Product Specification

Customer : Actions Microelectronics Co.,Ltd

Product Description: **2.4/5G WIFI** Antenna

Part NO.: **ANT-PCB-PRO-DONGLE-2**

Customer Part NO.:

Version: **V1.0**

Date: **2018.9.12**

	Manufacturer Signature	**Customer Signature**
Approved by:		
Date:		

Contents

Item	Description	Page
1.	Revised History	3
2.	Antenna Specification	4
3.	Antenna Assembly	5
4.	Product Photo	6
5.	Test Report	7-8

Revised History

Date	Version	Revised Record

Antenna Specification

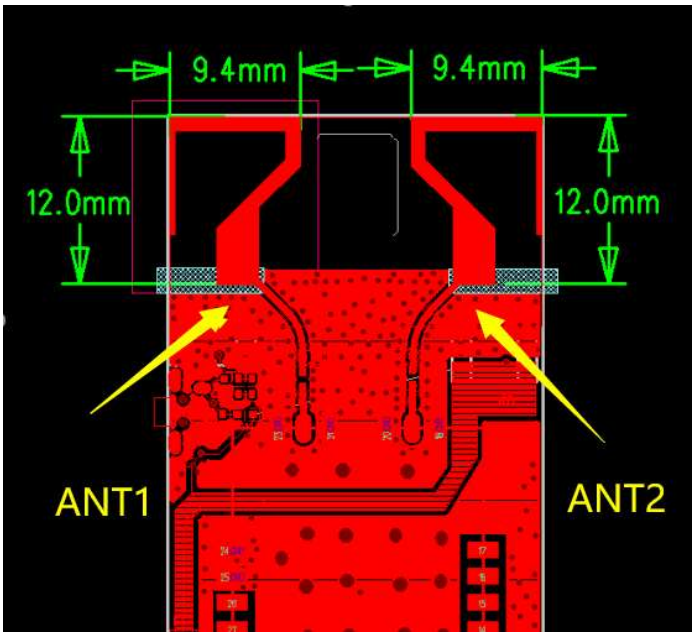
Electrical Properties

Function	2.4/5G WIFI Antenna
Frequency Range（GHz）	2.4-2.5 ;5.1-5.85
VSWR	≦2.5
Gain(dBi)	ANT1:1dBi@2.4g; 1.2dBi@5g; ANT2:1dBi@2.4g; 1.0dBi@5g;
Input Impendence(Ω)	50
Polarization Type	line Vertiacl
Antenna Type	PIFA

Physical Properties

Function	2.4/5G WIF Antenna
Antenna material	PCB
Working Temp	-40℃-65℃
Storage Temp	-40℃-80℃

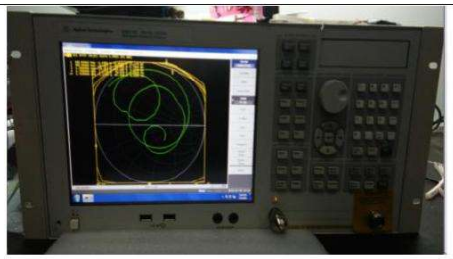
Antenna Assembly（2.4-5G）



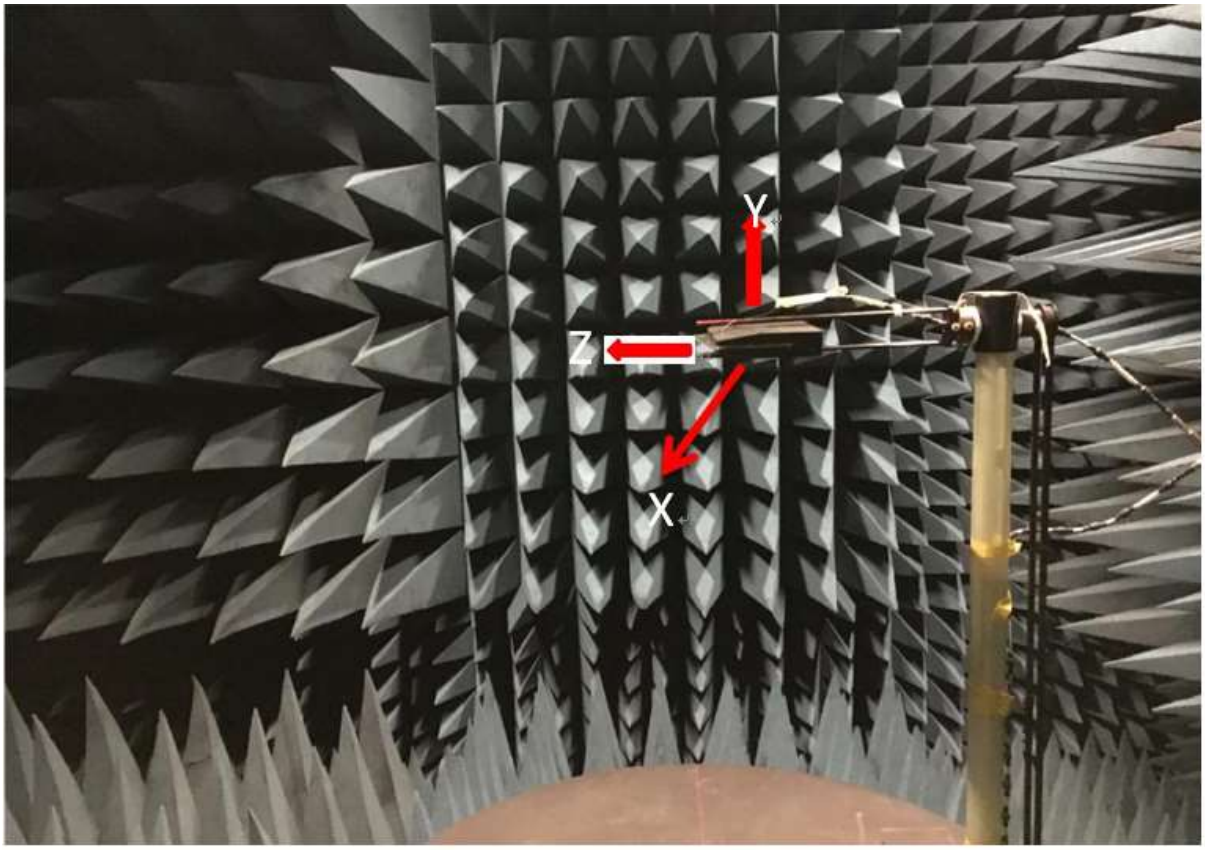
Product Photo

Test Report

Test equipment

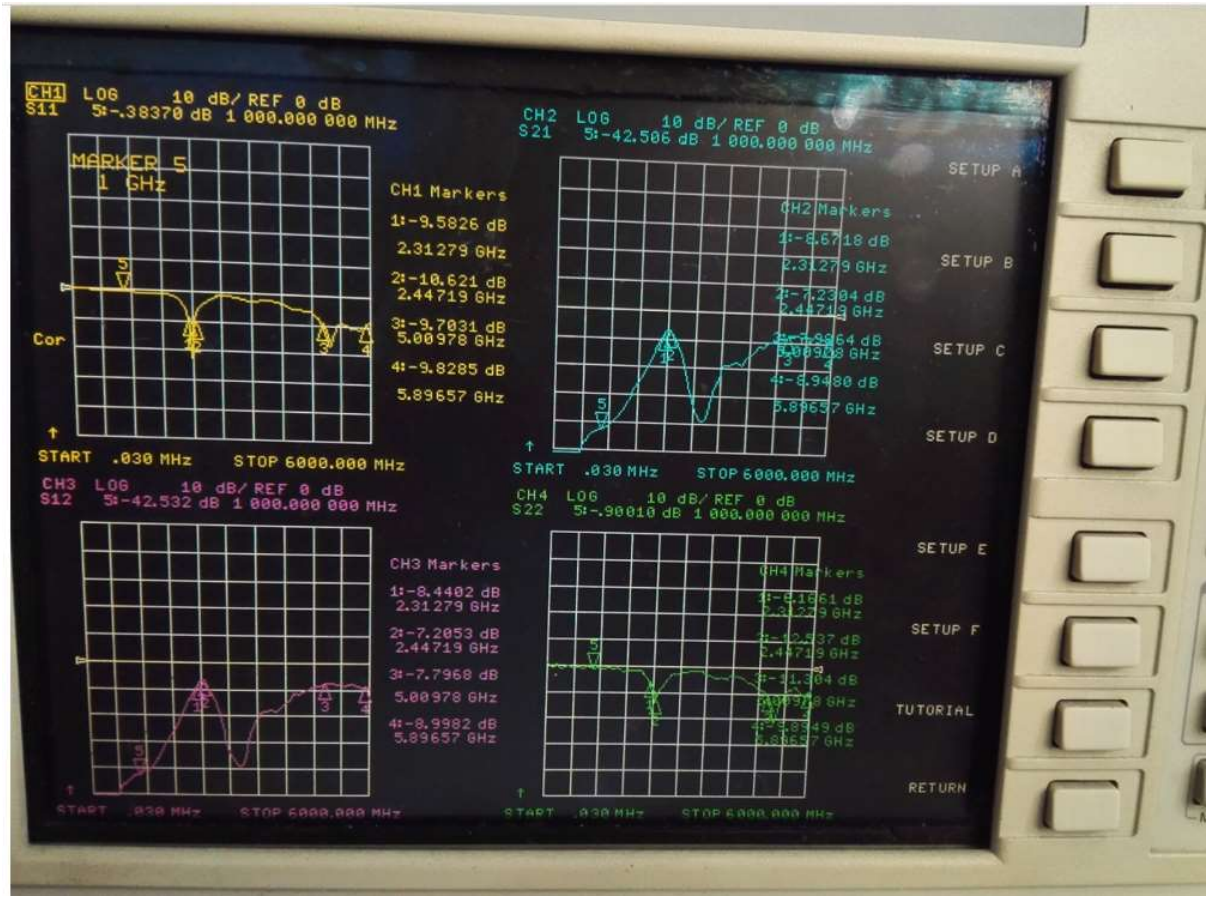
Num	Equipment name	Equipment picture	Index	Environment
1	Atenlab 3D darkroom		Passive	
2	Agilent E5071C			

Test environment picture



Return Loss/VSWR/Smith chart（2.4-5G）：

ANT1 AND ANT2:



ANT1 Return Loss/VSWR/Smith chart（2.4-5G）

频率（GHZ）	2.4	2.68	5.20	6
Return loss(dB)	-9.6	-10	-8	-10
VSWR	2	1.87	2.32	1.89

Antenna gain/Efficiency

Frequency(GHz)	2.4	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48
Efficiency(%)	38.84	29.51	24.72	37.06	32.58	31.36	36.73	37.15	36.56
Peak Gain(dBi)	0.73	0.8	0.76	0.45	0.52	1.0	0.36	0.66	0.44
Frequency(GHz)	5	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8
Efficiency(%)	21.88	28.12	35.12	37.15	38.73	48.87	42.27	39.36	40.64
Peak Gain(dBi)	0.71	0.6	0.80	1.18	0.26	0.92	1.20	1.14	1.06

ANT2 Return Loss/VSWR/Smith chart（2.4-5G）

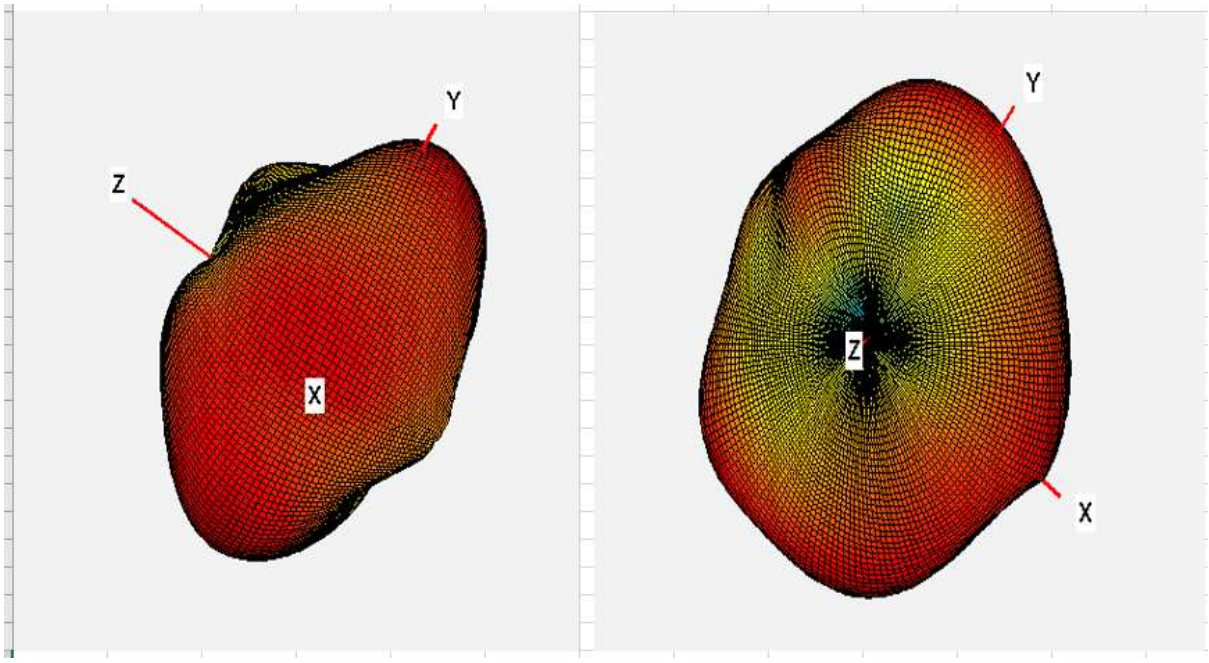
频率（GHZ）	2.4	2.68	5.20	6
Return loss(dB)	-9.6	-10	-8	-10
VSWR	2	1.87	2.32	1.89

Antenna gain/Efficiency

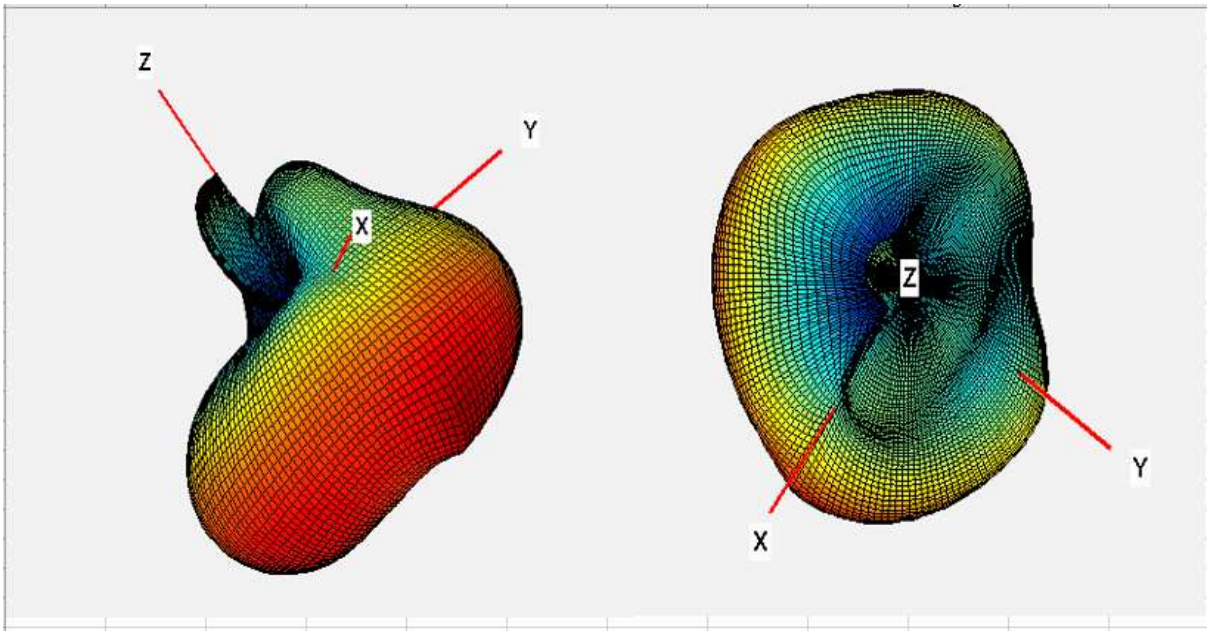
Frequency(GHz)	2.4	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48
Efficiency(%)	38. 84	29. 51	34. 72	31. 06	32. 51	31. 36	32. 73	37. 15	36. 56
Peak Gain(dBi)	0. 72	0. 8	0. 46	0. 65	0. 52	1. 0	0. 36	0. 66	0. 44
Frequency(GHz)	5	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8
Efficiency(%)	21. 88	28. 12	35. 12	36. 15	33. 73	38. 87	42. 27	39. 26	40. 64
Peak Gain(dBi)	0. 71	0. 6	1. 00	0. 88	0. 26	0. 92	0. 76	0. 94	0. 49

Directional diagram:

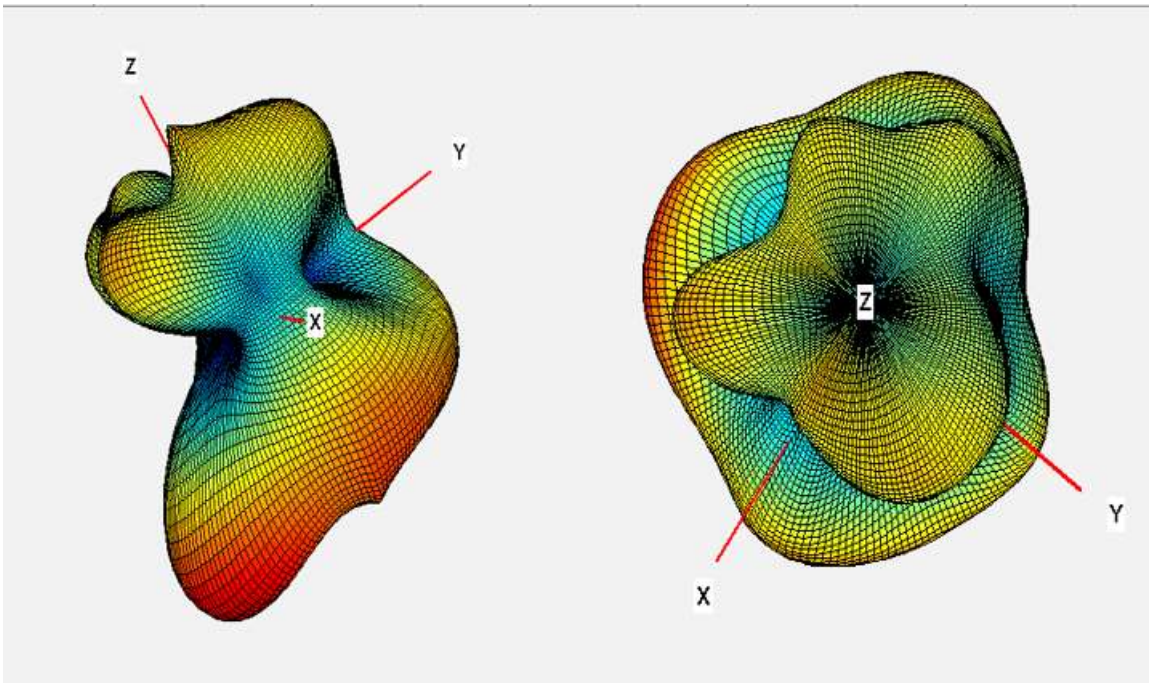
ANT1-2.4G



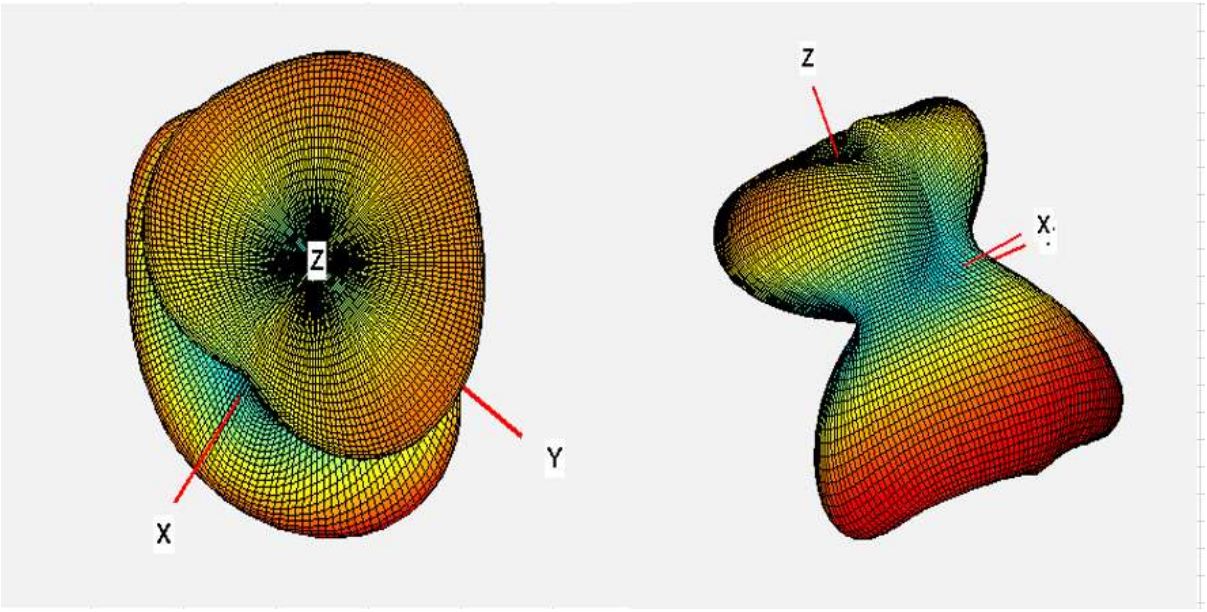
ANT1-5G:



ANT2-2.4G:



ANT2-5G:


Z
Y
X
Z
X