

Specification

Requirements of Antenna Design

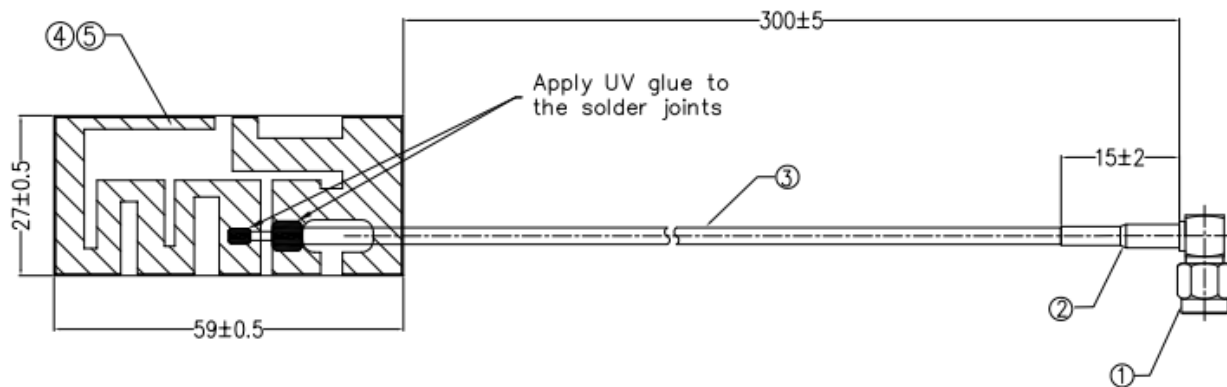
RF Function	Number of ANT	Frequency Band	Remark
902~928MHz	1		

Requirements of Measurement

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

Manufacturer: Bdtron, Inc.
No.168 Bin Jiang S. Rd, Zhang Pu, Kunshan,
Jiangsu, 215321, P.R. China

A		B		C		D		E		F	
THE COMPONENT(S), INCLUDING ANY PLATING OR COATINGS, SUPPLIED PER THIS DRAWING MUST BE COMPLIANT WITH EU DIRECTIVE 2011/65/EU (RoHS DIRECTIVE) BY BOTRON,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:	
		ONE PLACE DECIMAL .X		868-915MHz 天线,SMA RA PLUG, RG174 CABLE BLACK, L=300mm	
		TWO PLACE DECIMAL .XX			
		THREE PLACE DECIMAL .XXX			
CHKD: Jerry		HOLE DIA. VARIATION .XX		PROJECT:	
		ANGULAR DIMENSION (ENG)		1025	
		THIRD ANGLE PROJECTION		MPN P/N: 1025A0045	
				CUS P/N: 4741135000133	
APPD: Xiaolian		CUS REV: N/A MPN REV: B			
		SIZE: A4 UNIT: mm			
		SHEET: 1 OF 1			



苏州八德电子科技有限公司
Bdtron, Inc.

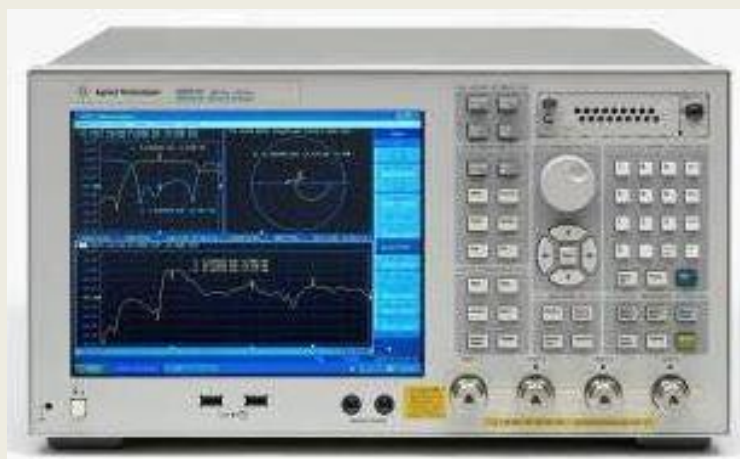
www.bdtron.com

Antenna Placement & Solution



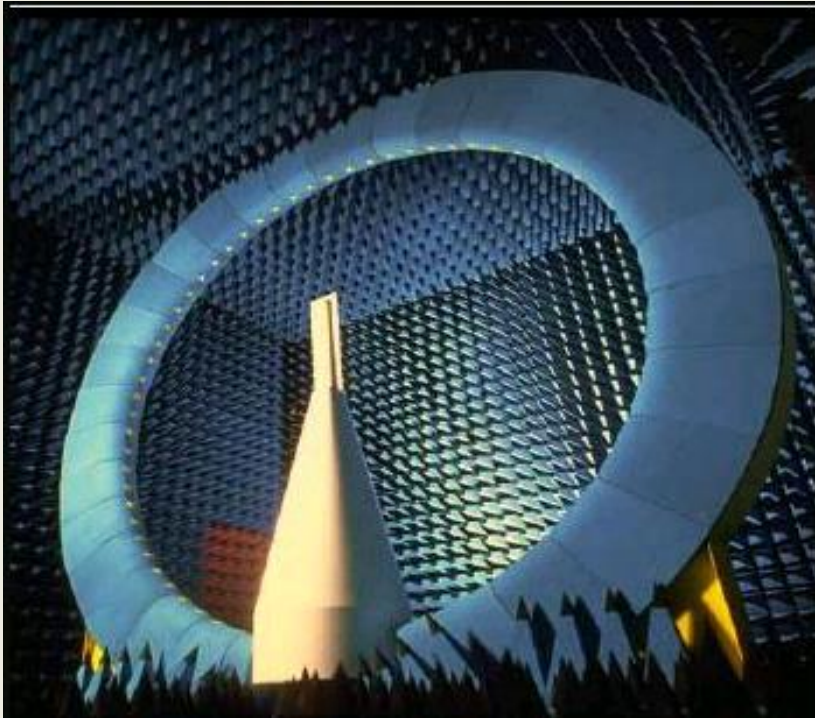
Antenna	ANT Type	Size (L * W * H)	Cable Length (mm)	Cable Type
868/915MHz	PCB	59*27*1	L=300	RG174

Test Setup for S-parameter Measurement

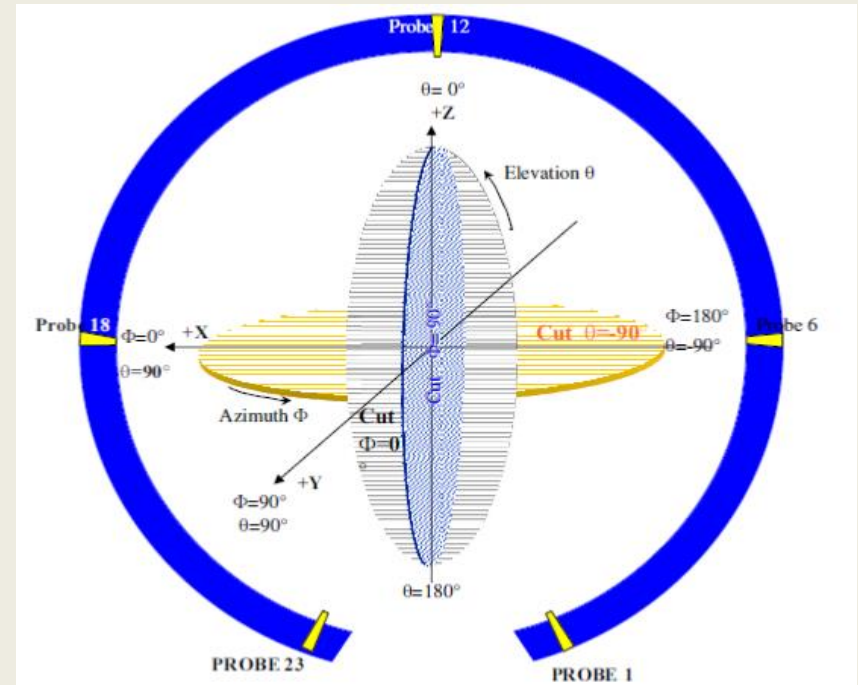


Equipment	Brand	Model	S/N	Correction date	Validity period
Network Analyzer	Keysight	E5071C	MY46107744	2025.4.18	1 year

Chamber Information



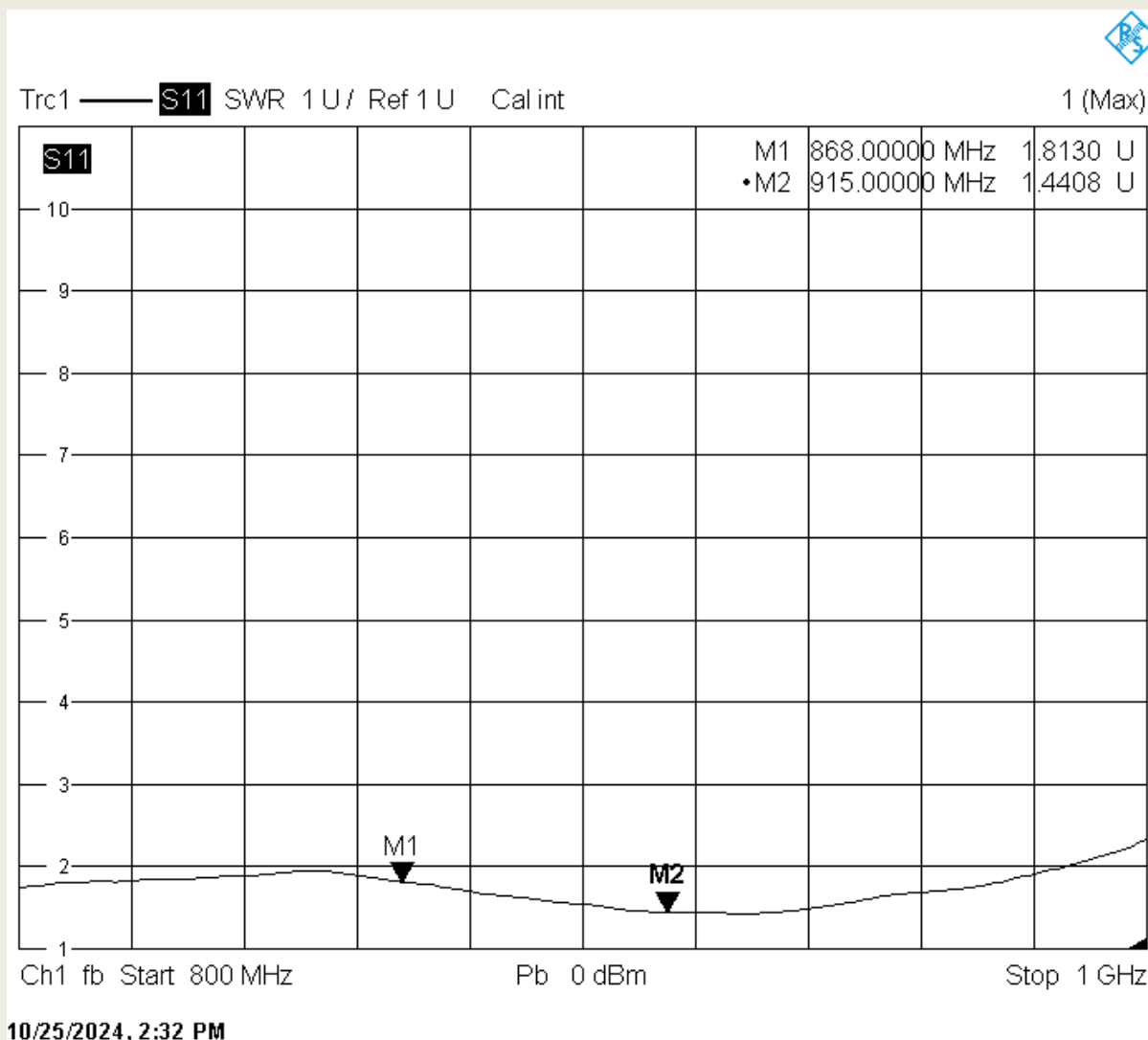
Chamber	Brand	Model	Correcti on date	Validity period
SATIMO	SATIM O	SG-32	2025.4.1 8	2 year



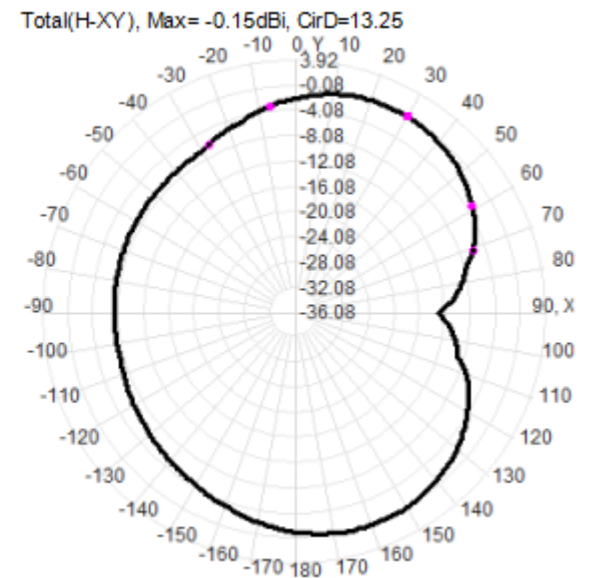
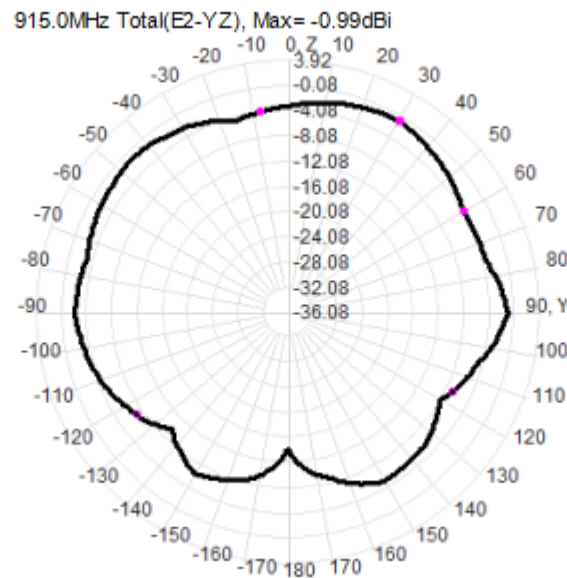
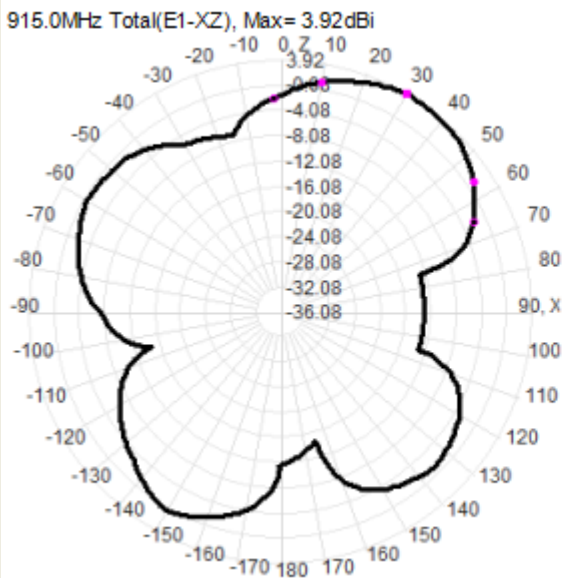
	θ	ϕ
Total angle	175°	360°
How many angle scan one point	5°	5°
Total scan point	36	73

S Parameter Results

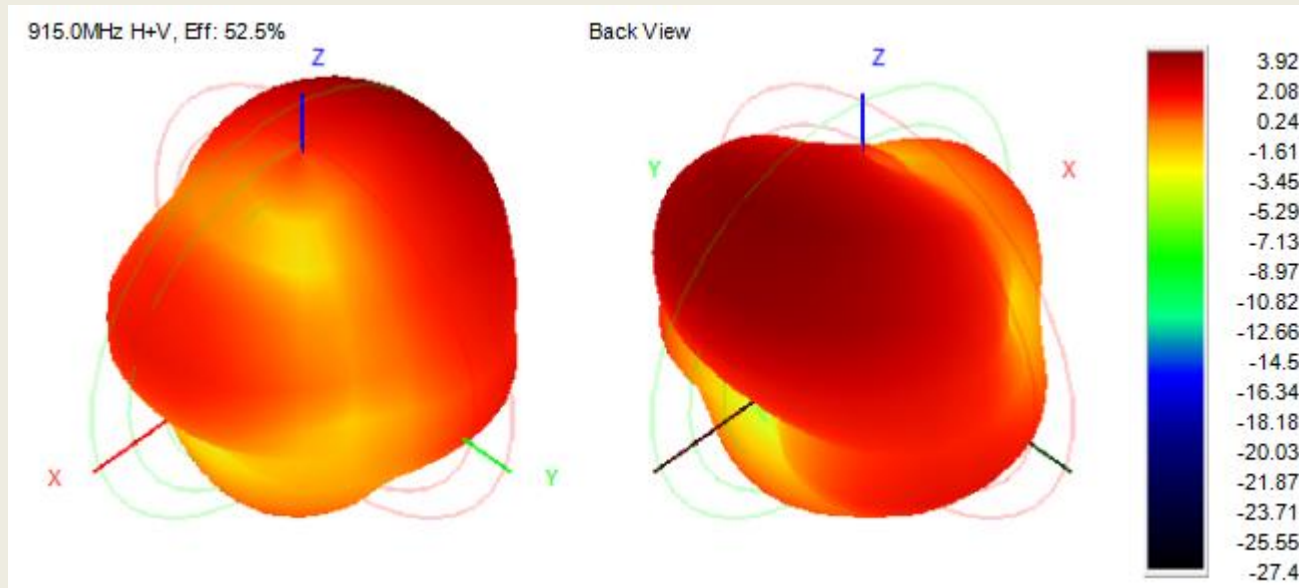
VSWR



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