

深圳市亿圣邦科技有限公司

Shenzhen Yishengbang Technology Co., Ltd Antenna Test Report

Project: K16SAA

Product: WIFI

Report date: 2025-6-20



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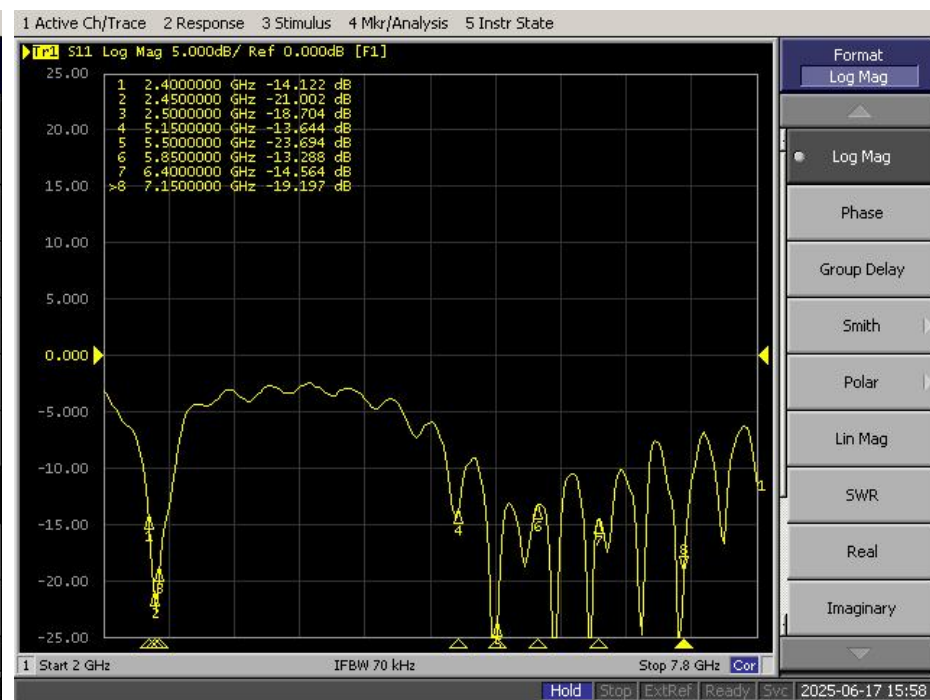
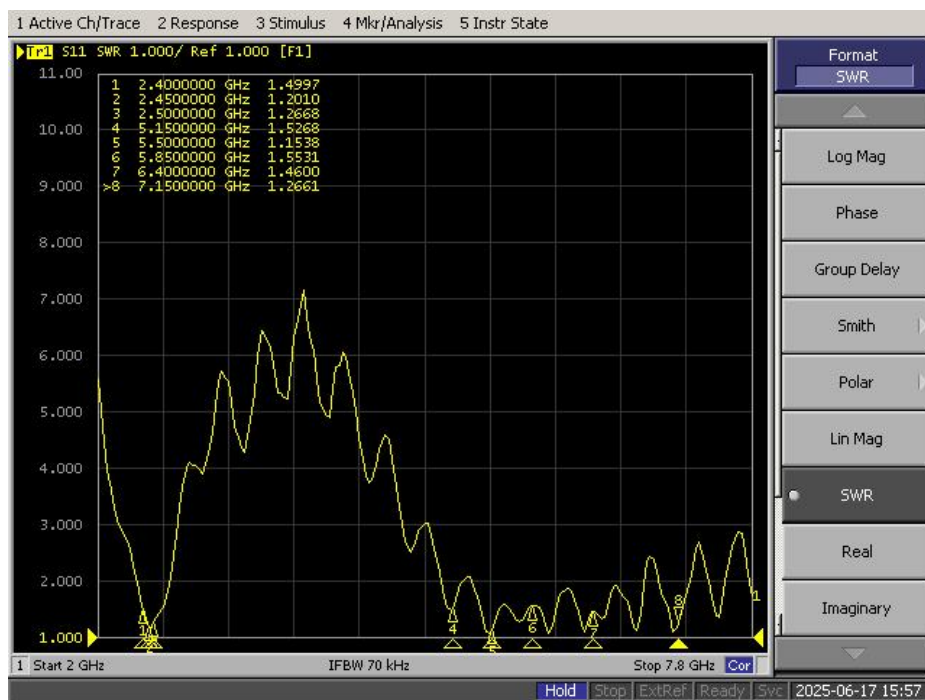
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1. Product Overview



2. Test Result

2.1 WIFI MAIN Antenna VSWR/S11



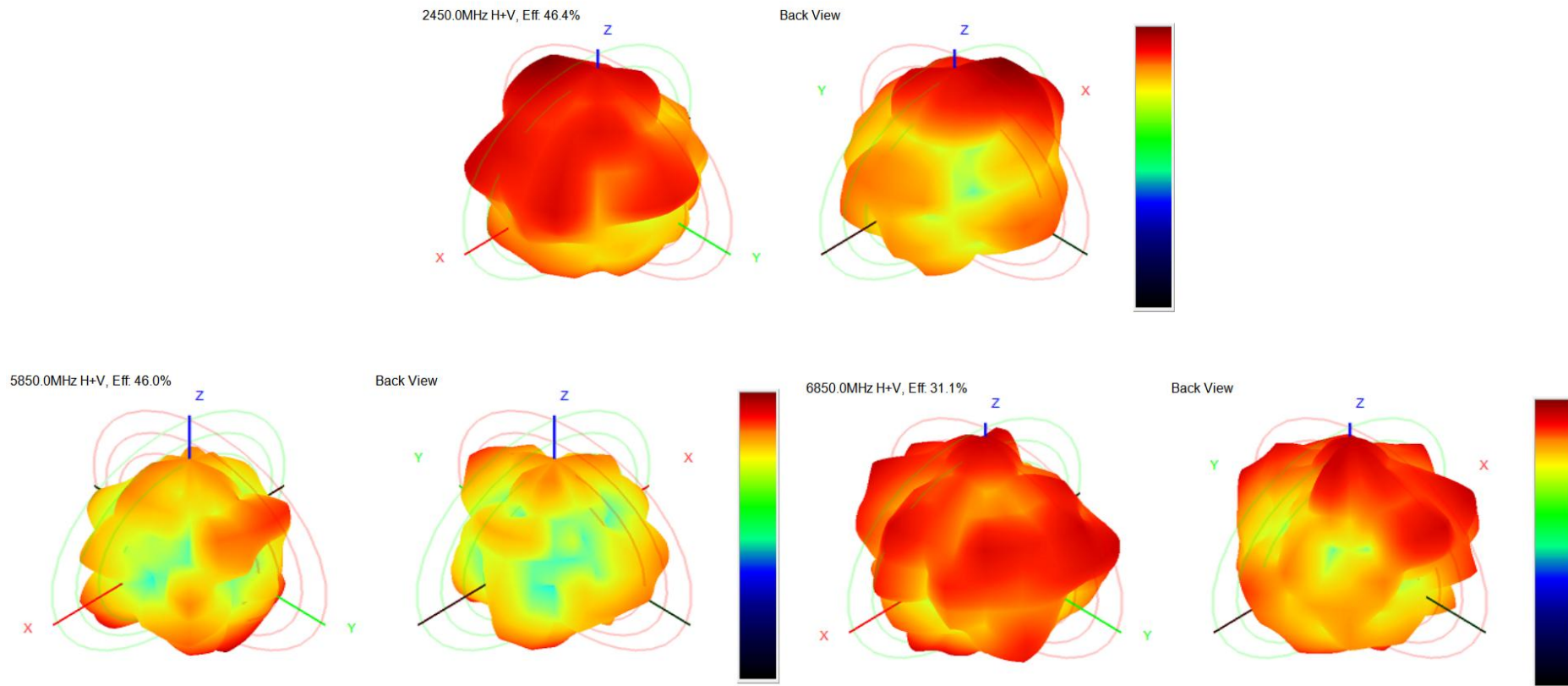
2. Test Result

2.2 WIFI MAIN Antenna Gain/Efficiency/3D DATA

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-3.87	2.57	41.04	5650	-3.82	2.40	41.46
2410	-3.71	2.29	42.56	5750	-3.57	3.36	43.97
2420	-3.70	2.81	42.63	5850	-3.37	3.49	46.03
2430	-3.45	2.46	45.20	5950	-3.16	3.82	48.29
2440	-3.44	2.06	45.26	6050	-3.68	2.87	42.86
2450	-3.34	2.65	46.39	6150	-3.77	3.29	41.97
2460	-3.35	2.80	46.27	6250	-3.13	3.11	48.60
2470	-3.53	2.88	44.36	6350	-3.13	3.30	48.69
2480	-3.64	2.74	43.29	6450	-3.43	2.90	45.38
2490	-3.75	2.51	42.20	6550	-3.38	2.68	45.92
2500	-3.96	2.41	40.21	6650	-3.83	3.31	41.40
5150	-4.00	2.54	39.78	6750	-4.33	3.26	36.88
5250	-3.69	2.86	42.75	6850	-5.07	2.82	31.09
5350	-3.46	3.15	45.04	6950	-5.38	2.97	28.99
5450	-3.88	2.62	40.96	7050	-5.20	2.11	30.17
5550	-3.68	2.84	42.83	7150	-5.39	1.41	28.90

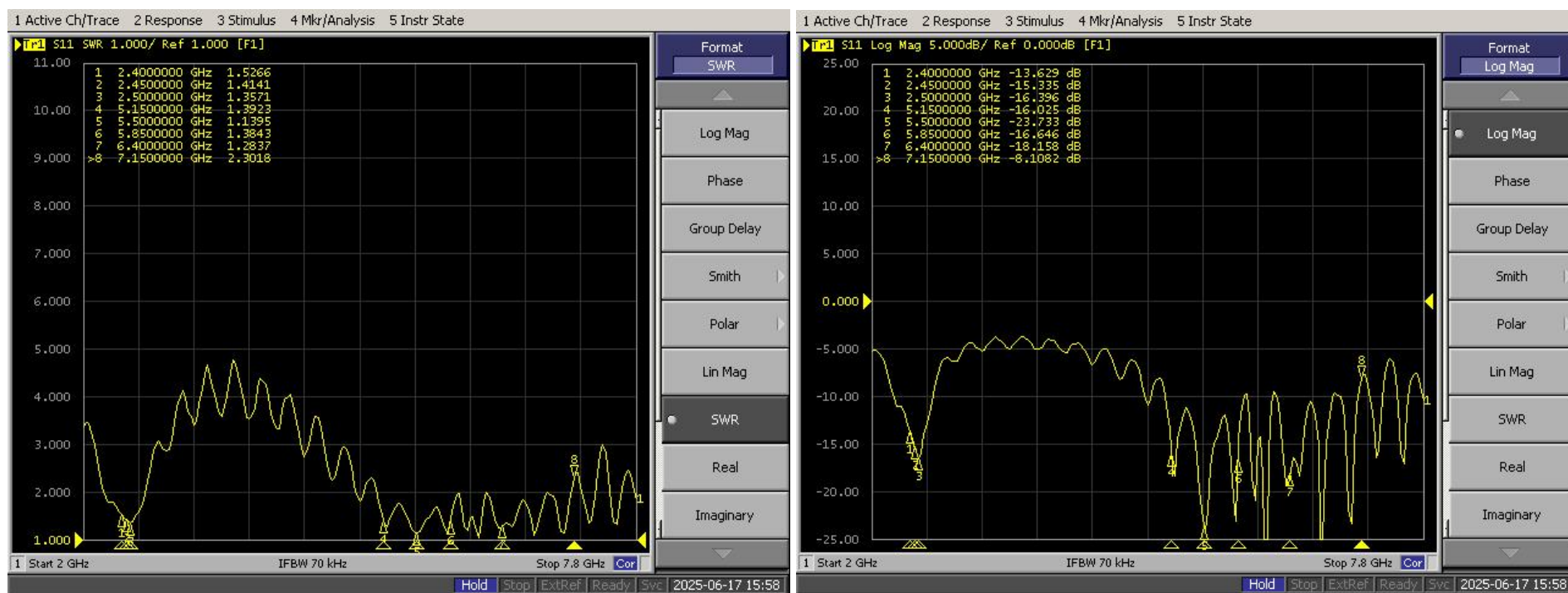
2. Test Result

2.2 WIFI MAIN Antenna Gain/Efficiency/3D DATA



2. Test Result

2.3 WIFI AUX Antenna VSWR/S11



2. Test Result

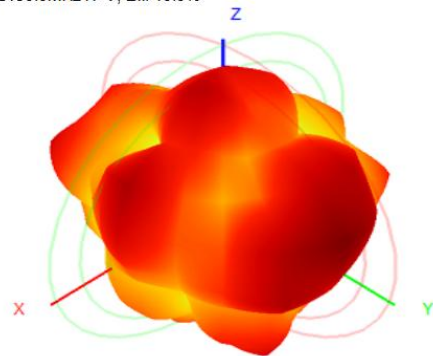
2.4 WIFI AUX Antenna Gain/Efficiency/3D DATA

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-4.08	2.76	39.07	5650	-4.19	2.68	38.11
2410	-4.12	2.77	38.72	5750	-4.40	2.74	36.27
2420	-3.98	2.13	40.02	5850	-4.14	2.60	38.53
2430	-3.80	2.35	41.65	5950	-4.33	2.38	36.88
2440	-3.83	2.25	41.42	6050	-4.62	2.69	34.51
2450	-3.88	2.28	40.95	6150	-4.60	2.96	34.65
2460	-3.88	2.03	40.93	6250	-4.26	3.10	37.47
2470	-3.94	2.81	40.32	6350	-4.27	2.84	37.41
2480	-4.02	2.57	39.62	6450	-4.63	2.26	34.44
2490	-3.70	2.59	42.62	6550	-4.65	2.31	34.28
2500	-4.13	2.96	38.63	6650	-4.43	2.63	36.07
5150	-4.10	1.16	38.91	6750	-4.71	2.67	33.80
5250	-3.91	2.06	40.65	6850	-4.45	1.03	35.91
5350	-3.99	1.99	39.89	6950	-5.07	1.01	31.11
5450	-4.26	1.58	37.50	7050	-4.97	1.13	31.81
5550	-3.90	1.78	40.75	7150	-5.15	1.22	30.53

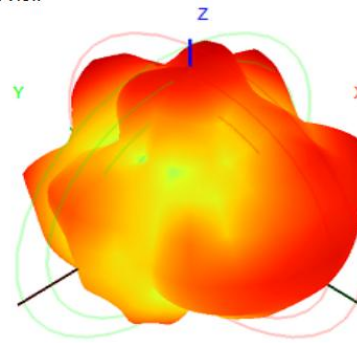
2. Test Result

2.4 WIFI AUX Antenna Gain/Efficiency/3D DATA

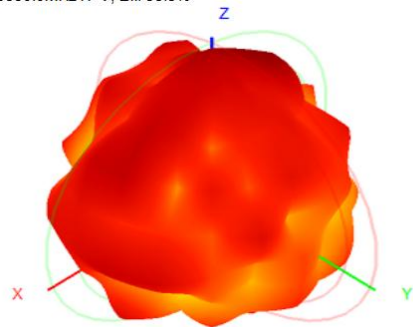
2450.0MHz H+V, Eff: 40.9%



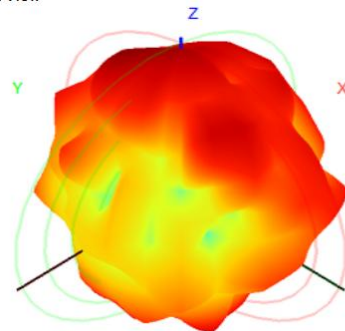
Back View



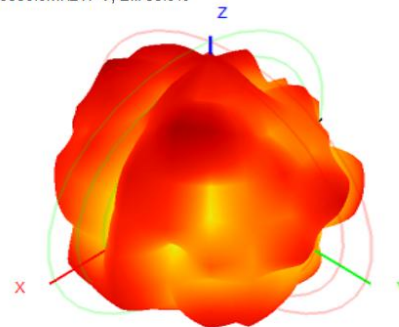
5850.0MHz H+V, Eff: 38.5%



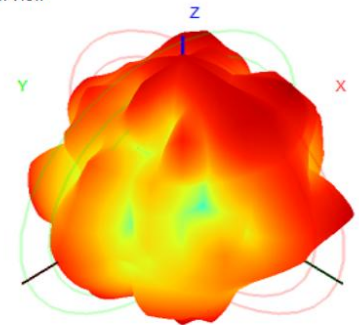
Back View



6850.0MHz H+V, Eff: 35.9%



Back View



2. Test Result

2.5 WIFI active test

WIFI active test			
frequency band	1	6	11
B-TRP-11MBps	12.64	12.14	12.30
B-TIS-11MBps	-81.46	-81.25	-82.17
G-TRP-54MBps	13.28	15.41	14.08
G-TIS-54MBps	-71.41	-71.68	-71.30
N-TRP-MCS7	10.72	13.19	11.71
N-TIS-MCS7	-66.04	-65.95	-66.15
frequency band	36	149	165
A-TRP-54MBps	12.52	13.42	12.12
A-TIS-54MBps	-72.26	-72.92	-73.00
AC-TRP-MCS7	11.03	11.75	11.45
AC-TIS-MCS7	-68.55	-69.54	-70.07
AX-TRP-MCS0	12.07	11.65	11.85
AX-TIS-MCS0	-69.73	-69.89	-70.25

2. Test Result

2.6 WIFI throughput test

6]	28.01-29.00	sec	8.38 MBytes	70.5 Mbits/sec
8]	28.01-29.00	sec	7.95 MBytes	66.9 Mbits/sec
10]	28.01-29.00	sec	7.38 MBytes	62.1 Mbits/sec
12]	28.01-29.00	sec	7.38 MBytes	62.1 Mbits/sec
SUM]	28.01-29.00	sec	40.3 MBytes	339 Mbits/sec

4]	29.00-30.00	sec	9.25 MBytes	77.7 Mbits/sec
6]	29.00-30.00	sec	8.81 MBytes	74.0 Mbits/sec
8]	29.00-30.00	sec	8.05 MBytes	67.6 Mbits/sec
10]	29.00-30.00	sec	7.38 MBytes	61.9 Mbits/sec
12]	29.00-30.00	sec	7.25 MBytes	60.9 Mbits/sec
SUM]	29.00-30.00	sec	40.7 MBytes	342 Mbits/sec

ID]	Interval		Transfer	Bandwidth
4]	0.00-30.00	sec	256 MBytes	71.6 Mbits/sec
4]	0.00-30.00	sec	256 MBytes	71.5 Mbits/sec
6]	0.00-30.00	sec	253 MBytes	70.7 Mbits/sec
6]	0.00-30.00	sec	253 MBytes	70.7 Mbits/sec
8]	0.00-30.00	sec	240 MBytes	67.2 Mbits/sec
8]	0.00-30.00	sec	240 MBytes	67.2 Mbits/sec
10]	0.00-30.00	sec	225 MBytes	62.9 Mbits/sec
10]	0.00-30.00	sec	225 MBytes	62.9 Mbits/sec
12]	0.00-30.00	sec	217 MBytes	60.7 Mbits/sec
12]	0.00-30.00	sec	217 MBytes	60.7 Mbits/sec
[SUM]	0.00-30.00	sec	1.16 GBytes	333 Mbits/sec
[SUM]	0.00-30.00	sec	1.16 GBytes	333 Mbits/sec

6]	28.00-29.00	sec	8.62 MBytes	72.3 Mbits/sec
8]	28.00-29.00	sec	8.38 MBytes	70.2 Mbits/sec
10]	28.00-29.00	sec	8.25 MBytes	69.2 Mbits/sec
12]	28.00-29.00	sec	8.25 MBytes	69.2 Mbits/sec
SUM]	28.00-29.00	sec	42.1 MBytes	353 Mbits/sec

4]	29.00-30.00	sec	9.50 MBytes	79.5 Mbits/sec
6]	29.00-30.00	sec	9.38 MBytes	78.5 Mbits/sec
8]	29.00-30.00	sec	9.38 MBytes	78.5 Mbits/sec
10]	29.00-30.00	sec	9.12 MBytes	76.4 Mbits/sec
12]	29.00-30.00	sec	8.88 MBytes	74.3 Mbits/sec
SUM]	29.00-30.00	sec	46.2 MBytes	387 Mbits/sec

ID]	Interval		Transfer	Bandwidth
[4]	0.00-30.00	sec	251 MBytes	70.2 Mbits/sec
[4]	0.00-30.00	sec	251 MBytes	70.2 Mbits/sec
[6]	0.00-30.00	sec	282 MBytes	78.9 Mbits/sec
[6]	0.00-30.00	sec	282 MBytes	78.9 Mbits/sec
[8]	0.00-30.00	sec	278 MBytes	77.8 Mbits/sec
[8]	0.00-30.00	sec	278 MBytes	77.8 Mbits/sec
[10]	0.00-30.00	sec	277 MBytes	77.4 Mbits/sec
[10]	0.00-30.00	sec	277 MBytes	77.4 Mbits/sec
[12]	0.00-30.00	sec	264 MBytes	73.9 Mbits/sec
[12]	0.00-30.00	sec	264 MBytes	73.9 Mbits/sec
[SUM]	0.00-30.00	sec	1.32 GBytes	378 Mbits/sec
[SUM]	0.00-30.00	sec	1.32 GBytes	378 Mbits/sec

2.4G throughput upload **333M**

2.4G throughput download **78M**

2. Test Result

2.6 WIFI throughput test

10]	29.00-30.00	sec	13.8 MBytes	115 Mbits/sec
12]	29.00-30.00	sec	13.3 MBytes	112 Mbits/sec
14]	29.00-30.00	sec	12.6 MBytes	106 Mbits/sec
16]	29.00-30.00	sec	11.6 MBytes	97.5 Mbits/sec
18]	29.00-30.00	sec	10.6 MBytes	89.1 Mbits/sec
SUM]	29.00-30.00	sec	104 MBytes	876 Mbits/sec

ID]	Interval		Transfer	Bandwidth
4]	0.00-30.00	sec	434 MBytes	121 Mbits/sec
4]	0.00-30.00	sec	434 MBytes	121 Mbits/sec
6]	0.00-30.00	sec	442 MBytes	123 Mbits/sec
6]	0.00-30.00	sec	442 MBytes	123 Mbits/sec
8]	0.00-30.00	sec	428 MBytes	120 Mbits/sec
8]	0.00-30.00	sec	428 MBytes	120 Mbits/sec
10]	0.00-30.00	sec	420 MBytes	118 Mbits/sec
10]	0.00-30.00	sec	420 MBytes	118 Mbits/sec
12]	0.00-30.00	sec	408 MBytes	114 Mbits/sec
12]	0.00-30.00	sec	408 MBytes	114 Mbits/sec
14]	0.00-30.00	sec	380 MBytes	106 Mbits/sec
14]	0.00-30.00	sec	380 MBytes	106 Mbits/sec
16]	0.00-30.00	sec	353 MBytes	98.7 Mbits/sec
16]	0.00-30.00	sec	353 MBytes	98.7 Mbits/sec
18]	0.00-30.00	sec	336 MBytes	93.8 Mbits/sec
18]	0.00-30.00	sec	336 MBytes	93.8 Mbits/sec
[SUM]	0.00-30.00	sec	3.13 GBytes	895 Mbits/sec
[SUM]	0.00-30.00	sec	3.13 GBytes	895 Mbits/sec

6]	28.00-29.00	sec	22.4 MBytes	188 Mbits/sec
8]	28.00-29.00	sec	22.2 MBytes	187 Mbits/sec
8]	28.00-29.00	sec	22.0 MBytes	185 Mbits/sec
10]	28.00-29.00	sec	21.6 MBytes	182 Mbits/sec
12]	28.00-29.00	sec	21.6 MBytes	182 Mbits/sec
SUM]	28.00-29.00	sec	112 MBytes	937 Mbits/sec

4]	29.00-30.00	sec	23.5 MBytes	197 Mbits/sec
6]	29.00-30.00	sec	22.8 MBytes	191 Mbits/sec
8]	29.00-30.00	sec	22.4 MBytes	188 Mbits/sec
10]	29.00-30.00	sec	22.1 MBytes	185 Mbits/sec
12]	29.00-30.00	sec	21.8 MBytes	182 Mbits/sec
SUM]	29.00-30.00	sec	112 MBytes	943 Mbits/sec

ID]	Interval		Transfer	Bandwidth
4]	0.00-30.00	sec	700 MBytes	196 Mbits/sec
4]	0.00-30.00	sec	700 MBytes	196 Mbits/sec
6]	0.00-30.00	sec	687 MBytes	192 Mbits/sec
6]	0.00-30.00	sec	687 MBytes	192 Mbits/sec
8]	0.00-30.00	sec	669 MBytes	187 Mbits/sec
8]	0.00-30.00	sec	669 MBytes	187 Mbits/sec
10]	0.00-30.00	sec	662 MBytes	185 Mbits/sec
10]	0.00-30.00	sec	662 MBytes	185 Mbits/sec
12]	0.00-30.00	sec	642 MBytes	180 Mbits/sec
12]	0.00-30.00	sec	642 MBytes	180 Mbits/sec
[SUM]	0.00-30.00	sec	3.28 GBytes	940 Mbits/sec
[SUM]	0.00-30.00	sec	3.28 GBytes	940 Mbits/sec

5G throughput upload **895M**

5G throughput download **940M**

2. Test Result

2.6 BT throughput test

[432]	9.0-10.0 sec	185 KBytes	1.51 Mbits/sec
[432]	10.0-11.0 sec	167 KBytes	1.37 Mbits/sec
[432]	11.0-12.0 sec	176 KBytes	1.44 Mbits/sec
[432]	12.0-13.0 sec	185 KBytes	1.51 Mbits/sec
[432]	13.0-14.0 sec	167 KBytes	1.37 Mbits/sec
[432]	14.0-15.0 sec	185 KBytes	1.51 Mbits/sec
[432]	15.0-16.0 sec	167 KBytes	1.37 Mbits/sec
[432]	16.0-17.0 sec	185 KBytes	1.51 Mbits/sec
[432]	17.0-18.0 sec	176 KBytes	1.44 Mbits/sec
[432]	18.0-19.0 sec	167 KBytes	1.37 Mbits/sec
[432]	19.0-20.0 sec	169 KBytes	1.38 Mbits/sec
[ID]	Interval	Transfer	Bandwidth
[432]	20.0-21.0 sec	176 KBytes	1.44 Mbits/sec
[432]	21.0-22.0 sec	185 KBytes	1.51 Mbits/sec
[432]	22.0-23.0 sec	176 KBytes	1.44 Mbits/sec
[432]	23.0-24.0 sec	176 KBytes	1.44 Mbits/sec
[432]	24.0-25.0 sec	167 KBytes	1.37 Mbits/sec
[432]	25.0-26.0 sec	185 KBytes	1.51 Mbits/sec
[432]	26.0-27.0 sec	167 KBytes	1.37 Mbits/sec
[432]	27.0-28.0 sec	176 KBytes	1.44 Mbits/sec
[432]	28.0-29.0 sec	176 KBytes	1.44 Mbits/sec
[432]	29.0-30.0 sec	167 KBytes	1.37 Mbits/sec
[432]	30.0-31.0 sec	185 KBytes	1.51 Mbits/sec
[432]	31.0-32.0 sec	176 KBytes	1.44 Mbits/sec
[432]	32.0-33.0 sec	176 KBytes	1.44 Mbits/sec
[432]	33.0-34.0 sec	176 KBytes	1.44 Mbits/sec
[432]	34.0-35.0 sec	176 KBytes	1.44 Mbits/sec
[432]	0.0-35.8 sec	6.12 MBytes	1.43 Mbits/sec

[372]	5.0- 6.0 sec	168 KBytes	1.38 Mbits/sec
[372]	6.0- 7.0 sec	176 KBytes	1.44 Mbits/sec
[372]	7.0- 8.0 sec	168 KBytes	1.38 Mbits/sec
[372]	8.0- 9.0 sec	160 KBytes	1.31 Mbits/sec
[372]	9.0-10.0 sec	184 KBytes	1.51 Mbits/sec
[372]	10.0-11.0 sec	160 KBytes	1.31 Mbits/sec
[372]	11.0-12.0 sec	184 KBytes	1.51 Mbits/sec
[372]	12.0-13.0 sec	176 KBytes	1.44 Mbits/sec
[372]	13.0-14.0 sec	184 KBytes	1.51 Mbits/sec
[372]	14.0-15.0 sec	176 KBytes	1.44 Mbits/sec
[372]	15.0-16.0 sec	168 KBytes	1.38 Mbits/sec
[372]	16.0-17.0 sec	176 KBytes	1.44 Mbits/sec
[372]	17.0-18.0 sec	176 KBytes	1.44 Mbits/sec
[372]	18.0-19.0 sec	184 KBytes	1.51 Mbits/sec
[372]	19.0-20.0 sec	176 KBytes	1.44 Mbits/sec
[ID]	Interval	Transfer	Bandwidth
[372]	20.0-21.0 sec	184 KBytes	1.51 Mbits/sec
[372]	21.0-22.0 sec	168 KBytes	1.38 Mbits/sec
[372]	22.0-23.0 sec	184 KBytes	1.51 Mbits/sec
[372]	23.0-24.0 sec	168 KBytes	1.38 Mbits/sec
[372]	24.0-25.0 sec	168 KBytes	1.38 Mbits/sec
[372]	25.0-26.0 sec	184 KBytes	1.51 Mbits/sec
[372]	26.0-27.0 sec	160 KBytes	1.31 Mbits/sec
[372]	27.0-28.0 sec	192 KBytes	1.57 Mbits/sec
[372]	28.0-29.0 sec	176 KBytes	1.44 Mbits/sec
[372]	29.0-30.0 sec	176 KBytes	1.44 Mbits/sec
[372]	0.0-36.0 sec	6.13 MBytes	1.43 Mbits/sec

BT throughput upload **1.43M**

BT throughput download **1.43M**



3. Conclusions

Thank you