

Shenzhen Ruixiang Communication Technology Co., Ltd.

Antenna Specification

Project Number: P76

Customer Part Number:

Product Name: FL18 Antenna

Innowave Project Number: FL18

Innowave Signature:

Issued by	Review	Approval	Date
Huo Zi Jian	Yu Mei Qun	Liu Xue	2025/7/23

Part I、 Antenna Basic Parameter

1.1 Type of Antenna: FPC Antenna

1.2 Model: FL18

1.3 Dimension: Length, Width are 23.89mm and 4.00mm

1.4 Frequency range: 2400MHz ~ 2500MHz

1.5 Gain: Left Ear, -1.31dBi; Right Ear, -1.54dBi

1.6 VSWR: ≤ 2

1.7 Return Loss: $\leq -8\text{dB}$

1.8 Polarization: Linear

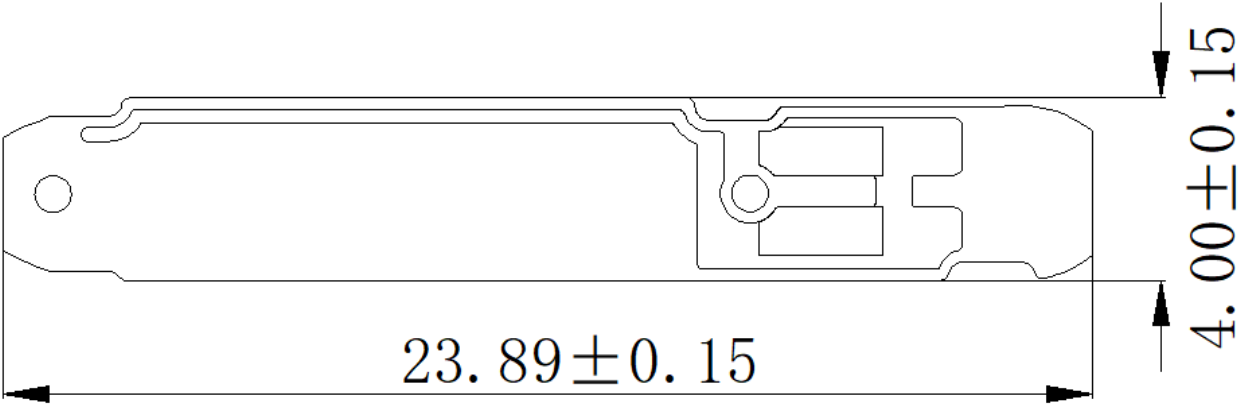
1.9 Radiation: Omni-directional

1.10 Manufacturer: Shenzhen Ruixiang Communication Technology Co., Ltd.

1.11 Address: Room 101, Building 7, Zijing Shuangchuangyuan, Dalang Street,
Longhua District, Shenzhen

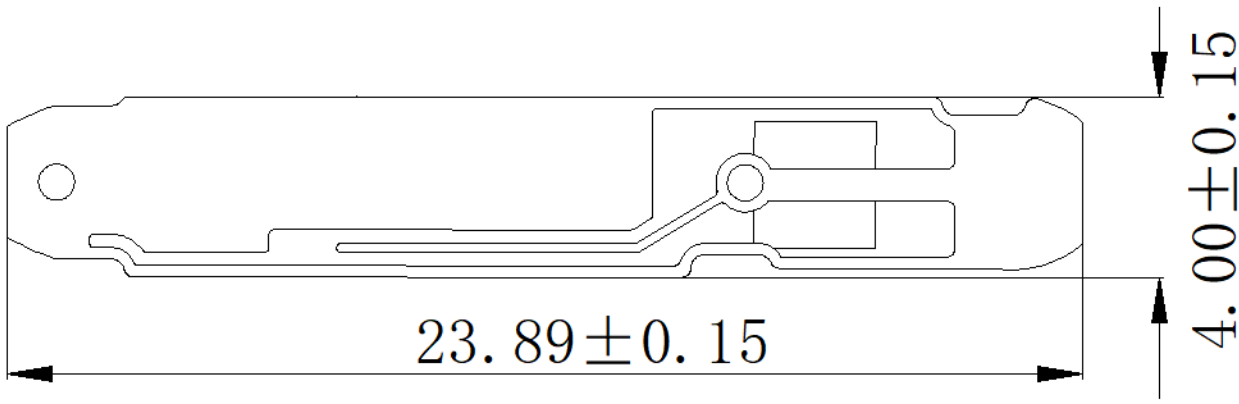
Part II、Antenna Dimension

1.1 Left Ear Antenna Drawings



Left ear antenna drawings, unit: mm

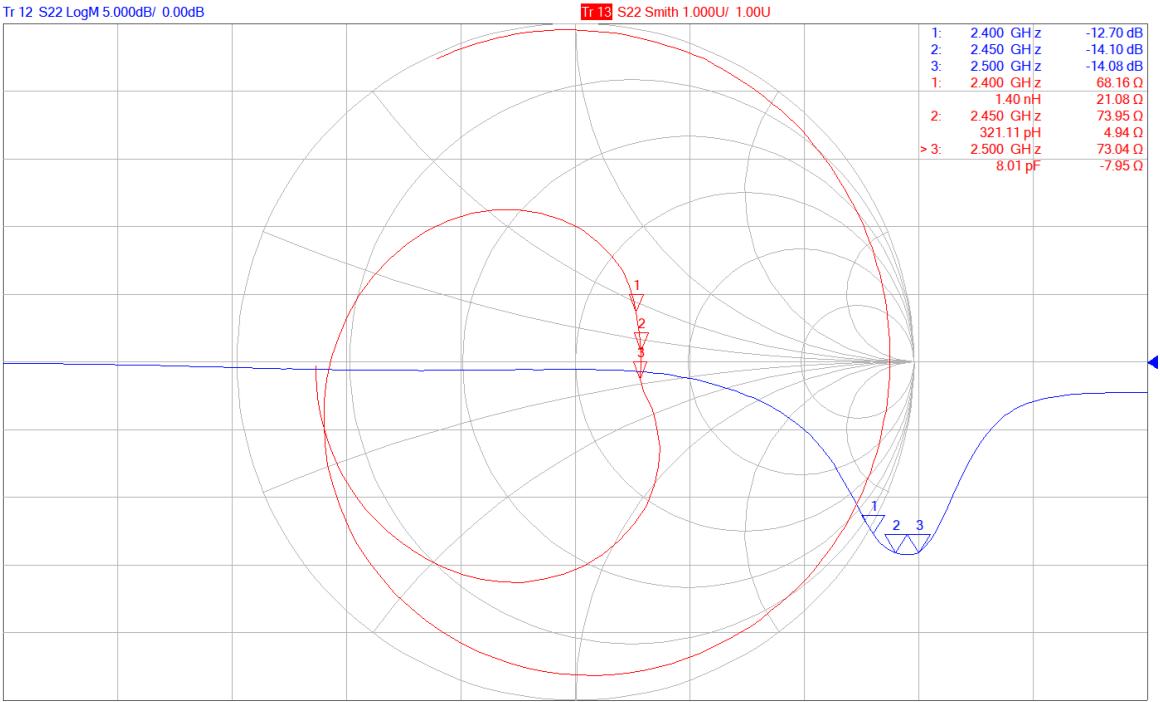
1.2 Right Ear Antenna Drawings



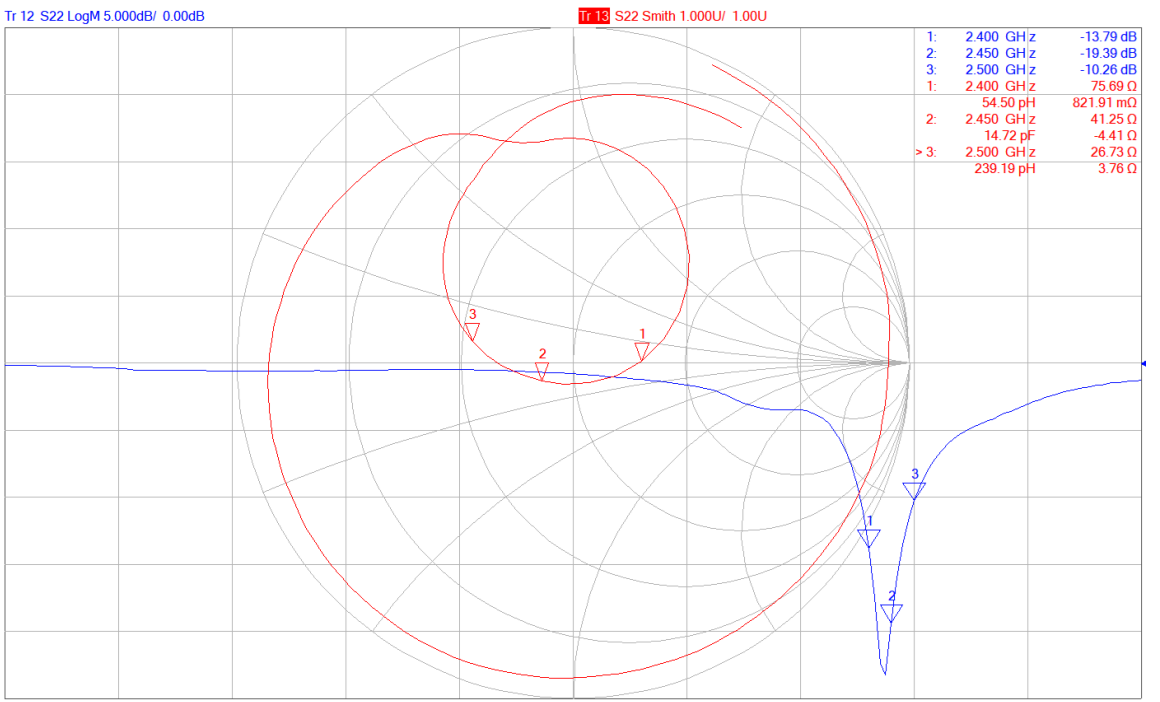
Right ear antenna drawings, unit: mm

Part III、Electricity Performance

3.1 Return Loss



Left ear



Right ear

3.2 Antenna Efficiency

Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-1.68	-4.55	35.08
2410	-1.53	-4.46	35.81
2420	-1.45	-4.34	36.81
2430	-1.31	-4.26	37.50
2440	-1.43	-4.24	37.67
2450	-1.52	-4.33	36.90
2460	-1.69	-4.48	35.65
2470	-1.84	-4.63	34.43
2480	-2.05	-4.85	32.73
2490	-2.09	-4.96	31.92
2500	-2.02	-4.88	32.51
AVG	-1.69	-4.54	35.18

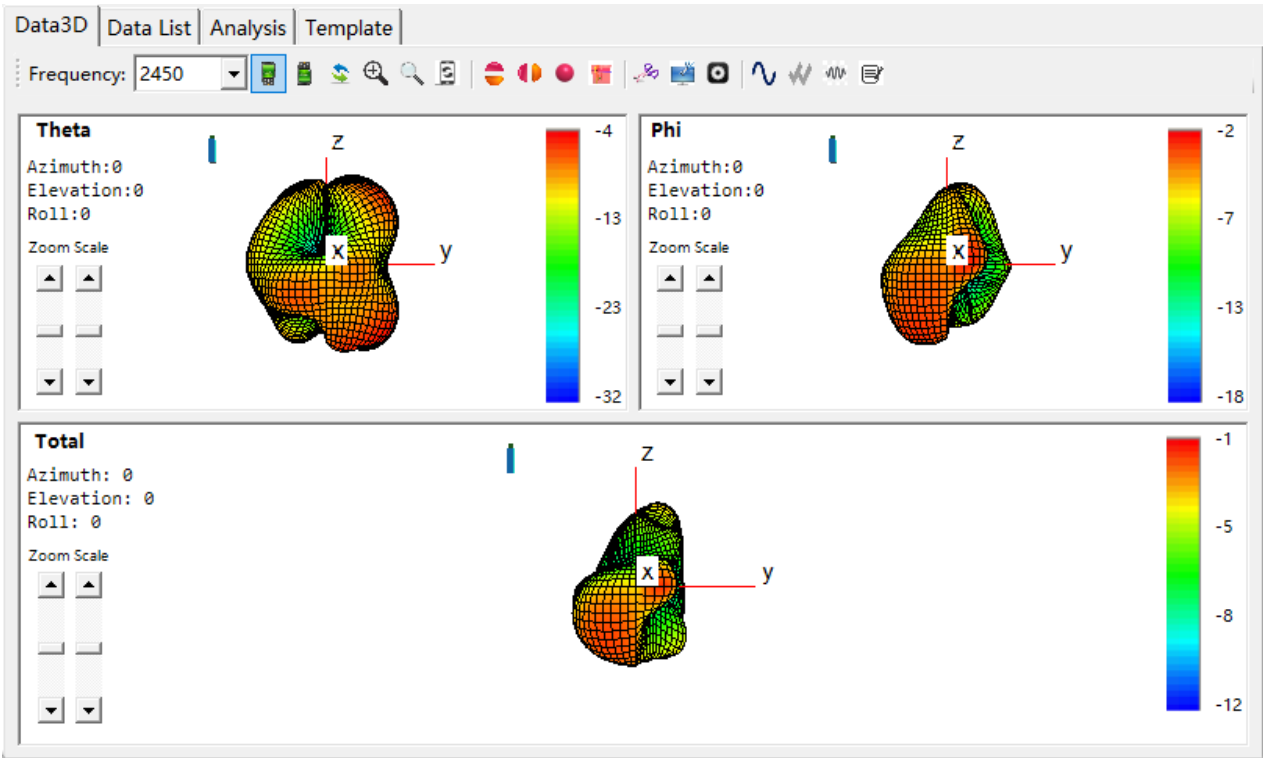
Left Ear Antenna Efficiency

Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-2.29	-5.51	28.12
2410	-1.95	-5.37	29.04
2420	-1.73	-5.11	30.83
2430	-1.61	-4.96	31.92
2440	-1.54	-4.80	33.11
2450	-1.60	-4.73	33.65
2460	-1.73	-4.65	34.28
2470	-2.03	-4.76	33.42
2480	-2.20	-4.85	32.73
2490	-2.10	-4.80	33.11
2500	-2.18	-4.67	34.12
AVG	-1.91	-4.93	32.21

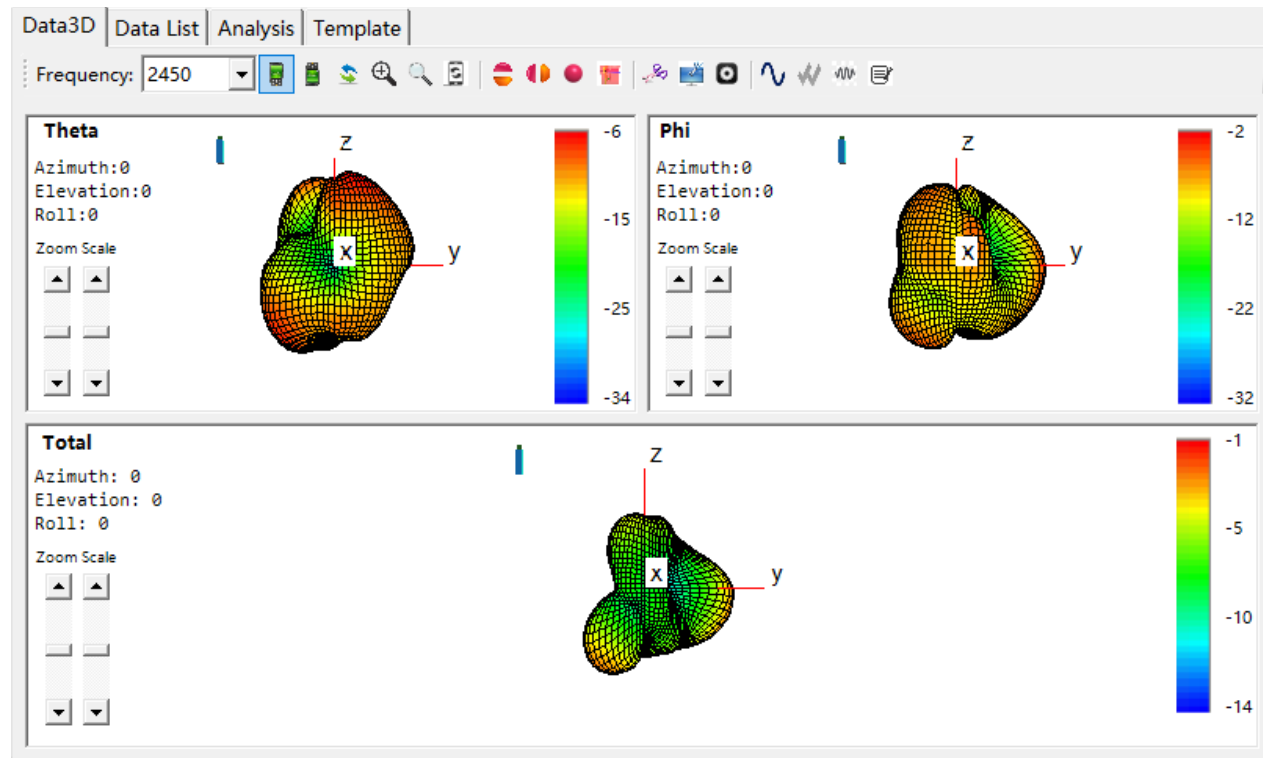
Right Ear Antenna Efficiency

3.3 Radiation Pattern

3.3.1 3D Pattern

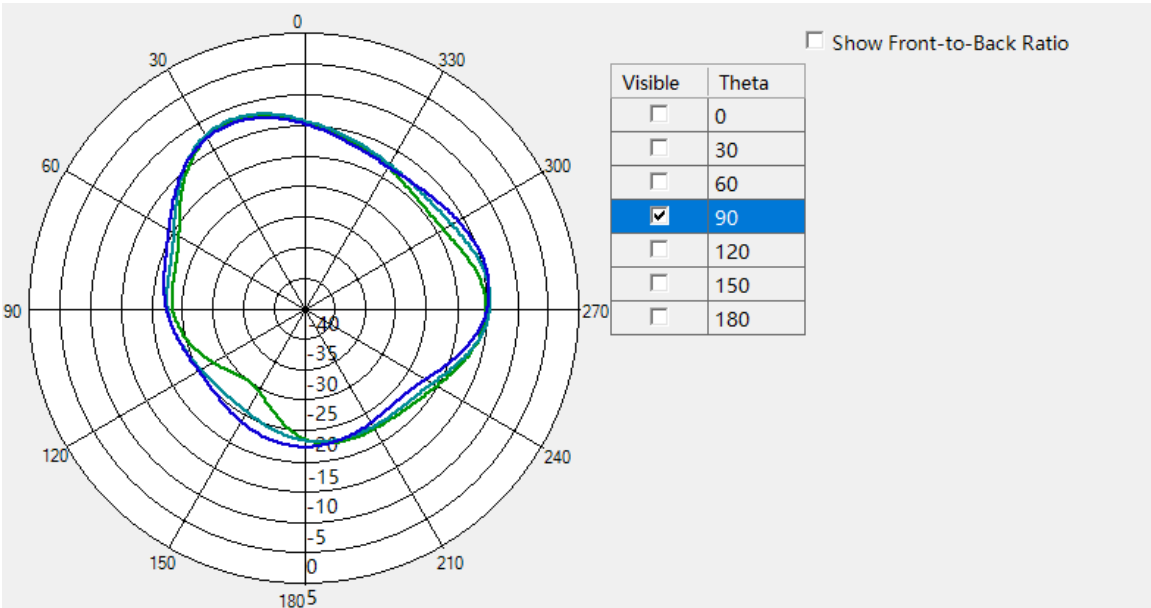


Left Ear 3D Antenna Pattern

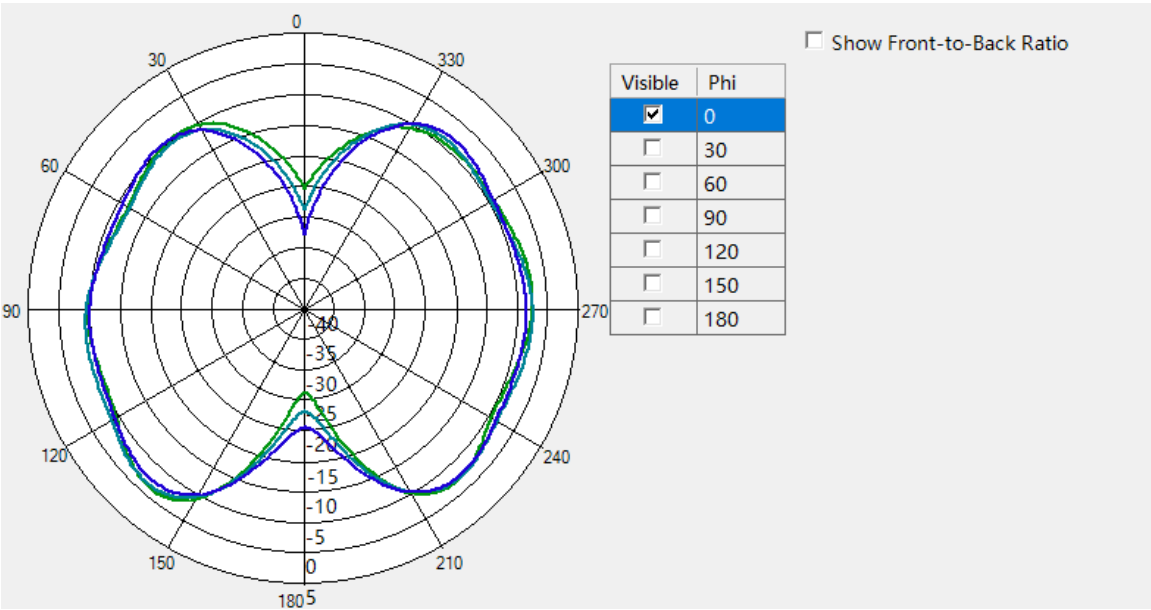


Right Ear 3D Antenna Pattern

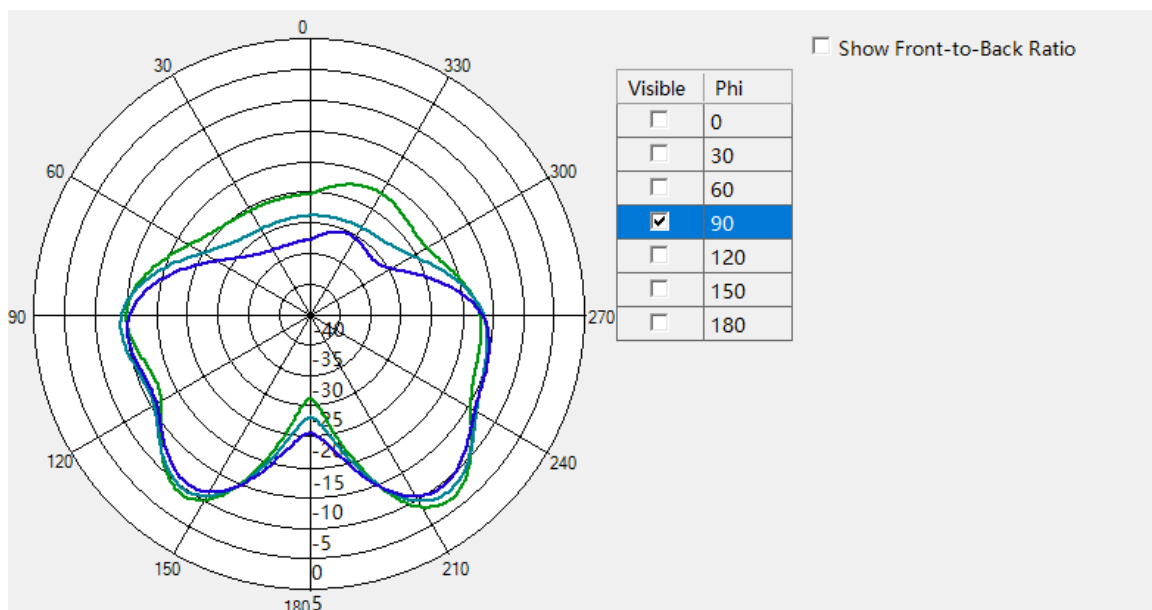
3.3.2 2D Pattern



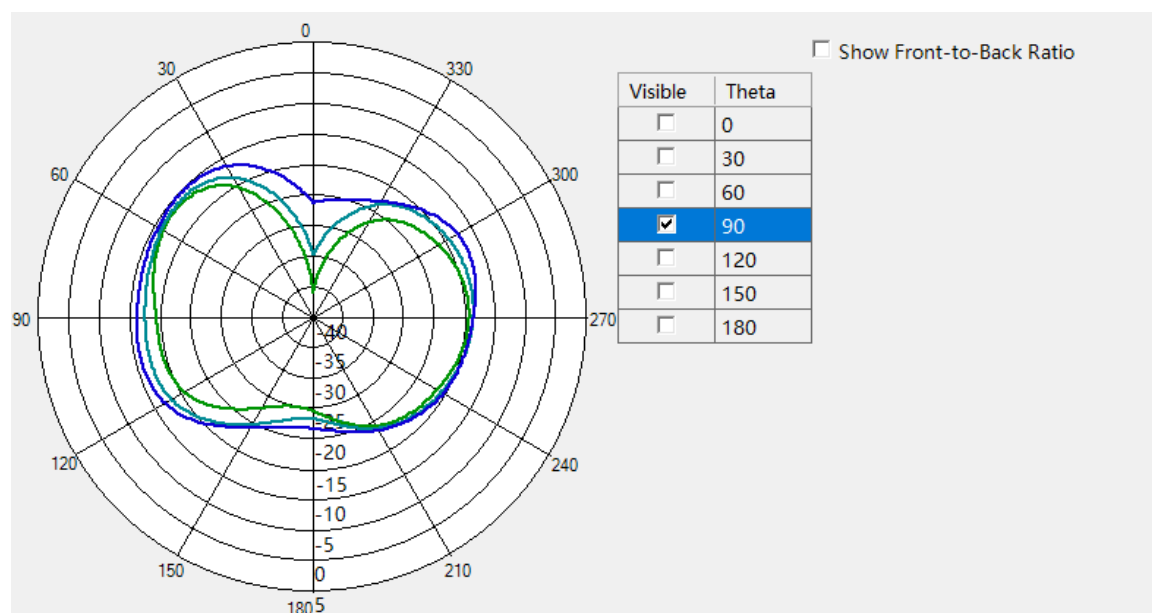
$\Theta = 90^\circ$, Left Ear 2D Antenna Pattern



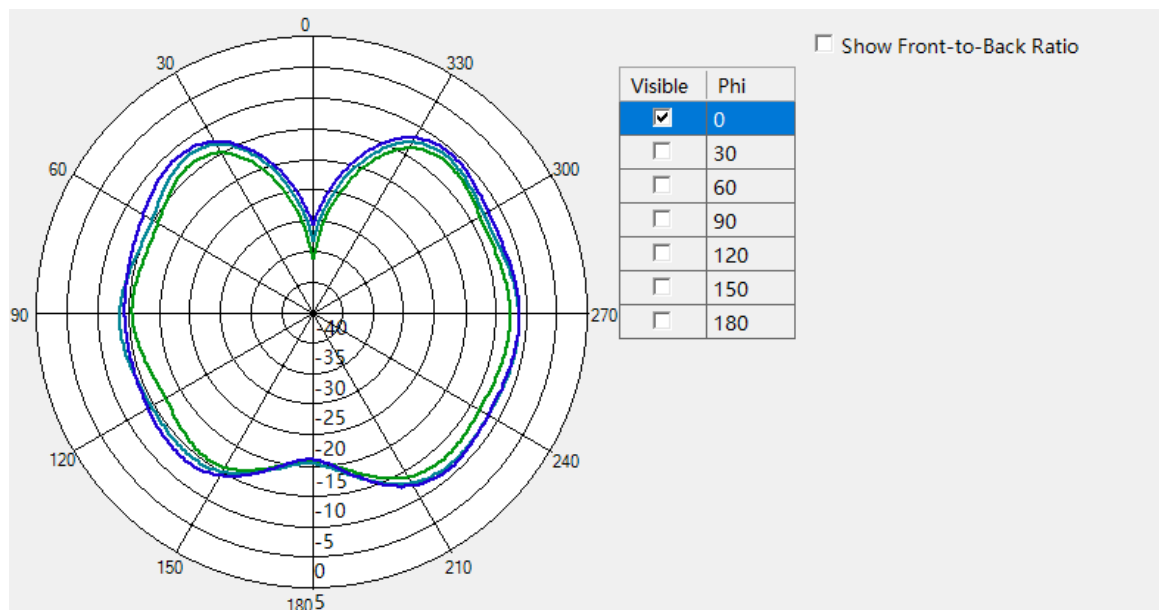
$\Phi = 0^\circ$, Left Ear 2D Antenna Pattern



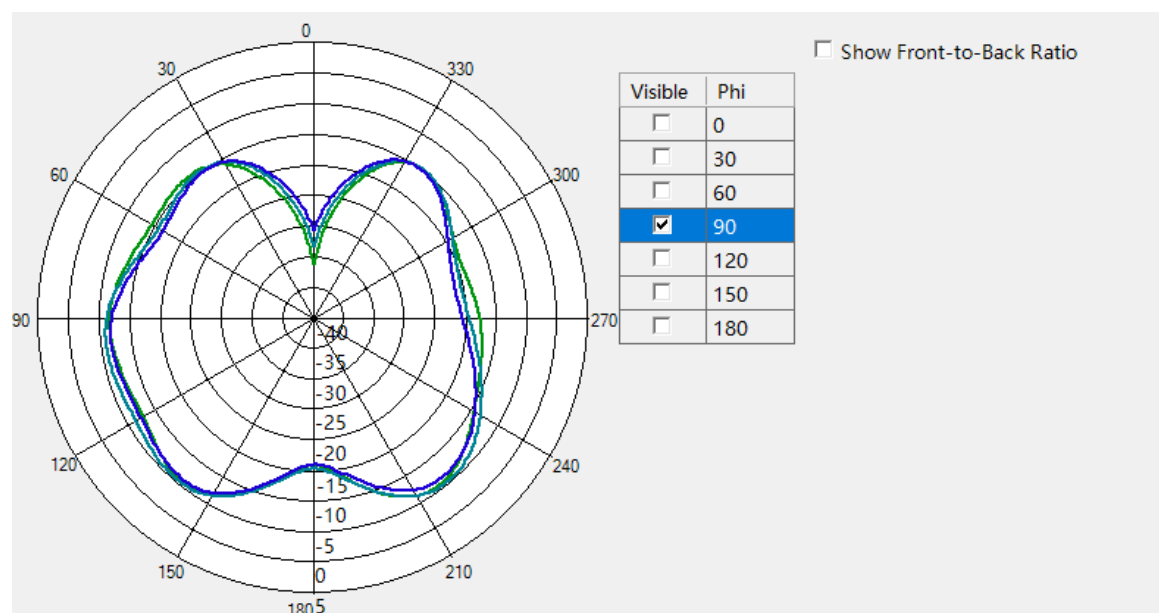
Phi=90°, Left Ear 2D Antenna Pattern



Theta=90°, Right Ear 2D Antenna Pattern



$\Phi = 0^\circ$, Right Ear 2D Antenna Pattern



$\Phi = 90^\circ$, Right Ear 2D Antenna Pattern

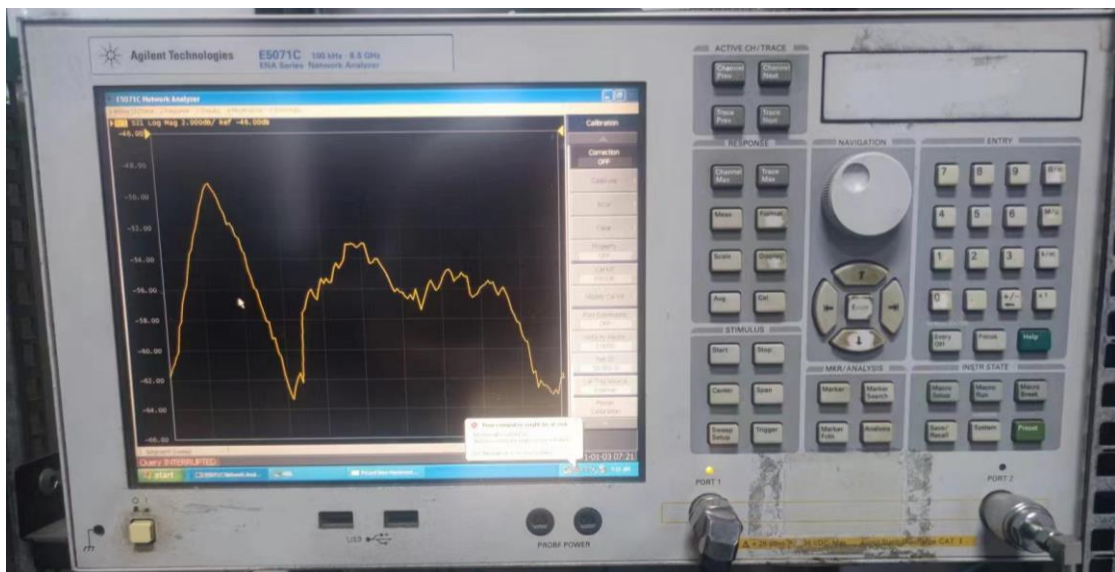
Part IV、Test Equipment

4.1 Compact OTA Test System

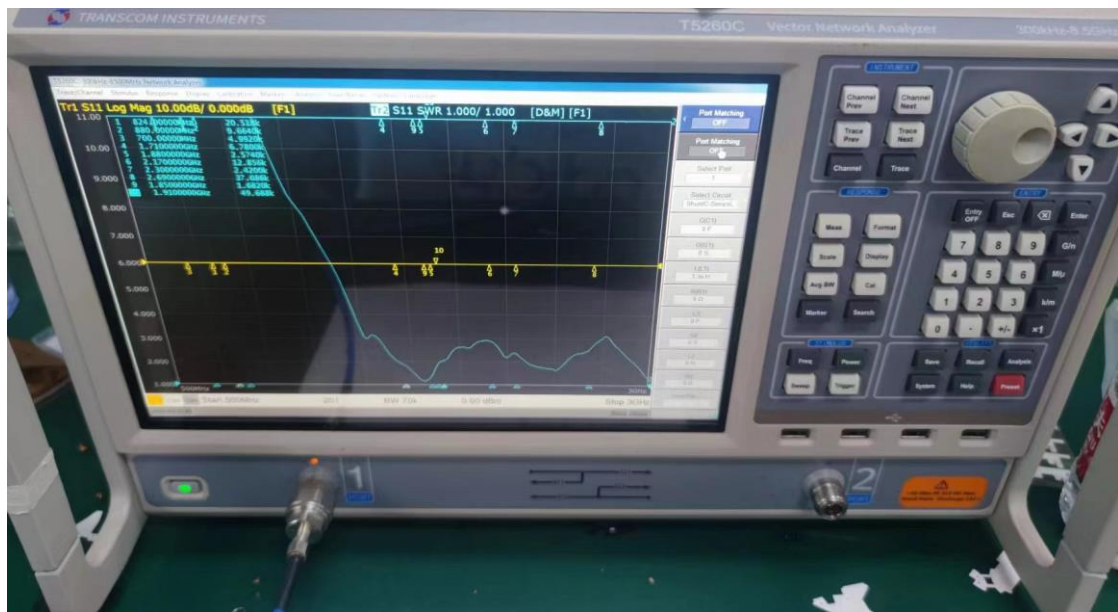


Model: RayZone 1800
Calibration Date: 2025/05/13

4.2 Test Equipment



Model: Agilent Technologies E5071C
Calibration Date: 2025/05/13



Model: TRANSCOM INSTRUMENTS T5260C
Calibration Date: 2025/5/13

4.3 Testing Software



Testing Software Name: Libra