

深圳市亿圣邦科技有限公司

Shenzhen Yishengbang Technology Co., Ltd Antenna Test Report

Project: K16SDA

Product: WIFI

Report date: 2025-6-20



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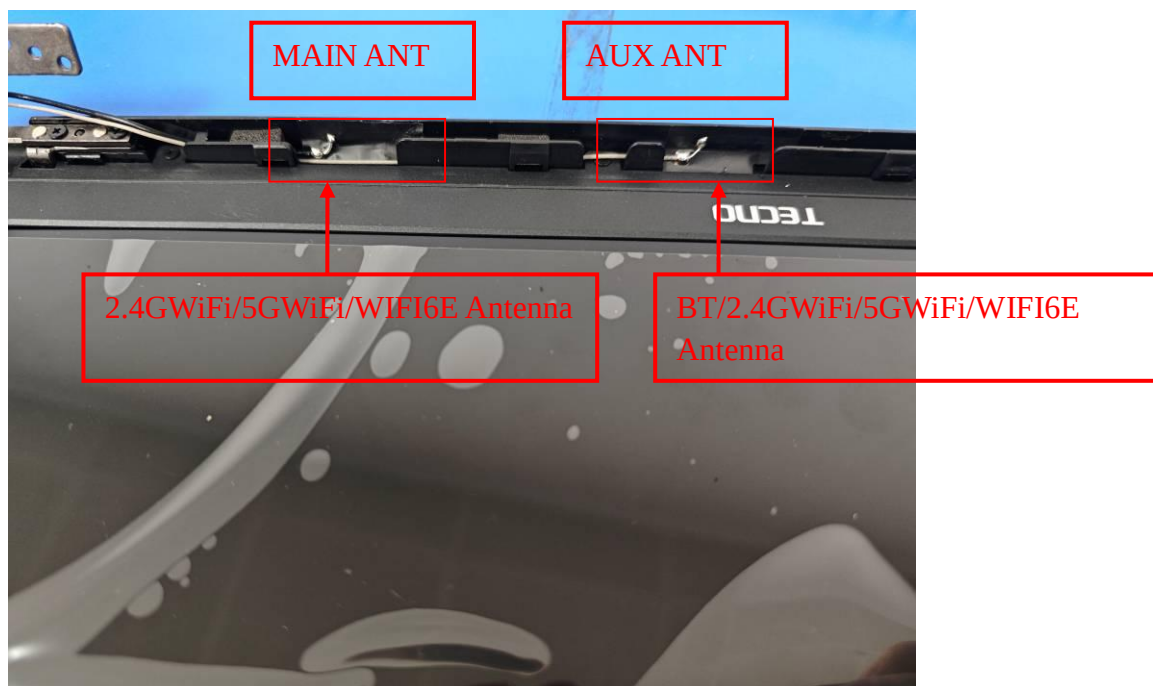
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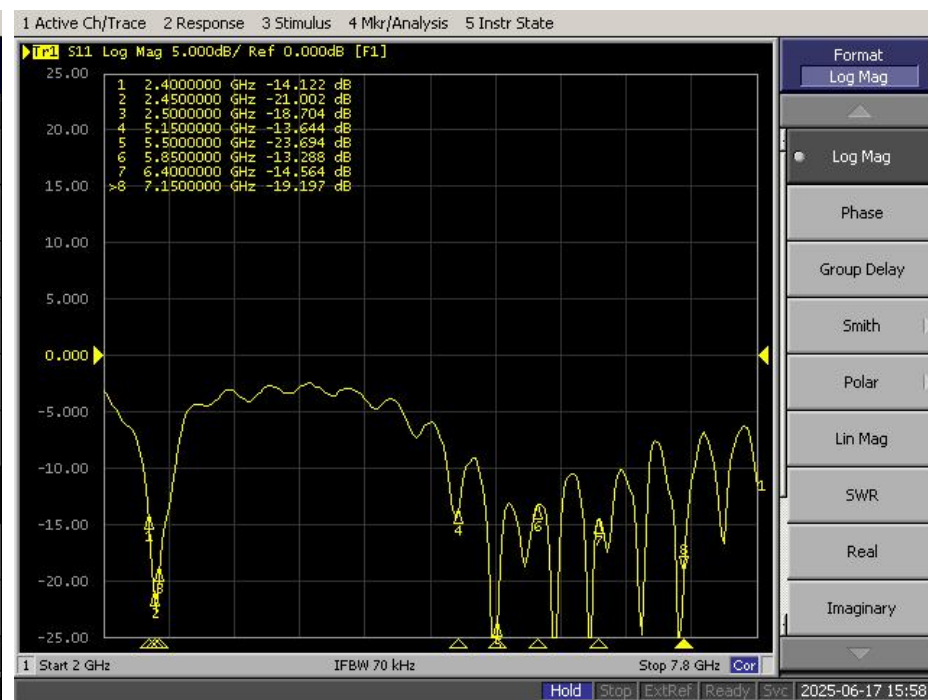
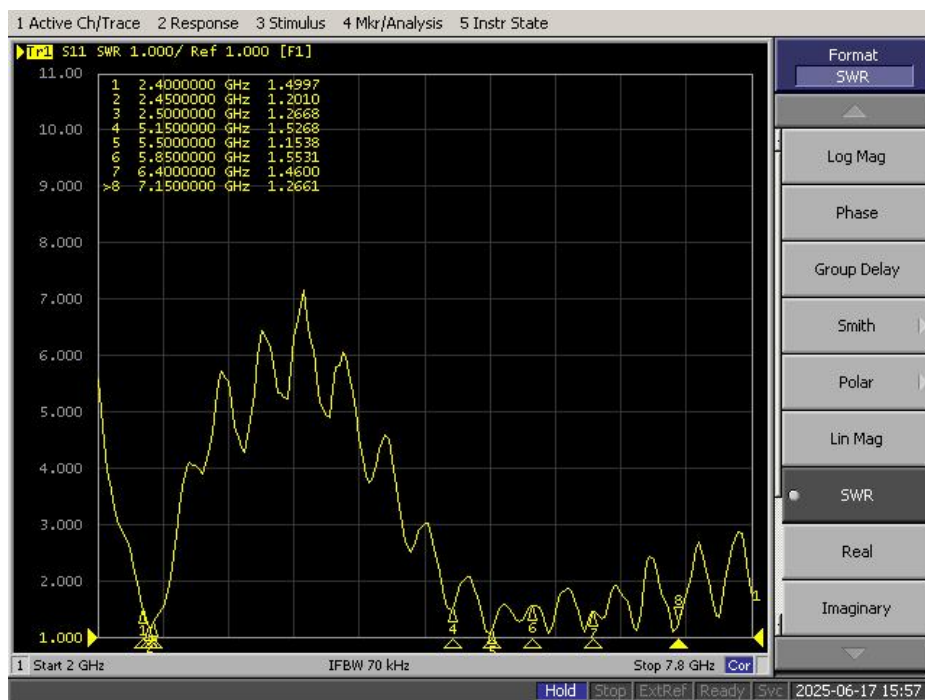
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1. Product Overview



2. Test Result

2.1 WIFI MAIN Antenna VSWR/S11



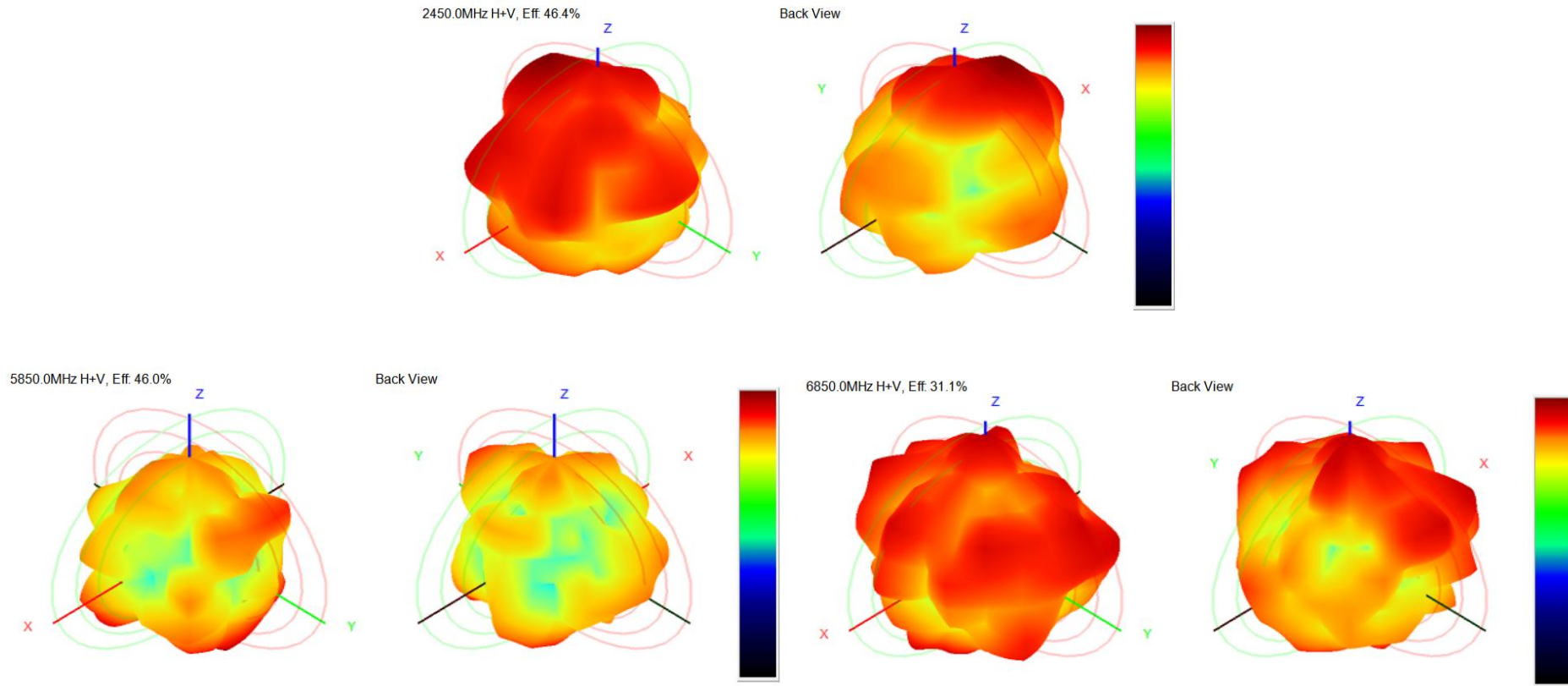
2. Test Result

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

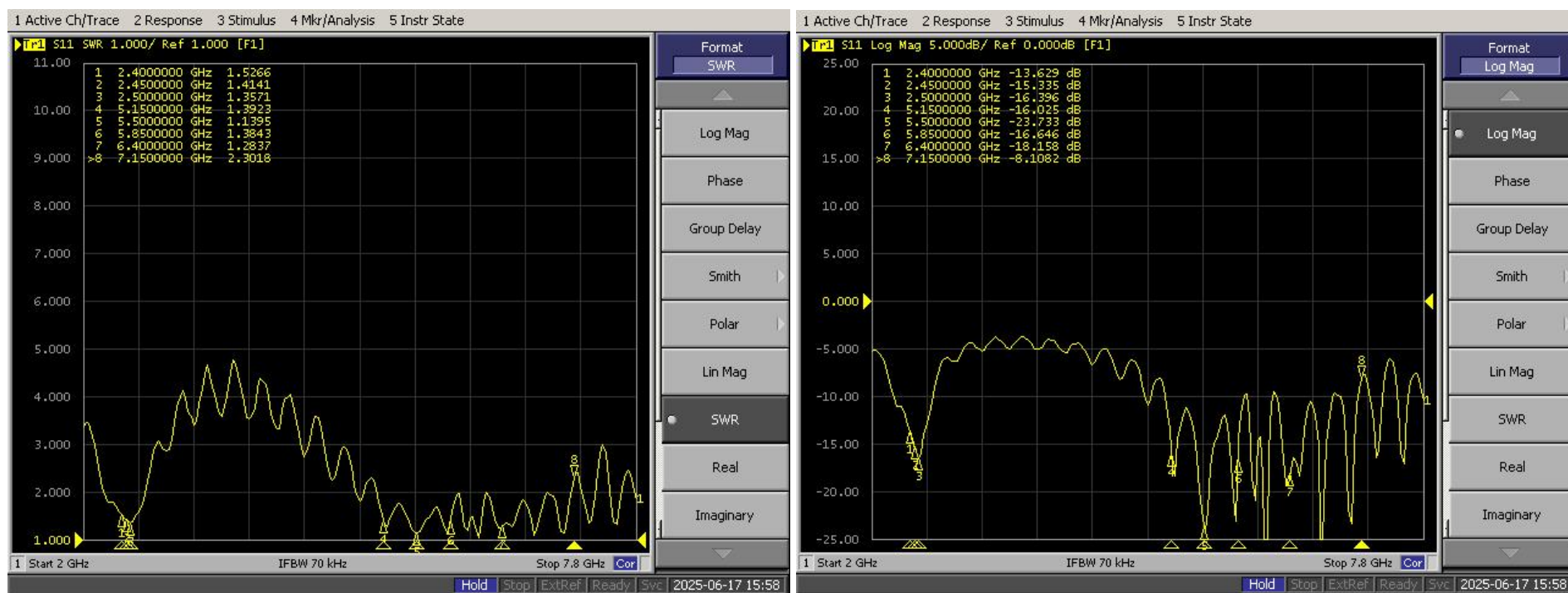
2. Test Result

2.2 WIFI MAIN Antenna Gain/Efficiency/3D DATA



2. Test Result

2.3 WIFI AUX Antenna VSWR/S11



2. Test Result

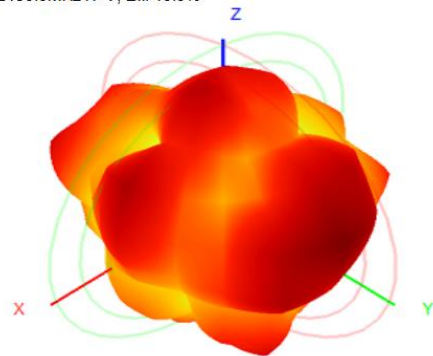
2.4 WIFI AUX Antenna Gain/Efficiency/3D DATA

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

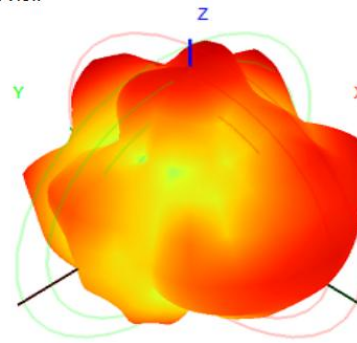
2. Test Result

2.4 WIFI AUX Antenna Gain/Efficiency/3D DATA

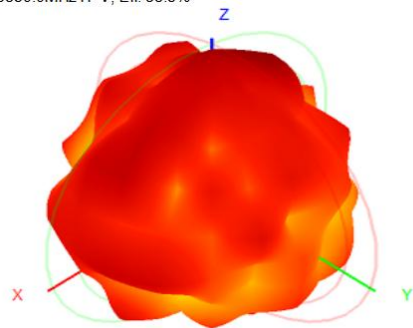
2450.0MHz H+V, Eff: 40.9%



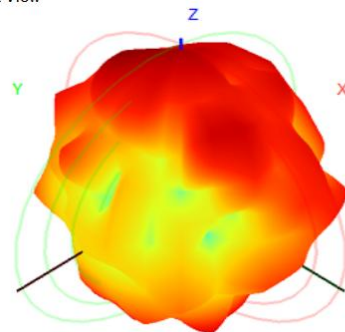
Back View



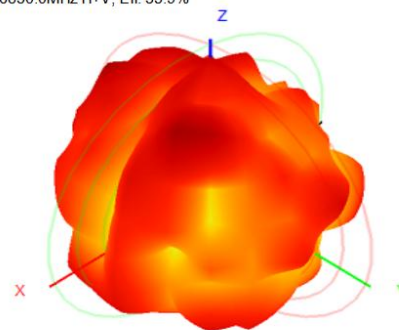
5850.0MHz H+V, Eff: 38.5%



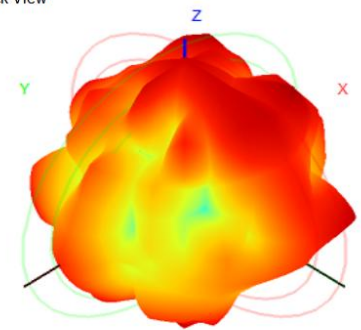
Back View



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	11.34	11.40	12.72
B-TIS-11Mbps	-79.57	-80.42	-80.55
G-TRP-54Mbps	12.66	13.76	13.60
G-TIS-54Mbps	-69.76	-70.01	-69.53
N-TRP-MCS7	10.97	11.37	11.86
N-TIS-MCS7	-65.45	-65.89	-65.95
frequency band	36	149	165
A-TRP-54Mbps	11.61	11.87	11.74
A-TIS-54Mbps	-69.96	-70.30	-70.21
AC-TRP-MCS7	10.46	10.99	10.32
AC-TIS-MCS7	-68.20	-69.26	-68.35
AX-TRP-MCS0	11.70	11.37	10.50
AX-TIS-MCS0	-69.38	-69.28	-70.09

2. Test Result

2.6 WIFI throughput test

6]	28.00-29.01	sec	6.62 MBytes	55.3 Mbits/sec
8]	28.00-29.01	sec	6.38 MBytes	53.2 Mbits/sec
10]	28.00-29.01	sec	6.19 MBytes	51.6 Mbits/sec
12]	28.00-29.01	sec	5.88 MBytes	49.0 Mbits/sec
SUM]	28.00-29.01	sec	32.0 MBytes	267 Mbits/sec

4]	29.01-30.00	sec	6.62 MBytes	55.9 Mbits/sec
6]	29.01-30.00	sec	6.46 MBytes	54.6 Mbits/sec
8]	29.01-30.00	sec	6.25 MBytes	52.8 Mbits/sec
10]	29.01-30.00	sec	5.94 MBytes	50.1 Mbits/sec
12]	29.01-30.00	sec	5.62 MBytes	47.5 Mbits/sec
SUM]	29.01-30.00	sec	30.9 MBytes	261 Mbits/sec

[ID]	Interval		Transfer	Bandwidth
[4]	0.00-30.00	sec	205 MBytes	57.4 Mbits/sec
[4]	0.00-30.00	sec	205 MBytes	57.4 Mbits/sec
[6]	0.00-30.00	sec	195 MBytes	54.5 Mbits/sec
[6]	0.00-30.00	sec	195 MBytes	54.5 Mbits/sec
[8]	0.00-30.00	sec	187 MBytes	52.4 Mbits/sec
[8]	0.00-30.00	sec	187 MBytes	52.4 Mbits/sec
[10]	0.00-30.00	sec	177 MBytes	49.5 Mbits/sec
[10]	0.00-30.00	sec	177 MBytes	49.5 Mbits/sec
[12]	0.00-30.00	sec	168 MBytes	47.0 Mbits/sec
[12]	0.00-30.00	sec	168 MBytes	47.0 Mbits/sec
[SUM]	0.00-30.00	sec	933 MBytes	261 Mbits/sec
[SUM]	0.00-30.00	sec	932 MBytes	261 Mbits/sec

2.4G throughput upload **261M**

4]	8.01-9.01	sec	31.1 MBytes	261 Mbits/sec
4]	9.01-10.01	sec	36.2 MBytes	304 Mbits/sec
4]	10.01-11.01	sec	37.1 MBytes	312 Mbits/sec
4]	11.01-12.01	sec	40.0 MBytes	335 Mbits/sec
4]	12.01-13.01	sec	39.0 MBytes	328 Mbits/sec
4]	13.01-14.01	sec	40.6 MBytes	341 Mbits/sec
4]	14.01-15.00	sec	41.2 MBytes	348 Mbits/sec
4]	15.00-16.01	sec	38.8 MBytes	322 Mbits/sec
4]	16.01-17.00	sec	35.8 MBytes	303 Mbits/sec
4]	17.00-18.00	sec	38.8 MBytes	324 Mbits/sec
4]	18.00-19.01	sec	37.9 MBytes	317 Mbits/sec
4]	19.01-20.01	sec	26.2 MBytes	220 Mbits/sec
4]	20.01-21.01	sec	28.0 MBytes	234 Mbits/sec
4]	21.01-22.01	sec	31.1 MBytes	261 Mbits/sec
4]	22.01-23.01	sec	33.2 MBytes	280 Mbits/sec
4]	23.01-24.01	sec	36.5 MBytes	304 Mbits/sec
4]	24.01-25.00	sec	39.4 MBytes	334 Mbits/sec
4]	25.00-26.00	sec	37.9 MBytes	318 Mbits/sec
4]	26.00-27.00	sec	41.4 MBytes	348 Mbits/sec
4]	27.00-28.01	sec	39.6 MBytes	331 Mbits/sec
4]	28.01-29.00	sec	41.2 MBytes	347 Mbits/sec
4]	29.00-30.00	sec	39.1 MBytes	328 Mbits/sec

[ID]	Interval		Transfer	Bandwidth
[4]	0.00-30.00	sec	1.09 GBytes	311 Mbits/sec
[4]	0.00-30.00	sec	1.09 GBytes	311 Mbits/sec

2.4G throughput download **311M**

2. Test Result

2.6 WIFI throughput test

10]	29.00-30.00	sec	13.4 MBytes	112 Mbits/sec
12]	29.00-30.00	sec	13.5 MBytes	113 Mbits/sec
14]	29.00-30.00	sec	12.8 MBytes	107 Mbits/sec
16]	29.00-30.00	sec	12.1 MBytes	102 Mbits/sec
18]	29.00-30.00	sec	11.6 MBytes	97.2 Mbits/sec
SUM]	29.00-30.00	sec	107 MBytes	894 Mbits/sec

ID]	Interval		Transfer	Bandwidth
4]	0.00-30.00	sec	431 MBytes	121 Mbits/sec
4]	0.00-30.00	sec	431 MBytes	121 Mbits/sec
6]	0.00-30.00	sec	434 MBytes	121 Mbits/sec
6]	0.00-30.00	sec	434 MBytes	121 Mbits/sec
8]	0.00-30.00	sec	418 MBytes	117 Mbits/sec
8]	0.00-30.00	sec	418 MBytes	117 Mbits/sec
10]	0.00-30.00	sec	412 MBytes	115 Mbits/sec
10]	0.00-30.00	sec	412 MBytes	115 Mbits/sec
12]	0.00-30.00	sec	409 MBytes	114 Mbits/sec
12]	0.00-30.00	sec	409 MBytes	114 Mbits/sec
14]	0.00-30.00	sec	375 MBytes	105 Mbits/sec
14]	0.00-30.00	sec	375 MBytes	105 Mbits/sec
16]	0.00-30.00	sec	354 MBytes	99.0 Mbits/sec
16]	0.00-30.00	sec	354 MBytes	99.0 Mbits/sec
18]	0.00-30.00	sec	340 MBytes	95.1 Mbits/sec
18]	0.00-30.00	sec	340 MBytes	95.1 Mbits/sec
SUM]	0.00-30.00	sec	3.10 GBytes	887 Mbits/sec
SUM]	0.00-30.00	sec	3.10 GBytes	887 Mbits/sec

4]	29.00-30.00	sec	23.0 MBytes	194 Mbits/sec
6]	29.00-30.00	sec	22.5 MBytes	189 Mbits/sec
8]	29.00-30.00	sec	22.1 MBytes	186 Mbits/sec
10]	29.00-30.00	sec	21.6 MBytes	182 Mbits/sec
12]	29.00-30.00	sec	21.2 MBytes	179 Mbits/sec
SUM]	29.00-30.00	sec	110 MBytes	930 Mbits/sec

ID]	Interval		Transfer	Bandwidth
4]	0.00-30.00	sec	696 MBytes	195 Mbits/sec
4]	0.00-30.00	sec	696 MBytes	195 Mbits/sec
6]	0.00-30.00	sec	684 MBytes	191 Mbits/sec
6]	0.00-30.00	sec	684 MBytes	191 Mbits/sec
8]	0.00-30.00	sec	672 MBytes	188 Mbits/sec
8]	0.00-30.00	sec	672 MBytes	188 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	646 MBytes	181 Mbits/sec
12]	0.00-30.00	sec	646 MBytes	181 Mbits/sec
SUM]	0.00-30.00	sec	3.28 GBytes	939 Mbits/sec
SUM]	0.00-30.00	sec	3.28 GBytes	939 Mbits/sec

iperf Done.

5G throughput upload **887M**

5G throughput download **939M**

2. Test Result

2.6 BT throughput test

[424]	9.0-10.0 sec	176 KBytes	1.44 Mbits/sec
[424]	10.0-11.0 sec	176 KBytes	1.44 Mbits/sec
[424]	11.0-12.0 sec	160 KBytes	1.31 Mbits/sec
[424]	12.0-13.0 sec	167 KBytes	1.37 Mbits/sec
[424]	13.0-14.0 sec	185 KBytes	1.51 Mbits/sec
[424]	14.0-15.0 sec	176 KBytes	1.44 Mbits/sec
[424]	15.0-16.0 sec	167 KBytes	1.37 Mbits/sec
[424]	16.0-17.0 sec	176 KBytes	1.44 Mbits/sec
[424]	17.0-18.0 sec	176 KBytes	1.44 Mbits/sec
[424]	18.0-19.0 sec	176 KBytes	1.44 Mbits/sec
[424]	19.0-20.0 sec	168 KBytes	1.37 Mbits/sec
[ID]	Interval	Transfer	Bandwidth
[424]	20.0-21.0 sec	168 KBytes	1.38 Mbits/sec
[424]	21.0-22.0 sec	176 KBytes	1.44 Mbits/sec
[424]	22.0-23.0 sec	167 KBytes	1.37 Mbits/sec
[424]	23.0-24.0 sec	176 KBytes	1.44 Mbits/sec
[424]	24.0-25.0 sec	177 KBytes	1.45 Mbits/sec
[424]	25.0-26.0 sec	167 KBytes	1.37 Mbits/sec
[424]	26.0-27.0 sec	185 KBytes	1.51 Mbits/sec
[424]	27.0-28.0 sec	167 KBytes	1.37 Mbits/sec
[424]	28.0-29.0 sec	176 KBytes	1.44 Mbits/sec
[424]	29.0-30.0 sec	185 KBytes	1.51 Mbits/sec
[424]	30.0-31.0 sec	167 KBytes	1.37 Mbits/sec
[424]	31.0-32.0 sec	167 KBytes	1.37 Mbits/sec
[424]	32.0-33.0 sec	176 KBytes	1.44 Mbits/sec
[424]	33.0-34.0 sec	160 KBytes	1.31 Mbits/sec
[424]	34.0-35.0 sec	169 KBytes	1.38 Mbits/sec
[424]	35.0-36.0 sec	167 KBytes	1.37 Mbits/sec
[424]	0.0-36.1 sec	6.09 MBytes	1.41 Mbits/sec

[376]	4.0- 5.0 sec	160 KBytes	1.31 Mbits/sec
[376]	5.0- 6.0 sec	176 KBytes	1.44 Mbits/sec
[376]	6.0- 7.0 sec	192 KBytes	1.57 Mbits/sec
[376]	7.0- 8.0 sec	168 KBytes	1.38 Mbits/sec
[376]	8.0- 9.0 sec	176 KBytes	1.44 Mbits/sec
[376]	9.0-10.0 sec	184 KBytes	1.51 Mbits/sec
[376]	10.0-11.0 sec	168 KBytes	1.38 Mbits/sec
[376]	11.0-12.0 sec	184 KBytes	1.51 Mbits/sec
[376]	12.0-13.0 sec	184 KBytes	1.51 Mbits/sec
[376]	13.0-14.0 sec	168 KBytes	1.38 Mbits/sec
[376]	14.0-15.0 sec	184 KBytes	1.51 Mbits/sec
[376]	15.0-16.0 sec	176 KBytes	1.44 Mbits/sec
[376]	16.0-17.0 sec	176 KBytes	1.44 Mbits/sec
[376]	17.0-18.0 sec	168 KBytes	1.38 Mbits/sec
[376]	18.0-19.0 sec	160 KBytes	1.31 Mbits/sec
[376]	19.0-20.0 sec	160 KBytes	1.31 Mbits/sec
[ID]	Interval	Transfer	Bandwidth
[376]	20.0-21.0 sec	168 KBytes	1.38 Mbits/sec
[376]	21.0-22.0 sec	184 KBytes	1.51 Mbits/sec
[376]	22.0-23.0 sec	184 KBytes	1.51 Mbits/sec
[376]	23.0-24.0 sec	168 KBytes	1.38 Mbits/sec
[376]	24.0-25.0 sec	192 KBytes	1.57 Mbits/sec
[376]	25.0-26.0 sec	168 KBytes	1.38 Mbits/sec
[376]	26.0-27.0 sec	176 KBytes	1.44 Mbits/sec
[376]	27.0-28.0 sec	176 KBytes	1.44 Mbits/sec
[376]	28.0-29.0 sec	176 KBytes	1.44 Mbits/sec
[376]	29.0-30.0 sec	168 KBytes	1.38 Mbits/sec
[376]	0.0-36.2 sec	6.09 MBytes	1.41 Mbits/sec

BT throughput upload **1.41M**

BT throughput download **1.41M**



3. Conclusions

Thanks