



安聯智能 WIFI & BT Antenna

【EKS-LNP5C】 Project

Brand Name : Cirocomm

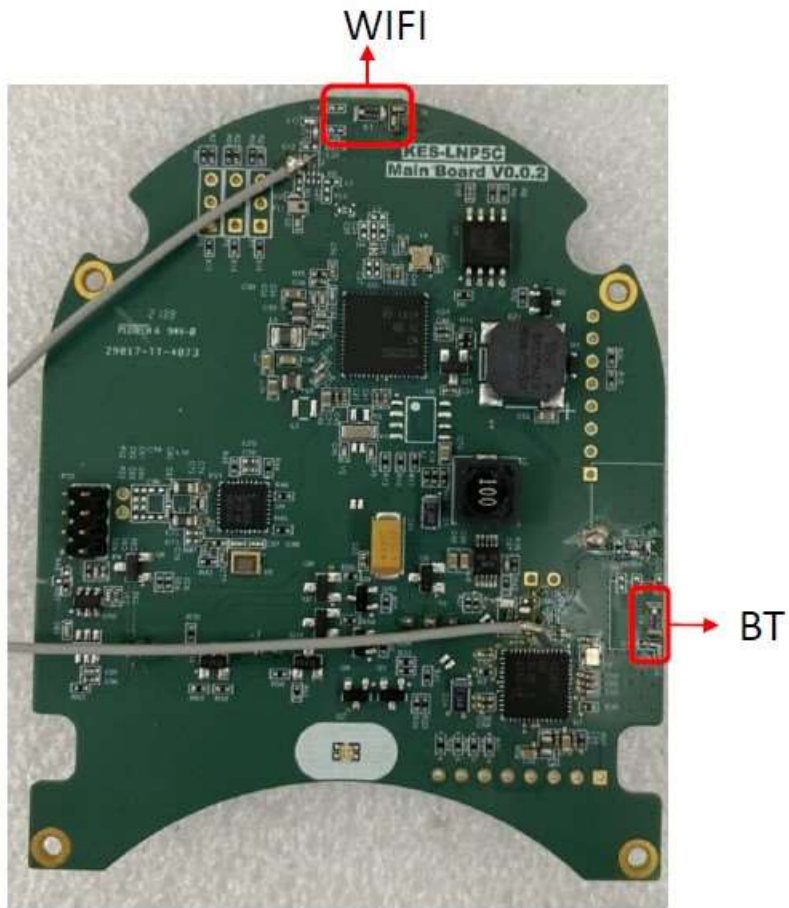
DESCRIPTION : Chip Antenna
(3.05x1.6x0.55 mm)

Model Name : DCAH0S04

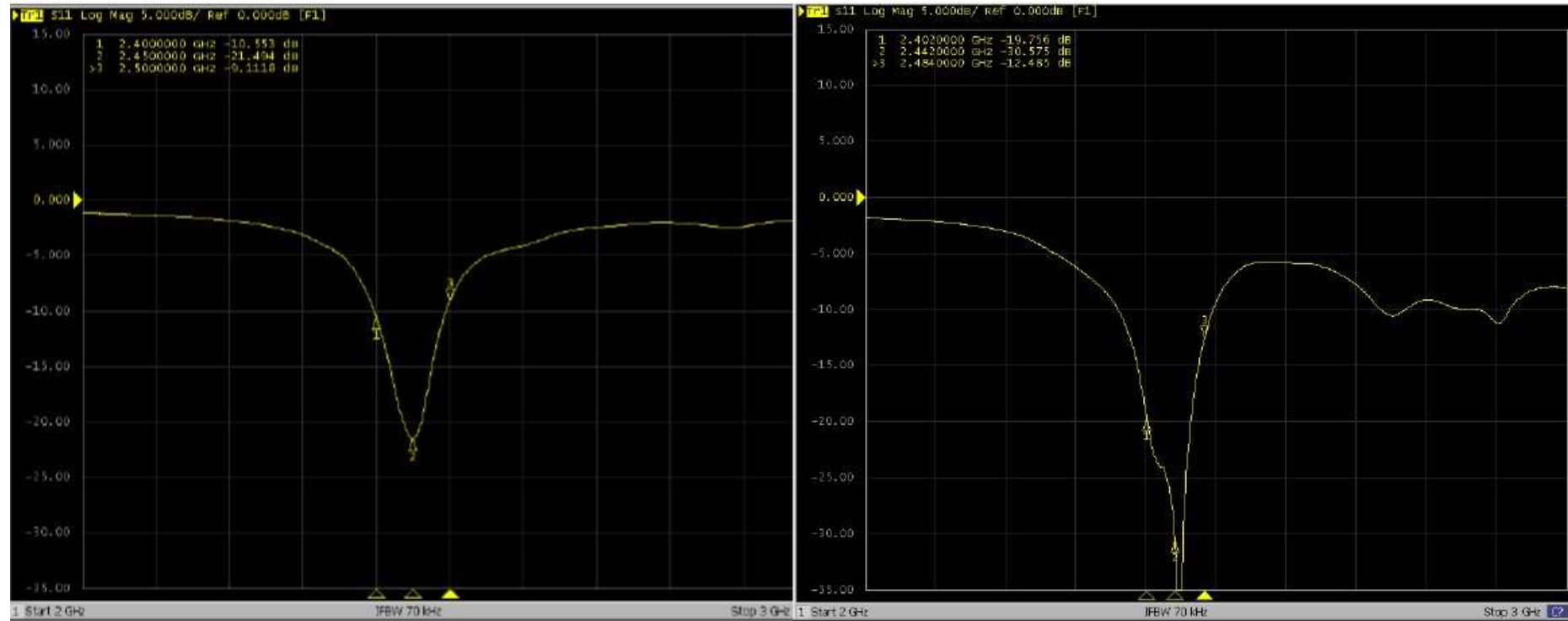
Date 2021/10/22

Author Mark

Environment



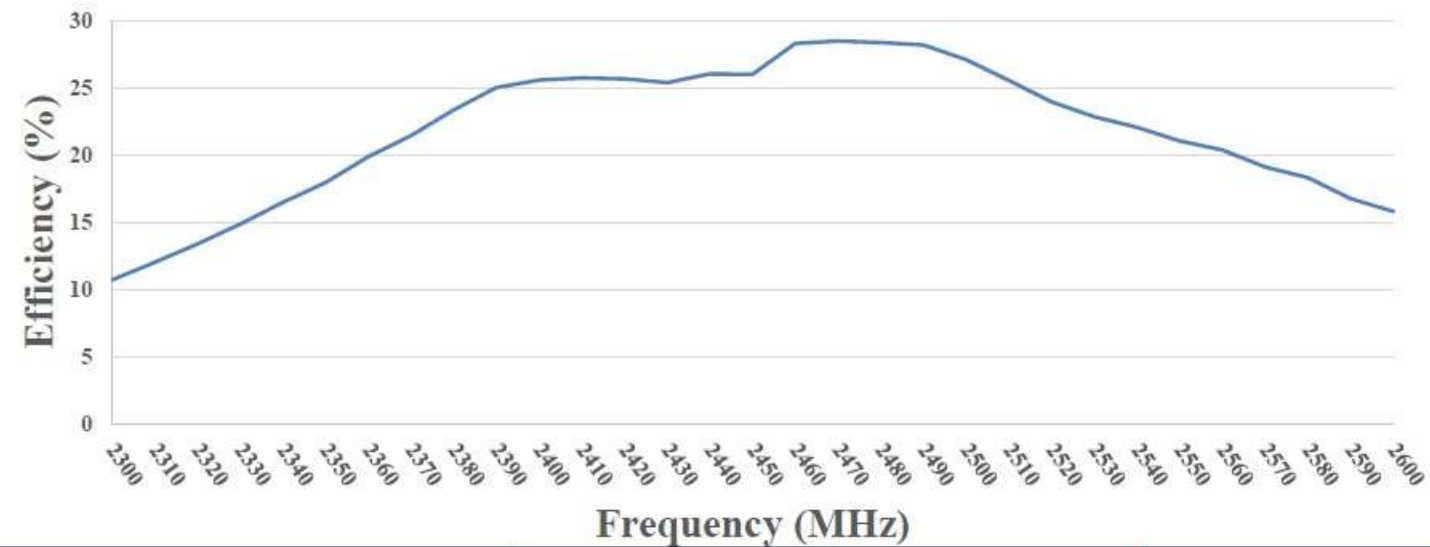
Antenna S11



WIFI

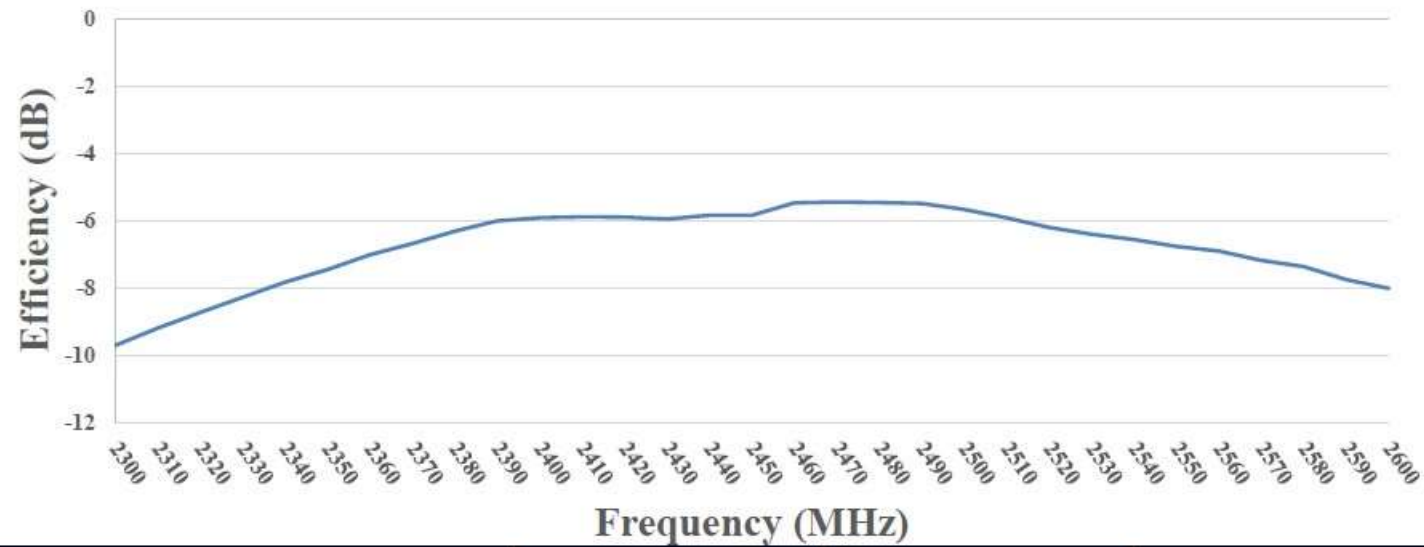
BT

WIFI Antenna Efficiency



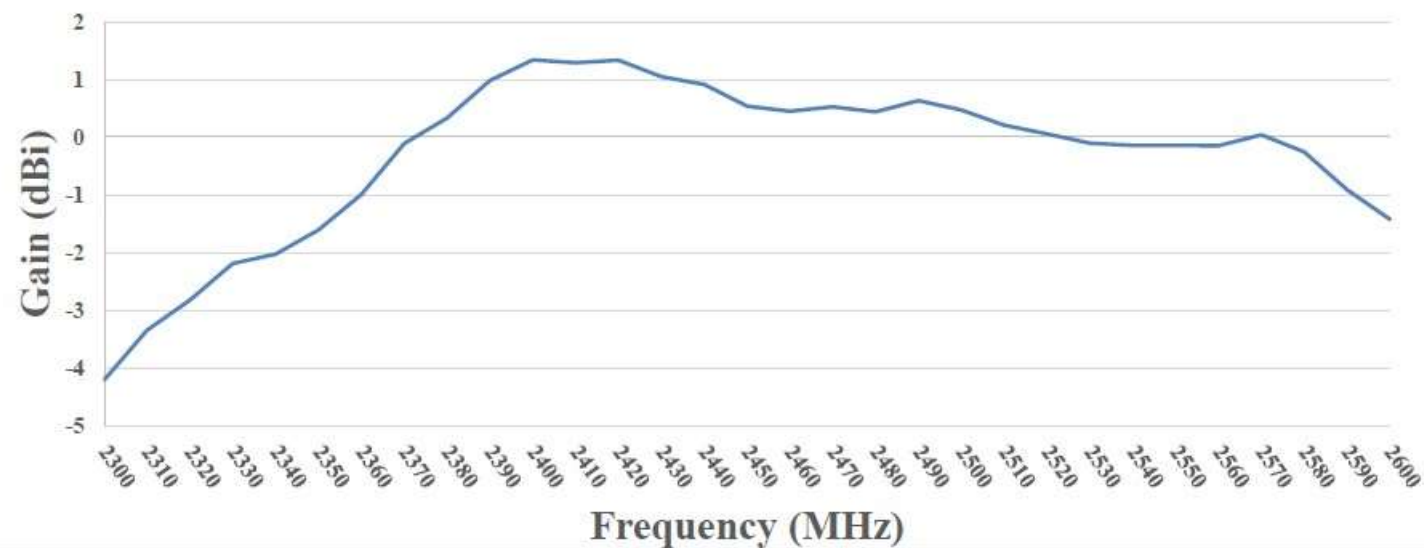
Frequency (MHz)	2400	2450	2500
Efficiency(%)	25.53	25.98	27.07

WIFI Antenna Average Gain



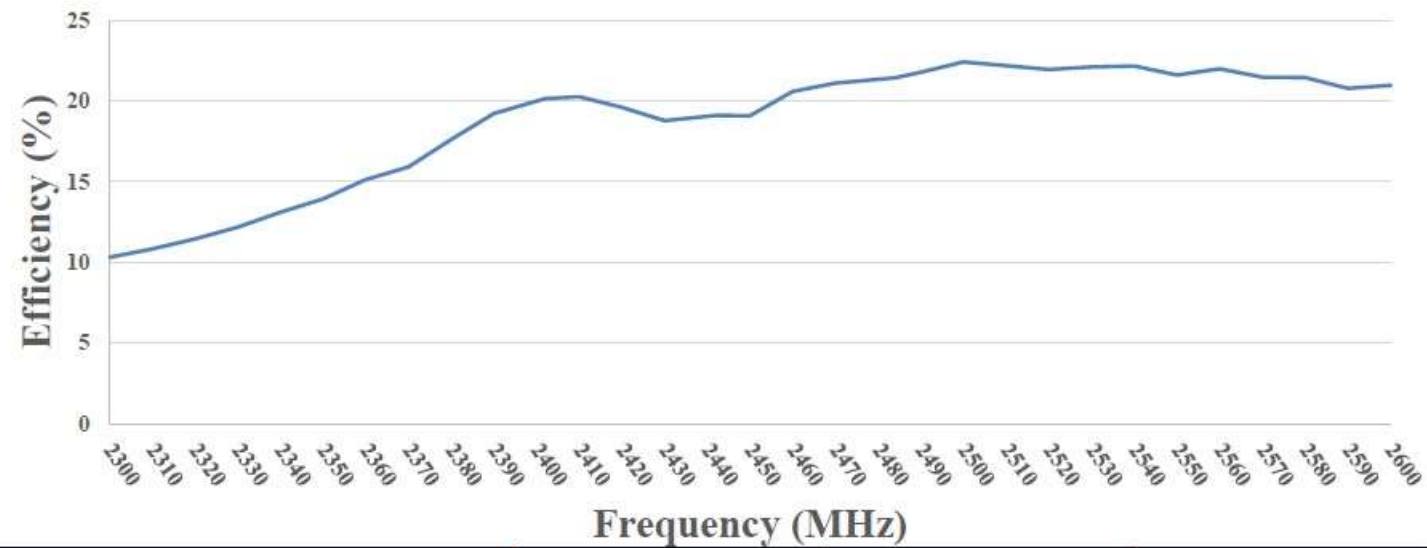
Frequency (MHz)	2400	2450	2500
Average Gain(db)	-5.92	-5.85	-5.67

WIFI Antenna Peak Gain



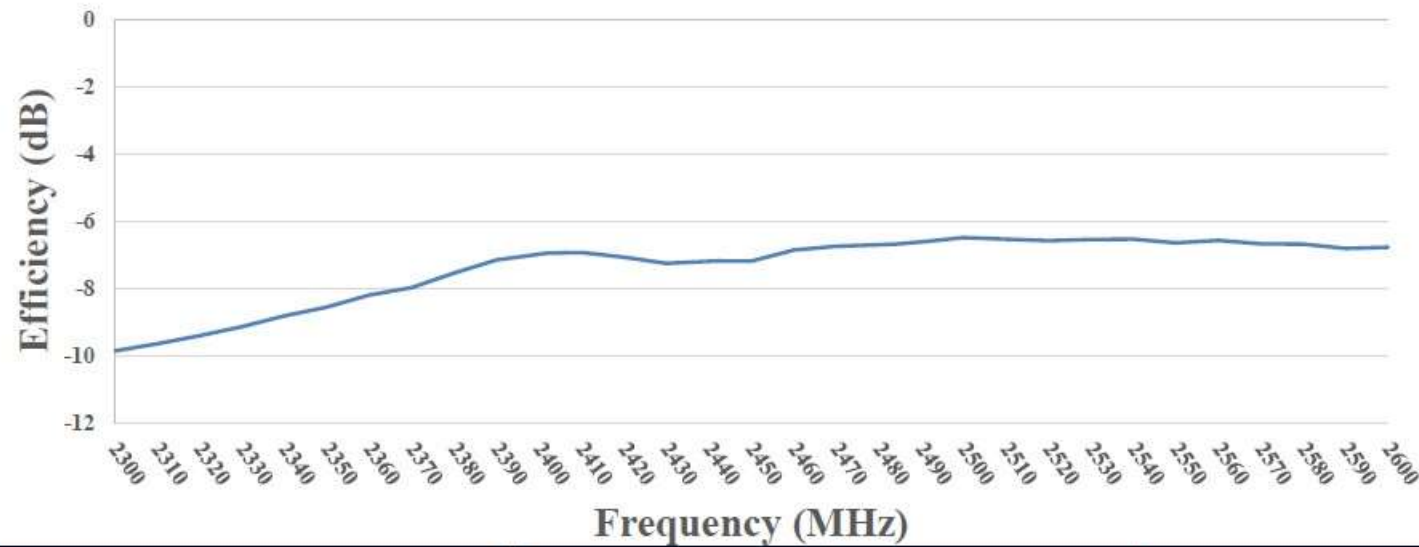
Frequency (MHz)	2400	2450	2500
Gain (dbi)	1.33	0.53	0.46

BT Antenna Efficiency



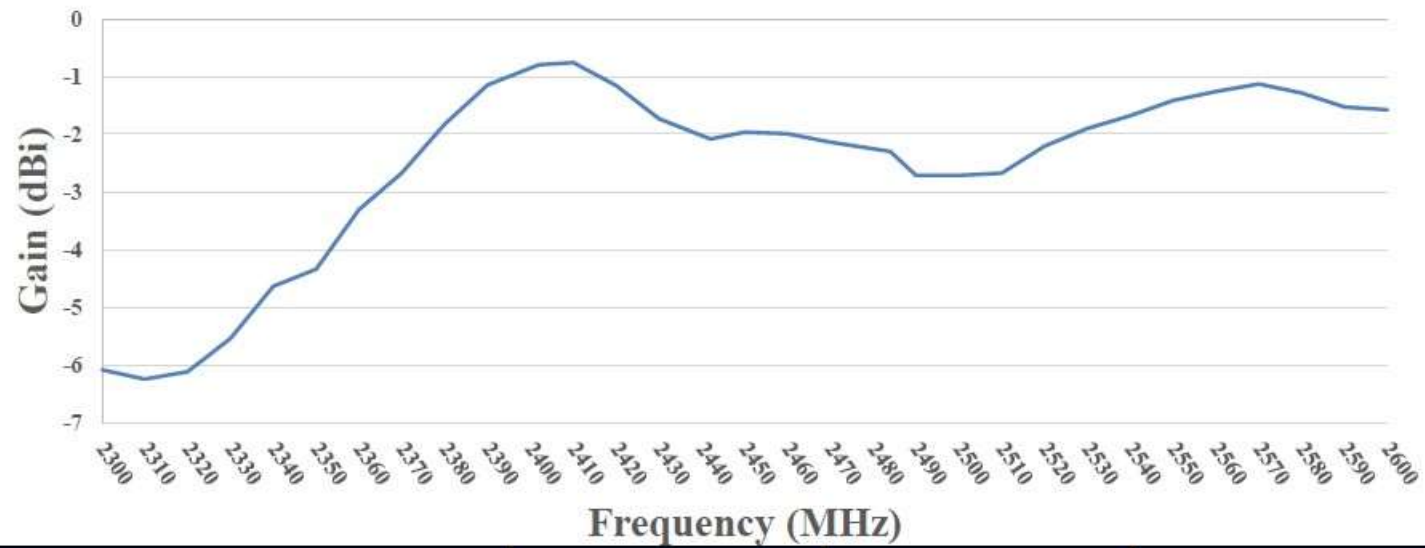
Frequency (MHz)	2402	2442	2484
Efficiency(%)	20.13	19.08	21.42

BT Antenna Average Gain



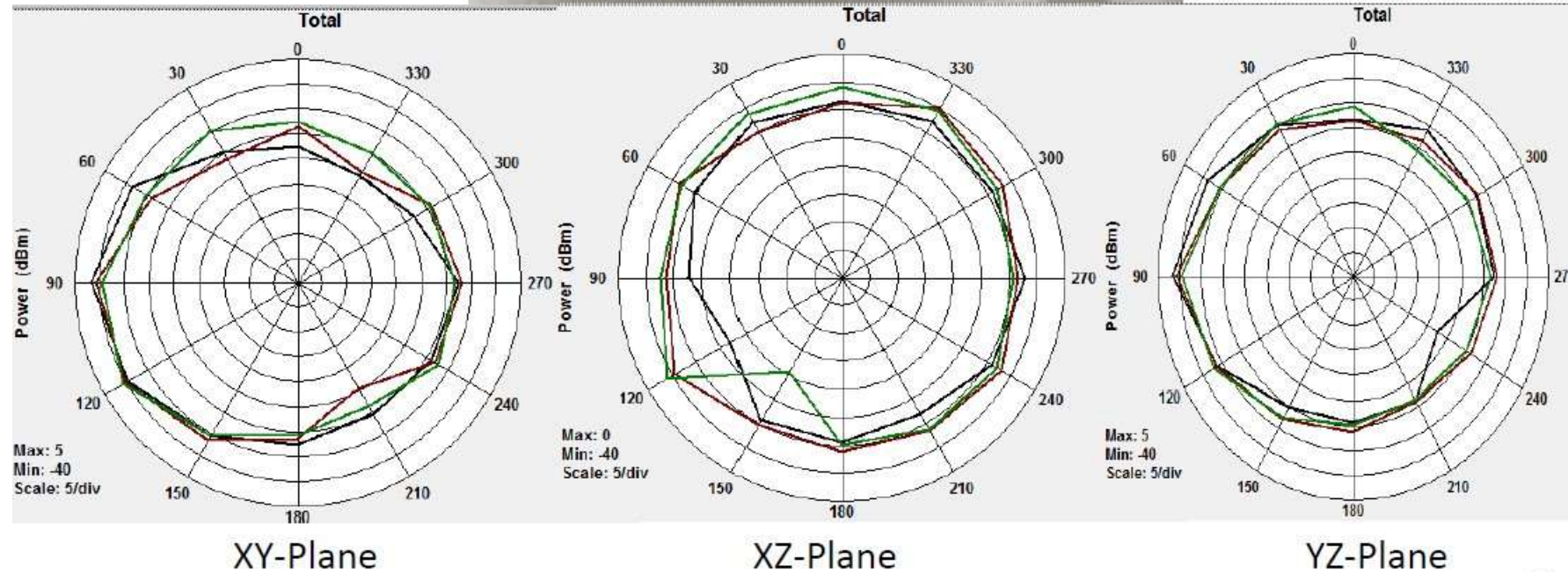
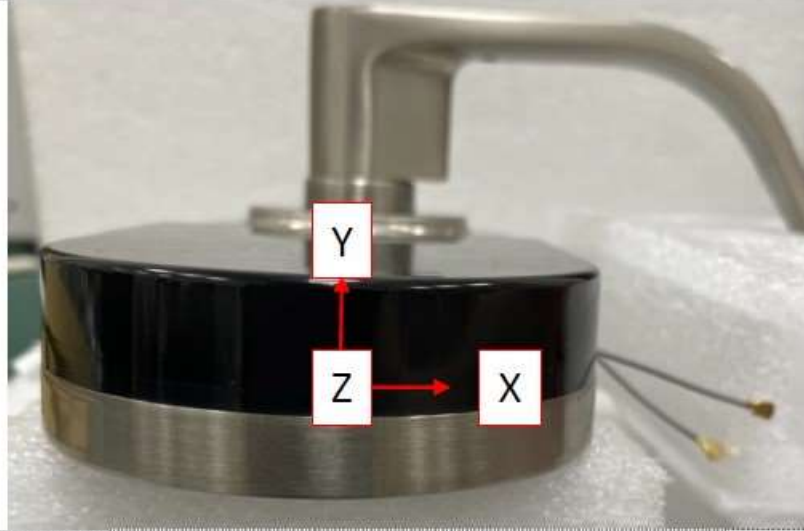
Frequency (MHz)	2402	2442	2484
Average Gain(db)	-6.96	-7.19	-6.69

BT Antenna Peak Gain

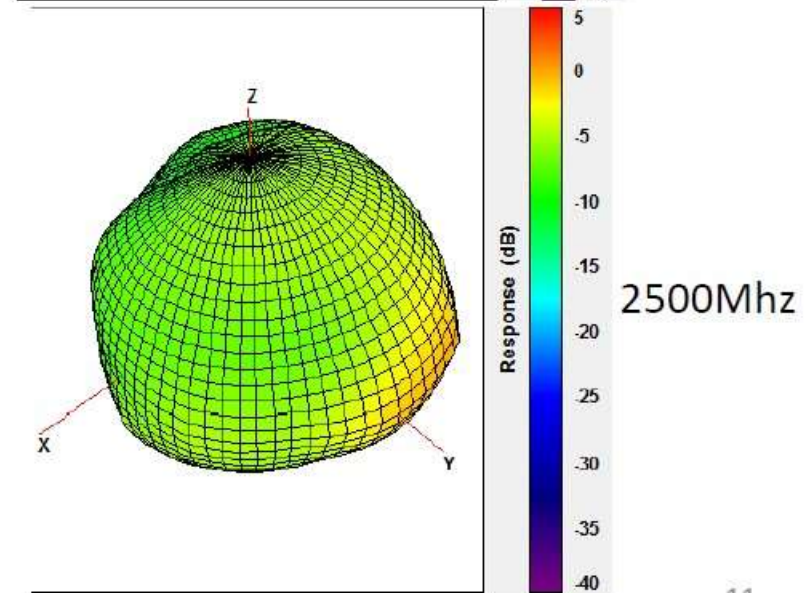
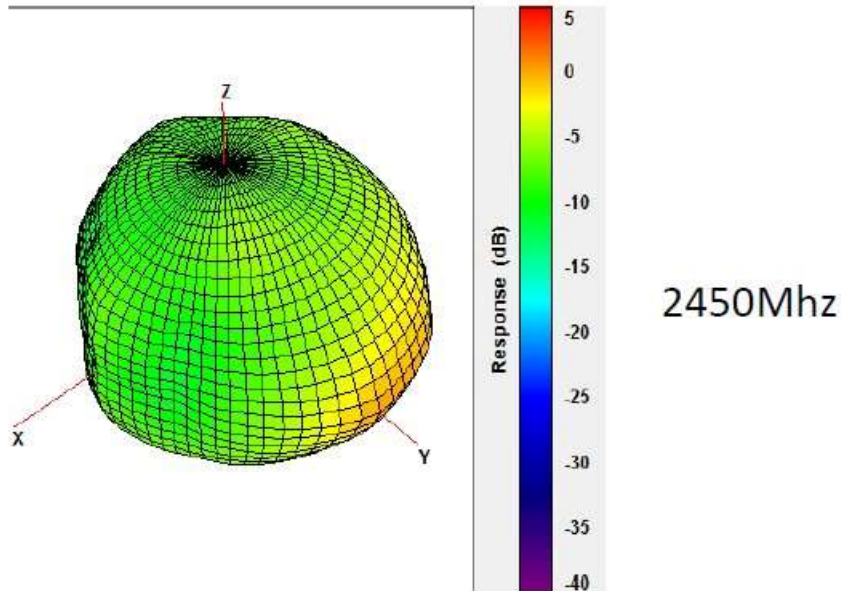
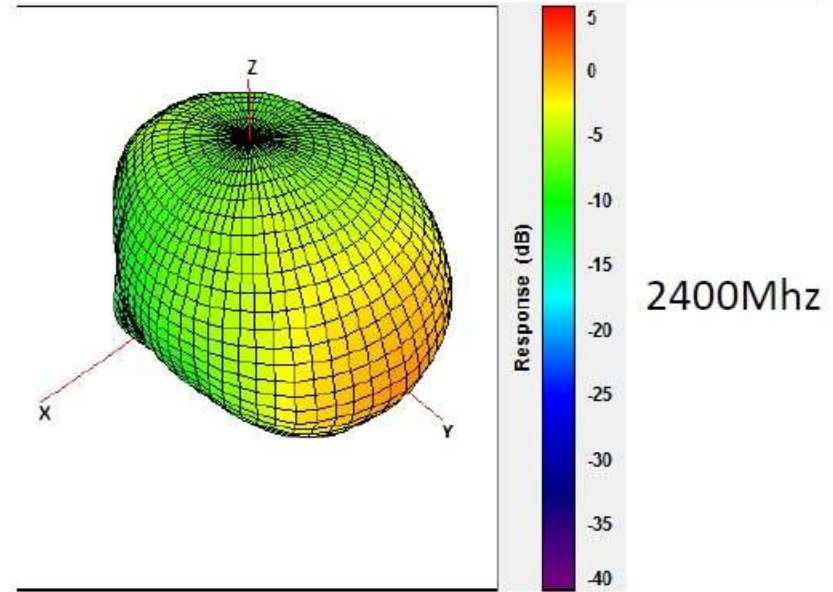
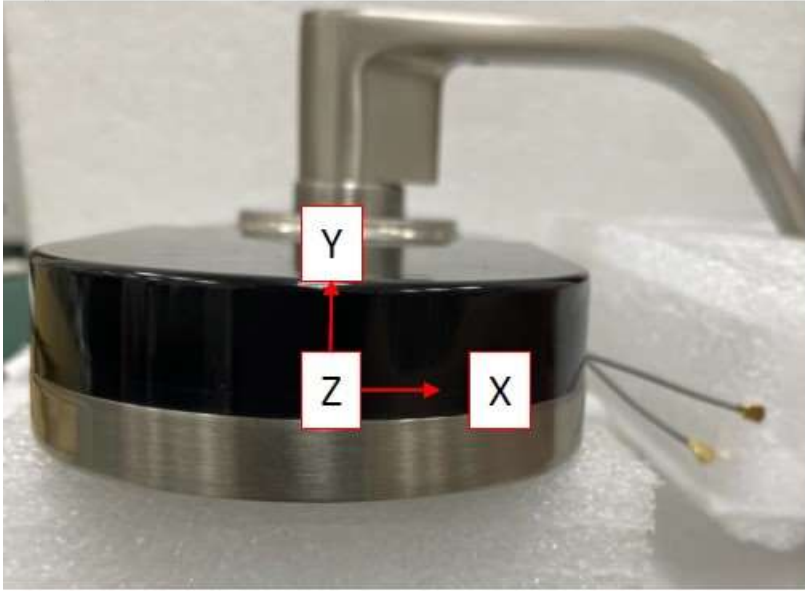


Frequency (MHz)	2402	2442	2484
Gain (dbi)	-0.79	-2.08	-2.29

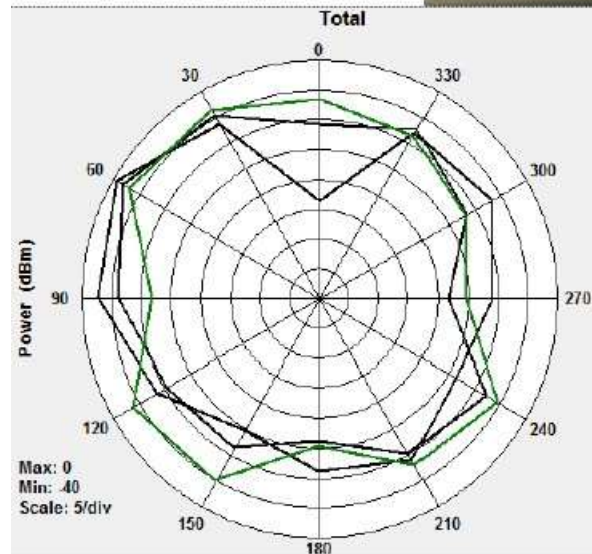
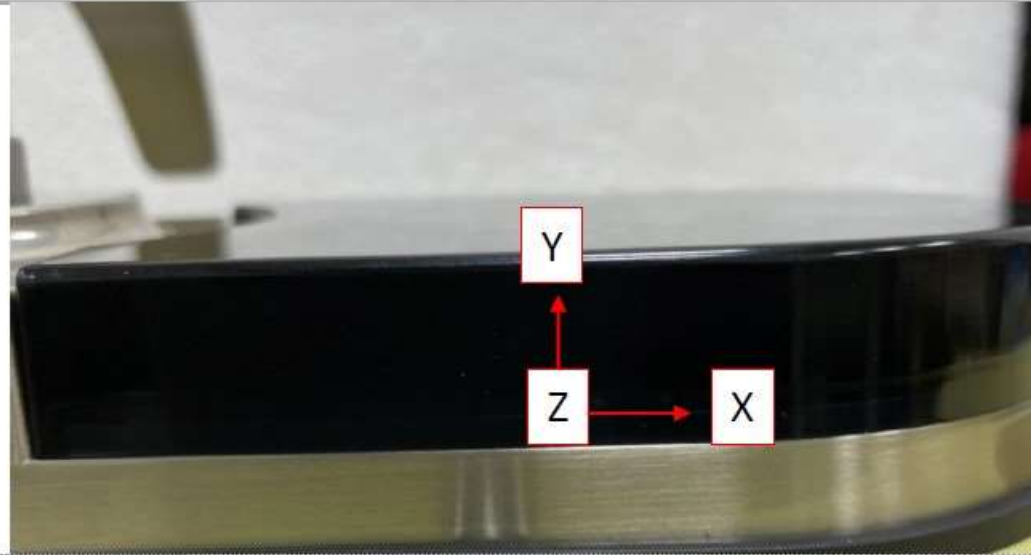
WIFI Antenna 2D Pattern



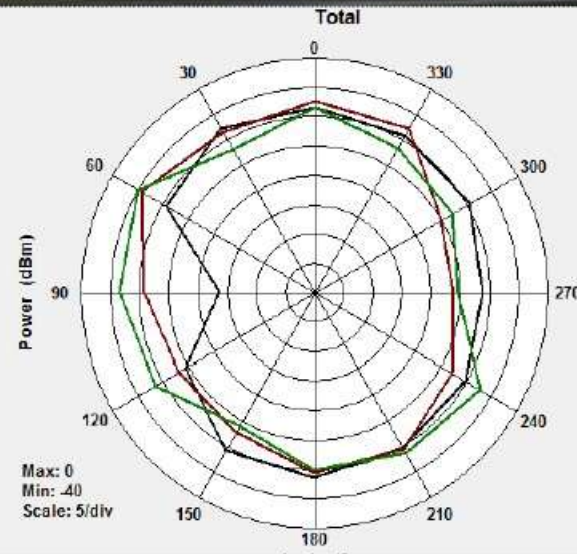
WIFI Antenna 3D Pattern



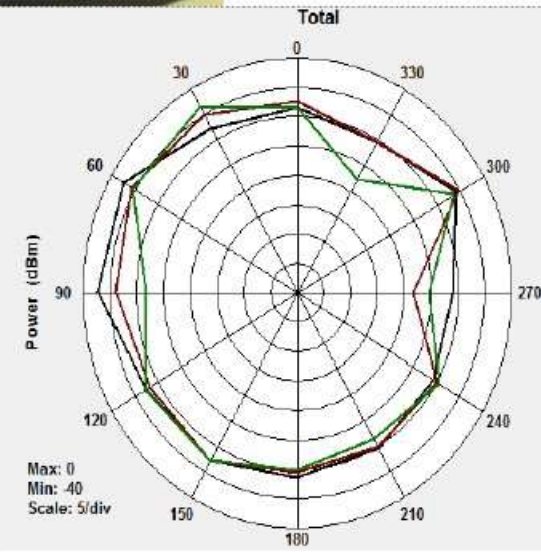
BT Antenna 2D Pattern



XY-Plane

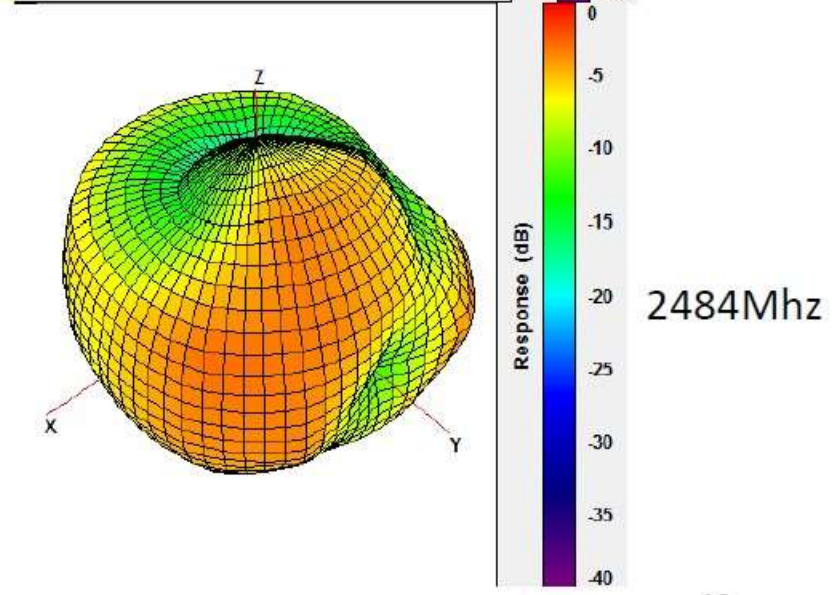
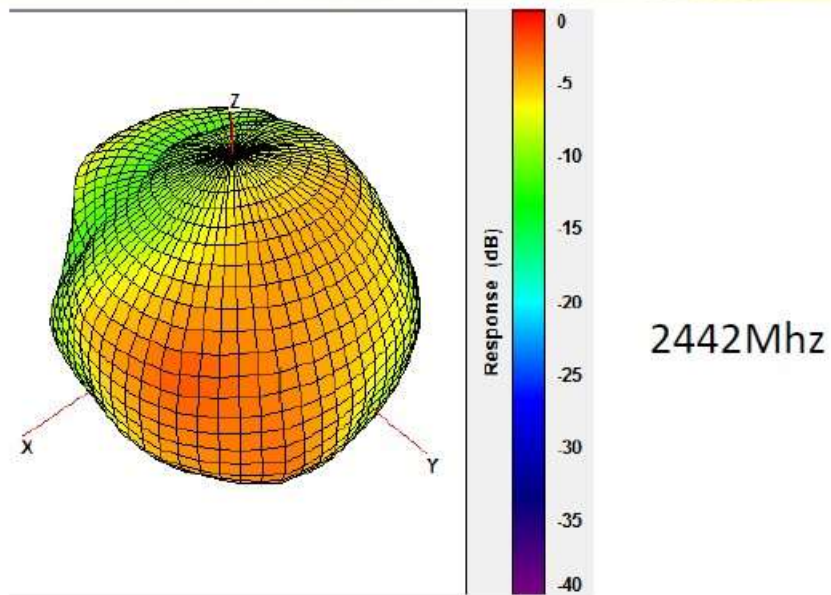
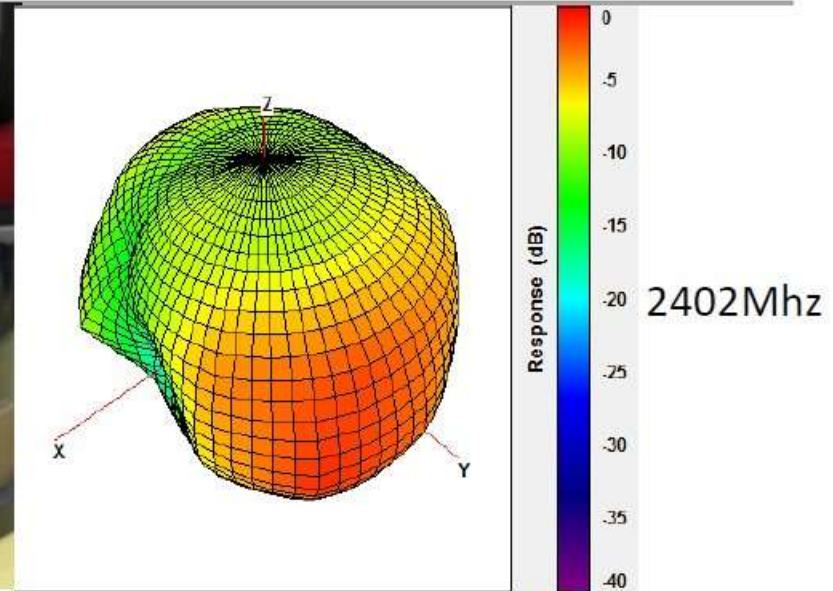
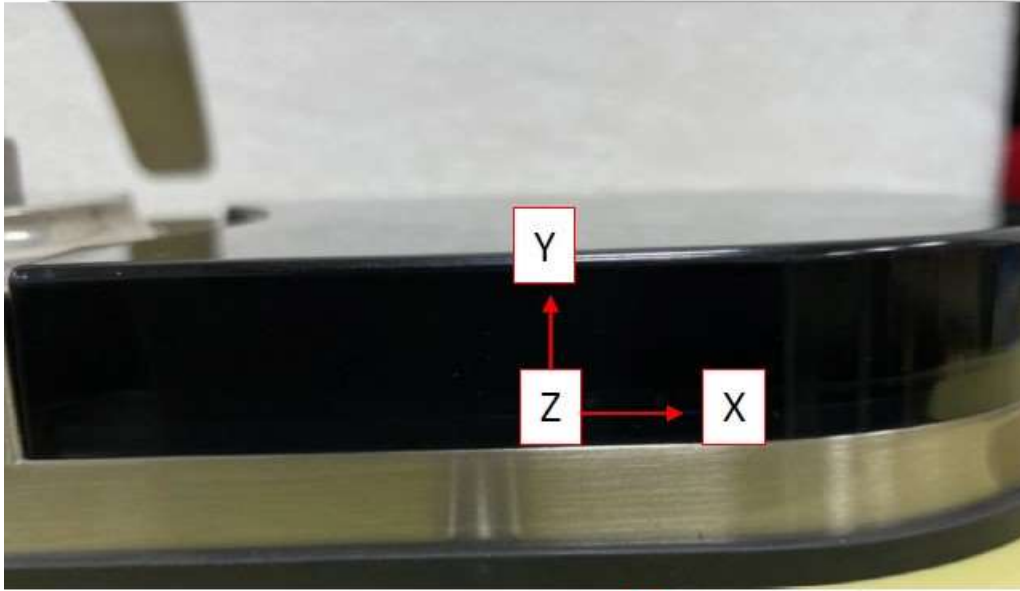


XZ-Plane

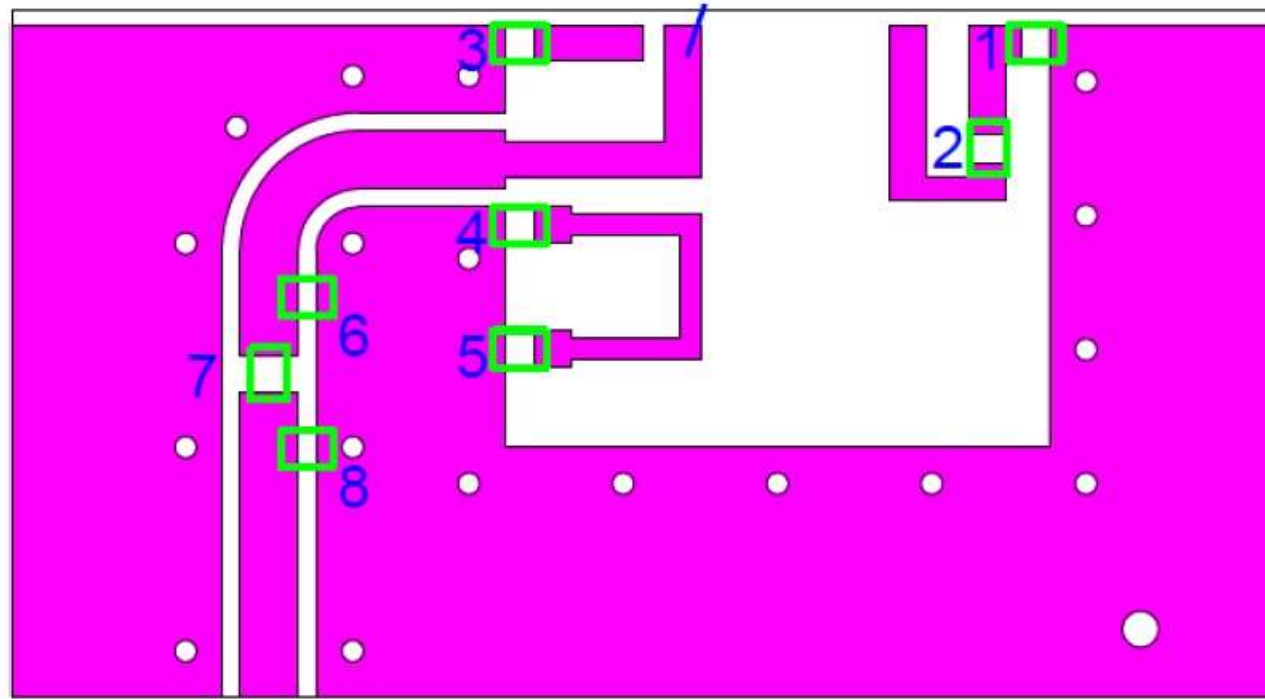


YZ-Plane

BT Antenna 3D Pattern

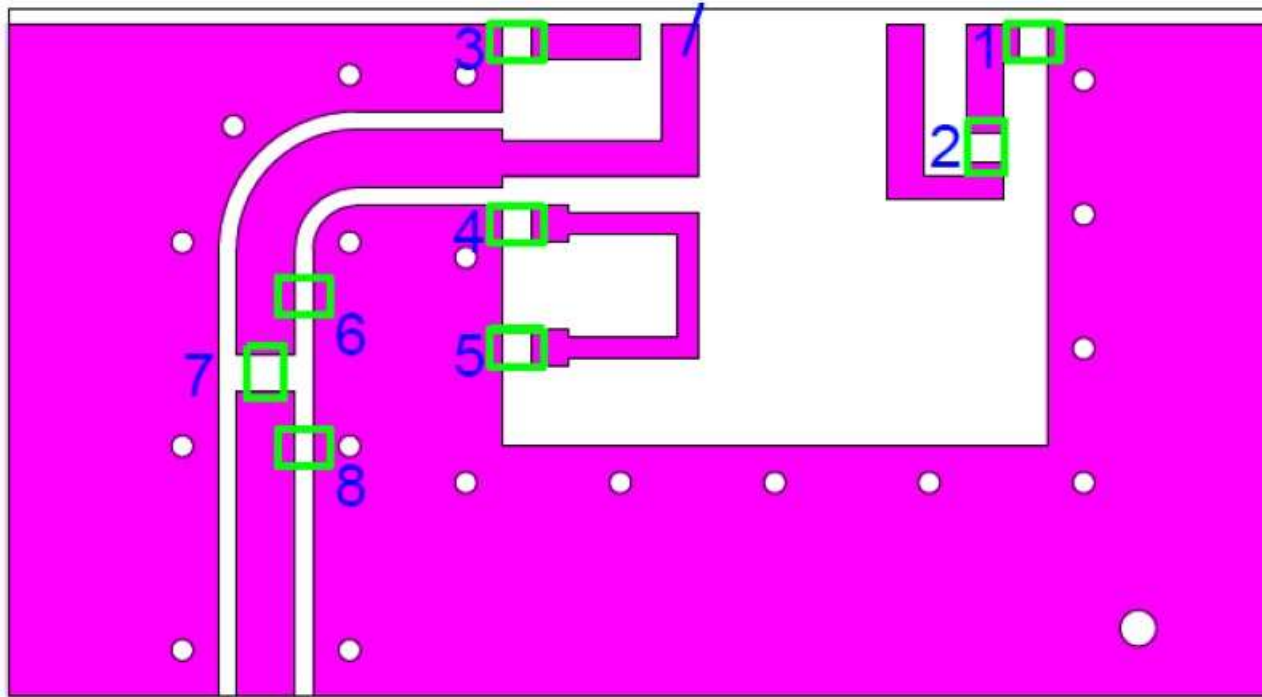


WIFI Matching Circuit



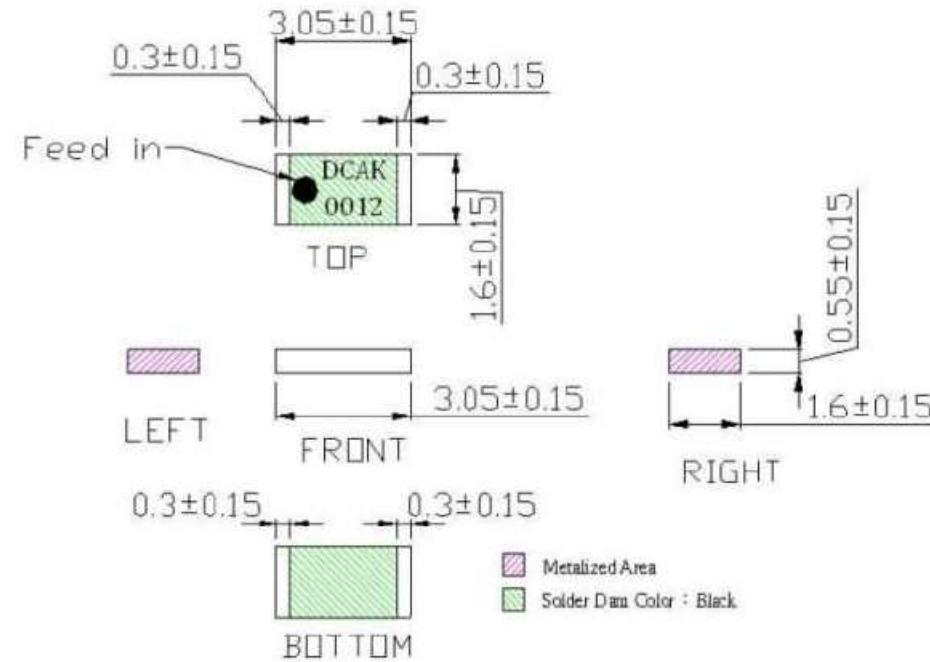
NO.	1	2	3	4	5	6	7	8
Description	3.3pF	1.2pF	N/A	N/A	N/A	1.2nH	1nH	N/A

BT Matching Circuit



NO.	1	2	3	4	5	6	7	8
Description	1.8pF	1.2pF	N/A	N/A	N/A	1.2nH	1nH	N/A

Antenna Dimensions



Unit: mm

Summary

依客戶提供樣機，並依此環境進行WIFI&BT天線調整，使用太盟DCAH0S04，經頻率及阻抗匹配調整後，WIFI天線效率約25~27%，BT效率約19~21%，因天線環境受金屬殼與上方PCB影響，導致天線效率發揮有限，其餘特性如上述報告所示，供客戶參考。