Specification

Requirements of Antenna Design

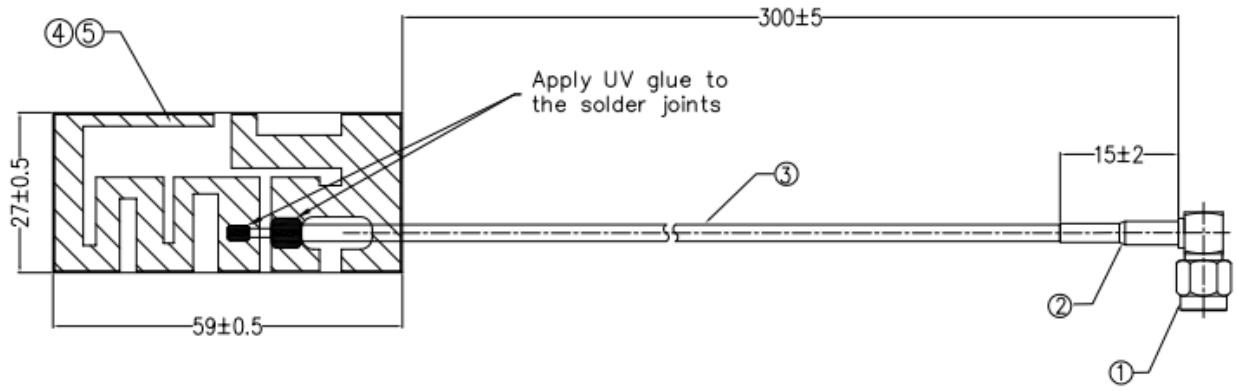
RF Function	Number of ANT	Frequency Band	Remark
902~928MHz	1		

Requirements of Measurement

Test Item	Specification	Remark
VSWR	＜2.0	
Peak gain	4.39dBi	
Efficiency	>51%	

THE COMPONENT(S), INCLUDING ANY PLATING OR COATINGS, SUPPLIED PER THIS DRAWING MUST BE COMPLIANT WITH EU DIRECTIVE 2011/65/EU (RoHS DIRECTIVE) BY BDTRON,INC.

REVISIONS		
REV.	DESCRIPTION	CHNGD BY/ DATE
A	FRIST RELEASE FOR SAMPLE BUILD	Justin/2024.07.19
B	FREQUENCY RANGE & 3M TAPE CHANGED	Justin/2024.11.07



NOTES:
1. FREQUENCY RANGE: 868~915MHz
2.VSWR: ≤2.0 ;
3.IMPEDANCE: 50Ω;
4.MATERIALS,PARTS AND PROCESS MUST BY ENVIRONMENTALLY (ROHS)

ITEM	NAME	MATERIAL	QTY
⑤	SIDED TAPE	58*26.5*1.1MM,3M VHB5952(Original) RED	1EA
④	PCB	59*27*1MM,BLACK.	1EA
③	CABLE	RG174 COAX CABLE,BLACK JACKET.	1EA
②	TUBE	HEAT SHRINKABLE TUBE BLACK	1EA
①	CONNECTOR	SMA RA PLUG FOR RG174 CABLE, GOLD PLATING.	1EA

BILL OF MATERIAL

DWN: Justin	TOLERANCES UNLESS OTHERWISE SPECIFIED	ITEM: 868-915MHz 天线,SMA RA PLUG,RG174 CABLE BLACK,L=300mm
	ONE PLACE DECIMAL .X ±0.5	
	TWO PLACE DECIMAL .XX ±0.25	
	THREE PLACE DECIMAL .XXX N/A	
CHKD: Jerry	HOLE DIA. VARIATION .XX N/A	PROJECT: 1025
	ANGULAR DIMENSION (ENG) N/A	MPN P/N: 1025A0045
	THIRD ANGLE PROJECTION	CUS P/N: 4741135000133
APPD: Xiaolian	CUS REV: N/A MPN REV: B	苏州八德电子科技有限公司 Bdtron, Inc. www.bdtron.com
	SIZE: A4 UNIT: mm	
	SHEET: 1 OF 1	

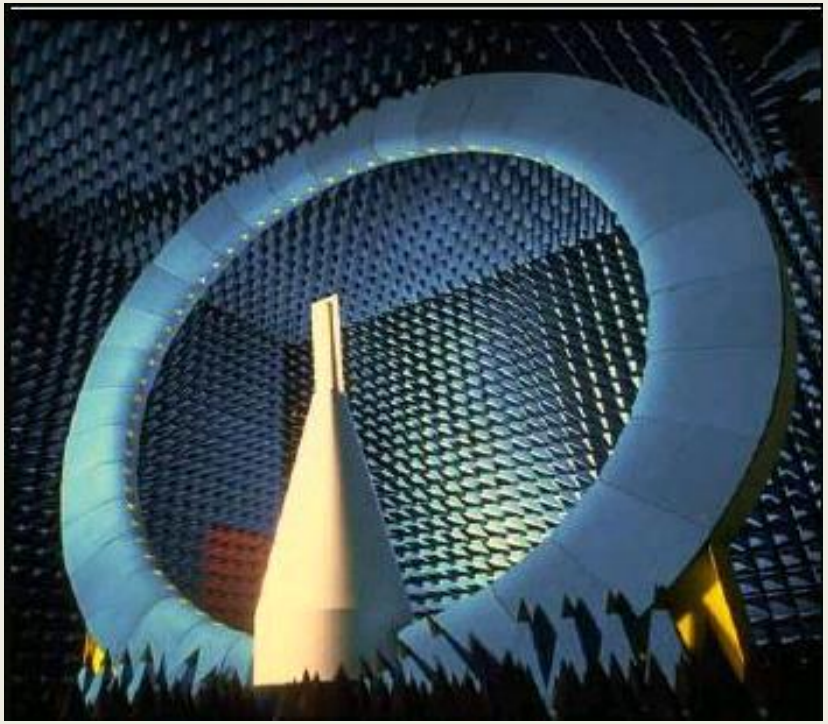
Antenna Placement & Solution

Antenna	ANT Type	Size (L * W * H)	Cable Length (mm)	Cable Type
868/915MHz	PCB	59*27*1	L=300	RG174

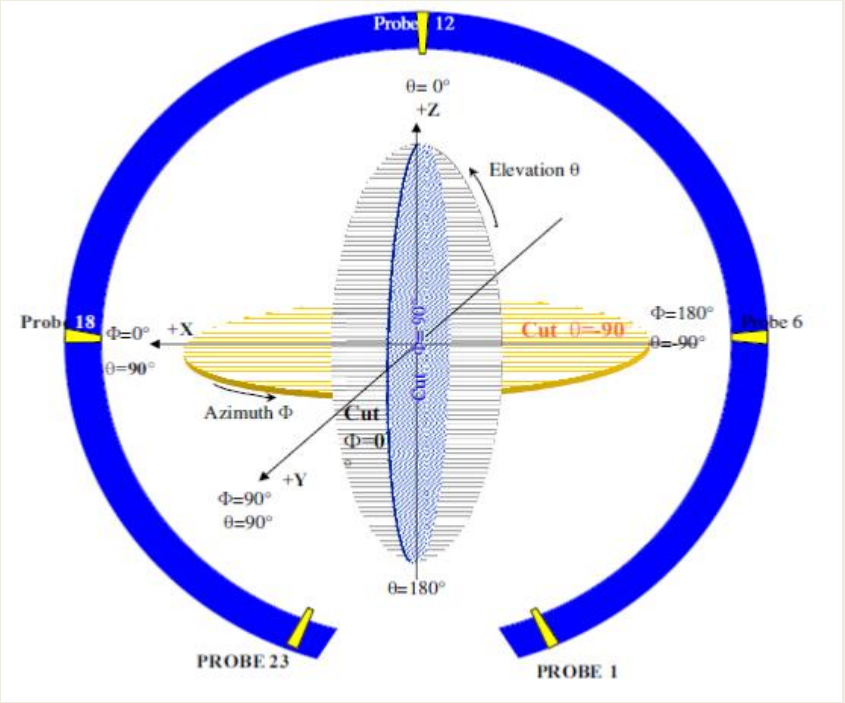
Test Setup for S-parameter Measurement

Equipment	Brand	Model	S/N	Correction date	Validity period
Network Analyzer	Keysight	E5071C	MY46107744	2025.4.18	1 year

Chamber Information



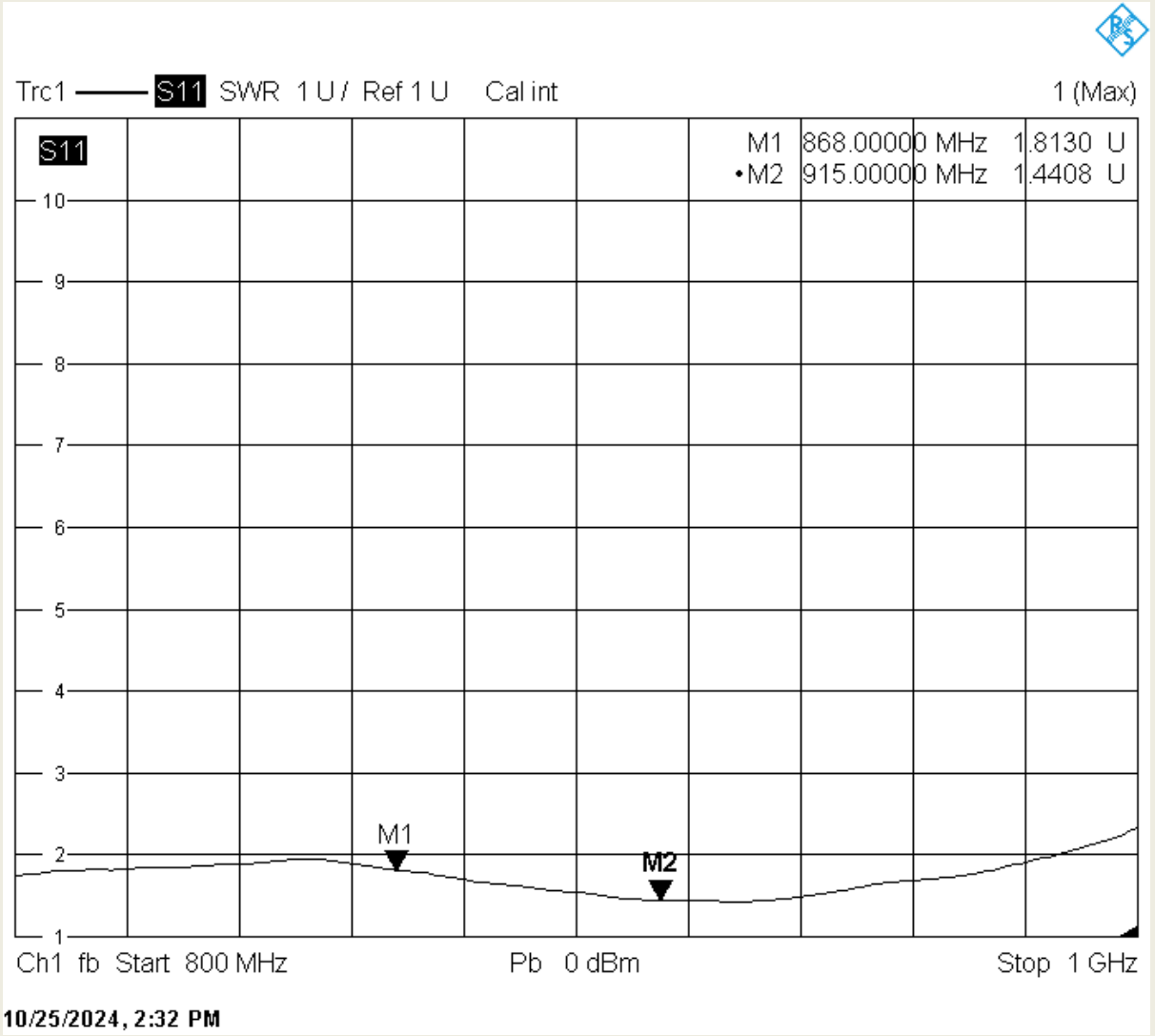
Chamber	Brand	Model	Correction date	Validity period
SATIMO	SATIMO	SG-32	2025.4.18	2 year



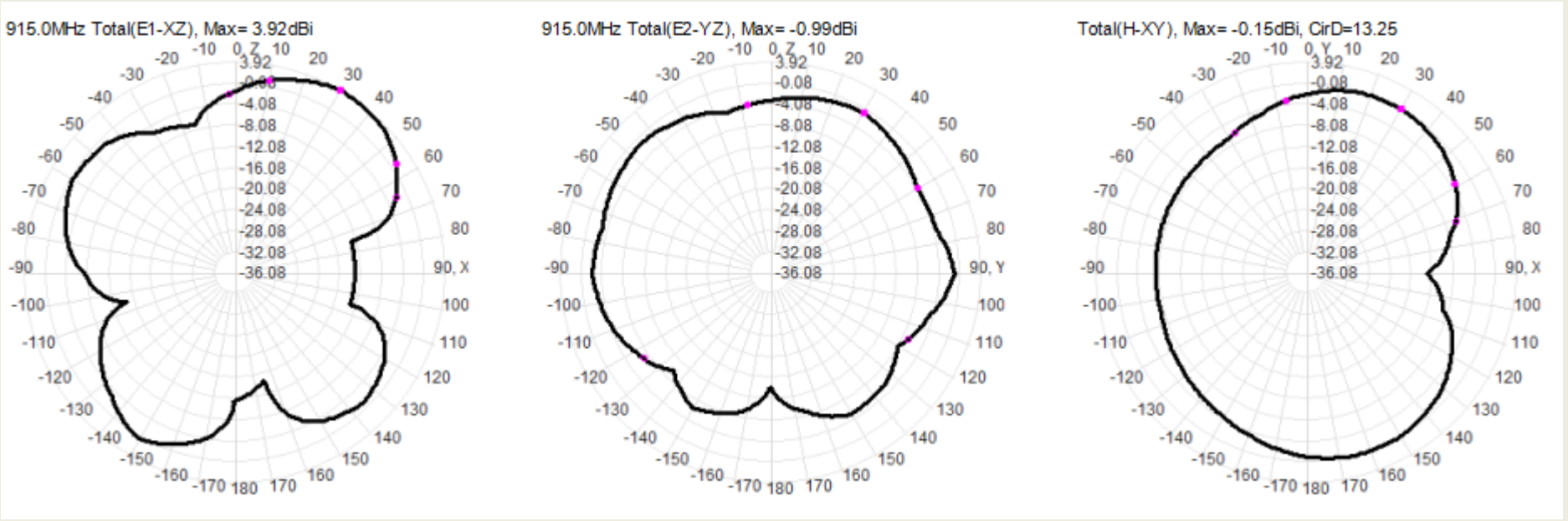
	θ	φ
Total angle	175˚	360˚
How many angle scan one point	5˚	5˚
Total scan point	36	73

S Parameter Results

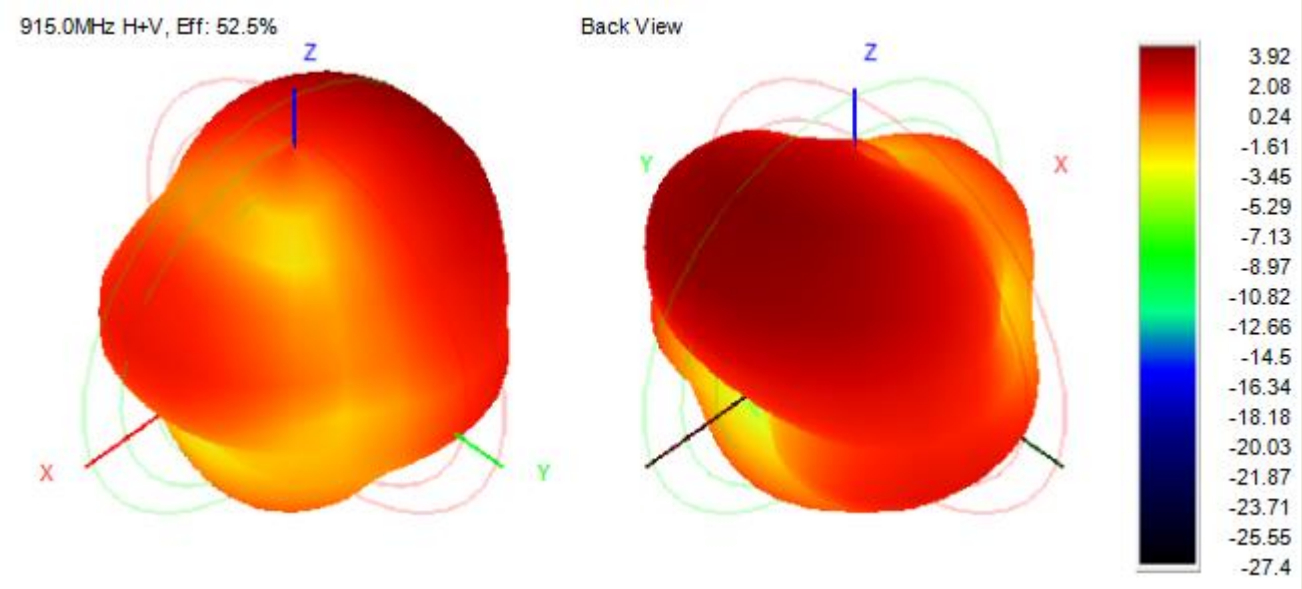
VSWR



2D Radiation Pattern Results



3D Radiation Pattern Results



Results Summary (peak gain, efficiency)

Frequency	E Total. dB(dB)	Efficiency(%)
902MHz	4.30	51.10
905MHz	4.39	51.14
910MHz	4.20	51.00
915MHz	3.92	52.53
920MHz	3.57	56.47
925MHz	3.64	66.52
928MHz	3.58	56.50