

VKP 2K_Antenna Test Report

28 May 2026

SSG Ant



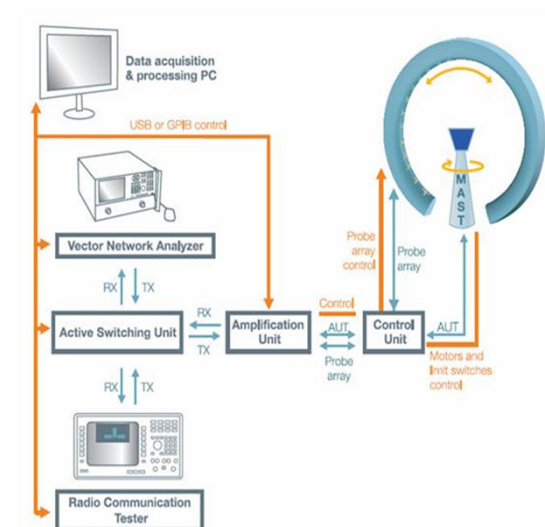
PRIMAX

- 1. Brand: Primax
- 2. Model Name : 12-D0401CG01
- 3. Antenna manufacture information: INPAQ
Address:No. 90, Keyi St., Zhunan Township, Miaoli County 350402 , Taiwan (R.O.C.)
- 4. Test engineer name :Chris Wang
- 5. Test date:2026.03.20
- 6. Test Equipment : SATIMO Testing System (SG-24L)
- 7. test set up photo/equipment/ measure method

Antenna	SUB-1G	WiFi	BLE
Type	FPC	FPC	FPC
model	RFFPA451800NNUB003	RFPCA241709IMAB401	RFPCA241707IMAB401
connector info	X	IPEX	IPEX

Test Setup:

1. Test in anechoic chamber(Satimo Antenna Testing System)
2. Use instrument such as VNA(vector network analyzer),active switching unit , amplification unit, radio communication unit
3. Scan WIFI band test frequency
4. Test Return Loss by using Network analyzer
5. The DUT with housing and internal antenna



Structure

Antenna Position



SUB-1G FPC Antenna :

45mm x 18mm

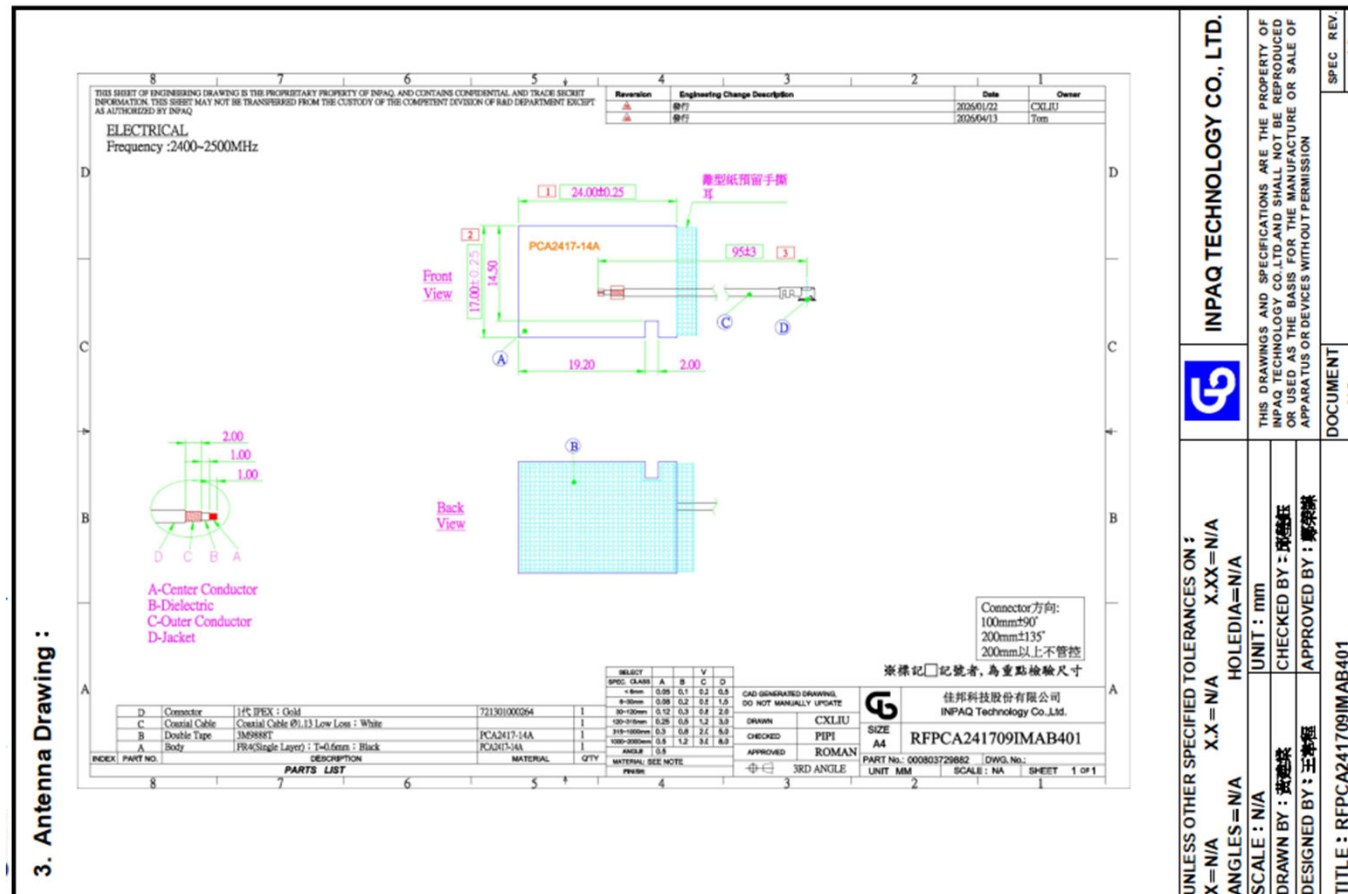
WiFi PCB Antenna :

24mm x 17mm x 0.6mm

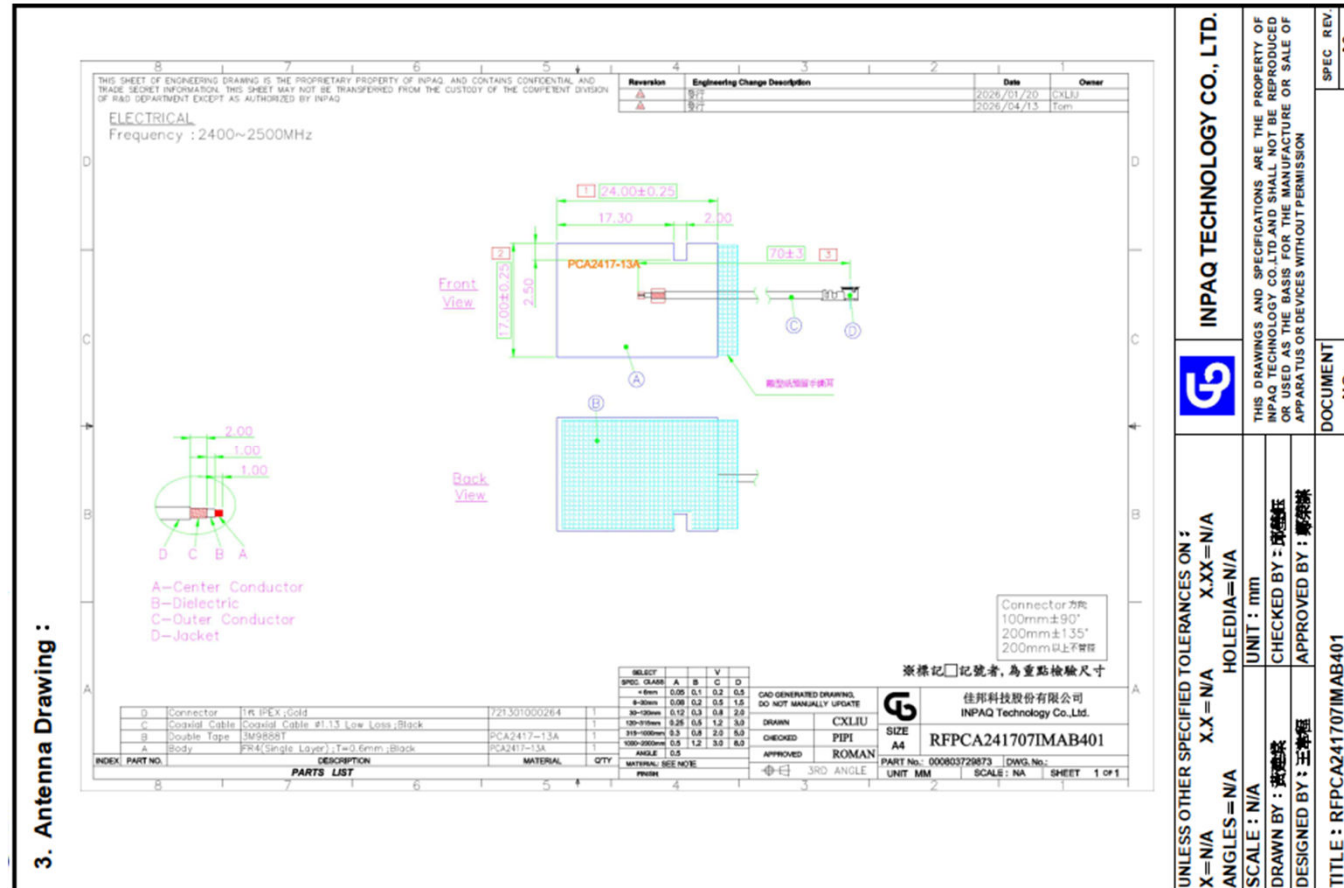
BLE PCB Antenna :

24mm x 17mm x 0.6mm

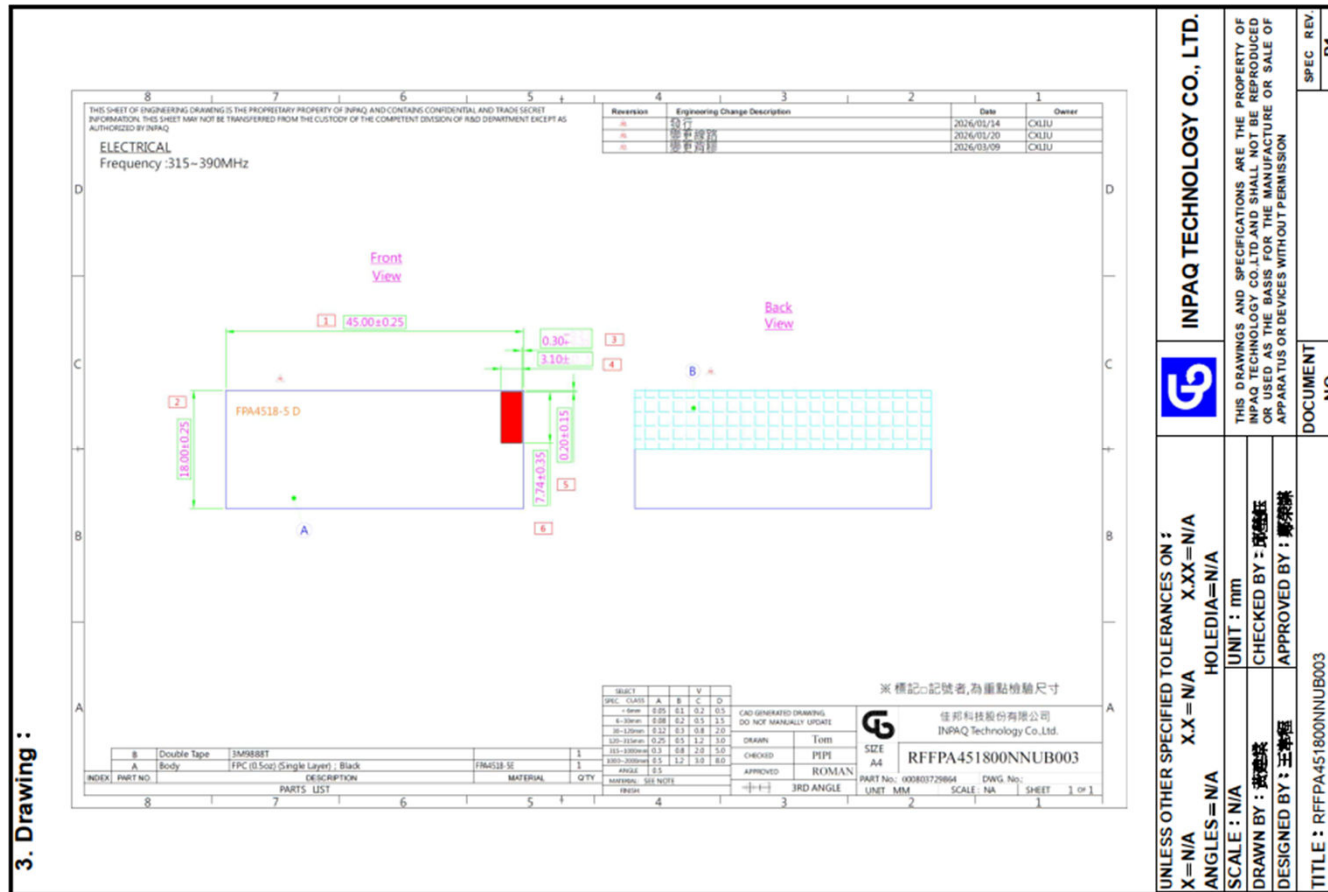
Antenna Drawing_WiFi



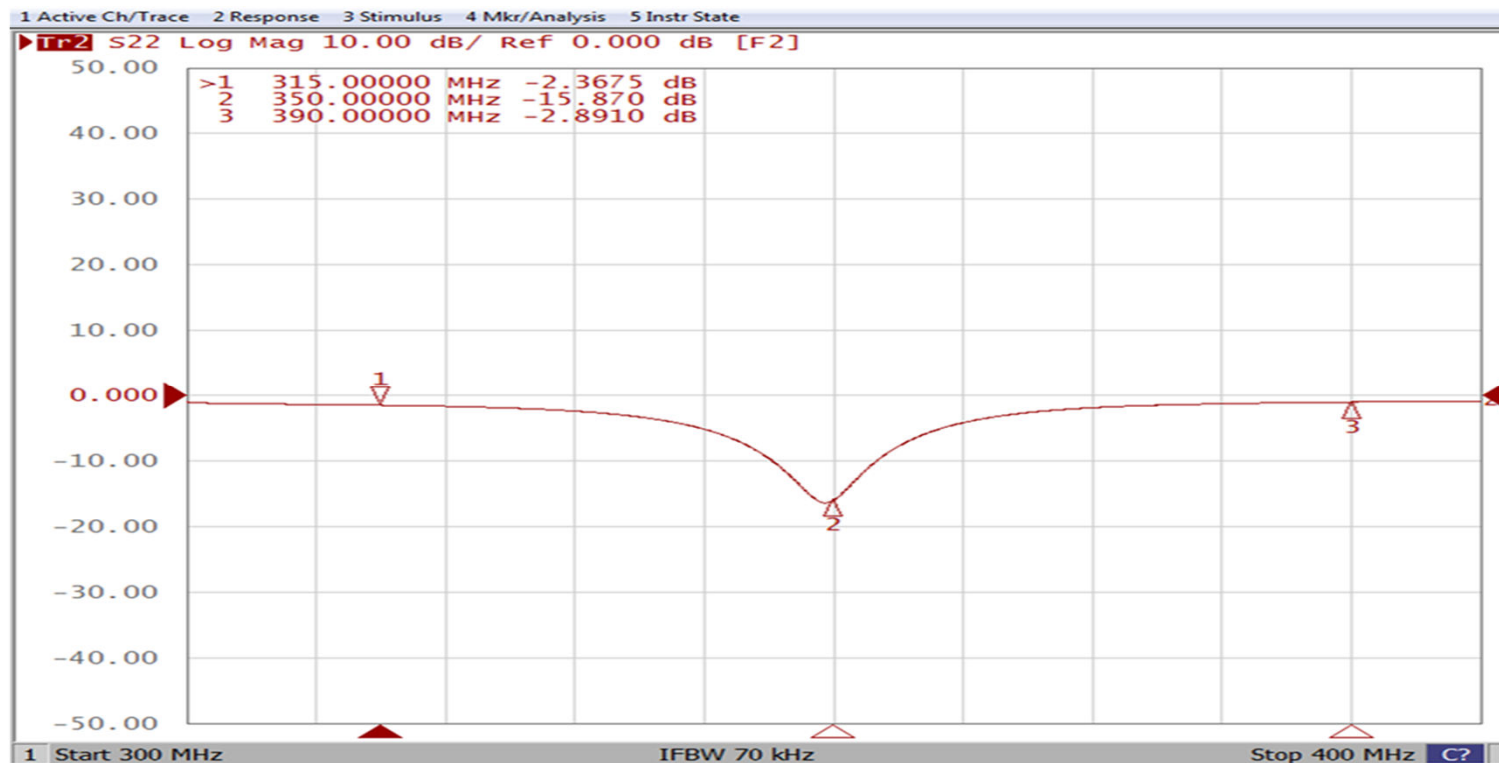
Antenna Drawing_BLE



Antenna Drawing_SUB-1G

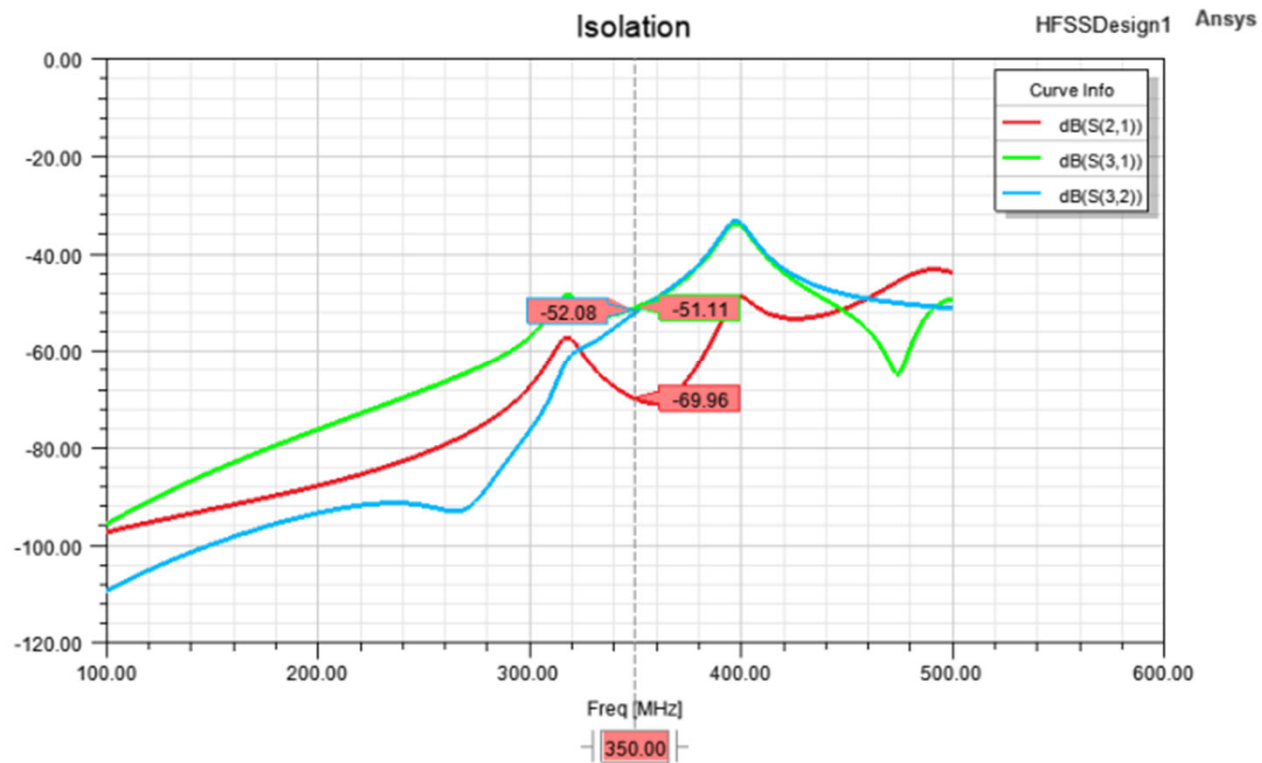


SUB-1G Antenna S-Parameter

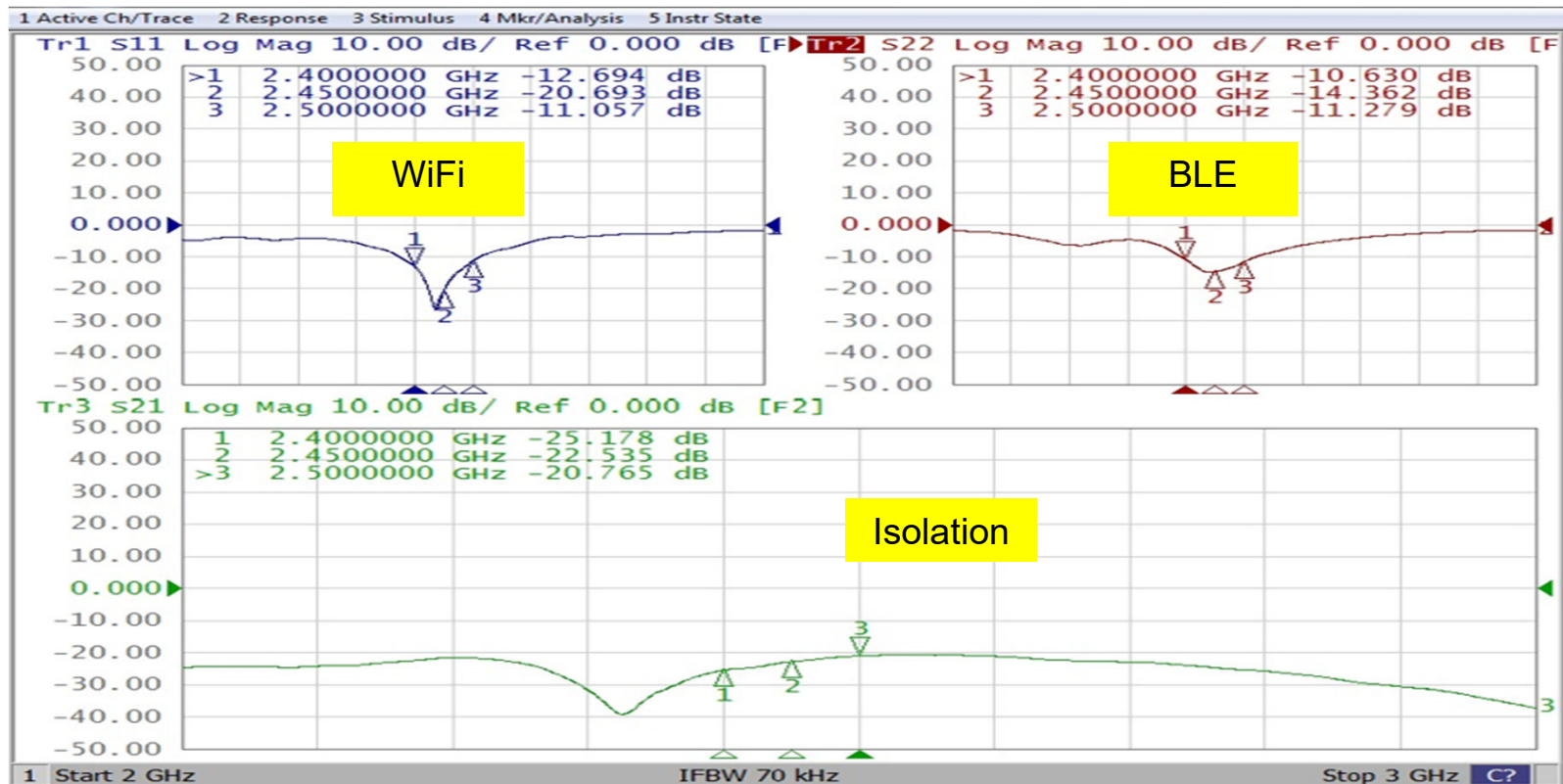


SUB-1G Antenna Isolation

Isolation

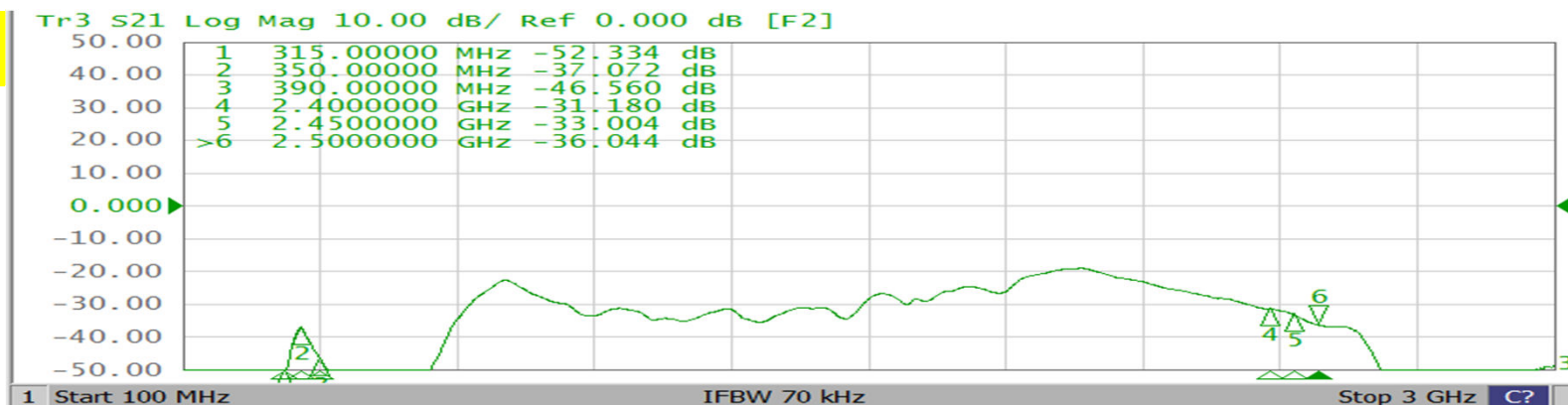


WiFi/BLE Antenna S-Parameter

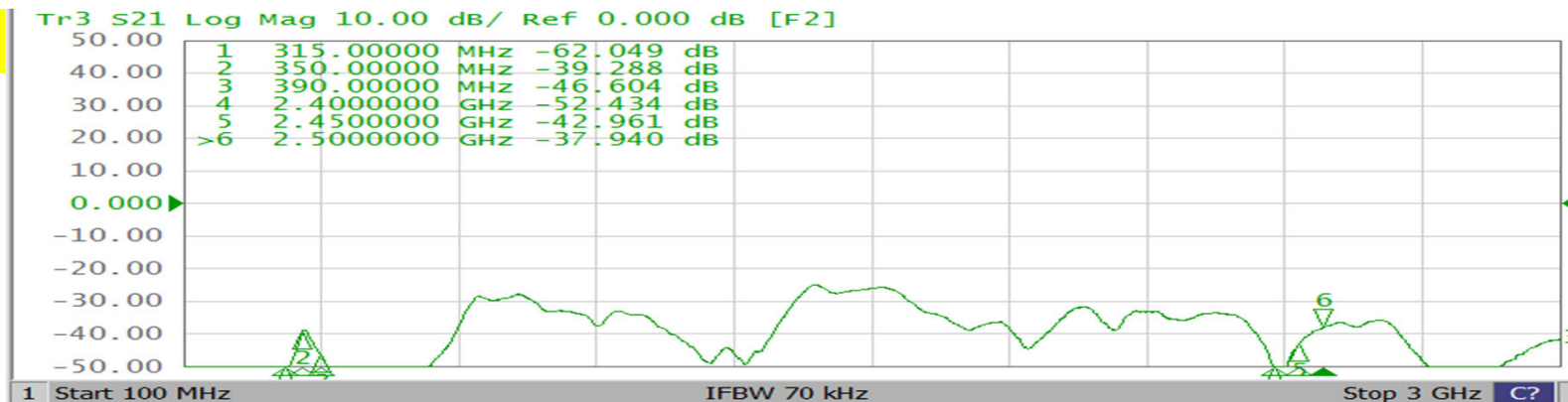


WiFi/BLE to SUB-1G Antenna Isolation

WiFi



BLE



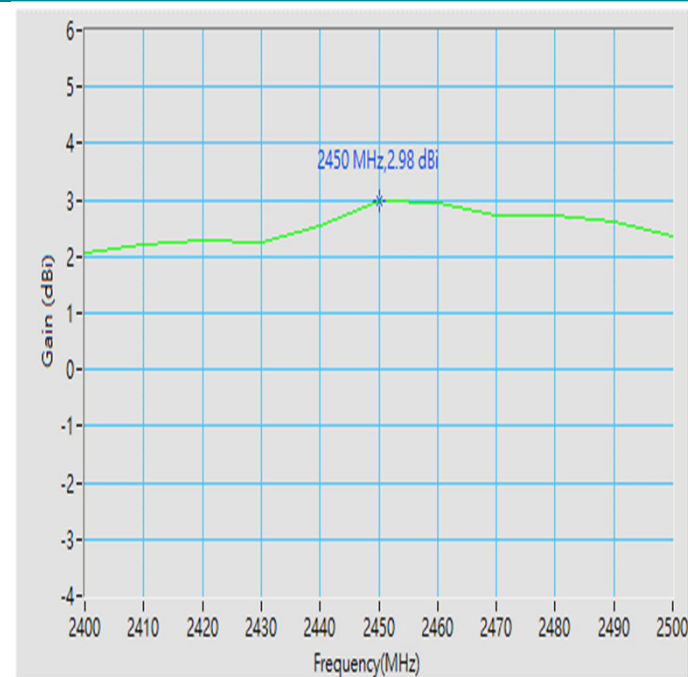
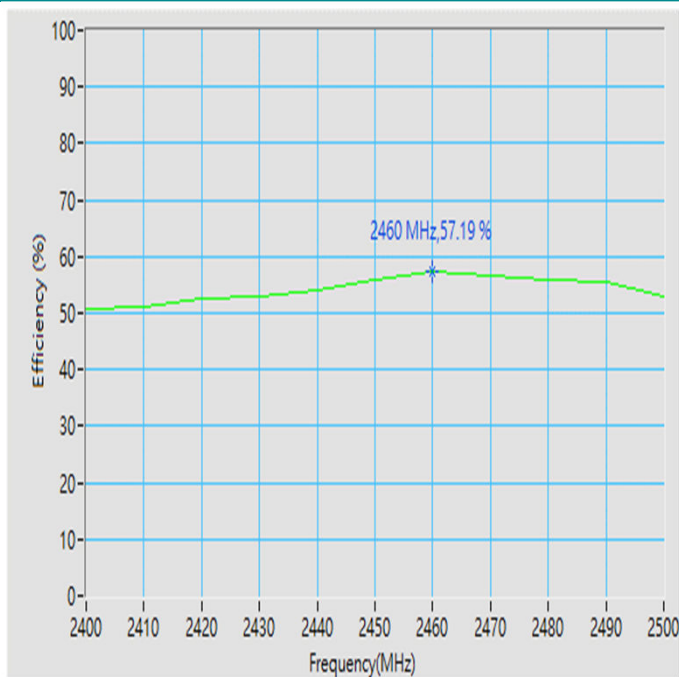
SUB-1G Antenna Efficiency

■ Antenna Efficiency and Peak Gain

	ANT3	
Frequency (MHz)	Efficiency (%)	Peakgain (dBi)
303	2	-17.22
310	3	-15.84
315	4	-15.13
318	4	-15.00
350	11	-10.59
373	11	-10.87
390	10	-11.12

*The Peak gain listed here are from 3D radiation pattern.

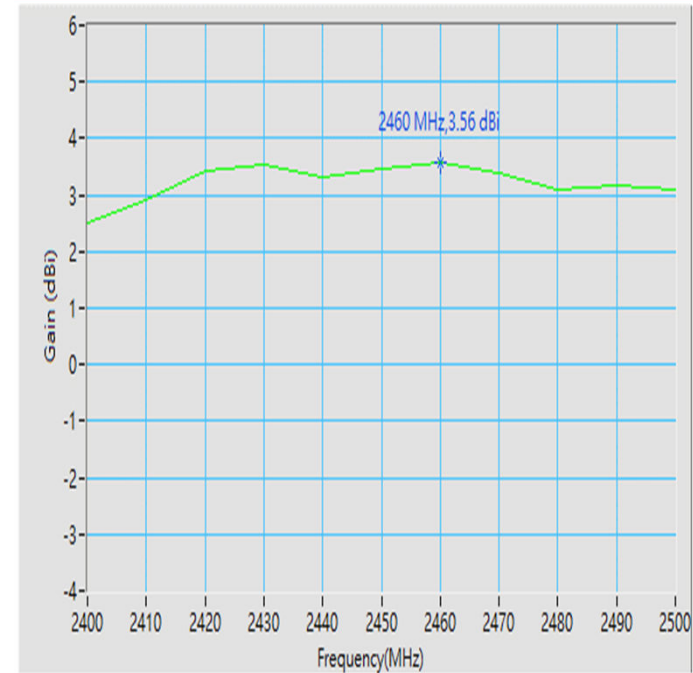
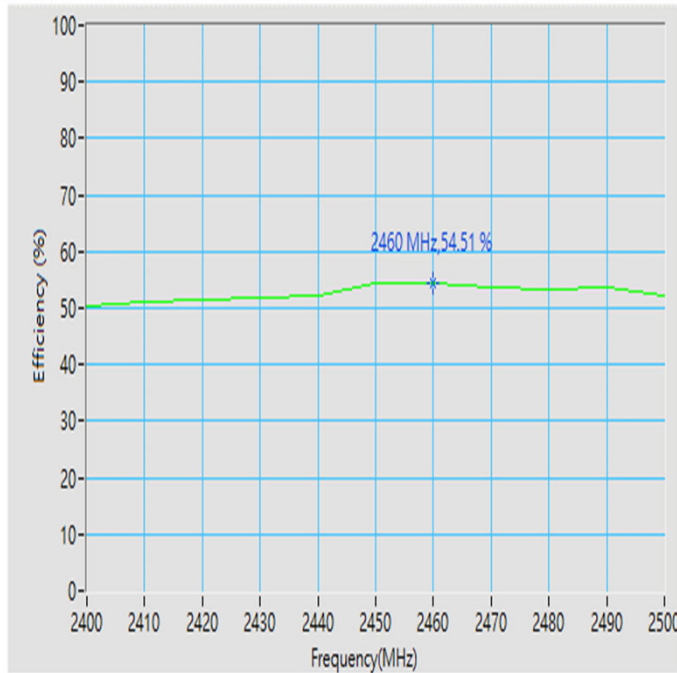
WiFi Antenna Efficiency



WiFi		
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	50.67	2.06
2450	55.71	2.98
2500	52.92	2.35

WiFi	
Maximum Efficiency (%)	57.19
Maximum Gain (dBi)	2.98

BLE Antenna Efficiency

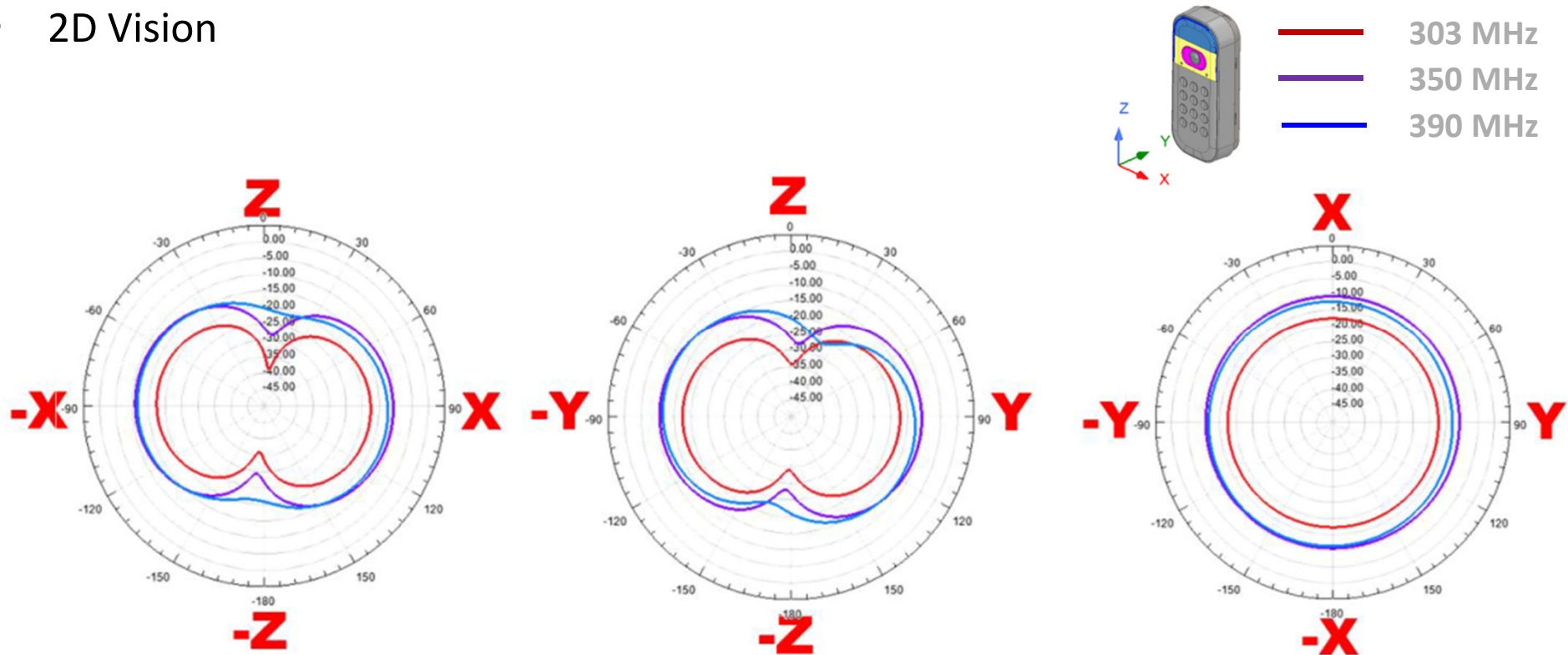


BLE		
Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	50.22	2.51
2450	54.24	3.48
2500	52.06	3.10

BLE	
Maximum Efficiency (%)	54.51
Maximum Gain (dBi)	3.56

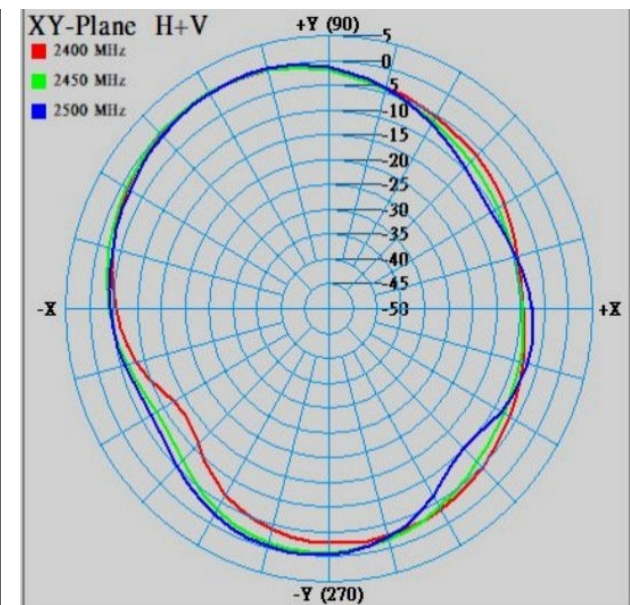
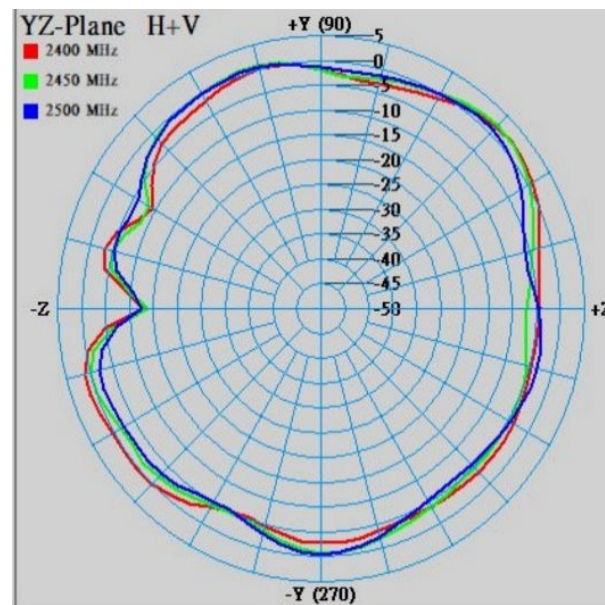
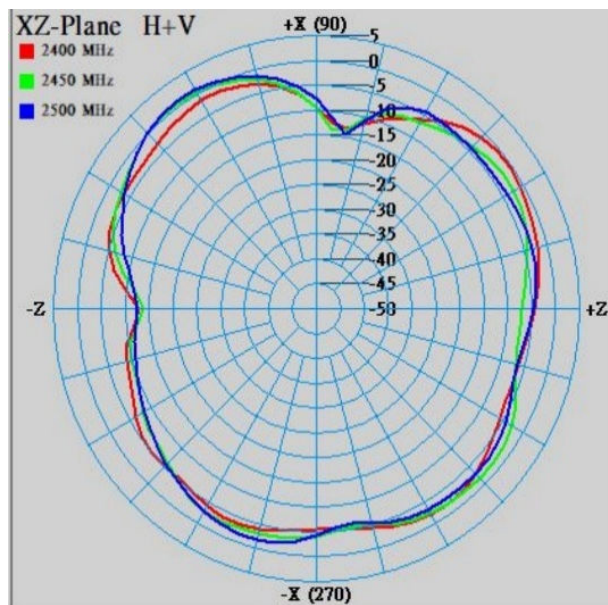
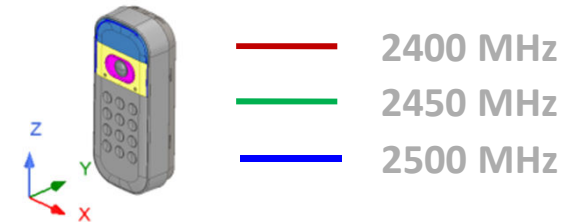
SUB-1G Antenna Radiation Pattern

- 2D Vision



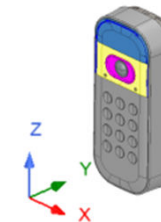
WiFi Antenna Radiation Pattern

- 2D Vision



BLE Antenna Radiation Pattern

- 2D Vision



— 2400 MHz
— 2450 MHz
— 2500 MHz

