
Antenna specifications

Electrical Characteristics Description

Model:	Leiden BLE antenna		
Transmitter Frequency:	2400MHz-2483.5MHz		
Receiver Frequency:	2400MHz-2483.5MHz		
Antenna information:	Antenna Name	Model(s)/Type(s)	
	RF Antenna Assembly	Model/Part Number:	Leiden BLE
		Manufacturer:	Anhui Huami Information Technology Co., Ltd.
		Frequency Range:	2400MHz-2483.5MHz
		Connector Type/ Maximum Gain	-0.04dBi
		Antenna Type/ Pattern:	metal antenna
		Antenna Size	Circle: C=269.16mm
		Measurement:	See below

Dimensions

Dimensions See Fig.1 .

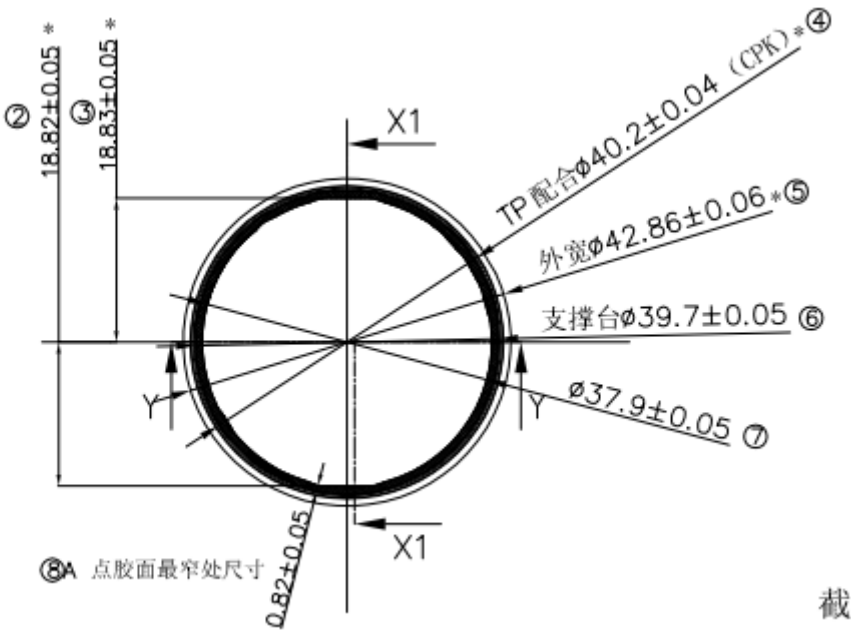


Fig. 1 Antenna Dimensions (示例)

Electrical Performance

S11 parameter test result as Fig.2.

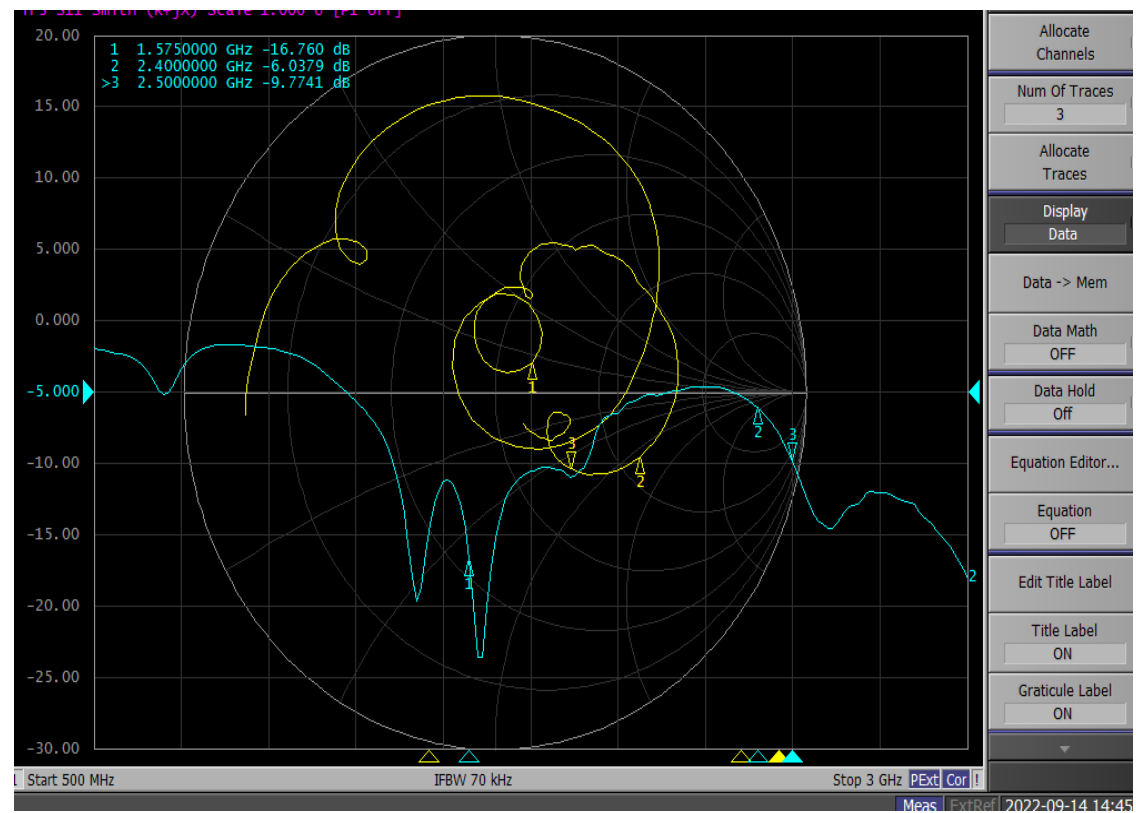


Fig. 2 S11 Parameter test result

Table 1 shows the emission efficiency and the maximum gain of the antenna at different frequencies changes. The antenna radiation pattern diagram show in Fig.3.

Frequency(MHz)	Efficiency	Max. Gain dBi
2400	10.18	-2.25
2410	10.13	-2.32
2420	11.21	-1.95
2430	11.29	-1.69
2440	12.84	-1.06
2450	13.14	-1.18
2460	13.91	-0.84
2470	17.04	-0.04
2480	15.89	-0.54
2490	16.64	-0.2
2500	17.50	0.14

Table 1Max. Gain and Efficiency Vs. Frequency(Free space)

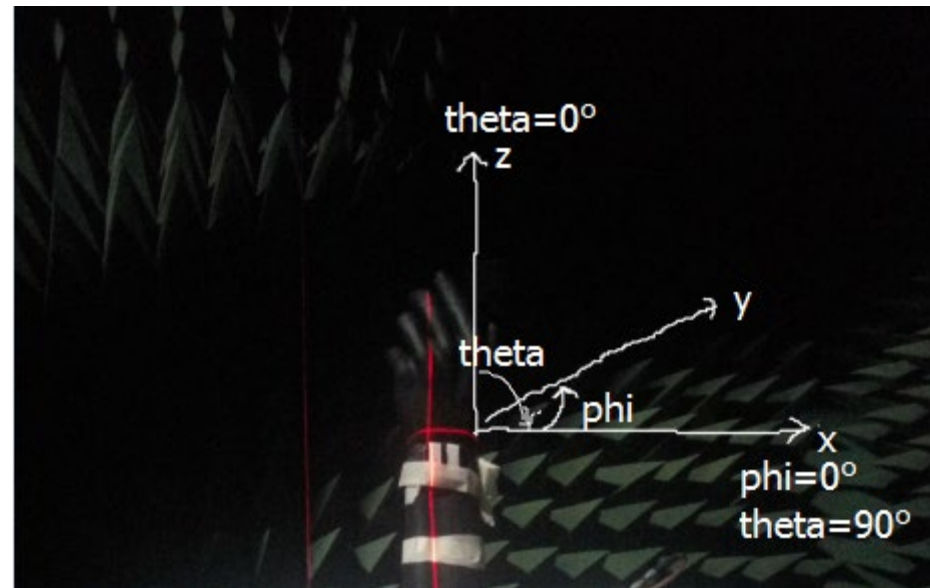
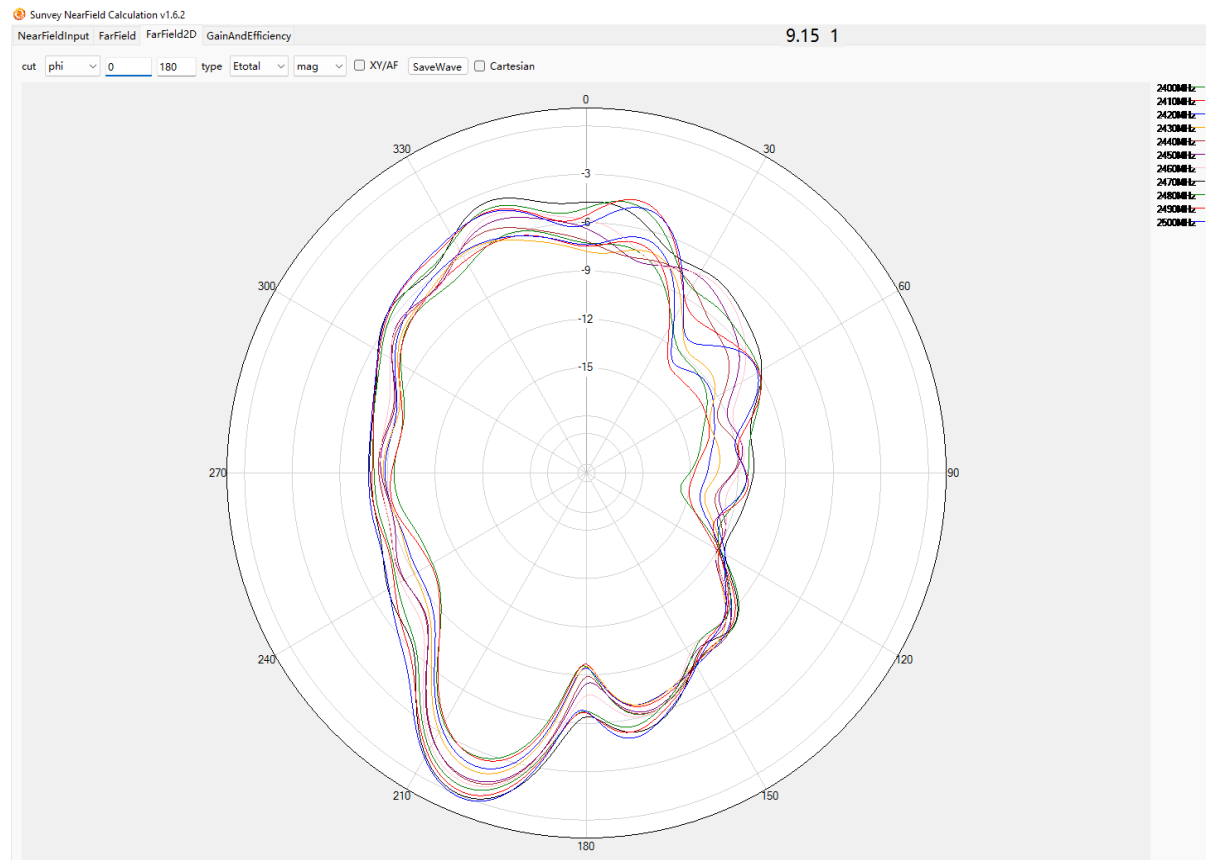
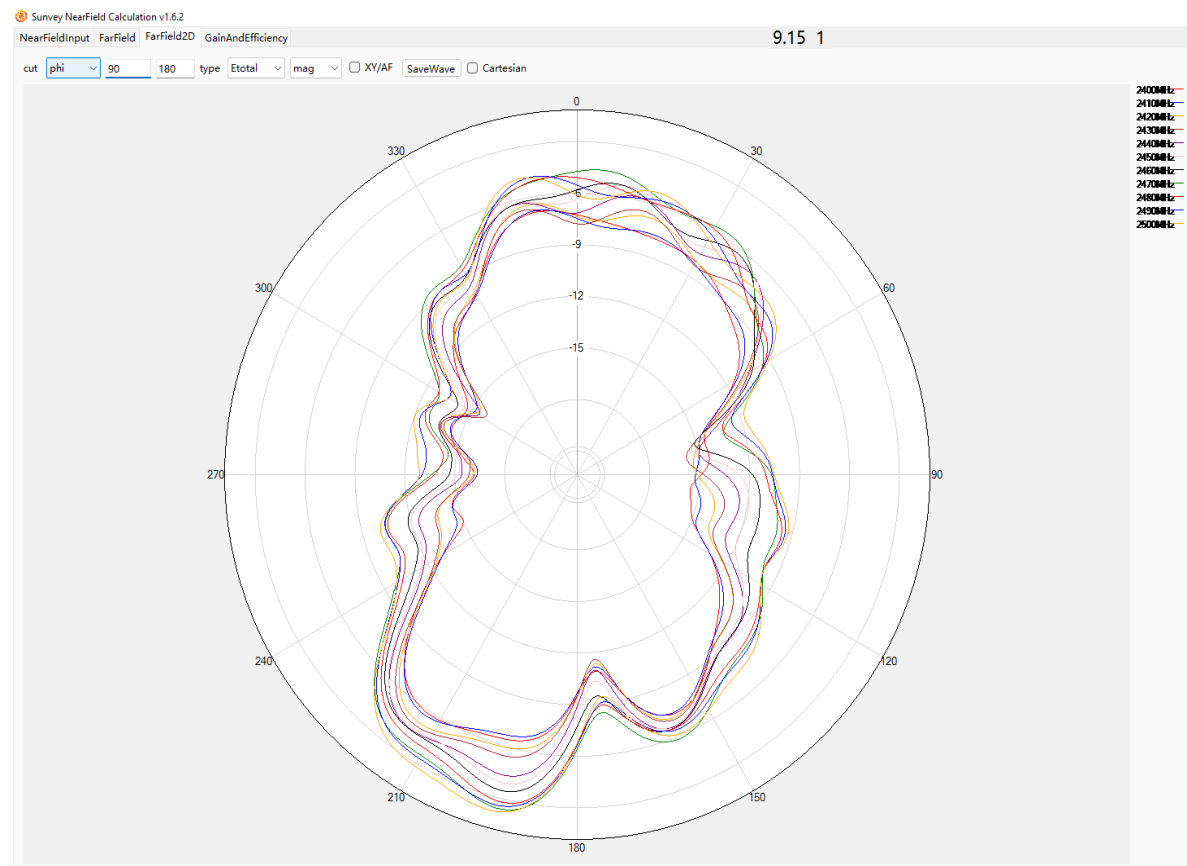


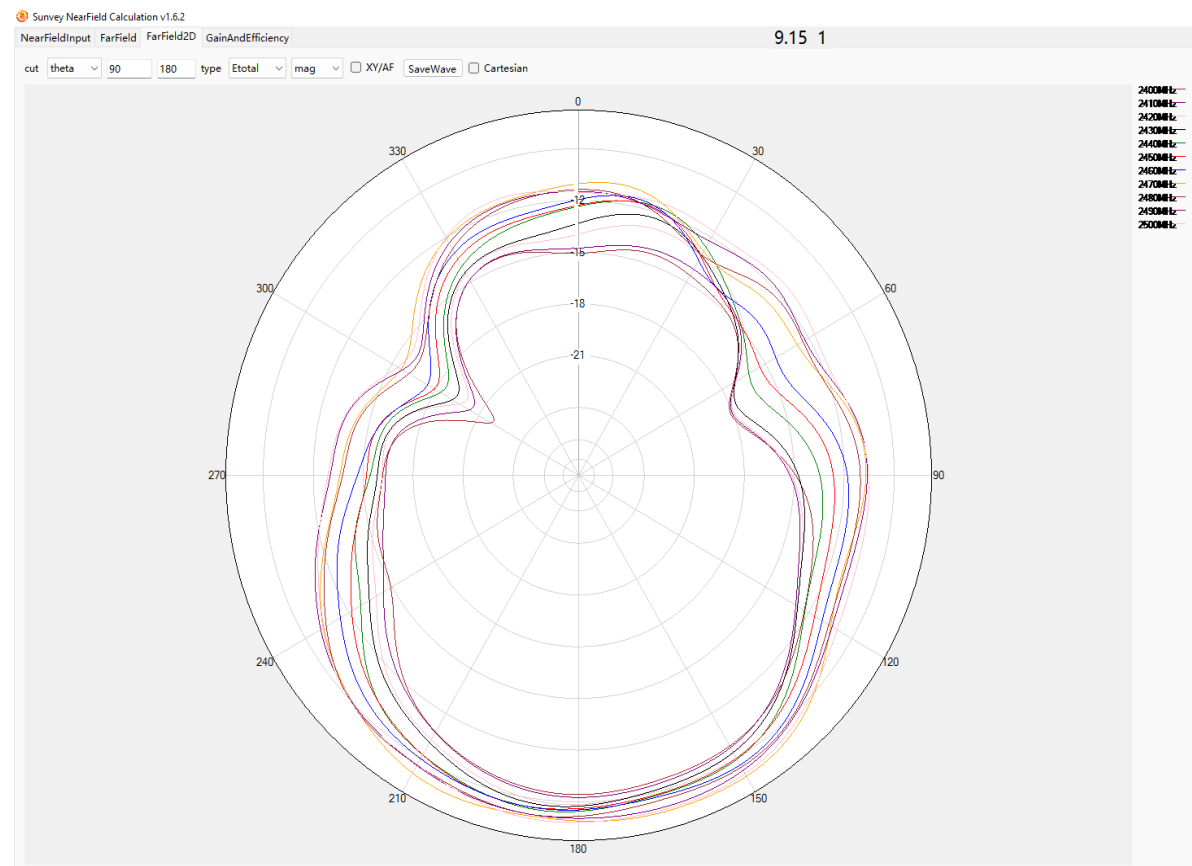
Fig. 3 Operating diagram



Phi=0.00deg



Phi=90.00deg



Theta=90.00deg

Fig. 4 antenna radiation pattern diagram

Phi = 0deg

Frequency(MHz)	Max Gain (dB)	Degree
2400	-2.64	26.88
2410	-2.55	26.63
2420	-2.05	26.23
2430	-1.72	26.04
2440	-1.06	26.01
2450	-1.18	26.80
2460	-0.84	26.56
2470	-0.04	26.21
2480	-0.58	26.19
2490	-0.26	25.95
2500	-0.11	25.71

Phi = 90deg

Frequency(MHz)	Max Gain (dB)	Degree
2400	-5.82	46.46
2410	-5.65	44.56
2420	-5.08	43.58
2430	-4.84	43.40
2440	-4.35	44.56
2450	-3.91	43.77
2460	-3.45	43.91
2470	-2.38	43.91
2480	-2.80	43.59
2490	-2.56	43.71
2500	-2.16	42.22

Theta = 90deg

Frequency(MHz)	Max Gain (dB)	Degree
2400	-9.42	105.01
2410	-9.26	99.83
2420	-8.83	99.00
2430	-8.69	99.55
2440	-8.38	103.91
2450	-8.49	113.56
2460	-8.48	128.09
2470	-7.76	127.19
2480	-8.06	156.85
2490	-8.02	171.25
2500	-7.79	162.55