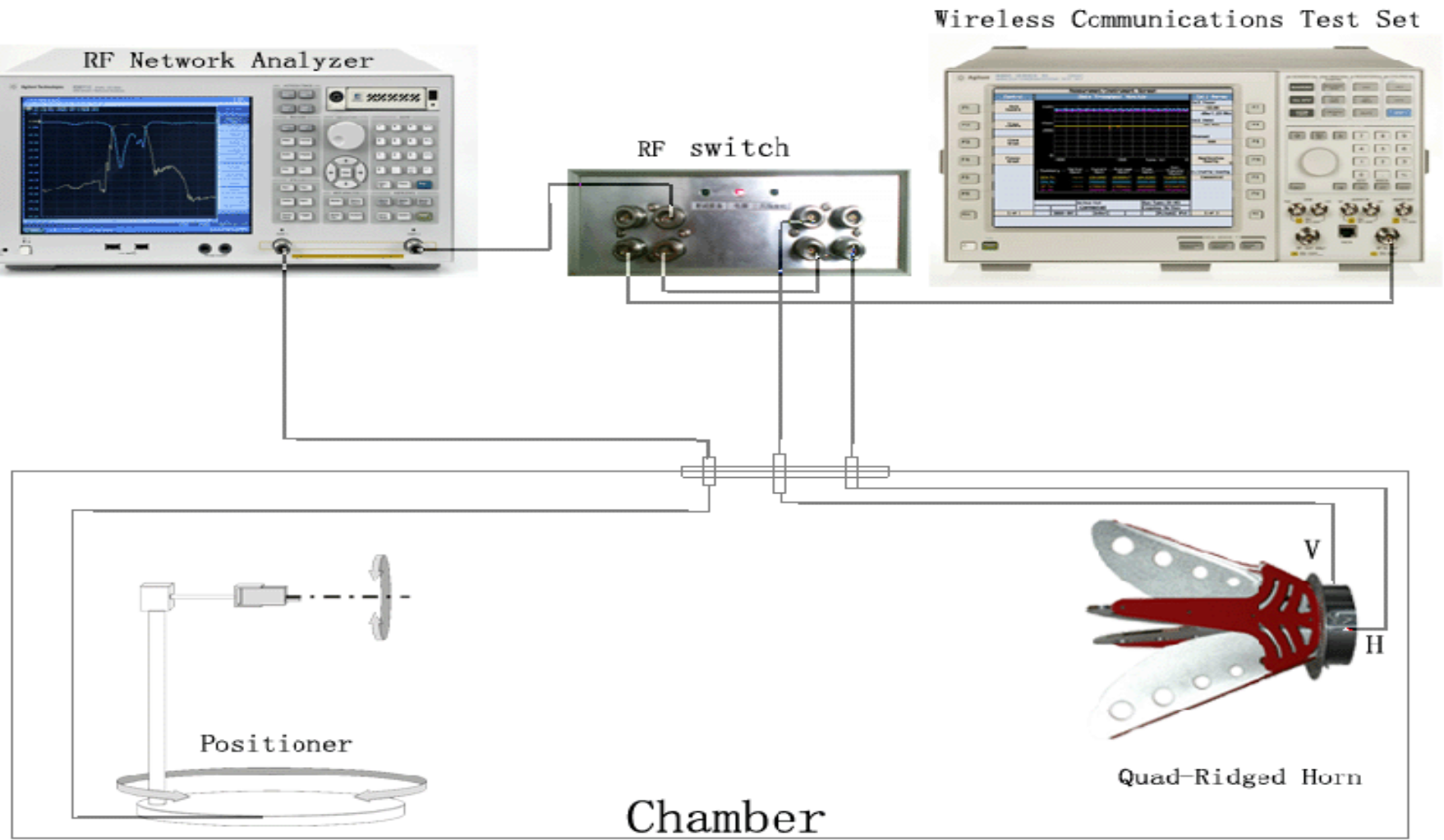


Shenzhen ATN communication equipment co.,Ltd

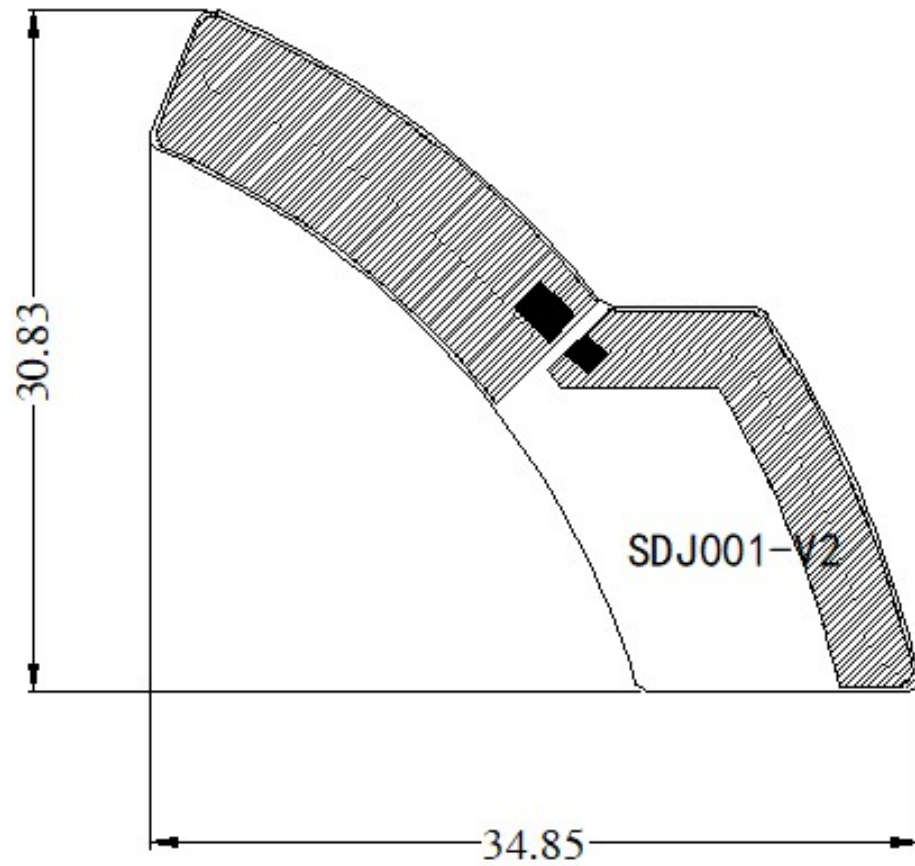
Antenna test report

Customer:	Klinsmann	Project	k198	Date	2023-4-26
Band	2.4-2.48GHz				
Report version	V2.0				
Antenna version:	SDJ001-V2				

Test system



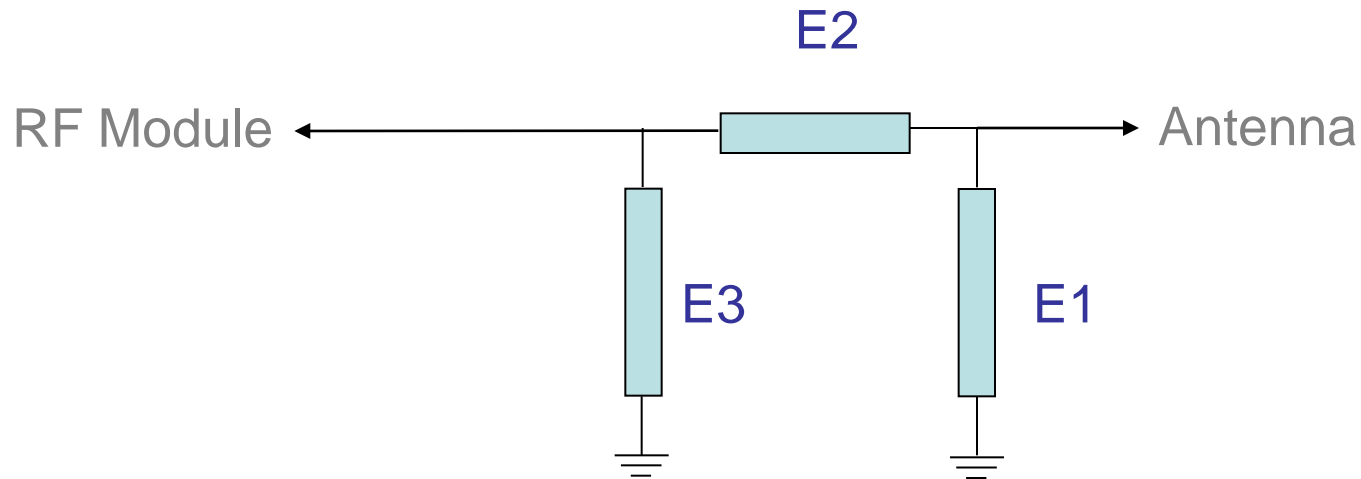
Antenna size



Catalog

1. Matching circuit
2. Passive data
3. WIFI OTA data
4. Requirement of assembly

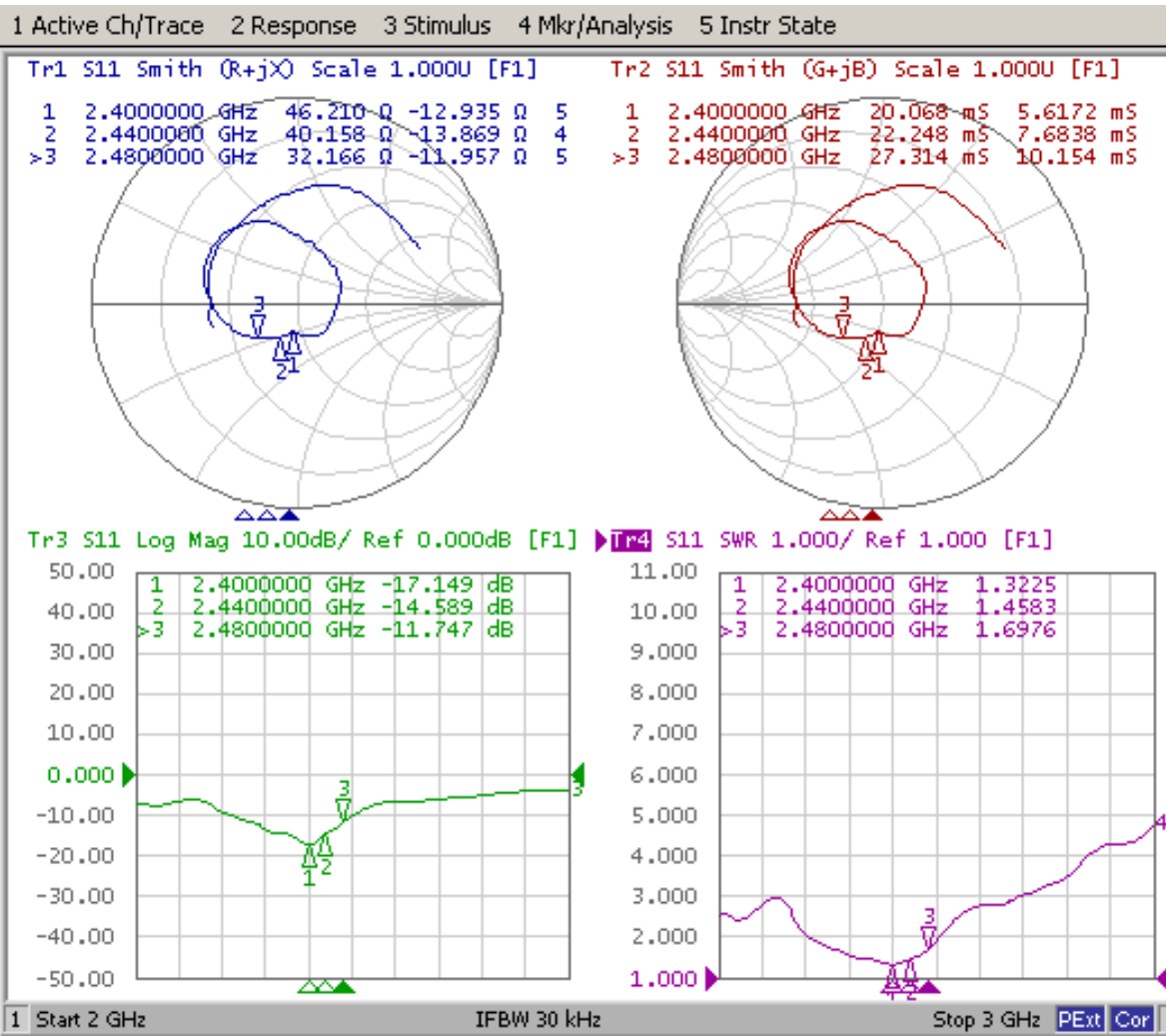
1. Matching circuit



Element	Value
E1(0201)	NC
E2(0201)	0Ω
E3(0201)	NC

2. Passive data

2.1 S11 Parameter

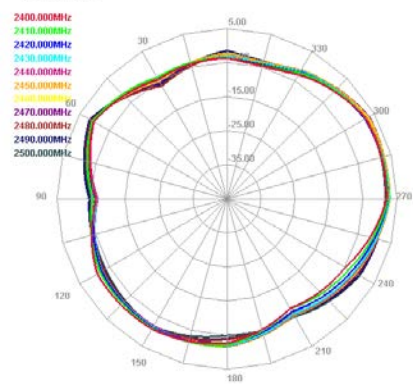


2.2 Gain & Efficiency

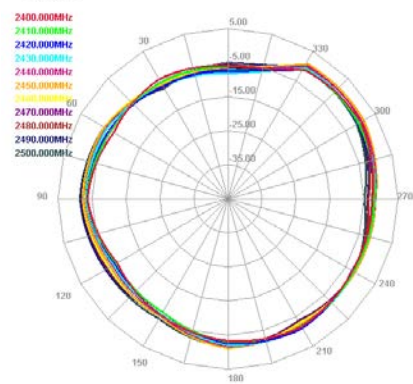
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	54.44	-2.64	2.49
2410	54.77	-2.61	2.43
2420	52.53	-2.8	2.41
2430	54.74	-2.62	2.69
2440	56.04	-2.52	2.68
2450	61.55	-2.11	2.89
2460	62.82	-2.02	3
2470	63.68	-1.96	3.23
2480	60.47	-2.18	3.04
2490	61.98	-2.08	3.38
2500	59.92	-2.22	3.52

2.3 Radiation pattern

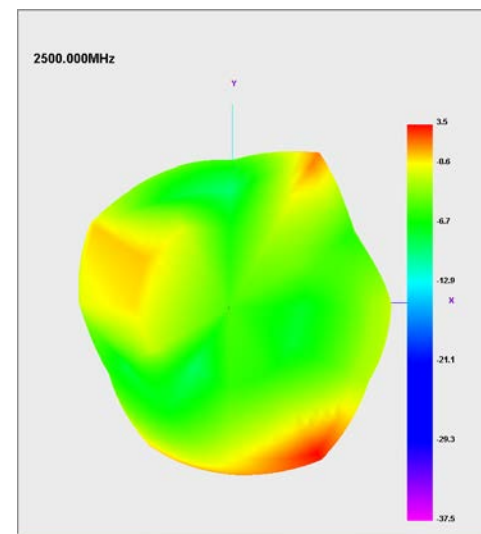
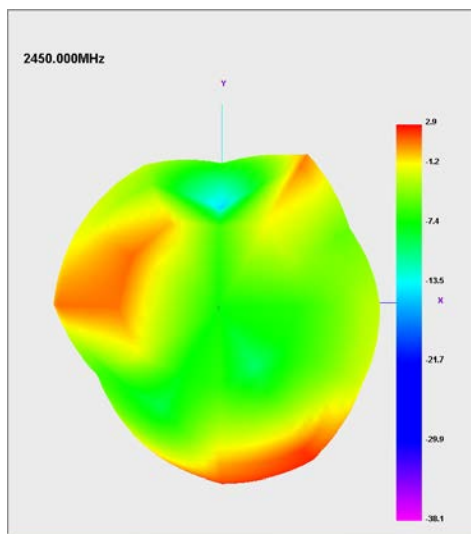
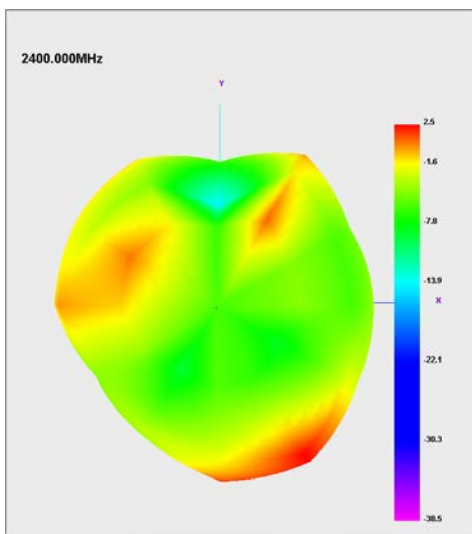
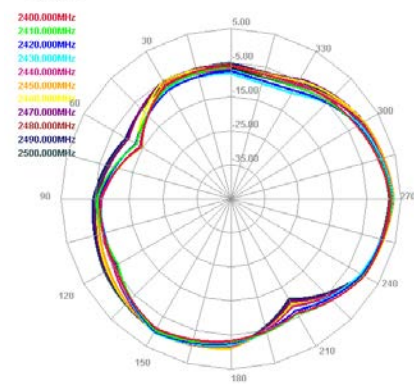
Horizontal



E1 Face



E2 Face



3.WIFI OTA data

Test Result	802.11b : 11Mbps		
	1	7	13
Frequency (MHz)	2412	2442	2472
Txp Ave (dBm)	14.54	14.02	14.06

Test Result	802.11b : 11Mbps		
	1	7	13
Frequency (MHz)	2412	2442	2472
Sens Ave (dBm)	-83.73	-81.21	-81.93

Test Result	802.11g : 54Mbps		
	1	7	13
Frequency (MHz)	2412	2442	2472
Txp Ave (dBm)	12.22	11.91	11.77

Test Result	802.11g : 54Mbps		
	1	7	13
Frequency (MHz)	2412	2442	2472
Sens Ave (dBm)	-69.6	-68.44	-67.67

Test Result	802.11n : MCS7		
	1	7	13
Frequency (MHz)	2412	2442	2472
Txp Ave (dBm)	12.15	11.84	11.78

Test Result	802.11n : MCS7		
	1	7	13
Frequency (MHz)	2412	2442	2472
Sens Ave (dBm)	-66.49	-66.33	-65.6

4. Requirement of assembly



The antenna is installed here