



Antenna Test Report

TC: Inca

MN: T60

RF: Chen Xin

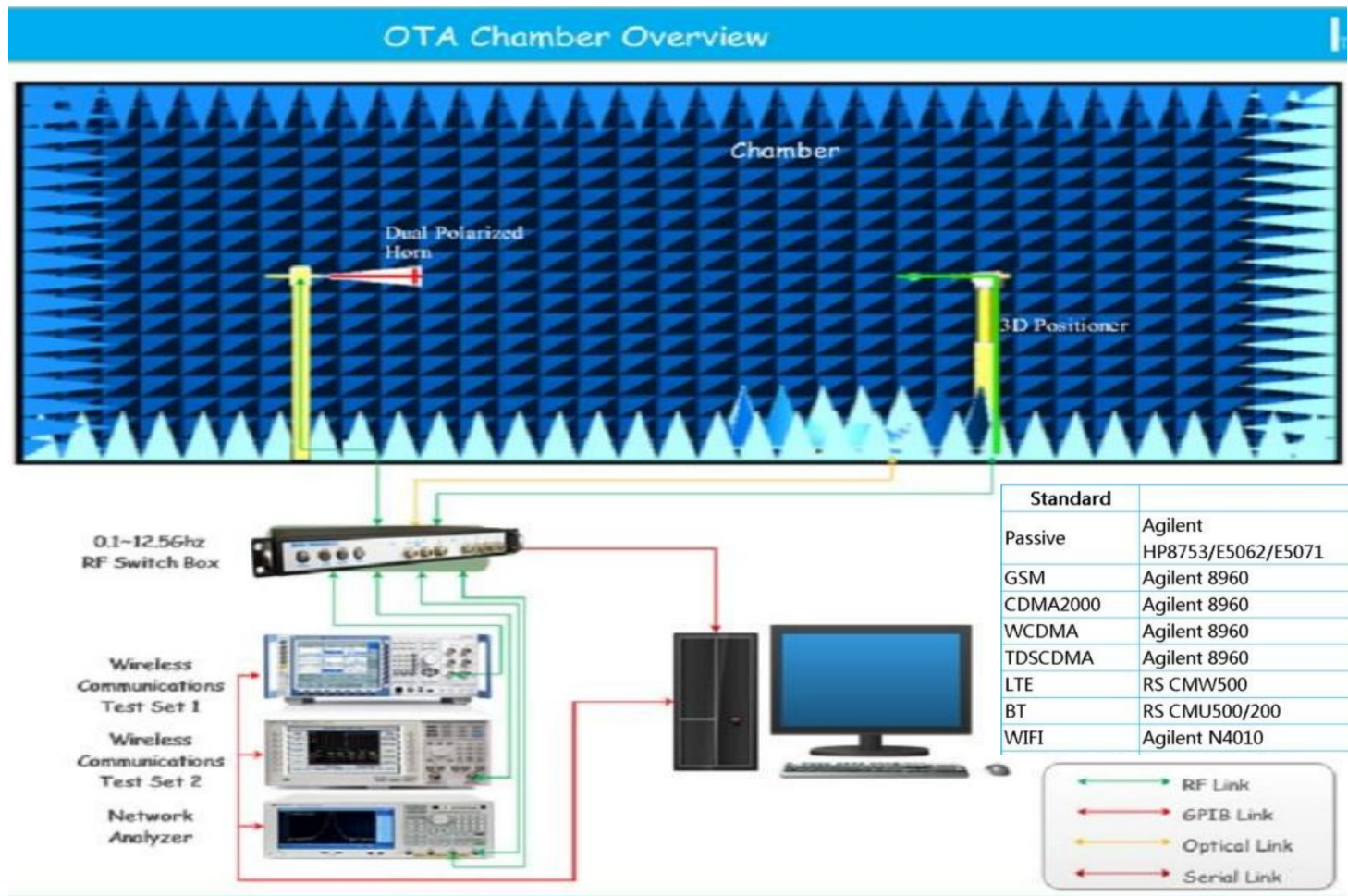
MD: Huang Qingqing

MP: 13184572550

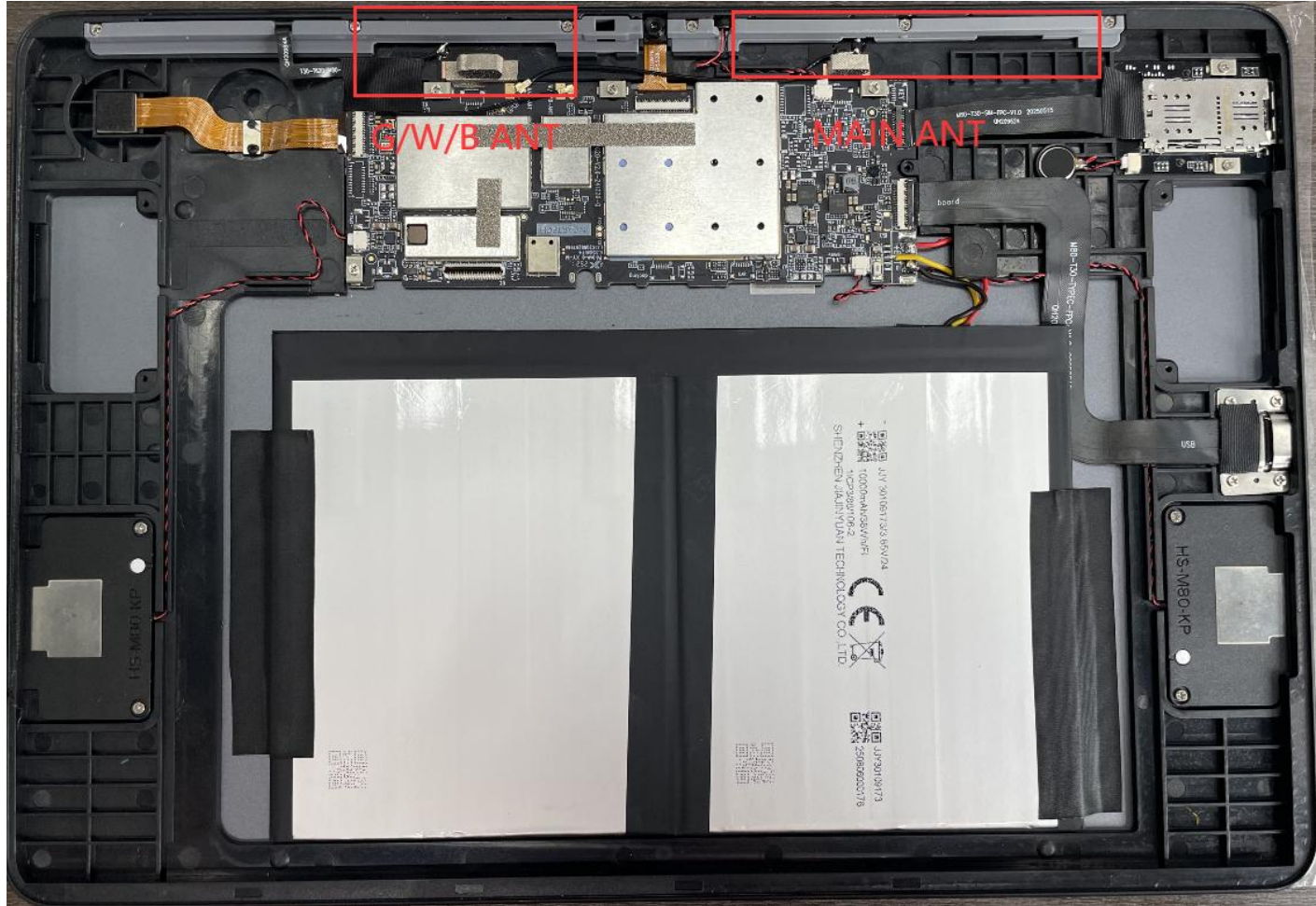
Date: 2025. 10. 23.
REV :V1. 0

Test information

Antenna band		Antenna state	Antenna form	Match changes	Note
Main ANT	2G	G850/G900/G1800/G1900			
	3G	W1/W8	FPC	PIFA	NO
	4G	B1/B3/B7B8/B19/B20/B28/B40/B41			
AUX ANT	BT/WIFI	2.4/5G	FPC	PIFA	NO
	GPS	1.575G	FPC	PIFA	NO
	DIV		FPC	PIFA	NO

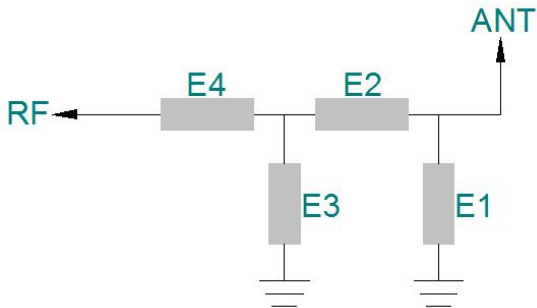


Antenna position





Matching circuit



	(PF)	(NH)
E1(0402)		
E2(0402)		
E3(0402)		
E4(0402)		

Match circuit schematic & bit number diagram

1#

Band	GSM850			GSM900			GSM-1800(DCS)			GSM-1900(PCS)					
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	24.52	23.94	23.49	24.51	24.77	24.63	24.65	25.92	25.73	25.18	24.59	24.02			
TIS(LCD OFF)			-103.45			-104.35			-105.66			-105.16			
TIS(LCD ON)															
Band	WCDMA-1			WCDMA-2			WCDMA-4			WCDMA-5			WCDMA-8		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18.40	18.57	18.31										15.32	15.49	15.25
TIS(LCD OFF)			-106.58												-103.56
TIS(LCD ON)															
Band	FDD-Band 1(10M)			FDD-Band 2(10M)			FDD-Band 3(10M)			FDD-Band 4(10M)			FDD-Band 5(10M)		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18.39	18.21	17.68				18.31	18.43	18.54						
TIS(LCD OFF)			-94.89						-94.86						
TIS(LCD ON)															
Band	FDD-Band 7(10M)			FDD-Band 8(10M)			FDD-Band 19(10M)			FDD-Band 20(10M)			FDD-Band 28(10M)		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18.5	18.7	18.13	16.83	16.92	16.31	15.39	15.23	15.17	15.35	14.76	14.94	14.62	14.89	15.83
TIS(LCD OFF)			-91.23			-89.91			-90.32			-91.27			-90.08
TIS(LCD ON)															
Band	TDD-Band 38(20M)			TDD-Band 39(20M)			TDD-Band 40(20M)			TDD-Band 41(20M)					
Channel	L	M	H	L	M	H	L	M	H	L	M	H			
TRP(dBm)							18.49	18.67	18.79	18.49	18.30	17.71			
TIS(LCD OFF)									-89.75			-88.57			
TIS(LCD ON)															

2#

Band	GSM850			GSM900			GSM-1800(DCS)			GSM-1900(PCS)					
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	24. 63	24. 27	23. 74	24. 83	25. 07	24. 86	24. 47	26. 22	26. 73	25. 25	24. 35	23. 93			
TIS(LCD OFF)			-103. 19			-104. 84			-105. 88			-105. 89			
TIS(LCD ON)															
Band	WCDMA-1			WCDMA-2			WCDMA-4			WCDMA-5			WCDMA-8		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18. 84	18. 6	17. 99										15. 20	15. 35	15. 08
TIS(LCD OFF)			-106. 98												-103. 39
TIS(LCD ON)															
Band	FDD-Band 1(10M)			FDD-Band 2(10M)			FDD-Band 3(10M)			FDD-Band 4(10M)			FDD-Band 5(10M)		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18. 23	18. 56	18. 06				18. 71	18. 49	18. 44						
TIS(LCD OFF)			-94. 58						-94. 73						
TIS(LCD ON)															
Band	FDD-Band 7(10M)			FDD-Band 8(10M)			FDD-Band 19(10M)			FDD-Band 20(10M)			FDD-Band 28(10M)		
Channel	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
TRP(dBm)	18. 65	18. 86	17. 97	17. 10	17. 41	16. 67	15. 70	15. 78	15. 93	15. 82	15. 24	15. 46	14. 53	14. 62	15. 47
TIS(LCD OFF)			-91. 35			-90. 03			-90. 24			-90. 57			-89. 45
TIS(LCD ON)															
Band	TDD-Band 38(20M)			TDD-Band 39(20M)			TDD-Band 40(20M)			TDD-Band 41(20M)					
Channel	L	M	H	L	M	H	L	M	H	L	M	H			
TRP(dBm)							18. 41	18. 81	18. 77	18. 74	18. 36	17. 52			
TIS(LCD OFF)									-89. 66			-88. 58			
TIS(LCD ON)															

1#

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	14.76	CH1 11Mbps	-81.66
	2437	CH6 11Mbps	14.68	CH6 11Mbps	-81.46
	2467	CH11 11Mbps	14.03	CH11 11Mbps	-81.27
802.11g		TRP		TIS	
	2412	CH1 54Mbps	12.36	CH1 54Mbps	-70.61
	2437	CH6 54Mbps	12.40	CH6 54Mbps	-72.49
	2467	CH11 54Mbps	12.15	CH11 54Mbps	-71.29
802.11a		TRP		TIS	
	5180	CH36 54Mbps	10.52	CH36 54Mbps	-71.33
	5300	CH60 54Mbps	10.03	CH60 54Mbps	-71.15
	5805	CH161 54Mbps	10.37	CH161 54Mbps	-71.86
802.11n		TRP		TIS	
	2412	CH1 MCS7	11.29	CH1 MCS7	-67.86
	2437	CH6 MCS7	11.44	CH6 MCS7	-66.77
	2467	CH11 MCS7	11.78	CH11 MCS7	-66.21

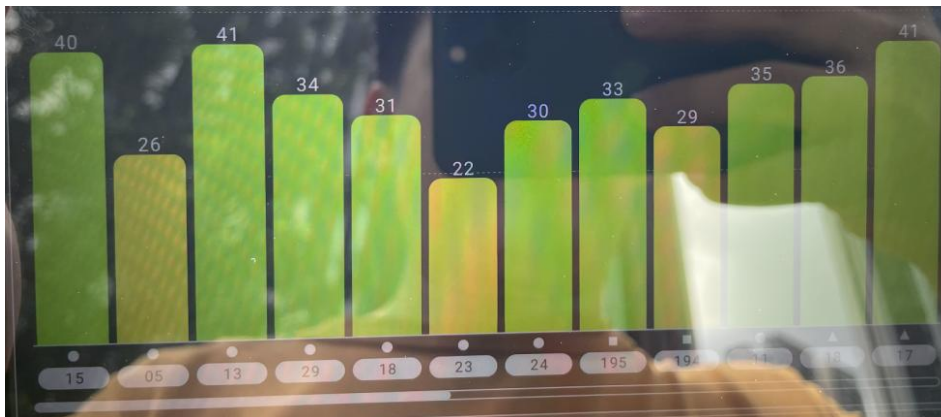
2#

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	14.33	CH1 11Mbps	-81.36
	2437	CH6 11Mbps	14.85	CH6 11Mbps	-81.53
	2467	CH11 11Mbps	14.62	CH11 11Mbps	-81.38
802.11g		TRP		TIS	
	2412	CH1 54Mbps	12.29	CH1 54Mbps	-71.59
	2437	CH6 54Mbps	12.43	CH6 54Mbps	-72.03
	2467	CH11 54Mbps	12.18	CH11 54Mbps	-70.88
802.11a		TRP		TIS	
	5180	CH36 54Mbps	10.77	CH36 54Mbps	-71.78
	5300	CH60 54Mbps	10.26	CH60 54Mbps	-71.24
	5805	CH161 54Mbps	10.17	CH161 54Mbps	-71.87
802.11n		TRP		TIS	
	2412	CH1 MCS7	11.63	CH1 MCS7	-67.65
	2437	CH6 MCS7	11.68	CH6 MCS7	-65.85
	2467	CH11 MCS7	11.86	CH11 MCS7	-65.76



The actual performance of GPS cold start is as follows:
3 or more items with a CN value above 40
2 items with a CN value above 35
Actual positioning 5

Remarks;
GPS satellite tracking test.
Results may vary depending on time and location. The above data is our company's best test data (open area)



WIFITest environment: open spaceTesting tool: Wifi Analytical Assistantmeasuring distance: 10/m

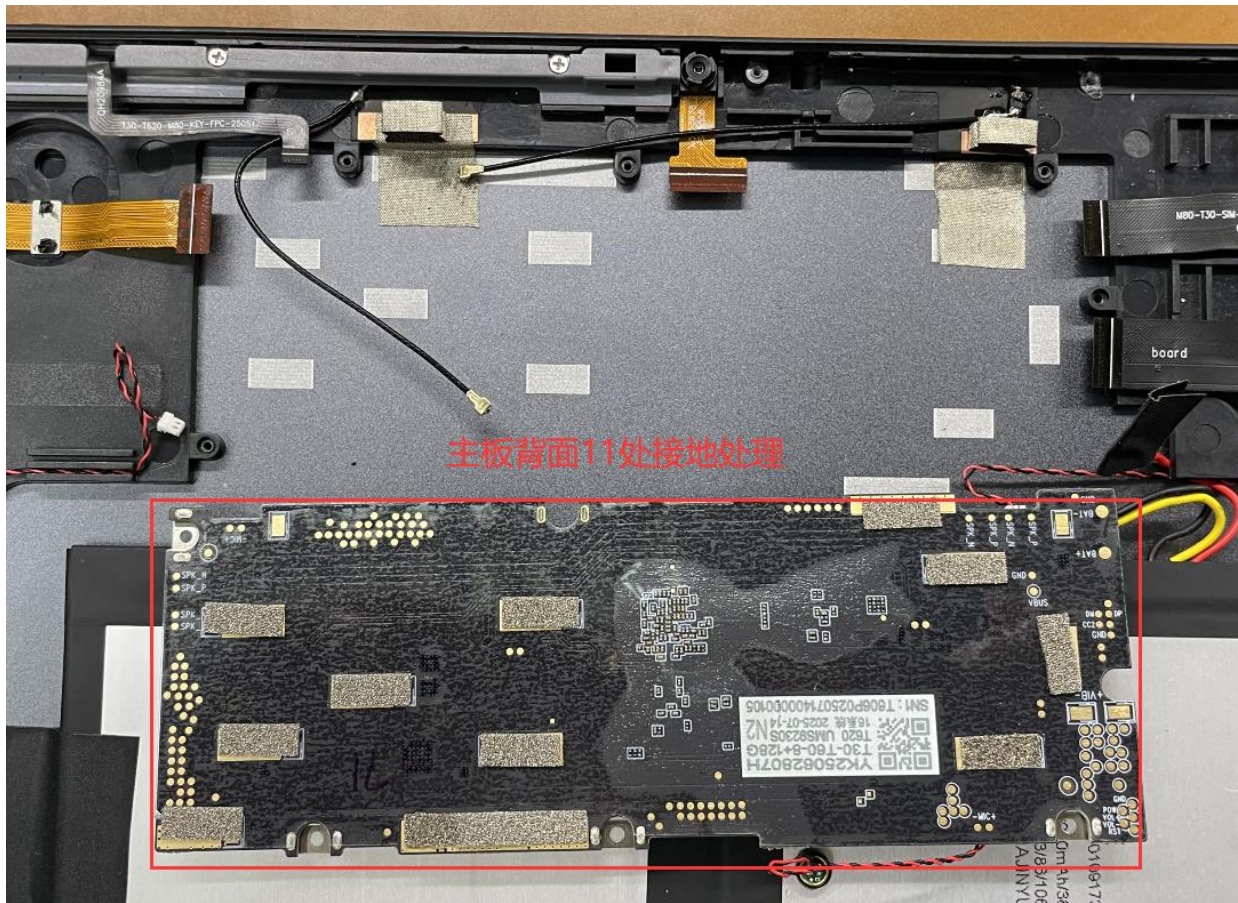
:-36dBm 5G:-42dBm

Signal strength: 2.4G The test results
are shown in the figure on the right

名称	设备	强度	频率	信道
XYC2023	70:85:c4:73:7d:ad	-36	2472	13
< Hidden SSID >	72:85:c4:53:7d:ad	-41	2472	13
XYC2023_5G	72:85:c4:93:7d:ad	-42	5745	149
@PHICOMM_60	Phicomm	-44	2427	4
XYC2025	c4:b2:5b:28:ee:de	-47	5320	64
0-	c6:b2:5b:89:29:ef	-51	2412	1
0-	c4:b2:5b:29:29:ef	-61	5260	52
< Hidden SSID >	c6:b2:5b:58:ee:de	-47	5320	64
XYC2025-1	TP-LINK	-50	2442	7
ChinaNet-2jVE	TIANYI COMHEART	-53	2452	9
@PHICOMM_60_5G	Phicomm	-62	5220	44
hjjw	a0:10:77:0f:74:8e	-65	2412	1
XYC2025-5G	TP-LINK	-70	5180	36
ChinaNet-GF5F	ee:c3:b0:b3:07:c7	-71	2462	11
hjjw-5G	a0:10:77:0f:74:8f	-76	5200	40
< Hidden SSID >	5a:4f:3b:1f:00:6c	-77	5200	40
C608_5G	50:4f:3b:1f:00:6c	-77	5200	40

BTTest environment: open space (Channel)Test tool: Bluetooth speakermeasuring distance: 10/mResult: Smooth music playback with no noise.

Environmental treatment

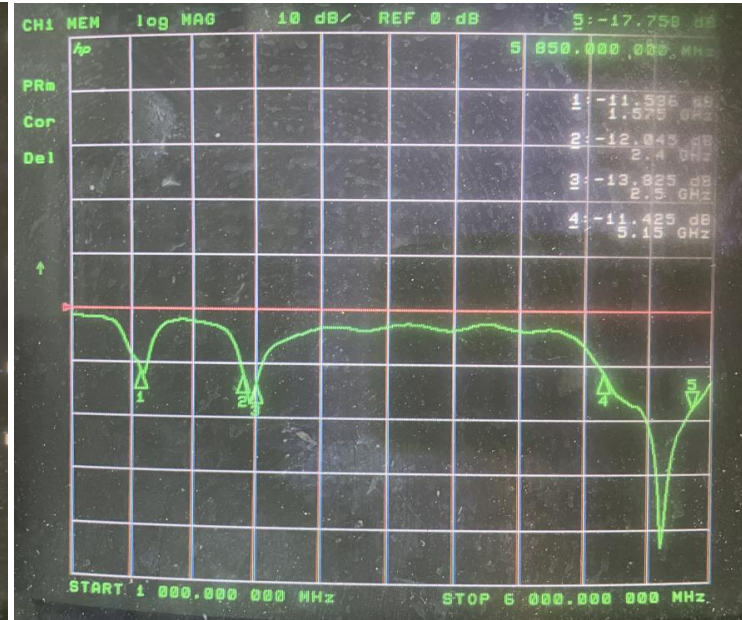
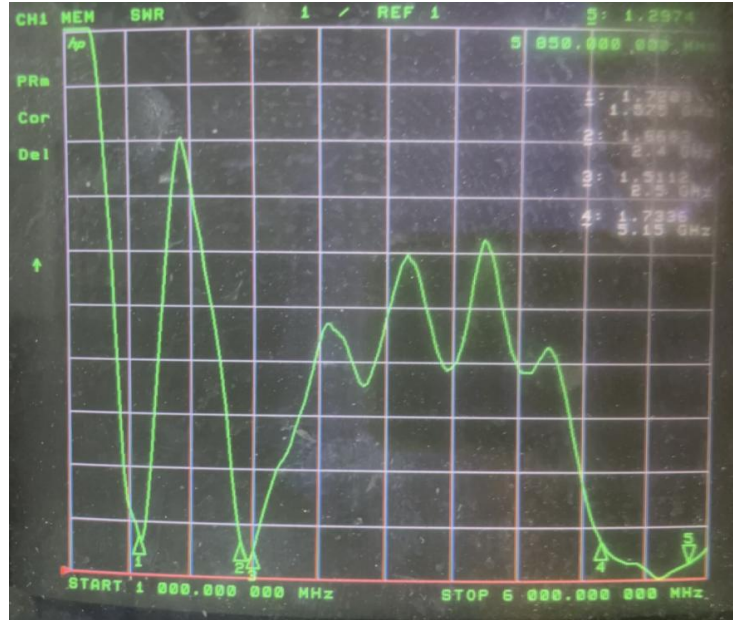


Environmental treatment



Passive test data

ANT1 S11-VSWR&Return Loss



Frequency (MHZ)	1575	2400	2500	5150	5850
VSWR	1.72	1.66	1.51	1.73	1.29
Return Loss (DB)	-11.53	-12.04	-13.82	-11.42	-17.75

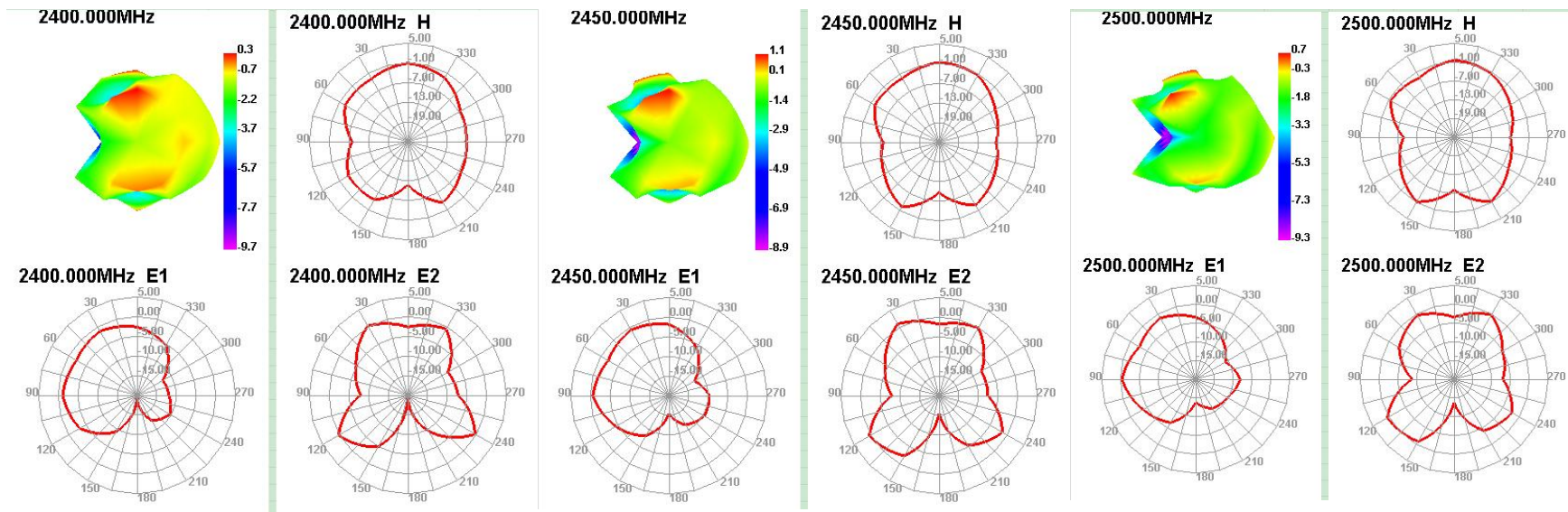
Passive test data

ANT1 GAIN&Efficiency-WIFI2.4G/BT

Passive Test For WIFI2.4						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)
2400	41.87	-3.78	0.34	-1.81	23.045	18.829
2410	44.4	-3.53	0.8	-1.35	24.399	19.997
2420	43.46	-3.62	0.84	-1.31	24.038	19.424
2430	42.59	-3.71	0.74	-1.41	23.866	18.72
2440	44.72	-3.5	0.98	-1.17	25.403	19.317
2450	46.12	-3.36	1.07	-1.08	26.446	19.676
2460	45.94	-3.38	0.91	-1.24	26.418	19.519
2470	46.97	-3.28	0.97	-1.18	26.848	20.117
2480	47.05	-3.27	1.01	-1.14	26.754	20.293
2490	45.43	-3.43	0.87	-1.28	25.668	19.761
2500	46.87	-3.29	0.7	-1.45	26.206	20.666

Passive test data

ANT1 Direction of figure(2.4/BT)



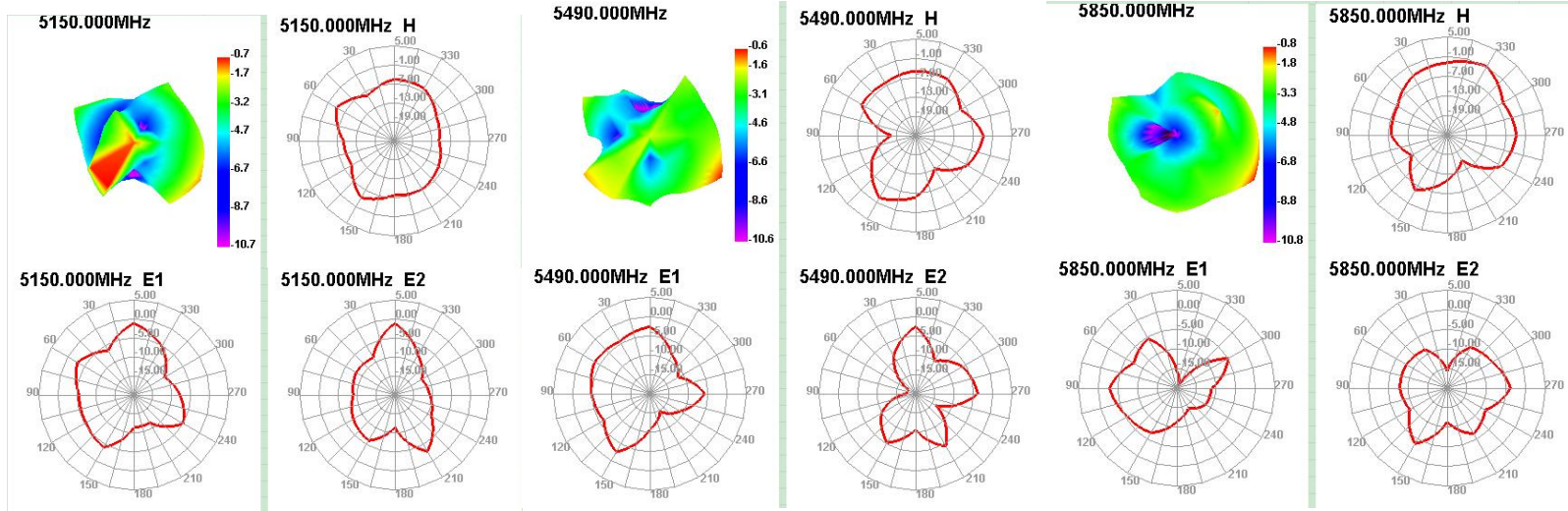
Passive test data

ANT1 GAIN&Efficiency-WIFI 5G

Passive Test For WIFI5G						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)
5150	26.31	-5.8	-0.7	-2.85	13.31	12.997
5170	24.68	-6.08	-1.16	-3.31	12.371	12.311
5190	26.95	-5.69	-0.83	-2.98	13.548	13.406
5210	25.7	-5.9	-1.26	-3.41	13.083	12.621
5230	28.35	-5.47	-1.07	-3.22	14.574	13.775
5250	27.22	-5.65	-1.43	-3.58	14.232	12.983
5270	29.96	-5.24	-1.16	-3.31	15.924	14.031
5290	26.84	-5.71	-1.7	-3.85	14.447	12.396
5310	28.42	-5.46	-1.41	-3.56	15.521	12.899
5330	25.63	-5.91	-1.92	-4.07	14.21	11.422
5350	28.74	-5.41	-1.36	-3.51	16.178	12.566
5370	27.86	-5.55	-1.2	-3.35	15.812	12.052
5390	28.82	-5.4	-0.74	-2.89	16.415	12.408
5410	25.47	-5.94	-0.92	-3.07	14.599	10.871
5430	24.2	-6.16	-0.81	-2.96	13.885	10.316
5450	23.9	-6.22	-0.76	-2.91	13.634	10.269
5470	25.47	-5.94	-0.59	-2.74	14.533	10.939
5490	25.74	-5.89	-0.56	-2.71	14.818	10.917
5510	24.42	-6.12	-0.7	-2.85	14.242	10.176
5530	25.18	-5.99	-0.45	-2.6	14.886	10.294
5550	22.25	-6.53	-1.2	-3.35	13.399	8.848
5570	23.74	-6.24	-1.04	-3.19	14.641	9.1
5590	21.35	-6.71	-1.68	-3.83	13.461	7.885
5610	24.39	-6.13	-1	-3.15	15.565	8.822
5630	22.06	-6.56	-1.08	-3.23	14.202	7.858
5650	24.07	-6.19	-0.43	-2.58	15.484	8.583
5670	22.5	-6.48	-0.87	-3.02	14.451	8.047
5690	24.6	-6.09	-0.54	-2.69	15.691	8.908
5710	24.36	-6.13	-0.89	-3.04	15.393	8.971
5730	21.76	-6.62	-1.4	-3.55	13.506	8.255
5750	22.71	-6.44	-1.09	-3.24	13.78	8.93
5770	23.12	-6.36	-0.82	-2.97	13.755	9.366
5790	23.28	-6.33	-0.76	-2.91	13.593	9.685
5810	21.61	-6.65	-0.97	-3.12	12.42	9.192
5830	20.71	-6.84	-0.98	-3.13	11.724	8.982
5850	20.62	-6.86	-0.82	-2.97	11.471	9.154

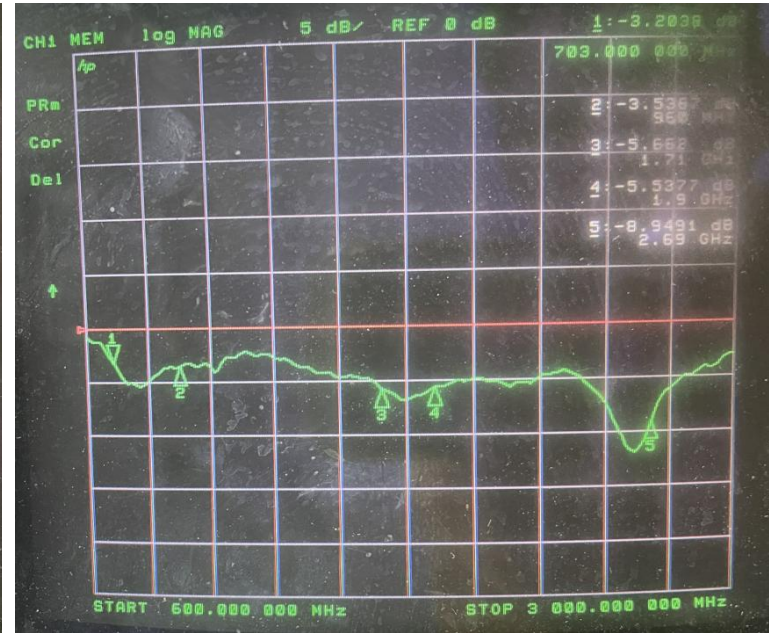
Passive test data

ANT1 Direction of figure(5G)



Passive test data

ANT2 S11-VSWR&Return Loss



Frequency (MHZ)	703	960	1710	1900	2690
VSWR	5.5	4.97	3.17	3.32	2.11
Return Loss (DB)	-3.20	-3.53	-5.66	-5.53	-8.94

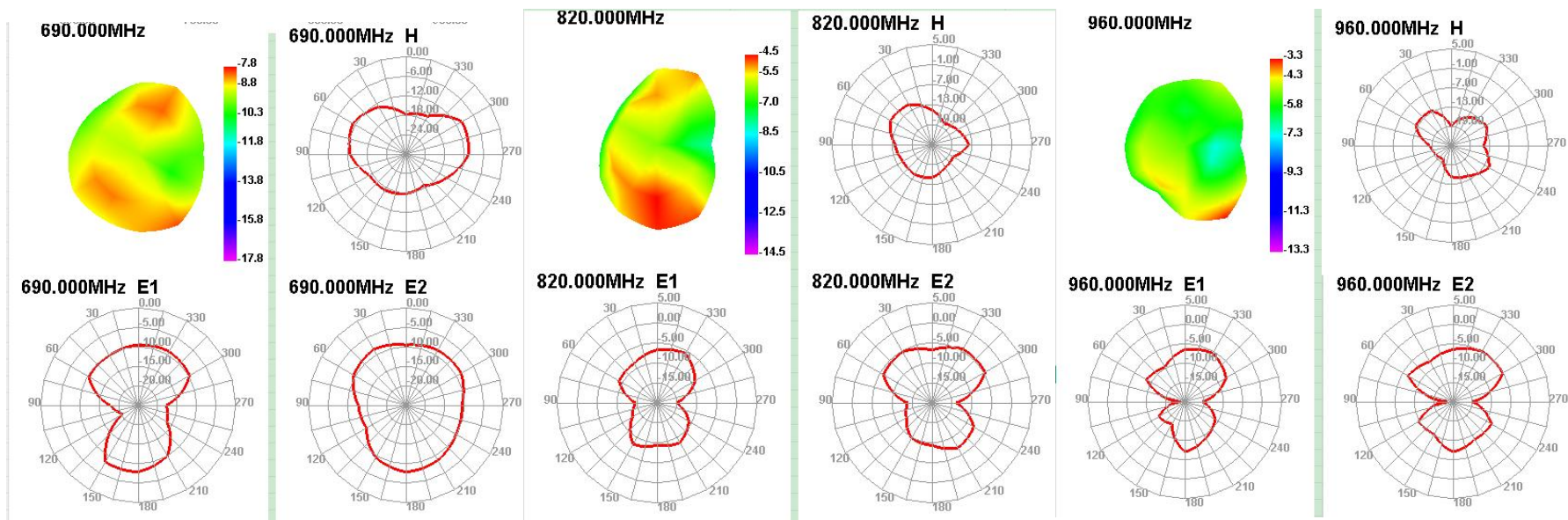
Passive test data

ANT2 GAIN&Efficiency-4G

Passive Test For 低频						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)
690	7.98	-10.98	-7.76	-9.91	4.754	3.223
700	9.91	-10.04	-6.82	-8.97	6.136	3.771
710	11.46	-9.41	-5.65	-7.8	7.295	4.163
720	13.74	-8.62	-4.71	-6.86	8.74	4.998
730	15.01	-8.24	-4.31	-6.46	9.524	5.484
740	13.32	-8.75	-4.87	-7.02	8.532	4.793
750	13.49	-8.7	-4.56	-6.71	8.779	4.714
760	15.57	-8.08	-3.89	-6.04	10.171	5.4
770	15.8	-8.01	-3.94	-6.09	10.47	5.325
780	15.14	-8.2	-4.29	-6.44	10.238	4.903
790	14.03	-8.53	-4.64	-6.79	9.477	4.553
800	15.24	-8.17	-4.39	-6.54	10.053	5.186
810	15.09	-8.21	-4.02	-6.17	9.9	5.195
820	12.9	-8.9	-4.51	-6.66	8.616	4.279
830	10.61	-9.74	-5.11	-7.26	7.229	3.381
840	10.3	-9.87	-5.01	-7.16	7.099	3.205
850	11.18	-9.52	-4.78	-6.93	7.548	3.628
860	10.46	-9.8	-4.9	-7.05	7.31	3.153
870	9.12	-10.4	-5.43	-7.58	6.602	2.523
880	9.12	-10.4	-5.56	-7.71	6.593	2.531
890	10.93	-9.61	-4.89	-7.04	7.679	3.248
900	11.64	-9.34	-4.41	-6.56	8.122	3.519
910	11.68	-9.32	-3.95	-6.1	8.259	3.425
920	11.46	-9.41	-3.92	-6.07	8.104	3.353
930	11.43	-9.42	-4.08	-6.23	7.954	3.475
940	12.03	-9.2	-3.56	-5.71	8.19	3.84
950	11.77	-9.29	-3.4	-5.55	8.16	3.61
960	12.17	-9.15	-3.25	-5.4	8.493	3.679

Passive test data

ANT2 Direction of figure(4G)



Passive test data

ANT2 GAIN&Efficiency-4G

Passive Test For 高频													
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBi)	VRMS (%)	DRMS (%)							
1690	23.04	-6.38	-1.15	-3.3	13.75	9.286	2170	31.64	-5	-0.64	-2.79	15.282	16.36
1700	22.24	-6.53	-1.34	-3.49	13.236	9.002	2180	30.46	-5.16	-0.81	-2.96	14.553	15.907
1710	21.14	-6.75	-1.51	-3.66	12.501	8.637	2190	30.32	-5.18	-0.81	-2.96	14.528	15.792
1720	21.16	-6.75	-1.56	-3.71	12.471	8.684	2200	28.31	-5.48	-0.87	-3.02	13.722	14.589
1730	24.4	-6.13	-1.02	-3.17	14.255	10.144	2210	30.86	-5.11	-0.37	-2.52	14.973	15.885
1740	24.05	-6.19	-1.32	-3.47	13.747	10.304	2220	30.02	-5.23	-0.4	-2.55	14.37	15.647
1750	23.4	-6.31	-1.59	-3.74	13.172	10.233	2230	26.67	-5.74	-0.89	-3.04	12.623	14.047
1760	26.56	-5.76	-1.09	-3.24	14.987	11.569	2240	26.4	-5.78	-1.03	-3.18	12.474	13.931
1770	28.97	-5.38	-0.72	-2.87	16.524	12.442	2250	27.65	-5.58	-0.97	-3.12	13.212	14.435
1780	27.76	-5.57	-1.06	-3.21	15.664	12.093	2260	25.26	-5.98	-1.4	-3.55	12.065	13.195
1790	28.74	-5.42	-1.03	-3.18	16.092	12.648	2270	24.01	-6.2	-1.66	-3.81	11.356	12.653
1800	29.75	-5.26	-0.89	-3.04	16.337	13.414	2280	23.81	-6.23	-1.97	-4.12	11.246	12.563
1810	33.05	-4.81	-0.44	-2.59	18.03	15.024	2290	23.68	-6.26	-1.91	-4.06	11.469	12.214
1820	31.07	-5.08	-0.71	-2.86	16.776	14.296	2300	21.68	-6.64	-2.45	-4.6	10.593	11.087
1830	33.77	-4.72	-0.39	-2.54	18.195	15.571	2310	22.68	-6.44	-2.37	-4.52	10.924	11.754
1840	38.35	-4.16	0.17	-1.98	20.527	17.826	2320	23.6	-6.27	-2.18	-4.33	11.32	12.277
1850	32.63	-4.86	-0.61	-2.76	17.367	15.261	2330	22.75	-6.43	-2.31	-4.46	11.063	11.688
1860	33.39	-4.76	-0.44	-2.59	17.687	15.7	2340	22.68	-6.44	-2.28	-4.43	11.144	11.54
1870	37.73	-4.23	0.28	-1.87	20.108	17.622	2350	24.65	-6.08	-1.9	-4.05	12.072	12.574
1880	25.66	-5.91	-1.42	-3.57	13.555	12.11	2360	23.17	-6.35	-2.16	-4.31	11.214	11.955
1890	24.36	-6.13	-1.68	-3.83	12.729	11.631	2370	22.85	-6.41	-2.14	-4.29	10.993	11.857
1900	24.79	-6.06	-1.57	-3.72	12.748	12.037	2380	22.35	-6.51	-2.14	-4.29	10.784	11.561
1910	30	-5.23	-0.86	-3.01	15.516	14.481	2390	22.14	-6.55	-2.18	-4.33	10.628	11.508
1920	27.56	-5.6	-1.15	-3.3	14.505	13.055	2400	22.17	-6.54	-2.13	-4.28	10.452	11.72
1930	25.5	-5.93	-1.39	-3.54	13.577	11.925	2410	23.99	-6.2	-1.61	-3.76	11.011	12.96
1940	30.84	-5.11	-0.46	-2.61	16.289	14.551	2420	23.13	-6.36	-1.44	-3.59	10.354	12.773
1950	29.7	-5.27	-0.61	-2.76	15.555	14.145	2430	21.38	-6.7	-1.52	-3.67	9.555	11.824
1960	32.84	-4.84	-0.15	-2.3	17.293	15.543	2440	22.65	-6.45	-1.01	-3.16	10.226	12.428
1970	34.96	-4.56	0.24	-1.91	18.468	16.493	2450	24.94	-6.03	-0.68	-2.83	11.355	13.587
1980	29.89	-5.24	-0.49	-2.64	15.511	14.379	2460	24.81	-6.05	-1.07	-3.22	11.191	13.621
1990	31.77	-4.98	-0.22	-2.37	16.064	15.704	2470	23.17	-6.35	-1.83	-3.98	10.332	12.842
2000	34.76	-4.59	0.07	-2.08	17.322	17.437	2480	24.15	-6.17	-1.87	-4.02	10.664	13.486
2010	33.63	-4.73	-0.2	-2.35	16.949	16.686	2490	27.26	-5.65	-1.22	-3.37	11.951	15.306
2020	30.25	-5.19	-0.67	-2.82	15.464	14.789	2500	25.84	-5.88	-1.42	-3.57	11.219	14.625
2030	27.62	-5.59	-1.1	-3.25	14.007	13.611	2510	24.58	-6.09	-1.65	-3.8	10.545	14.034
2040	35.47	-4.5	-0.05	-2.2	17.32	18.152	2520	29.43	-5.31	-0.79	-2.94	12.524	16.911
2050	29.38	-5.32	-1.09	-3.24	14.231	15.144	2530	27.89	-5.55	-0.92	-3.07	11.879	16.011
2060	26.26	-5.81	-1.71	-3.86	12.974	13.283	2540	26.81	-5.72	-1.12	-3.27	11.395	15.418
2070	25.65	-5.91	-1.75	-3.9	12.537	13.117	2550	31.09	-5.07	-0.59	-2.74	13.206	17.879
2080	27.31	-5.64	-1.43	-3.58	12.725	14.587	2560	32.39	-4.9	-0.7	-2.85	13.775	18.61
2090	24.83	-6.05	-1.97	-4.12	11.26	13.573	2570	27.47	-5.61	-1.59	-3.74	11.752	15.719
2100	21.94	-6.59	-2.64	-4.79	10.244	11.701	2580	28.38	-5.47	-1.38	-3.53	12.161	16.222
2110	25.46	-5.94	-2	-4.15	12.178	13.279	2590	31.37	-5.04	-0.94	-3.09	13.348	18.019
2120	29.17	-5.35	-1.32	-3.47	13.834	15.332	2600	30.09	-5.22	-1.08	-3.23	12.635	17.454
2130	25.74	-5.89	-1.96	-4.11	12.24	13.5	2610	27.02	-5.68	-1.56	-3.71	11.224	15.8
2140	26.98	-5.69	-1.83	-3.98	12.929	14.054	2620	29.5	-5.3	-1.3	-3.45	12.169	17.328
2150	28.39	-5.47	-1.26	-3.41	13.898	14.497	2630	26.79	-5.72	-1.94	-4.09	11.064	15.727
2160	30.42	-5.17	-0.98	-3.13	14.879	15.545	2640	28	-5.53	-1.67	-3.82	11.515	16.488
							2650	28.42	-5.46	-1.63	-3.78	11.634	16.782
							2660	24.98	-6.02	-2.23	-4.38	10.175	14.81
							2670	22.01	-6.57	-2.24	-4.39	8.88	13.129
							2680	22.95	-6.39	-1.45	-3.6	9.166	13.784
							2690	23.05	-6.37	-1.12	-3.27	9.09	13.957

Passive test data

ANT2 Direction of figure (4G)

