

Antenna Test Report

Customer: 光寶
Project: MXU-270R
Antenna: CW801S
Version: B
Release date: 2021/12/24

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Checked by: Sam Wu
Approved by: Mike Yang

Measurement Setup

Reflection Coefficient Measurement

- a. Equipment : Network Analyzer(Agilent E5071A)
- b. Test items : S-parameters (Impedance, return loss, VSWR)

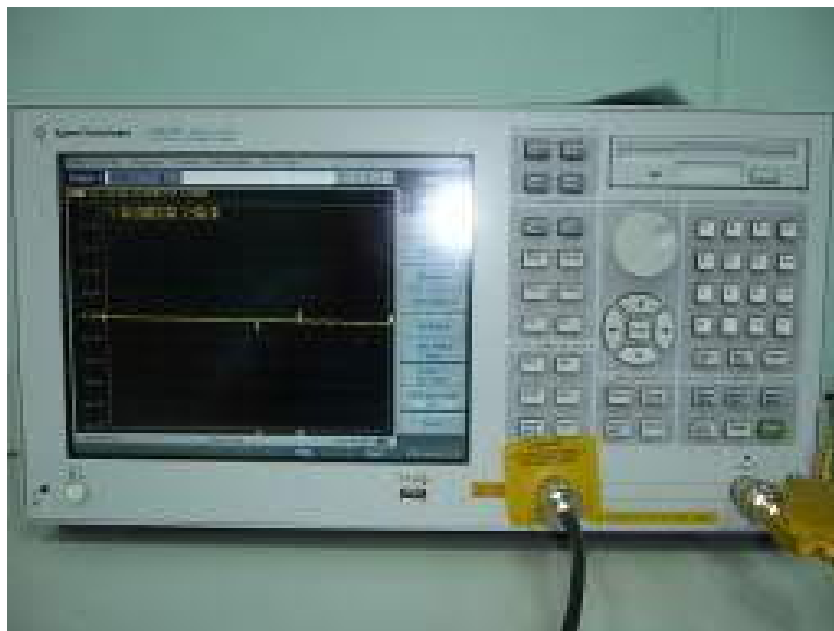


Figure. Network Analyzer(Agilent E5071A)

Radiation Pattern Measurement

- Equipment : Anechoic Chamber, Network Analyzer (Agilent E5071C), Standard Horn.
- Test items : Gain, efficiency, 2D gain pattern, 3D gain pattern

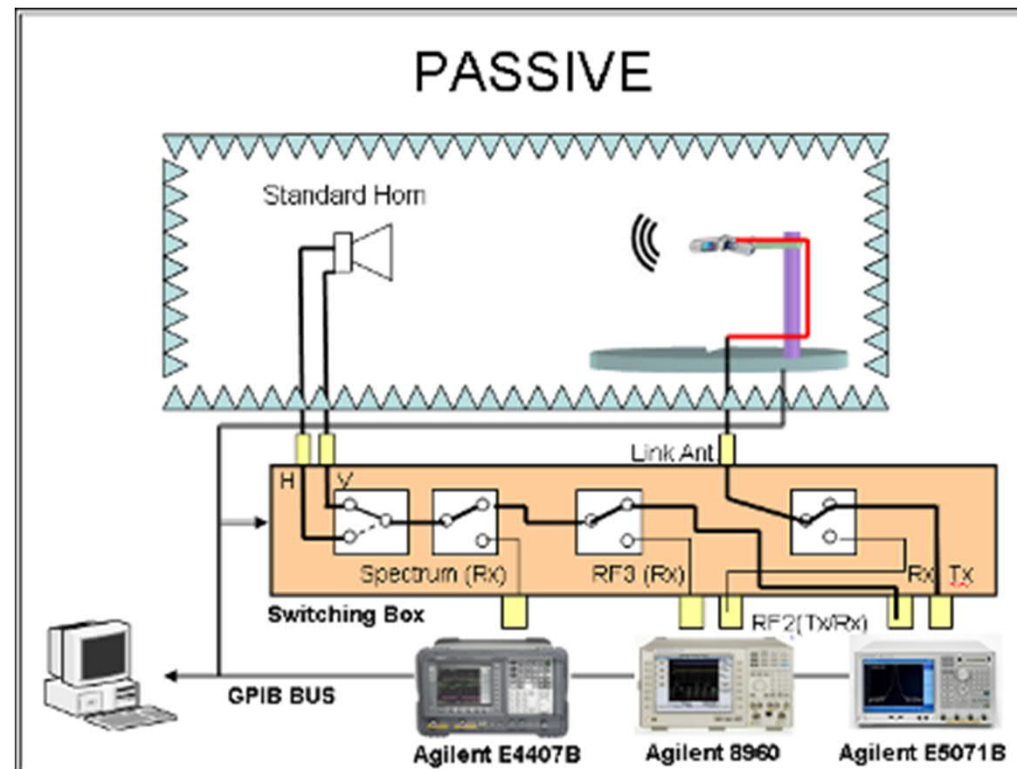


Figure. Scheme of radiation pattern measurement system

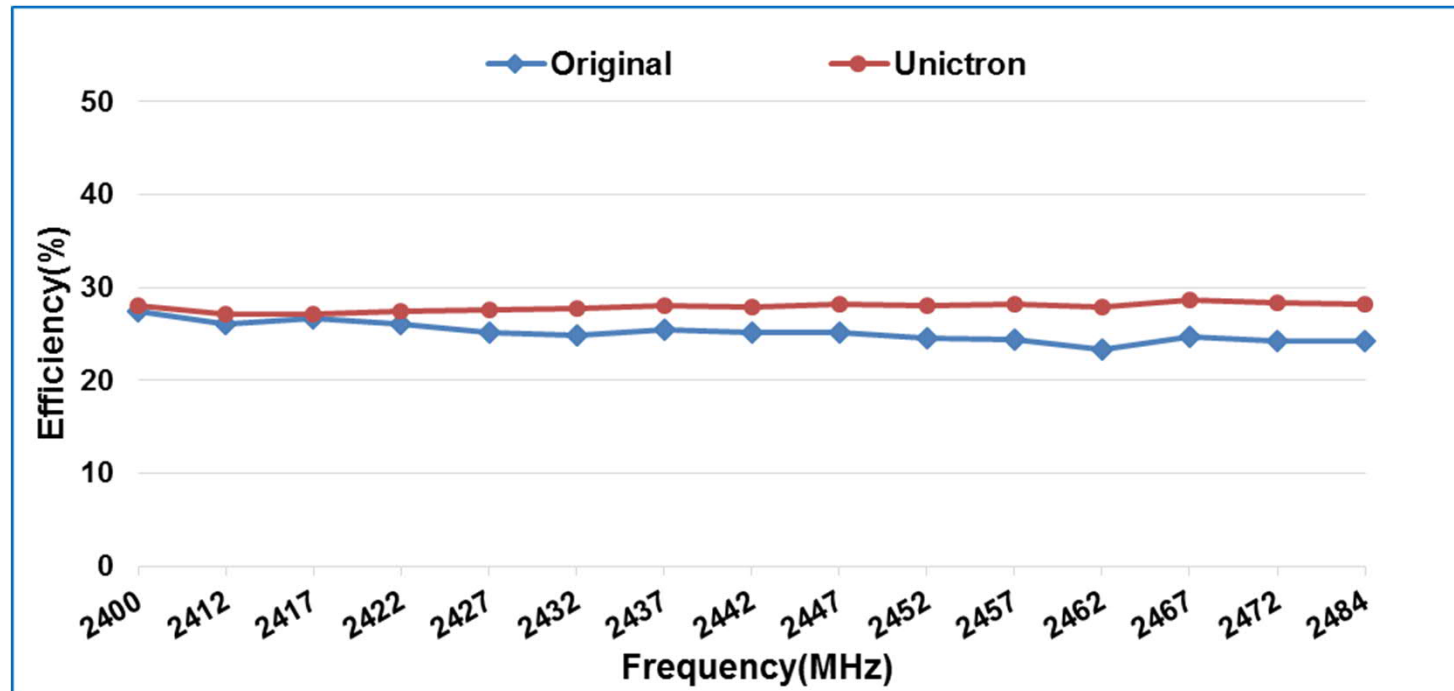
Mechanical setting

Placement of antenna



註:以下數據皆在在筆電上量測的

Radiation efficiency



2400-2484 MHz

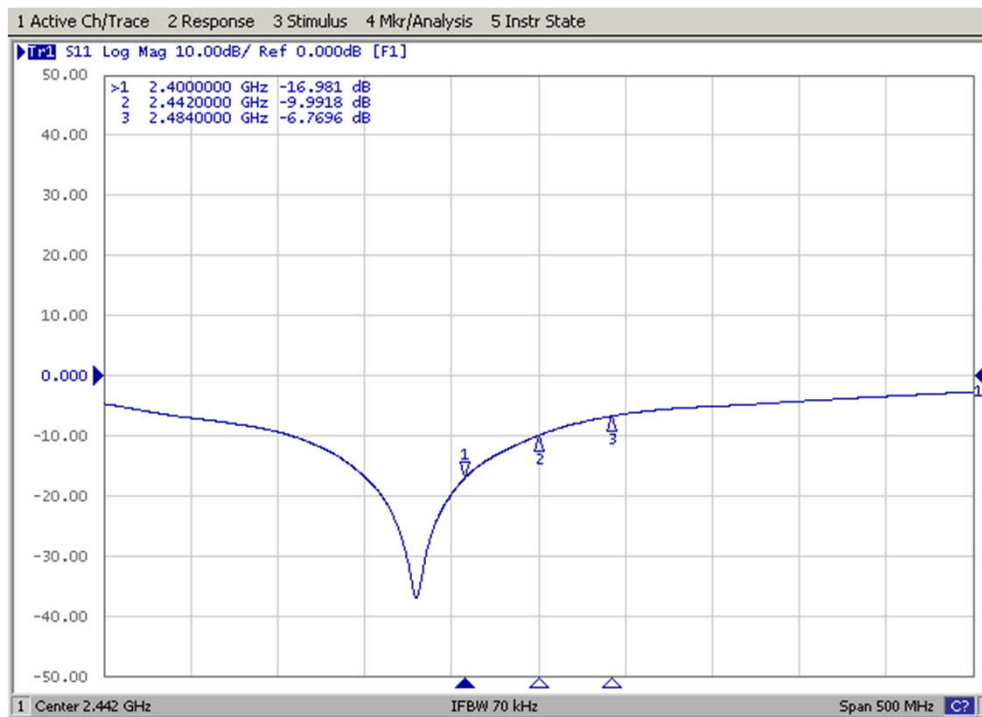
Frequency (MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency (%)	27.4	26.1	26.7	26.0	25.2	24.9	25.4	25.2	25.1	24.5	24.4	23.3	24.7	24.2	24.2
Liteon	27.4	26.1	26.7	26.0	25.2	24.9	25.4	25.2	25.1	24.5	24.4	23.3	24.7	24.2	24.2
Unictron	28.1	27.2	27.1	27.4	27.6	27.8	28.0	27.9	28.2	28.0	28.2	27.9	28.6	28.4	28.2

Experimental results

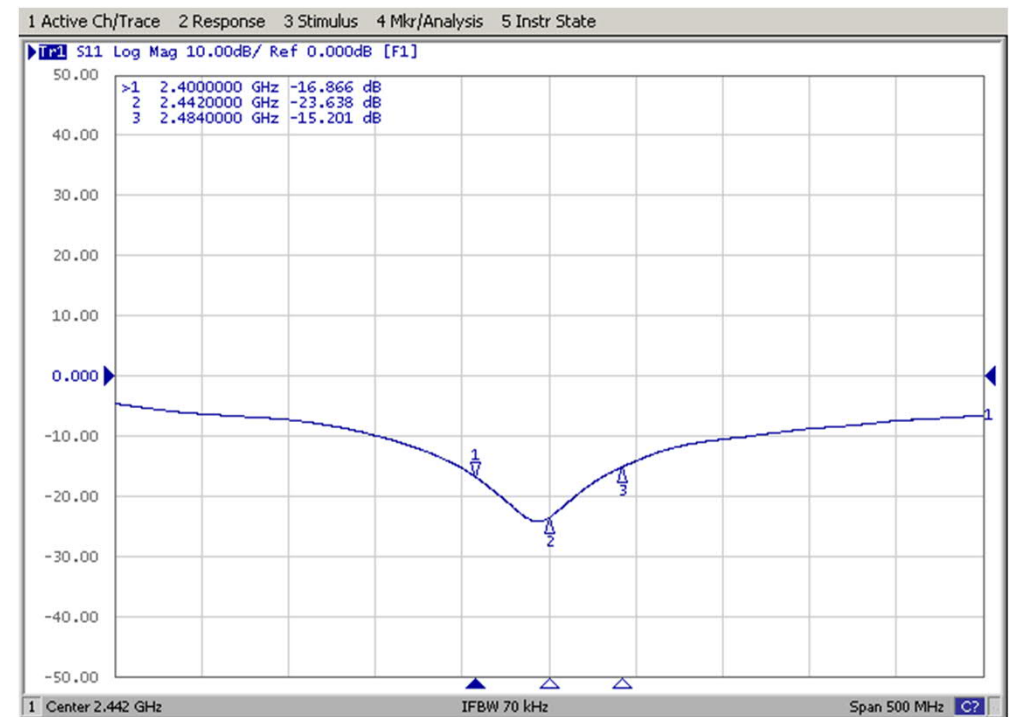
Experimental results

S-Parameters

Return Loss



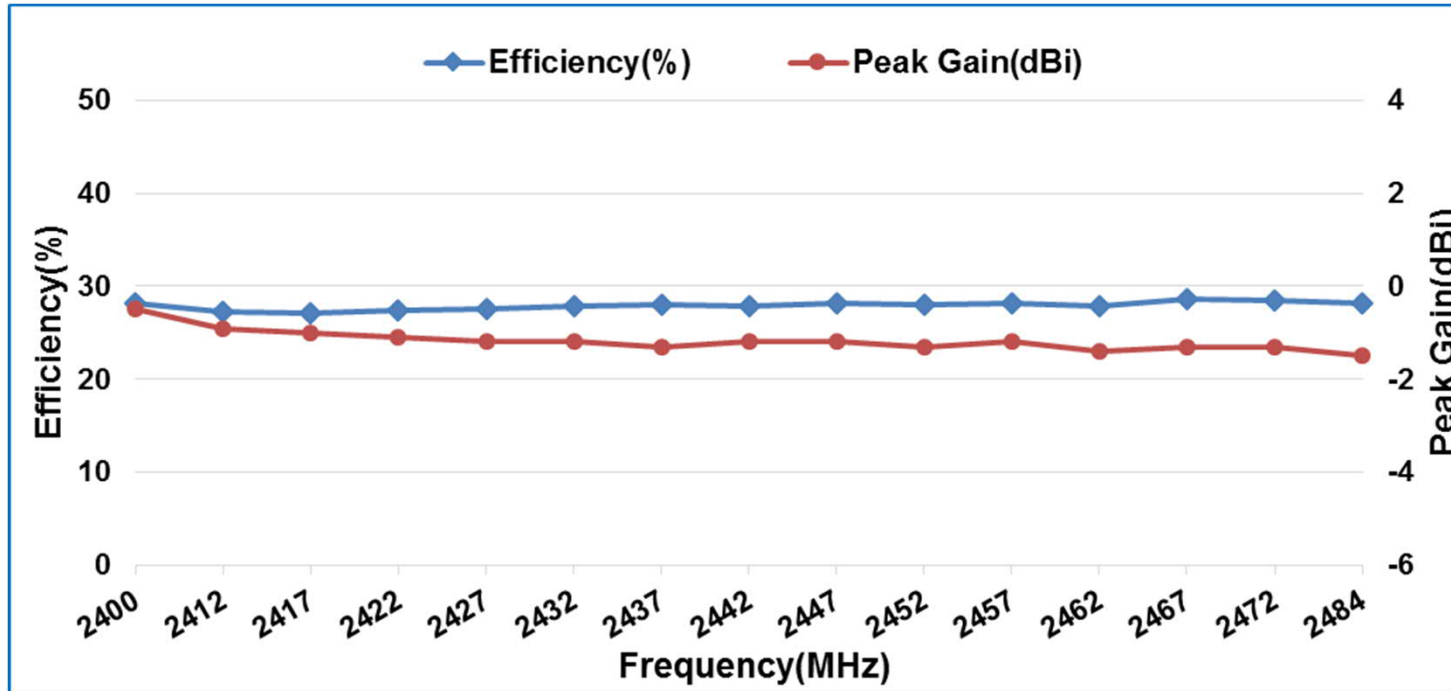
Liteon



Unictron

Experimental results (Unictron)

Radiation efficiency

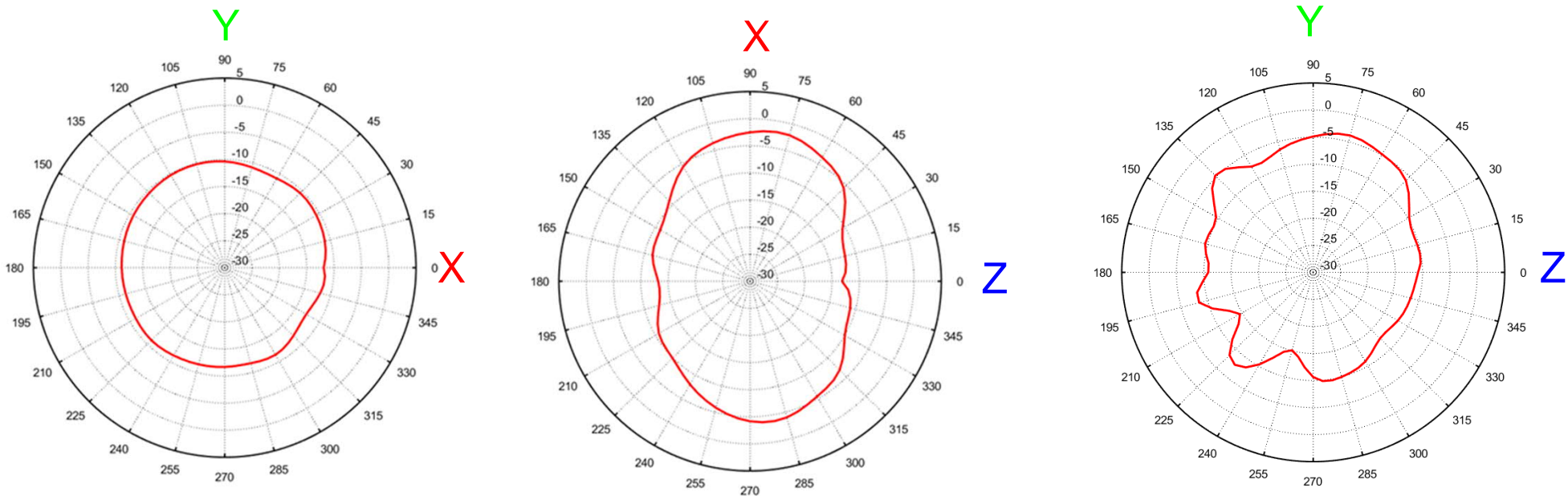


2400-2484 MHz

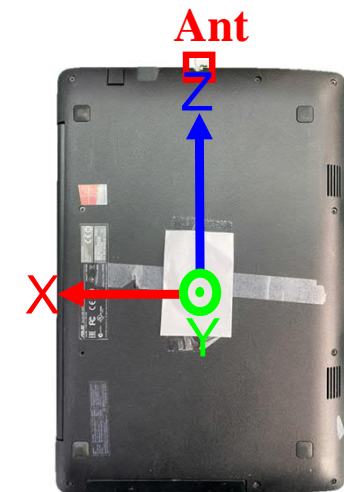
Frequency (MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency (dB)	-5.5	-5.7	-5.7	-5.6	-5.6	-5.6	-5.5	-5.5	-5.5	-5.5	-5.5	-5.6	-5.4	-5.5	-5.5
Efficiency (%)	28.1	27.2	27.1	27.4	27.6	27.8	28.0	27.9	28.2	28.0	28.2	27.9	28.6	28.4	28.2
Peak Gain (dBi)	-0.5	-0.9	-1.0	-1.1	-1.2	-1.2	-1.3	-1.2	-1.2	-1.3	-1.2	-1.4	-1.3	-1.3	-1.5

Experimental results (Unictron)

2D Gain Pattern (Radiation Pattern @ 2442 MHz) (unit: dBi)



Total Polarization	XY Plane		XZ Plane		YZ Plane	
Frequency (MHz)	Peak Gain (dBi)	Average Gain (dBi)	Peak Gain (dBi)	Average Gain (dBi)	Peak Gain (dBi)	Average Gain (dBi)
2445MHz	-10.14	-11.14	-2.1	-7.97	-3.81	-9.33



Experimental results (Unictron)

3D Gain Pattern (Radiation Pattern @ 2442 MHz) (unit: dBi)

