



FCC Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : LTE/WCDMA/GSM (GPRS)
Multi-Mode Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : Z999
FCC ID : SRQ-Z999
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Jun. 01, 2017 and testing was completed on Aug. 07, 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.
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China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC760101	Rev. 01	Initial issue of report	Aug. 21, 2017



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 6.53 dB at 0.848 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.14 dB at 165.810 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/WCDMA/GSM (GPRS) Multi-Mode Digital Mobile Phone
Brand Name	ZTE
Model Name	Z999
FCC ID	SRQ-Z999
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/ HSPA+(16QAM uplink is not supported)/LTE/NFC WLAN2.4GHz 802.11b/g/n HT20/HT40 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/Bluetooth v4.0 LE/ Bluetooth v4.1 LE
IMEI Code	Conduction: 865800030006719 Radiation: 865800030007089
HW Version	Z999HWV1.0
SW Version	Z999V1.0.0B02
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	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 12: 699.7 MHz ~ 715.3 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: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Rx Frequency	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band IV : 2112.4 MHz ~ 2152.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 12 : 729.7 MHz ~ 745.3 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: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559MHz~1610MHz NFC : 13.56 MHz
Antenna Type	WWAN : LDS Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GNSS: PIFA Antenna NFC : Loop Antenna
Type of Modulation	GSM/GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK (Uplink) HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (16QAM uplink is not supported) LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK



	Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK
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GNSS= GPS L1 + Glonass G1 + BDS B1i

1.5. Modification of EUT

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

1.6. Test Location

Sporton Lab 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

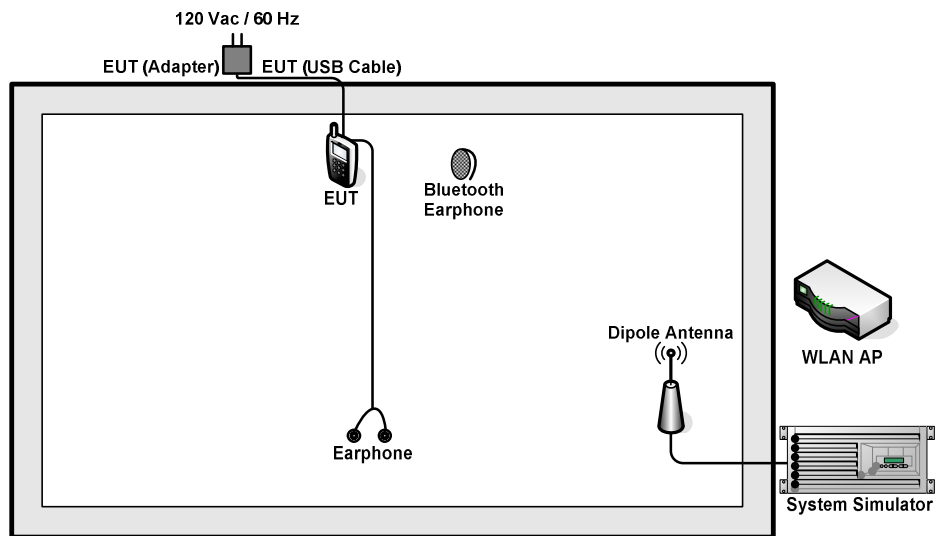
2.1. Test Mode

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.

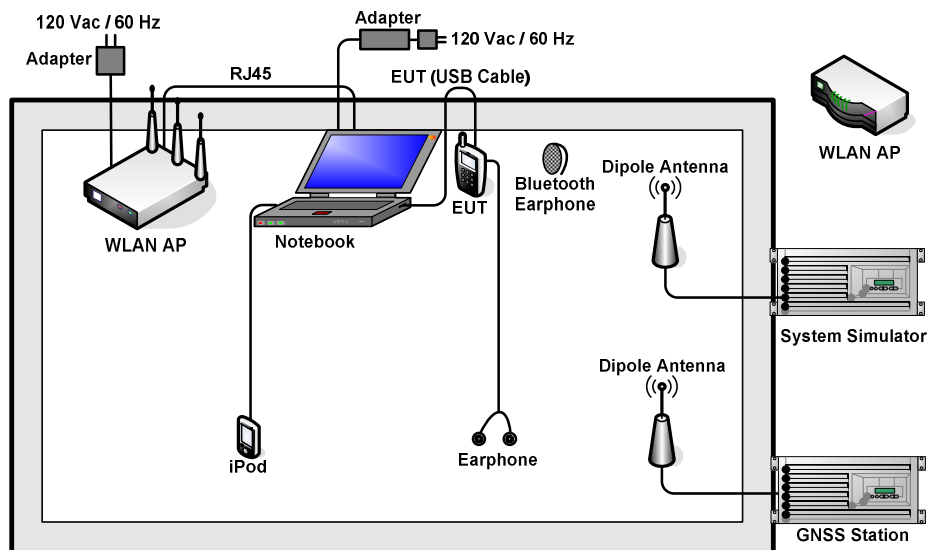
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + Camera(Rear)<fig. 1> Mode 2: GSM1900 Idle + USB Cable(Charging from Adapter) + WLAN Idle(5G) + Bluetooth Idle + Earphone + Camera(Front) <fig. 1> Mode 3: WCDMA Band V Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + MPEG4<fig. 1> Mode 4: LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx<fig. 2> Mode 5: WCDMA Band II Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + NFC On<fig. 1>
Radiated Emissions < 1GHz	Mode 1: GSM 850 Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + Camera(Rear) <fig. 1> Mode 2: GSM1900 Idle + USB Cable(Charging from Adapter) + WLAN Idle(5G) + Bluetooth Idle + Earphone + Camera(Front) <fig. 1> Mode 3: WCDMA Band V Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + MPEG4<fig. 1> Mode 4: LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx<fig. 2> Mode 5: WCDMA Band II Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + NFC On<fig. 1>
Radiated Emissions ≥ 1GHz	Mode 1: LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx<fig. 2>
Remark: - The worst case of AC is mode 3; and the USB link mode is mode 4, the test data of this mode was reported. - The worst case of RE < 1G is mode 4; only the test data of this mode was 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	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GNSS Station	R&S	SMBV100A	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
5.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
6.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A
8.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
9.	SD Card	Kingston	SDC4/4GB	N/A	N/A	N/A
10.	Earphone	Lenovo	SH100	N/A	Unshielded, 1.2m	N/A
11.	Earphone	Lenovo	LH102	N/A	Unshielded, 1.2m	N/A
12.	iPod	Apple	A1199	Fcc DoC	Shielded, 1.2m	N/A

2.4. EUT Operation Test Setup

The EUT was in GSM or 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 or WLAN AP, 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.
2. Execute "Video player" to play MPEG4 files.
3. Turn on camera to capture images.
4. Execute the "NFC" function.
5. Execute "GPS Test" to make the EUT receive continuous signals from GNSS station.

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.

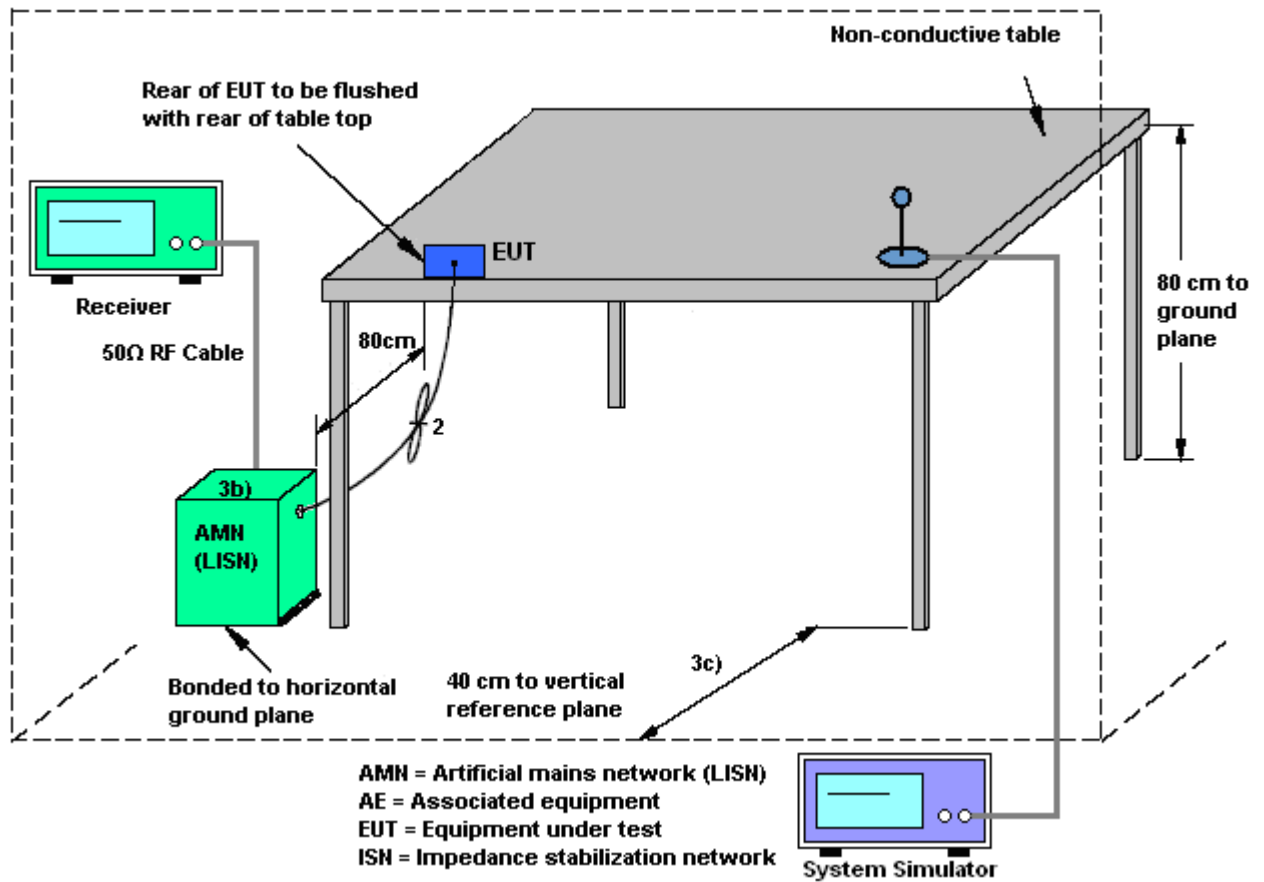
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

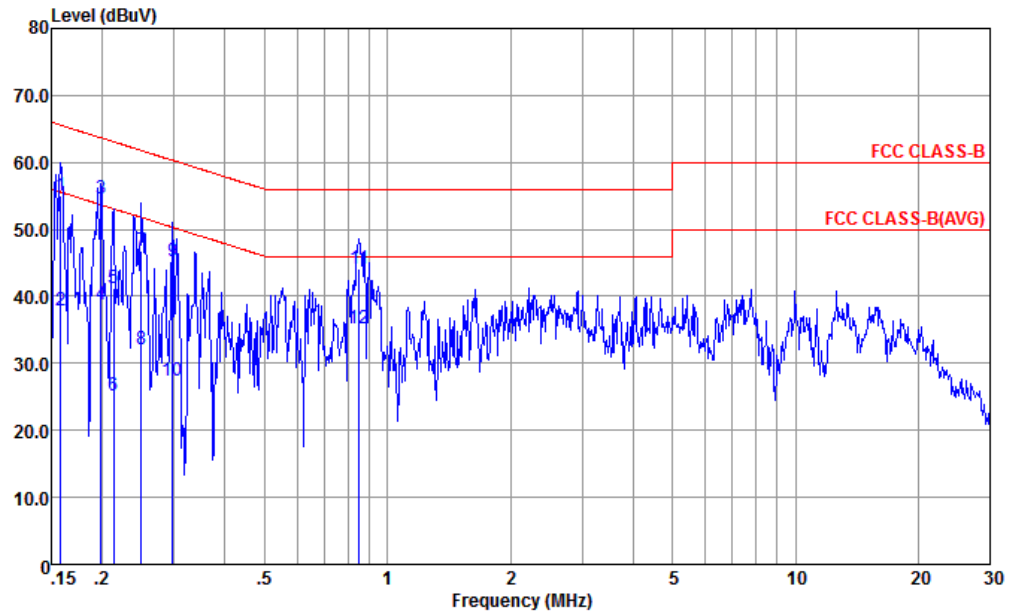
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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 3	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + MPEG4		

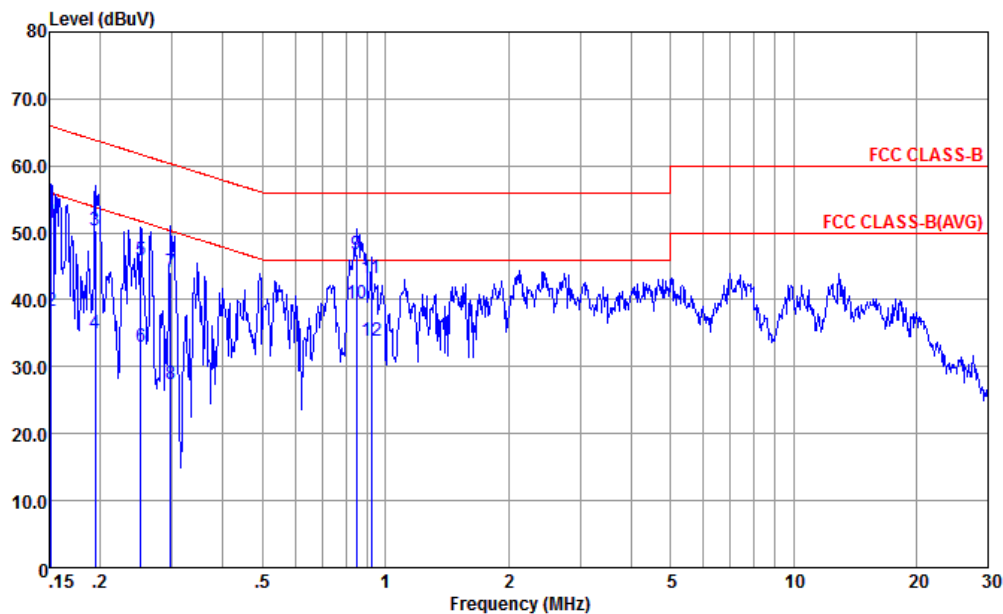


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE
 Project : (FC) 760101
 mode : Mode 3
 : 865800030006719 #8

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV		dBuV	dBuV	dB	dB	
1	0.158	55.09	-10.47	65.56	44.21	0.50	10.38	QP
2	0.158	37.79	-17.77	55.56	26.91	0.50	10.38	Average
3 *	0.199	54.51	-9.16	63.67	43.90	0.28	10.33	QP
4	0.199	38.71	-14.96	53.67	28.10	0.28	10.33	Average
5	0.213	41.19	-21.91	63.10	30.60	0.27	10.32	QP
6	0.213	25.19	-27.91	53.10	14.60	0.27	10.32	Average
7	0.249	46.86	-14.92	61.78	36.30	0.27	10.29	QP
8	0.249	32.16	-19.62	51.78	21.60	0.27	10.29	Average
9	0.297	45.13	-15.19	60.32	34.60	0.27	10.26	QP
10	0.297	27.33	-22.99	50.32	16.80	0.27	10.26	Average
11	0.853	44.03	-11.97	56.00	33.59	0.26	10.18	QP
12	0.853	35.23	-10.77	46.00	24.79	0.26	10.18	Average



Test Mode :	Mode 3	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + USB Cable(Charging from Adapter) + WLAN Idle(2.4G) + Bluetooth Idle + Earphone + MPEG4		

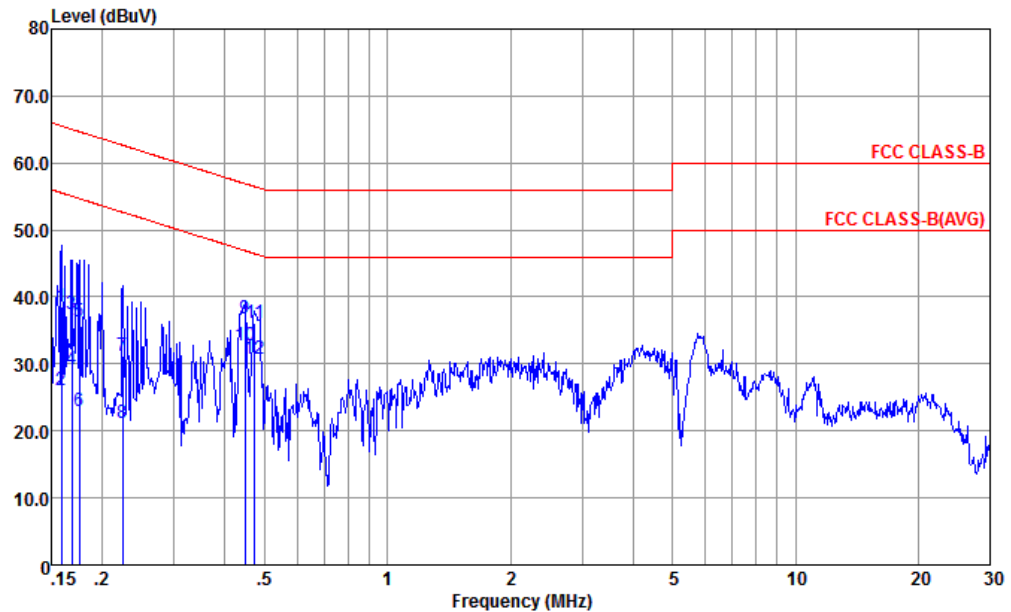


Site : CO01-KS
Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL
Project : (FC) 760101
mode : Mode 3
: 865800030006719 #8

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	51.53	-14.38	65.91	40.80	0.34	10.39	QP
2	0.152	38.23	-17.68	55.91	27.50	0.34	10.39	Average
3	0.194	50.27	-13.57	63.84	39.60	0.33	10.34	QP
4	0.194	34.97	-18.87	53.84	24.30	0.33	10.34	Average
5	0.251	45.83	-15.90	61.73	35.20	0.34	10.29	QP
6	0.251	32.93	-18.80	51.73	22.30	0.34	10.29	Average
7	0.297	44.11	-16.21	60.32	33.50	0.35	10.26	QP
8	0.297	27.41	-22.91	50.32	16.80	0.35	10.26	Average
9	0.848	46.87	-9.13	56.00	36.30	0.39	10.18	QP
10 *	0.848	39.47	-6.53	46.00	28.90	0.39	10.18	Average
11	0.923	43.18	-12.82	56.00	32.60	0.40	10.18	QP
12	0.923	33.88	-12.12	46.00	23.30	0.40	10.18	Average



Test Mode :	Mode 4	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx		

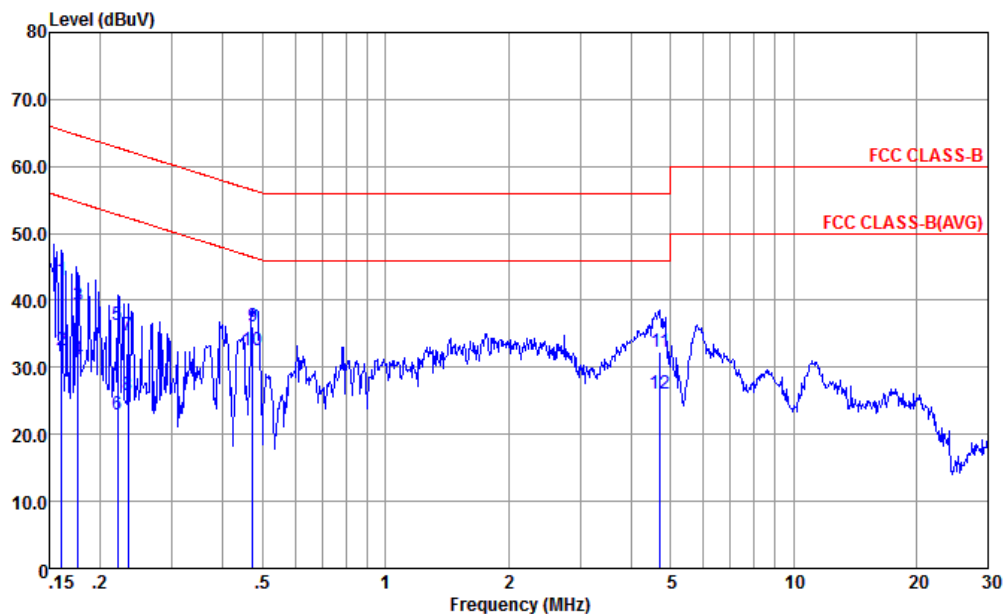


Site : CO01-KS
Condition : FCC CLASS-B LISN-L-161017-060103 LINE
Project : (FC) 760101
mode : Mode 4
: 865800030006719 #8

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.159	38.48	-27.04	65.52	27.61	0.49	10.38	QP
2	0.159	26.18	-29.34	55.52	15.31	0.49	10.38	Average
3	0.169	37.41	-27.62	65.03	26.60	0.44	10.37	QP
4	0.169	29.11	-25.92	55.03	18.30	0.44	10.37	Average
5	0.176	36.36	-28.32	64.68	25.60	0.40	10.36	QP
6	0.176	22.96	-31.72	54.68	12.20	0.40	10.36	Average
7	0.224	31.18	-31.48	62.66	20.60	0.27	10.31	QP
8	0.224	21.08	-31.58	52.66	10.50	0.27	10.31	Average
9	0.447	36.76	-20.17	56.93	26.30	0.27	10.19	QP
10 *	0.447	32.76	-14.17	46.93	22.30	0.27	10.19	Average
11	0.474	36.06	-20.39	56.45	25.60	0.27	10.19	QP
12	0.474	30.76	-15.69	46.45	20.30	0.27	10.19	Average



Test Mode :	Mode 4	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL
Project : (FC) 760101
mode : Mode 4
: 865800030006719 #8

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	42.92	-22.51	65.43	32.20	0.34	10.38	QP
2	0.161	32.62	-22.81	55.43	21.90	0.34	10.38	Average
3	0.177	39.19	-25.45	64.64	28.50	0.33	10.36	QP
4	0.177	31.29	-23.35	54.64	20.60	0.33	10.36	Average
5	0.221	36.25	-26.54	62.79	25.60	0.34	10.31	QP
6	0.221	22.85	-29.94	52.79	12.20	0.34	10.31	Average
7	0.234	34.84	-27.46	62.30	24.20	0.34	10.30	QP
8	0.234	25.94	-26.36	52.30	15.30	0.34	10.30	Average
9	0.474	36.17	-20.28	56.45	25.60	0.38	10.19	QP
10 *	0.474	32.47	-13.98	46.45	21.90	0.38	10.19	Average
11	4.721	32.22	-23.78	56.00	21.60	0.38	10.24	QP
12	4.721	26.12	-19.88	46.00	15.50	0.38	10.24	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

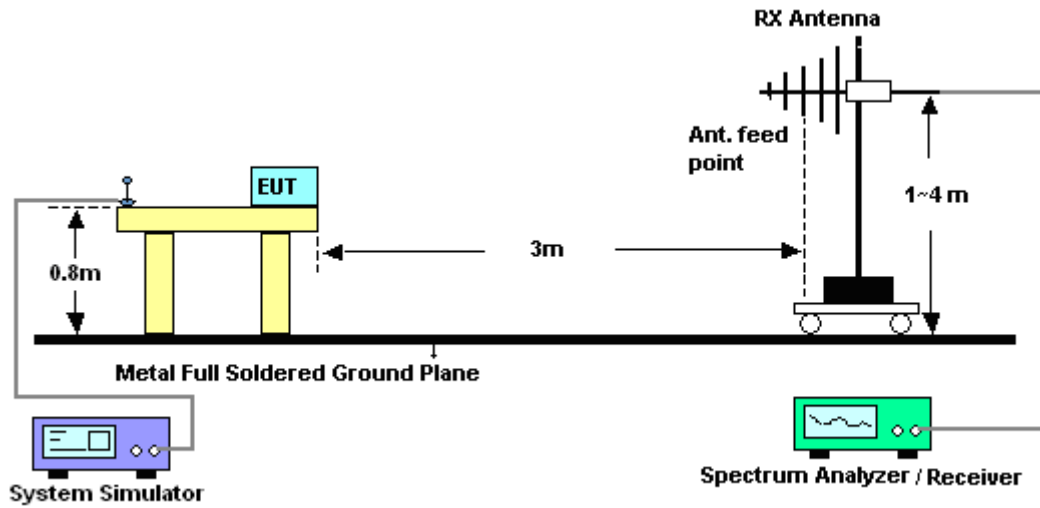
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

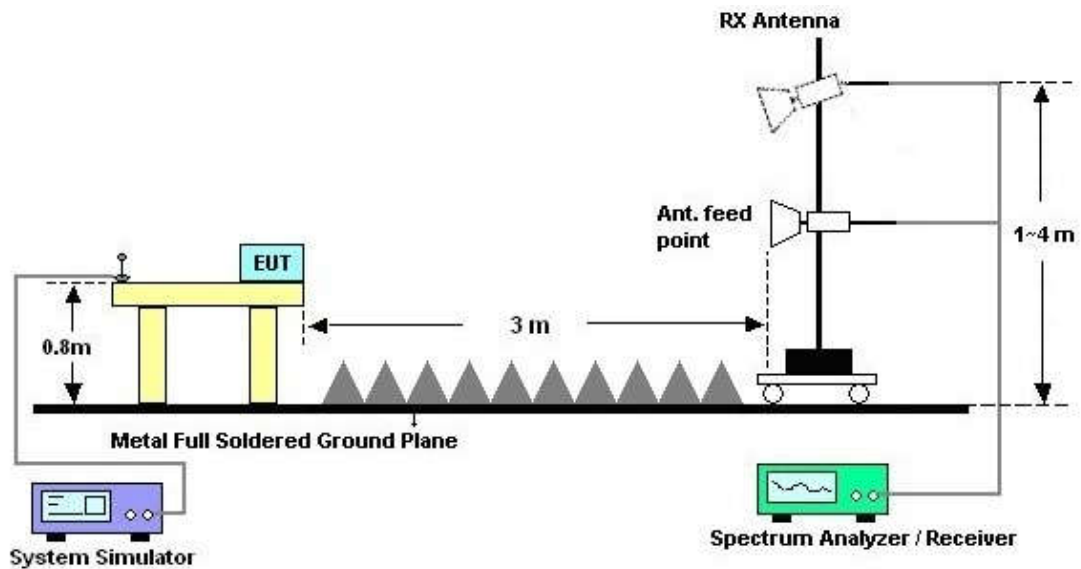
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 (dBμV/m) = 20 log Emission level (μV/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



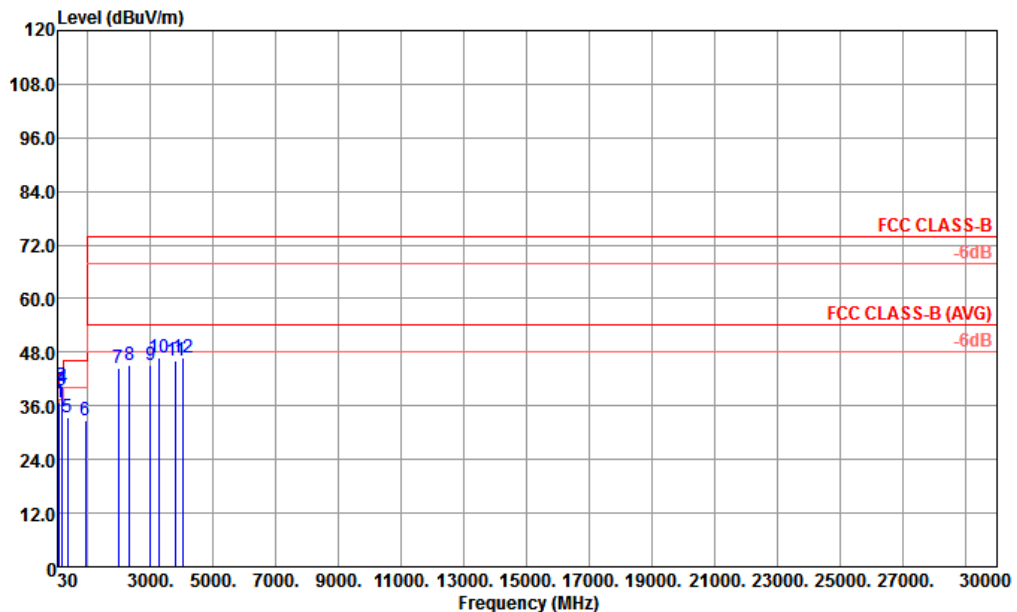
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 4	Temperature :	21~22°C
Test Engineer :	Leo Liao	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx		

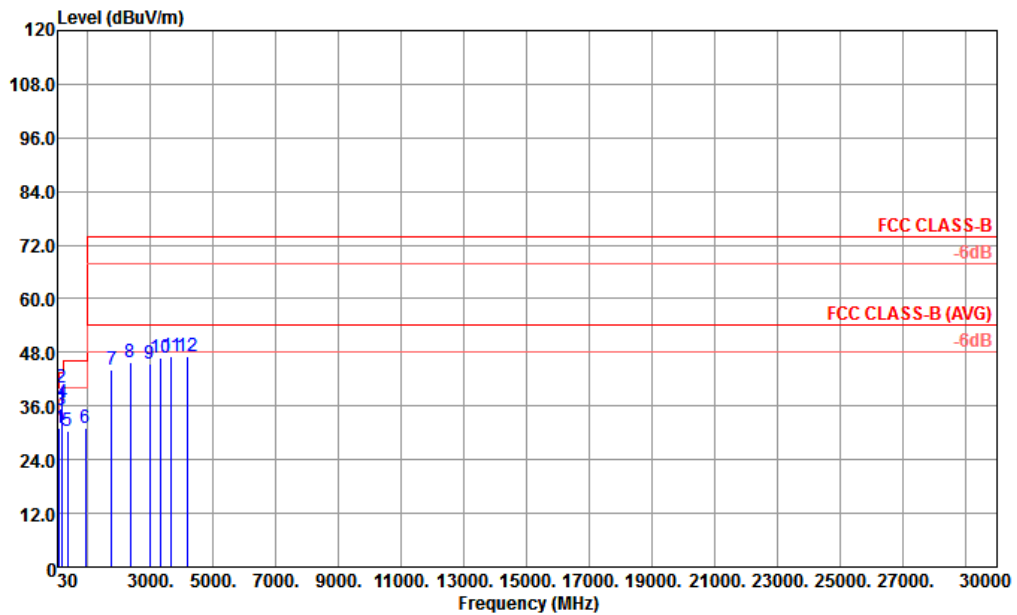


Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL
Project : (FC) 760101
Mode : 4
IMEI : 865800030007089 #9

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm deg
1 !	87.90	36.70	-3.30	40.00	52.24	16.25	0.21	32.00	--- Peak
2 !	165.81	40.36	-3.14	43.50	54.80	16.96	0.35	31.75	200 QP
3 !	170.67	39.49	-4.01	43.50	54.04	16.82	0.36	31.73	--- Peak
4 !	174.99	40.26	-3.24	43.50	54.99	16.62	0.37	31.72	200 75 QP
5	344.80	33.57	-12.43	46.00	44.15	19.67	0.71	30.96	--- Peak
6	917.40	32.71	-13.29	46.00	30.52	27.82	1.71	27.34	--- Peak
7	1960.00	44.50	-29.50	74.00	43.06	29.81	4.47	32.84	--- Peak
8	2338.00	45.12	-28.88	74.00	40.29	31.09	5.64	31.90	--- Peak
9	2988.00	45.17	-28.83	74.00	38.56	32.35	3.09	28.83	--- Peak
10	3270.00	46.83	-27.17	74.00	38.22	33.16	6.01	30.56	--- Peak
11	3798.00	46.03	-27.97	74.00	34.98	34.68	6.59	30.22	--- Peak
12	4047.00	46.93	-27.07	74.00	36.36	35.08	6.17	30.68	--- Peak



Test Mode :	Mode 4	Temperature :	21~22°C
Test Engineer :	Leo Liao	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 4 Idle + USB Cable(Data Link with Notebook) + WLAN Idle(5G) + Bluetooth Idle + Earphone + GNSS Rx		



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL
 Project : (FC) 760101
 Mode : 4
 IMEI : 865800030007089 #9

	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	88.59	31.18	-12.32	43.50	46.17	16.80	0.21	32.00	---	Peak
2	165.54	39.96	-3.54	43.50	54.40	16.96	0.35	31.75	100	Peak
3	170.67	35.09	-8.41	43.50	49.64	16.82	0.36	31.73	---	Peak
4	174.72	36.85	-6.65	43.50	51.52	16.68	0.37	31.72	---	Peak
5	344.80	30.31	-15.69	46.00	40.89	19.67	0.71	30.96	---	Peak
6	923.70	31.14	-14.86	46.00	28.75	27.98	1.71	27.30	---	Peak
7	1760.00	44.14	-29.86	74.00	45.24	29.07	4.49	34.66	---	Peak
8	2360.00	45.87	-28.13	74.00	40.66	31.13	5.62	31.54	---	Peak
9	2968.00	45.35	-28.65	74.00	39.00	32.30	3.09	29.04	---	Peak
10	3339.00	46.92	-27.08	74.00	38.13	33.20	5.96	30.37	---	Peak
11	3672.00	47.11	-26.89	74.00	36.93	34.04	6.24	30.10	---	Peak
12	4173.00	47.11	-26.89	74.00	36.15	35.30	6.60	30.94	---	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	Jul. 24, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
RF Cable	WOKEN	Y5T	00100N1Q3N1	150kHz~30MHz	Aug. 26, 2016	Jul. 24, 2017	Aug. 25, 2017	Conduction (CO01-KS)
Transient limiter	COM-POWER	LIT-153	531035	150kHz~30MHz	Aug. 26, 2016	Jul. 24, 2017	Aug. 25, 2017	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Ma x 30dBm	Aug. 09, 2016	Aug. 07, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44G,MAX 30dB	Apr. 18, 2017	Aug. 07, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz~2GHz	Aug. 20, 2016	Aug. 07, 2017	Aug. 19, 2017	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 22, 2016	Aug. 07, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz ~40GHz	Feb. 15, 2017	Aug. 07, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Oct. 13, 2016	Aug. 07, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 09, 2016	Aug. 07, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 13, 2016	Aug. 07, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Aug. 07, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Aug. 07, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Aug. 07, 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% ($U = 2U_c(y)$)	5.2 dB
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Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.7 dB
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Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

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