

Data Sheet

CUSTOMER: 虹堡

MODEL NAME: S1E2-UPT-WiFi

CUSTOMER P/N: ABP6P-100002

AWAN P/N: _____



1. Description-----	
1.1 Specifications-----	1
1.2 Antenna Picture-----	1
2. Electrical Specification-----	2
2.1 Test Equipment-----	2
2.2 Test Setup-----	2
2.2.1 Frequency Range-----	2
2.2.2 VSWR-----	2
2.2.3 Radiation Pattern & Gain-----	2
2.2.4 Efficiency-----	2
3. Performance Data-----	4
3.1 VSWR-----	4
3.2 Radiation pattern & Gain (LTE Antenna) -----	5
3.2.1 Antenna pattern-----	5
4. Mechanical Specification-----	13
4.1 Assembly Drawing(LTE Antenna)-----	13

1. Description

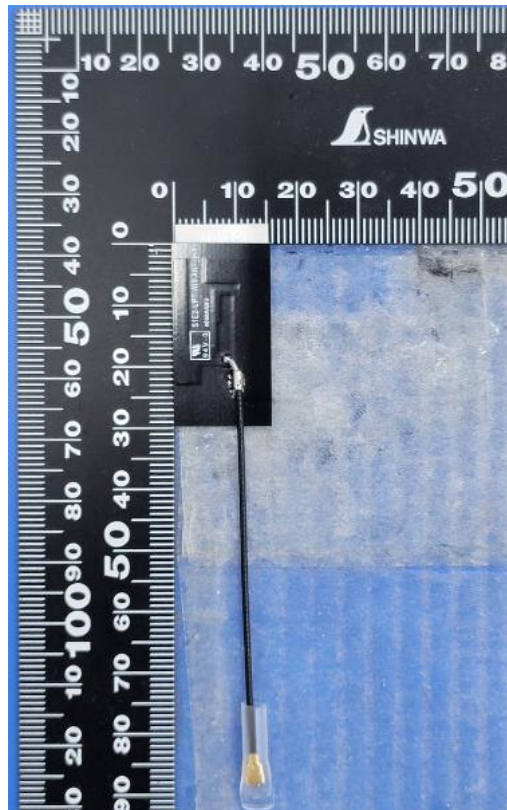
1.1 Specifications

Antennas Type	Dipole Antenna for WiFi application	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WiFi	2400~2500MHz , 5150~5850MHz

Frequency range	2400-2500 MHz	5150-5850 MHz
Peak gain	2.1~2.49dBi	0.1~2.23dBi
Efficiency (%)	50~54%	23~45%
VSWR (in Device)	2.5 Max.	2.5 Max.
Polarization	Linear	
Power handling	1W (cw)	
Impedance	50 Ω	

1.2 Antenna Picture

WiFi P/N: ABP6P-100002



2. Electrical Specification

2.1 Test Equipment

Equipment Description	Manufacturer	Identification no.	Current Calibration date	Next calibration date
Universal Radio Communication tester	Anritsu	MT8820C	2024/01/29	2024/07/29
Network Analyzer	Agilent	E5071C	2024/01/29	2024/07/29
Sleeve Dipole	MVG	SD740	2024/01/29	2024/07/29
Dual Ridge Horn	MVG	SH800	2024/01/29	2024/07/29
Dipole antenna	MVG	3126-700	2024/01/29	2024/07/29
Stargate-16-L probe array	MVG	Stargate-16-L	2024/01/29	2024/07/29
Measurement software	MVG	Wave Studio 22.1	N/A	N/A
Wireless protocol tester	R&S	CMW500	2024/01/29	2024/07/29

2.1.2 General Information

Description	Tester	Measured Date
Measured	Nate.wang	2024/07/26

2.2 Test Setup

2.2.1 Frequency Range

- A. WiFi: 2400~2500 MHz
5150~58500 MHz

2.2.2 VSWR

- Step 1: The antenna is arranged on the customer provided test fixture.
Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 699MHz to 3GHz and a 45cm diameter spherical quiet zone. The measurement results are calibrated using Stargate-16-L probe array (see figure. 2).
- B. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 3).
- C. The measured photo is shown in figure. 4

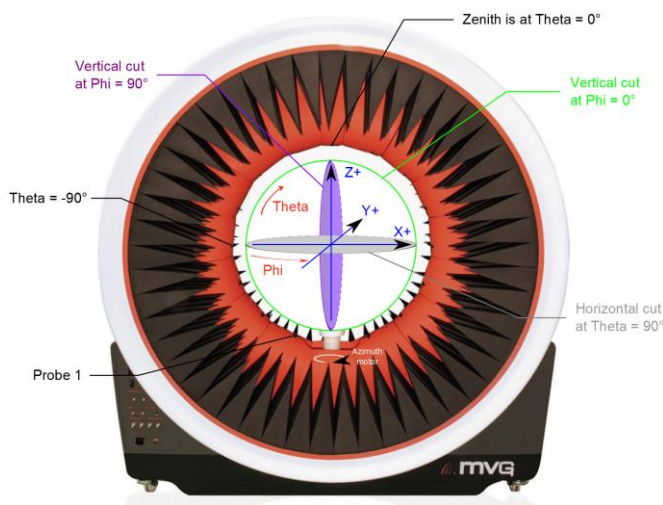


Figure.2

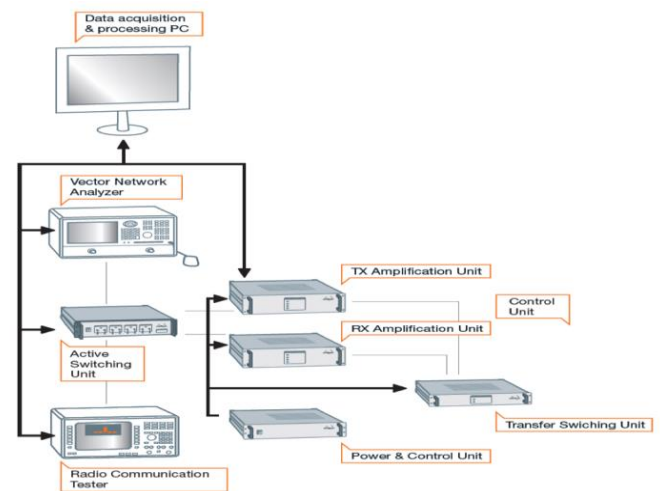


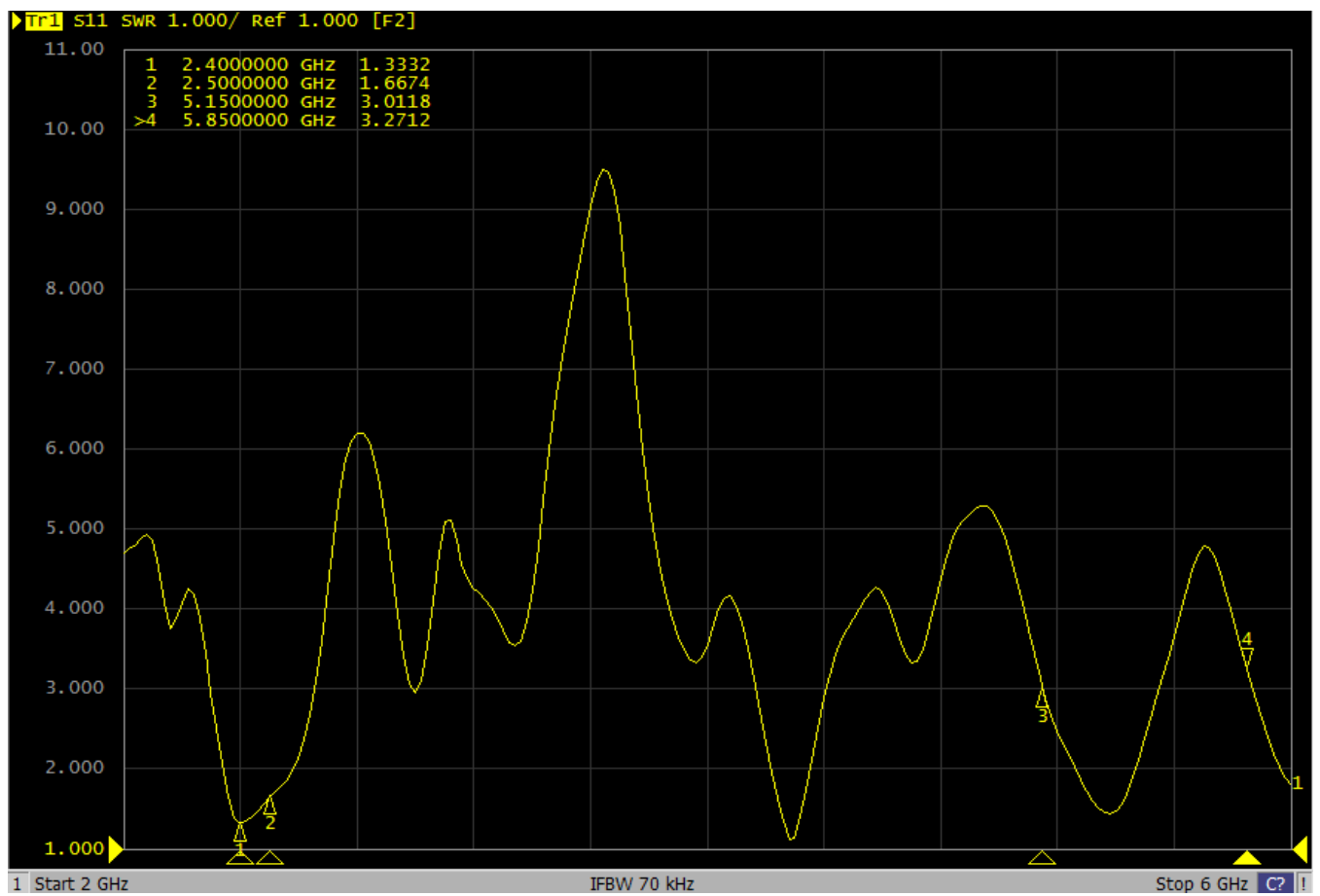
Figure.3



Figure.4

3. Performance Data

3.1 VSWR

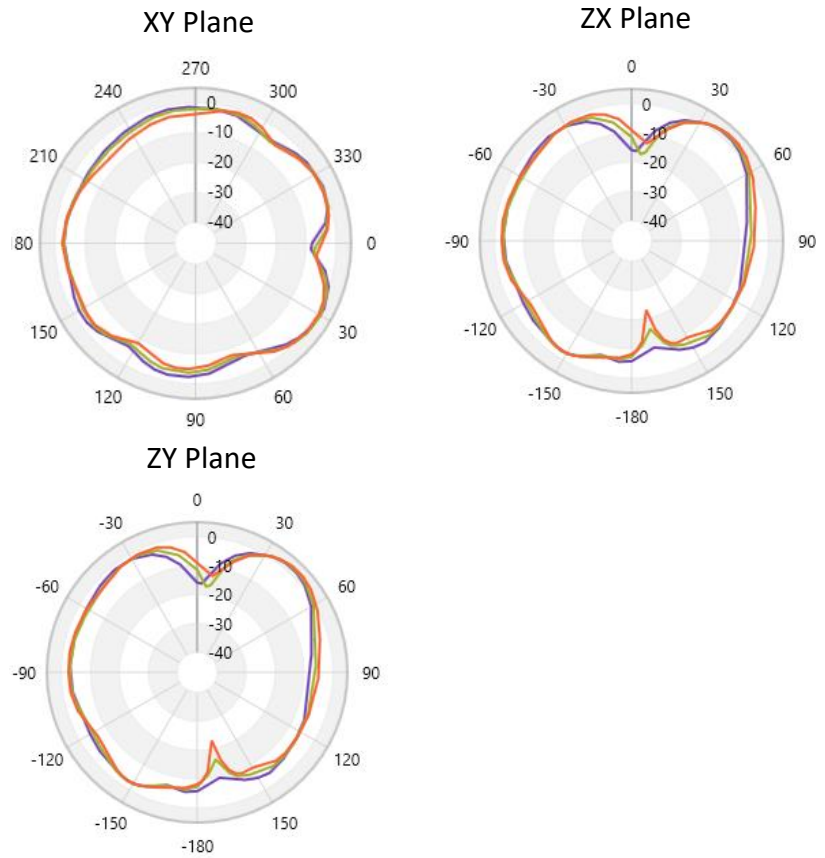


3.2 Radiation pattern & Gain

3.2.1 Antenna pattern

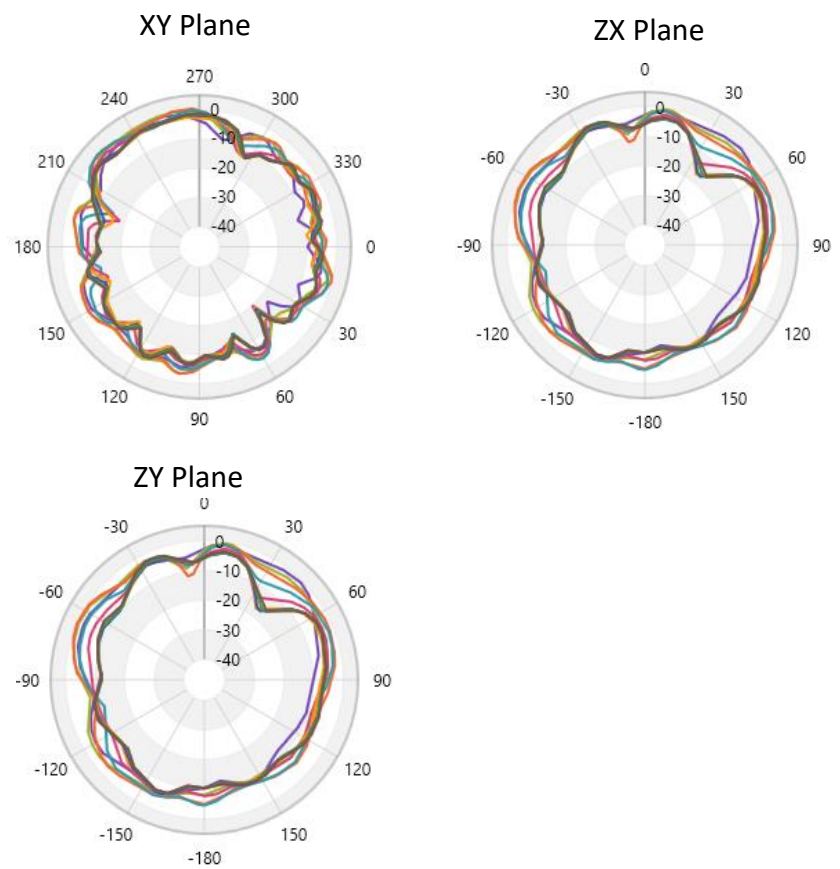
2400-2500MHz

— 2400.00 MHz
— 2450.00 MHz
— 2500.00 MHz



5150-5850MHz

- 5150.00 MHz
- 5250.00 MHz
- 5350.00 MHz
- 5470.00 MHz
- 5600.00 MHz
- 5725.00 MHz
- 5785.00 MHz
- 5825.00 MHz
- 5850.00 MHz



Antenna Gain

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400	54.58	-2.63	2.24
2412	54.45	-2.64	2.35
2417	54.95	-2.6	2.42
2422	54.58	-2.63	2.41
2427	53.83	-2.69	2.37
2432	53.33	-2.73	2.33
2437	53.58	-2.71	2.33
2442	53.83	-2.69	2.35
2447	52.97	-2.76	2.3
2450	52.48	-2.8	2.24
2452	52.36	-2.81	2.18
2457	52.12	-2.83	2.24
2462	51.05	-2.92	2.11
2467	51.29	-2.9	2.12
2472	51.76	-2.86	2.18
2484	51.05	-2.92	2.3
2500	51.64	-2.87	2.49
5150	31.12	-5.07	1.22
5170	32.96	-4.82	1.38
5180	33.65	-4.73	1.4
5200	35.56	-4.49	1.49
5220	37.07	-4.31	1.62
5240	39.08	-4.08	1.79
5250	39.99	-3.98	1.89
5300	44.26	-3.54	2.23
5320	45.29	-3.44	2.23
5350	45.50	-3.42	2.2
5470	38.37	-4.16	1.54
5500	36.14	-4.42	1.51
5600	28.18	-5.5	0.62
5725	23.77	-6.24	0.1
5785	25.82	-5.88	0.55
5800	26.18	-5.82	0.6
5805	26.24	-5.81	0.81
5825	26.30	-5.8	0.74
5850	28.12	-5.51	0.98

4.Mechanical Specification

4.1 Assembly Drawing (WiFi Antenna)

Revision

Revision	Date	Change Notification	Notes
Rev.1	2024-07-26		