NE3-21023
JK keyless project
BTx1

Version: ***V 2.04***
Released Date: ***2022/06/09***
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Reviewed By:Stone

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Revision History

Released Date	Version	Record
2021/05/28	V1.01	BT x1 Test Report(New Test)
2021/08/05	V2.01	BT x1 Test Report(New Test)
2021/08/10	V2.02	BT x1 Test Report(New Test)
2021/10/01	V2.03	BT x1 Test Report(New Test)
2022/06/09	V2.04	BT x1 Test Report(New Test)

Summary & Comments

Antenna Performance Summary

- New Testing

Comments for Further Improvement

- To be confirmed by the customer

Specification

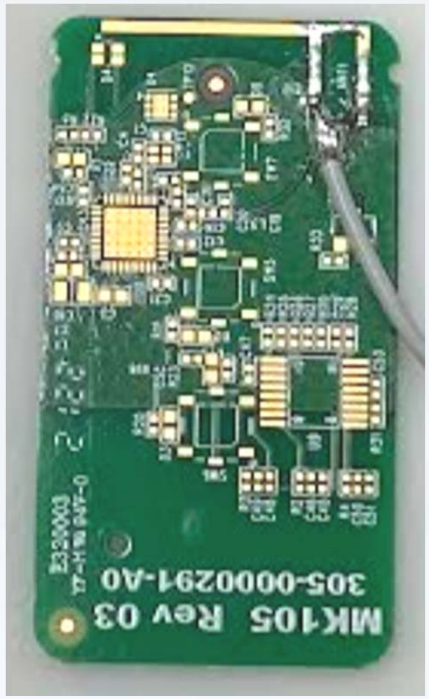
Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
BT	1	2400-2500(MHz)	

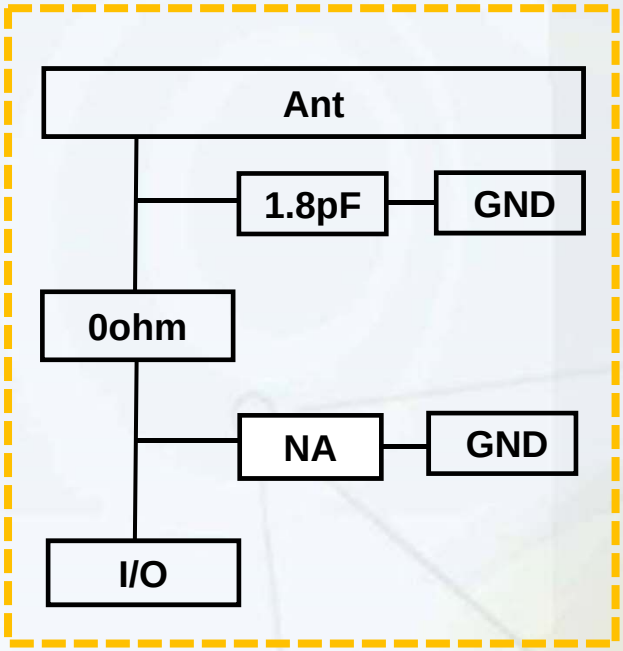
Requirements of Measurement

Test Item	Specification	Remark
Return Loss	> 10dB	
Isolation		
Peak gain	<2dBi	
Efficiency	>15%	
Radiation pattern	Scale: +10 ~ -40dBi, Angle step size: 15 degree	

Antenna Placement & Solution



Matching values



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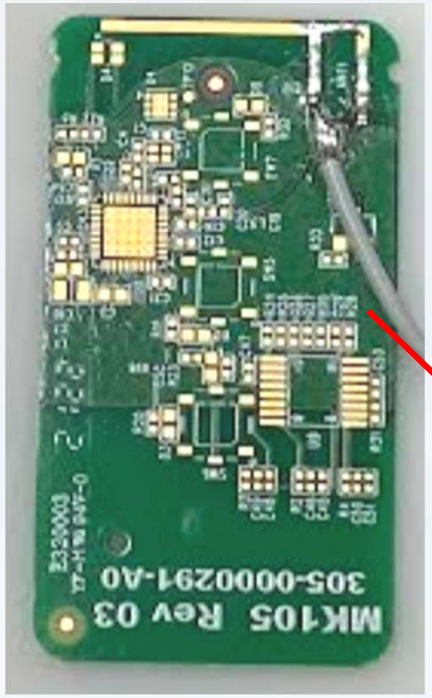
Antenna Placement & Solution



測試線長**85mm**

\Antenna	ANT Type	Cable Length (mm)	Cable Type
ANT	Printng ANT	na	na

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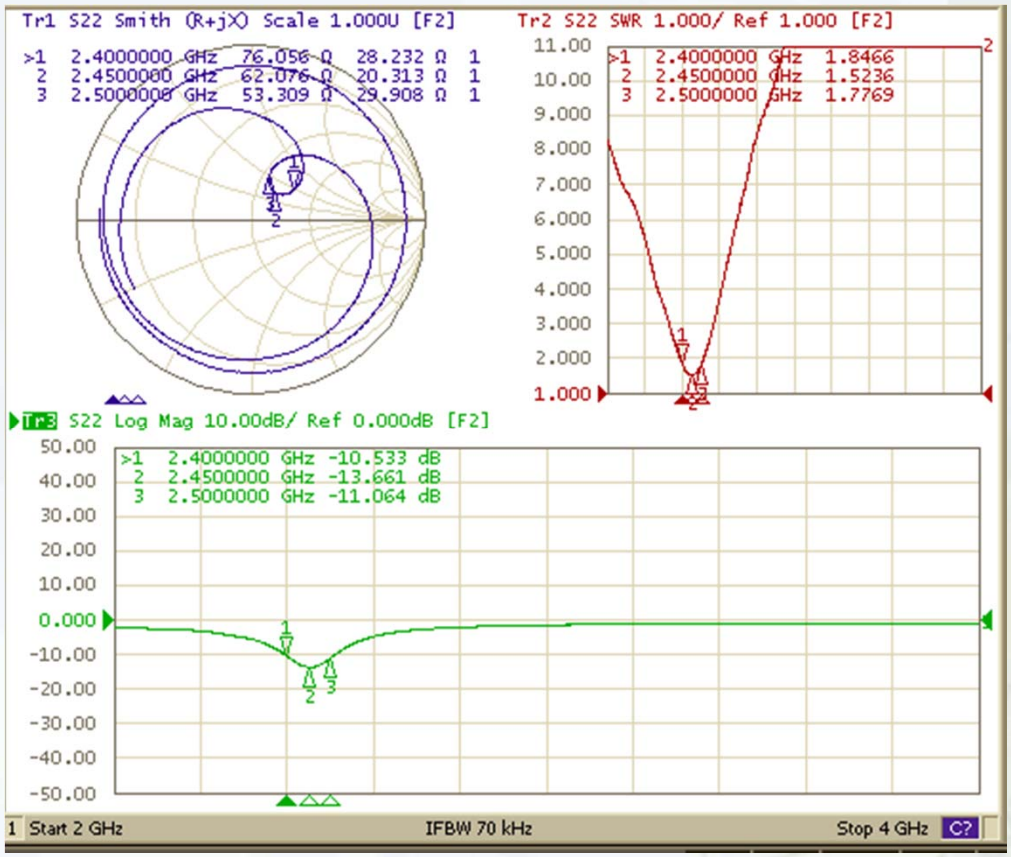
Test Setup for S-parameter Measurement

Equipment	Brand	Model	S/N
Network Analyzer	Keysight	E5071C	MY46107744

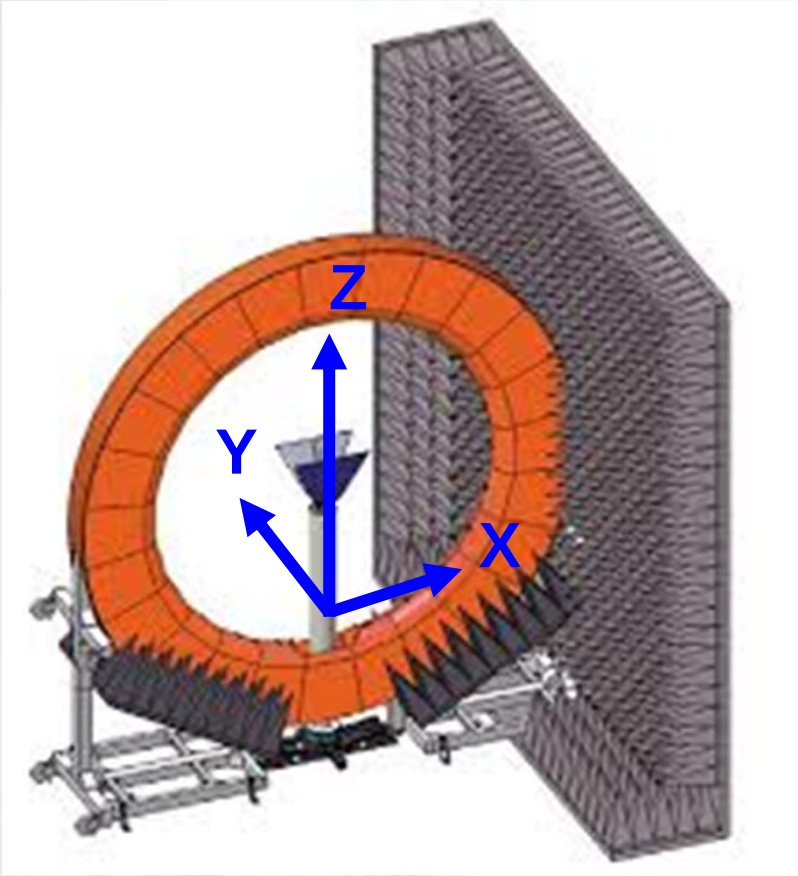
Return Loss Results

Ant(Criterion:>10 dB)(Ant1)

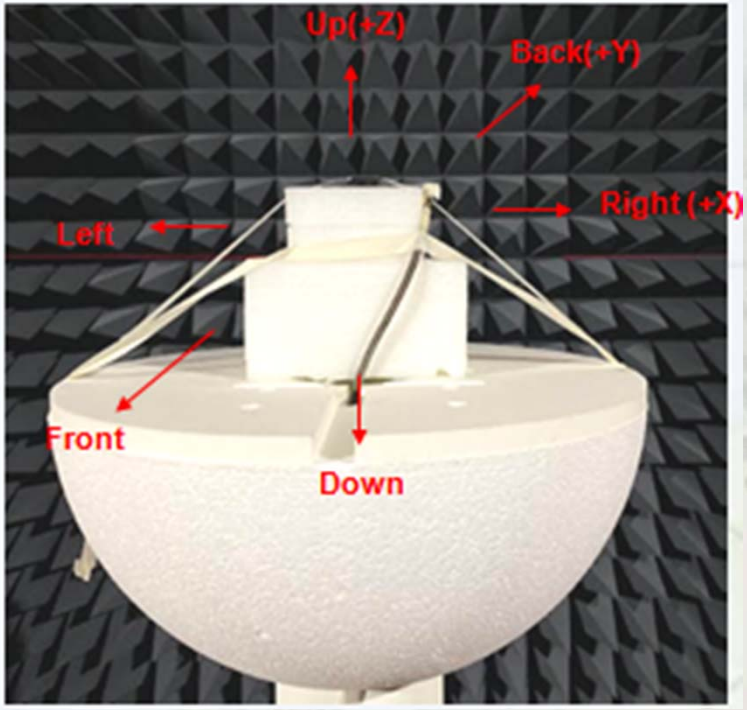


Test Setup for Radiation Pattern Measurement

Chamber Information

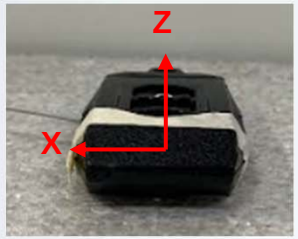


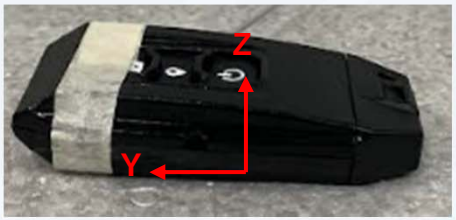
- **SATIMO SG-24L Multi-Probe Antenna Measurement System**
  - **Angle between probes: 15˚**
  - **Frequency range: 400 MHz – 9 GHz**
  - **Chamber Room Size: 5m L x 5m W x 5m H**

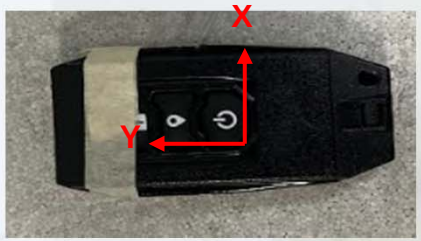


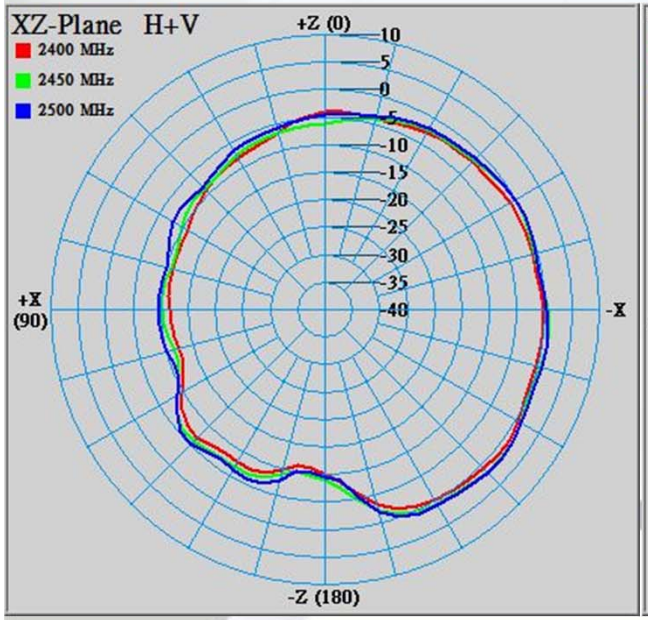
2D Radiation Pattern Results

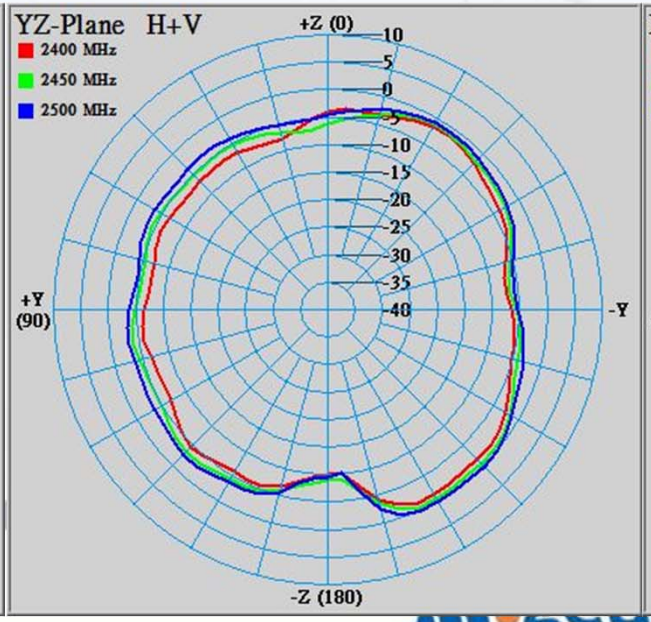
2400-2500(MHz) (Ant1)

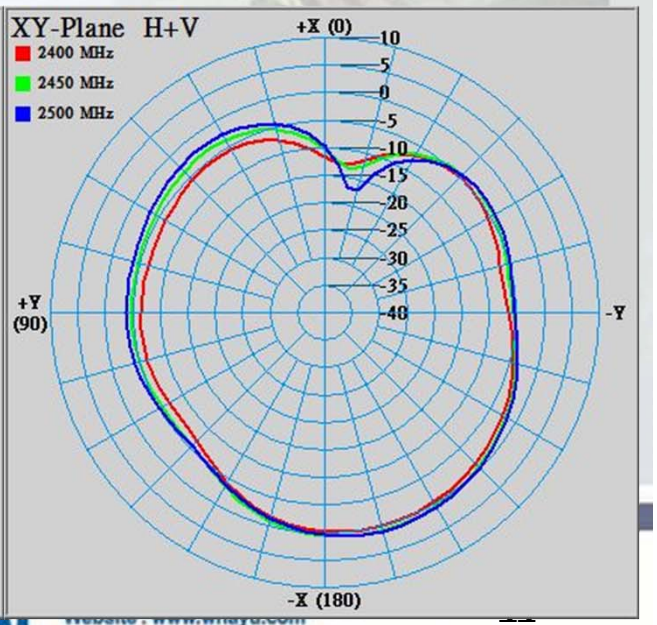












Results Summary

Return Loss (Criterion: >5dB)

Frequency (MHz)	Ant1
2400	10
2450	13
2500	11

Results Summary

Peak gain & Efficiency –ANT1

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	1.3	42
2450	2.0	51
2500	2.1	50