

FCC Radio Test Report

FCC ID: 2AUYFRMX3686

Report No. : BTL-FCCP-3-2208G029
Equipment : Mobile Phone
Model Name : RMX3686
Brand Name : realme
Applicant : Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address : No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China.
Manufacturer : Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address : No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China.
Factory : Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address : No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China.

Radio Function : WCDMA Band IV, LTE Band 4, 7, 12, 13, 17, 38, 41, 66, 7C, 38C, 41C

FCC Rule Part(s) : FCC CFR Title 47, Part 27, Subpart F
FCC CFR Title 47, Part 27, Subpart H
FCC CFR Title 47, Part 27, Subpart L
FCC CFR Title 47, Part 27, Subpart M

Measurement Procedure(s) : ANSI C63.26-2015
ANSI/TIA-603-E-2016
FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

Date of Receipt : 2022/8/18
Date of Test : 2022/10/13 ~ 2022/10/24
Issued Date : 2022/10/25

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by



Jerry Chuang, Engineer

Approved by



Peter Chen, Vice Manager



BTL Inc.

No.18, Ln. 171, Sec. 2, Jiuzong Rd., Neihu Dist., Taipei City 114, Taiwan

Tel: +886-2-2657-3299 Fax: +886-2-2657-3331 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-3-2208G029	R00	Original Report.	2022/10/25	Valid

1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

FCC Clause No	Description	Test Result	Judgement	Remark
2.1046 27.50(d)(4) 27.50(c)(10) 27.50(h)(2)	Conducted Output Power Effective Radiated Power Equivalent Isotropic Radiated Power	APPENDIX A	Pass	-----
2.1049	Occupied Bandwidth	APPENDIX B	Pass	-----
2.1051 27.53(h) 27.53(g) 27.53(c)(2) 27.53(m)(4)&(m)(6)	Conducted Spurious Emissions	APPENDIX C	Pass	-----
2.1053 27.53(h) 27.53(g) 27.53(c)(2)(4) 27.53(m)(4)&(m)(6)	Radiated Spurious Emissions	APPENDIX D	Pass	-----
2.1051 27.53(h) 27.53(g) 27.53(c)(2)(4) 27.53(m)(4)&(m)(6)	Band Edge Measurements	APPENDIX E	Pass	-----
-	Peak To Average Ratio	APPENDIX F	Pass	Record Only
2.1055 27.54	Frequency Stability	APPENDIX G	Pass	-----

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.
- (2) The report format version is TP.1.1.1.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report:

No. 72, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

☐ C06 ☒ CB21 ☐ CB22

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

☐ C05 ☐ CB08 ☐ CB11 ☐ CB15 ☐ CB16
☐ SR05 ☒ SR10

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k = 2$, providing a level of confidence of approximately **95 %**.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

A. Radiated Spurious Emissions test :

Test Site	Measurement Frequency Range	U,(dB)
CB21	0.03 GHz ~ 0.2 GHz	4.17
	0.2 GHz ~ 1 GHz	4.72
	1 GHz ~ 6 GHz	5.21
	6 GHz ~ 18 GHz	5.51
	18 GHz ~ 26 GHz	3.69
	26 GHz ~ 40 GHz	4.23

NOTE:

Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Environment Condition	Test Voltage	Tested by
Conducted Output Power, Equivalent Isotropic Radiated Power and Effective Radiated Power	25.7 °C, 52 %	DC 3.87 V	Paul Shen
Occupied Bandwidth	25.7 °C, 52 %	DC 3.87 V	Paul Shen
Conducted Spurious Emissions	25.7 °C, 52 %	DC 3.87 V	Paul Shen
Radiated Spurious Emissions	Refer to data	AC 120 V	Mark Wang
Band Edge	25.7 °C, 52 %	DC 3.87 V	Paul Shen
Peak to Average Ratio	25.7 °C, 52 %	DC 3.87 V	Paul Shen
Frequency Stability	Normal and Extreme		Paul Shen

2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

Equipment	Mobile Phone		
Model Name	RMX3686		
Brand Name	realme		
Model Difference	N/A		
Power Source	#1 DC voltage supplied from AC/DC Adapter. #2 Supplied from Li-ion battery. #3 Supplied from USB port.		
Power Rating	#1 For VCB7CAUH: 1. I/P: 100-130V~ 50/60Hz 1.8A O/P: 5V === 2A or 5-11V === 5A(MAX) I/P: 200-240V~ 50/60Hz 1.8A O/P: 5V === 2A or 5-11V === 6.1A(MAX) For VCB8JAUH: 1. I/P: 100-130V~ 50/60Hz 2.0A O/P: 5V === 2A or 5.0-11.0V === 6.1A MAX (67W MAX) 2. I/P: 200-240V~ 50/60Hz 2.0A O/P: 5V === 2A or 5.0-11.0V === 7.3A MAX (80W MAX) #2 DC 3.87V, 4890mAh/18.92Wh (Min) #3 DC 5V		
Products Covered	2 * Adapter: (1) VCB7CAUH (2) VCB8JAUH 1 * Li-ion battery: realme / BLP951 1 * TYPE-C Cable		
IMEI No.	WCDMA LTE		
Operation Frequency	Band	UL Frequency (MHz)	DL Frequency (MHz)
	WCDMA IV	1710 ~ 1755	2110 ~ 2155
	LTE 4	1710 ~ 1755	2110 ~ 2155
	LTE 7	2500 ~ 2570	2620 ~ 2690
	LTE 12	699 ~ 716	729 ~ 746
	LTE 13	777 ~ 787	746 ~ 756
	LTE 17	704 ~ 716	734 ~ 746
	LTE 38	2570 ~ 2620	2570 ~ 2620
	LTE 41	2496 ~ 2690	2496 ~ 2690
	LTE 66	1710 ~ 1780	2110 ~ 2200

	Band	BW (MHz)	Mode	Power (W)
	WCDMA IV	-	-	0.098
Maximum EIRP	LTE 4	1.4	QPSK	0.088
			16QAM	0.074
			64QAM	0.062
		3	QPSK	0.088
			16QAM	0.075
			64QAM	0.060
		5	QPSK	0.088
			16QAM	0.078
			64QAM	0.062
		10	QPSK	0.087
			16QAM	0.075
			64QAM	0.061
		15	QPSK	0.087
			16QAM	0.076
			64QAM	0.065
		20	QPSK	0.089
			16QAM	0.078
			64QAM	0.066
	LTE 7	5	QPSK	0.145
			16QAM	0.130
			64QAM	0.095
		10	QPSK	0.142
			16QAM	0.121
			64QAM	0.096
		15	QPSK	0.141
			16QAM	0.121
			64QAM	0.101
		20	QPSK	0.143
			16QAM	0.127
			64QAM	0.102
	LTE 38	5	QPSK	0.173
			16QAM	0.148
			64QAM	0.124
		10	QPSK	0.175
			16QAM	0.150
			64QAM	0.122
		15	QPSK	0.173
			16QAM	0.149
			64QAM	0.121
		20	QPSK	0.178
			16QAM	0.152
			64QAM	0.120

Maximum EIRP	Band	BW (MHz)	Mode	Power (W)
	LTE 41	5	QPSK	0.195
			16QAM	0.166
			64QAM	0.135
		10	QPSK	0.195
			16QAM	0.166
			64QAM	0.135
		15	QPSK	0.193
			16QAM	0.166
			64QAM	0.135
		20	QPSK	0.199
			16QAM	0.166
			64QAM	0.138
	LTE 66	1.4	QPSK	0.119
			16QAM	0.099
			64QAM	0.079
		3	QPSK	0.117
			16QAM	0.100
			64QAM	0.078
		5	QPSK	0.120
			16QAM	0.104
			64QAM	0.077
		10	QPSK	0.115
			16QAM	0.099
			64QAM	0.078
		15	QPSK	0.116
			16QAM	0.099
			64QAM	0.082
		20	QPSK	0.120
			16QAM	0.104
			64QAM	0.083
	LTE CA_7C	10+20	QPSK	0.122
			16QAM	0.113
			64QAM	0.065
		20+10	QPSK	0.121
			16QAM	0.112
			64QAM	0.065
		15+10	QPSK	0.126
			16QAM	0.117
			64QAM	0.068
		15+15	QPSK	0.127
			16QAM	0.114
64QAM			0.071	
15+20		QPSK	0.127	
		16QAM	0.113	
		64QAM	0.070	
20+15		QPSK	0.125	
		16QAM	0.109	
		64QAM	0.066	
20+20	QPSK	0.125		
	16QAM	0.109		
	64QAM	0.065		

	Band	BW (MHz)	Mode	Power (W)
Maximum EIRP	LTE CA_38C	15+15	QPSK	0.149
			16QAM	0.115
			64QAM	0.046
		20+20	QPSK	0.141
			16QAM	0.117
			64QAM	0.072
	LTE CA_41C	5+20	QPSK	0.161
			16QAM	0.128
			64QAM	0.082
		20+5	QPSK	0.165
			16QAM	0.133
			64QAM	0.107
		10+15	QPSK	0.164
			16QAM	0.127
			64QAM	0.082
		15+10	QPSK	0.172
			16QAM	0.137
			64QAM	0.088
		10+20	QPSK	0.164
			16QAM	0.127
			64QAM	0.083
		20+10	QPSK	0.163
			16QAM	0.133
			64QAM	0.084
		15+15	QPSK	0.175
			16QAM	0.136
			64QAM	0.085
		15+20	QPSK	0.175
			16QAM	0.133
			64QAM	0.084
		20+15	QPSK	0.166
			16QAM	0.139
			64QAM	0.085
		20+20	QPSK	0.166
			16QAM	0.139
			64QAM	0.087
Maximum ERP	LTE 12	1.4	QPSK	0.032
			16QAM	0.026
			64QAM	0.021
		3	QPSK	0.031
			16QAM	0.027
			64QAM	0.021
		5	QPSK	0.032
			16QAM	0.028
			64QAM	0.021
		10	QPSK	0.031
			16QAM	0.027
			64QAM	0.021
	LTE 13	5	QPSK	0.034
			16QAM	0.029
			64QAM	0.023
		10	QPSK	0.033
			16QAM	0.026
			64QAM	0.022

Maximum ERP	Band	BW (MHz)	Mode	Power (W)
	LTE 17	5	QPSK	0.032
			16QAM	0.028
			64QAM	0.021
		10	QPSK	0.031
			16QAM	0.027
			64QAM	0.021
Test Model	RMX3686			
Sample Status	Engineering Sample			
EUT Modification(s)	N/A			

NOTE:

(1) For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

(2) Channel List:

WCDMA Band IV				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	1312	1712.4	1537	2112.4
Mid Range	1413	1732.6	1638	2132.6
High Range	1513	1752.6	1738	2152.6

LTE Band 4					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	19957	1710.7	1957	2110.7
	3	19965	1711.5	1965	2111.5
	5	19975	1712.5	1975	2112.5
	10	20000	1715	2000	2115
	15	20025	1717.5	2025	2117.5
	20	20050	1720	2050	2120
Mid Range	1.4/3/5/10/15/20	20175	1732.5	2175	2132.5
High Range	1.4	20393	1754.3	2393	2154.3
	3	20385	1753.5	2385	2153.5
	5	20375	1752.5	2375	2152.5
	10	20350	1750	2350	2150
	15	20325	1747.5	2325	2147.5
	20	20300	1745	2300	2145

LTE Band 7					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	5	20775	2502.5	2775	2622.5
	10	20800	2505	2800	2625
	15	20825	2507.5	2825	2627.5
	20	20850	2510	2850	2630
Mid Range	5/10/15/20	21100	2535	3100	2655
High Range	5	21425	2567.5	3425	2687.5
	10	21400	2565	3400	2685
	15	21375	2562.5	3375	2682.5
	20	21350	2560	3350	2680

LTE Band 12					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	23017	699.7	5017	729.7
	3	23025	700.5	5025	730.5
	5	23035	701.5	5035	731.5
	10	23060	704	5060	734
Mid Range	1.4/3/5/10	23095	707.5	5095	737.5
High Range	1.4	23173	715.3	5173	745.3
	3	23165	714.5	5165	744.5
	5	23155	713.5	5155	743.5
	10	23130	711	5130	741

LTE Band 13					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	5	23205	779.5	5205	748.5
Mid Range	5/10	23230	782.0	5230	751
High Range	5	23255	784.5	5255	753.5

LTE Band 17					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	5	23755	706.5	5755	736.5
	10	23780	709	5780	739
Mid Range	5/10	23790	710	5790	740
High Range	5	23825	713.5	5825	743.5
	10	23800	711	5800	741

LTE Band 38			
Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
Low Range	5	37775	2572.5
	10	37800	2575
	15	37825	2577.5
	20	37850	2580
Mid Range	5/10/15/20	38000	2600
High Range	5	38225	2617.5
	10	38200	2615
	15	38175	2612.5
	20	38150	2610

LTE Band 41			
Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
Low Range	5	39675	2498.5
	10	39700	2501.0
	15	39725	2503.5
	20	39750	2506.0
Mid Range	5/10/15/20	40620	2593
High Range	5	41565	2687.5
	10	41540	2685.0
	15	41515	2682.5
	20	41490	2680.0

LTE Band 66					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	131979	1710.7	66443	2110.7
	3	131987	1711.5	66451	2111.5
	5	131997	1712.5	66461	2112.5
	10	132022	1715	66486	2115
	15	132047	1717.5	66511	2117.5
	20	132072	1720	66536	2120
Mid Range	1.4/3/5/10/15/20	132322	1745	66786	2145
High Range	1.4	132665	1779.3	67129	2179.3
	3	132657	1778.5	67121	2178.5
	5	132647	1777.5	67111	2177.5
	10	132622	1775	67086	2175
	15	132597	1772.5	67061	2172.5
	20	132572	1770	67036	2170

LTE CA_7C

Range	CC-Combo / N _{RB_agg} [RB]	CC1 Note1					CC2 Note1				
		BW [RB]	N _{UL}	f _{UL} [MHz]	N _{DL}	f _{DL} [MHz]	BW [RB]	N _{UL}	f _{UL} [MHz]	N _{DL}	f _{DL} [MHz]
Low	50+100	50	20805	2505.5	2805	2625.5	100	20949	2519.9	2949	2639.9
		100	20850	2510	2850	2630	50	20994	2524.4	2994	2644.4
	75+50	75	20825	2507.5	2825	2627.5	50	20945	2519.5	2945	2639.5
	75+75	75	20825	2507.5	2825	2627.5	75	20975	2522.5	2975	2642.5
	75+100	75	20828	2507.8	2828	2627.8	100	20999	2524.9	2999	2644.9
		100	20850	2510	2850	2630	75	21021	2527.1	3021	2647.1
Mid	100+100	100	20850	2510	2850	2630	100	21048	2529.8	3048	2649.8
		100	21006	2525.6	3006	2645.6	100	21150	2540	3150	2660
	50+100	50	21051	2530.1	3051	2650.1	50	21195	2544.5	3195	2664.5
		100	21051	2530.1	3051	2650.1	50	21171	2542.1	3171	2662.1
	75+50	75	21051	2530.1	3051	2650.1	50	21171	2542.1	3171	2662.1
	75+75	75	21025	2527.5	3025	2647.5	75	21175	2542.5	3175	2662.5
	75+100	75	21003	2525.3	3003	2645.3	100	21174	2542.4	3174	2662.4
		100	21026	2527.6	3026	2647.6	75	21197	2544.7	3197	2664.7
High	100+100	100	21001	2525.1	3001	2645.1	100	21199	2544.9	3199	2664.9
		100	21206	2545.6	3206	2665.6	100	21350	2560	3350	2680
	50+100	50	21251	2550.1	3251	2670.1	50	21395	2564.5	3395	2684.5
		100	21277	2552.7	3277	2672.7	50	21397	2564.7	3397	2684.7
	75+50	75	21225	2547.5	3225	2667.5	75	21375	2562.5	3375	2682.5
	75+75	75	21179	2542.9	3179	2662.9	100	21350	2560	3350	2680
	75+100	75	21201	2545.1	3201	2665.1	75	21372	2562.2	3372	2682.2
		100	21152	2540.2	3152	2660.2	100	21350	2560	3350	2680

Note 1: Carriers in increasing frequency order.

LTE CA_38C

Range	CC-Combo / N _{RB,300} [RB]	CC1 Note1			CC2 Note1		
		BW [RB]	N _{ULDL}	f _{ULDL} [MHz]	BW [RB]	N _{ULDL}	f _{ULDL} [MHz]
Low	75+75	75	37825	2577.5	75	37975	2592.5
	100+100	100	37850	2580	100	38048	2599.8
Mid	75+75	75	37925	2587.5	75	38075	2602.5
	100+100	100	37901	2585.1	100	38099	2604.9
High	75+75	75	38025	2597.5	75	38175	2612.5
	100+100	100	37952	2590.2	100	38150	2610

Note 1: Carriers in increasing frequency order.

LTE CA_41C

Range	CC-Combo / N _{RB,300} [RB]	CC1 Note1			CC2 Note1		
		BW [RB]	N _{ULDL}	f _{ULDL} [MHz]	BW [RB]	N _{ULDL}	f _{ULDL} [MHz]
Low	25+100	25	39683	2499.3	100	39800	2511
		100	39750	2506	25	39867	2517.7
	50+75	50	39703	2501.3	75	39823	2513.3
		75	39725	2503.5	50	39845	2515.5
	50+100	50	39705	2501.5	100	39849	2515.9
		100	39750	2506	50	39894	2520.4
	75+75	75	39725	2503.5	75	39875	2518.5
		75	39728	2503.8	100	39899	2520.9
Mid	25+100	100	39750	2506	75	39921	2523.1
		100	39750	2506	100	39948	2525.8
	50+75	25	40528	2583.8	100	40645	2595.5
		100	40595	2590.5	25	40712	2602.2
	50+100	50	40549	2585.9	75	40669	2597.9
		75	40571	2588.1	50	40691	2600.1
	75+75	50	40526	2583.6	100	40670	2598.0
		100	40571	2588.1	50	40715	2602.5
	75+100	75	40545	2585.5	75	40695	2600.5
		100	40523	2583.3	100	40694	2600.4
	100+100	75	40546	2585.6	75	40717	2602.7
		100	40521	2583.1	100	40719	2602.9
High	25+100	25	41373	2668.3	100	41490	2680
		100	41440	2675	25	41557	2686.7
	50+75	50	41395	2670.5	75	41515	2682.5
		75	41417	2672.7	50	41537	2684.7
	50+100	50	41346	2665.6	100	41490	2680
		100	41391	2670.1	50	41535	2684.5
	75+75	75	41365	2667.5	75	41515	2682.5
		75	41319	2662.9	100	41490	2680
	75+100	100	41341	2665.1	75	41512	2682.2
		100	41292	2660.2	100	41490	2680

Note 1: Carriers in increasing frequency order.

(3) Table for Filed Antenna:

Brand	Model Name	Type	Connector	Gain (dBi)	Note
realme	Ant 3	IFA	N/A	-3.18	WCDMA Band IV
	Ant 4	IFA	N/A	-4.74	
	Ant 3	IFA	N/A	-3.18	LTE Band 4
	Ant 4	IFA	N/A	-4.74	
	Ant 5	IFA	N/A	-2.81	
	Ant 3	IFA	N/A	-2.03	LTE Band 7
	Ant 4	IFA	N/A	-0.29	
	Ant 5	IFA	N/A	-2.01	
	Ant 0	IFA	N/A	-6.51	LTE Band 12
	Ant 1	IFA	N/A	-9.70	LTE Band 13
	Ant 0	IFA	N/A	-6.51	
	Ant 1	IFA	N/A	-9.70	LTE Band 17
	Ant 0	IFA	N/A	-6.51	
	Ant 1	IFA	N/A	-9.70	LTE Band 38
	Ant 3	IFA	N/A	-2.08	
	Ant 4	IFA	N/A	0.006	
	Ant 5	IFA	N/A	-1.59	LTE Band 41
	Ant 3	IFA	N/A	-2.03	
	Ant 4	IFA	N/A	0.008	
	Ant 5	IFA	N/A	-0.72	LTE Band 66
	Ant 3	IFA	N/A	-2.59	
	Ant 4	IFA	N/A	-4.21	
	Ant 5	IFA	N/A	-2.81	

Note: The antenna gain is provided by the manufacturer.

2.2 TEST MODES

WCDMA BAND IV MODE			
Test Item	Available Channel	Tested Channel	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	1312 to 1513	1312, 1413, 1513	WCDMA, HSDPA, HSUPA
Occupied Bandwidth	1312 to 1513	1312, 1413, 1513	WCDMA
Conducted Spurious Emissions	1312 to 1513	1413	WCDMA
Radiated Spurious Emissions	1312 to 1513	1413	WCDMA
Band Edge	1312 to 1513	1312, 1513	WCDMA
Peak To Average Ratio	1312 to 1513	1312, 1413, 1513	WCDMA
Frequency Stability	1312 to 1513	1312, 1513	WCDMA

LTE BAND 4 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	15RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	25RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	50RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	75RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	19957 to 20393	20175	1.4MHz	QPSK	1RB
	19975 to 20375	20175	5MHz	QPSK	1RB
	20050 to 20300	20175	20MHz	QPSK	1RB
Radiated Spurious Emissions	19957 to 20393	20175	1.4MHz	QPSK	1RB
	19975 to 20375	20175	5MHz	QPSK	1RB
	20050 to 20300	20175	20MHz	QPSK	1RB
Band Edge	19957 to 20393	19957, 20393	1.4MHz	QPSK	1RB/6RB
	19965 to 20385	19965, 20385	3MHz	QPSK	1RB/15RB
	19975 to 20375	19975, 20375	5MHz	QPSK	1RB/25RB
	20000 to 20350	20000, 20350	10MHz	QPSK	1RB/50RB
	20025 to 20325	20025, 20325	15MHz	QPSK	1RB/75RB
	20050 to 20300	20050, 20300	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	20050 to 20300	20050, 20300	20MHz	QPSK	100RB

LTE BAND 7 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	25RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	50RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	75RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	20775 to 21425	21100	5MHz	QPSK	1RB
	20850 to 21350	21100	20MHz	QPSK	1RB
Radiated Spurious Emissions	20775 to 21425	21100	5MHz	QPSK	1RB
	20850 to 21350	21100	20MHz	QPSK	1RB
Band Edge	20775 to 21425	20775, 21425	5MHz	QPSK	1RB/25RB
	20800 to 21400	20800, 21400	10MHz	QPSK	1RB/50RB
	20825 to 21375	20825, 21375	15MHz	QPSK	1RB/75RB
	20850 to 21350	20850, 21350	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	1RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	20850 to 21350	20850, 21350	20MHz	QPSK	100RB

LTE BAND 12 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Effective Radiated Power	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
Frequency Stability	23060 to 23130	23060,23130	10MHz	QPSK	50RB
Occupied Bandwidth	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	15RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	25RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	50RB
Peak to Average Ratio	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	1RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	1RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	1RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	1RB
Band Edge	23017 to 23173	23017,23173	1.4MHz	QPSK	1RB/6RB
	23025 to 23165	23025,23165	3MHz	QPSK	1RB/15RB
	23035 to 23155	23035,23155	5MHz	QPSK	1RB/25RB
	23060 to 23130	23060,23130	10MHz	QPSK	1RB/50RB
Conducted Emission	23017 to 23173	23095	1.4MHz	QPSK	1RB
	23025 to 23165	23095	3MHz	QPSK	1RB
	23035 to 23155	23095	5MHz	QPSK	1RB
	23060 to 23130	23095	10MHz	QPSK	1RB
Radiated Emission	23060 to 23130	23095	10MHz	QPSK	1RB

LTE BAND 13 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power& Effective Radiated Power	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	23230	23230	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
Occupied Bandwidth	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM, 64QAM	25RB
	23230	23230	10MHz	QPSK, 16QAM, 64QAM	50RB
Band Edge	23205 to 23255	23205, 23255	5MHz	QPSK	1RB/25RB
	23230	23230	10MHz	QPSK	1RB/50RB
Conducted Emission	23205 to 23255	23230	5MHz	QPSK	1RB
	23230	23230	10MHz	QPSK	1RB
Radiated Emission	23230	23230	10MHz	QPSK	1RB
Peak to Average Ratio	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM, 64QAM	1RB
	23230	23230	10MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	23230	23230	10MHz	QPSK	50RB

LTE BAND 17 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power& Effective Radiated Power	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
Occupied Bandwidth	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM, 64QAM	25RB
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM, 64QAM	50RB
Conducted Spurious Emissions	23755 to 23825	23790	5MHz	QPSK	1RB
	23780 to 23800	23790	20MHz	QPSK	1RB
Radiated Spurious Emissions	23780 to 23800	23790	20MHz	QPSK	1RB
Band Edge	23755 to 23825	23755, 23825	5MHz	QPSK	1RB/25RB
	23780 to 23800	23780, 23800	10MHz	QPSK	1RB/50RB
Peak to Average Ratio	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM, 64QAM	1RB
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	23780 to 23800	23780, 23800	10MHz	QPSK	50RB

LTE BAND 38 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	25RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	50RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	75RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	37850 to 38150	38000	5MHz	QPSK	1RB
	37850 to 38150	38000	20MHz	QPSK	1RB
Radiated Spurious Emissions	37850 to 38150	38000	20MHz	QPSK	1RB
Band Edge	37775 to 38225	37775, 38225	5MHz	QPSK	1RB/25RB
	37800 to 38200	37800, 38200	10MHz	QPSK	1RB/50RB
	37825 to 38175	37825, 38175	15MHz	QPSK	1RB/75RB
	37850 to 38150	37850, 38150	20MHz	QPSK	1RB/100RB
Peak to Average Ratio	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	1RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	37850 to 38150	37850, 38150	20MHz	QPSK	100RB

LTE BAND 41 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	40115 to 41165	40115, 40640, 41165	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	25RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	50RB
	40115 to 41165	40115, 40640, 41165	15MHz	QPSK, 16QAM, 64QAM	75RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	40065 to 41215	40640	5MHz	QPSK	1RB
	40140 to 41140	40640	20MHz	QPSK	1RB
Radiated Spurious Emissions	40140 to 41140	40640	20MHz	QPSK	1RB
Band Edge	40065 to 41215	40065, 41215	5MHz	QPSK	1RB/25RB
	40090 to 41190	40090, 41190	10MHz	QPSK	1RB/50RB
	40115 to 41165	40115, 41165	15MHz	QPSK	1RB/75RB
	40140 to 41140	40140, 41140	20MHz	QPSK	1RB/100RB
Peak to Average Ratio	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	1RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	1RB
	40115 to 41165	40115, 40640, 41165	15MHz	QPSK, 16QAM, 64QAM	1RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	40140 to 41140	40140, 41140	20MHz	QPSK	100RB

LTE BAND 66 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM, 64QAM	15RB
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM, 64QAM	25RB
	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM, 64QAM	50RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM, 64QAM	75 RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	131979 to 132665	132322	1.4MHz	QPSK	1RB
	131997 to 132647	132322	5MHz	QPSK	1RB
	132072 to 132572	132322	20MHz	QPSK	1RB
Radiated Spurious Emissions	132072 to 132572	132322	20MHz	QPSK	1RB
Band Edge	131979 to 132665	131979, 132665	1.4MHz	QPSK	1RB/6RB
	131987 to 132657	131987, 132657	3MHz	QPSK	1RB/15RB
	131997 to 132647	131997, 132647	5MHz	QPSK	1RB/25RB
	132022 to 132622	132022, 132622	10MHz	QPSK	1RB/50RB
	132047 to 132597	132047, 132597	15MHz	QPSK	1RB/75RB
	132072 to 132572	132072, 132572	20MHz	QPSK	1RB/100RB
Peak to Average Ratio	131979 to 132665	131979, 132322,	1.4MHz	QPSK, 16QAM,	1RB/3RB/6RB
	131987 to 132657	131987, 132322,	3MHz	QPSK, 16QAM,	1RB/8RB/15RB
	131997 to 132647	131997, 132322,	5MHz	QPSK, 16QAM,	1RB/12RB/25RB
	132022 to 132622	132022, 132322,	10MHz	QPSK, 16QAM,	1RB/25RB/50RB
	132047 to 132597	132047, 132322,	15MHz	QPSK, 16QAM,	1RB/36RB/75RB
	132072 to 132572	132072, 132322,	20MHz	QPSK, 16QAM,	1RB/50RB/100RB
Frequency Stability	132072 to 132572	132072, 132572	20MHz	QPSK	100RB

LTE CA_7C MODE				
Test Item	Channel Range	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	Low, Mid, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+10MHz		
		15MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Occupied Bandwidth	Low, Mid, High	10MHz+20MHz	QPSK, 16QAM, 64QAM	PCC+SCC: Full RB+Full RB
		20MHz+10MHz		
		15MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Conducted Spurious Emissions	Mid	20MHz+10MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
		15MHz+10MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Radiated Spurious Emissions	Mid	20MHz+20MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
Band Edge	Low, High	10MHz+20MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+10MHz		
		15MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		

LTE CA_38C MODE				
Test Item	Channel Range	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	Low, Mid, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+20MHz		
Occupied Bandwidth	Low, Mid, High	15MHz+15MHz	QPSK, 16QAM, 64QAM	PCC+SCC: Full RB+Full RB
		20MHz+20MHz		
Conducted Spurious Emissions	Mid	15MHz+15MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
		20MHz+20MHz		
Radiated Spurious Emissions	Mid	20MHz+20MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
Band Edge	Low, High	15MHz+15MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+20MHz		

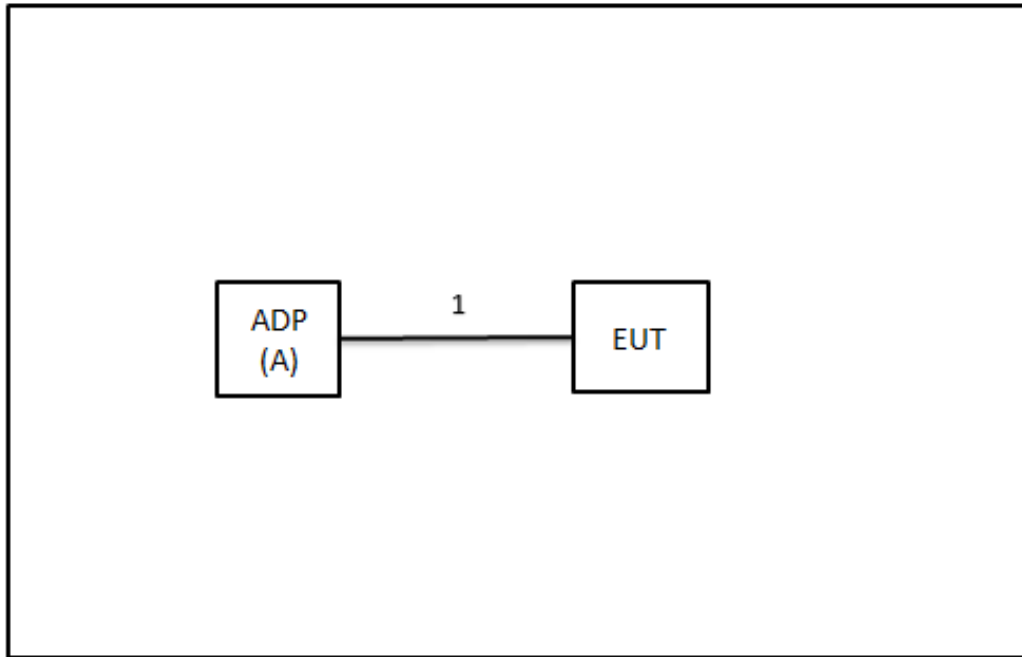
LTE CA_41C MODE				
Test Item	Channel Range	Channel Bandwidth	Modulation	Mode
Conducted Output Power & Equivalent Isotropic Radiated Power	Low, Mid, High	5MHz+20MHz	QPSK, 16QAM, 64QAM	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+5MHz		
		10MHz+15MHz		
		15MHz+10MHz		
		10MHz+20MHz		
		20MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Occupied Bandwidth	Low, Mid, High	5MHz+20MHz	QPSK, 16QAM, 64QAM	PCC+SCC: Full RB+Full RB
		20MHz+5MHz		
		10MHz+15MHz		
		15MHz+10MHz		
		10MHz+20MHz		
		20MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Conducted Spurious Emissions	Mid	15MHz+10MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
		20MHz+10MHz		
		20MHz+15MHz		
		20MHz+20MHz		
Radiated Spurious Emissions	Mid	20MHz+20MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low
Band Edge	Low, High	5MHz+20MHz	QPSK	PCC+SCC: 1RB#High+1RB#Low 1RB#Low+1RB# High Full RB+Full RB
		20MHz+5MHz		
		10MHz+15MHz		
		15MHz+10MHz		
		10MHz+20MHz		
		20MHz+10MHz		
		15MHz+15MHz		
		15MHz+20MHz		
		20MHz+15MHz		
		20MHz+20MHz		

NOTE:

- (1) All X, Y and Z axes are evaluated, but only the worst case (all bands: X axis) is recorded.
- (2) For Radiated Spurious Emissions of all modulation are evaluated, but only the worst case (QPSK) is recorded.
- (3) For radiated spurious emissions, effective radiated power and equivalent isotropic radiated power test items, all antennas had been evaluated and in this report only recorded the worst case.
- (4) For effective radiated power and equivalent isotropic radiated power test items, only recorded the worst case in this report.

2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.



2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.	Remarks
A	ADP	SUPERVOOC	VCB7CAUH	N/A	Supplied by test requester.

Item	Shielded	Ferrite Core	Length	Cable Type	Remarks
1	N/A	N/A	1m	USB to Type C Cable	Supplied by test requester.

3 CONDUCTED OUTPUT POWER AND EFFECTIVE RADIATED POWER AND EFFECTIVE RADIATED POWER MEASUREMENT

3.1 LIMIT

WCDMA IV, LTE Band 4/66:

27.50(d)(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

LTE Band 12/17:

27.50(c)(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

LTE Band 13:

27.50(b)(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

LTE Band 7/38/41:

Mobile / Portable station are limited to 2 watts e.i.r.p.

3.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5.

EIRP / ERP Power Measurement:

EIRP = Conducted Power + Antenna gain.

ERP power = EIPR power - 2.15 dBi.

Conducted Measurement:

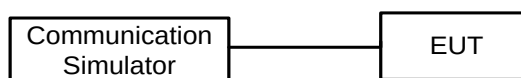
The EUT was set up for the maximum power with LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP

Conducted Measurement:



3.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULT

Please refer to the APPENDIX A

4 OCCUPIED BANDWIDTH MEASUREMENT

4.1 TEST PROCEDURE

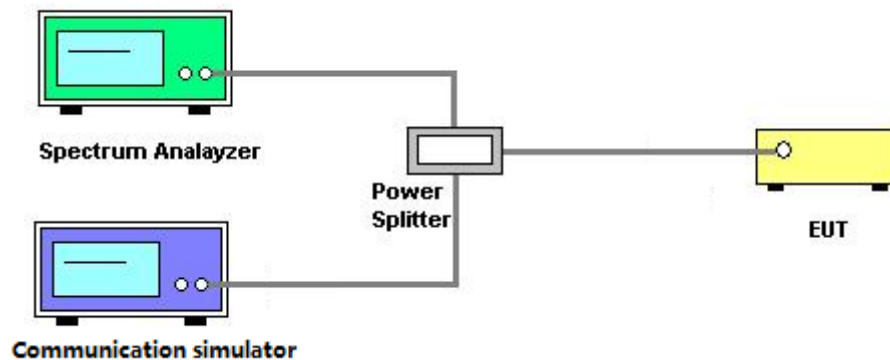
The testing follows FCC KDB 971168 v03r01 Section 4.

- The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
- The EUT was connected to spectrum analyzer and system simulator via a power divider.
- $RBW = (1\% \sim 5\%) * EBW$
 $VBW \geq 3 * RBW$.
- Set spectrum analyzer with Peak detector.

4.2 DEVIATION FROM TEST STANDARD

No deviation.

4.3 TEST SETUP



4.4 TEST RESULT

Please refer to the APPENDIX B.

5 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

5.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm. (Part 27 Subpart L & H)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25dBm. (Part 27 Subpart M)

5.2 TEST PROCEDURE

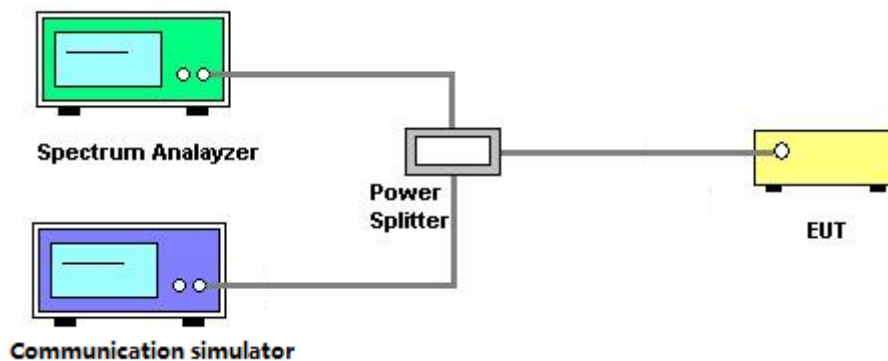
The testing follows FCC KDB 971168 v03r01 Section 6.

- The EUT was connected to spectrum analyzer and system simulator via a power divider.
- The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq$ 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
- Set spectrum analyzer with Peak detector.
- The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

5.3 DEVIATION FROM TEST STANDARD

No deviation.

5.4 TEST SETUP



5.5 TEST RESULT

Please refer to the APPENDIX C.

6 RADIATED SPURIOUS EMISSIONS TEST

6.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm. (Part 27 Subpart L & H)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25dBm. (Part 27 Subpart M)

NOTE:

(1) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

Calculation example:

Reading Level		Correct Factor		Measurement Value
-50.43	+	-2.11	=	-52.54

Measurement Value		Limit Value		Margin Level
-52.54	-	-13	=	-39.54

6.2 TEST PROCEDURE

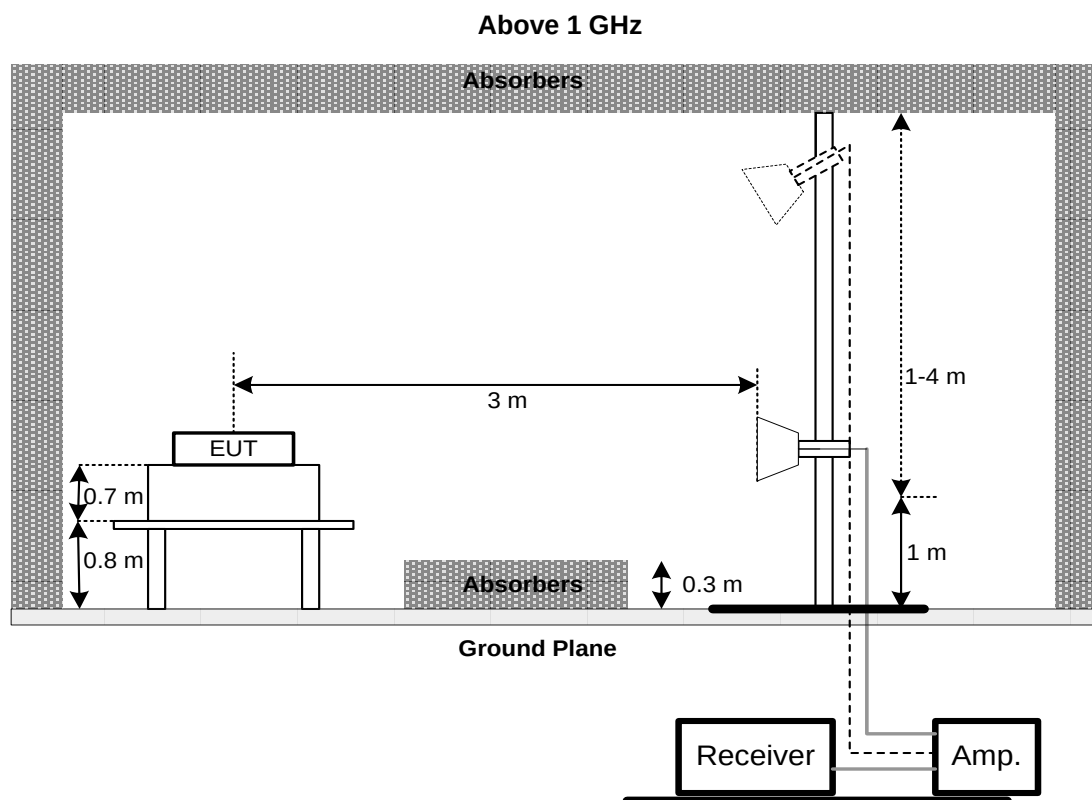
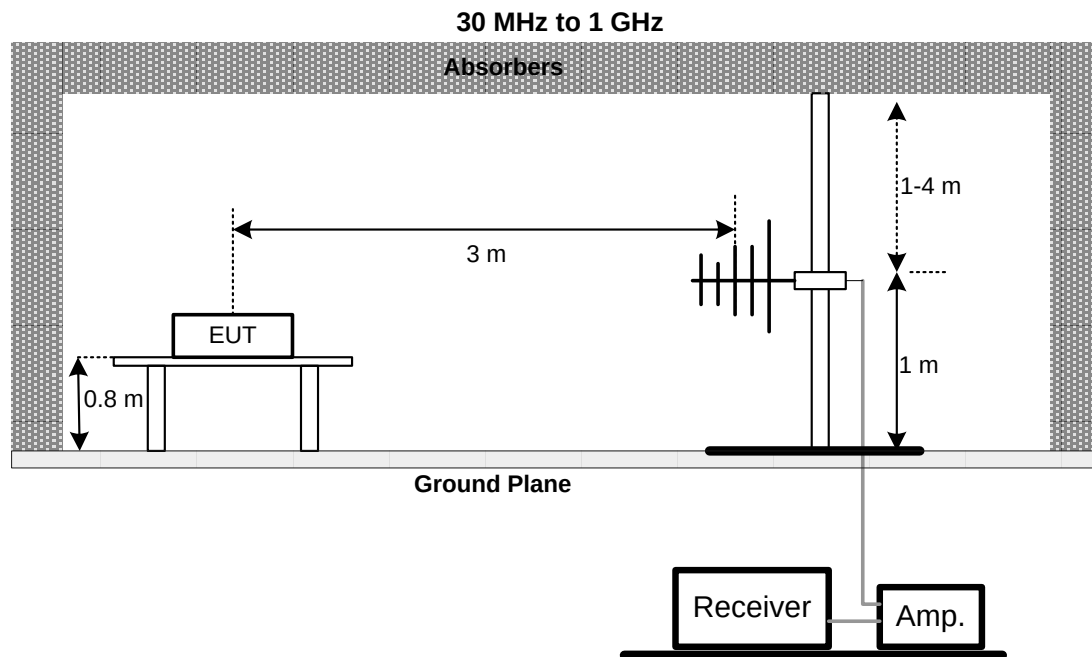
The testing follows FCC KDB 971168 v03r01 Section 6.2.

- In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
- $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- ERP can be calculated form EIRP by subtracting the gain of dipole, $ERP = EIPR - 2.15\text{dBi}.$
The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

6.3 DEVIATION FROM TEST STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULT

Please refer to the APPENDIX D

7 BAND EDGE MEASUREMENT

7.1 LIMIT

The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. (Part 27 Subpart L & H)

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. (Part 27 Subpart M)

7.2 TEST PROCEDURE

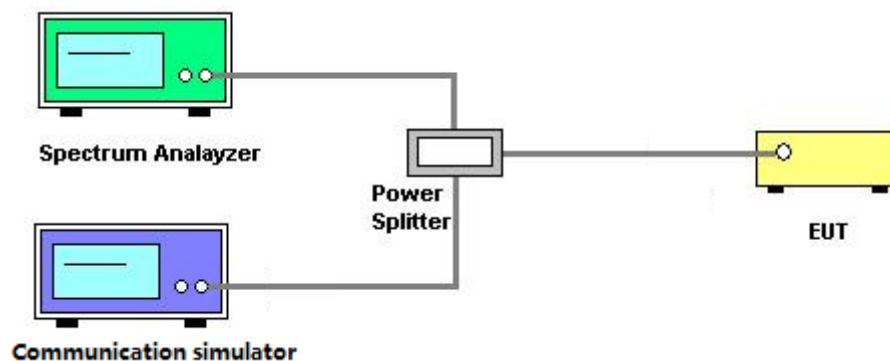
The testing follows FCC KDB 971168 v03r01 Section 6.

- All measurements were done at low and high operational frequency range.
- Record the max trace plot into the test report.

7.3 DEVIATION FROM TEST STANDARD

No deviation.

7.4 TEST SETUP



7.5 TEST RESULT

Please refer to the APPENDIX E.

8 PEAK TO AVERAGE RATIO MEASUREMENT

8.1 LIMIT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

8.2 TEST PROCEDURE

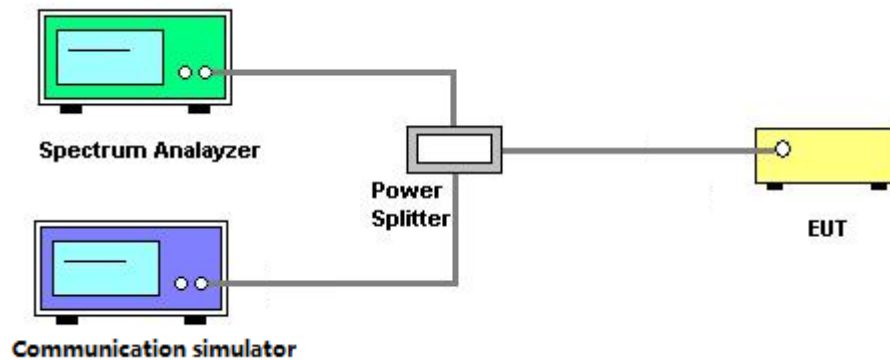
The testing follows FCC KDB 971168 v03r01 Section 5.7.

- Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth.
- Set the number of counts to a value that stabilizes the measured CCDF curve.
- Record the maximum PAPR level associated with a probability of 0.1%.

8.3 DEVIATION FROM TEST STANDARD

No deviation.

8.4 TEST SETUP



8.5 TEST RESULT

Please refer to the APPENDIX F.

9 FREQUENCY STABILITY MEASUREMENT

9.1 LIMIT

± 1.5 ppm is for base and fixed station. ± 2.5 ppm is for mobile station.

9.2 TEST PROCEDURE

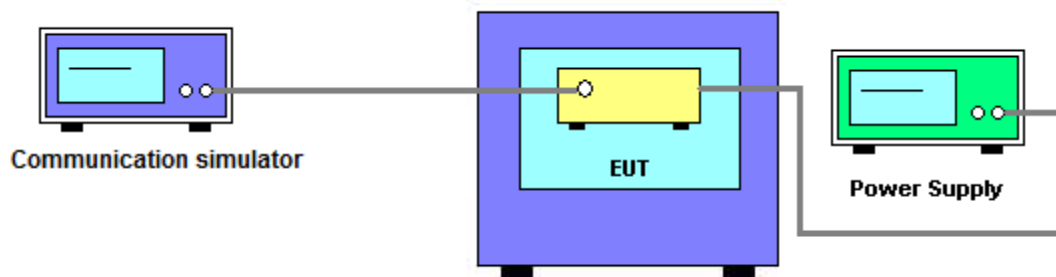
The testing follows FCC KDB 971168 v03r01 Section 9.

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^\circ\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
- The frequency error was recorded frequency error from the communication simulator.

9.3 DEVIATION FROM TEST STANDARD

No deviation.

9.4 TEST SETUP



9.5 TEST RESULT

Please refer to the APPENDIX G.

10 LIST OF MEASURING EQUIPMENTS

For WCDNA Band IV:

Conducted Output Power and Equivalent Isotropic Radiated Power						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	8960 Series 10 Wireless Com Test Set	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6

Radiated Spurious Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Preamplifier	EMCI	EMC330N	980850	2022/9/19	2023/9/18
2	Preamplifier	EMCI	EMC118A45SE	980819	2022/3/8	2023/3/7
3	Preamplifier	EMCI	EMC184045SE	980882	2022/2/9	2023/2/8
4	Test Cable	EMCI	EMC104-SM-SM-1000	220319	2022/3/15	2023/3/14
5	Test Cable	EMCI	EMC104-SM-SM-3000	220322	2022/3/15	2023/3/14
6	Test Cable	EMCI	EMC104-SM-SM-7000	220324	2022/3/15	2023/3/14
7	EXA Signal Analyzer	keysight	N9020B	MY57120120	2022/3/7	2023/3/6
8	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2022/5/18	2023/5/17
9	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2022/5/18	2023/5/17
10	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2022/5/20	2023/5/19
11	6dB Attenuator	EMCI	EMCI-N-6-06	AT-N0625	2022/5/20	2023/5/19
12	Test Cable	EMCI	EMC101G-KM-KM-3000	220329	2022/3/15	2023/3/14
13	Test Cable	EMCI	EMC102-KM-KM-1000	220327	2022/3/15	2023/3/14
14	Measurement Software	EZ	EZ EMC (Version NB-03A1-01)	N/A	N/A	N/A
15	8960 Series 10 Wireless Com Test Set	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6

Peak To Average Ratio Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	8960 Series 10 Wireless Com Test Set	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6
2	Spectrum Analyzer	Agilent	N9010A	MY54200240	2022/6/9	2023/6/8

Frequency Stability Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	8960 Series 10 Wireless Com Test Set	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6
2	Thermal Chamber	HOLINK	H-TH-2SP-B	EK04101902	2022/6/27	2023/6/26

Others Conducted Measurement

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	8960 Series 10 Wireless Com Test Set	Agilent	E5515C	GB47390193	2022/7/7	2023/7/6
2	Spectrum Analyzer	R&S	FSP38	101139	2022/3/2	2023/3/1

For Others Band:

Conducted Output Power and Equivalent Isotropic Radiated Power and Effective Radiated Power

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Radio Communication Analyzer	Anritsu	MT8820C	6201381608	2021/12/15	2022/12/14

Radiated Spurious Emissions

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Preamplifier	EMCI	EMC330N	980850	2022/9/19	2023/9/18
2	Preamplifier	EMCI	EMC118A45SE	980819	2022/3/8	2023/3/7
3	Preamplifier	EMCI	EMC184045SE	980882	2022/2/9	2023/2/8
4	Test Cable	EMCI	EMC104-SM-SM-1000	220319	2022/3/15	2023/3/14
5	Test Cable	EMCI	EMC104-SM-SM-3000	220322	2022/3/15	2023/3/14
6	Test Cable	EMCI	EMC104-SM-SM-7000	220324	2022/3/15	2023/3/14
7	EXA Signal Analyzer	keysight	N9020B	MY57120120	2022/3/7	2023/3/6
8	Horn Antenna	RFSPIN	DRH18-E	211202A18EN	2022/5/18	2023/5/17
9	Horn Ant	Schwarzbeck	BBHA 9170D	1136	2022/5/18	2023/5/17
10	Log-bicon Antenna	Schwarzbeck	VULB9168	1369	2022/5/20	2023/5/19
11	6dB Attenuator	EMCI	EMCI-N-6-06	AT-N0625	2022/5/20	2023/5/19
12	Test Cable	EMCI	EMC101G-KM-KM-3000	220329	2022/3/15	2023/3/14
13	Test Cable	EMCI	EMC102-KM-KM-1000	220327	2022/3/15	2023/3/14
14	Measurement Software	EZ	EZ_EMC (Version NB-03A1-01)	N/A	N/A	N/A
15	UXM 5G Wireless Test Platform	keysight	E7515B	MY59020217	2022/7/8	2023/7/7
16	Radio Communication Analyzer (LTE)	Anritsu	MT8820C	6201381608	2021/12/15	2022/12/14

Frequency Stability Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Radio Communication Analyzer	Anritsu	MT8820C	6201381608	2021/12/15	2022/12/14
2	Thermal Chamber	HOLINK	H-TH-2SP-B	EK04101902	2022/6/27	2023/6/26

Others Conducted Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated Date	Calibrated Until
1	Radio Communication Analyzer	Anritsu	MT8820C	6201381608	2021/12/15	2022/12/14
3	Spectrum Analyzer	Agilent	N9010A	MY54200240	2022/6/9	2023/6/8

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

11 EUT TEST PHOTO

Please refer to document Appendix No.: TP-2208G029-FCCP-1 (APPENDIX-TEST PHOTOS).

12 EUT PHOTOS

Please refer to document Appendix No.: EP-2208G029-1 (APPENDIX-EUT PHOTOS).

APPENDIX A CONDUCTED OUTPUT POWER AND EQUIVALENT ISOTROPIC RADIATED POWER AND EFFECTIVE RADIATED POWER

Conducted Output Power:

Ant Gain(Ant 3)	-3.18			
Modulation	Band	WCDMA Band IV		
	Tx Channel	1312CH	1413CH	1513CH
	Frequency	1712.4MHz	1732.6MHz	1752.6MHz
QPSK	RMC 12.2K	23.08	22.98	22.98
	HSDPA Subtest-1	22.06	22.19	21.97
	HSDPA Subtest-2	22.03	21.95	21.96
	HSDPA Subtest-3	21.58	21.5	21.48
	HSDPA Subtest-4	21.57	21.44	21.43
	HSUPA Subtest-1	21.11	21.02	21.05
	HSUPA Subtest-2	19.8	19.69	19.71
	HSUPA Subtest-3	20.65	20.51	20.57
	HSUPA Subtest-4	20.11	20	20.05
	HSUPA Subtest-5	22.66	22.54	22.57

Ant Gain(Ant 3)	-3.18					
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19957CH	20175CH	20393CH
				1710.7MHz	1732.5MHz	1754.3MHz
4 / 1.4MHz	QPSK	1	0	22.75	22.60	22.53
		1	2	22.72	22.61	22.54
		1	5	22.71	22.60	22.52
		3	0	22.58	22.60	22.56
		3	1	22.61	22.60	22.57
		3	2	22.61	22.56	22.57
		6	0	21.61	21.64	21.55
	16QAM	1	0	21.77	22.01	21.60
		1	2	21.77	21.98	21.56
		1	5	21.76	21.99	21.61
		3	0	21.66	21.85	21.71
		3	1	21.65	21.84	21.73
		3	2	21.67	21.79	21.71
		6	0	20.90	20.69	20.88
	64QAM	1	0	21.00	21.00	21.11
		1	2	21.00	20.98	21.15
		1	5	20.94	21.02	21.11
		3	0	20.85	20.79	21.05
		3	1	20.87	20.79	21.04
		3	2	20.89	20.79	21.05
		6	0	20.05	19.88	19.72

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19965CH	20175CH	20385CH
				1711.5MHz	1732.5MHz	1753.5MHz
4 / 3MHz	QPSK	1	0	22.57	22.64	22.56
		1	7	22.62	22.72	22.60
		1	14	22.65	22.61	22.53
		8	0	21.60	21.64	21.57
		8	4	21.60	21.63	21.55
		8	7	21.60	21.59	21.57
		15	0	21.60	21.61	21.57
	16QAM	1	0	21.54	22.01	21.61
		1	7	21.56	22.02	21.66
		1	14	21.53	22.02	21.57
		8	0	20.91	20.90	20.79
		8	4	20.90	20.89	20.77
		8	7	20.89	20.84	20.77
		15	0	20.81	20.81	20.71
	64QAM	1	0	21.08	20.97	20.98
		1	7	21.10	20.99	20.98
		1	14	21.07	21.02	20.92
		8	0	19.84	19.86	19.70
		8	4	19.83	19.87	19.70
		8	7	19.84	19.84	19.70
		15	0	19.77	19.82	19.78

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19975CH	20175CH	20375CH
				1712.5MHz	1732.5MHz	1752.5MHz
4 / 5MHz	QPSK	1	0	22.80	22.72	22.69
		1	13	22.77	22.69	22.65
		1	24	22.78	22.73	22.67
		12	0	21.60	21.69	21.60
		12	6	21.61	21.67	21.60
		12	11	21.63	21.61	21.58
		25	0	21.63	21.64	21.61
	16QAM	1	0	21.95	22.22	21.70
		1	13	21.90	22.21	21.62
		1	24	21.94	22.22	21.67
		12	0	20.87	20.94	20.80
		12	6	20.87	20.93	20.81
		12	11	20.87	20.91	20.79
		25	0	20.85	20.90	20.73
	64QAM	1	0	20.76	21.13	20.99
		1	13	20.75	21.14	20.99
		1	24	20.77	21.16	21.03
		12	0	19.80	19.79	19.81
		12	6	19.80	19.75	19.81
		12	11	19.82	19.74	19.80
		25	0	19.74	19.81	19.79

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20000CH	20175CH	20350CH
				1715MHz	1732.5MHz	1750MHz
4 / 10MHz	QPSK	1	0	22.59	22.65	22.59
		1	25	22.71	22.67	22.58
		1	49	22.57	22.64	22.55
		25	0	21.56	21.67	21.58
		25	13	21.64	21.66	21.59
		25	25	21.71	21.59	21.62
		50	0	21.69	21.67	21.63
	16QAM	1	0	21.54	22.00	21.63
		1	25	21.63	22.02	21.64
		1	49	21.52	22.00	21.58
		25	0	20.79	20.87	20.85
		25	13	20.86	20.90	20.86
		25	25	20.93	20.83	20.91
		50	0	20.83	20.83	20.82
	64QAM	1	0	21.06	20.99	20.97
		1	25	21.14	21.04	20.97
		1	49	21.05	20.99	20.91
		25	0	19.77	19.95	19.83
		25	13	19.86	19.92	19.82
		25	25	19.92	19.86	19.89
		50	0	19.83	19.86	19.78

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20025CH	20175CH	20325CH
				1717.5MHz	1732.5MHz	1747.5MHz
4 / 15MHz	QPSK	1	0	22.52	22.55	22.62
		1	38	22.62	22.61	22.64
		1	74	22.52	22.55	22.56
		36	0	21.56	21.62	21.63
		36	18	21.60	21.61	21.56
		36	39	21.64	21.58	21.60
		75	0	21.63	21.61	21.61
	16QAM	1	0	21.51	21.92	22.01
		1	38	21.59	22.00	22.02
		1	74	21.49	21.94	21.93
		36	0	20.74	20.82	20.77
		36	18	20.80	20.84	20.72
		36	39	20.85	20.80	20.72
		75	0	20.80	20.82	20.77
	64QAM	1	0	21.03	20.89	21.38
		1	38	21.13	20.99	21.41
		1	74	21.05	20.91	21.29
		36	0	19.76	19.85	19.79
		36	18	19.81	19.88	19.74
		36	39	19.83	19.83	19.77
		75	0	19.82	19.80	19.83

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20050CH	20175CH	20300CH
				1720MHz	1732.5MHz	1740MHz
4 / 20MHz	QPSK	1	0	22.64	22.72	22.60
		1	50	22.66	22.79	22.66
		1	99	22.62	22.66	22.51
		50	0	21.52	21.63	21.74
		50	25	21.64	21.66	21.64
		50	50	21.67	21.56	21.63
		100	0	21.61	21.59	21.68
	16QAM	1	0	22.13	22.02	21.98
		1	50	22.18	22.06	22.04
		1	99	22.14	21.99	21.90
		50	0	20.72	20.80	20.86
		50	25	20.85	20.85	20.80
		50	50	20.89	20.74	20.74
		100	0	20.82	20.75	20.81
	64QAM	1	0	21.10	21.10	21.37
		1	50	21.13	21.15	21.45
		1	99	21.06	21.07	21.31
		50	0	19.74	19.82	19.91
		50	25	19.85	19.85	19.84
		50	50	19.89	19.76	19.81
		100	0	19.80	19.75	19.83

Ant Gain(Ant 3)	-2.03					
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20775CH	21100CH	21425CH
				2502.5MHz	2535MHz	2567.5MHz
7 / 5MHz	QPSK	1	0	22.97	22.97	22.92
		1	13	22.95	22.93	22.91
		1	24	22.95	22.93	22.93
		12	0	21.84	21.85	21.94
		12	6	21.84	21.81	21.94
		12	11	21.86	21.78	21.93
		25	0	21.88	21.81	21.96
	16QAM	1	0	21.86	22.06	22.46
		1	13	21.87	22.02	22.53
		1	24	21.91	22.06	22.57
		12	0	20.89	20.91	21.04
		12	6	20.86	20.88	21.04
		12	11	20.88	20.84	21.04
		25	0	20.80	20.86	21.01
	64QAM	1	0	21.09	21.07	20.80
		1	2	21.13	21.04	20.78
		1	5	21.15	21.07	20.79
		3	0	19.78	19.85	19.92
		3	1	19.75	19.84	19.91
		3	2	19.78	19.80	19.89
		6	0	19.82	19.80	19.89

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20800CH	21100CH	21400CH
				2505MHz	2535MHz	2565MHz
7 / 10MHz	QPSK	1	0	22.77	22.85	22.82
		1	25	22.81	22.84	22.87
		1	49	22.81	22.80	22.80
		25	0	21.81	21.84	21.89
		25	13	21.86	21.79	21.90
		25	25	21.89	21.83	21.98
		50	0	21.87	21.88	21.94
	16QAM	1	0	21.72	22.21	21.83
		1	25	21.76	22.21	21.87
		1	49	21.75	22.15	21.82
		25	0	20.82	20.91	20.97
		25	13	20.87	20.86	20.99
		25	25	20.92	20.91	21.07
		50	0	20.83	20.90	20.94
	64QAM	1	0	21.12	20.97	20.99
		1	25	21.15	20.98	21.04
		1	49	21.14	20.94	20.99
		25	0	19.82	19.89	19.95
		25	13	19.87	19.84	19.94
		25	25	19.90	19.89	19.99
		50	0	19.82	19.86	19.88

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20825CH	21100CH	21375CH
				2507.5MHz	2535MHz	2562.5MHz
7 / 15MHz	QPSK	1	0	22.73	22.86	22.83
		1	38	22.80	22.83	22.91
		1	74	22.71	22.71	22.88
		36	0	21.80	21.84	21.88
		36	18	21.83	21.80	21.87
		36	39	21.85	21.81	21.90
		75	0	21.84	21.87	21.91
	16QAM	1	0	21.69	22.20	22.18
		1	38	21.76	22.20	22.24
		1	74	21.66	22.09	22.07
		36	0	20.77	20.90	20.84
		36	18	20.81	20.85	20.85
		36	39	20.84	20.88	20.91
		75	0	20.81	20.88	20.89
	64QAM	1	0	21.11	20.98	21.35
		1	38	21.19	20.97	21.45
		1	74	21.11	20.88	21.35
		36	0	19.81	19.91	19.83
		36	18	19.83	19.86	19.83
		36	39	19.82	19.88	19.88
		75	0	19.82	19.84	19.90

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20850CH	21100CH	21350CH
				2510MHz	2535MHz	2560MHz
7 / 20MHz	QPSK	1	0	22.79	22.82	22.78
		1	50	22.84	22.92	22.87
		1	99	22.78	22.81	22.81
		50	0	21.75	21.89	22.02
		50	25	21.83	21.87	21.93
		50	50	21.81	21.88	21.93
		100	0	21.79	21.90	21.98
	16QAM	1	0	22.33	22.19	22.17
		1	50	22.39	22.28	22.26
		1	99	22.31	22.14	22.24
		50	0	20.74	20.87	20.99
		50	25	20.85	20.87	20.88
		50	50	20.82	20.88	20.86
		100	0	20.78	20.86	20.94
	64QAM	1	0	20.86	21.01	21.35
		1	50	20.98	21.14	21.46
		1	99	20.89	21.02	21.37
		50	0	19.74	19.89	20.02
		50	25	19.82	19.87	19.91
		50	50	19.81	19.89	19.91
		100	0	19.77	19.87	19.91

Ant Gain(Ant 0)	-6.51					
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23017CH	23095CH	23173CH
				699.7MHz	707.5MHz	715.3MHz
12 / 1.4MHz	QPSK	1	0	23.63	23.57	23.49
		1	2	23.68	23.59	23.52
		1	5	23.63	23.57	23.48
		3	0	23.58	23.57	23.57
		3	1	23.58	23.57	23.58
		3	2	23.57	23.55	23.60
		6	0	22.60	22.57	22.57
	16QAM	1	0	22.58	22.72	22.57
		1	2	22.62	22.73	22.57
		1	5	22.61	22.72	22.57
		3	0	22.75	22.63	22.71
		3	1	22.76	22.63	22.73
		3	2	22.73	22.62	22.70
		6	0	21.74	21.69	21.73
	64QAM	1	0	21.76	21.93	21.70
		1	2	21.78	21.97	21.72
		1	5	21.78	21.89	21.65
		3	0	21.53	21.86	21.64
		3	1	21.52	21.87	21.66
		3	2	21.52	21.85	21.66
		6	0	20.62	20.52	20.80

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23025CH	23095CH	23165CH
				700.5MHz	707.5MHz	714.5MHz
12 / 3MHz	QPSK	1	0	23.52	23.55	23.50
		1	7	23.55	23.62	23.51
		1	14	23.57	23.57	23.48
		8	0	22.56	22.54	22.52
		8	4	22.55	22.57	22.53
		8	7	22.53	22.53	22.51
		15	0	22.57	22.54	22.55
	16QAM	1	0	22.55	22.90	22.56
		1	7	22.50	22.99	22.60
		1	14	22.51	22.94	22.54
		8	0	21.69	21.61	21.61
		8	4	21.66	21.63	21.58
		8	7	21.67	21.62	21.58
		15	0	21.60	21.57	21.51
	64QAM	1	0	21.90	21.72	21.74
		1	7	21.89	21.80	21.73
		1	14	21.89	21.77	21.69
		8	0	20.60	20.57	20.47
		8	4	20.58	20.61	20.48
		8	7	20.58	20.57	20.49
		15	0	20.52	20.58	20.56

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23035CH	23095CH	23155CH
				701.5MHz	707.5MHz	713.5MHz
12 / 5MHz	QPSK	1	0	23.69	23.62	23.62
		1	13	23.66	23.63	23.59
		1	24	23.68	23.63	23.61
		12	0	22.55	22.57	22.60
		12	6	22.56	22.59	22.57
		12	11	22.59	22.53	22.54
		25	0	22.62	22.56	22.58
	16QAM	1	0	22.86	23.10	22.62
		1	13	22.84	23.14	22.61
		1	24	22.86	23.14	22.63
		12	0	21.63	21.63	21.65
		12	6	21.63	21.68	21.60
		12	11	21.65	21.64	21.57
		25	0	21.65	21.60	21.51
	64QAM	1	0	21.48	21.79	21.47
		1	13	21.48	21.82	21.45
		1	24	21.51	21.86	21.49
		12	0	20.57	20.59	20.59
		12	6	20.57	20.59	20.57
		12	11	20.59	20.56	20.54
		25	0	20.56	20.57	20.53

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23060CH	23095CH	23130CH
				704MHz	707.5MHz	711MHz
12 / 10MHz	QPSK	1	0	23.56	23.49	23.52
		1	25	23.57	23.59	23.60
		1	49	23.57	23.56	23.62
		25	0	22.50	22.52	22.66
		25	13	22.57	22.60	22.61
		25	25	22.65	22.46	22.56
		50	0	22.58	22.49	22.65
	16QAM	1	0	22.55	22.86	22.52
		1	25	22.53	22.97	22.58
		1	49	22.52	22.92	22.58
		25	0	21.53	21.52	21.74
		25	13	21.61	21.62	21.67
		25	25	21.68	21.49	21.64
		50	0	21.54	21.48	21.62
	64QAM	1	0	21.90	21.68	21.67
		1	25	21.87	21.82	21.76
		1	49	21.91	21.72	21.74
		25	0	20.50	20.56	20.72
		25	13	20.57	20.64	20.63
		25	25	20.66	20.52	20.60
		50	0	20.55	20.48	20.56

Ant Gain(Ant 0)	-6.51					
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				CH23205	CH23230	CH23255
				779.5MHz	782MHz	784.5MHz
13 / 5MHz	QPSK	1	0	23.95	23.95	23.85
		1	13	23.89	23.93	23.79
		1	24	23.93	23.94	23.87
		12	0	22.77	22.76	22.83
		12	6	22.78	22.81	22.78
		12	11	22.84	22.78	22.75
		25	0	22.85	22.79	22.77
	16QAM	1	0	22.98	23.01	23.34
		1	13	22.88	23.08	23.31
		1	24	22.94	23.11	23.35
		12	0	21.79	21.79	21.95
		12	6	21.80	21.86	21.92
		12	11	21.86	21.83	21.89
		25	0	21.80	21.82	21.84
	64QAM	1	0	22.19	22.03	21.76
		1	13	22.15	22.07	21.68
		1	24	22.18	22.10	21.77
		12	0	20.69	20.79	20.86
		12	6	20.69	20.84	20.83
		12	11	20.76	20.82	20.77
		25	0	20.79	20.80	20.75

LTE Band / BW	Modulation	RB Size	RB Offset	Mid CH
				CH23230
				782MHz
13 / 10MHz	QPSK	1	0	23.83
		1	25	23.83
		1	49	23.77
		25	0	22.63
		25	13	22.82
		25	25	22.77
		50	0	22.72
	16QAM	1	0	22.88
		1	25	22.88
		1	49	22.78
		25	0	21.77
		25	13	21.91
		25	25	21.85
		50	0	21.72
	64QAM	1	0	22.12
		1	25	22.18
		1	49	22.09
		25	0	20.65
		25	13	20.84
		25	25	20.79
		50	0	20.71

Ant Gain(Ant 0)	-6.51					
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23755CH	23790CH	23825CH
				706.5MHz	710MHz	713.5MHz
17 / 5MHz	QPSK	1	0	23.67	23.60	23.57
		1	13	23.64	23.54	23.55
		1	24	23.68	23.58	23.64
		12	0	22.49	22.57	22.55
		12	6	22.50	22.53	22.49
		12	11	22.50	22.46	22.47
		25	0	22.55	22.53	22.52
	16QAM	1	0	22.61	22.80	23.02
		1	13	22.58	22.73	23.03
		1	24	22.64	22.80	23.10
		12	0	21.51	21.57	21.67
		12	6	21.55	21.55	21.63
		12	11	21.54	21.49	21.58
		25	0	21.50	21.56	21.57
	64QAM	1	0	21.84	21.81	21.39
		1	13	21.85	21.76	21.40
		1	24	21.88	21.82	21.49
		12	0	20.40	20.61	20.56
		12	6	20.45	20.56	20.51
		12	11	20.47	20.51	20.48
		25	0	20.50	20.56	20.48

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23780CH	23790CH	23800CH
				709MHz	710MHz	711MHz
17 / 10MHz	QPSK	1	0	23.43	23.47	23.47
		1	25	23.51	23.53	23.50
		1	49	23.54	23.50	23.52
		25	0	22.55	22.55	22.63
		25	13	22.52	22.55	22.52
		25	25	22.40	22.45	22.49
		50	0	22.54	22.55	22.61
	16QAM	1	0	22.42	22.45	22.85
		1	25	22.51	22.49	22.88
		1	49	22.49	22.44	22.91
		25	0	21.53	21.60	21.67
		25	13	21.52	21.57	21.53
		25	25	21.44	21.47	21.51
		50	0	21.47	21.52	21.56
	64QAM	1	0	21.81	21.68	21.64
		1	25	21.92	21.72	21.69
		1	49	21.89	21.64	21.72
		25	0	20.61	20.64	20.72
		25	13	20.62	20.61	20.61
		25	25	20.49	20.51	20.54
		50	0	20.53	20.55	20.57

Ant Gain(Ant 3)	-2.08					
LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				37775CH	38000CH	38225CH
				2572.5MHz	2595MHz	2617.5MHz
38 / 5MHz	QPSK	1	0	23.55	23.54	23.51
		1	13	23.45	23.51	23.47
		1	24	23.48	23.52	23.53
		12	0	22.48	22.57	22.56
		12	6	22.44	22.54	22.54
		12	11	22.44	22.52	22.52
		25	0	22.49	22.55	22.53
	16QAM	1	0	22.82	22.79	22.80
		1	13	22.73	22.77	22.79
		1	24	22.78	22.77	22.83
		12	0	21.56	21.58	21.48
		12	6	21.48	21.57	21.50
		12	11	21.48	21.55	21.46
		25	0	21.45	21.55	21.56
	64QAM	1	0	22.06	21.77	21.51
		1	13	21.94	21.73	21.48
		1	24	21.99	21.75	21.55
		12	0	20.53	20.43	20.46
		12	6	20.48	20.42	20.46
		12	11	20.47	20.41	20.45
		25	0	20.42	20.42	20.54

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				37800CH	38000CH	38200CH
				2575MHz	2595MHz	2615MHz
38 / 10MHz	QPSK	1	0	23.45	23.60	23.47
		1	25	23.43	23.58	23.47
		1	49	23.49	23.55	23.51
		25	0	22.46	22.55	22.47
		25	13	22.45	22.54	22.47
		25	25	22.52	22.52	22.54
		50	0	22.51	22.52	22.50
	16QAM	1	0	22.76	22.92	22.88
		1	25	22.72	22.92	22.88
		1	49	22.77	22.88	22.88
		25	0	21.45	21.56	21.51
		25	13	21.45	21.56	21.52
		25	25	21.52	21.51	21.57
		50	0	21.47	21.54	21.51
	64QAM	1	0	21.29	22.03	21.66
		1	25	21.24	22.03	21.68
		1	49	21.31	21.98	21.69
		25	0	20.44	20.49	20.35
		25	13	20.47	20.50	20.35
		25	25	20.50	20.44	20.40
		50	0	20.43	20.44	20.40

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				37825CH	38000CH	38175CH
				2577.5MHz	2595MHz	2612.5MHz
38 / 15MHz	QPSK	1	0	23.36	23.49	23.48
		1	38	23.45	23.54	23.51
		1	74	23.30	23.45	23.48
		36	0	22.44	22.49	22.46
		36	18	22.46	22.46	22.43
		36	39	22.44	22.46	22.45
		75	0	22.46	22.50	22.46
	16QAM	1	0	22.73	22.86	22.73
		1	38	22.79	22.91	22.74
		1	74	22.64	22.79	22.72
		36	0	21.43	21.49	21.52
		36	18	21.46	21.47	21.47
		36	39	21.45	21.47	21.50
		75	0	21.47	21.49	21.47
	64QAM	1	0	21.21	21.95	21.54
		1	38	21.27	21.99	21.55
		1	74	21.15	21.90	21.52
		36	0	20.44	20.53	20.38
		36	18	20.45	20.49	20.35
		36	39	20.49	20.51	20.39
		75	0	20.39	20.46	20.44

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				37850CH	38000CH	38150CH
				2580MHz	2595MHz	2610MHz
38 / 20MHz	QPSK	1	0	23.39	23.52	23.47
		1	50	23.53	23.66	23.50
		1	99	23.37	23.51	23.42
		50	0	22.43	22.52	22.51
		50	25	22.48	22.54	22.47
		50	50	22.49	22.46	22.44
		100	0	22.46	22.49	22.48
	16QAM	1	0	22.70	22.50	22.50
		1	50	22.85	22.62	22.54
		1	99	22.68	22.49	22.49
		50	0	21.38	21.53	21.48
		50	25	21.44	21.53	21.46
		50	50	21.43	21.44	21.39
		100	0	21.42	21.50	21.46
	64QAM	1	0	21.46	21.69	21.94
		1	50	21.60	21.80	21.98
		1	99	21.46	21.68	21.91
		50	0	20.44	20.56	20.48
		50	25	20.51	20.51	20.45
		50	50	20.45	20.45	20.40
		100	0	20.35	20.35	20.30

Ant Gain(Ant 3)		-2.03				
LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				40065CH	40640CH	41215CH
				2537.5MHz	2595MHz	2652.5MHz
41 / 5MHz	QPSK	1	0	23.97	23.97	23.98
		1	13	23.94	23.93	23.95
		1	24	23.96	23.95	23.98
		12	0	22.94	22.97	23.02
		12	6	22.94	22.92	22.98
		12	11	22.94	22.91	22.98
		25	0	22.94	22.96	22.98
	16QAM	1	0	23.27	23.25	23.28
		1	13	23.26	23.24	23.27
		1	24	23.27	23.23	23.27
		12	0	21.99	22.02	21.98
		12	6	21.99	21.97	21.95
		12	11	22.00	21.97	21.94
		25	0	21.95	21.97	22.01
	64QAM	1	0	22.50	22.23	22.00
		1	13	22.45	22.20	21.95
		1	24	22.48	22.22	21.98
		12	0	21.00	20.89	20.96
		12	6	20.98	20.84	20.91
		12	11	20.99	20.83	20.91
		25	0	20.88	20.85	20.98

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				40090CH	40640CH	41190CH
				2540MHz	2595MHz	2650MHz
41 / 10MHz	QPSK	1	0	23.85	24.03	23.96
		1	25	23.89	24.04	23.99
		1	49	23.90	23.99	23.96
		25	0	22.86	22.95	23.02
		25	13	22.91	22.94	23.01
		25	25	22.97	22.94	22.98
		50	0	22.94	22.98	23.01
	16QAM	1	0	23.20	23.37	23.35
		1	25	23.23	23.36	23.39
		1	49	23.22	23.32	23.34
		25	0	21.89	21.98	22.04
		25	13	21.94	21.96	22.01
		25	25	21.98	21.95	21.99
		50	0	21.92	21.98	22.03
	64QAM	1	0	21.71	22.48	22.15
		1	25	21.72	22.46	22.19
		1	49	21.72	22.43	22.14
		25	0	20.87	20.92	20.92
		25	13	20.94	20.92	20.91
		25	25	20.98	20.88	20.86
		50	0	20.86	20.89	20.95

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				40115CH	40640CH	41165CH
				2542.5MHz	2595MHz	2647.5MHz
41 / 15MHz	QPSK	1	0	23.82	24.02	23.98
		1	38	23.89	24.01	23.98
		1	74	23.78	23.89	23.93
		36	0	22.85	22.94	22.97
		36	18	22.89	22.91	22.97
		36	39	22.94	22.88	22.94
		75	0	22.91	22.94	22.98
	16QAM	1	0	23.18	23.38	23.22
		1	38	23.23	23.38	23.24
		1	74	23.12	23.29	23.17
		36	0	21.86	21.95	22.01
		36	18	21.89	21.92	22.00
		36	39	21.95	21.91	21.97
		75	0	21.90	21.95	21.95
	64QAM	1	0	21.67	22.46	22.02
		1	38	21.76	22.47	22.03
		1	74	21.67	22.36	21.97
		36	0	20.89	20.97	20.93
		36	18	20.92	20.95	20.91
		36	39	20.97	20.94	20.89
		75	0	20.85	20.93	20.97

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				40140CH	40640CH	41140CH
				2545MHz	2595MHz	2645MHz
41 / 20MHz	QPSK	1	0	23.83	24.03	23.94
		1	50	23.93	24.12	23.98
		1	99	23.82	23.97	23.88
		50	0	22.84	22.97	23.03
		50	25	22.93	23.00	23.03
		50	50	22.97	22.97	22.95
		100	0	22.91	22.97	23.00
	16QAM	1	0	23.15	23.00	22.98
		1	50	23.25	23.10	23.03
		1	99	23.11	22.96	22.94
		50	0	21.77	21.97	22.00
		50	25	21.87	21.99	21.98
		50	50	21.92	21.96	21.90
		100	0	21.85	21.96	21.98
	64QAM	1	0	22.36	21.99	21.98
		1	50	22.47	22.06	22.02
		1	99	22.34	21.94	21.94
		50	0	20.79	20.93	21.00
		50	25	20.90	20.96	20.99
		50	50	20.95	20.93	20.91
		100	0	20.84	20.91	20.96

Ant Gain(Ant 3)		-2.59				
LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				131979CH	132322CH	132665CH
				1710.7MHz	1745MHz	1779.3MHz
66 / 1.4MHz	QPSK	1	0	23.33	23.13	23.10
		1	2	23.30	23.12	23.09
		1	5	23.29	23.11	23.09
		3	0	23.16	23.14	23.16
		3	1	23.17	23.14	23.19
		3	2	23.18	23.09	23.18
		6	0	22.21	22.15	22.19
	16QAM	1	0	22.56	22.20	22.26
		1	2	22.54	22.18	22.27
		1	5	22.55	22.21	22.26
		3	0	22.40	22.35	22.20
		3	1	22.40	22.37	22.20
		3	2	22.38	22.30	22.21
		6	0	21.07	21.32	21.27
	64QAM	1	0	21.37	21.52	21.36
		1	2	21.36	21.55	21.37
		1	5	21.38	21.50	21.33
		3	0	21.13	21.45	21.24
		3	1	21.15	21.46	21.24
		3	2	21.14	21.43	21.26
		6	0	20.40	20.30	20.55

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				131987CH	132322CH	132657CH
				1711.5MHz	1745MHz	1778.5MHz
66 / 3MHz	QPSK	1	0	23.13	23.17	23.14
		1	7	23.23	23.27	23.13
		1	14	23.24	23.13	23.09
		8	0	22.19	22.18	22.14
		8	4	22.18	22.16	22.15
		8	7	22.17	22.11	22.15
		15	0	22.19	22.12	22.17
	16QAM	1	0	22.11	22.56	22.20
		1	7	22.13	22.61	22.22
		1	14	22.10	22.58	22.17
		8	0	21.29	21.25	21.20
		8	4	21.28	21.23	21.21
		8	7	21.28	21.20	21.22
		15	0	21.22	21.15	21.13
	64QAM	1	0	21.42	21.44	21.32
		1	7	21.42	21.49	21.38
		1	14	21.38	21.43	21.39
		8	0	20.30	20.37	20.36
		8	4	20.30	20.35	20.35
		8	7	20.29	20.32	20.34
		15	0	20.35	20.25	20.33

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				131997CH	132322CH	132647CH
				1712.5MHz	1745MHz	1777.5MHz
66 / 5MHz	QPSK	1	0	23.36	23.28	23.25
		1	13	23.37	23.24	23.23
		1	24	23.37	23.25	23.25
		12	0	22.20	22.22	22.18
		12	6	22.18	22.19	22.15
		12	11	22.19	22.13	22.13
		25	0	22.22	22.16	22.17
	16QAM	1	0	22.52	22.76	22.45
		1	13	22.50	22.75	22.48
		1	24	22.51	22.75	22.52
		12	0	21.24	21.32	21.24
		12	6	21.24	21.30	21.20
		12	11	21.24	21.24	21.18
		25	0	21.23	21.23	21.19
	64QAM	1	0	21.14	21.47	21.33
		1	13	21.12	21.47	21.39
		1	24	21.18	21.46	21.41
		12	0	20.36	20.28	20.36
		12	6	20.36	20.25	20.32
		12	11	20.36	20.19	20.31
		25	0	20.33	20.26	20.31

LTE Band / BW	Modulation	RB Siset	RB Offset	Low CH	Mid CH	High CH
				132022CH	132322CH	132622CH
				1715MHz	1745MHz	1775MHz
66 / 10MHz	QPSK	1	0	23.17	23.12	23.11
		1	25	23.20	23.15	23.11
		1	49	23.21	23.11	23.11
		25	0	22.11	22.20	22.18
		25	13	22.18	22.13	22.17
		25	25	22.23	22.15	22.15
		50	0	22.23	22.20	22.23
	16QAM	1	0	22.11	22.54	22.13
		1	25	22.12	22.56	22.17
		1	49	22.14	22.53	22.13
		25	0	21.15	21.24	21.29
		25	13	21.22	21.18	21.28
		25	25	21.29	21.20	21.26
		50	0	21.20	21.19	21.22
	64QAM	1	0	21.48	21.34	21.30
		1	25	21.50	21.39	21.33
		1	49	21.52	21.29	21.28
		25	0	20.34	20.46	20.43
		25	13	20.42	20.38	20.40
		25	25	20.48	20.40	20.41
		50	0	20.38	20.40	20.37

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				132047CH	132322CH	132597CH
				1717.5MHz	1745MHz	1772.5MHz
66 / 15MHz	QPSK	1	0	23.06	23.12	23.16
		1	38	23.15	23.15	23.24
		1	74	23.06	23.07	23.17
		36	0	22.07	22.22	22.22
		36	18	22.17	22.14	22.17
		36	39	22.20	22.11	22.16
		75	0	22.20	22.17	22.19
	16QAM	1	0	22.07	22.55	22.46
		1	38	22.15	22.56	22.54
		1	74	22.06	22.45	22.43
		36	0	21.10	21.27	21.21
		36	18	21.16	21.19	21.15
		36	39	21.19	21.18	21.15
		75	0	21.18	21.17	21.17
	64QAM	1	0	21.46	21.34	21.67
		1	38	21.53	21.32	21.72
		1	74	21.47	21.22	21.65
		36	0	20.30	20.45	20.34
		36	18	20.36	20.36	20.29
		36	39	20.41	20.35	20.29
		75	0	20.37	20.33	20.36

LTE Band / BW	Modulation	RB Sizer	RB Offset	Low CH	Mid CH	High CH
				132072CH	132322CH	132572CH
				1720MHz	1745MHz	1770MHz
66 / 20MHz	QPSK	1	0	23.22	23.30	23.06
		1	50	23.28	23.37	23.20
		1	99	23.19	23.15	23.07
		50	0	22.11	22.30	22.22
		50	25	22.20	22.24	22.20
		50	50	22.24	22.17	22.10
		100	0	22.17	22.20	22.15
	16QAM	1	0	22.61	22.74	22.41
		1	50	22.65	22.78	22.53
		1	99	22.58	22.60	22.38
		50	0	21.03	21.29	21.23
		50	25	21.15	21.21	21.20
		50	50	21.19	21.15	21.10
		100	0	21.12	21.20	21.16
	64QAM	1	0	21.44	21.72	21.15
		1	50	21.49	21.78	21.27
		1	99	21.39	21.63	21.16
		50	0	20.29	20.44	20.36
		50	25	20.42	20.35	20.35
		50	50	20.44	20.30	20.24
		100	0	20.36	20.31	20.30

Ant Gain(Ant 3)		-2.03									
LTE CA_7C / Low Range											
Bandwidth (MHz)	PCC CH	PCC Frequency (MHz)	SCC CH	SCC Frequency (MHz)	PCC RB Size	PCC Offset	SCC RB Size	SCC Offset	QPSK	16QAM	64QAM
10+20	20805	2505.5	20949	2519.9	1	49	1	0	22.15	21.87	19.55
					1	0	1	99	13.44	13.52	13.49
					50	0	100	0	20.32	19.34	19.36
20+10	20850	2510	20994	2524.4	1	99	1	0	22.34	21.75	19.48
					1	0	1	49	13.52	13.94	13.89
					100	0	50	0	20.42	19.47	19.44
15+10	20825	2507.5	20945	2519.5	1	74	1	0	22.41	22.06	19.75
					1	0	1	49	13.69	14.41	14.05
					75	0	50	0	20.45	19.47	19.44
15+15	20825	2507.5	20975	2522.5	1	74	1	0	22.34	22.01	19.8
					1	0	1	74	13.5	14.25	13.88
					75	0	75	0	20.37	19.34	19.42
15+20	20828	2507.8	20999	2524.9	1	74	1	0	22.32	22.06	19.6
					1	0	1	99	13.44	14.22	13.87
					75	0	100	0	20.32	19.34	19.36
20+15	20850	2510	21021	2527.1	1	99	1	0	22.26	21.94	19.17
					1	0	1	74	13.3	13.96	13.38
					100	0	75	0	20.32	19.37	19.34
20+20	20850	2510	21041	2529.8	1	99	1	0	22.31	21.73	19.49
					1	0	1	99	13.29	13.6	13.35
					100	0	100	0	20.28	19.28	19.26