



FCC Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : LTE uFi
BRAND NAME : ZTE
MODEL NAME : MF985
FCC ID : SRQ-MF985
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Nov. 15, 2017 and testing was completed on Dec. 26, 2017. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

Approved by: James Huang / Manager



Sporton International (Kunshan) Inc.

***No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335
China***



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC7N1502	Rev. 01	Initial issue of report	Jan. 10, 2018



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 5.97 dB at 0.171 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.87 dB at 43.230 MHz for Quasi-Peak



1. General Description

1.1. Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.2. Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	LTE uFi
Brand Name	ZTE
Model Name	MF985
FCC ID	SRQ-MF985
EUT supports Radios application	WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/ DC-HSDPA/LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80
IMEI Code	Conduction: 867358030002319 Radiation: 867358030002202
HW Version	MF985HWV1.1
SW Version	MF985V1.3
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 14 : 790.5 MHz ~ 795.5 MHz LTE Band 30 : 2307.5 MHz ~ 2312.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz
Rx Frequency	WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz WCDMA Band IV : 2112.4 MHz ~ 2152.6 MHz LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 14 : 760.5 MHz ~ 765.5 MHz LTE Band 29 : 718.5 MHz ~ 726.5 MHz LTE Band 30 : 2352.5 MHz ~ 2357.5 MHz LTE Band 66 : 2110.7 MHz ~ 2199.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz
Antenna Type	WWAN : PIFA Antenna WLAN : PIFA Antenna
Type of Modulation	WCDMA : BPSK (Uplink) HSDPA : QPSK (Uplink) HSUPA: QPSK (Uplink) HSPA+ : 16QAM uplink is not supported DC-HSDPA : 64QAM LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.5. Modification of EUT

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

1.6. Test Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

Test Site	Sporton International (Kunshan) Inc.		
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.		FCC Test Firm Registration No.
	CO01-KS	03CH02-KS	630927

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7. Applicable Standards

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

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2014

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

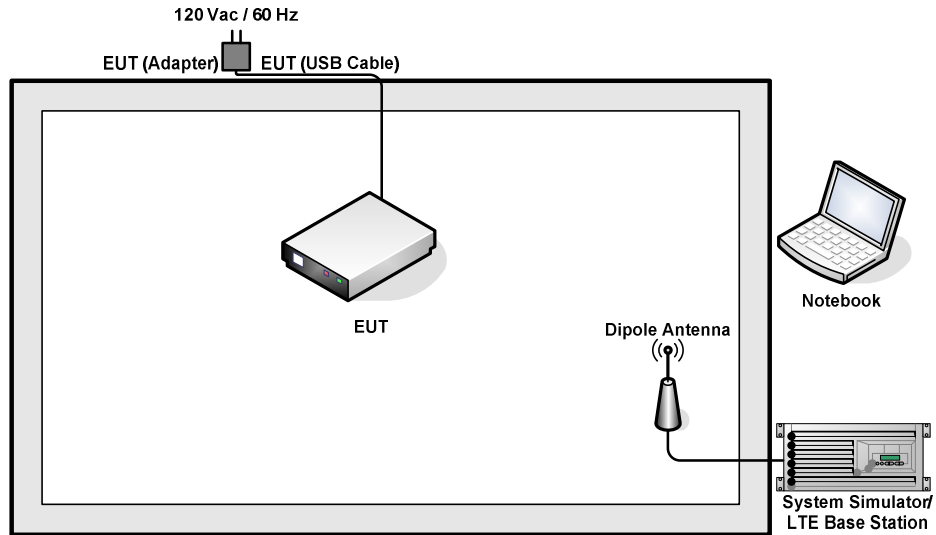
2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

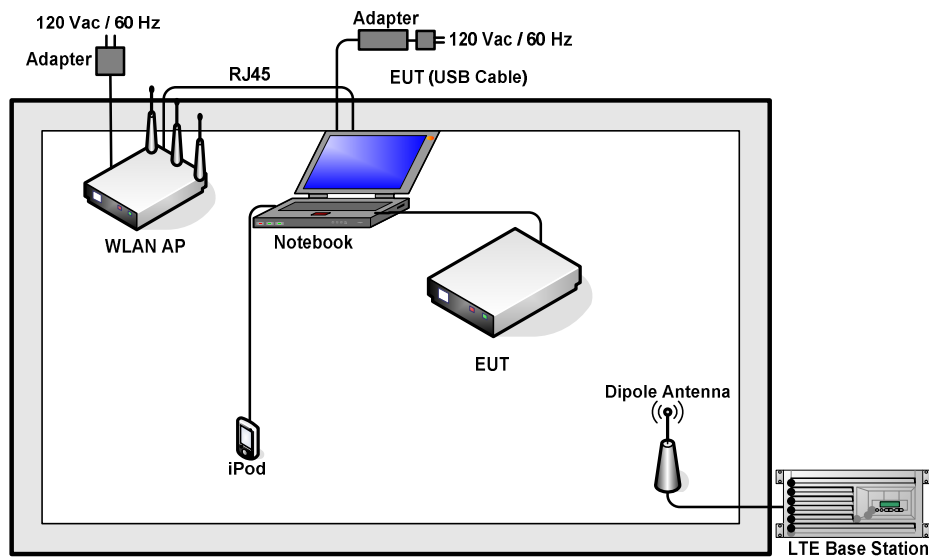
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 1) <Fig.1> Mode 2: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook) <Fig.2> Mode 3: WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 2) <Fig.1> Mode 4: WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 3) <Fig.1>
Radiated Emissions < 1GHz	Mode 1: WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 1) <Fig.1> Mode 2: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook) <Fig.2> Mode 3: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Charging from Adapter 2) <Fig.1> Mode 4: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Charging from Adapter 3) <Fig.1>
Radiated Emissions ≥ 1GHz	Mode 1: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Charging from Adapter 2) <Fig.1> Mode 2: LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook) <Fig.2>
Remark: - The worst case of AC is mode 4; and the USB data link mode is mode 2, the test data of these modes are reported. - The worst case of RE < 1G is mode 3; and the USB data link mode is mode 2, the test data of these modes are reported. - Data Link with Notebook means data application transferred mode between EUT and Notebook.	

2.2. Connection Diagram of Test System



<Fig. 1>



<Fig. 2>

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	Unshielded, 1.8m
4.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8m
5.	Notebook	DELL	Latitude3440	N/A	N/A	AC I/P : Unshielded, 1.8m DC O/P : Shielded, 1.8m
6.	Notebook	Lenovo	G480	N/A	N/A	AC I/P : Unshielded, 1.8m DC O/P : Shielded, 1.8m
7.	SD Card	Kingston	SDC4/4GB	N/A	N/A	N/A
8.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
9.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2m	N/A

2.4. EUT Operation Test Setup

The EUT was in WCDMA or LTE idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between Notebook and EUT via USB cable.

3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

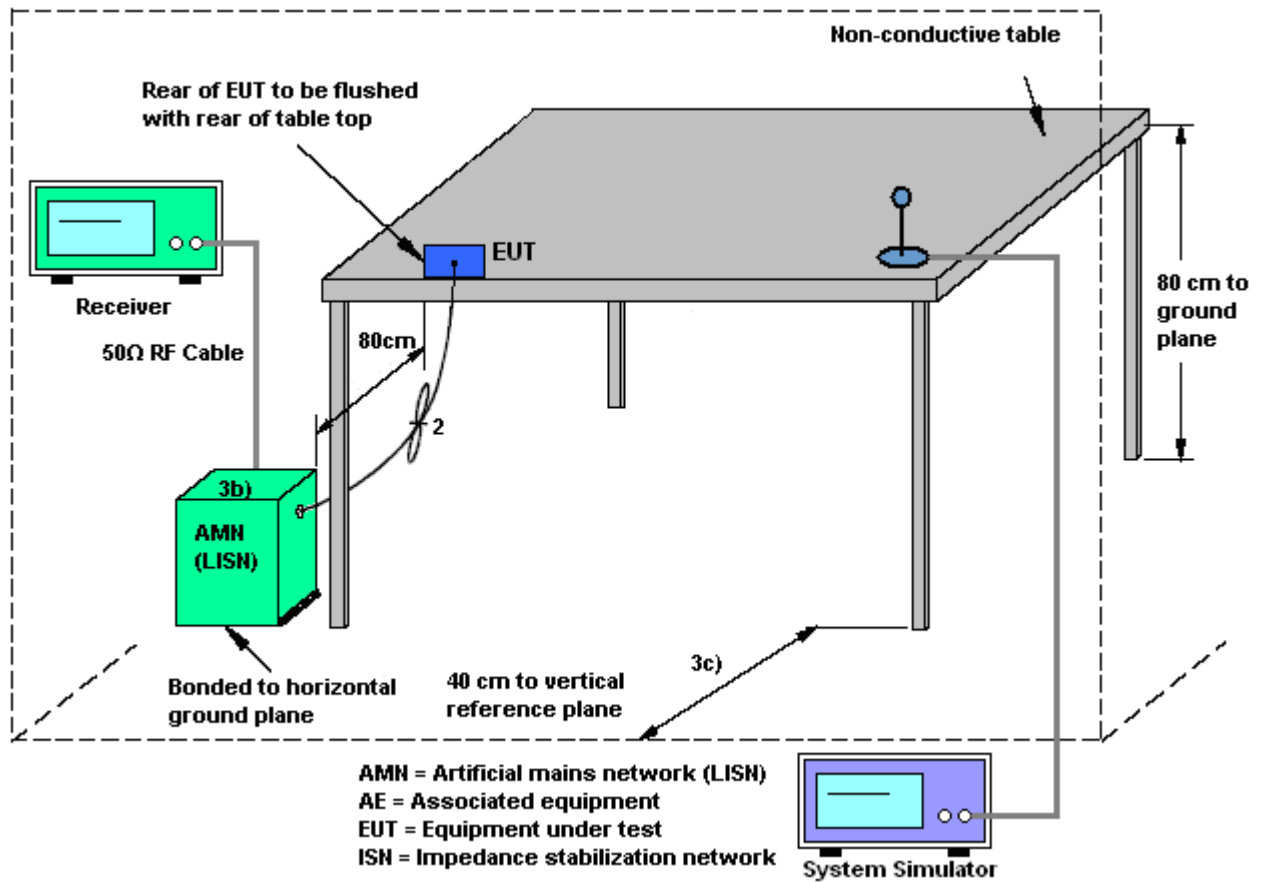
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

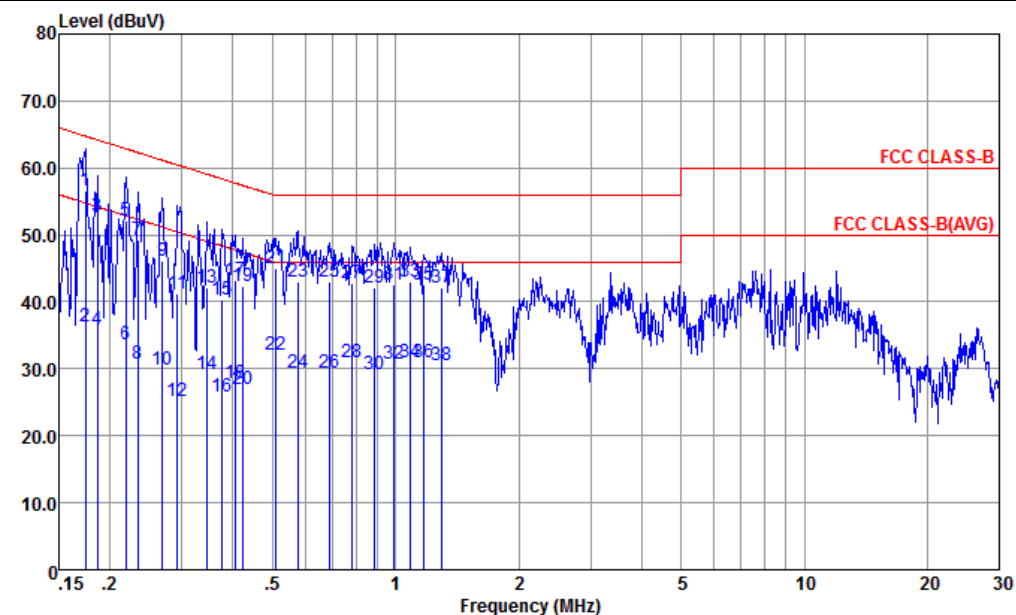
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 4	Temperature :	22~24℃
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 3)		

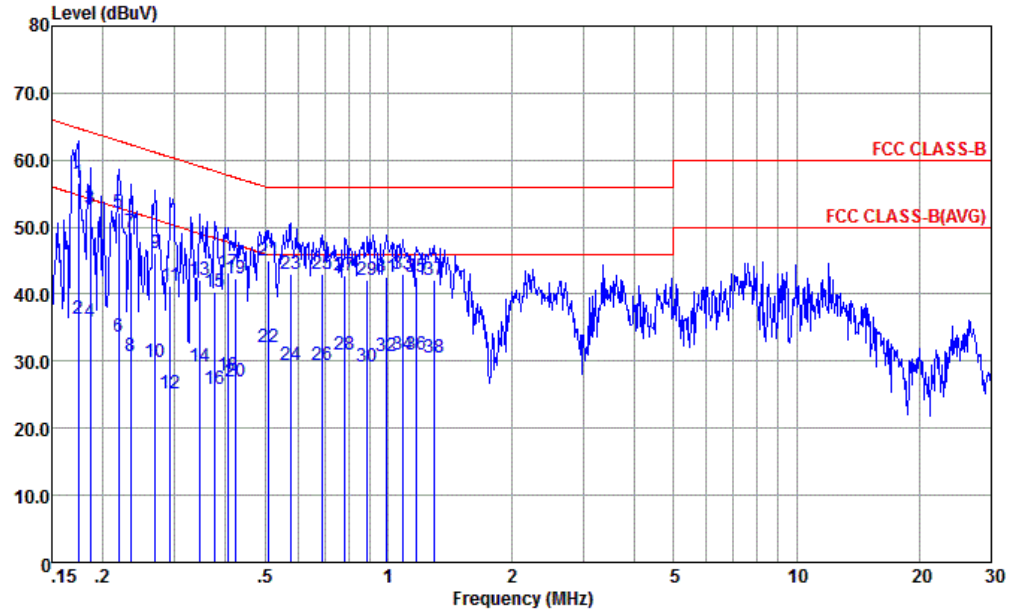


Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 7N1502
mode : Mode 4
: 867358030002319 #14

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.174	56.62	-8.15	64.77	45.90	0.18	10.54	QP
2	0.174	36.32	-18.45	54.77	25.60	0.18	10.54	Average
3	0.186	52.79	-11.41	64.20	42.10	0.19	10.50	QP
4	0.186	35.89	-18.31	54.20	25.20	0.19	10.50	Average
5	0.219	52.25	-10.63	62.88	41.59	0.21	10.45	QP
6	0.219	33.55	-19.33	52.88	22.89	0.21	10.45	Average
7	0.234	49.25	-13.05	62.30	38.60	0.21	10.44	QP
8	0.234	30.85	-21.45	52.30	20.20	0.21	10.44	Average
9	0.269	46.15	-15.01	61.16	35.50	0.22	10.43	QP
10	0.269	29.95	-21.21	51.16	19.30	0.22	10.43	Average
11	0.292	41.25	-19.21	60.46	30.60	0.22	10.43	QP
12	0.292	25.15	-25.31	50.46	14.50	0.22	10.43	Average
13	0.345	42.15	-16.94	59.09	31.49	0.24	10.42	QP
14	0.345	29.25	-19.84	49.09	18.59	0.24	10.42	Average
15	0.375	40.25	-18.14	58.39	29.60	0.24	10.41	QP
16	0.375	25.85	-22.54	48.39	15.20	0.24	10.41	Average
17	0.404	43.25	-14.52	57.77	32.60	0.25	10.40	QP



Test Mode :	Mode 4	Temperature :	22~24°C
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 3)		

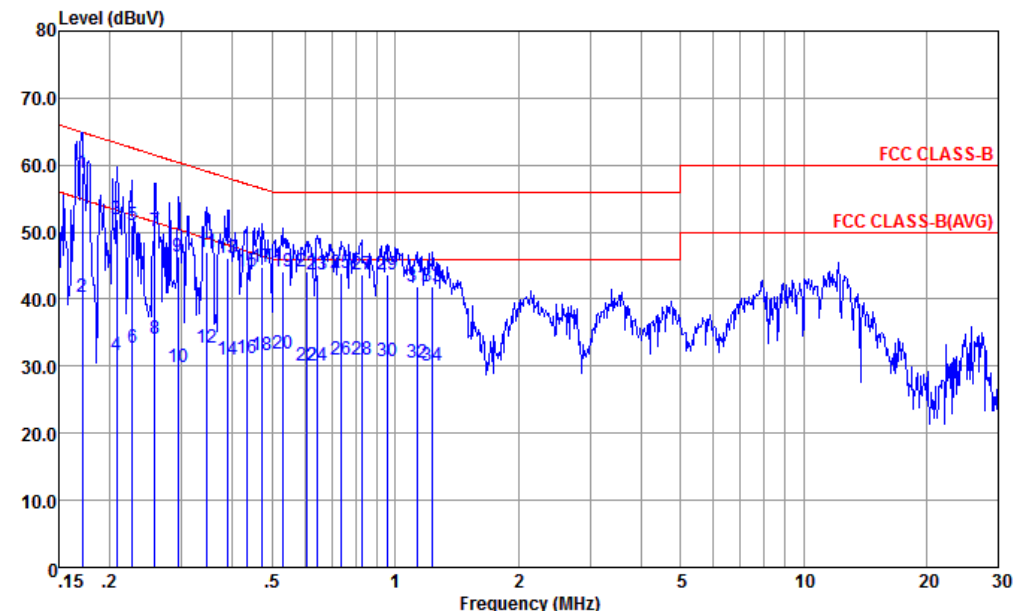


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-171013-060103 LINE
 Project : (FC) 7N1502
 mode : Mode 4
 : 867358030002319 #14

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV		dBuV	dBuV	dB	dB	
18	0.404	27.85	-19.92	47.77	17.20	0.25	10.40	Average
19	0.424	42.23	-15.14	57.37	31.60	0.25	10.38	QP
20	0.424	26.93	-20.44	47.37	16.30	0.25	10.38	Average
21	0.507	45.06	-10.94	56.00	34.50	0.26	10.30	QP
22	0.507	32.16	-13.84	46.00	21.60	0.26	10.30	Average
23	0.576	43.11	-12.89	56.00	32.60	0.26	10.25	QP
24	0.576	29.41	-16.59	46.00	18.90	0.26	10.25	Average
25	0.686	43.03	-12.97	56.00	32.60	0.26	10.17	QP
26	0.686	29.33	-16.67	46.00	18.90	0.26	10.17	Average
27	0.783	42.87	-13.13	56.00	32.50	0.26	10.11	QP
28	0.783	30.97	-15.03	46.00	20.60	0.26	10.11	Average
29	0.890	42.16	-13.84	56.00	31.80	0.26	10.10	QP
30	0.890	29.26	-16.74	46.00	18.90	0.26	10.10	Average
31	0.989	42.57	-13.43	56.00	32.20	0.26	10.11	QP
32	0.989	30.67	-15.33	46.00	20.30	0.26	10.11	Average
33	1.082	42.98	-13.02	56.00	32.60	0.26	10.12	QP
34	1.082	30.98	-15.02	46.00	20.60	0.26	10.12	Average
35	1.172	42.60	-13.40	56.00	32.21	0.26	10.13	QP
36	1.172	31.00	-15.00	46.00	20.61	0.26	10.13	Average
37	1.296	42.21	-13.79	56.00	31.79	0.27	10.15	QP
38	1.296	30.61	-15.39	46.00	20.19	0.27	10.15	Average



Test Mode :	Mode 4	Temperature :	22~24℃
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 3)		

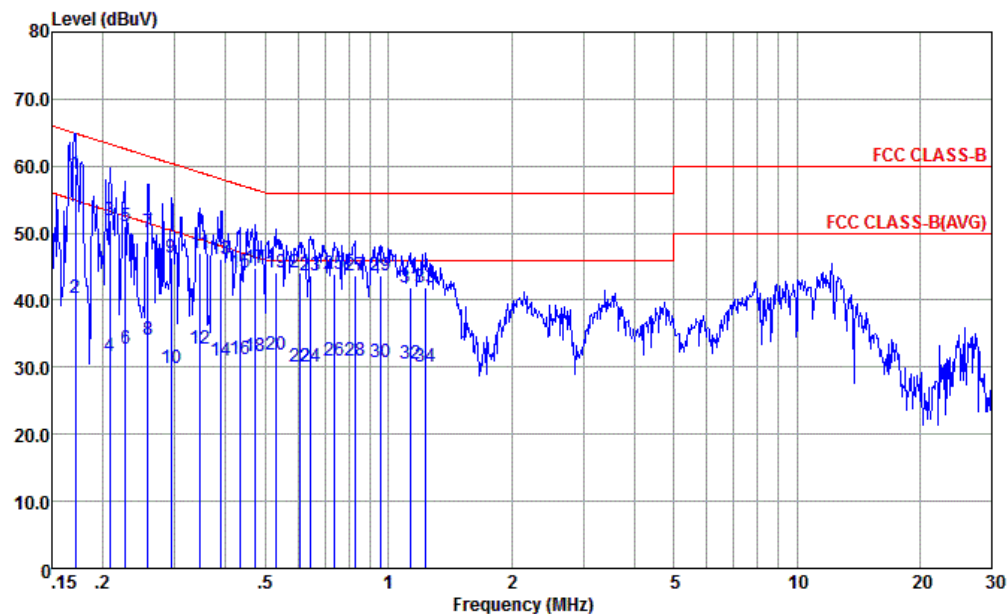


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
 Project : (FC) 7N1502
 mode : Mode 4
 : 867358030002319 #14

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.171	58.93	-5.97	64.90	48.10	0.28	10.55	QP
2	0.171	40.33	-14.57	54.90	29.50	0.28	10.55	Average
3	0.208	51.93	-11.34	63.27	41.20	0.28	10.45	QP
4	0.208	31.63	-21.64	53.27	20.90	0.28	10.45	Average
5	0.227	50.93	-11.64	62.57	40.20	0.28	10.45	QP
6	0.227	32.83	-19.74	52.57	22.10	0.28	10.45	Average
7	0.258	50.22	-11.29	61.51	39.50	0.28	10.44	QP
8	0.258	34.02	-17.49	51.51	23.30	0.28	10.44	Average
9	0.294	46.31	-14.10	60.41	35.60	0.28	10.43	QP
10	0.294	29.91	-20.50	50.41	19.20	0.28	10.43	Average
11	0.346	47.00	-12.05	59.05	36.29	0.29	10.42	QP
12	0.346	32.80	-16.25	49.05	22.09	0.29	10.42	Average
13	0.389	46.20	-11.88	58.08	35.50	0.29	10.41	QP
14	0.389	31.00	-17.08	48.08	20.30	0.29	10.41	Average
15	0.433	44.16	-13.04	57.20	33.50	0.29	10.37	QP
16	0.433	31.26	-15.94	47.20	20.60	0.29	10.37	Average
17	0.474	44.82	-11.63	56.45	34.20	0.29	10.33	QP



Test Mode :	Mode 4	Temperature :	22~24°C
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + WLAN Idle(2.4G) + USB Cable (Charging from Adapter 3)		

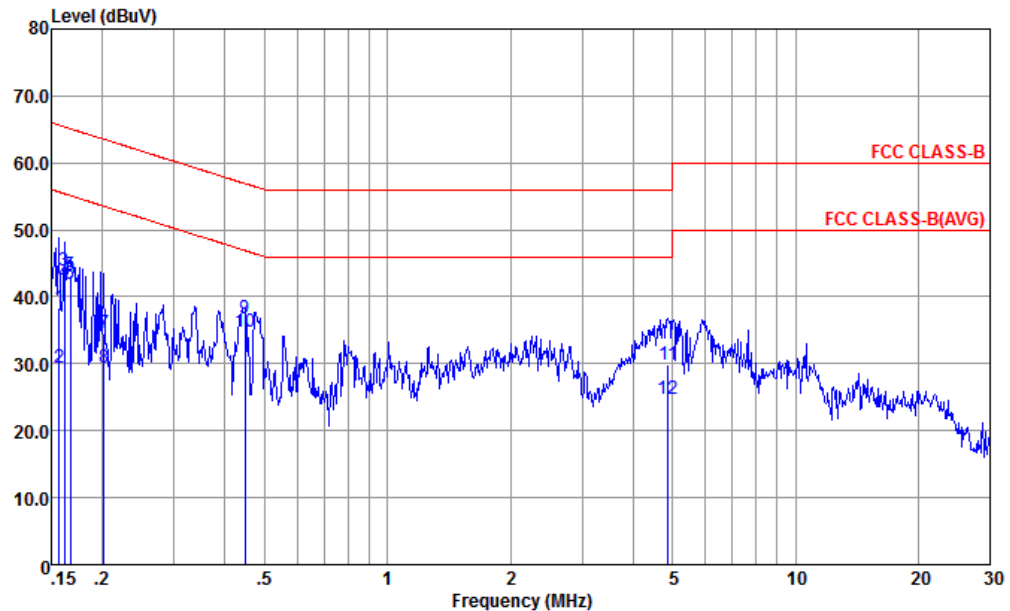


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
 Project : (FC) 7N1502
 mode : Mode 4
 : 867358030002319 #14

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
18	0.474	31.72	-14.73	46.45	21.10	0.29	10.33	Average
19	0.529	44.07	-11.93	56.00	33.50	0.29	10.28	QP
20	0.529	31.77	-14.23	46.00	21.20	0.29	10.28	Average
21	0.608	44.02	-11.98	56.00	33.50	0.30	10.22	QP
22	0.608	30.02	-15.98	46.00	19.50	0.30	10.22	Average
23	0.644	43.69	-12.31	56.00	33.19	0.30	10.20	QP
24	0.644	29.99	-16.01	46.00	19.49	0.30	10.20	Average
25	0.735	43.94	-12.06	56.00	33.50	0.30	10.14	QP
26	0.735	31.04	-14.96	46.00	20.60	0.30	10.14	Average
27	0.826	43.61	-12.39	56.00	33.21	0.30	10.10	QP
28	0.826	31.01	-14.99	46.00	20.61	0.30	10.10	Average
29	0.958	43.62	-12.38	56.00	33.20	0.31	10.11	QP
30	0.958	30.72	-15.28	46.00	20.30	0.31	10.11	Average
31	1.129	41.94	-14.06	56.00	31.50	0.31	10.13	QP
32	1.129	30.64	-15.36	46.00	20.20	0.31	10.13	Average
33	1.236	41.95	-14.05	56.00	31.50	0.31	10.14	QP
34	1.236	30.05	-15.95	46.00	19.60	0.31	10.14	Average



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook)		

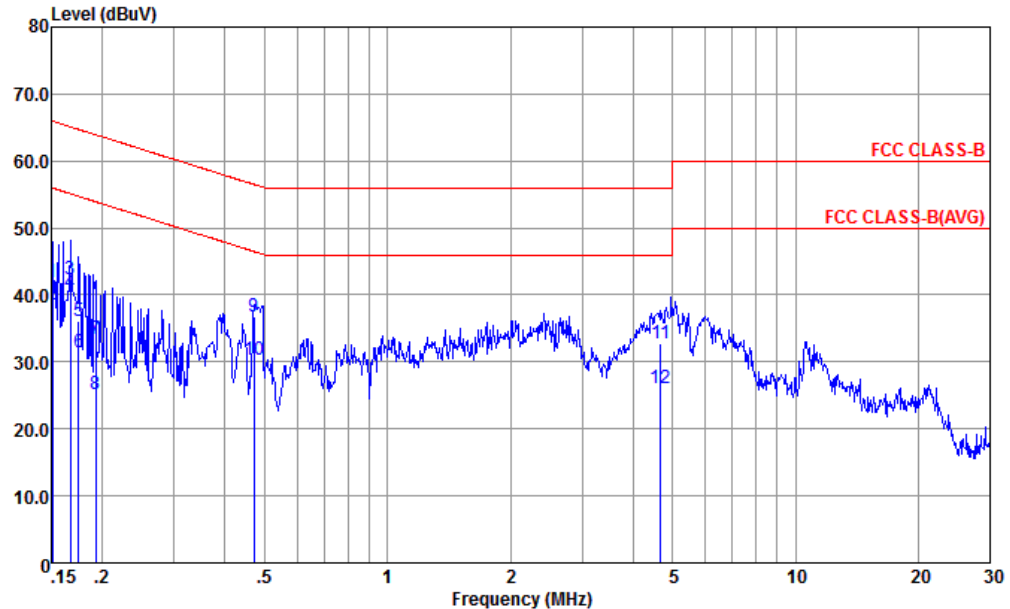


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-171013-060103 LINE
 Project : (FC) 7N1502
 mode : Mode 2
 : 867358030002319 #14

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	38.26	-27.39	65.65	27.50	0.17	10.59	QP
2	0.156	29.36	-26.29	55.65	18.60	0.17	10.59	Average
3	0.162	43.95	-21.43	65.38	33.20	0.17	10.58	QP
4	0.162	42.05	-13.33	55.38	31.30	0.17	10.58	Average
5	0.167	43.33	-21.79	65.12	32.60	0.17	10.56	QP
6	0.167	41.83	-13.29	55.12	31.10	0.17	10.56	Average
7	0.202	34.46	-29.08	63.54	23.81	0.20	10.45	QP
8	0.202	29.46	-24.08	53.54	18.81	0.20	10.45	Average
9	0.447	36.81	-20.12	56.93	26.20	0.25	10.36	QP
10 *	0.447	34.81	-12.12	46.93	24.20	0.25	10.36	Average
11	4.874	29.79	-26.21	56.00	19.19	0.37	10.23	QP
12	4.874	24.69	-21.31	46.00	14.09	0.37	10.23	Average



Test Mode :	Mode 2	Temperature :	22~24℃
Test Engineer :	Amos zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook)		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
Project : (FC) 7N1502
mode : Mode 2
: 867358030002319 #14

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV		dBuV	dBuV			
1	0.151	42.00	-23.96	65.96	31.10	0.28	10.62	QP
2	0.151	38.50	-17.46	55.96	27.60	0.28	10.62	Average
3	0.167	42.34	-22.78	65.12	31.50	0.28	10.56	QP
4 *	0.167	40.44	-14.68	55.12	29.60	0.28	10.56	Average
5	0.175	36.01	-28.71	64.72	25.20	0.28	10.53	QP
6	0.175	31.41	-23.31	54.72	20.60	0.28	10.53	Average
7	0.192	33.36	-30.57	63.93	22.60	0.28	10.48	QP
8	0.192	25.26	-28.67	53.93	14.50	0.28	10.48	Average
9	0.471	36.82	-19.67	56.49	26.20	0.29	10.33	QP
10	0.471	30.22	-16.27	46.49	19.60	0.29	10.33	Average
11	4.672	32.85	-23.15	56.00	22.30	0.34	10.21	QP
12	4.672	26.15	-19.85	46.00	15.60	0.34	10.21	Average

3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

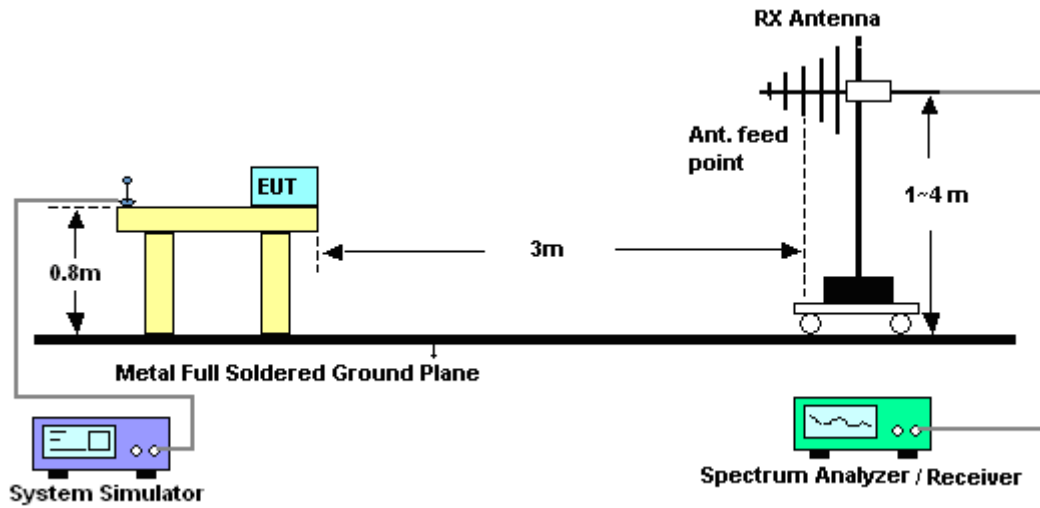
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

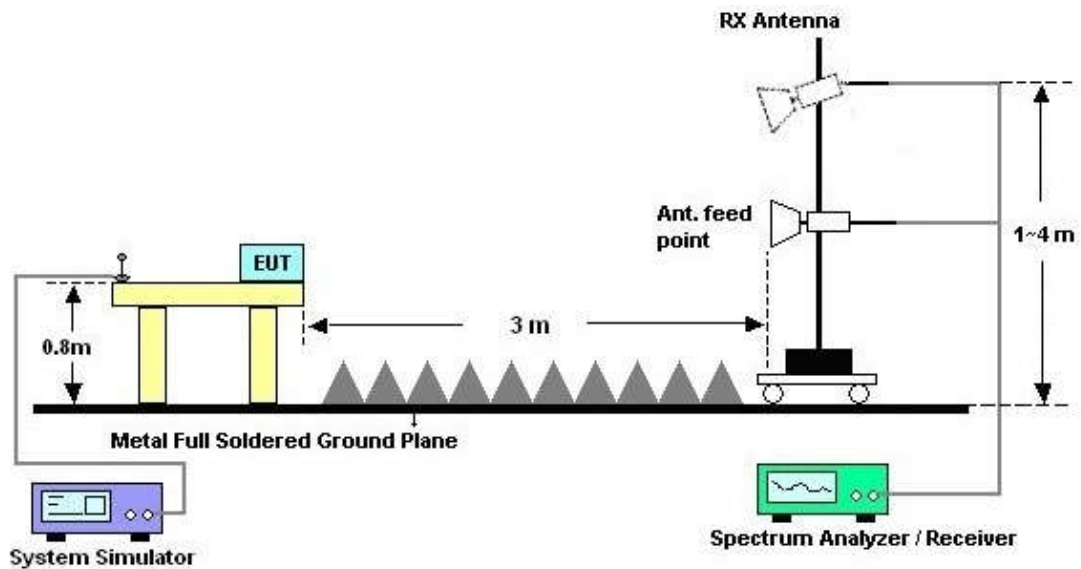
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



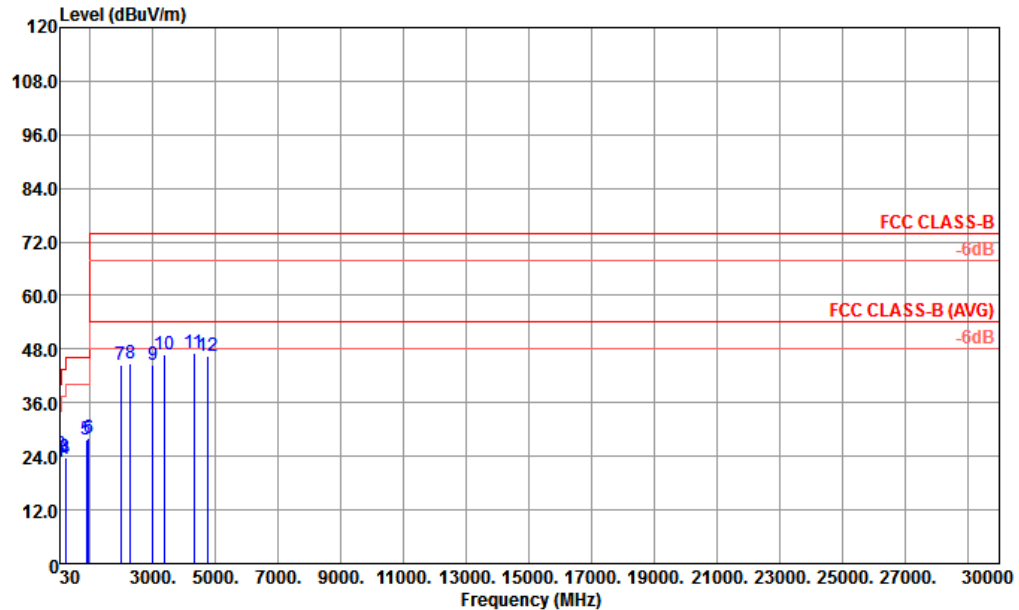
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 3	Temperature :	21~22°C
Test Engineer :	Gavin Zhou	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Charging from Adapter 2)		
Remark :	#7 is system simulator signal which can be ignored.		

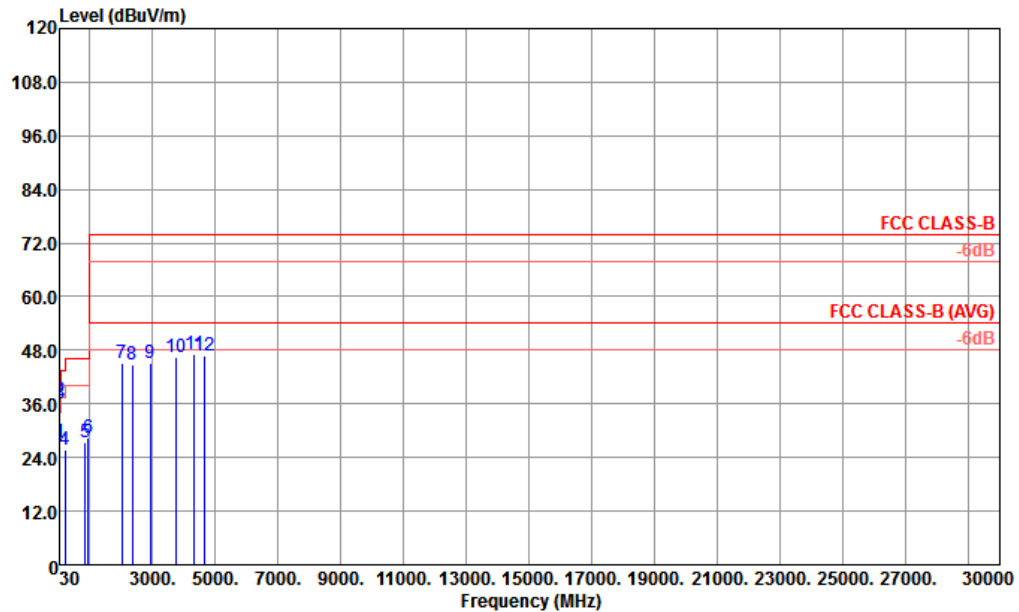


Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL
Project : (FC)7N1502
Mode : 3
IMEI : 86735803002202 #12

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.70	22.86	-17.14	40.00	29.06	25.23	0.61	32.04	---	---	Peak
2	44.04	24.30	-15.70	40.00	35.17	20.57	0.66	32.10	100	0	Peak
3	199.02	23.64	-19.86	43.50	38.07	15.80	1.44	31.67	---	---	Peak
4	204.96	23.37	-20.13	43.50	37.62	15.93	1.48	31.66	---	---	Peak
5	884.50	27.59	-18.41	46.00	24.77	27.38	3.08	27.64	---	---	Peak
6	946.10	28.22	-17.78	46.00	23.77	28.42	3.20	27.17	---	---	Peak
7	1982.00	44.53			43.13	30.19	4.61	33.40	---	---	Peak
8	2286.00	44.68	-29.32	74.00	40.26	31.14	5.04	31.76	---	---	Peak
9	2990.00	44.33	-29.67	74.00	35.80	32.55	5.95	29.97	---	---	Peak
10	3381.00	46.65	-27.35	74.00	37.03	33.35	6.27	30.00	---	---	Peak
11	4299.00	46.98	-27.02	74.00	34.29	35.58	7.23	30.12	---	---	Peak
12	4758.00	46.37	-27.63	74.00	34.96	35.70	7.69	31.98	---	---	Peak



Test Mode :	Mode 3	Temperature :	21~22°C
Test Engineer :	Gavin Zhou	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Charging from Adapter 2)		

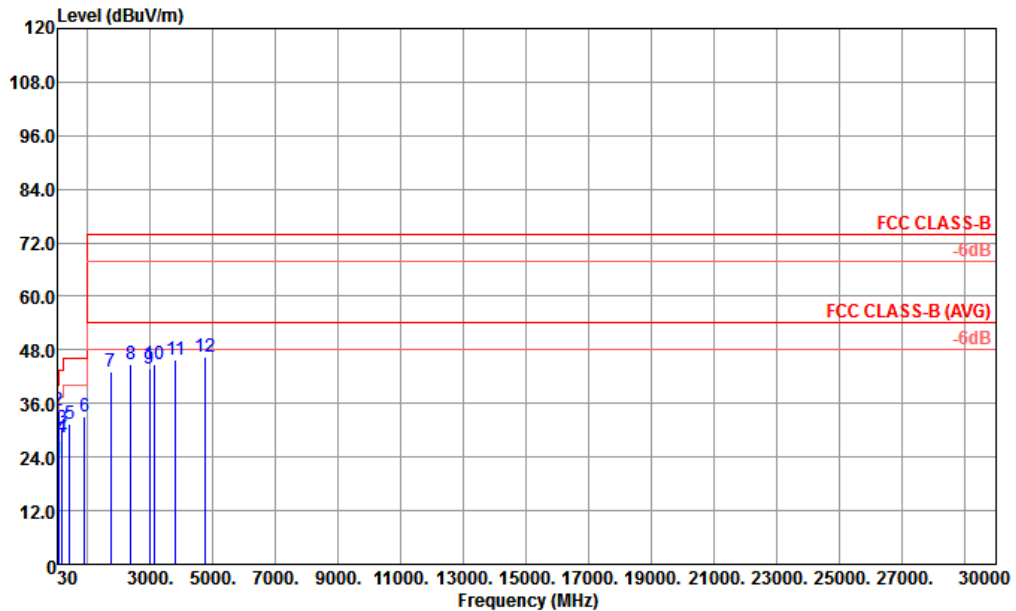


Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL
Project : (FC)7N1502
Mode : 3
IMEI : 867358030002202 #12

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	
	MHz	dBUV/m	dB	dBUV/m	dBUV	dB/m	dB	dB	cm	deg	
1	31.89	27.39	-12.61	40.00	33.59	25.23	0.60	32.03	---	---	Peak
2	41.61	36.85	-3.15	40.00	46.94	21.33	0.65	32.07	---	---	Peak
3	43.23	36.13	-3.87	40.00	47.00	20.57	0.66	32.10	100	0	QP
4	202.80	25.66	-17.84	43.50	39.98	15.88	1.46	31.66	---	---	Peak
5	862.80	27.40	-18.60	46.00	24.94	27.21	3.06	27.81	---	---	Peak
6	945.40	28.37	-17.63	46.00	23.92	28.42	3.20	27.17	---	---	Peak
7	2030.00	45.24	-28.76	74.00	43.37	30.42	4.67	33.22	---	---	Peak
8	2348.00	44.83	-29.17	74.00	40.10	31.22	5.09	31.58	---	---	Peak
9	2930.00	45.08	-28.92	74.00	36.74	32.40	5.91	29.97	---	---	Peak
10	3744.00	46.48	-27.52	74.00	35.43	34.59	6.57	30.11	---	---	Peak
11	4335.00	47.14	-26.86	74.00	34.44	35.64	7.19	30.13	---	---	Peak
12	4671.00	46.75	-27.25	74.00	34.75	35.77	7.66	31.43	---	---	Peak



Test Mode :	Mode 2	Temperature :	21~22°C
Test Engineer :	Gavin Zhou	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook)		

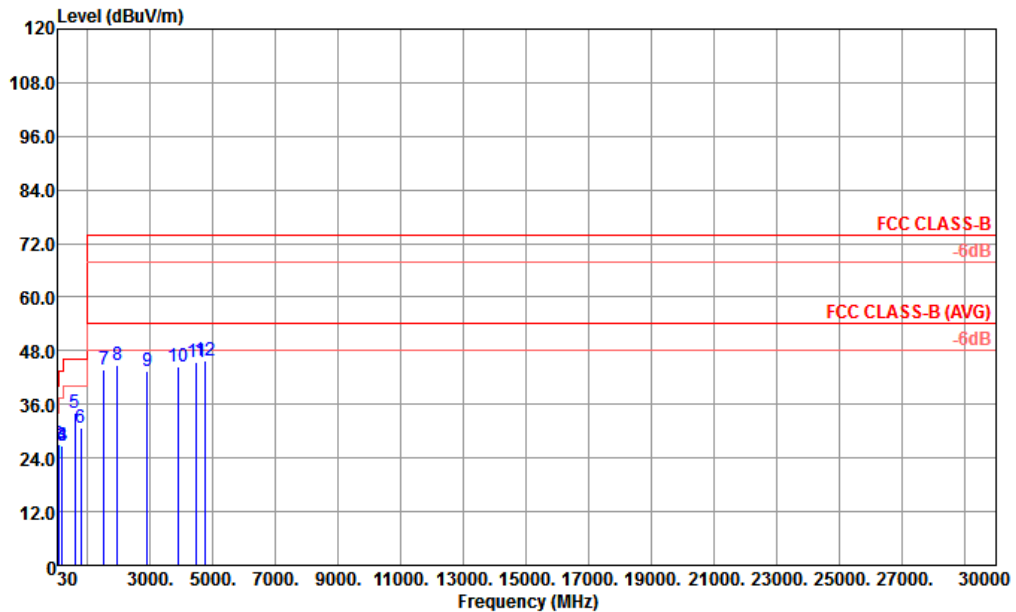


Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL
Project : (FC)7N1502
Mode : 2
IMEI : 867358030002202 #12

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	cm	deg	
			dB	dBuV/m	dBuV	dB/m	dB	dB		
1	30.81	23.42	-16.58	40.00	29.26	25.60	0.59	32.03	---	Peak
2	71.58	34.39	-5.61	40.00	52.37	13.20	0.86	32.04	100	Peak
3	183.90	30.56	-12.94	43.50	44.55	16.34	1.39	31.72	---	Peak
4	194.43	28.52	-14.98	43.50	42.79	16.00	1.42	31.69	---	Peak
5	430.90	31.32	-14.68	46.00	34.79	25.00	2.14	30.61	---	Peak
6	903.40	33.10	-12.90	46.00	29.95	27.54	3.10	27.49	---	Peak
7	1726.00	43.21	-30.79	74.00	44.78	29.20	4.35	35.12	---	Peak
8	2384.00	44.91	-29.09	74.00	39.68	31.27	5.14	31.18	---	Peak
9	2982.00	43.74	-30.26	74.00	34.07	32.55	5.95	28.83	---	Peak
10	3123.00	44.93	-29.07	74.00	35.93	32.92	6.10	30.02	---	Peak
11	3795.00	45.95	-28.05	74.00	34.80	34.76	6.61	30.22	---	Peak
12	4764.00	46.37	-27.63	74.00	35.61	35.70	7.69	32.63	---	Peak



Test Mode :	Mode 2	Temperature :	21~22°C
Test Engineer :	Gavin Zhou	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 2 Idle + WLAN Idle(5G) + USB Cable (Data Link with Notebook)		
Remark :	#8 is system simulator signal which can be ignored.		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL
Project : (FC)7N1502
Mode : 2
IMEI : 867358030002202 #12

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	cm	deg
1	31.62	22.68	-17.32	40.00	28.88	25.23	0.60	32.03	---	Peak
2	71.58	26.99	-13.01	40.00	44.97	13.20	0.86	32.04	---	Peak
3	181.47	26.79	-16.71	43.50	40.73	16.41	1.38	31.73	---	Peak
4	194.43	26.90	-16.60	43.50	41.17	16.00	1.42	31.69	---	Peak
5	599.60	34.10	-11.90	46.00	36.55	24.60	2.62	29.67	100	Peak
6	775.30	30.68	-15.32	46.00	29.84	26.60	2.73	28.49	---	Peak
7	1526.00	43.84	-30.16	74.00	46.09	28.88	4.09	35.22	---	Peak
8	1948.00	44.94			43.45	29.96	4.59	33.06	---	Peak
9	2906.00	43.59	-30.41	74.00	34.86	32.30	5.90	29.47	---	Peak
10	3891.00	44.62	-29.38	74.00	33.42	34.92	6.66	30.38	---	Peak
11	4470.00	45.39	-28.61	74.00	33.60	35.85	7.32	31.38	---	Peak
12	4770.00	45.92	-28.08	74.00	35.17	35.69	7.69	32.63	---	Peak



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 20, 2017	Dec. 26, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2017	Dec. 26, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2017	Dec. 26, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2017	Dec. 26, 2017	Oct. 11, 2018	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Aug. 08, 2017	Dec. 06, 2017	Aug. 07, 2018	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44GHz, MAX 30dB	Apr. 18, 2017	Dec. 06, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz~2GHz	Jan. 22, 2017	Dec. 06, 2017	Jan. 21, 2018	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 21, 2017	Dec. 06, 2017	Oct. 20, 2018	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 15, 2017	Dec. 06, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 07, 2017	Dec. 06, 2017	Aug. 06, 2018	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1GHz~26.5GHz	Oct. 12, 2017	Dec. 06, 2017	Oct. 11, 2018	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-H G	1887435	18GHz~40GHz	Oct. 12, 2017	Dec. 06, 2017	Oct. 11, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Dec. 06, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Dec. 06, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Dec. 06, 2017	NCR	Radiation (03CH02-KS)

NCR: No Calibration Required

5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.3dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	5.2dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.7dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	5.3dB
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