamber environment



b) Lab address:

2nd Floor, A Building, Sanyo New Industrial Area, West Area of Haoyi, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

c) Test Date: 2026.02.05

d) Equipment List:

- OTA Chamber :GTS 2800
- Chamber Size: 3m*3m*3m
- Max DUT weight/size: 30Kg/ 80cm*50cm
- Max Frequency: 8.5GHz
- Far-field, Active & Passive
GSM/CDMA/LTE/BT/WIFI/GPS/NBIOT/NSA
- General Purpose Tester: RS CMW500
- Network Analyzer: E5071C (100KHz~8.5GHz)

Equipment Description	Manufacturer	Model Number	Serial Number	Last Cal.	Due date
OTA test system	RayZone®	Rayzone	CT10118480B5023	2025.10.20	2026.10.19
Network Analyzer	Keysight	E5071C	MY46523426	2025.08.13	2026.08.12
CMW500 Radio Test Set	R&S	CMW500	105048	2025.09.25	2026.09.24

Customer	Sonos
Manufacturer	Luxshare-ict
Address	399 Baisheng Road, Kunshan City, Suzhou City, Jiangsu Province
Antenna model	LDS + 支架 (LDS+ bracket)
Antenna type	单极性天线 (Monopole Antenna)
Test Engineer	Zekui Fu
Test Site	Luxshare BU17

WiFi1-2.4G

Antenna Passive		
Frequency (MHz)	Efficiency(dB)	Gain (dBi)
2400	-3.06	1.3
2410	-3.1	1.34
2420	-3.05	1.54
2430	-3.08	1.6
2440	-3.12	1.61
2450	-3.07	1.63
2460	-3.03	1.68
2470	-3.06	1.8
2480	-2.98	1.96

Maximum Antenna Gain =1.96 dBi

WiFi1-5G

Antenna passive		
Frequency (MHz)	Efficiency(dB)	Gain (dBi)
5150	-2.04	2.99
5160	-2.02	3.17
5170	-1.93	3.37
5180	-1.77	3.59
5190	-1.64	3.74
5200	-1.63	3.71
5210	-1.53	3.72
5220	-1.54	3.64

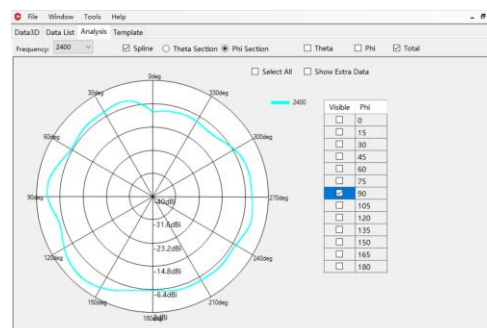
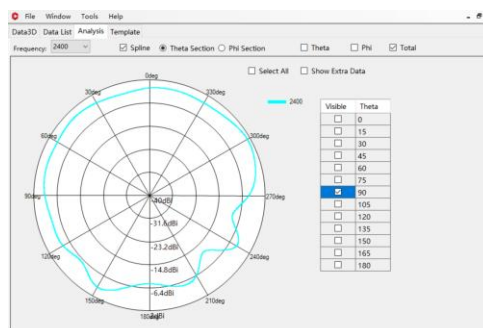
5230	-1.48	3.59
5240	-1.54	3.53
5250	-1.59	3.52
5260	-1.63	3.51
5270	-1.74	3.42
5280	-1.83	3.36
5290	-1.9	3.33
5300	-1.91	3.28
5310	-1.91	3.32
5320	-2.15	3.11
5330	-2.01	3.32
5340	-1.98	3.4
5350	-2.14	3.25
5360	-1.98	3.43
5370	-1.89	3.57
5380	-2.07	3.38
5390	-2.02	3.43
5400	-1.95	3.54
5410	-1.91	3.57
5420	-1.8	3.67
5430	-1.79	3.71
5440	-1.76	3.79
5450	-1.6	4.03
5460	-1.61	4.03
5470	-1.47	4.19
5480	-1.25	4.38
5490	-1.32	4.31
5500	-1.32	4.23
5510	-1.24	4.26
5520	-1.25	4.23
5530	-1.25	4.2
5540	-1.27	4.2
5550	-1.35	4.13
5560	-1.42	3.98
5570	-1.52	3.86
5580	-1.62	3.74



PRODUCT ASSURANCE ENGINEERING

5590	-1.72	3.73
5600	-1.69	3.8
5610	-1.88	3.67
5620	-1.88	3.71
5630	-1.72	3.95
5640	-1.8	3.93
5650	-1.66	4.12
5660	-1.37	4.47
5670	-1.43	4.48
5680	-1.29	4.66
5690	-1.14	4.87
5700	-1.07	4.95
5710	-1.03	5.06
5720	-0.96	5.17
5730	-1.02	5.15
5740	-1	5.19
5750	-0.93	5.32
5760	-1.09	5.14
5770	-0.96	5.26
5780	-0.83	5.36
5790	-1.05	5.11
5800	-0.92	5.23
5810	-0.86	5.27
5820	-1.07	5.08
5830	-1.01	5.14
5840	-1.09	5.07
5850	-1.26	4.88

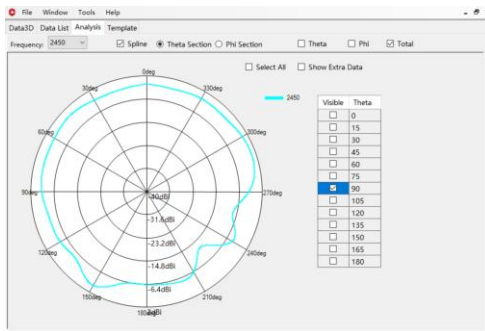
Maximum Antenna Gain = 5.36 dBi



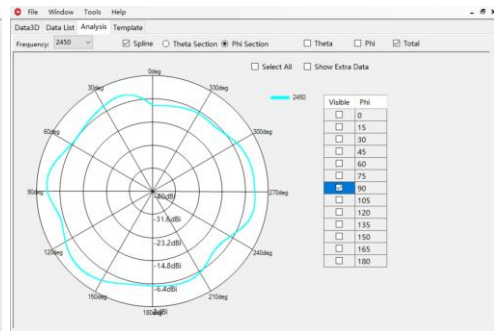


PRODUCT ASSURANCE ENGINEERING

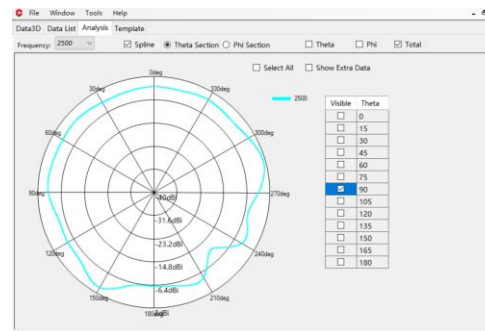
2400MHZ 2D-Theta 90°



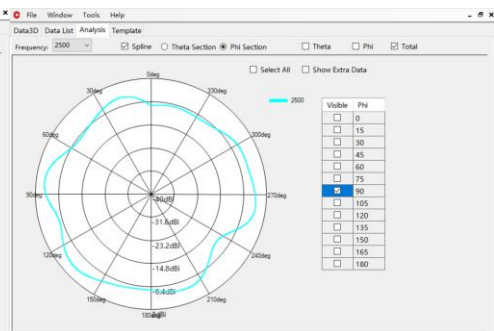
2400MHZ 2D-Phi 90°



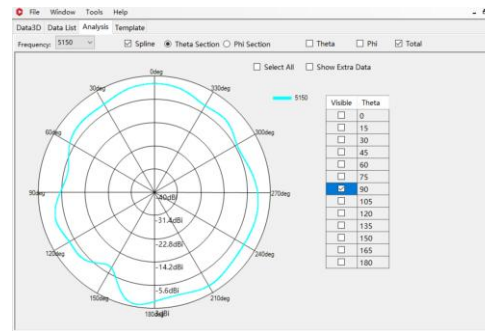
2450MHZ 2D-Theta 90°



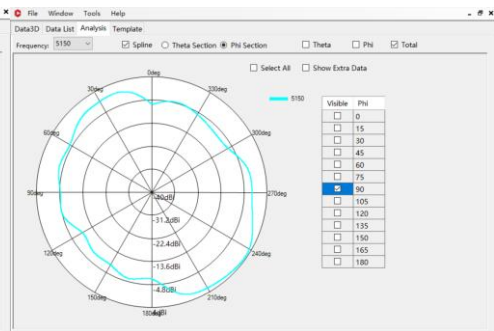
2450MHZ 2D-Phi 90°



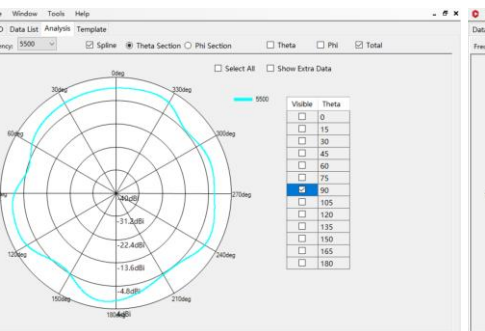
2500MHZ 2D-Theta 90°



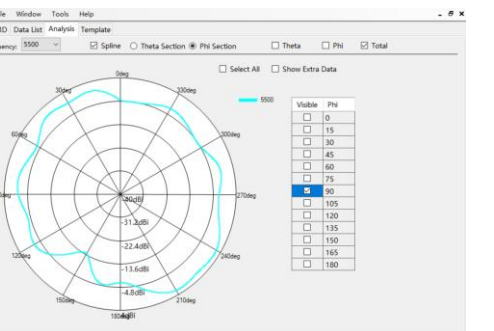
2500MHZ 2D-Phi 90°



5150MHZ 2D-Theta 90°



5150MHZ 2D-Phi 90°

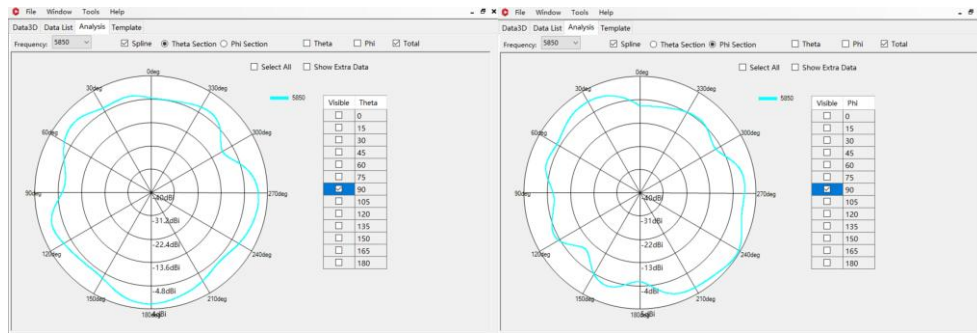


5500MHZ 2D-Theta 90°



5500MHZ 2D-Phi 90°

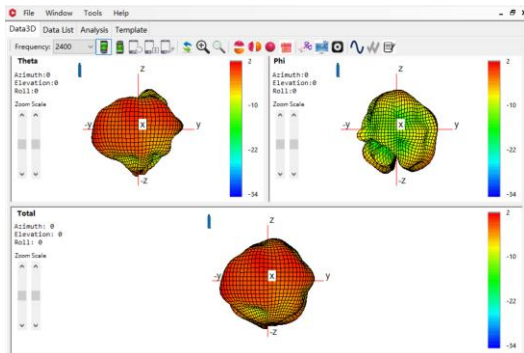




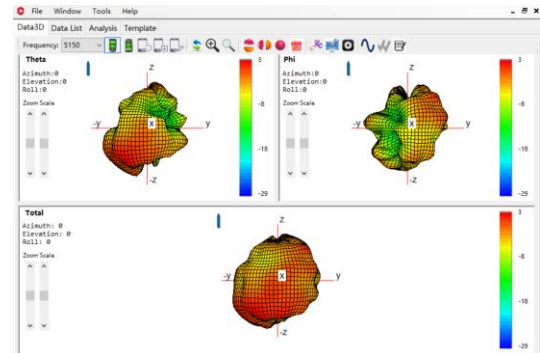
5850MHZ 2D-Theta 90°

5850MHZ 2D-Phi 90°

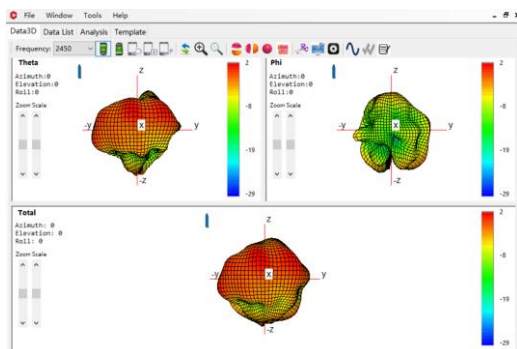
3D



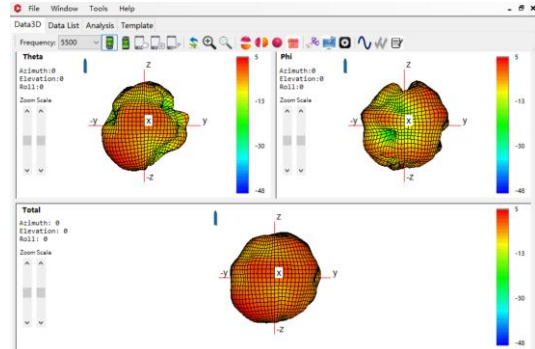
2400MHZ 3D



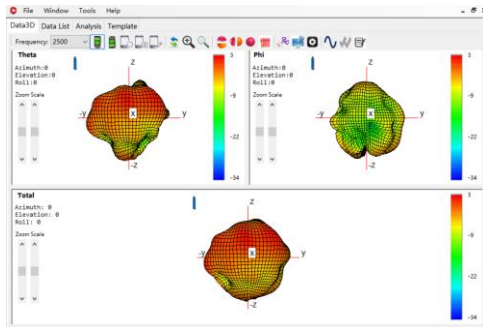
5150MHZ 3D



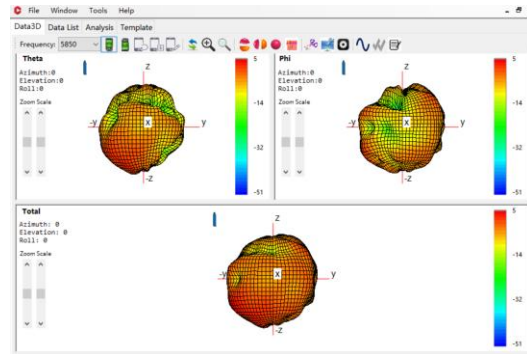
2450MHZ 3D



5500MHZ 3D



2500MHZ 3D



5850MHZ 3D

Customer	Sonos
Manufacturer	Luxshare-ict
Address	399 Baisheng Road, Kunshan City, Suzhou City, Jiangsu Province
Antenna model	LDS + 支架 (LDS+ bracket)
Antenna type	单极性天线+寄生天线 (Monopole Antenna+parasitic Antenna)
Test Engineer	Zekui Fu
Test Site	Luxshare BU17

WiFi2-2.4G

Antenna passive		
Frequency (MHz)	Efficiency(dB)	Gain (dBi)
2400	-1.53	3.09
2410	-1.65	3.2
2420	-1.65	3.21
2430	-1.73	2.95
2440	-1.79	2.64
2450	-1.76	2.81
2460	-1.73	3.15
2470	-1.78	3.15
2480	-1.71	2.69

Maximum Antenna Gain = 3.21 dBi

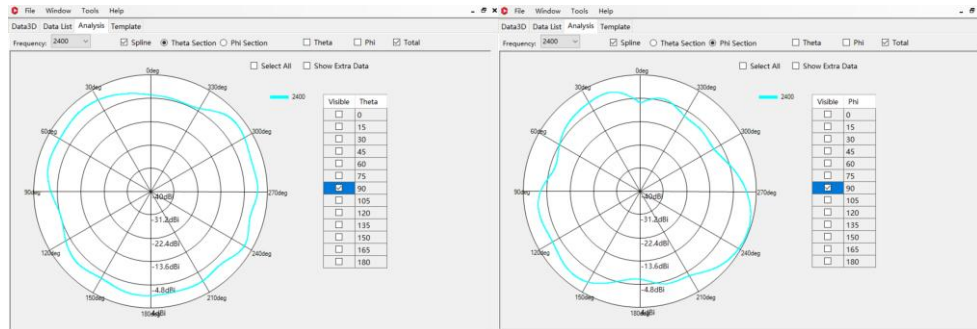
WiFi2-5G

Antenna passive		
Frequency (MHz)	Efficiency(dB)	Gain (dBi)
5150	-1.38	3.29
5160	-1.33	3.38
5170	-1.28	3.5
5180	-1.12	3.74
5190	-0.99	3.9
5200	-0.95	3.95
5210	-0.78	4.15
5220	-0.8	4.14
5230	-0.75	4.16
5240	-0.79	4.07
5250	-0.85	3.97
5260	-0.88	3.94
5270	-0.94	3.8
5280	-1.05	3.64
5290	-1.15	3.51
5300	-1.21	3.51
5310	-1.25	3.53
5320	-1.46	3.38
5330	-1.38	3.53
5340	-1.44	3.55
5350	-1.67	3.4
5360	-1.63	3.52
5370	-1.55	3.63
5380	-1.73	3.46
5390	-1.73	3.42
5400	-1.7	3.44
5410	-1.74	3.42
5420	-1.7	3.52
5430	-1.64	3.61
5440	-1.6	3.7
5450	-1.47	3.88
5460	-1.49	3.91

5470	-1.42	4
5480	-1.16	4.29
5490	-1.18	4.28
5500	-1.17	4.27
5510	-1.07	4.4
5520	-1.12	4.4
5530	-1.16	4.42
5540	-1.14	4.51
5550	-1.23	4.48
5560	-1.34	4.45
5570	-1.49	4.37
5580	-1.72	4.16
5590	-1.84	4.05
5600	-1.83	4.07
5610	-2.12	3.8
5620	-2.15	3.76
5630	-2.1	3.95
5640	-2.27	3.86
5650	-2.18	4.05
5660	-1.97	4.31
5670	-2.05	4.32
5680	-1.95	4.49
5690	-1.9	4.6
5700	-1.85	4.74
5710	-1.82	4.86
5720	-1.75	5.04
5730	-1.73	5.17
5740	-1.71	5.29
5750	-1.64	5.46
5760	-1.77	5.42
5770	-1.68	5.58
5780	-1.49	5.83
5790	-1.62	5.78
5800	-1.48	5.97
5810	-1.4	6.11
5820	-1.63	5.95

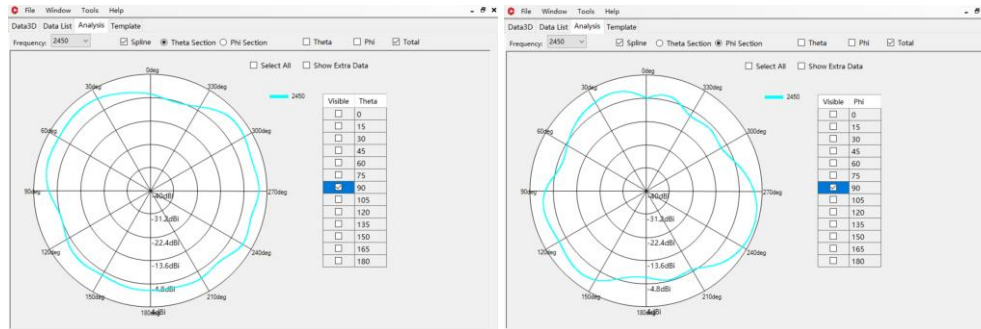
5830	-1.6	6.04
5840	-1.61	6.06
5850	-1.78	5.95

Maximum Antenna Gain = 6.11 dBi



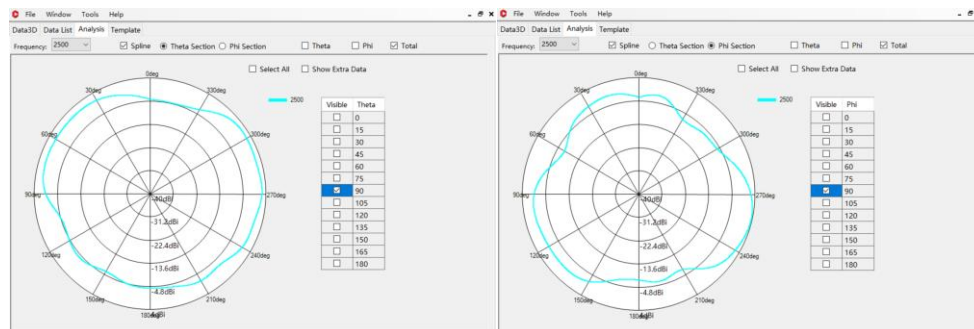
2400MHZ 2D-Theta 90°

2400MHZ 2D-Phi 90°



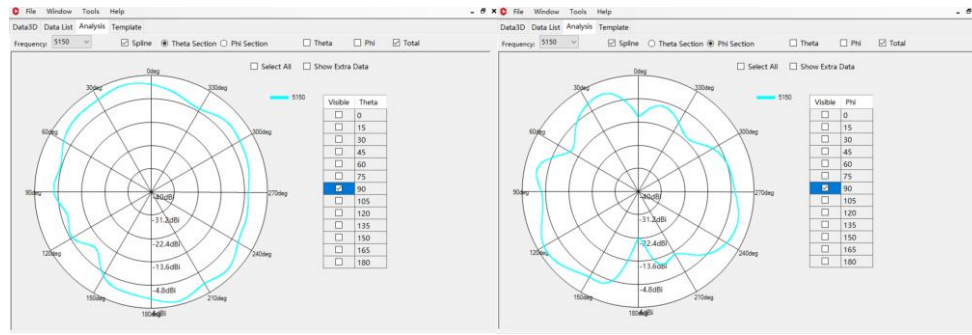
2450MHZ 2D-Theta 90°

2450MHZ 2D-Phi 90°



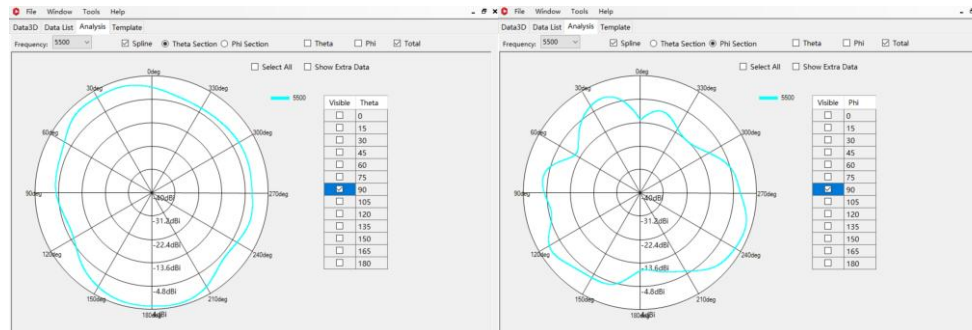
2500MHZ 2D-Theta 90°

2500MHZ 2D-Phi 90°



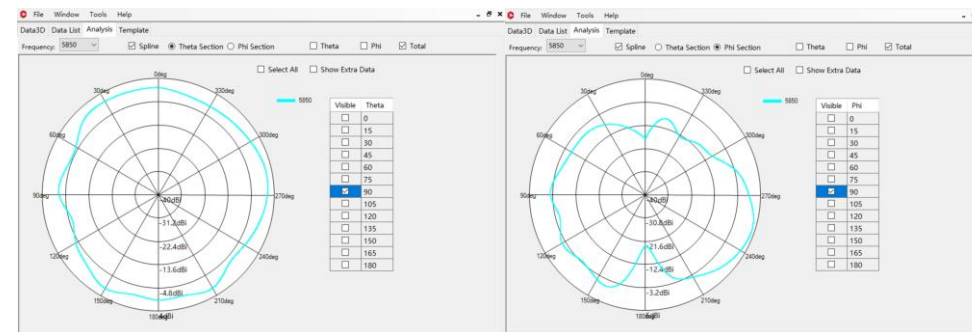
5150MHZ 2D-Theta 90°

5150MHZ 2D-Phi 90°



5500MHZ 2D-Theta 90°

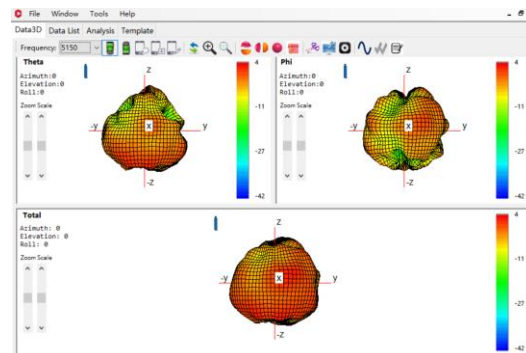
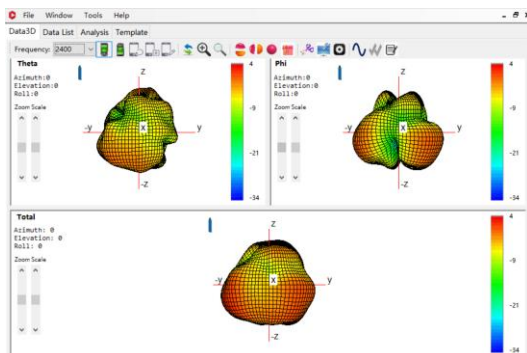
5500MHZ 2D-Phi 90°



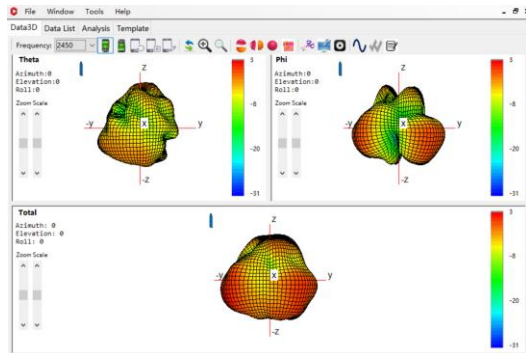
5850MHZ 2D-Theta 90°

5850MHZ 2D-Phi 90°

3D

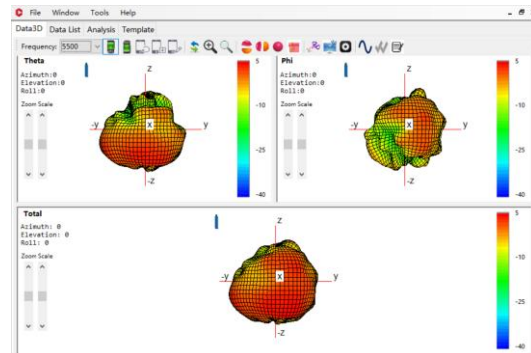


2400MHZ 3D

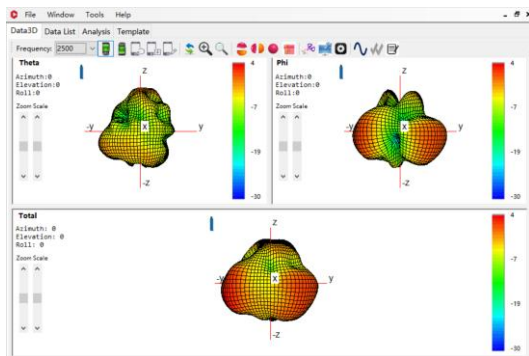


2450MHZ 3D

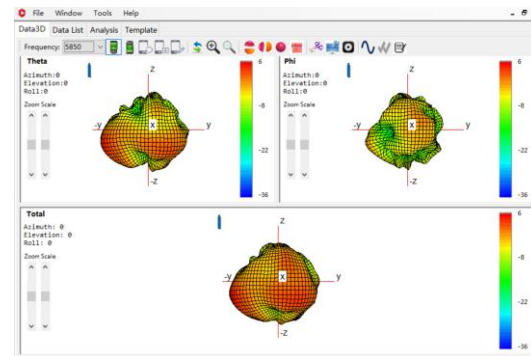
5150MHZ 3D



5500MHZ 3D



2500MHZ 3D



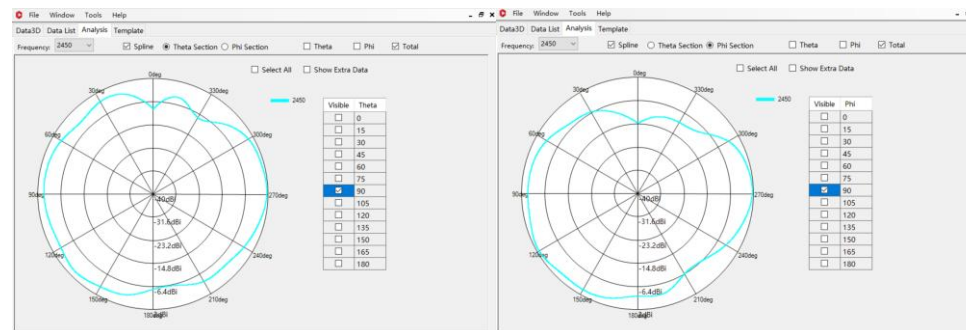
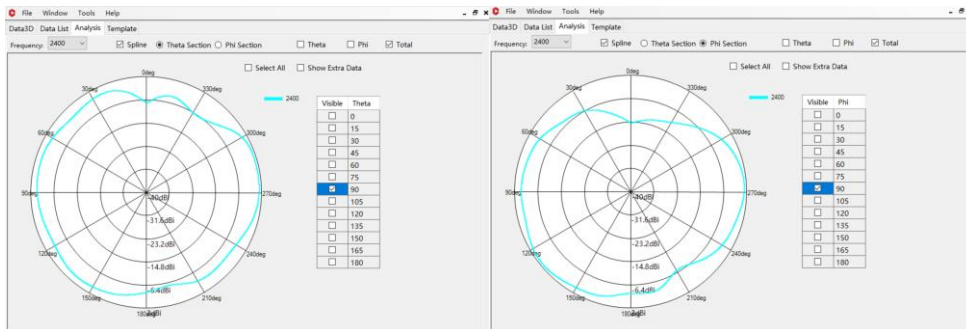
5850MHZ 3D

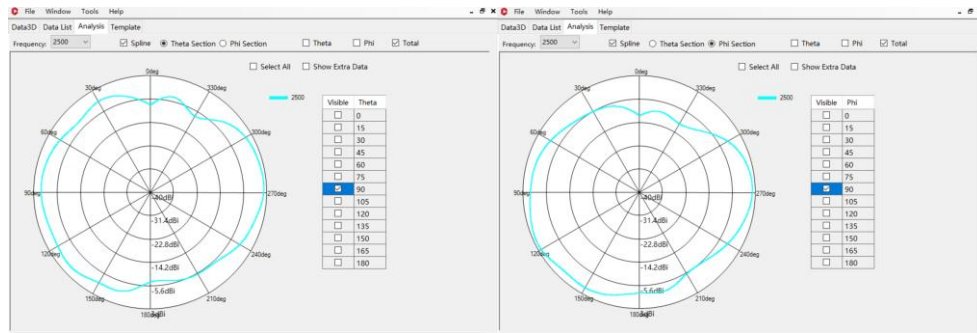
Customer	Sonos
Manufacturer	Luxshare-ict
Address	399 Baisheng Road, Kunshan City, Suzhou City, Jiangsu Province
Antenna model	LDS + 支架 (LDS+ bracket)
Antenna type	单极性天线 (Monopole Antenna)
Test Engineer	Zekui Fu
Test Site	Luxshare BU17

BT

Antenna passive		
Frequency (MHz)	Efficiency(dB)	Gain (dBi)
2400	-2.57	1.42
2410	-2.66	1.45
2420	-2.63	1.67
2430	-2.69	1.75
2440	-2.75	1.78
2450	-2.73	1.88
2460	-2.72	1.91
2470	-2.74	1.78
2480	-2.65	1.9

Maximum Antenna Gain = 1.91dBi

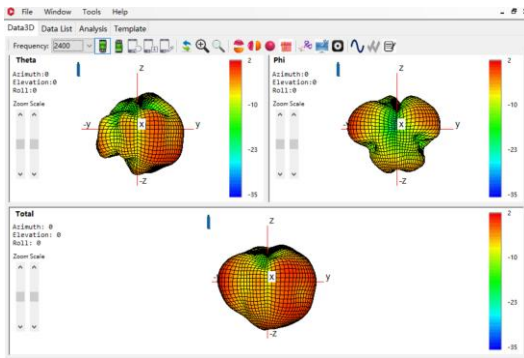




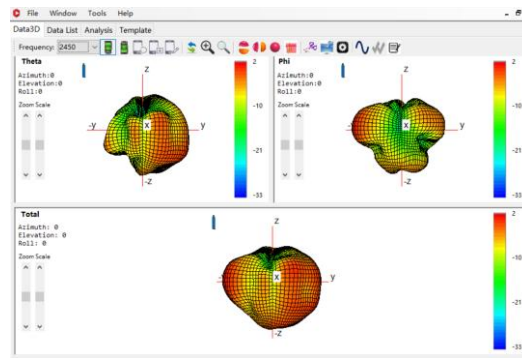
2500MHZ 2D-Theta 90°

2500MHZ 2D-Phi 90°

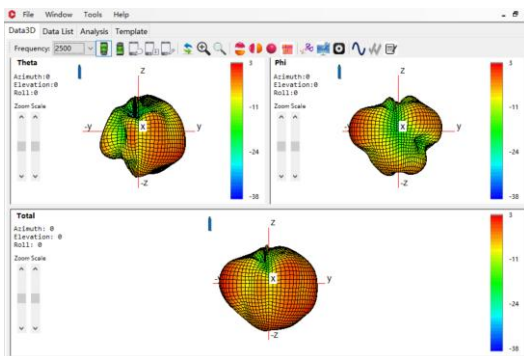
3D



2400MHZ 3D



2450MHZ 3D



2500MHZ 3D