

Antenna Test Report

Version: V 1.00

Released Date: 2023/07/21

Prepared By: Xiao dong

Reviewed By: Daniel



WHA YU INDUSTRIAL CO., LTD.
TEL : 886-3-5714225 FAX : 886-3-5713853 / 5723600¹
Website : www.whayu.com
E-mail : market@whayu.com

Contents

- Revised History
- Conclusion & Comments
- Specification
- Antenna Placement & Solution
- Test Setup for S-parameter Measurement
- Return Loss Results
- Isolation Results
- Test Setup for Radiation Pattern Measurement
- 2D Radiation Pattern Results
- Results Summary (return loss, isolation, peak gain, efficiency)

Revision History

Released Date	Version	Record
2023/07/21	1.00	Antenna Testing Report New Project

Specification

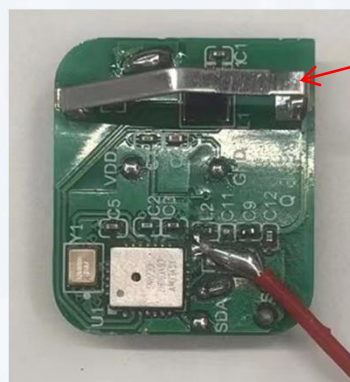
Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
Lora	1	432.92~434.92 MHz	

Requirements of Measurement

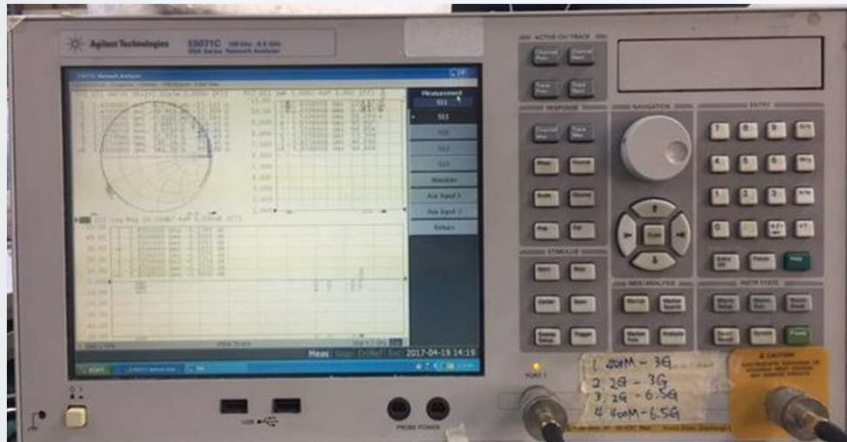
Test Item	Specification	Remark
VSWR	≤ 2.0	
Peak gain	> -12.5 dBi	
Efficiency	> 1 %	

Antenna Placement & Solution



Antenna	ANT Type	Size (L * W * H)	Cable Length (mm)	Cable Type
Lora	Monopole	NA	NA	NA

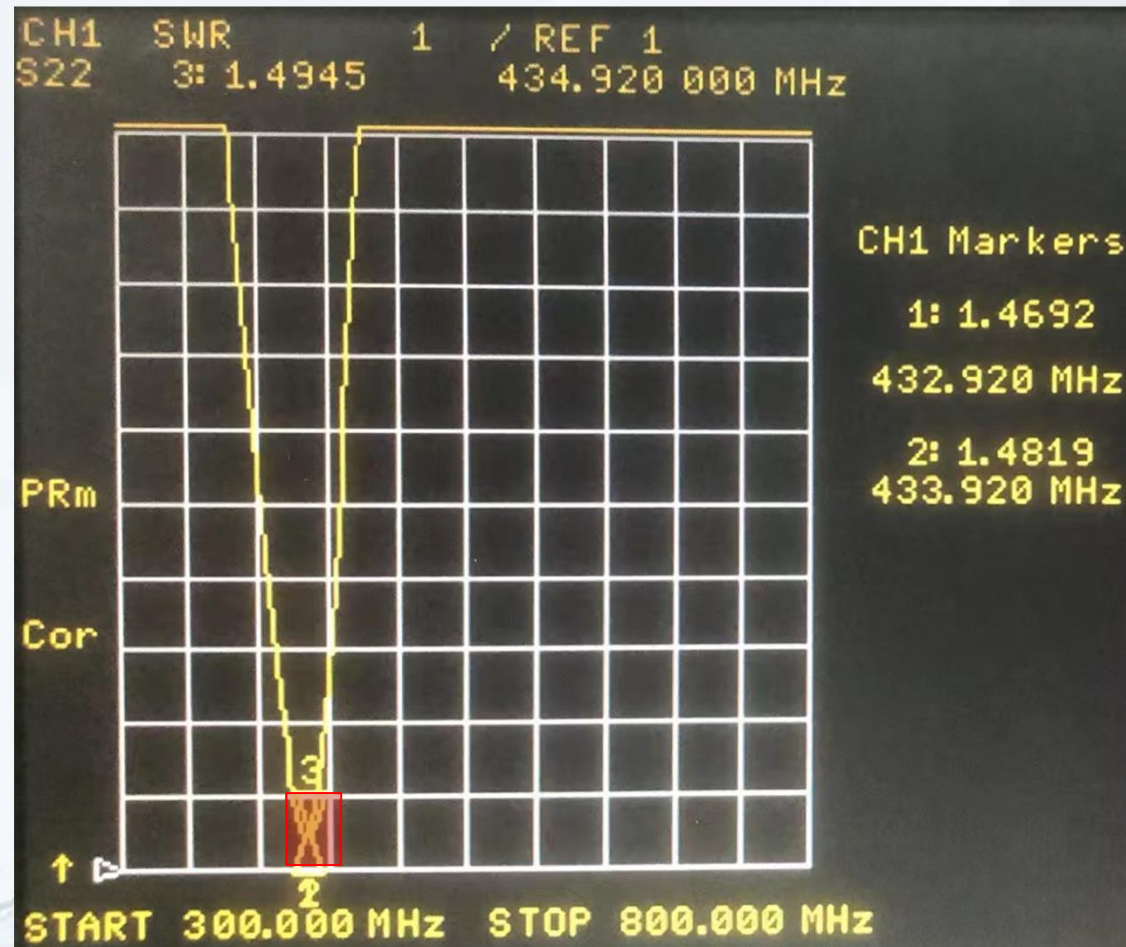
Test Setup for S-parameter Measurement



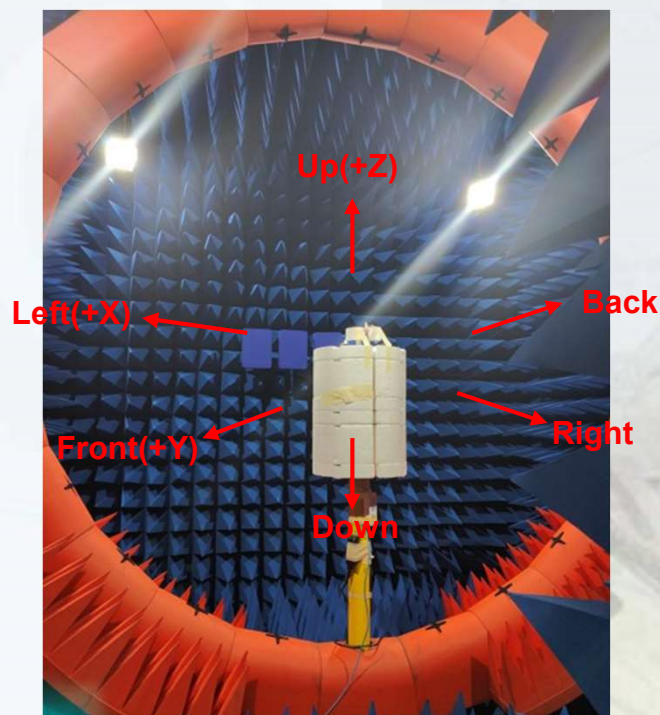
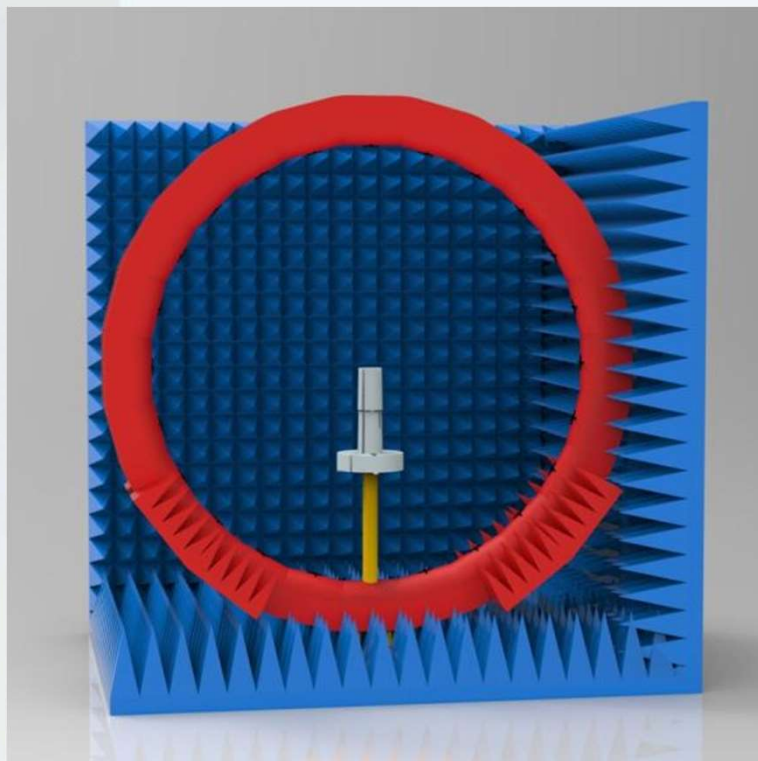
Equipment	Brand	Model	S/N
Network Analyzer	Keysight	E5071C	MY46107744

VSWR Results

Antenna (432.92~434.92 MHz)

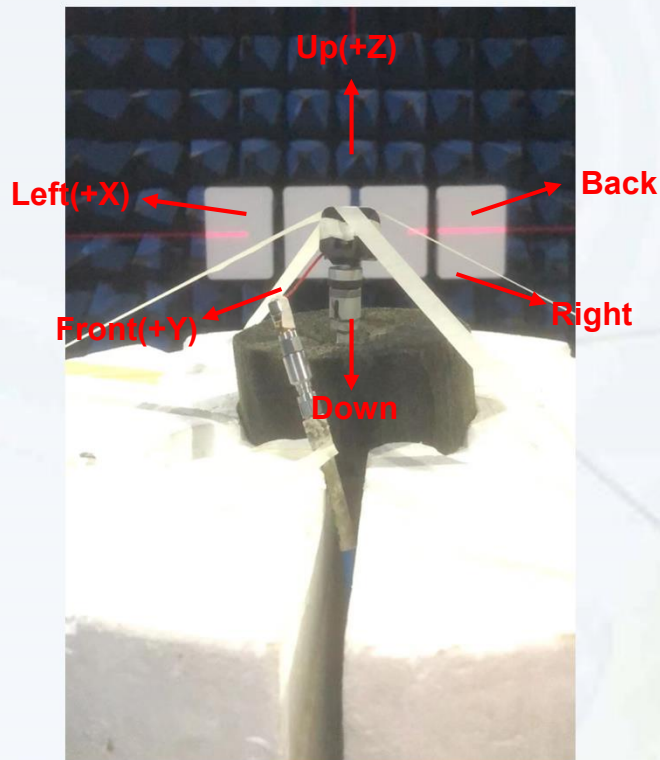


Chamber Information



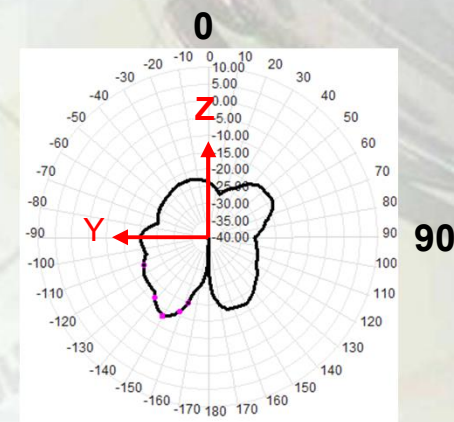
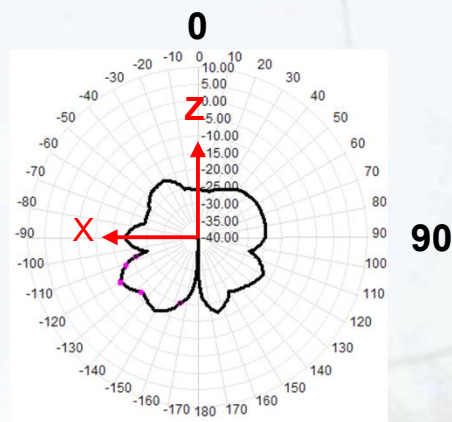
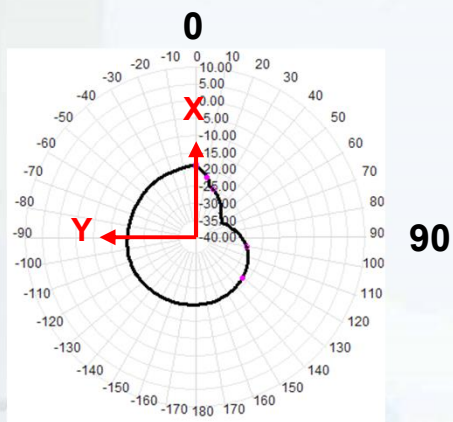
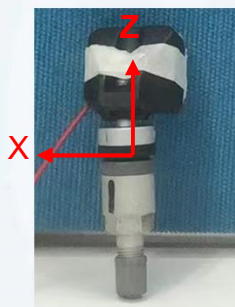
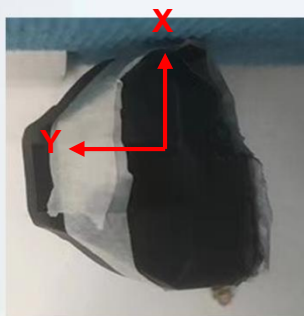
Chamber	Brand	Model	Location
飞图	飞图	飞图24探头	Suzhou TLSZ

Test Setup for Radiation Pattern Measurement



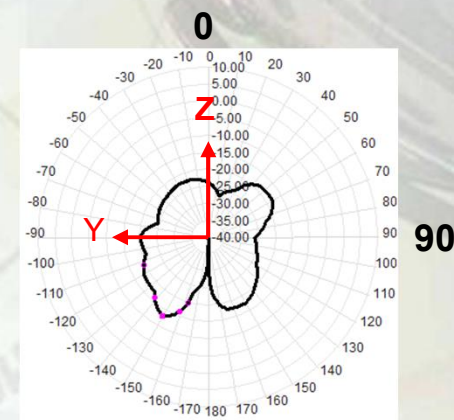
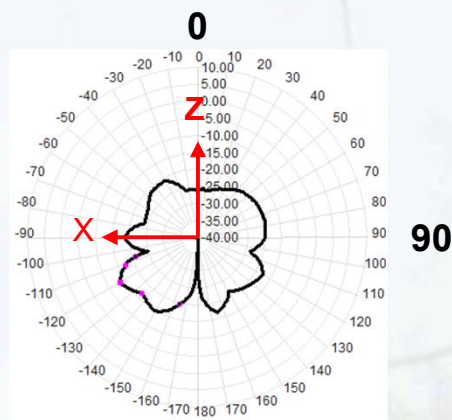
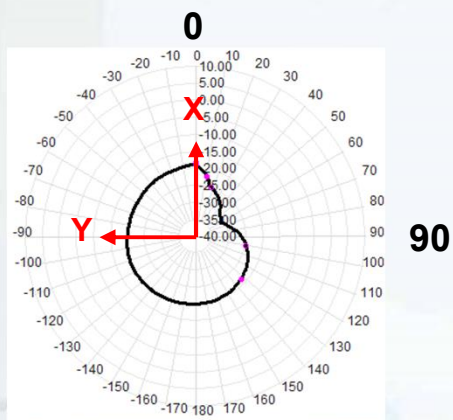
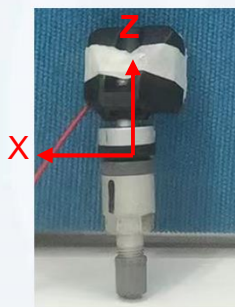
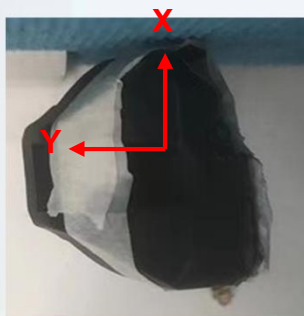
2D Radiation Pattern Results

Antenna (432.92 MHz)



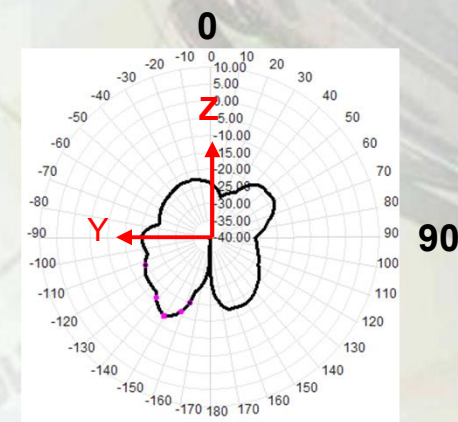
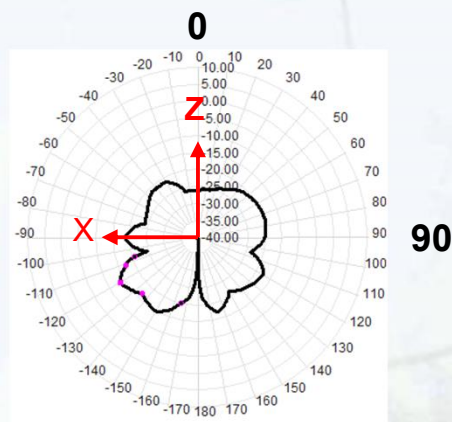
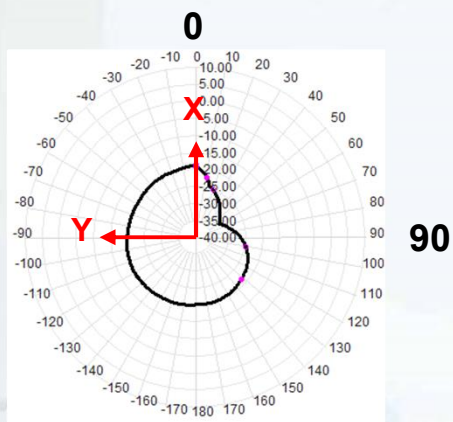
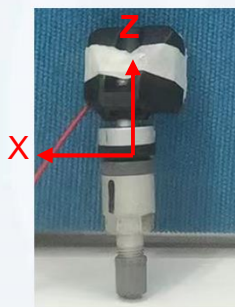
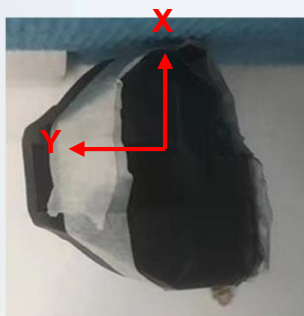
2D Radiation Pattern Results

Antenna (433.92 MHz)



2D Radiation Pattern Results

Antenna (434.92 MHz)



Results Summary

VSWR

Frequency	Antenna
432.92 MHz	1.46
433.92 MHz	1.48
434.92 MHz	1.49

Results Summary

Peak gain & Efficiency –Antenna

Frequency	Peak Gain (dBi)	Efficiency (%)
432.92 MHz	-12.35	1
433.92 MHz	-12.29	1
434.92 MHz	-12.25	1