



FCC RF Test Report

APPLICANT : Lenovo (Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT : Portable Tablet Computer
BRAND NAME : Lenovo
MODEL NAME : Lenovo TB-8505XS
FCC ID : O57TB8505X
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L) ,27(M)
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : May 20, 2022 ~Jun. 01, 2022

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia



Approved by: Jason Jia

Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 23.01 dB at 2496.00 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38)	$< 55+10\log_{10}(P[\text{Watts}])$		

Note:

This is a variant report for Lenovo TB-8505XS. The change note could be referred to the Class II Permissive Change letter which is exhibit separately. Based on the similarity between current and previous project, only the related test cases from original test report (Sporton Report Number FG981204-19B) were verified for the differences.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Lenovo (Shanghai) Electronics Technology Co., Ltd.

Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

1.2 Manufacturer

Lenovo PC HK Limited

23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	Lenovo TB-8505XS
FCC ID	O57TB8505X
IMEI Code	Conducted/Radiation: 863763043818128/86376304381812878
HW Version	O57TB8505X
SW Version	Lenovo TB-8505XS
EUT Stage	TB-8505XS_RF01_220408
	Identical Prototype



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 2 : 22.82 dBm LTE Band 4 : 23.26 dBm LTE Band 5 : 23.28 dBm LTE Band 7 : 23.19 dBm LTE Band 38 : 23.01 dBm
Antenna Gain	LTE Band 2 : -1.4 dBi LTE Band 4 : -1.3 dBi LTE Band 5 : -3.0 dBi LTE Band 7 : 0.5 dBi LTE Band 38 : 0.3 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.



1.6 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-KS 03CH04-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 2, 22(H), 24(E), 27(L), 27(M),
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2 Test Configuration of Equipment Under Test

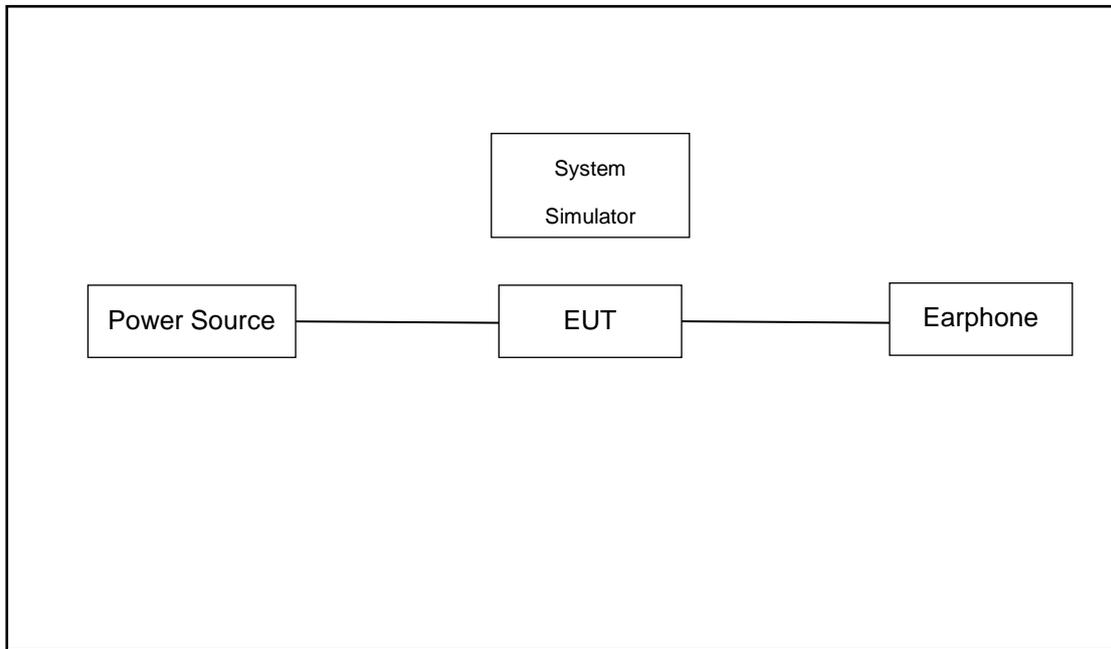
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	2	Worst Case												v		
	4	Worst Case												v		
	5	Worst Case												v		
	7	Worst Case												v		
	38	Worst Case												v		
Note	<ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 															

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8820/8821	N/A	N/A	Unshielded,1.8m



2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3



LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

LTE Band 38 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	37850	38000	38150
	Frequency	2580	2595	2610
15	Channel	37825	38000	38175
	Frequency	2577.5	2595	2612.5
10	Channel	37800	38000	38200
	Frequency	2575	2595	2615
5	Channel	37775	38000	38225
	Frequency	2572.5	2595	2617.5

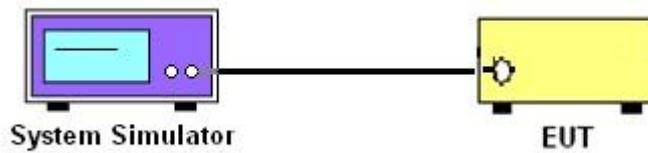
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power

3.4.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

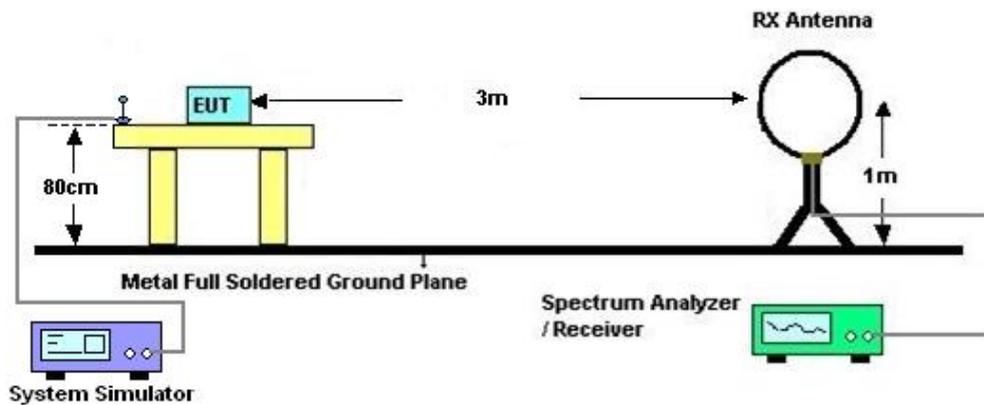
4 Radiated Test Items

4.1 Measuring Instruments

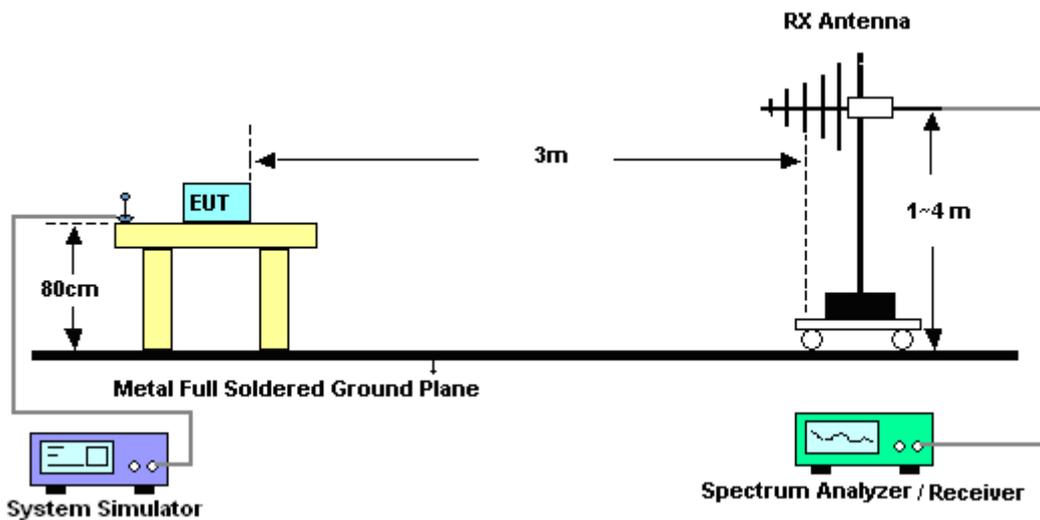
See list of measuring instruments of this test report.

4.2 Test Setup

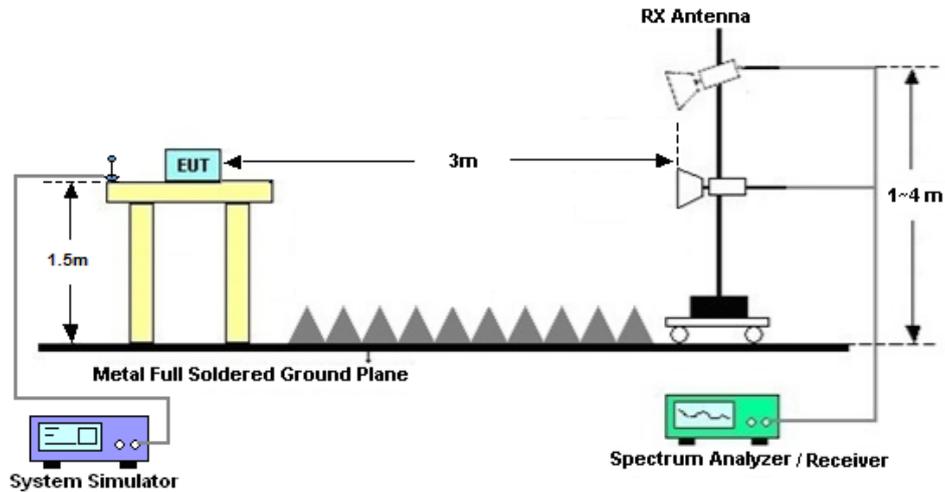
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26.

For Band 7

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $55 + 10 \log (P)$ dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

13. For Band 7, 38:

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	Keysight	N9010B	MY57541079	10Hz-44G,MAX 30dB	Oct. 14, 2021	May 20, 2022	Oct. 13, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 29, 2022	May 20, 2022	May 28, 2023	Radiation (03CH04-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 30, 2021	May 20, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	May 20, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	May 20, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2022	May 20, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 nP	2025788	1Ghz-18Ghz	Jul. 30, 2021	May 20, 2022	Jul. 29, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 13, 2021	May 20, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	May 20, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	May 20, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	May 20, 2022	NCR	Radiation (03CH04-KS)
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 14, 2021	Jun. 01, 2022	Oct. 13, 2022	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Jun. 01, 2022	Aug. 25, 2022	Conducted (TH01-KS)

NCR: No Calibration Required



6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	22.79	22.82	22.75
20	QPSK	1	49	22.70	22.79	22.73
20	QPSK	1	99	22.56	22.62	22.61
20	QPSK	50	0	21.80	21.93	21.79
20	QPSK	50	24	21.78	21.89	21.82
20	QPSK	50	50	21.86	21.91	21.85
20	QPSK	100	0	21.87	21.94	21.81
20	16QAM	1	0	21.80	21.88	21.77
20	16QAM	1	49	21.76	21.77	21.70
20	16QAM	1	99	21.63	21.68	21.64
20	16QAM	50	0	20.75	20.94	20.76
20	16QAM	50	24	20.80	20.88	20.84
20	16QAM	50	50	20.90	20.90	20.84
20	16QAM	100	0	20.83	20.95	20.85
20	64QAM	1	0	20.81	20.93	20.80
20	64QAM	1	49	20.73	20.75	20.75
20	64QAM	1	99	20.67	20.68	20.60
20	64QAM	50	0	19.70	19.92	19.76
20	64QAM	50	24	19.75	19.85	19.84
20	64QAM	50	50	19.87	19.97	19.82
20	64QAM	100	0	19.89	19.99	19.83
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.64	22.72	22.67
15	QPSK	1	37	22.63	22.65	22.63
15	QPSK	1	74	22.45	22.58	22.51
15	QPSK	36	0	21.74	21.83	21.66
15	QPSK	36	20	21.65	21.81	21.76
15	QPSK	36	39	21.78	21.80	21.79
15	QPSK	75	0	21.81	21.79	21.72
15	16QAM	1	0	21.75	21.76	21.67
15	16QAM	1	37	21.67	21.66	21.59
15	16QAM	1	74	21.58	21.55	21.52
15	16QAM	36	0	20.64	20.84	20.72
15	16QAM	36	20	20.72	20.77	20.80



15	16QAM	36	39	20.80	20.82	20.81
15	16QAM	75	0	20.76	20.89	20.80
15	64QAM	1	0	20.67	20.83	20.70
15	64QAM	1	37	20.60	20.63	20.60
15	64QAM	1	74	20.59	20.55	20.57
15	64QAM	36	0	19.59	19.88	19.64
15	64QAM	36	20	19.66	19.71	19.74
15	64QAM	36	39	19.75	19.87	19.68
15	64QAM	75	0	19.80	19.92	19.76
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.73	22.69	22.69
10	QPSK	1	25	22.60	22.73	22.62
10	QPSK	1	49	22.51	22.56	22.51
10	QPSK	25	0	21.70	21.86	21.73
10	QPSK	25	12	21.73	21.84	21.67
10	QPSK	25	25	21.83	21.81	21.74
10	QPSK	50	0	21.73	21.86	21.76
10	16QAM	1	0	21.75	21.83	21.65
10	16QAM	1	25	21.71	21.64	21.57
10	16QAM	1	49	21.53	21.64	21.50
10	16QAM	25	0	20.63	20.89	20.71
10	16QAM	25	12	20.69	20.78	20.78
10	16QAM	25	25	20.80	20.77	20.70
10	16QAM	50	0	20.79	20.86	20.81
10	64QAM	1	0	20.76	20.87	20.69
10	64QAM	1	25	20.59	20.62	20.64
10	64QAM	1	49	20.62	20.63	20.53
10	64QAM	25	0	19.56	19.86	19.62
10	64QAM	25	12	19.61	19.72	19.72
10	64QAM	25	25	19.82	19.88	19.69
10	64QAM	50	0	19.83	19.87	19.72
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.65	22.78	22.70
5	QPSK	1	12	22.60	22.69	22.62
5	QPSK	1	24	22.47	22.49	22.47
5	QPSK	12	0	21.65	21.86	21.73
5	QPSK	12	7	21.69	21.83	21.79
5	QPSK	12	13	21.75	21.77	21.81
5	QPSK	25	0	21.73	21.85	21.78
5	16QAM	1	0	21.74	21.76	21.69
5	16QAM	1	12	21.71	21.63	21.65
5	16QAM	1	24	21.56	21.61	21.54
5	16QAM	12	0	20.68	20.90	20.69
5	16QAM	12	7	20.65	20.80	20.77
5	16QAM	12	13	20.76	20.87	20.71



5	16QAM	25	0	20.72	20.84	20.75
5	64QAM	1	0	20.67	20.90	20.68
5	64QAM	1	12	20.63	20.64	20.62
5	64QAM	1	24	20.54	20.58	20.56
5	64QAM	12	0	19.65	19.80	19.72
5	64QAM	12	7	19.68	19.79	19.72
5	64QAM	12	13	19.81	19.89	19.72
5	64QAM	25	0	19.82	19.91	19.72
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.75	22.74	22.66
3	QPSK	1	8	22.58	22.73	22.69
3	QPSK	1	14	22.53	22.48	22.55
3	QPSK	8	0	21.71	21.87	21.65
3	QPSK	8	4	21.72	21.82	21.68
3	QPSK	8	7	21.80	21.85	21.79
3	QPSK	15	0	21.75	21.86	21.77
3	16QAM	1	0	21.66	21.79	21.66
3	16QAM	1	8	21.63	21.66	21.65
3	16QAM	1	14	21.52	21.65	21.52
3	16QAM	8	0	20.66	20.81	20.72
3	16QAM	8	4	20.75	20.81	20.73
3	16QAM	8	7	20.86	20.79	20.74
3	16QAM	15	0	20.77	20.85	20.75
3	64QAM	1	0	20.74	20.85	20.65
3	64QAM	1	8	20.60	20.67	20.71
3	64QAM	1	14	20.55	20.59	20.53
3	64QAM	8	0	19.59	19.84	19.63
3	64QAM	8	4	19.66	19.78	19.81
3	64QAM	8	7	19.80	19.91	19.69
3	64QAM	15	0	19.85	19.93	19.74
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.72	22.67	22.66
1.4	QPSK	1	3	22.65	22.75	22.59
1.4	QPSK	1	5	22.48	22.53	22.56
1.4	QPSK	3	0	22.55	22.73	22.61
1.4	QPSK	3	1	22.56	22.75	22.57
1.4	QPSK	3	3	22.64	22.67	22.71
1.4	QPSK	6	0	21.76	21.80	21.68
1.4	16QAM	1	0	21.70	21.75	21.67
1.4	16QAM	1	3	21.64	21.68	21.56
1.4	16QAM	1	5	21.51	21.58	21.59
1.4	16QAM	3	0	21.68	21.87	21.67
1.4	16QAM	3	1	21.67	21.80	21.73
1.4	16QAM	3	3	21.81	21.85	21.78
1.4	16QAM	6	0	20.77	20.85	20.70



1.4	64QAM	1	0	20.71	20.84	20.73
1.4	64QAM	1	3	20.65	20.61	20.70
1.4	64QAM	1	5	20.62	20.60	20.57
1.4	64QAM	3	0	20.60	20.83	20.62
1.4	64QAM	3	1	20.62	20.80	20.78
1.4	64QAM	3	3	20.83	20.92	20.69
1.4	64QAM	6	0	19.75	19.90	19.69

LTE Band 4:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.13	23.26	23.20
20	QPSK	1	49	23.10	23.24	23.14
20	QPSK	1	99	22.95	23.06	22.98
20	QPSK	50	0	22.35	22.39	22.30
20	QPSK	50	24	22.26	22.33	22.28
20	QPSK	50	50	22.20	22.29	22.17
20	QPSK	100	0	22.27	22.37	22.30
20	16QAM	1	0	22.08	22.23	22.16
20	16QAM	1	49	22.19	22.28	22.16
20	16QAM	1	99	22.06	22.11	22.05
20	16QAM	50	0	21.31	21.44	21.34
20	16QAM	50	24	21.30	21.33	21.23
20	16QAM	50	50	21.21	21.32	21.23
20	16QAM	100	0	21.33	21.39	21.28
20	64QAM	1	0	21.21	21.28	21.23
20	64QAM	1	49	21.04	21.12	21.06
20	64QAM	1	99	21.07	21.16	21.08
20	64QAM	50	0	20.39	20.45	20.36
20	64QAM	50	24	20.28	20.35	20.31
20	64QAM	50	50	20.26	20.36	20.29
20	64QAM	100	0	20.29	20.40	20.29
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.09	23.21	23.11
15	QPSK	1	37	22.99	23.18	23.03
15	QPSK	1	74	22.90	22.92	22.94
15	QPSK	36	0	22.21	22.29	22.24
15	QPSK	36	20	22.15	22.27	22.14
15	QPSK	36	39	22.12	22.19	22.02
15	QPSK	75	0	22.13	22.30	22.19
15	16QAM	1	0	22.05	22.16	22.03
15	16QAM	1	37	22.04	22.16	22.11
15	16QAM	1	74	21.93	22.07	22.01



15	16QAM	36	0	21.24	21.38	21.25
15	16QAM	36	20	21.18	21.30	21.10
15	16QAM	36	39	21.06	21.20	21.18
15	16QAM	75	0	21.28	21.31	21.19
15	64QAM	1	0	21.14	21.13	21.17
15	64QAM	1	37	20.95	21.06	21.01
15	64QAM	1	74	21.00	21.11	21.05
15	64QAM	36	0	20.31	20.33	20.26
15	64QAM	36	20	20.22	20.28	20.27
15	64QAM	36	39	20.18	20.27	20.16
15	64QAM	75	0	20.17	20.34	20.25
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	23.04	23.18	23.12
10	QPSK	1	25	23.01	23.16	23.01
10	QPSK	1	49	22.87	22.97	22.85
10	QPSK	25	0	22.29	22.32	22.17
10	QPSK	25	12	22.19	22.19	22.21
10	QPSK	25	25	22.11	22.25	22.07
10	QPSK	50	0	22.21	22.26	22.20
10	16QAM	1	0	22.03	22.14	22.07
10	16QAM	1	25	22.08	22.24	22.08
10	16QAM	1	49	21.94	21.98	21.91
10	16QAM	25	0	21.16	21.36	21.26
10	16QAM	25	12	21.18	21.29	21.13
10	16QAM	25	25	21.08	21.23	21.11
10	16QAM	50	0	21.23	21.27	21.15
10	64QAM	1	0	21.14	21.18	21.09
10	64QAM	1	25	20.90	21.00	20.99
10	64QAM	1	49	20.94	21.08	20.95
10	64QAM	25	0	20.33	20.37	20.29
10	64QAM	25	12	20.23	20.25	20.21
10	64QAM	25	25	20.18	20.28	20.15
10	64QAM	50	0	20.21	20.35	20.24
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	23.06	23.21	23.06
5	QPSK	1	12	23.06	23.16	23.06
5	QPSK	1	24	22.81	22.98	22.86
5	QPSK	12	0	22.20	22.35	22.18
5	QPSK	12	7	22.17	22.27	22.20
5	QPSK	12	13	22.05	22.20	22.11
5	QPSK	25	0	22.23	22.29	22.25
5	16QAM	1	0	22.03	22.10	22.02
5	16QAM	1	12	22.06	22.14	22.11
5	16QAM	1	24	21.94	22.06	21.98
5	16QAM	12	0	21.17	21.34	21.24



5	16QAM	12	7	21.24	21.23	21.11
5	16QAM	12	13	21.14	21.21	21.14
5	16QAM	25	0	21.27	21.26	21.24
5	64QAM	1	0	21.15	21.22	21.17
5	64QAM	1	12	21.00	21.06	20.95
5	64QAM	1	24	20.97	21.10	21.00
5	64QAM	12	0	20.26	20.33	20.31
5	64QAM	12	7	20.21	20.32	20.20
5	64QAM	12	13	20.13	20.29	20.16
5	64QAM	25	0	20.25	20.31	20.22
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	23.09	23.23	23.11
3	QPSK	1	8	23.06	23.18	23.00
3	QPSK	1	14	22.88	22.95	22.93
3	QPSK	8	0	22.25	22.25	22.16
3	QPSK	8	4	22.16	22.24	22.22
3	QPSK	8	7	22.11	22.19	22.07
3	QPSK	15	0	22.13	22.34	22.19
3	16QAM	1	0	22.03	22.11	22.07
3	16QAM	1	8	22.15	22.17	22.02
3	16QAM	1	14	21.92	22.06	21.98
3	16QAM	8	0	21.18	21.30	21.30
3	16QAM	8	4	21.22	21.27	21.15
3	16QAM	8	7	21.08	21.17	21.08
3	16QAM	15	0	21.30	21.28	21.20
3	64QAM	1	0	21.16	21.22	21.08
3	64QAM	1	8	20.90	21.08	20.94
3	64QAM	1	14	20.98	21.01	21.02
3	64QAM	8	0	20.34	20.40	20.26
3	64QAM	8	4	20.19	20.29	20.17
3	64QAM	8	7	20.12	20.25	20.23
3	64QAM	15	0	20.21	20.37	20.23
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	23.09	23.19	23.08
1.4	QPSK	1	3	22.99	23.12	23.04
1.4	QPSK	1	5	22.80	22.99	22.95
1.4	QPSK	3	0	23.14	23.25	23.13
1.4	QPSK	3	1	23.04	23.11	23.05
1.4	QPSK	3	3	22.97	23.11	22.96
1.4	QPSK	6	0	22.18	22.28	22.16
1.4	16QAM	1	0	21.93	22.15	22.04
1.4	16QAM	1	3	22.16	22.18	22.02
1.4	16QAM	1	5	22.02	22.04	21.99
1.4	16QAM	3	0	22.13	22.19	22.20
1.4	16QAM	3	1	22.12	22.14	22.04



1.4	16QAM	3	3	21.96	22.11	22.00
1.4	16QAM	6	0	21.29	21.29	21.21
1.4	64QAM	1	0	21.14	21.14	21.11
1.4	64QAM	1	3	20.95	20.99	20.97
1.4	64QAM	1	5	20.96	21.10	20.96
1.4	64QAM	3	0	21.22	21.32	21.22
1.4	64QAM	3	1	21.11	21.11	21.15
1.4	64QAM	3	3	21.02	21.14	21.05
1.4	64QAM	6	0	20.21	20.28	20.21

LTE Band 5:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.21	23.28	23.15
10	QPSK	1	25	23.17	23.23	23.15
10	QPSK	1	49	22.93	23.08	22.94
10	QPSK	25	0	22.22	22.30	22.20
10	QPSK	25	12	22.19	22.28	22.15
10	QPSK	25	25	22.08	22.19	22.09
10	QPSK	50	0	22.18	22.25	22.20
10	16QAM	1	0	22.20	22.24	22.16
10	16QAM	1	25	22.18	22.26	22.13
10	16QAM	1	49	22.03	22.13	22.01
10	16QAM	25	0	21.22	21.34	21.27
10	16QAM	25	12	21.20	21.26	21.20
10	16QAM	25	25	21.10	21.22	21.09
10	16QAM	50	0	21.16	21.27	21.15
10	64QAM	1	0	21.16	21.26	21.12
10	64QAM	1	25	21.25	21.32	21.24
10	64QAM	1	49	21.04	21.12	21.02
10	64QAM	25	0	20.21	20.29	20.19
10	64QAM	25	12	20.17	20.27	20.23
10	64QAM	25	25	20.18	20.22	20.17
10	64QAM	50	0	20.20	20.31	20.24
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.17	23.23	23.06
5	QPSK	1	12	23.06	23.08	23.08
5	QPSK	1	24	22.84	22.99	22.89
5	QPSK	12	0	22.14	22.18	22.10
5	QPSK	12	7	22.15	22.21	22.03
5	QPSK	12	13	22.04	22.11	21.98
5	QPSK	25	0	22.13	22.13	22.16
5	16QAM	1	0	22.09	22.14	22.13



5	16QAM	1	12	22.11	22.22	22.03
5	16QAM	1	24	21.92	22.07	21.92
5	16QAM	12	0	21.17	21.28	21.19
5	16QAM	12	7	21.11	21.13	21.07
5	16QAM	12	13	21.04	21.09	21.01
5	16QAM	25	0	21.06	21.12	21.01
5	64QAM	1	0	21.09	21.17	21.00
5	64QAM	1	12	21.20	21.18	21.17
5	64QAM	1	24	21.00	20.98	20.88
5	64QAM	12	0	20.10	20.22	20.10
5	64QAM	12	7	20.03	20.16	20.09
5	64QAM	12	13	20.07	20.09	20.09
5	64QAM	25	0	20.15	20.19	20.19
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.11	23.22	23.04
3	QPSK	1	8	23.06	23.08	23.07
3	QPSK	1	14	22.89	23.05	22.83
3	QPSK	8	0	22.14	22.27	22.12
3	QPSK	8	4	22.07	22.22	22.07
3	QPSK	8	7	22.02	22.13	21.95
3	QPSK	15	0	22.08	22.18	22.08
3	16QAM	1	0	22.17	22.09	22.03
3	16QAM	1	8	22.15	22.21	22.03
3	16QAM	1	14	21.90	22.06	21.93
3	16QAM	8	0	21.10	21.20	21.18
3	16QAM	8	4	21.09	21.19	21.09
3	16QAM	8	7	21.03	21.10	21.00
3	16QAM	15	0	21.04	21.23	21.06
3	64QAM	1	0	21.09	21.17	21.04
3	64QAM	1	8	21.15	21.29	21.14
3	64QAM	1	14	20.96	21.07	20.89
3	64QAM	8	0	20.10	20.17	20.12
3	64QAM	8	4	20.02	20.14	20.17
3	64QAM	8	7	20.07	20.09	20.13
3	64QAM	15	0	20.14	20.27	20.11
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	23.07	23.16	23.09
1.4	QPSK	1	3	23.11	23.16	23.06
1.4	QPSK	1	5	22.89	23.04	22.86
1.4	QPSK	3	0	22.98	23.16	23.00
1.4	QPSK	3	1	23.00	23.14	22.92
1.4	QPSK	3	3	22.92	23.02	22.88
1.4	QPSK	6	0	22.03	22.20	22.16
1.4	16QAM	1	0	22.13	22.12	22.07
1.4	16QAM	1	3	22.09	22.15	22.08



1.4	16QAM	1	5	21.92	22.04	21.90
1.4	16QAM	3	0	22.07	22.21	22.02
1.4	16QAM	3	1	22.03	22.07	21.96
1.4	16QAM	3	3	21.96	22.06	21.85
1.4	16QAM	6	0	21.10	21.20	21.06
1.4	64QAM	1	0	21.04	21.20	21.00
1.4	64QAM	1	3	21.20	21.21	21.15
1.4	64QAM	1	5	20.92	21.08	20.90
1.4	64QAM	3	0	21.03	21.15	20.97
1.4	64QAM	3	1	20.98	21.08	21.02
1.4	64QAM	3	3	20.94	20.98	21.01
1.4	64QAM	6	0	20.17	20.28	20.10

LTE Band 7:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	23.05	23.19	23.15
20	QPSK	1	49	23.04	23.15	23.09
20	QPSK	1	99	22.86	22.98	22.91
20	QPSK	50	0	22.24	22.28	22.22
20	QPSK	50	24	22.17	22.20	22.07
20	QPSK	50	50	22.13	22.24	22.16
20	QPSK	100	0	22.19	22.32	22.22
20	16QAM	1	0	22.14	22.21	22.15
20	16QAM	1	49	22.07	22.18	22.13
20	16QAM	1	99	21.94	22.01	21.94
20	16QAM	50	0	21.19	21.24	21.15
20	16QAM	50	24	21.17	21.25	21.18
20	16QAM	50	50	21.14	21.27	21.16
20	16QAM	100	0	21.31	21.35	21.31
20	64QAM	1	0	21.08	21.22	21.11
20	64QAM	1	49	21.07	21.16	21.12
20	64QAM	1	99	20.99	21.04	20.95
20	64QAM	50	0	20.19	20.28	20.22
20	64QAM	50	24	20.15	20.25	20.16
20	64QAM	50	50	20.20	20.25	20.11
20	64QAM	100	0	20.31	20.38	20.31
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.90	23.09	23.11
15	QPSK	1	37	23.00	23.07	23.03
15	QPSK	1	74	22.77	22.88	22.88
15	QPSK	36	0	22.19	22.24	22.13
15	QPSK	36	20	22.06	22.08	22.00



15	QPSK	36	39	22.10	22.14	22.08
15	QPSK	75	0	22.14	22.24	22.13
15	16QAM	1	0	21.99	22.11	22.02
15	16QAM	1	37	21.95	22.10	22.02
15	16QAM	1	74	21.84	21.89	21.90
15	16QAM	36	0	21.08	21.12	21.00
15	16QAM	36	20	21.09	21.18	21.04
15	16QAM	36	39	21.07	21.14	21.10
15	16QAM	75	0	21.23	21.29	21.20
15	64QAM	1	0	20.98	21.10	21.01
15	64QAM	1	37	20.99	21.08	21.07
15	64QAM	1	74	20.96	20.98	20.89
15	64QAM	36	0	20.08	20.14	20.08
15	64QAM	36	20	20.06	20.11	20.06
15	64QAM	36	39	20.06	20.18	20.06
15	64QAM	75	0	20.25	20.29	20.22
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.93	23.10	23.07
10	QPSK	1	25	22.91	23.05	23.04
10	QPSK	1	49	22.81	22.94	22.79
10	QPSK	25	0	22.12	22.15	22.14
10	QPSK	25	12	22.02	22.12	22.04
10	QPSK	25	25	22.07	22.15	22.03
10	QPSK	50	0	22.15	22.25	22.14
10	16QAM	1	0	22.02	22.14	22.03
10	16QAM	1	25	21.94	22.12	22.05
10	16QAM	1	49	21.81	21.91	21.90
10	16QAM	25	0	21.06	21.11	21.11
10	16QAM	25	12	21.12	21.17	21.06
10	16QAM	25	25	21.05	21.21	21.04
10	16QAM	50	0	21.22	21.31	21.21
10	64QAM	1	0	20.98	21.12	21.04
10	64QAM	1	25	20.95	21.03	21.02
10	64QAM	1	49	20.93	20.91	20.85
10	64QAM	25	0	20.16	20.16	20.11
10	64QAM	25	12	20.03	20.16	20.08
10	64QAM	25	25	20.06	20.17	20.04
10	64QAM	50	0	20.21	20.30	20.19
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.02	23.09	23.00
5	QPSK	1	12	22.98	23.11	22.95
5	QPSK	1	24	22.81	22.92	22.77
5	QPSK	12	0	22.20	22.23	22.12
5	QPSK	12	7	22.03	22.10	21.96
5	QPSK	12	13	22.02	22.15	22.05



5	QPSK	25	0	22.12	22.28	22.09
5	16QAM	1	0	22.05	22.11	22.07
5	16QAM	1	12	21.99	22.14	22.03
5	16QAM	1	24	21.89	21.94	21.81
5	16QAM	12	0	21.06	21.13	21.06
5	16QAM	12	7	21.04	21.13	21.10
5	16QAM	12	13	20.99	21.12	21.02
5	16QAM	25	0	21.24	21.22	21.21
5	64QAM	1	0	20.93	21.17	21.05
5	64QAM	1	12	21.01	21.05	21.04
5	64QAM	1	24	20.93	20.97	20.88
5	64QAM	12	0	20.15	20.25	20.12
5	64QAM	12	7	20.08	20.17	20.12
5	64QAM	12	13	20.10	20.13	20.05
5	64QAM	25	0	20.22	20.28	20.17

LTE Band 38:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	22.94	23.01	22.97
20	QPSK	1	49	22.85	22.98	22.87
20	QPSK	1	99	22.97	22.97	22.95
20	QPSK	50	0	22.04	22.12	21.99
20	QPSK	50	24	21.89	22.03	21.92
20	QPSK	50	50	21.95	22.07	22.02
20	QPSK	100	0	22.04	22.12	22.08
20	16QAM	1	0	22.06	22.13	22.02
20	16QAM	1	49	21.84	21.99	21.90
20	16QAM	1	99	21.89	22.00	21.88
20	16QAM	50	0	21.07	21.17	21.12
20	16QAM	50	24	20.85	20.98	20.88
20	16QAM	50	50	21.04	21.07	21.04
20	16QAM	100	0	21.03	21.13	21.06
20	64QAM	1	0	21.07	21.19	21.09
20	64QAM	1	49	20.93	21.00	20.86
20	64QAM	1	99	20.91	20.95	20.81
20	64QAM	50	0	20.11	20.15	20.10
20	64QAM	50	24	19.92	19.97	19.94
20	64QAM	50	50	20.00	20.05	19.93
20	64QAM	100	0	20.09	20.18	20.04
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.94	22.91	22.98
15	QPSK	1	37	22.74	22.92	22.76



15	QPSK	1	74	22.90	22.90	22.83
15	QPSK	36	0	21.95	22.04	21.85
15	QPSK	36	20	21.74	21.98	21.88
15	QPSK	36	39	21.83	22.00	21.98
15	QPSK	75	0	21.95	22.03	21.98
15	16QAM	1	0	21.92	22.08	21.88
15	16QAM	1	37	21.70	21.89	21.87
15	16QAM	1	74	21.83	21.97	21.82
15	16QAM	36	0	20.94	21.10	21.03
15	16QAM	36	20	20.74	20.84	20.74
15	16QAM	36	39	20.97	21.02	20.99
15	16QAM	75	0	20.93	20.98	20.95
15	64QAM	1	0	20.95	21.08	20.98
15	64QAM	1	37	20.85	20.89	20.81
15	64QAM	1	74	20.88	20.89	20.74
15	64QAM	36	0	20.03	20.10	19.97
15	64QAM	36	20	19.85	19.88	19.87
15	64QAM	36	39	19.86	20.00	19.86
15	64QAM	75	0	20.02	20.11	19.91
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.91	22.87	22.91
10	QPSK	1	25	22.75	22.90	22.77
10	QPSK	1	49	22.90	22.90	22.82
10	QPSK	25	0	21.99	22.05	21.84
10	QPSK	25	12	21.77	21.92	21.86
10	QPSK	25	25	21.80	21.99	21.90
10	QPSK	50	0	21.91	22.04	21.99
10	16QAM	1	0	22.01	22.09	21.87
10	16QAM	1	25	21.72	21.89	21.78
10	16QAM	1	49	21.77	21.91	21.80
10	16QAM	25	0	21.02	21.09	21.04
10	16QAM	25	12	20.73	20.84	20.74
10	16QAM	25	25	20.96	20.93	20.97
10	16QAM	50	0	20.89	21.02	21.01
10	64QAM	1	0	20.95	21.12	20.99
10	64QAM	1	25	20.79	20.86	20.71
10	64QAM	1	49	20.87	20.87	20.73
10	64QAM	25	0	19.98	20.00	20.03
10	64QAM	25	12	19.82	19.84	19.86
10	64QAM	25	25	19.88	19.95	19.85
10	64QAM	50	0	19.97	20.15	19.92
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.95	22.96	22.98
5	QPSK	1	12	22.72	22.94	22.82
5	QPSK	1	24	22.84	22.95	22.89
5	QPSK	12	0	21.89	22.09	21.91



5	QPSK	12	7	21.74	21.99	21.85
5	QPSK	12	13	21.83	22.00	21.97
5	QPSK	25	0	21.98	22.02	21.95
5	16QAM	1	0	21.99	22.06	21.91
5	16QAM	1	12	21.79	21.92	21.76
5	16QAM	1	24	21.80	21.96	21.77
5	16QAM	12	0	20.93	21.12	21.04
5	16QAM	12	7	20.76	20.84	20.75
5	16QAM	12	13	20.90	20.99	20.92
5	16QAM	25	0	20.89	21.07	20.98
5	64QAM	1	0	20.95	21.13	21.04
5	64QAM	1	12	20.86	20.87	20.77
5	64QAM	1	24	20.78	20.90	20.67
5	64QAM	12	0	20.03	20.12	20.06
5	64QAM	12	7	19.79	19.85	19.81
5	64QAM	12	13	19.93	19.91	19.82
5	64QAM	25	0	19.97	20.06	20.01



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Chris Chen	Temperature :	22~23°C
		Relative Humidity :	41~42%

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3735	-45.34	-13	-32.34	-57.60	2.64	14.90	H
	5610	-49.84	-13	-36.84	-61.70	2.94	14.80	H
	7485	-52.19	-13	-39.19	-61.96	3.39	13.16	H
	3735	-48.78	-13	-35.78	-61.04	2.64	14.90	V
	5610	-46.78	-13	-33.78	-58.64	2.94	14.80	V
	7485	-52.28	-13	-39.28	-62.05	3.39	13.16	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 / 20MHz / 16QAM								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3450	-45.41	-13	-32.41	-56.15	2.604	13.34	H
	5175	-50.28	-13	-37.28	-60.79	3.011	13.52	H
	6900	-53.68	-13	-40.68	-63.88	3.271	13.47	H
	3450	-50.17	-13	-37.17	-60.91	2.604	13.34	V
	5175	-47.40	-13	-34.40	-57.91	3.011	13.52	V
	6900	-53.96	-13	-40.96	-64.16	3.271	13.47	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-52.14	-13	-39.14	-59.11	1.58	10.70	H
	2496	-41.11	-13	-28.11	-49.36	2.102	12.50	H
	3328	-59.65	-13	-46.65	-68.54	2.856	13.90	H
	1664	-52.70	-13	-39.70	-59.67	1.58	10.70	V
	2496	-36.01	-13	-23.01	-44.26	2.10	12.50	V
	3328	-59.18	-13	-46.18	-68.07	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 7 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5050	-63.48	-25	-38.48	-73.69	3.03	13.24	H
	7584	-62.62	-25	-37.62	-72.07	3.56	13.01	H
	10104	-61.80	-25	-36.80	-71.32	3.92	13.44	H
	5050	-63.74	-25	-38.74	-73.95	3.03	13.24	V
	7584	-62.58	-25	-37.58	-72.03	3.56	13.01	V
	10104	-62.14	-25	-37.14	-71.66	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 38 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5176	-61.18	-25	-36.18	-71.39	3.03	13.24	H
	7752	-59.69	-25	-34.69	-69.14	3.56	13.01	H
	10342	-61.64	-25	-36.64	-71.16	3.92	13.44	H
	5176	-57.26	-25	-32.26	-67.47	3.03	13.24	V
	7752	-58.37	-25	-33.37	-67.82	3.56	13.01	V
	10342	-62.02	-25	-37.02	-71.54	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.