Test Report

Antenna: **printing**

Version: **A**

Release date: **2025/3/13**

Model：AR0205

Brand：Logitech, logitech G, logi, G

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Report Outline

Unictron Technologies Corp.

1. Background

2. Measurement Setup

2.1 Reflection coefficient measurement

2.2 Radiation pattern measurement

2.3 Mechanical setting

3. Experimental Results

3.1 S Parameters

3.2 Radiation efficiency and peak gain

Measurement Setup

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)

Measurement Setup

Radiation Pattern Measurement

a. Equipment : Anechoic Chamber, Network Analyzer (Agilent E5071C), Standard Horn.

b. Test items : Gain, efficiency, 2D gain pattern, 3D gain pattern

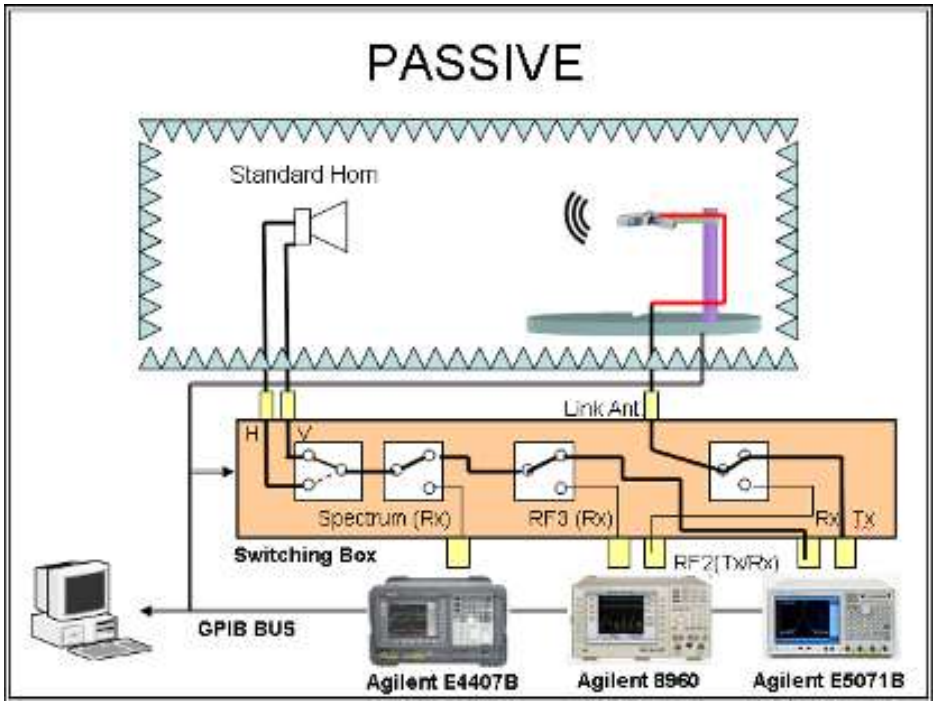


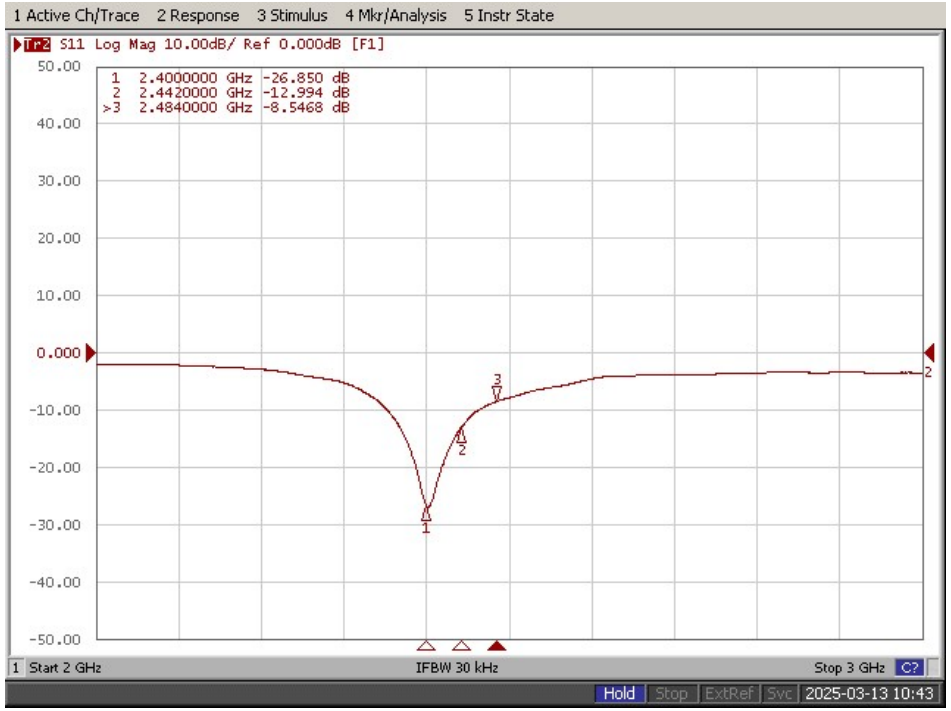
Figure. Scheme of radiation pattern measurement system

Experimental results

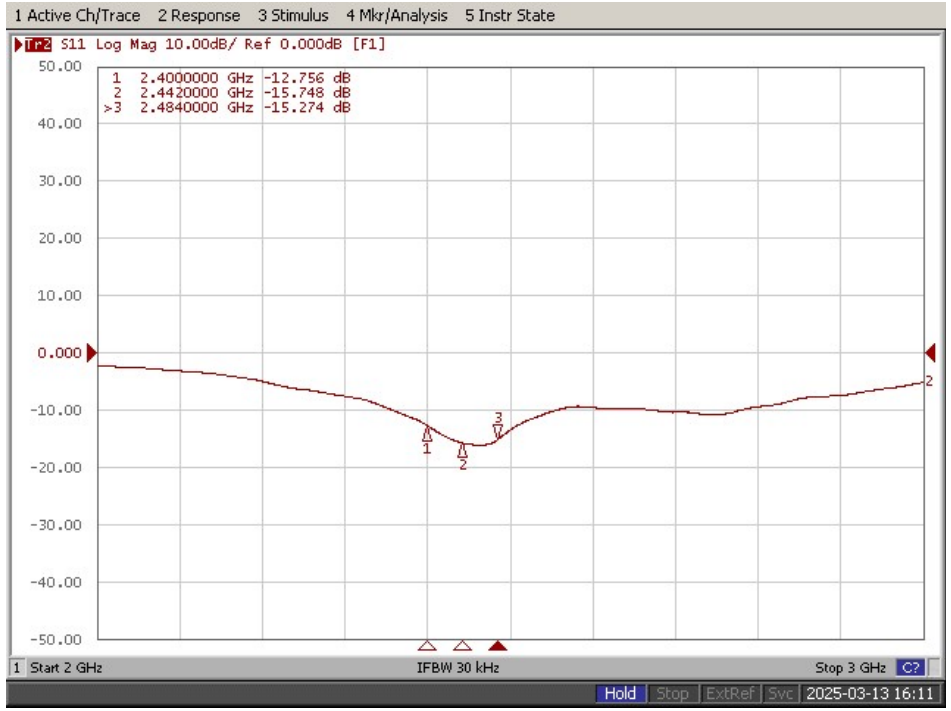
Experimental results

S-Parameters-Free space

Before



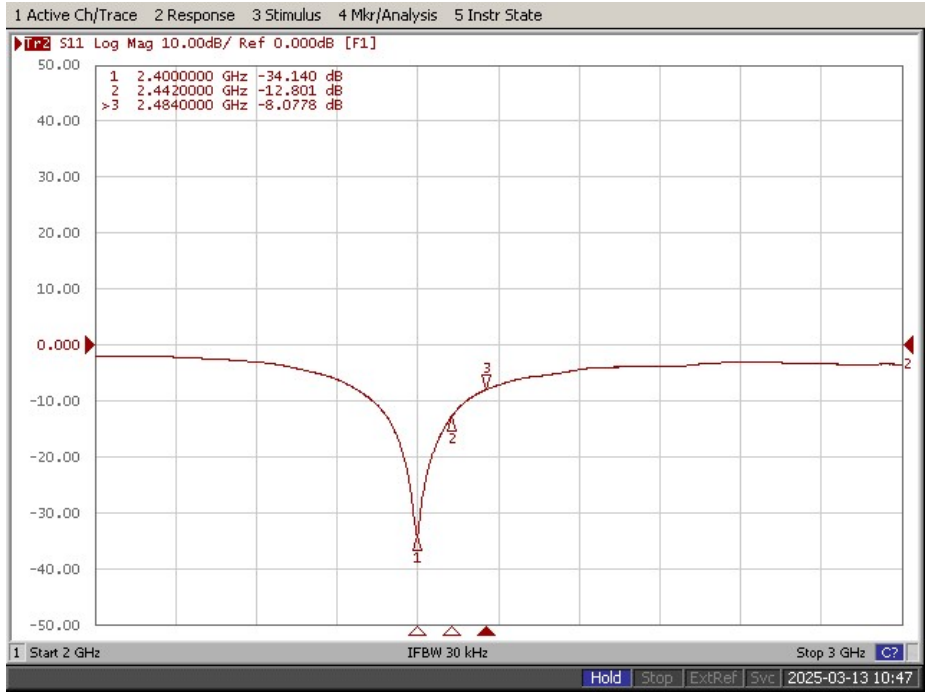
After



Experimental results

S-Parameters-Head

Before



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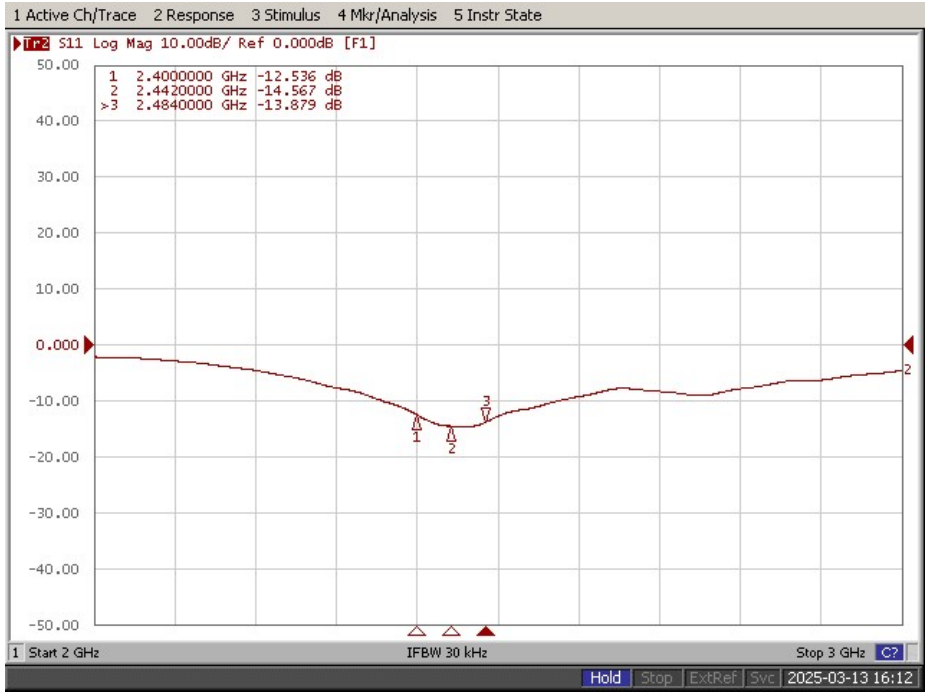
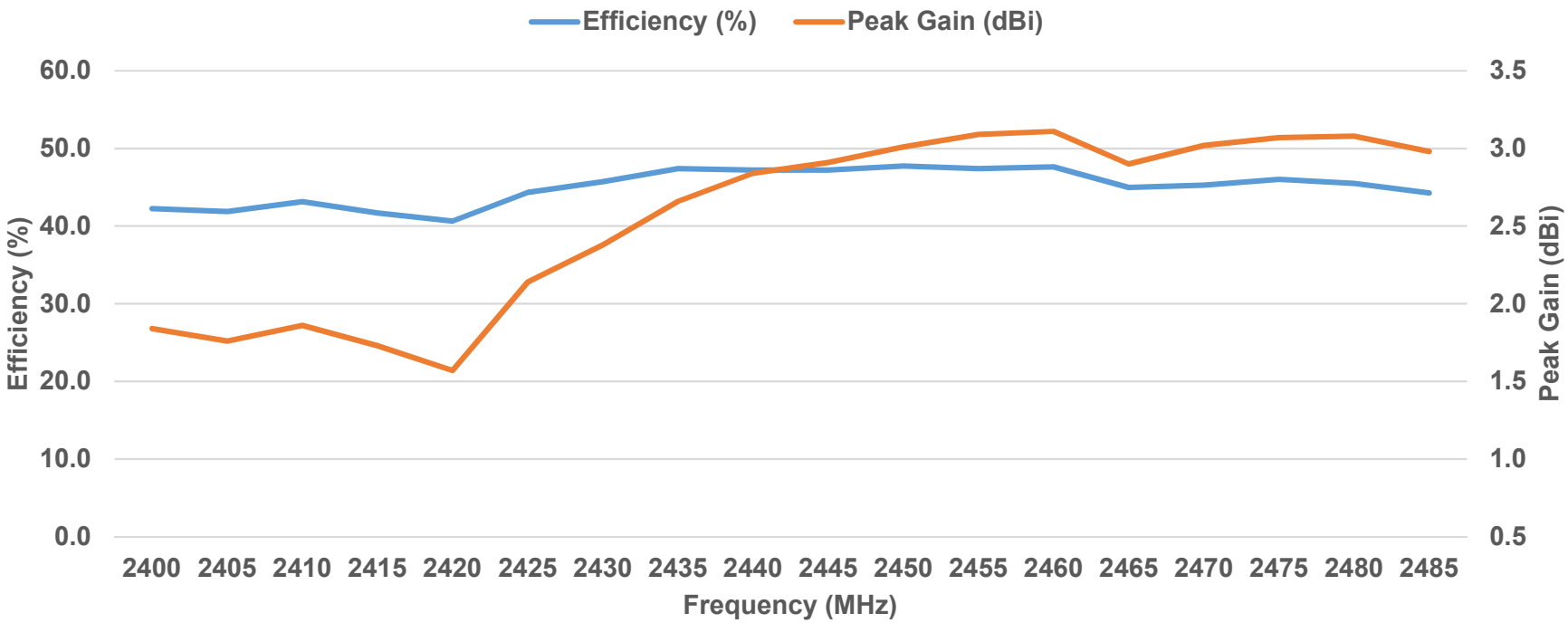


Experimental results

Radiation efficiency and peak gain

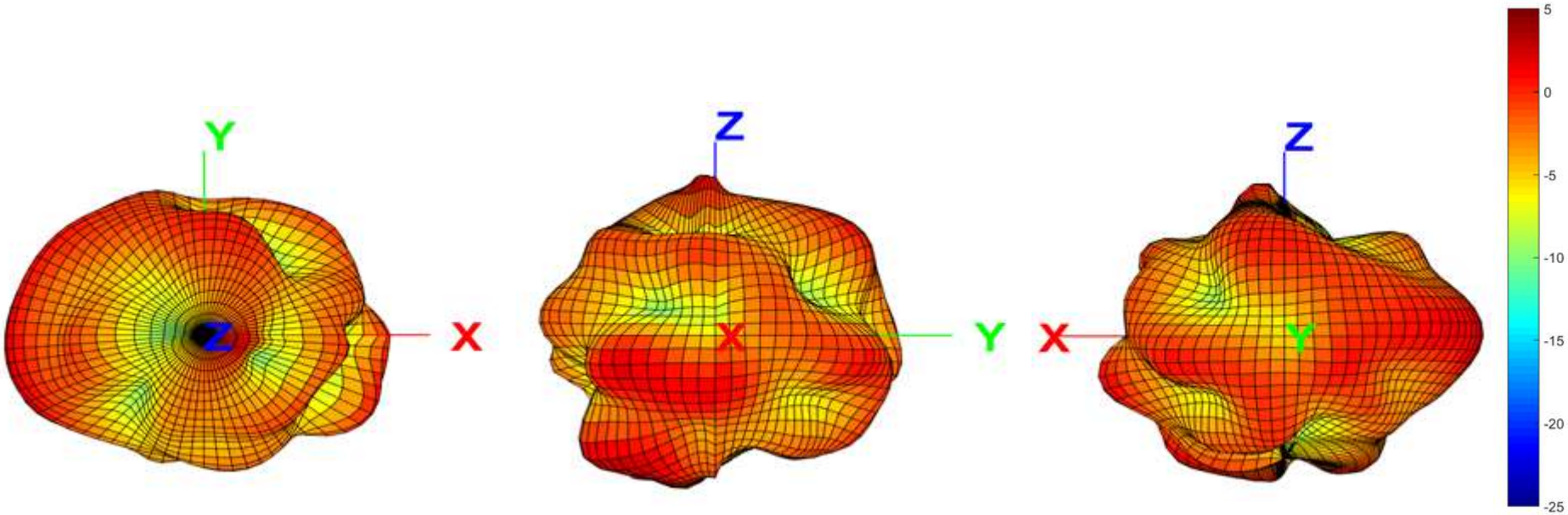


2400-2485 MHz

Frequency (MHz)	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480	2485
Efficiency (dB)	-3.7	-3.8	-3.7	-3.8	-3.9	-3.5	-3.4	-3.2	-3.3	-3.3	-3.2	-3.2	-3.2	-3.5	-3.4	-3.4	-3.4	-3.5
Efficiency (%)	42.3	41.9	43.2	41.7	40.6	44.4	45.7	47.4	47.2	47.2	47.8	47.4	47.6	45.0	45.3	46.0	45.5	44.3
Peak Gain (dBi)	1.8	1.8	1.9	1.7	1.6	2.1	2.4	2.7	2.8	2.9	3.0	3.1	3.1	2.9	3.0	3.1	3.1	3.0

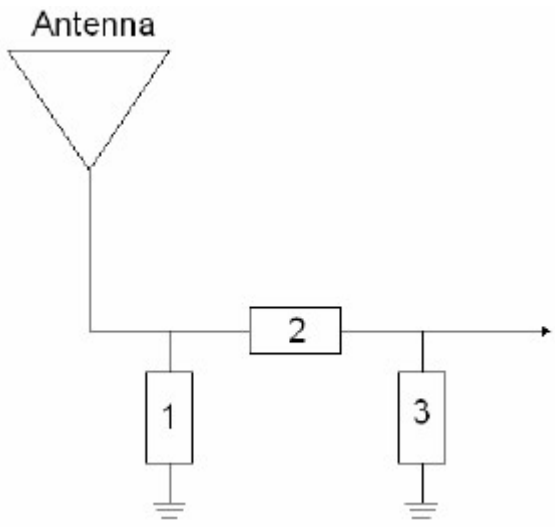
Experimental results

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



Experimental results

Matching Circuit



System Matching Circuit Component			
Location	Description	Vendor	P/N
1	2.2nH, (0402)	MURATA	**LQP03TG2N20B02D**
2	1.5pF, (0402)	MURATA	**GRM0335C1H1R5WA01D**
3	NA	-	-