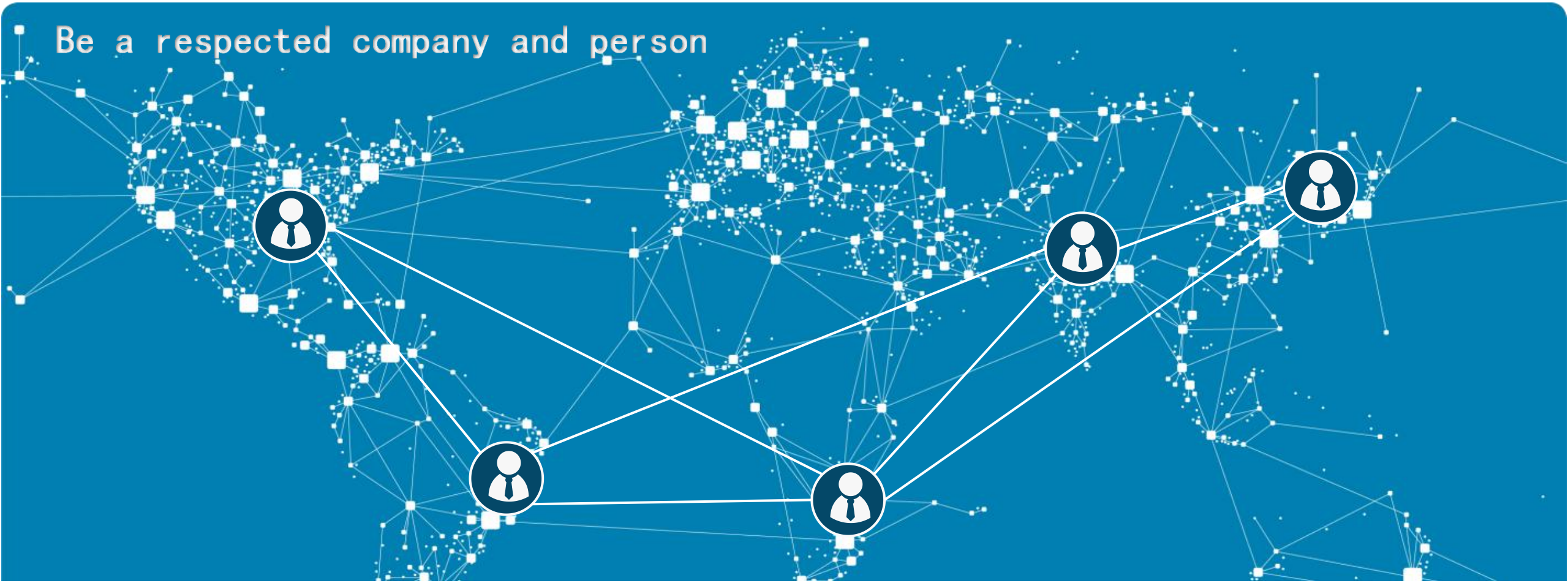


Digital photo frame antenna test standard template

Management by objectives & result orientation is the only value of our existence

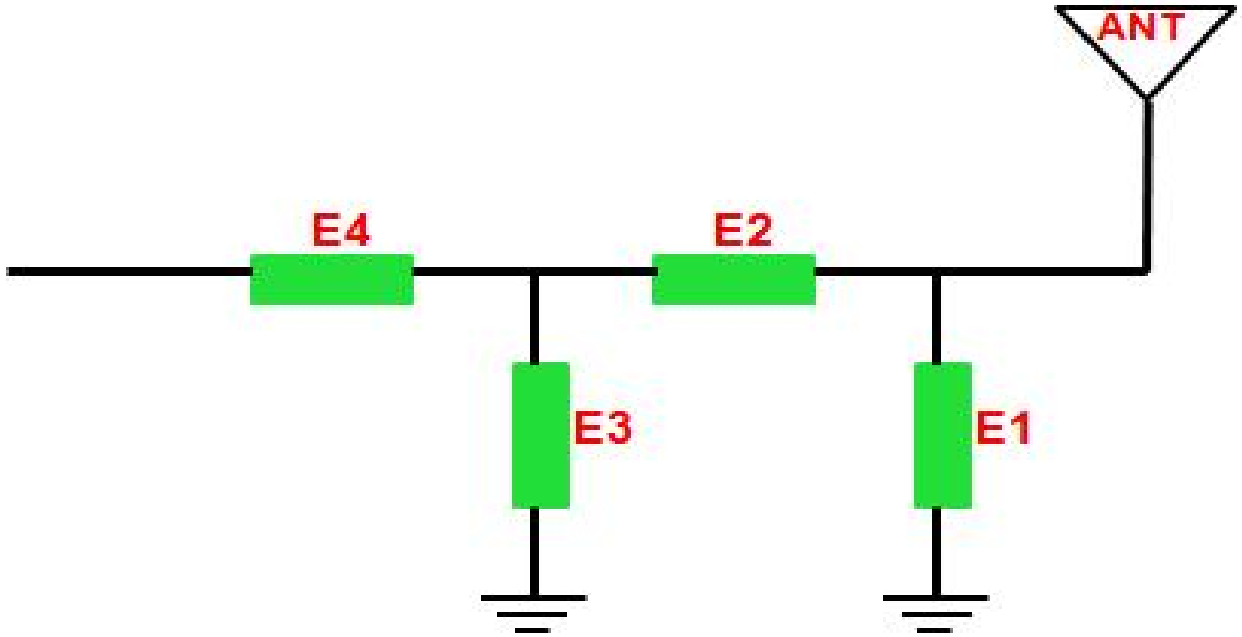
Catalogue

Catalogue

- Commissioning machine
- Match circuit test data
- Motherboard conduction data
- Darkroom active + passive test data
- WIFI measurement + throughput test data
- Sample placement

Commissioning machine：JT079H-A03W：

Match circuit test data：



Main Antenna		GPS Antenna	
Element	Value	Element	Value
E1(0402)		E1(0402)	
E2(0402)		E2(0402)	
E3(0402)		E3(0402)	
E4(0402)			
WIFIAntenna		AUX Antenna	
Element	Value	Element	Value
E1(0402)		E1(0402)	
E2(0402)		E2(0402)	
E3(0402)		E3(0402)	

The test antenna is PCB sample

motherboard conducts data：

WIFI	CH	TRP(54M)	TIS(54M)
802.11a	149	12.53	-73
	157	12.06	-73
	165	11.91	-73

WIFI	CH	TRP(11M)	TIS(11M)
802.11b	1	16.75	-80
	6	16.91	-80
	13	16.98	-80

WIFI	CH	TRP(54M)	TIS(54M)
802.11g	1	16.60	-73
	6	16.30	-73
	13	16.22	-73

WIFI	CH	TRP(MSC7M)	TIS(MSC7M)
802.11n	1	16.40	-65
	6	16.65	-65
	13	16.40	-65

motherboard conducts data：

WIFI	CH	TRP(40M,MCS7)	TIS(40M,MCS7)
802.11AC	36	19.96	-71
	149	16.63	-71
	161	15.53	-71
WIFI	CH	TRP(40M,MSC7)	TIS(40M,MCS7)
802.11AX	36	21.72	-71
	149	19.84	-71
	161	19.00	-71

Active Test Data in a Dark Chamber：

WIFI	CH	TRP(54M)	TIS(54M)
802.11a	149	9.13	-70.11
	157	9.65	-70.63
	165	9.04	-71.92

WIFI	CH	TRP(11M)	TIS(11M)
802.11b	1	12.46	-76.43
	6	12.05	-77.86
	13	11.58	-76.89

WIFI	CH	TRP(54M)	TIS(54M)
802.11g	1	11.30	-63.67
	6	10.78	62.83
	13	10.44	61.82

WIFI	CH	TRP(MSC7)	TIS(MSC7)
802.11n	1	10.81	--61.30
	6	10.01	-60.96
	13	10.58	-60.47

Active Test Data in a Dark Chamber：

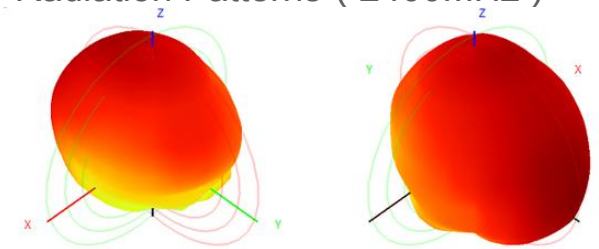
WIFI	CH	TRP(40M,MCS7)	TIS(40M,MCS7)
802.11AC	36	14.39	-63.67
	149	13.05	-63.56
	161	11.64	-63.24
WIFI	CH	TRP(40M,MSC7)	TIS(40M,MCS7)
802.11AX	36	17.95	-67.18
	149	15.01	-66.69
	161	15.52	-68.69

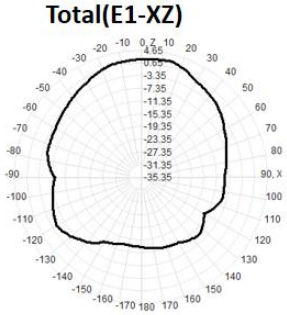
Passive test data Efficiency & Gain：

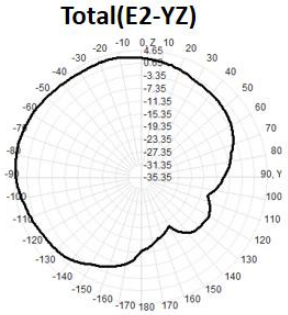
Passive Test For 2400-2500MHz			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	57.07	-2.44	3.65
2410	56.35	-2.49	3.34
2420	56.81	-2.46	3.17
2430	56.45	-2.48	2.91
2440	58.47	-2.33	2.83
2450	59.35	-2.27	2.91
2460	59.75	-2.24	2.94
2470	60.66	-2.17	3.06
2480	62.53	-2.04	3.26
2490	63.80	-1.95	3.58
2500	65.17	-1.86	3.93

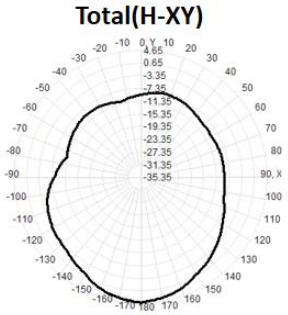
Passive test data field pattern：

Radiation Patterns (2400MHz)

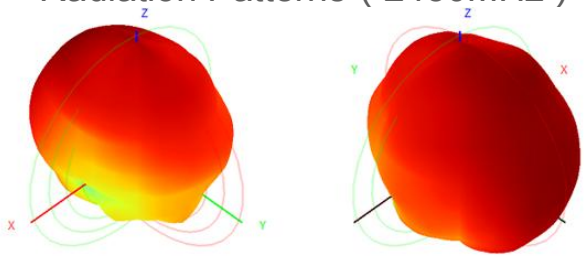


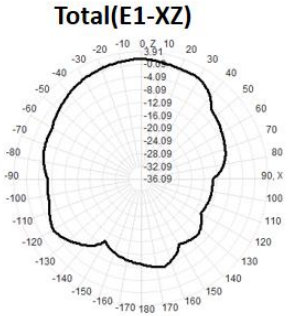


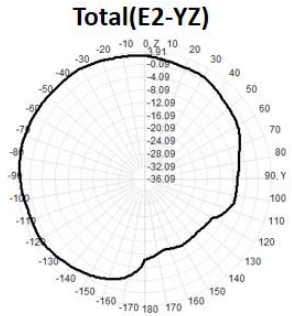


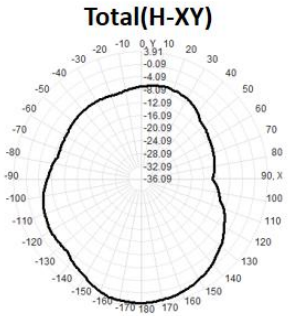


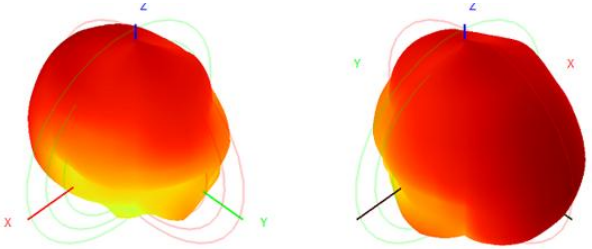
Radiation Patterns (2450MHz)



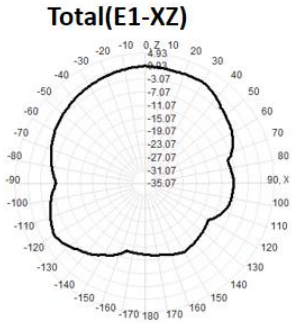


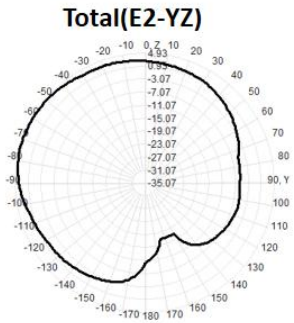


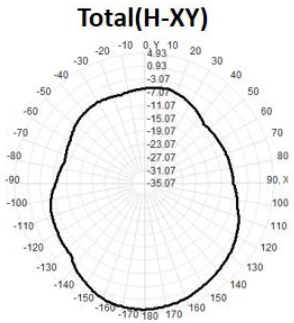




Radiation Patterns (2500MHz)





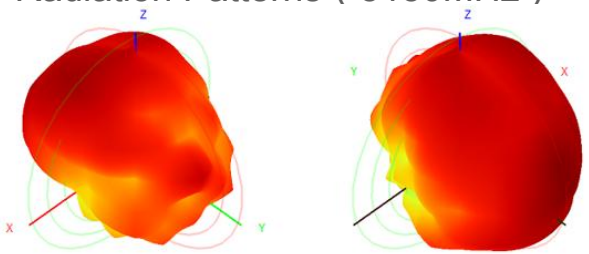


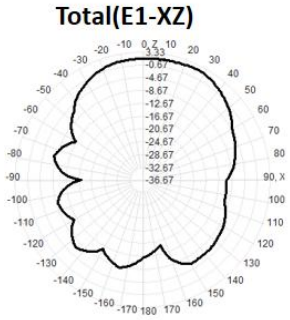
Passive test data Efficiency & Gain：

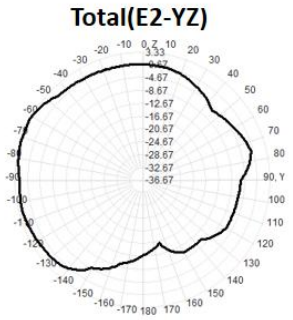
Passive Test For 5150-5850MHz			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5150	50.21	-2.99	3.33
5200	48.20	-3.17	2.94
5250	60.27	-2.20	3.52
5300	61.48	-2.11	3.82
5350	46.44	-3.33	3.06
5400	55.44	-2.56	3.32
5450	64.69	-1.89	3.92
5500	49.75	-3.03	3.55
5550	50.79	-2.94	3.67
5600	57.30	-2.42	3.07
5650	52.83	-2.77	2.86
5700	50.41	-2.97	3.34
5750	52.79	-2.77	3.16
5800	48.26	-3.16	2.64
5850	48.50	-3.14	2.76

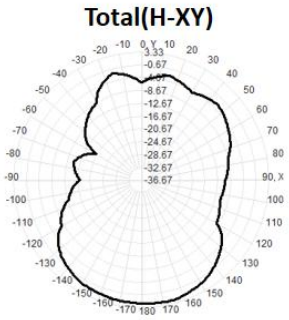
Passive test data field pattern：

Radiation Patterns (5150MHz)

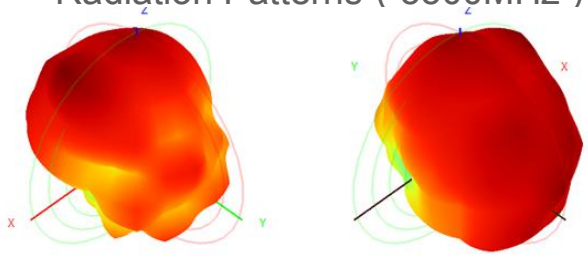


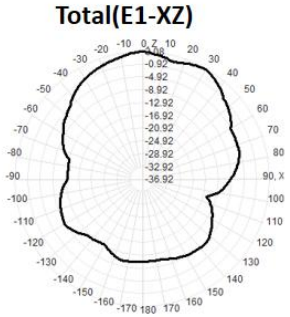


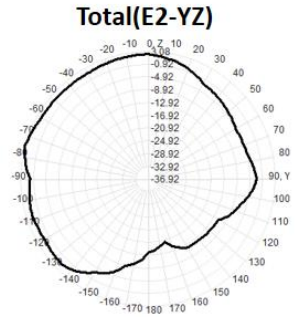


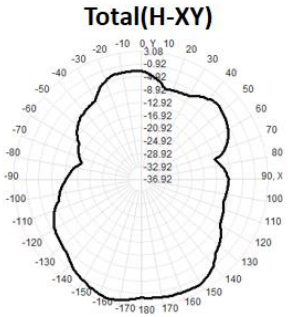


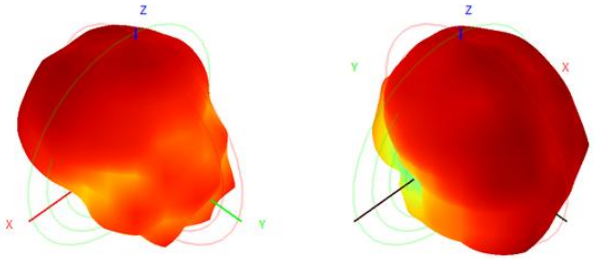
Radiation Patterns (5500MHz)



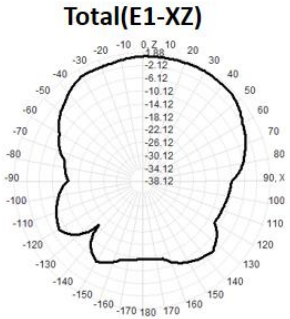


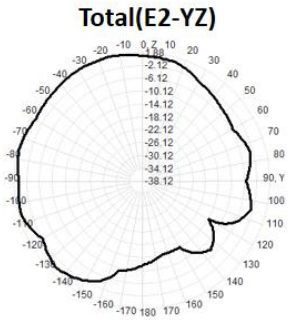


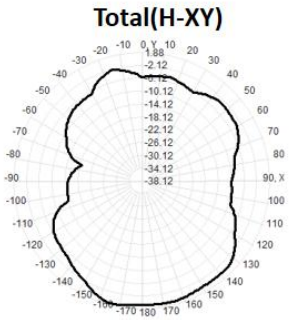




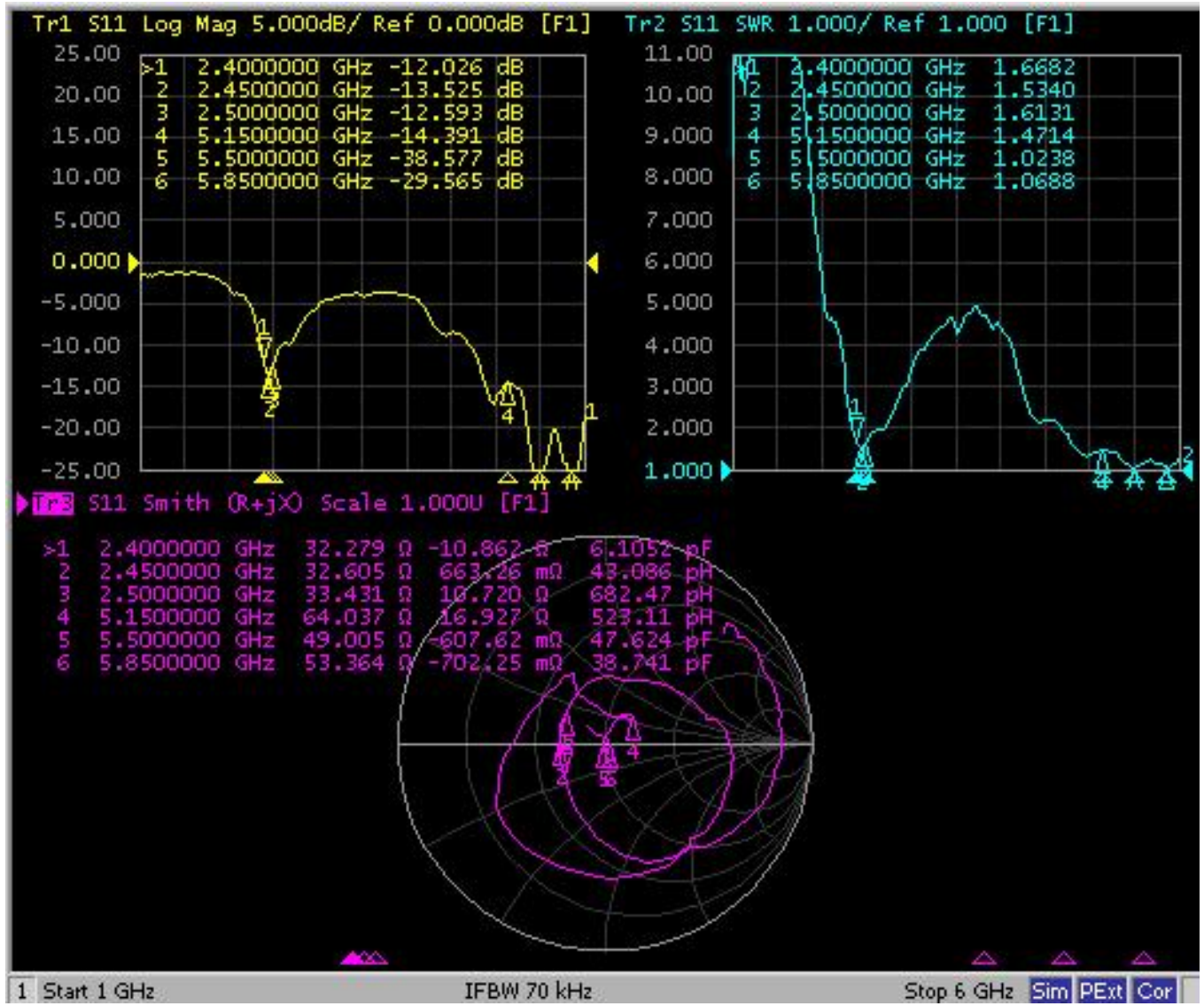
Radiation Patterns (5850MHz)







Return Loss&VSWR：



WIFI test map：

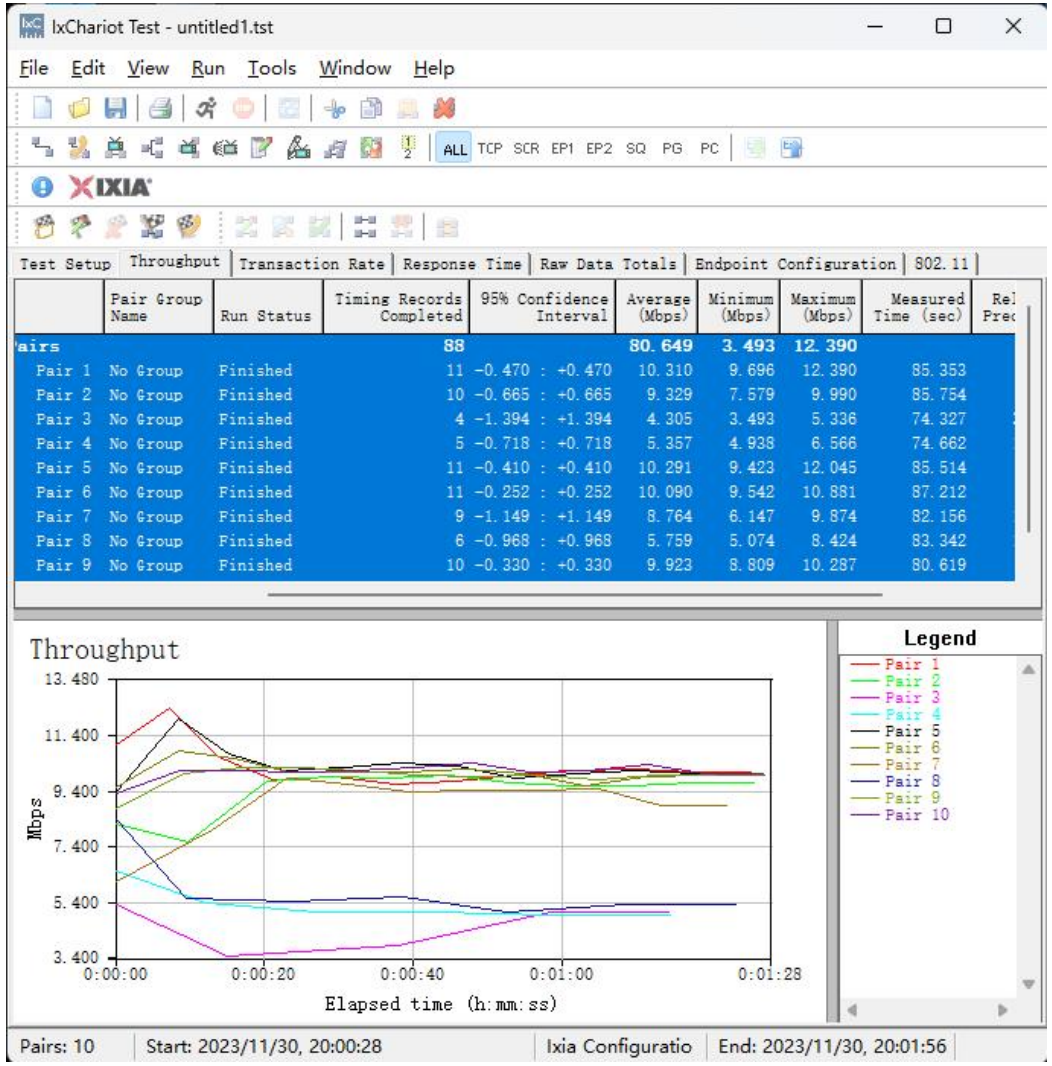
WIFI-2.4G in the condition of no obstacles, in our company

The signal is full at 20M away from the router

WIFI-5.8G in the condition of no obstacles, in our company

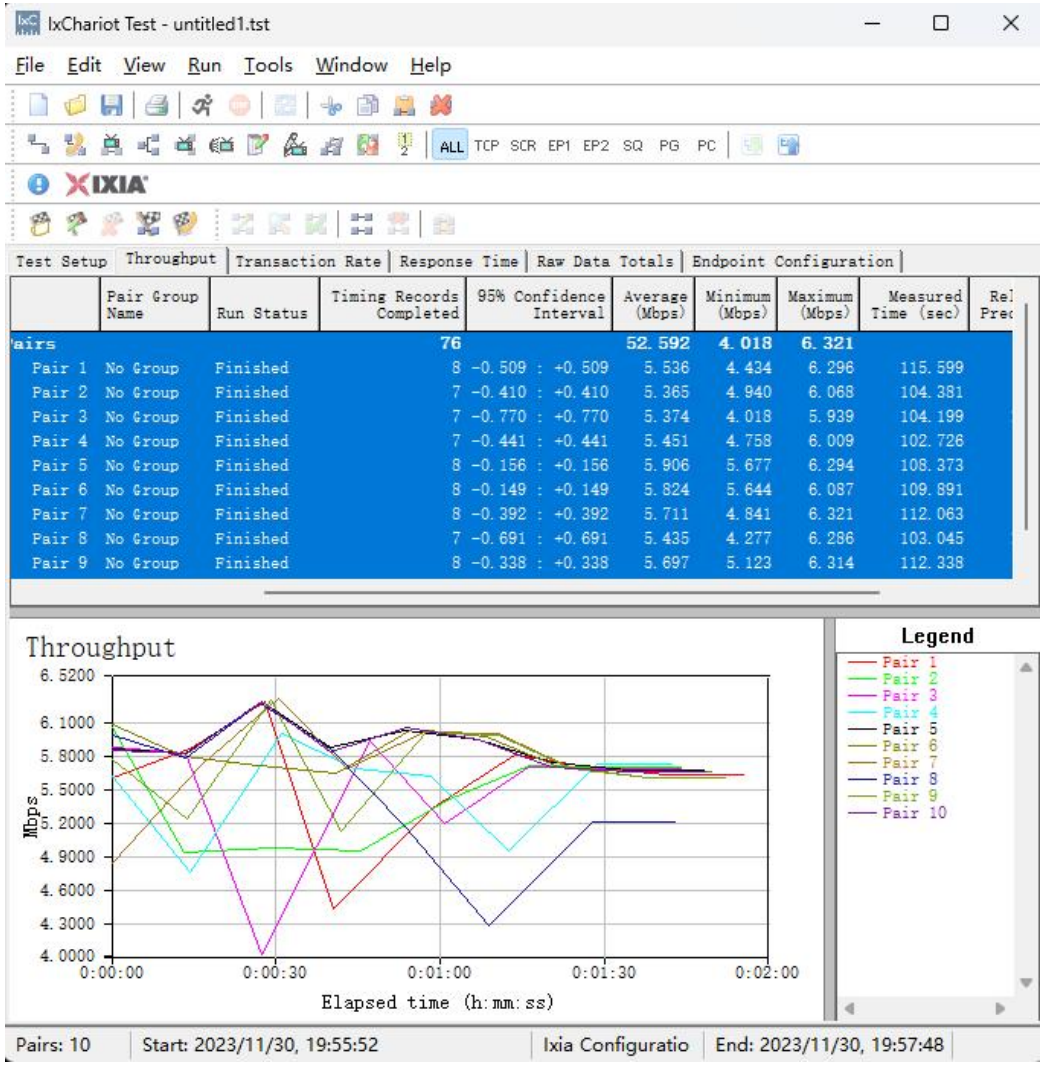
The signal is full at 13M away from the router

WIFIthroughput test data：



	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)
airs			88		80.649	3.493	12.390	
Pair 1	No Group	Finished	11	-0.470 : +0.470	10.310	9.696	12.390	85.353
Pair 2	No Group	Finished	10	-0.665 : +0.665	9.329	7.579	9.990	85.754
Pair 3	No Group	Finished	4	-1.394 : +1.394	4.305	3.493	5.336	74.327
Pair 4	No Group	Finished	5	-0.718 : +0.718	5.357	4.938	6.566	74.662
Pair 5	No Group	Finished	11	-0.410 : +0.410	10.291	9.423	12.045	85.514
Pair 6	No Group	Finished	11	-0.252 : +0.252	10.090	9.542	10.881	87.212
Pair 7	No Group	Finished	9	-1.149 : +1.149	8.764	6.147	9.874	82.156
Pair 8	No Group	Finished	6	-0.968 : +0.968	5.759	5.074	8.424	83.342
Pair 9	No Group	Finished	10	-0.330 : +0.330	9.923	8.809	10.287	80.619

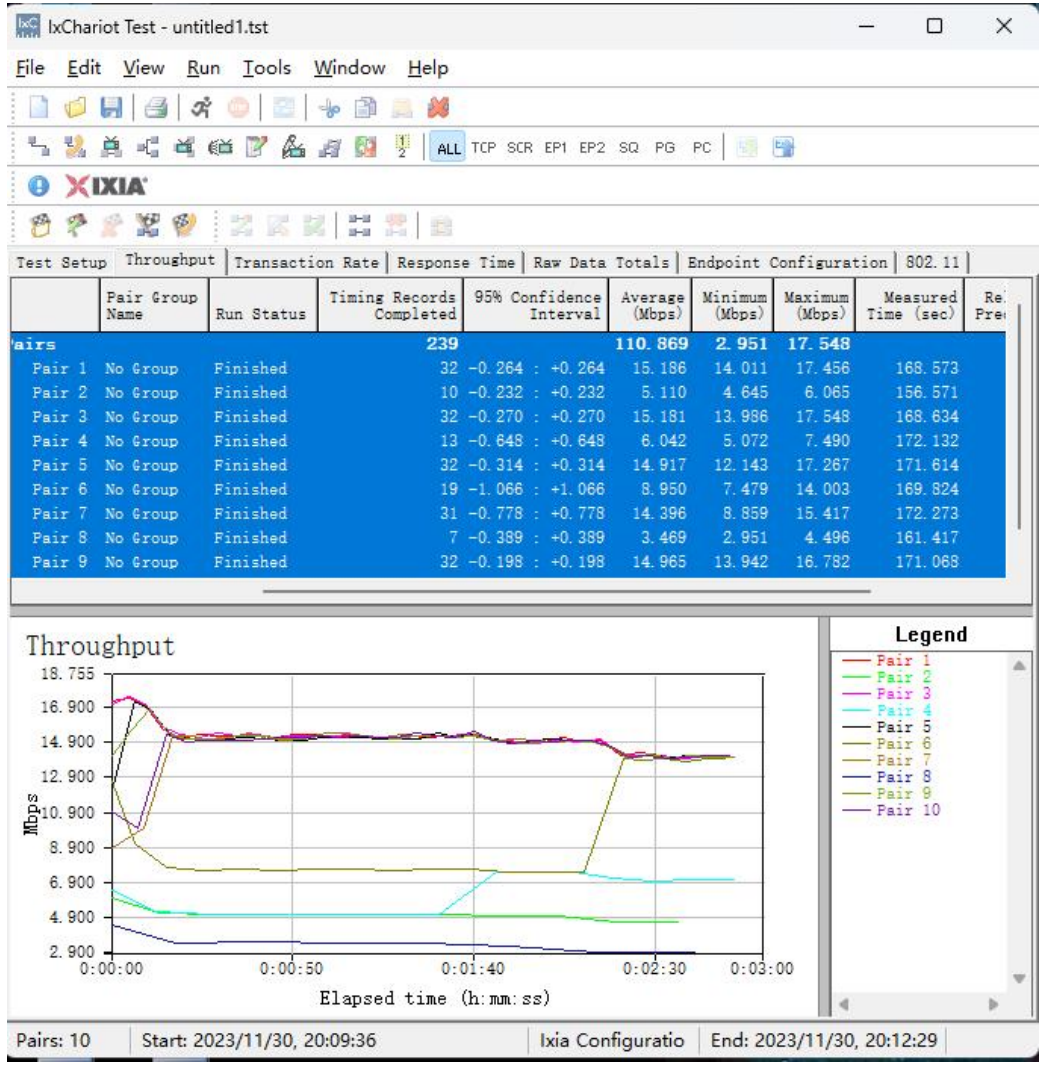
2.4G-TX:80Mbps



	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)
airs			76		52.592	4.018	6.321	
Pair 1	No Group	Finished	8	-0.509 : +0.509	5.536	4.434	6.296	115.599
Pair 2	No Group	Finished	7	-0.410 : +0.410	5.365	4.940	6.068	104.381
Pair 3	No Group	Finished	7	-0.770 : +0.770	5.374	4.018	5.939	104.199
Pair 4	No Group	Finished	7	-0.441 : +0.441	5.451	4.758	6.009	102.726
Pair 5	No Group	Finished	8	-0.156 : +0.156	5.906	5.677	6.294	108.373
Pair 6	No Group	Finished	8	-0.149 : +0.149	5.824	5.644	6.087	109.891
Pair 7	No Group	Finished	8	-0.392 : +0.392	5.711	4.841	6.321	112.063
Pair 8	No Group	Finished	7	-0.691 : +0.691	5.435	4.277	6.286	103.045
Pair 9	No Group	Finished	8	-0.338 : +0.338	5.697	5.123	6.314	112.338

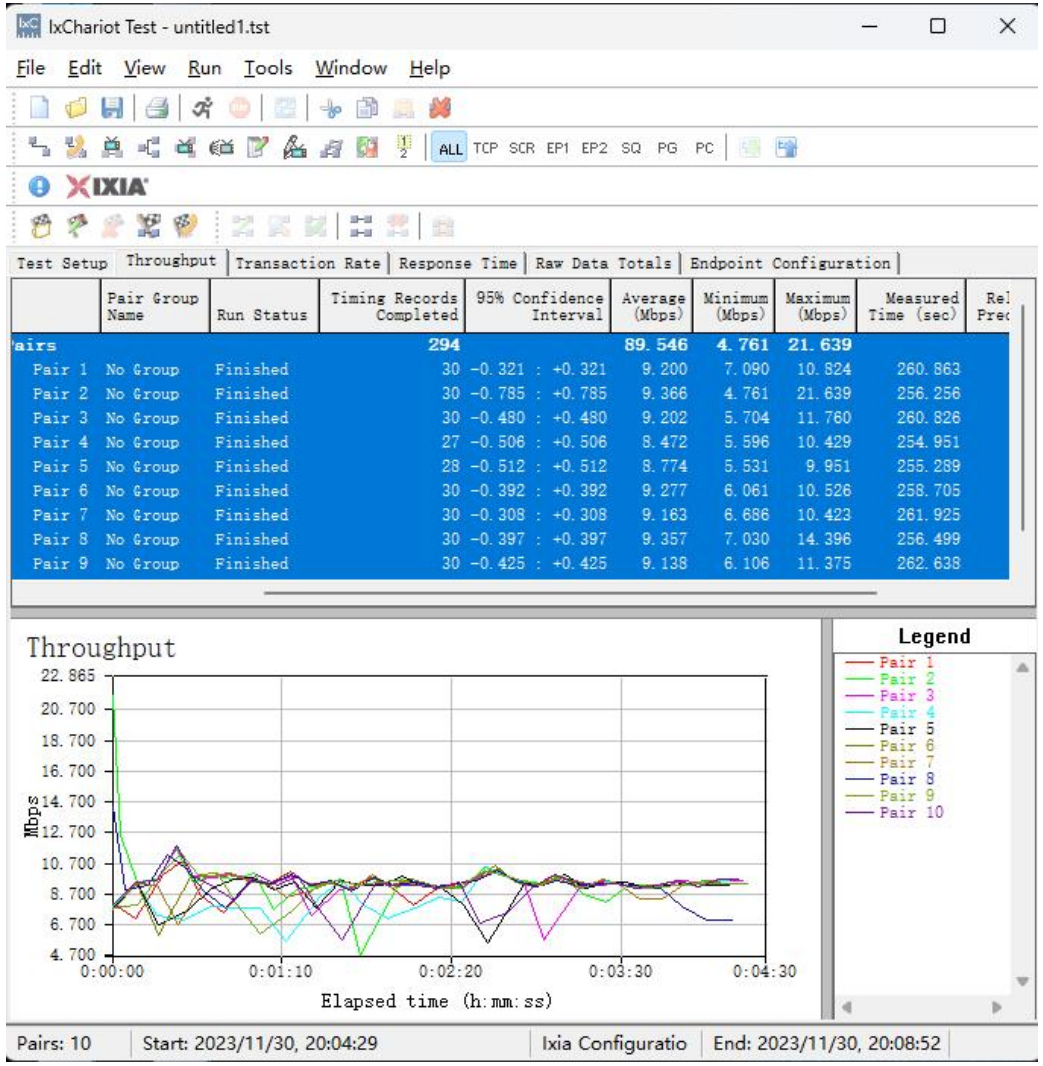
2.4G-RX:52Mbps

WIFIthroughput test data：



	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)
airs			239		110.869	2.951	17.548	
Pair 1	No Group	Finished	32	-0.264 : +0.264	15.186	14.011	17.456	168.573
Pair 2	No Group	Finished	10	-0.232 : +0.232	5.110	4.645	6.065	156.571
Pair 3	No Group	Finished	32	-0.270 : +0.270	15.181	13.986	17.548	168.634
Pair 4	No Group	Finished	13	-0.648 : +0.648	6.042	5.072	7.490	172.132
Pair 5	No Group	Finished	32	-0.314 : +0.314	14.917	12.143	17.267	171.614
Pair 6	No Group	Finished	19	-1.066 : +1.066	8.950	7.479	14.003	169.824
Pair 7	No Group	Finished	31	-0.778 : +0.778	14.396	8.859	15.417	172.273
Pair 8	No Group	Finished	7	-0.389 : +0.389	3.469	2.951	4.496	161.417
Pair 9	No Group	Finished	32	-0.198 : +0.198	14.965	13.942	16.782	171.068

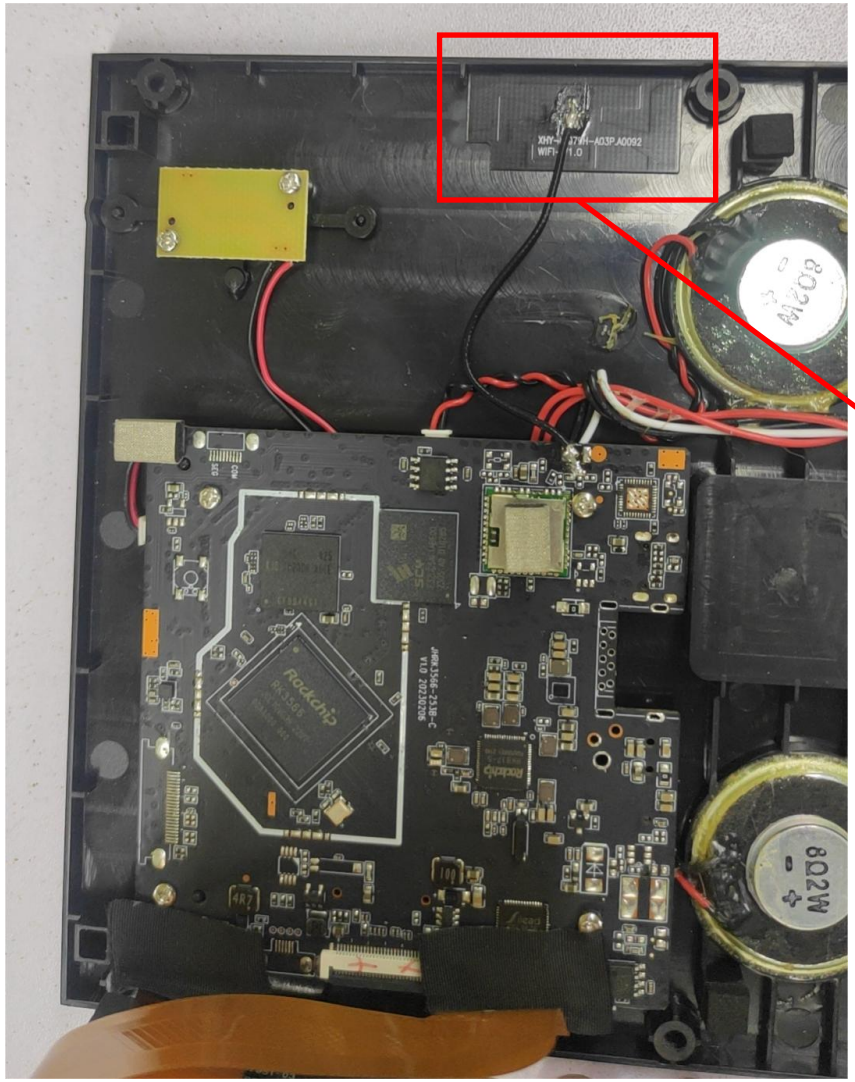
5.8G-TX:110Mbps



	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)
airs			294		89.546	4.761	21.639	
Pair 1	No Group	Finished	30	-0.321 : +0.321	9.200	7.090	10.824	260.863
Pair 2	No Group	Finished	30	-0.785 : +0.785	9.366	4.761	21.639	256.256
Pair 3	No Group	Finished	30	-0.480 : +0.480	9.202	5.704	11.760	260.826
Pair 4	No Group	Finished	27	-0.506 : +0.506	8.472	5.596	10.429	254.951
Pair 5	No Group	Finished	28	-0.512 : +0.512	8.774	5.531	9.951	255.289
Pair 6	No Group	Finished	30	-0.392 : +0.392	9.277	6.061	10.526	258.705
Pair 7	No Group	Finished	30	-0.308 : +0.308	9.163	6.686	10.423	261.925
Pair 8	No Group	Finished	30	-0.397 : +0.397	9.357	7.030	14.396	256.499
Pair 9	No Group	Finished	30	-0.425 : +0.425	9.138	6.106	11.375	262.638

5.8G-RX:89Mbps

Antenna placement position：



As shown in the figure, the WIFI antenna is attached to this area

JOYHONG

JOYHONG,Our Shared career platform.