Data Sheet

CUSTOMER: 虹堡

MODEL NAME: S1E2

CUSTOMER P/N: 311600156000

AWAN P/N: ALF6P-100000

ADVANCED WIRELESS & ANTENNA INC.

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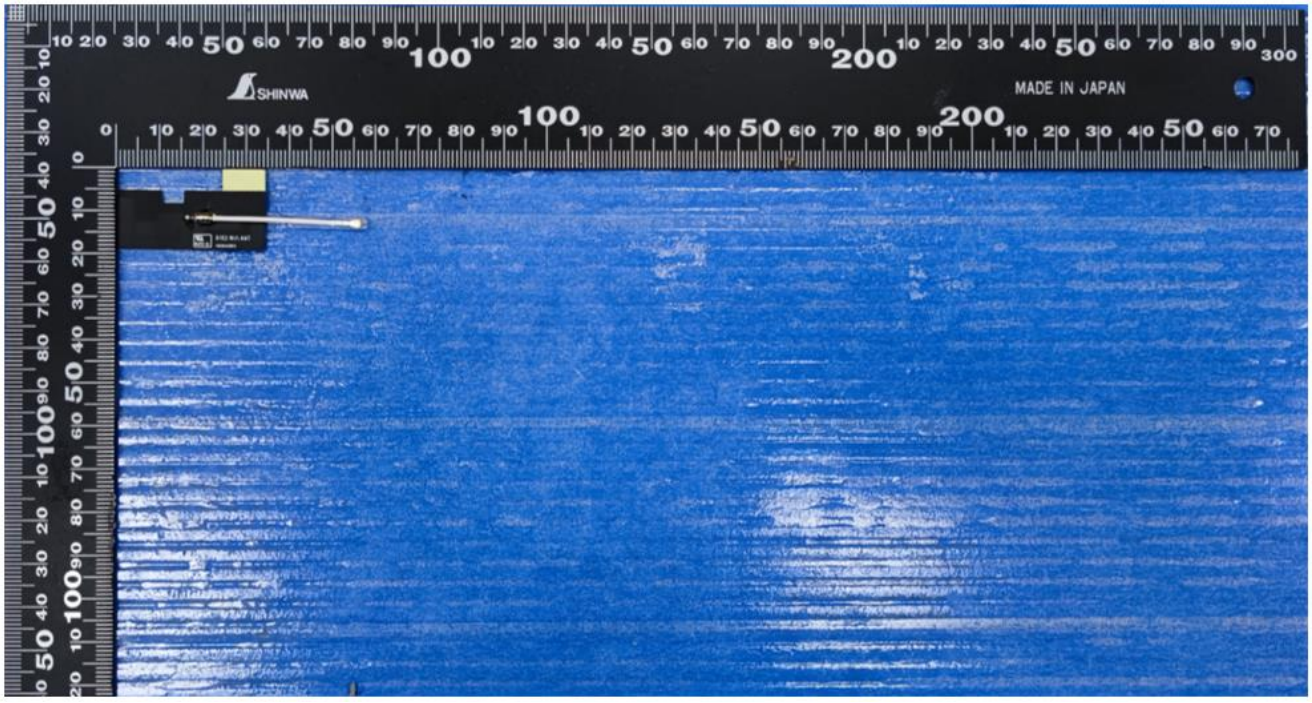
1. Description

1.1 Specifications

Antennas Type	DIPOLE Antenna for WIFI application	
Connector Type	I-PEX MHF1	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WIFI	2.40～2.50 GHz,5.15-5.85 GHz
VSWR	WIFI	2.40～2.50 GHz: 3.0 Max 5.15～5.85 GHz: 3.0 Max

1.2 Antenna Picture

WIFI P/N: ALF6P-100000



2. Electrical Specification

2.1 Test Equipment

A. VSWR and input impedance: Agilent 8720/8753 Network Analyzer
B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

A. WiFi : 2.40～2.50 GHz ; 5.15～5.85 GHz

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 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

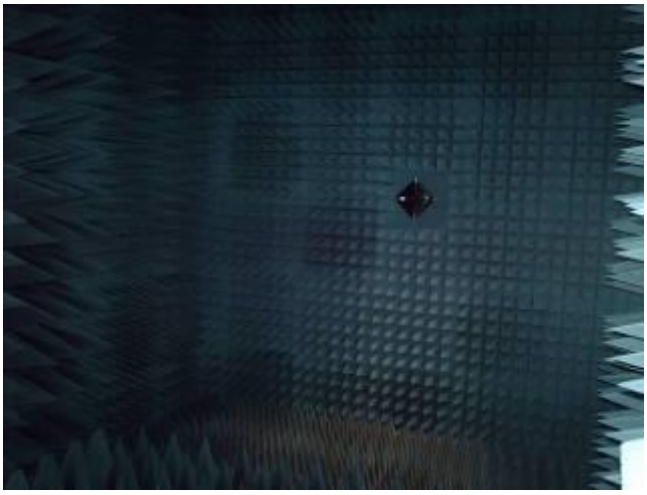


Figure.2

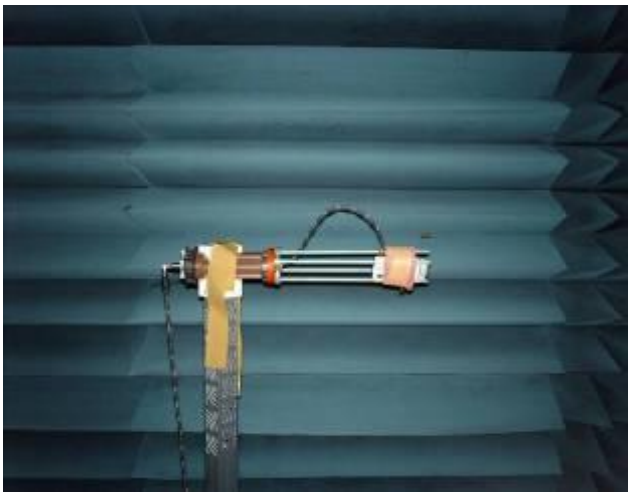


Figure.3

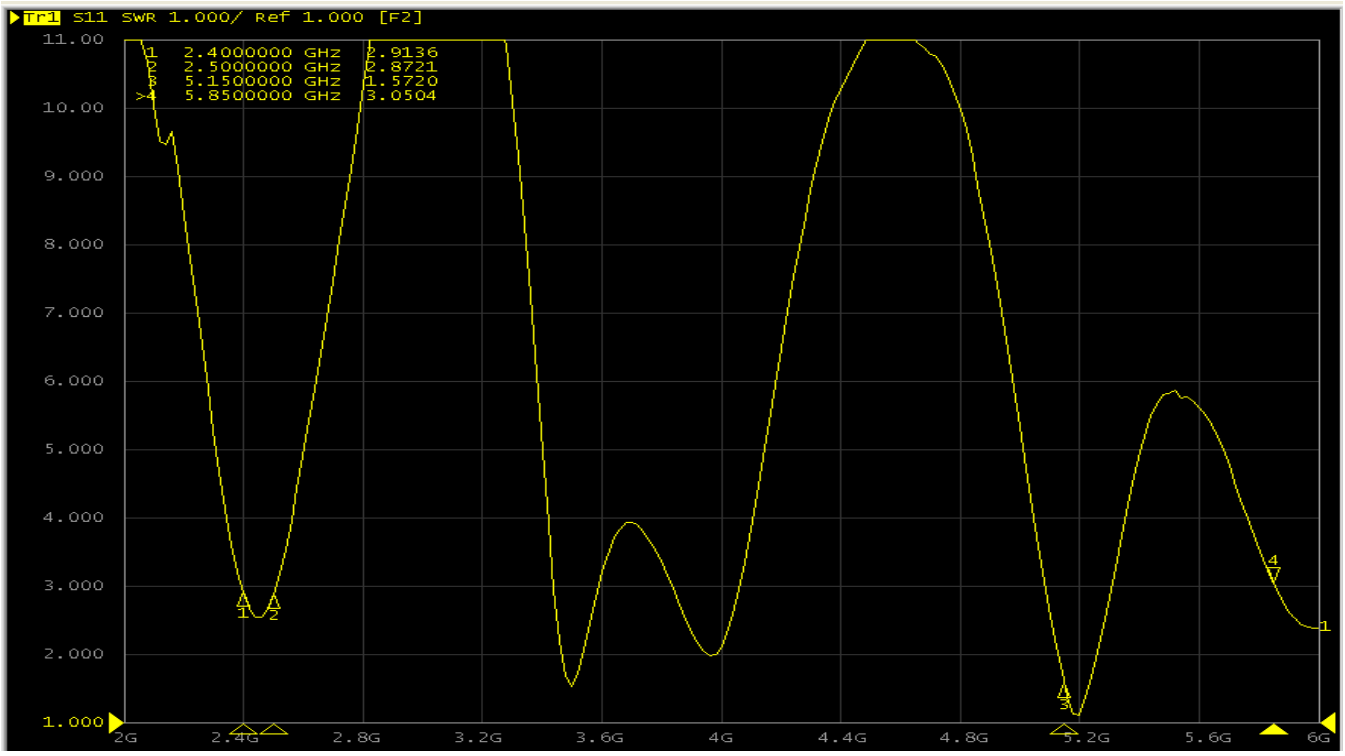
Figure.4

Figure.5

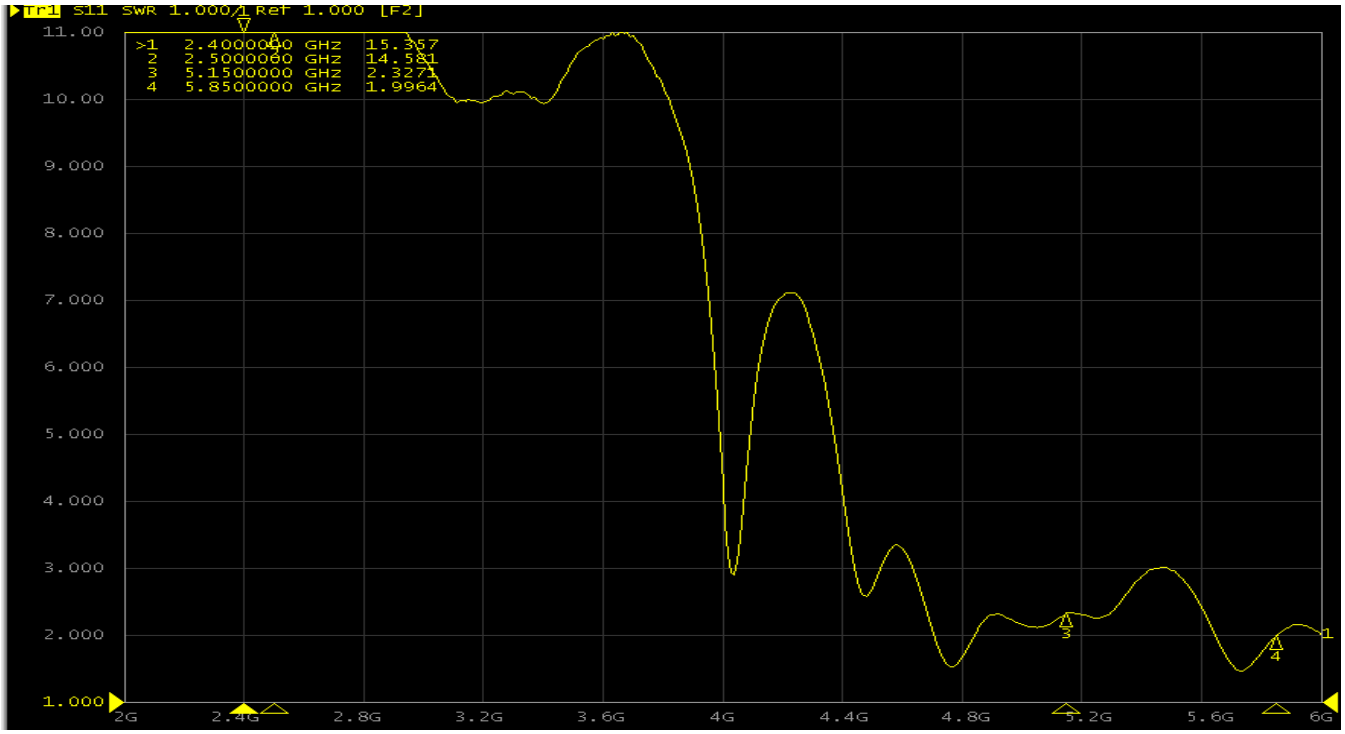
3. Performance Data

3.1 VSWR

2.4G



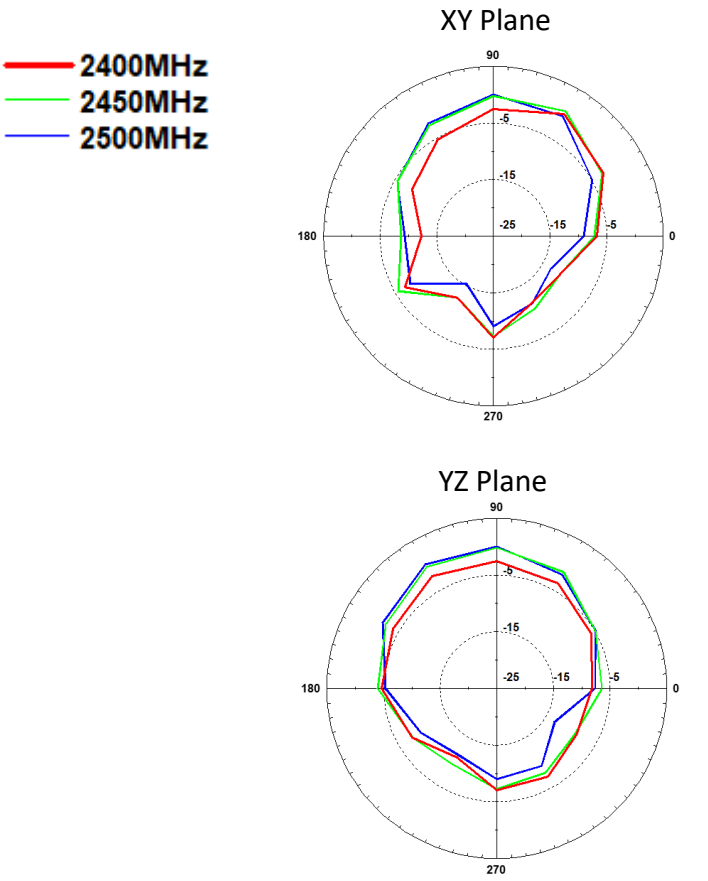
5G



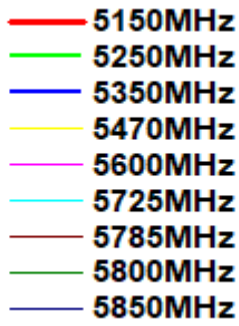
3.2 Radiation pattern & Gain (WIFI Antenna)

3.2.1 Antenna pattern

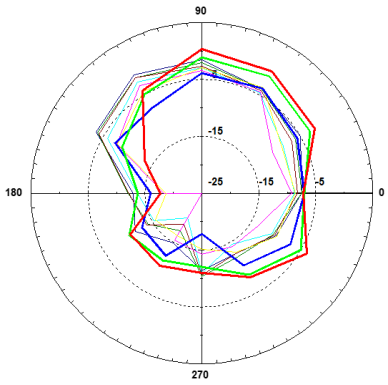
2400-2450MHz



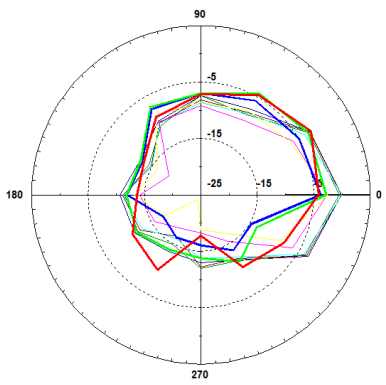
5150-5850MHz



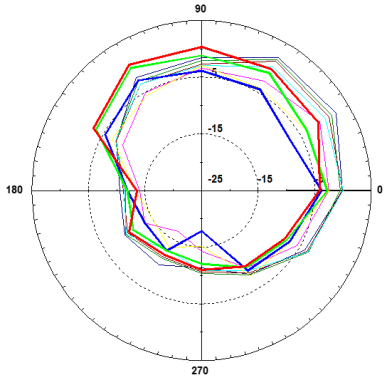
XY Plane

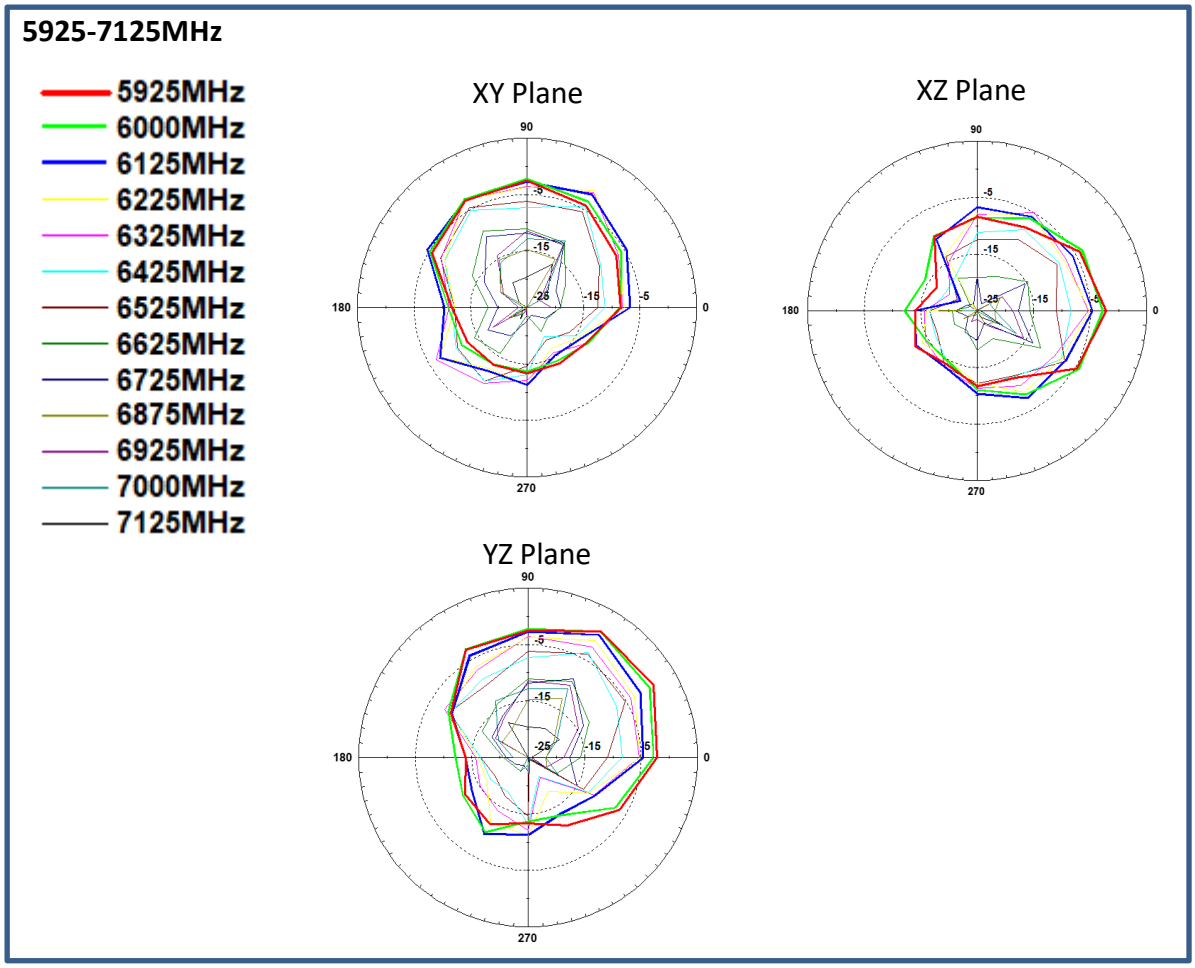


XZ Plane



YZ Plane



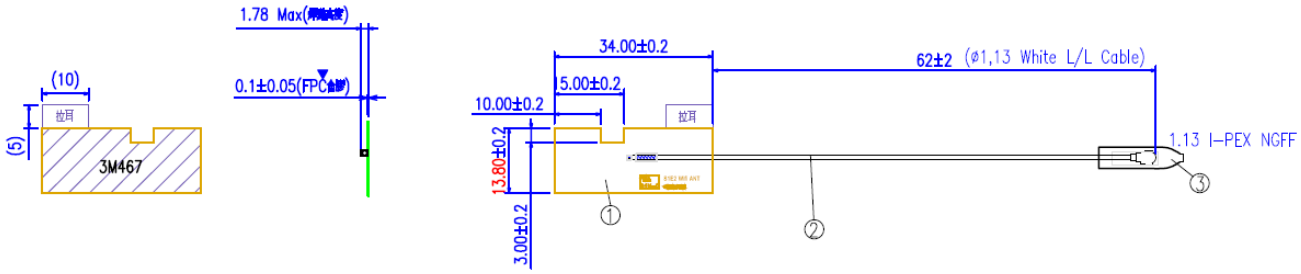

5925-7125MHz
5925MHz
6000MHz
6125MHz
6225MHz
6325MHz
6425MHz
6525MHz
6625MHz
6725MHz
6875MHz
6925MHz
7000MHz
7125MHz
XY Plane
XZ Plane
YZ Plane
90
180
0
270
-5
-15
-25

Antenna Gain/Efficiency (WIFI Antenna)

Frequency (MHz)	**3D**		
	Efficiency	Avg. Gain	Peak Gain
2400	25.775	-5.888	-0.082
2450	27.328	-5.634	0.611
2500	24.468	-6.114	0.293
5150	26.589	-5.753	0.658
5250	29.424	-5.313	-0.033
5350	27.177	-5.658	-2.597
5470	27.033	-5.681	-2.275
5600	28.668	-5.426	-0.831
5725	35.612	-4.484	0.257
5785	34.041	-4.68	1.315
5800	35.400	-4.51	1.612
5850	38.415	-4.155	2.402
5925	24.191	-6.163	0.818
6000	24.790	-6.057	0.730
6125	24.580	-6.094	0.079
6225	20.385	-6.907	-0.757
6325	19.318	-7.14	-1.281
6425	11.597	-9.357	-3.173
6525	11.100	-9.547	-2.744
6625	3.125	-15.051	-8.301
6725	2.513	-15.999	-7.565
6875	0.947	-20.239	-12.972
6925	1.498	-18.245	-10.164
7000	1.310	-18.826	-10.919
7125	0.540	-22.678	-16.115

4.Mechanical Specification

4.1 Assembly Drawing(WIFI Antenna)



Revision

Revision	Date	Change Notification	Notes
Rev.1	2022-04-18		
Rev.2	2022-04-20	Modify drawing	Change I-pex 1 to I-pex 4