

Antenna Datasheet

Product OC: Y0YHT00A1BA

Version: 1.0

Date: 2024-04-10

Product Name: MIMO FPC Antenna

Key Features:

Frequency Band: 1710-2690 MHz; 3500-3700MHz

Dimensions: 49.54×13.95×0.13mm

Efficiency: Up to 77%

RoHS and REACH Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

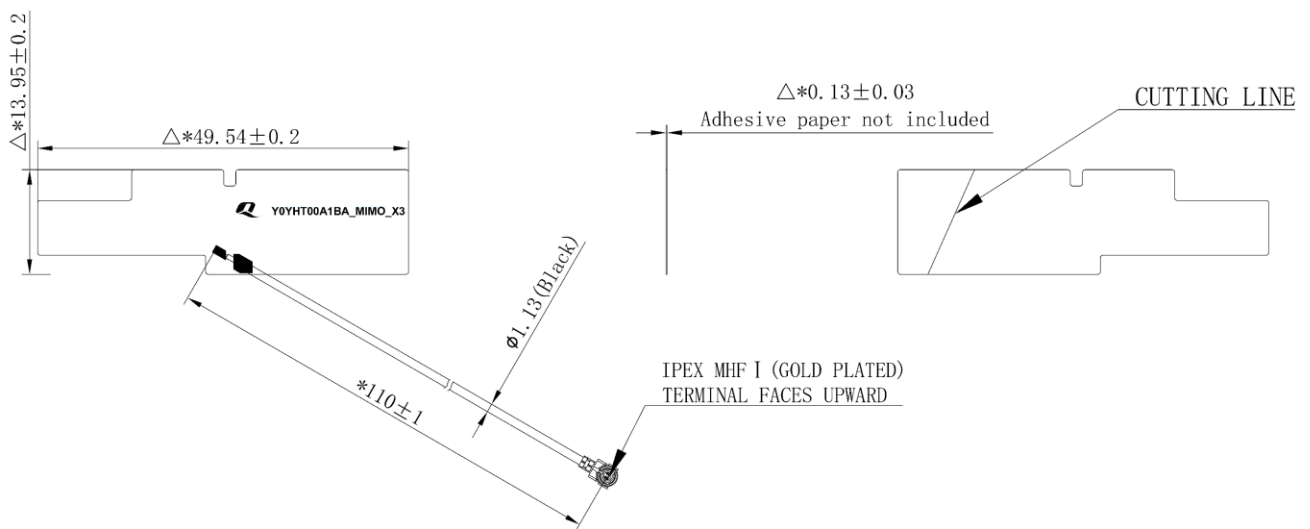
Electrical	
Frequency Range	1710-2690MHz, 3500-3700MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

Electrical - Detail												
SPEC	Band	B71	B12 /B13 /B28	B5 /B8 /B26	N74 /N75 /N76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /N77	N79	Wi-Fi 5G
	Freq. (MHz)	600– 700	700– 810	820– 960	1420– 1520	1700– 2170	2300– 2400	2400– 2500	2500– 2690	3300– 4200	4400– 5000	5150– 5850
Max. VSWR		-	-	-	-	3.8	1.9	2.0	2.6	2.9	-	-
Max. Return Loss (dB)		-	-	-	-	-4.7	-10.5	-9.6	-7.2	-6.3	-	-
AVG Eff. (%)		-	-	-	-	60.4	63.1	58.9	54.5	56.7	-	-
AVG AVG Gain (dB)		-	-	-	-	-2.3	-2.0	-2.3	-2.6	-2.5	-	-
Max. Peak Gain (dBi)		-	-	-	-	4.0	1.9	1.6	2.2	2.4	-	-
VSWR						≤ 3.8						
Return Loss						≤ -4.7 dB						
Peak Gain						≤ 4.0 dBi						

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	49.54 × 13.95 × 0.13 mm
Material & Color	FPC& Black
Cable Type & Color & Length	Φ1.13 & Black & 110mm
Connector Type	IPEX MHF 1
Mounting Type	Adhesive
Weight	Typ. 0.61g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS & REACH Compliant	Yes

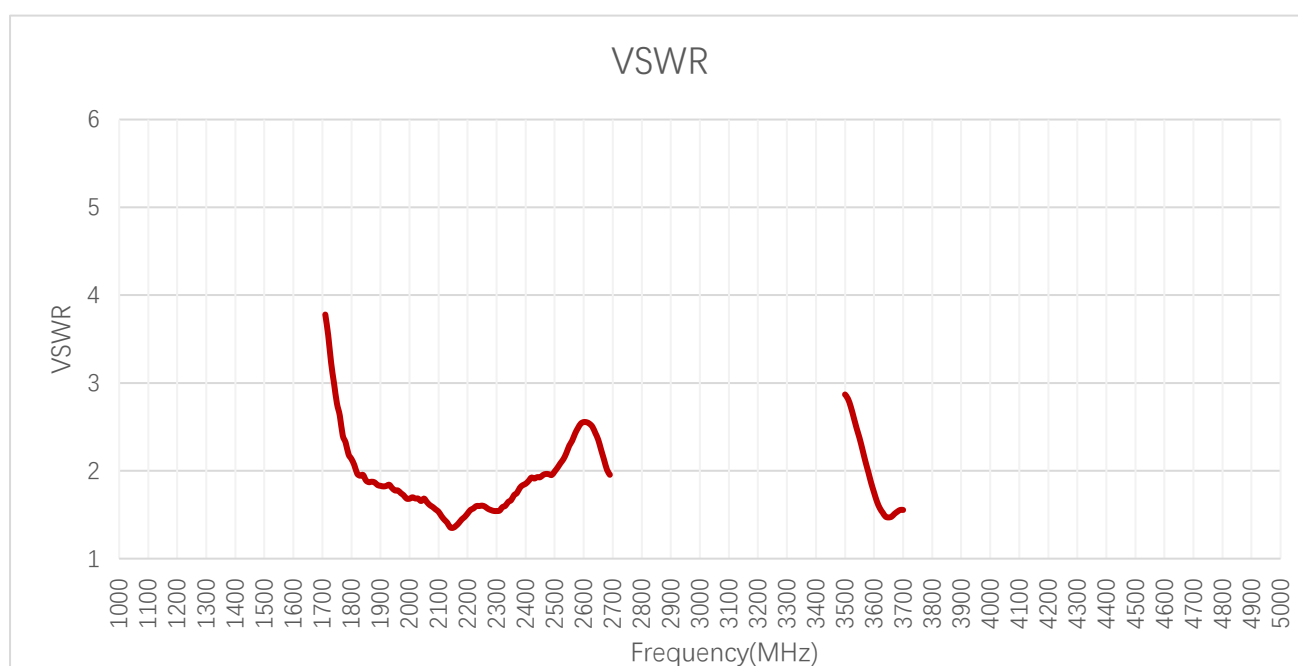
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

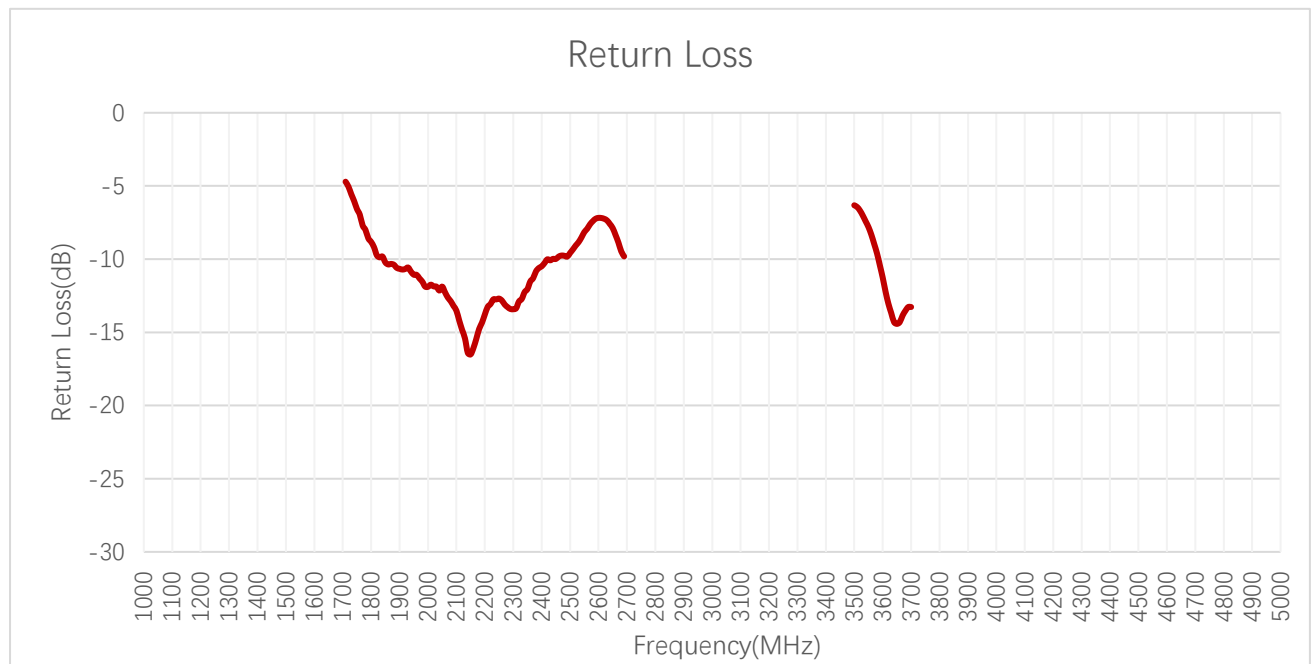
3.1.1. VSWR



VSWR

Frequency (MHz)	1710	1880	1950	2140	2350	2450	2600	3500	3600	3700
VSWR	3.8	1.9	1.8	1.4	1.7	1.9	2.6	2.9	1.8	1.6

3.1.2. Return Loss

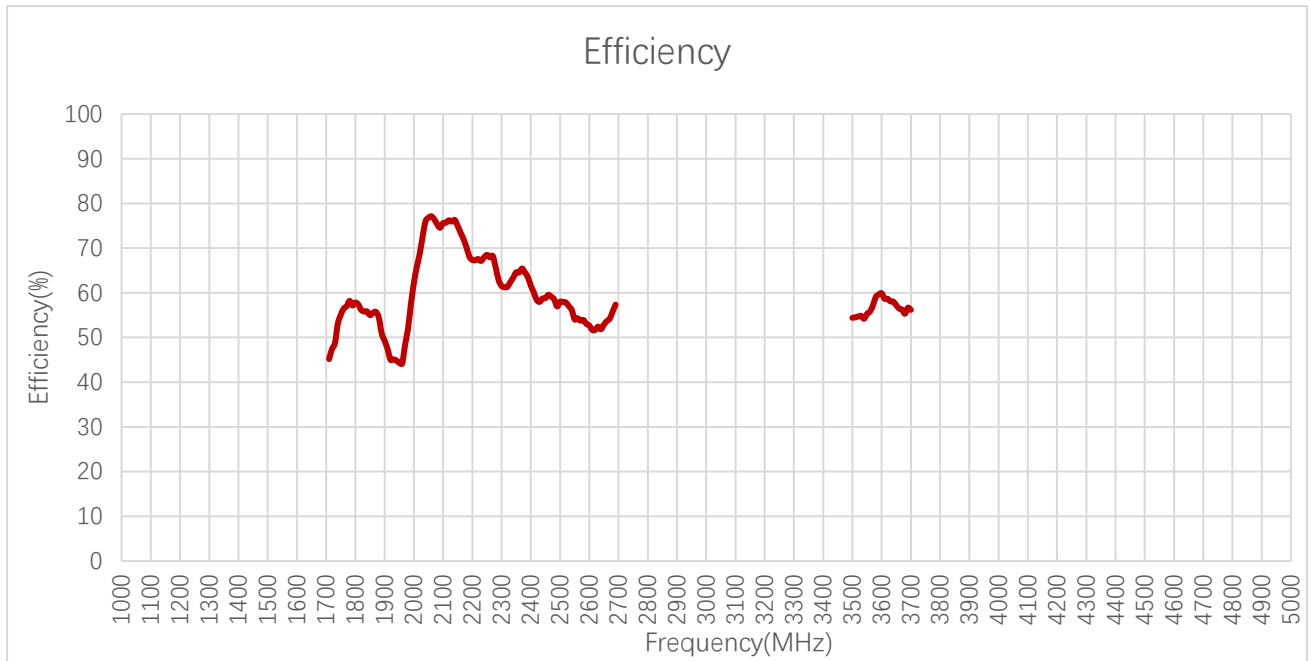


Return Loss (dB)

Frequency (MHz)	1710	1880	1950	2140	2350	2450	2600	3500	3600	3700
Return Loss (dB)	-4.7	-10.4	-11.1	-16.4	-12.0	-10.0	-7.2	-6.3	-11.3	-13.3

3.2. Radiation Performance Test

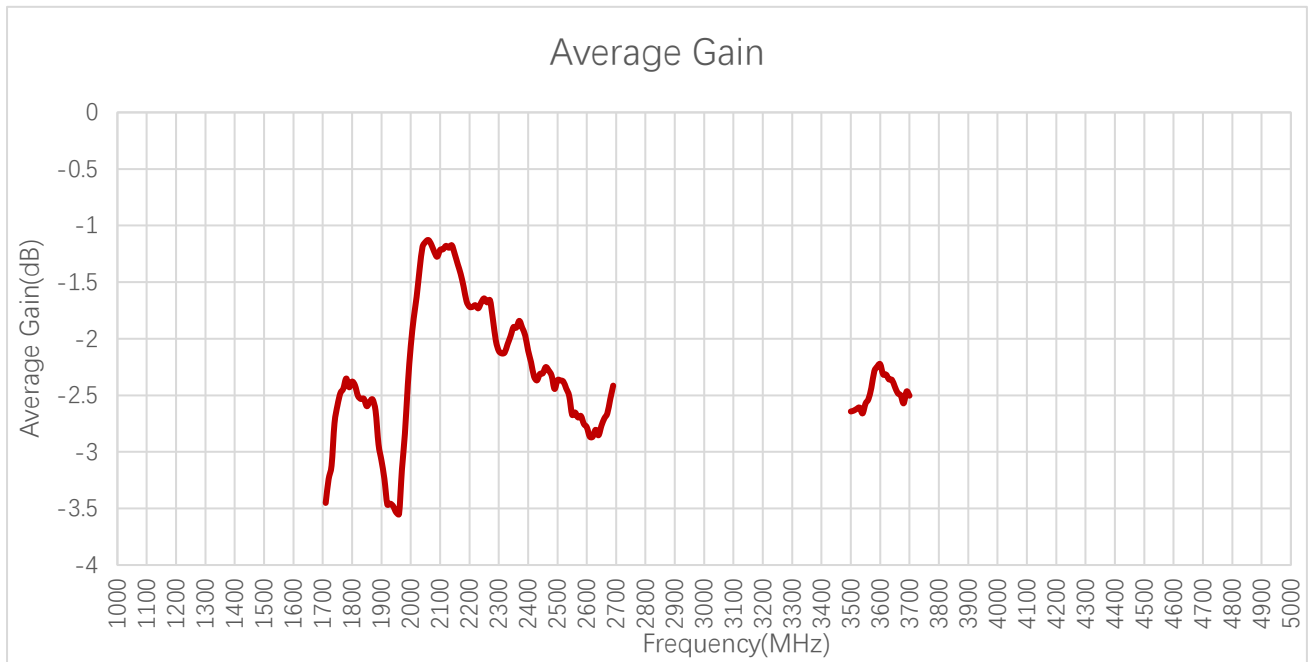
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	1710	1880	1950	2140	2350	2450	2600	3500	3600	3700
Efficiency (%)	45.2	54.5	44.3	76.3	64.6	58.8	52.7	54.4	59.9	56.2

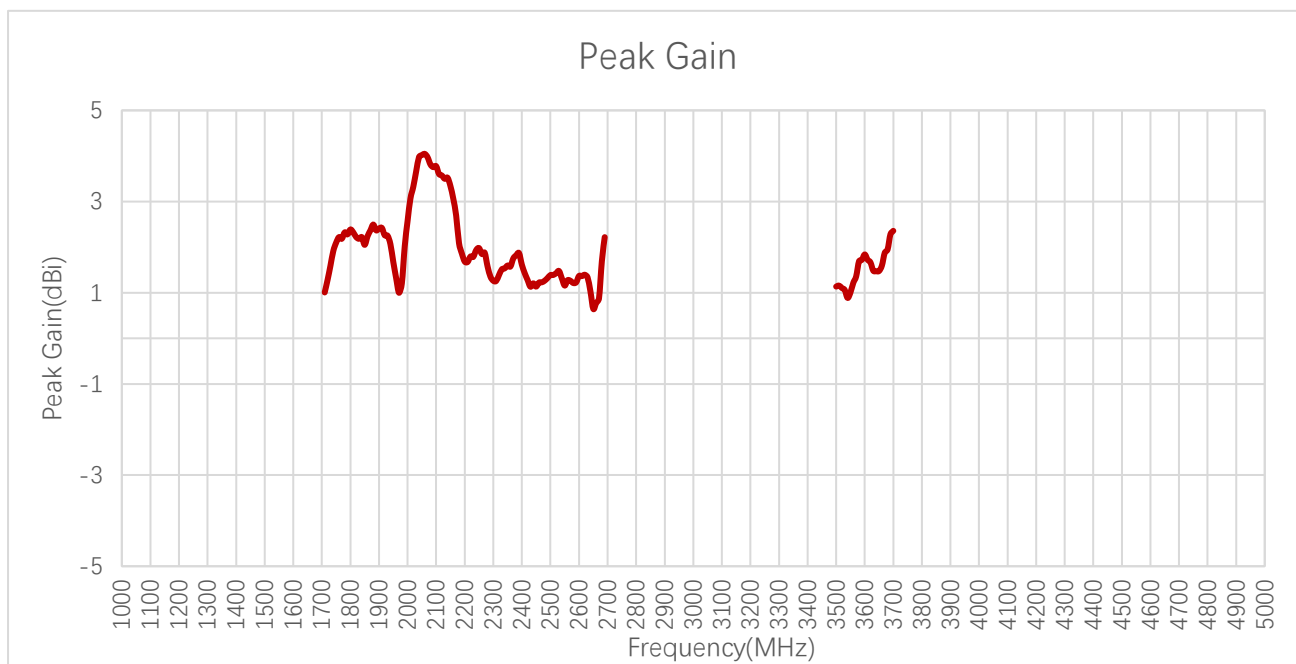
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	1710	1880	1950	2140	2350	2450	2600	3500	3600	3700
Average Gain (dB)	-3.5	-2.6	-3.5	-1.2	-1.9	-2.3	-2.8	-2.6	-2.2	-2.5

3.2.3. Peak Gain



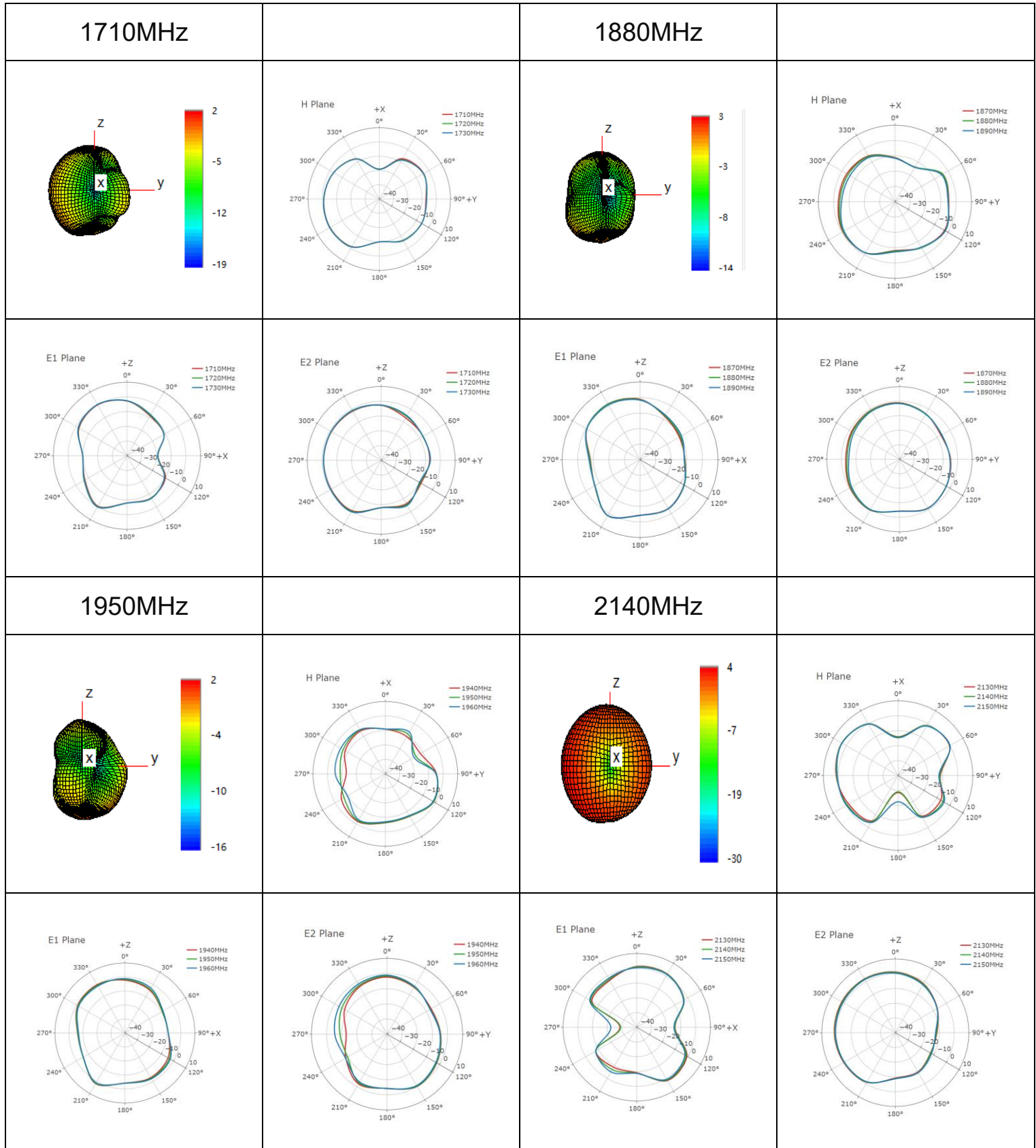
Peak Gain (dBi)

Frequency (MHz)	1710	1880	1950	2140	2350	2450	2600	3500	3600	3700
Peak Gain (dBi)	1.0	2.5	1.7	3.5	1.6	1.1	1.4	1.1	1.8	2.4

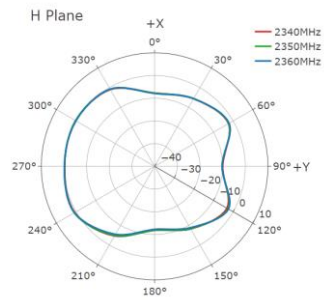
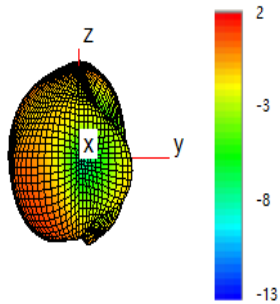
3.2.4. 3D & 2D Radiation Pattern

- Test Condition: Assembled in test device
- Test Chamber: HF-G-1

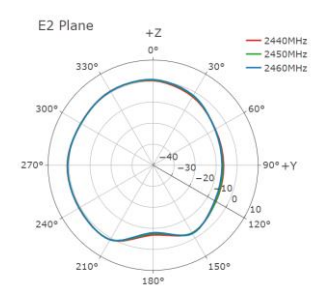
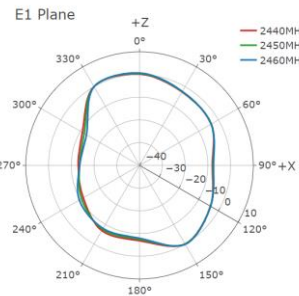
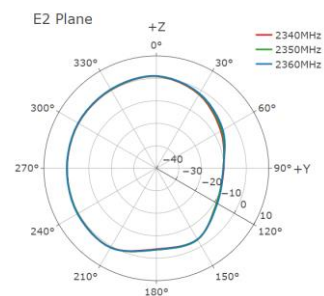
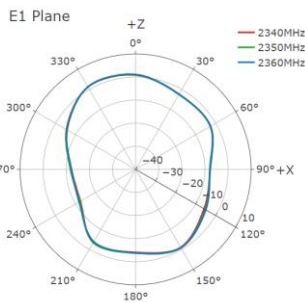
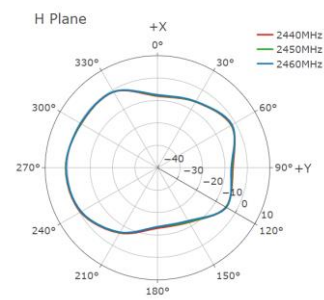
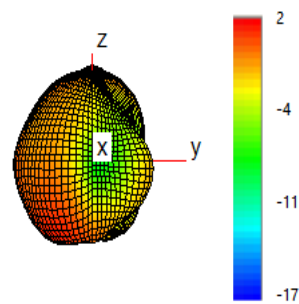




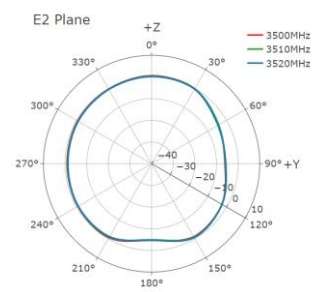
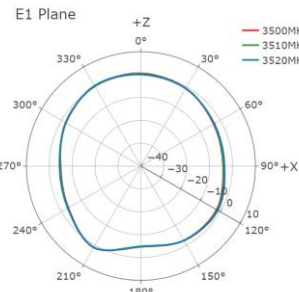
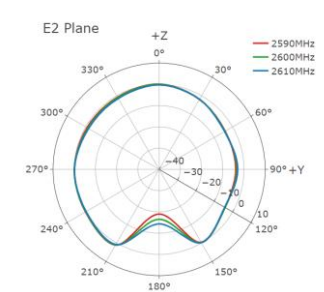
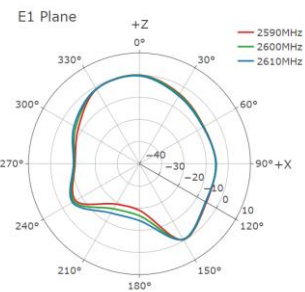
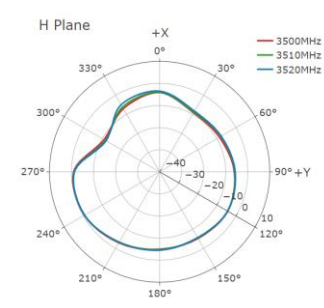
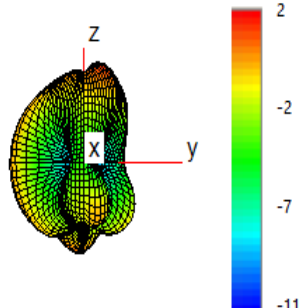
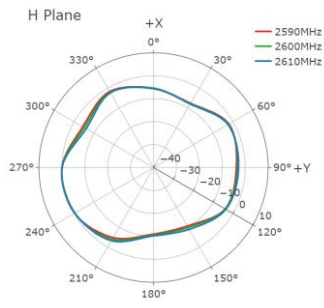
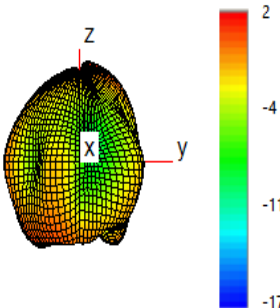
2350Hz



2450MHz

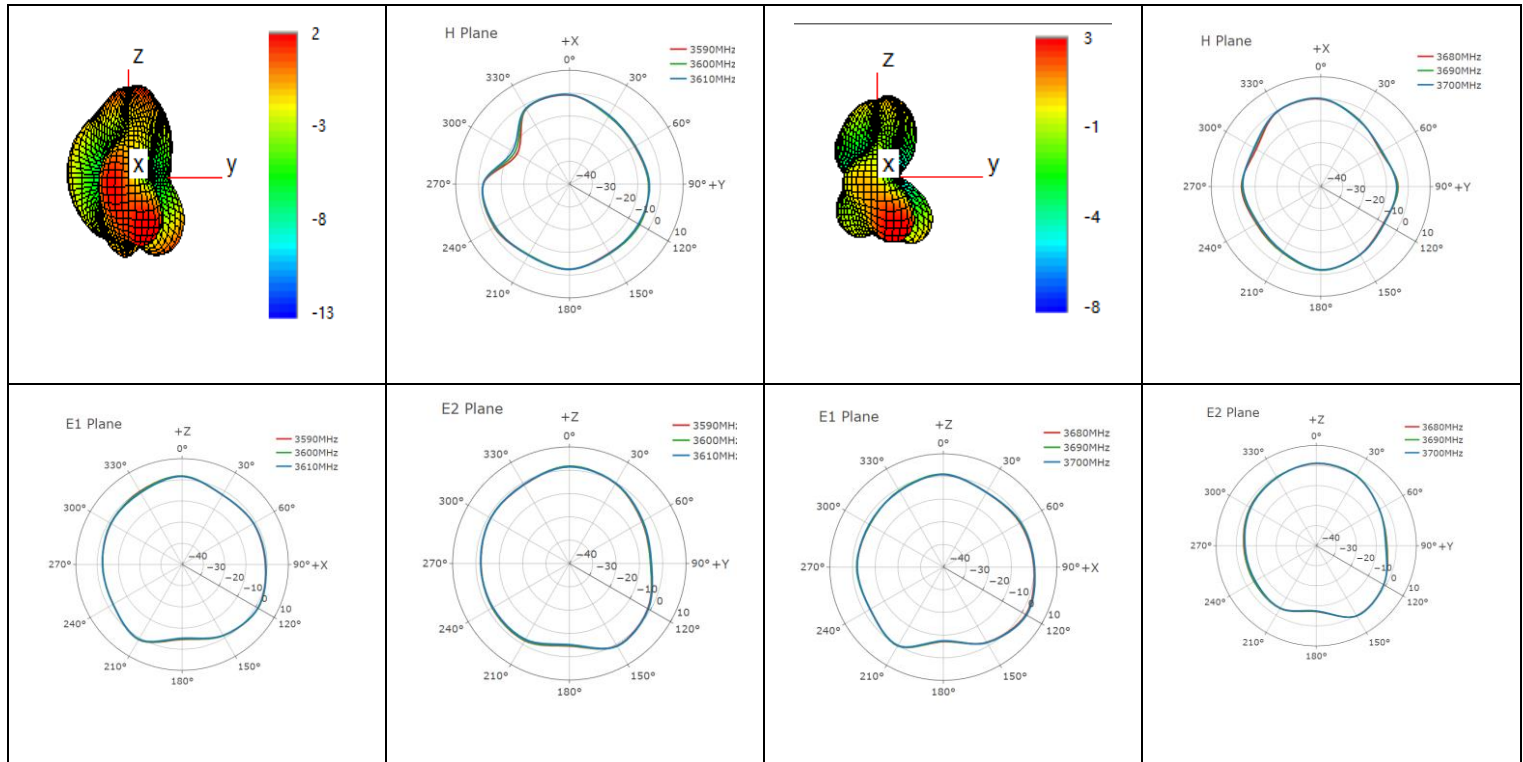


2600Hz



3600Hz

3700MHz



Contact US

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Revision History

Version	Date	Author	Note
-	2024-04-10	Simon SHENG Singh WANG David LIU Vinnie LIU	Creation of the document
1.0	2024-04-10	Simon SHENG Singh WANG David LIU Vinnie LIU	First official release



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