

주식회사 알아이씨

제품사양서

2019.07.22. (Ver. 1.1)

DESCRIPTION	844MHz NB-IoT Antenna SMA-J Connect (Black)
WORKING BAND	839MHz ~ 849MHz
MODEL	RIC-NBAT-844195-SMAJ
CUSTOMER NAME	-
ISSUE DATE	2019.07.22.

DESIGN	CHECK	APPROBAL
J.W. PARK	J.B. KIM	M.K. JANG
2019. .	2019. .	2019. 07. 22.

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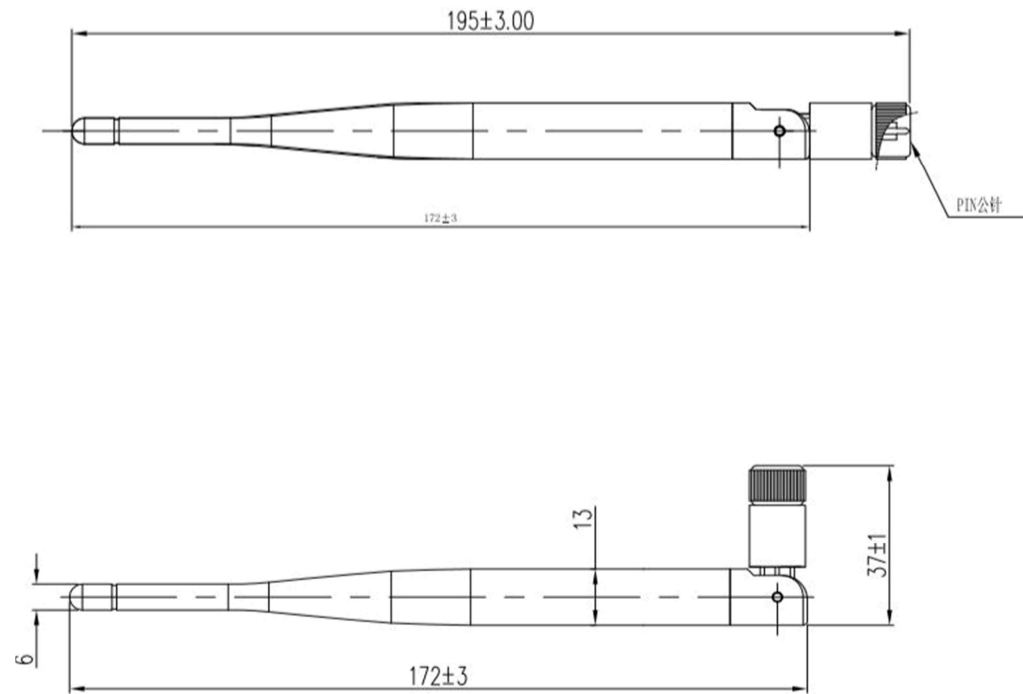
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문서개정이력

Author	Date	Version	Comment
	2019.06.25.	1.0	초안 작성
	2019.07.22.	1.1	Antenna Shell Color Change (Black)

이 문서와 문서에 포함되어있는 정보는 (주)알아이씨의 고유 기밀 정보이며, (주)알아이씨의 사전 동의 없이 전체 혹은 부분적인 내용을 외부에 유출하거나 사용할 수 없습니다.

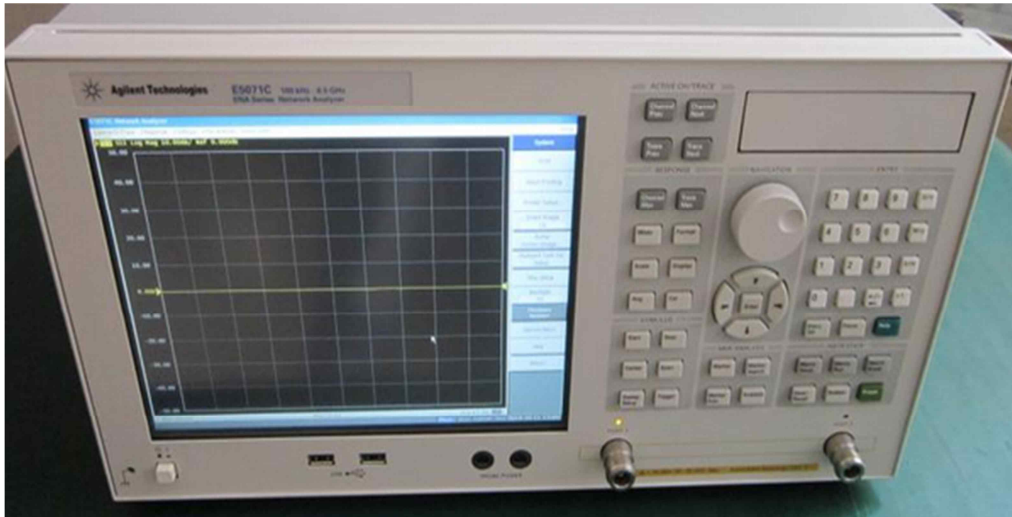
1. Product Drawing



No		Description	QTY
1	Antenna Cap	TPEE,Color:black	1
2	Upper Base	PBT+PC,Color:black	1
3	Bottom Base	PBT+PC,Color:black	1
4	Rivet	PBT+PC,Color:black	2
5	Cable	RG178mm Cable:50Ω	1
6	Connector	SMA-Plug For for RG178 Cable	1

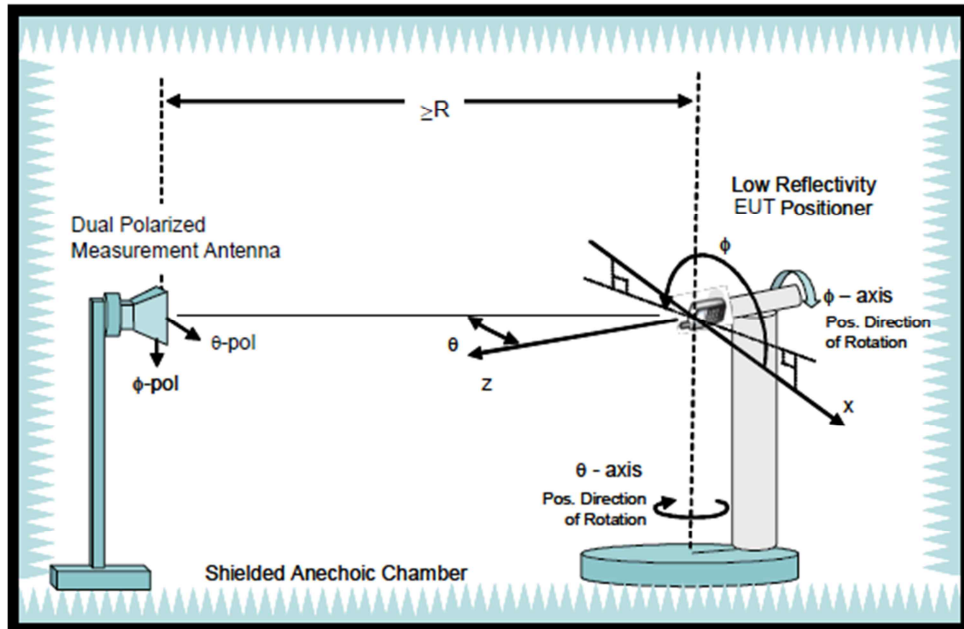
RIC CO., LTD		
제품명칭	RIC-NBioT-SMA	
세부명칭		
단위	mm	
설계자	검사자	승인자
승인일자	2019.07.22.	

2. Instrument

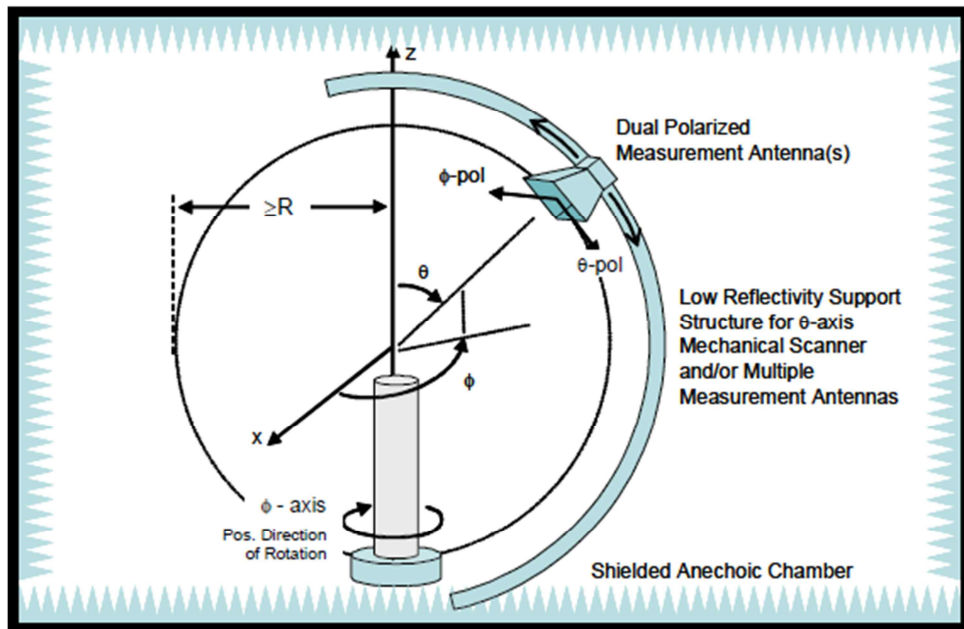


Network Analyzer	Agilent E5071C
Frequency Range	100KHz ~ 8.5GHz
Test Item	Return Loss/VSWR/ Smith Chart/Isolation

3. Typical Setup for Test System

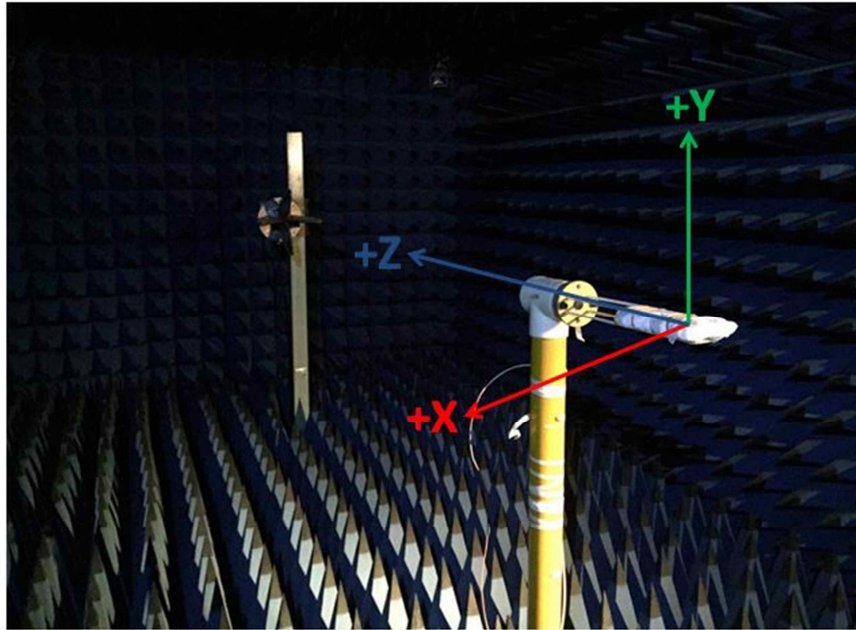


Combined-Axes System

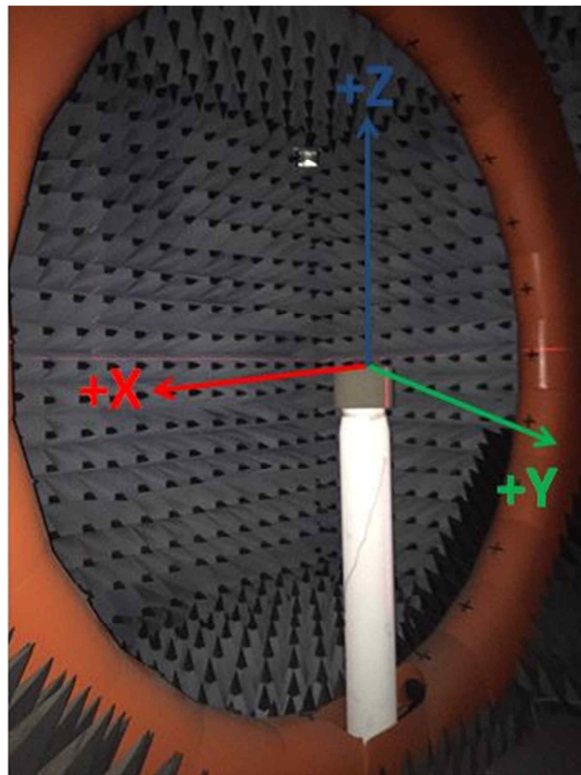


Distributed-Axes System

4. Anechoic Chamber



Combined-Axes System



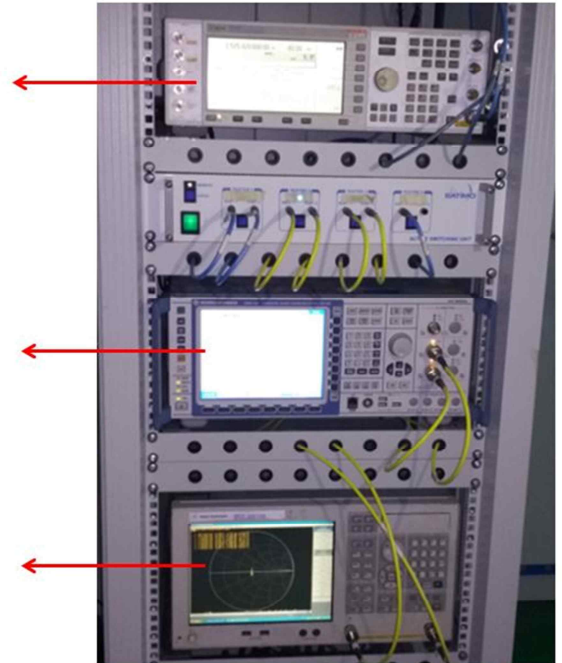
Distributed-Axes System

5. Test Instrument

Generator	Agilent E4438C
Test Item	GPS

Radio Communication Tester	R&S CMW500
Test Item	Active Test

Network Analyzer	Agilent E5071C
Test Item	Passive Test



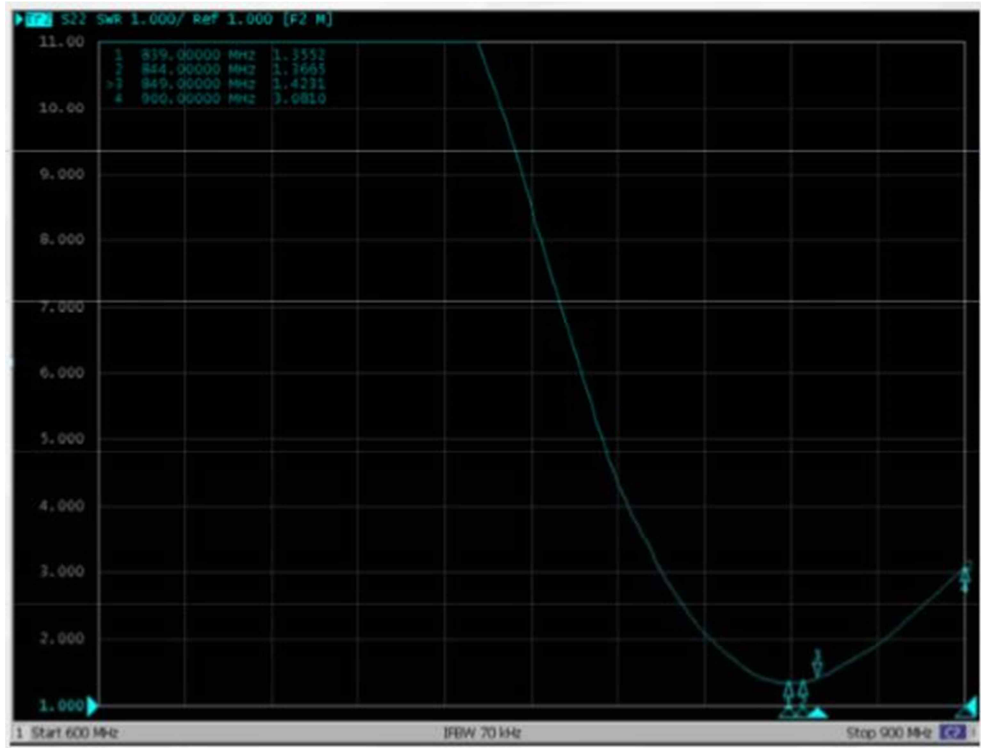
6. Antenna Sample Description



자사의 915MHz LoRa 외장형 안테나(RIC-LRAT-915195-SMAJ)와 구별하기 위하여 안테나 본체에 라벨스티커가 부착되어 있습니다.

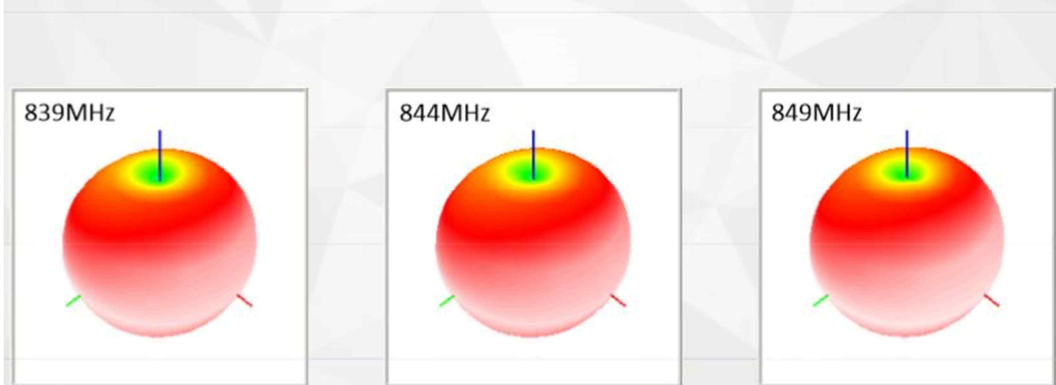
7. Performance Report

A. #1 Antenna



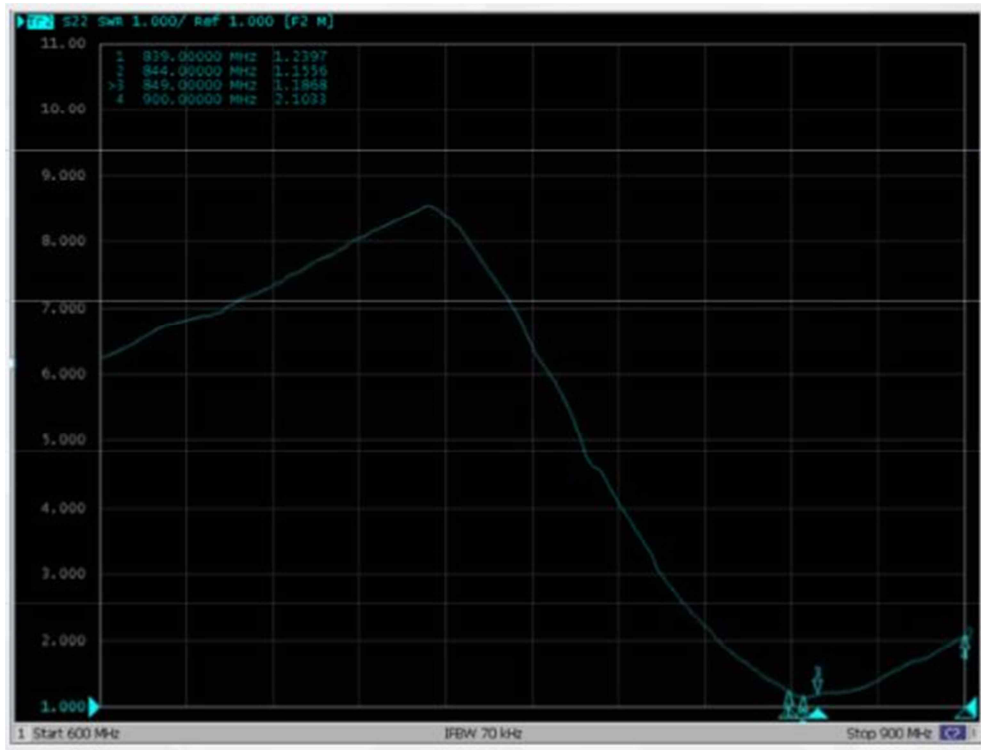
VSWR

Freq.(MHz)	839	844	849
VSWR	1.35	1.36	1.42
Peak Gain(dBi)	1.16	1.23	1.20
Efficiency	69.9%	72.2%	69.9%



Test Result

B. #2 Antenna

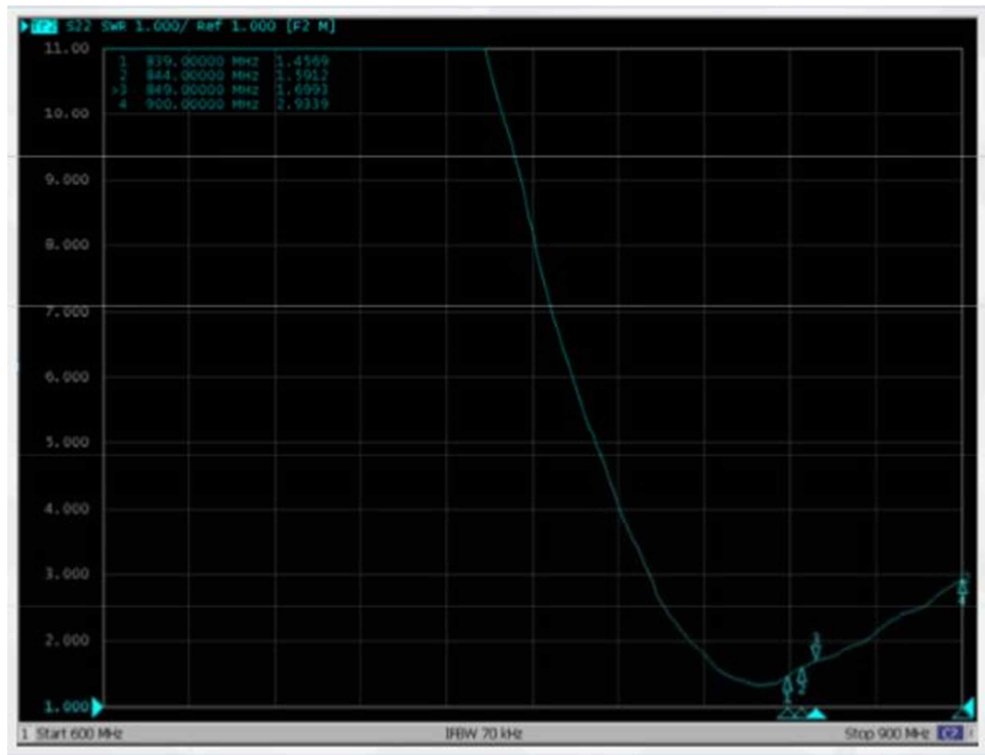


VSWR

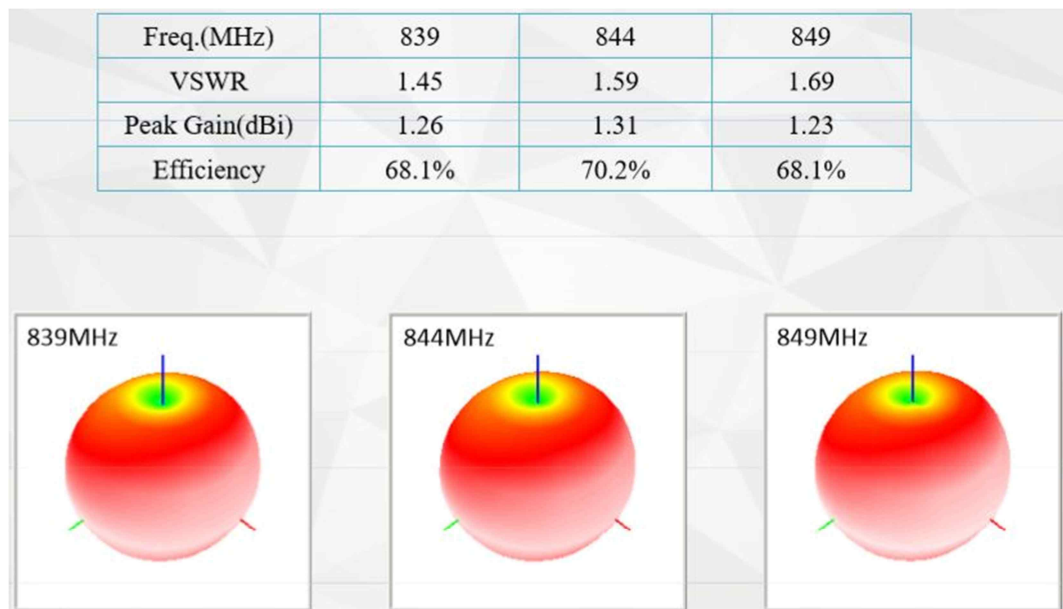


Test Result

C. #3 Antenna

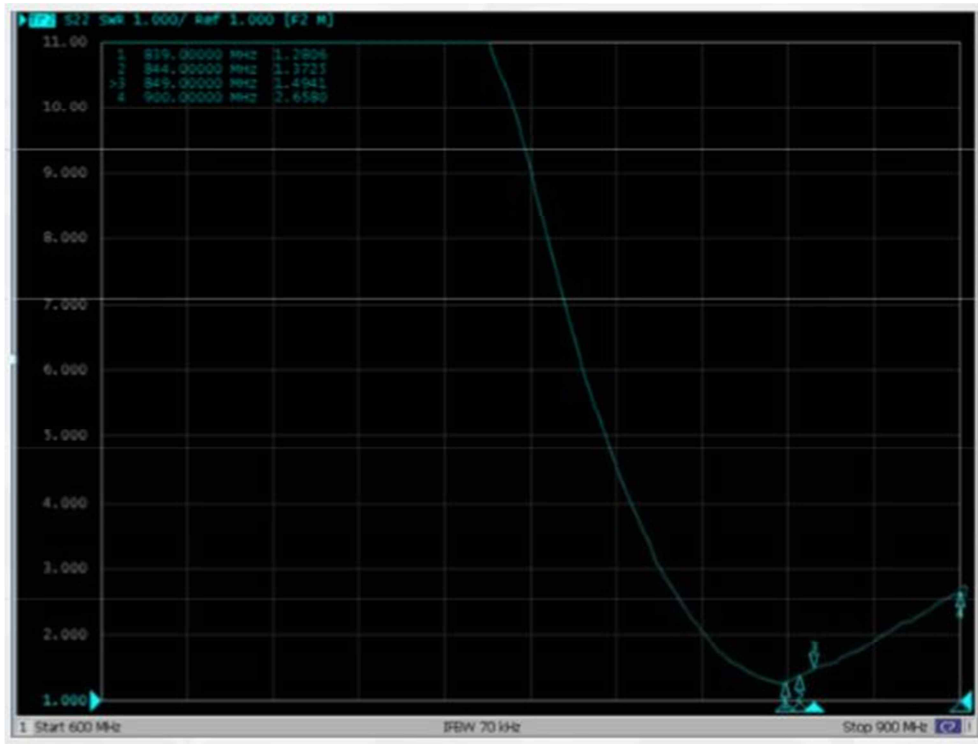


VSWR



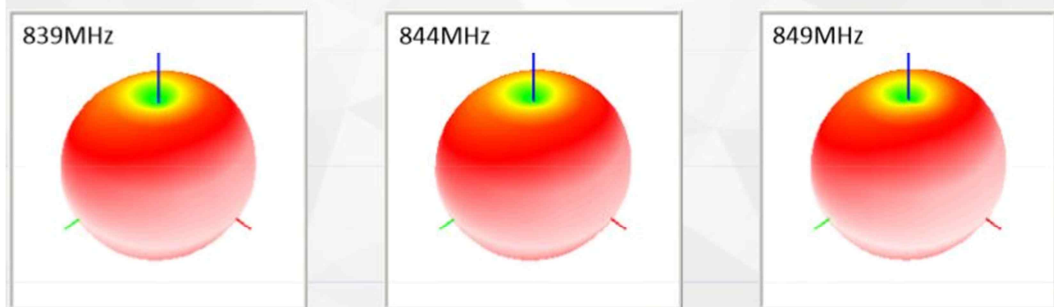
Test Result

D. #4 Antenna



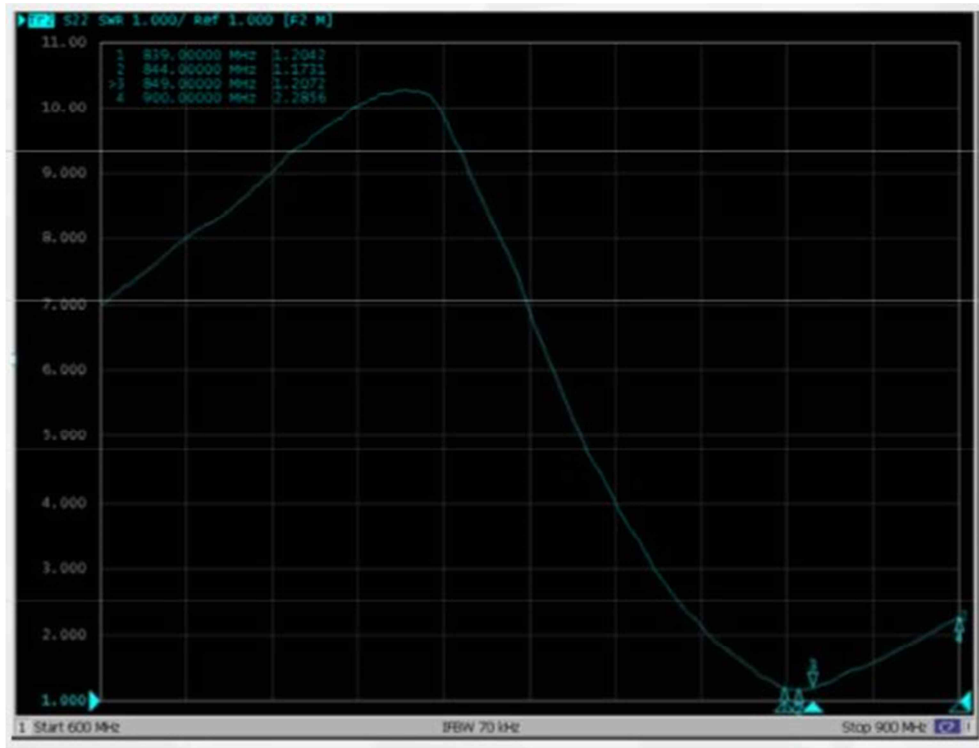
VSWR

Freq.(MHz)	839	844	849
VSWR	1.28	1.37	1.49
Peak Gain(dBi)	1.27	1.36	1.34
Efficiency	70.2%	72.9%	71.4%



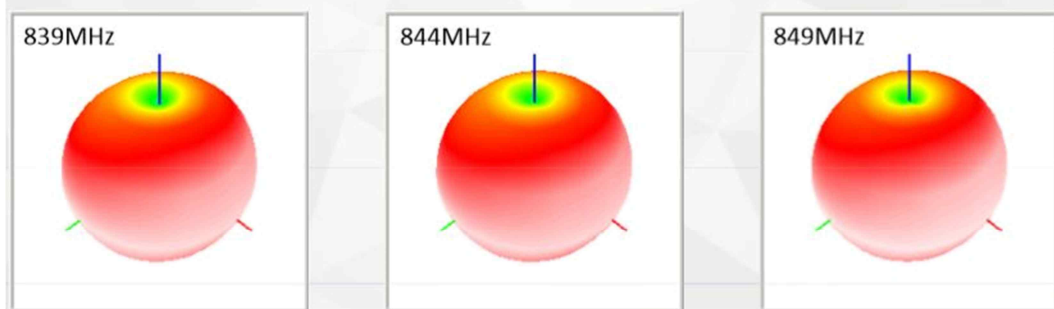
Test Result

E. #5 Antenna



VSWR

Freq.(MHz)	839	844	849
VSWR	1.20	1.17	1.20
Peak Gain(dBi)	1.24	1.30	1.23
Efficiency	68.8%	71.1%	69.2%



Test Result

8. Specification

(1) Physical Properties

- Connect TypeSMA-J
- Operating Temperature.....-30°C ~ +75°C
- Storage Temperature.....-20°C ~ +65°C

(2) Electrical Properties

- Frequency Range.....839MHz ~ 849MHz
- Impedance..... 50Ω
- VSWR.....<2.0
- Efficiency.....Max 73%

9. CAUTION

이 문서와 문서에 포함되어있는 정보는 (주)알아이씨사의 고유 기밀 정보이며, (주)알아이씨사의 사전 동의 없이 전체 혹은 부분적인 내용을 외부에 유출하거나 사용할 수 없습니다

10.Contact Information

(주)알아이씨 : ric@ric.co.kr