

# Antenna Measurement Report

## ccNC PIO

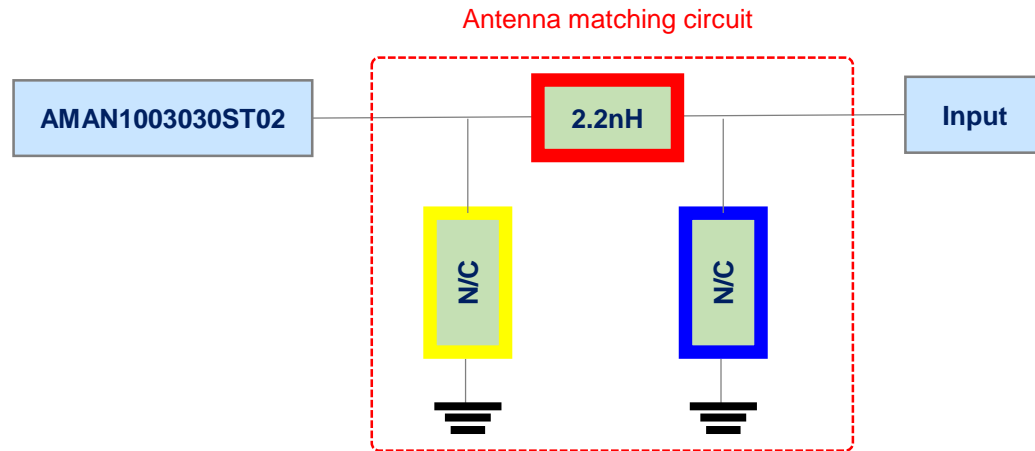
AMOTECH / Antenna Group

<i>Customer</i>	LG전자
<i>Model</i>	ccNC PIO
<i>Application</i>	Bluetooth & Wi-Fi
<i>Antenna Type</i>	AMAN1003030ST02
<i>Date</i>	2023. 11. 01
<i>Written by</i>	장 용준
<i>Contact</i>	<a href="mailto:dydwswnl@amotech.co.kr">dydwswnl@amotech.co.kr</a>

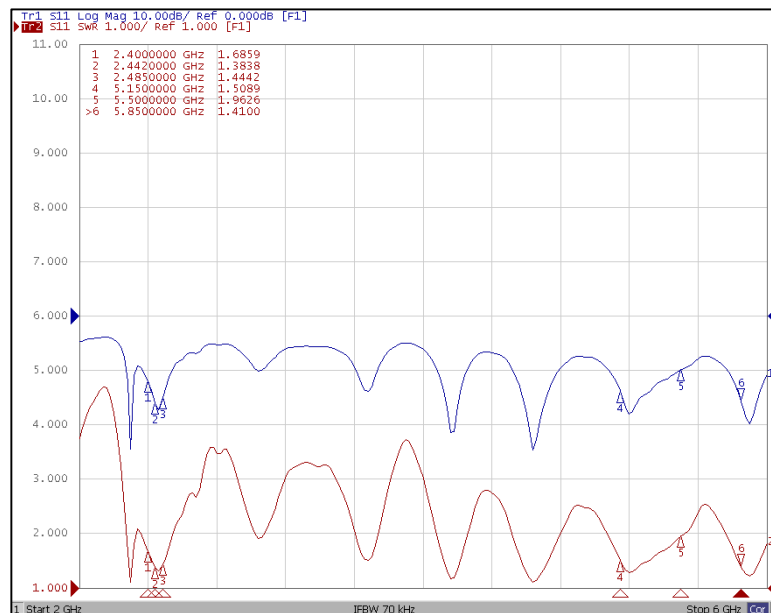
# 1. S-parameter [BT & 5GHz Wi-Fi]

## 1. Passive measurement

### 1-1. Antenna matching value



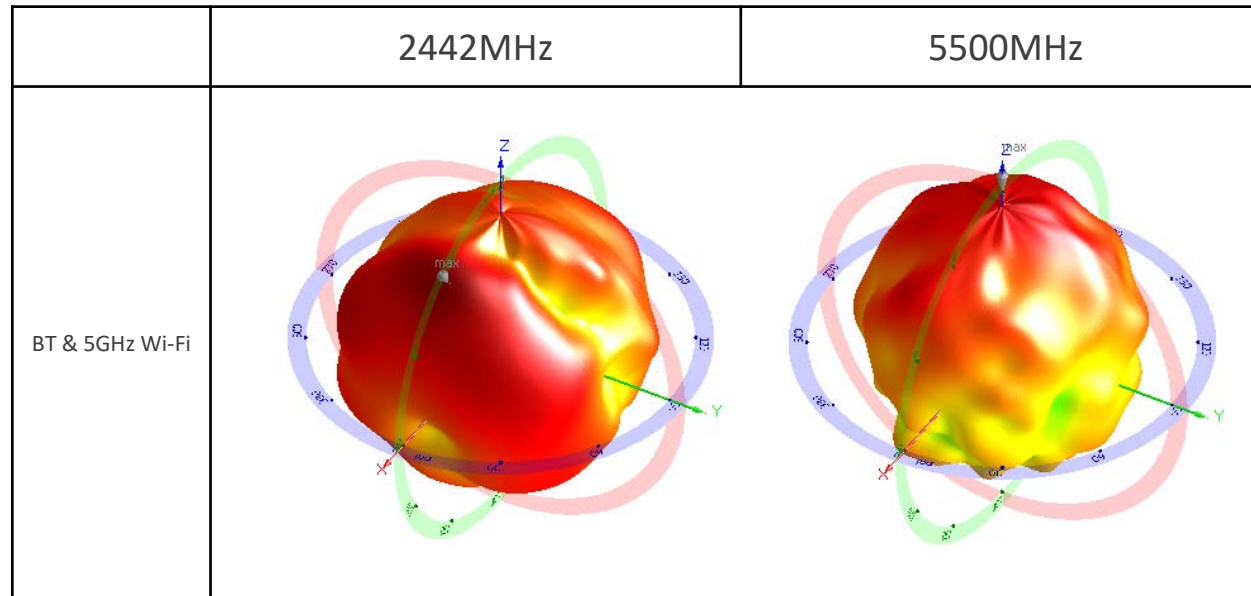
### 1-2. Measured S-parameter



Return Loss & VSWR

## 2. Antenna Gain [BT & 5GHz Wi-Fi]

### 1-3. 3D Radiation Pattern



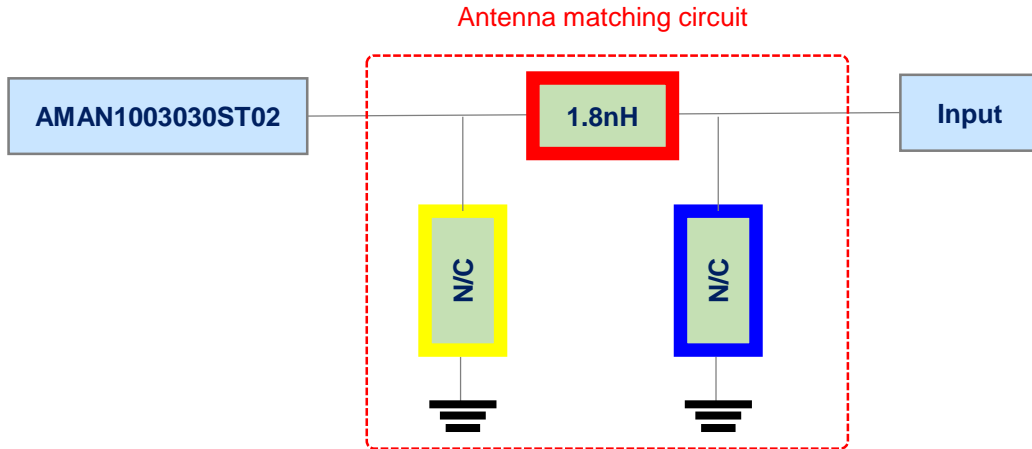
### 1-4. Antenna Gain

Application	Frequency [MHz]	Efficiency [%]	Avg. Gain [dBi]	Peak Gain [dBi]
BT	2400	16.89	-7.72	-0.40
	2442	24.13	-6.18	0.95
	2485	17.40	-7.59	-0.61
5GHz Wi-Fi	5150	11.87	-9.26	-0.85
	5500	13.29	-8.76	-0.52
	5850	9.00	-10.46	-0.77

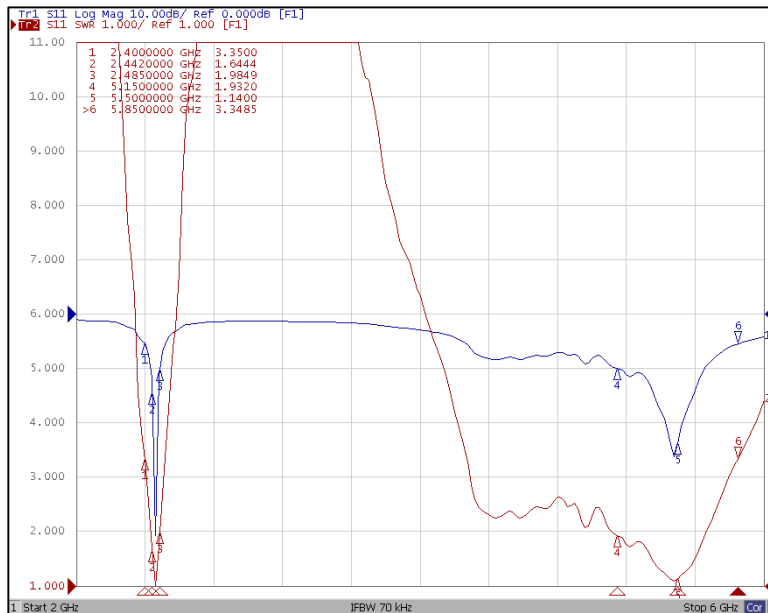
# 3. S-parameter [Dual Wi-Fi]

## 2. Passive measurement

### 2-1. Antenna matching value



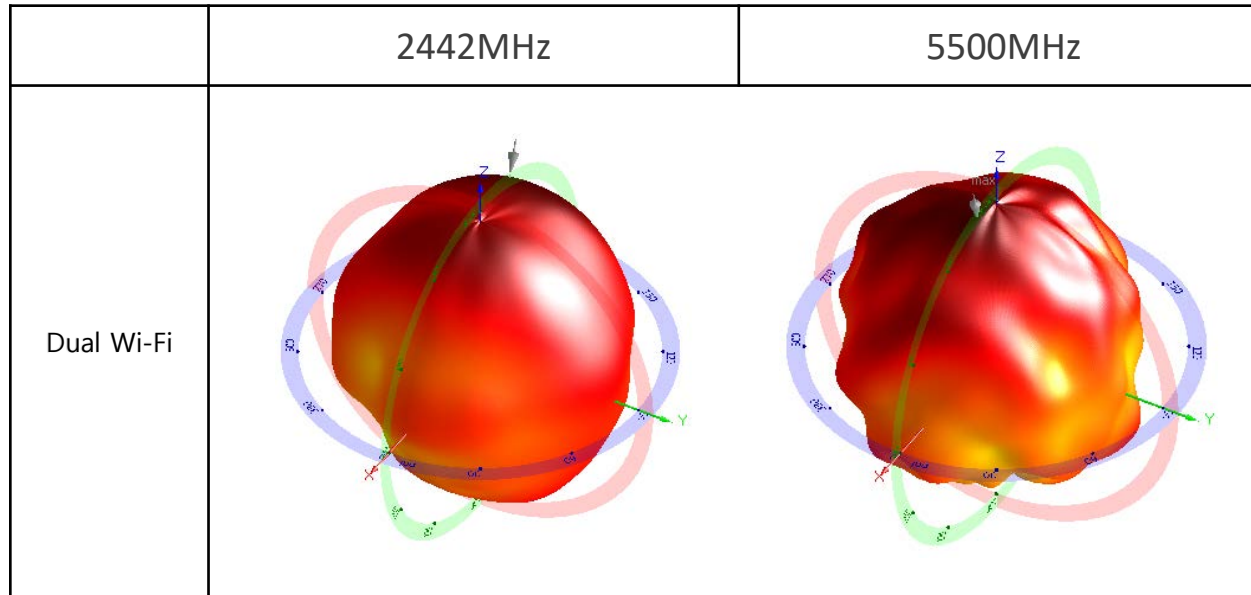
### 2-2. Measured S-parameter



Return Loss & VSWR

# 4. Antenna Gain [Dual Wi-Fi]

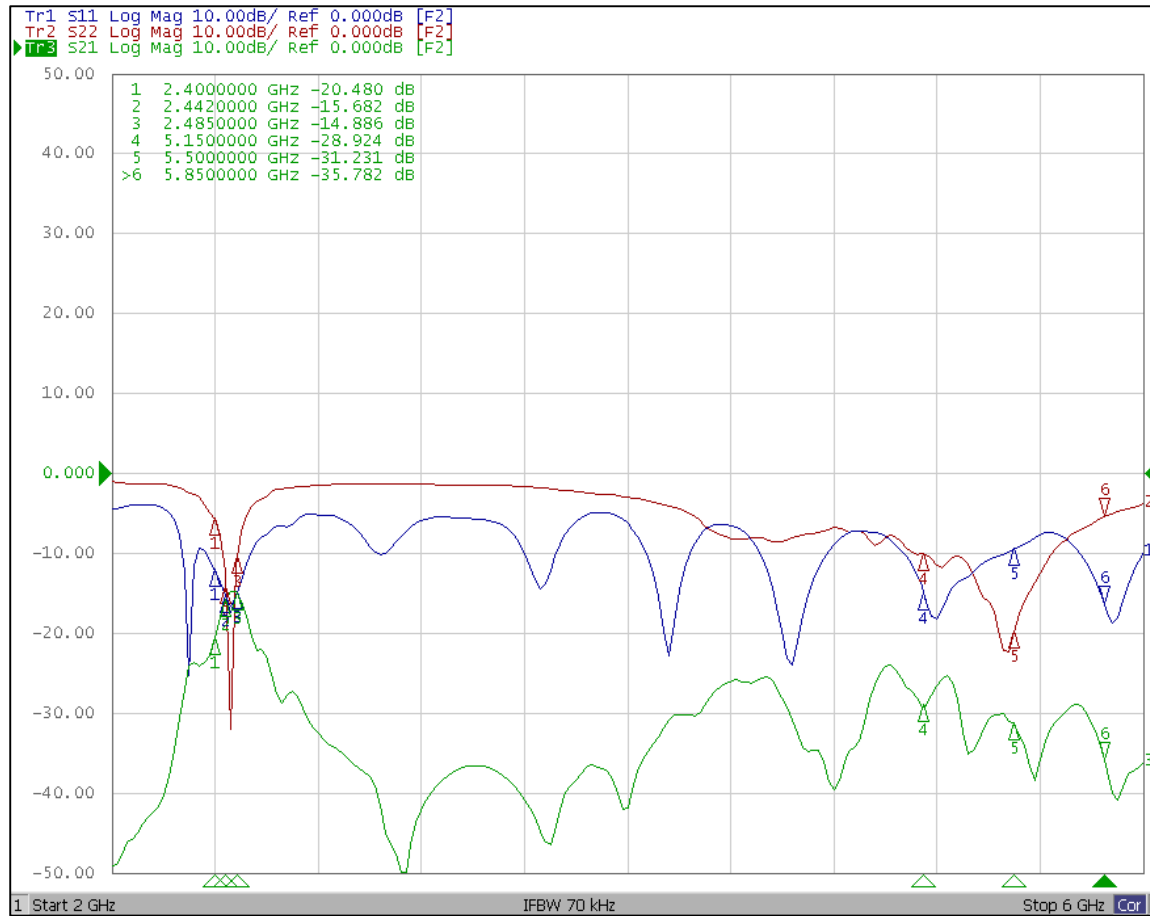
## 2-3. 3D Radiation Pattern



## 2-4. Antenna Gain

Application	Frequency [MHz]	Efficiency [%]	Avg. Gain [dBi]	Peak Gain [dBi]
2GHz Wi-Fi	2400	33.85	-4.70	0.32
	2442	48.28	-3.16	0.80
	2485	33.09	-4.80	0.80
5GHz Wi-Fi	5150	29.08	-5.36	-0.78
	5500	37.30	-4.28	-0.29
	5850	23.88	-6.22	-0.21

# 5. Isolation



Frequency [MHz]	S21[dB]
2400	-20.48
2442	-15.68
2485	-14.88
5150	-28.92
5500	-31.23
5850	-35.78

Measured isolation