



FCC Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : LTE/CDMA Multi-Mode Digital
Mobile Phone
BRAND NAME : ZTE
MODEL NAME : N9517
FCC ID : SRQ-N9517
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Jun. 05, 2017 and testing was completed on Aug. 22, 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
FC760504	Rev. 01	Initial issue of report	Sep. 01, 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 11.09 dB at 0.456 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 4.94 dB at 165.81 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/CDMA Multi-Mode Digital Mobile Phone
Brand Name	ZTE
Model Name	N9517
FCC ID	SRQ-N9517
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/ HSPA+ (16QAM uplink is not supported)/HSPA/LTE WLAN2.4GHz 802.11b/g/n HT20 Bluetoothv3.0+EDR/ Bluetoothv4.0 LE Bluetoothv4.1 LE/ Bluetoothv4.2 LE
IMEI Code	Conduction: 990008920008914 Radiation: 990008920008906
HW Version	N9517HW1.0
SW Version	N9517V1.0.0B02
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 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 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 25 : 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 814.7MHz ~ 848.3 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA2000 BC10 : 817.9 MHz ~ 823.1 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 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 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 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 25 : 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 859.7MHz ~ 893.3 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz CDMA2000 BC10 : 862.9 MHz ~ 868.1 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM: 87.5MHz~108MHz
Antenna Type	WWAN : PIFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GNSS : PIFA Antenna FM: External Headset Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK (Uplink) HSDPA : QPSK (Uplink)



	HSUPA : QPSK (Uplink) HSPA+ : 16QAM (uplink is not supported) LTE: QPSK / 16QAM CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK FM
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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

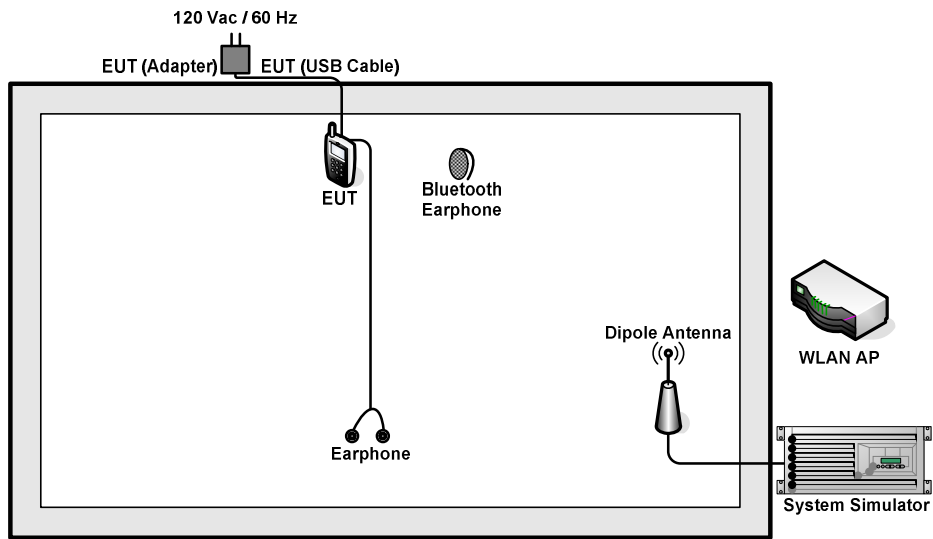
2.1. Test Mode

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.

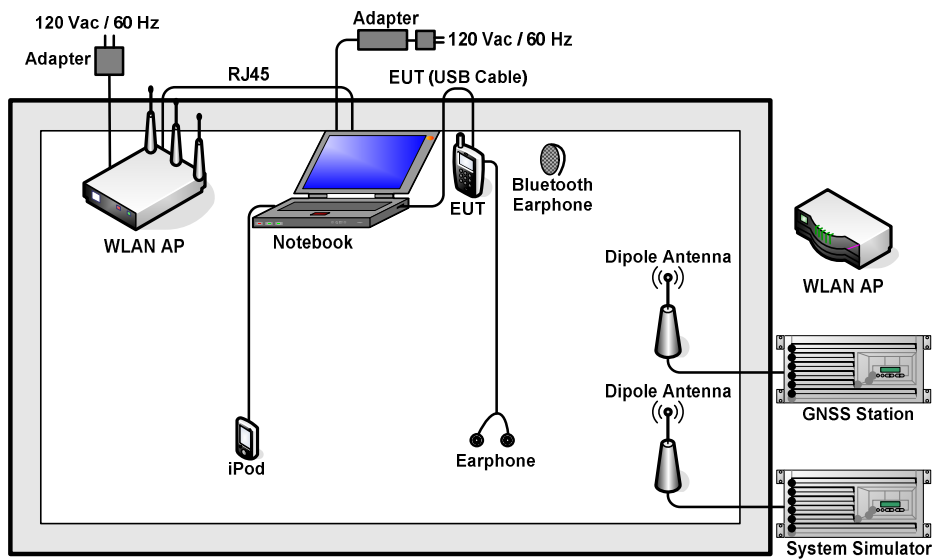
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter1) + Camera(Rear) + Battery<Fig. 1>
	Mode 2: PCS1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter2) + Camera(Front) + Battery<Fig. 1>
	Mode 3: WCDMA Band V Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter1) + MPEG4 + Battery<Fig. 1>
	Mode 4: LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery<Fig. 2>
Radiated Emissions < 1GHz	Mode 1: GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter1) + Camera(Rear) + Battery<Fig. 1>
	Mode 2: PCS1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter2) + Camera(Front) + Battery<Fig. 1>
	Mode 3: WCDMA Band V Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter2) + MPEG4 + Battery<Fig. 1>
	Mode 4: LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery<Fig. 2>
Radiated Emissions ≥ 1GHz	Mode 1: LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery<Fig. 2>
Remark:	
<ol style="list-style-type: none"> The worst case of AC is mode 1; 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.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
3.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH308	PYAHS-107W	N/A	N/A
5.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A
6.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
8.	Earphone	Lenovo	LH102	N/A	Unshielded, 1.2 m	N/A
9.	Earphone	Lenovo	SH100	N/A	Unshielded, 1.2 m	N/A
10.	iPod	Apple	A1199	FCC DoC	Unshielded, 1.2 m	N/A
11.	SD Card	Kingston	SDC4/4GB	N/A	N/A	N/A
12.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
13.	LABSAT GPS Simulator	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded,1.8 m



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 "GPS Test" to make the EUT receive continuous signals from GNSS station
3. Execute "Video player" to play MPEG4 files.
4. Turn on camera to capture images.



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.

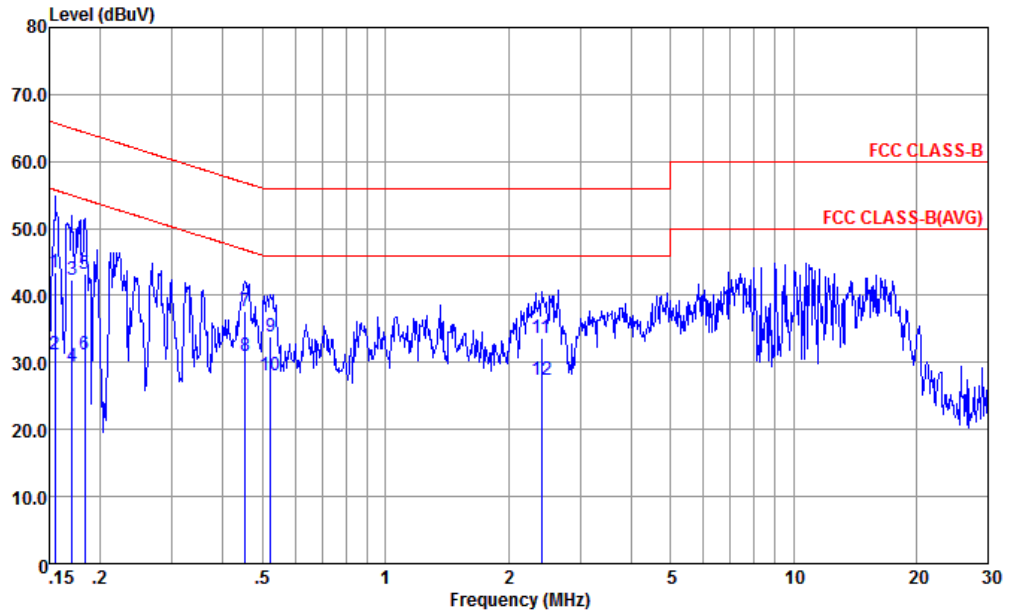
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Amos Zhang	Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter1) + Camera(Rear) + Battery		

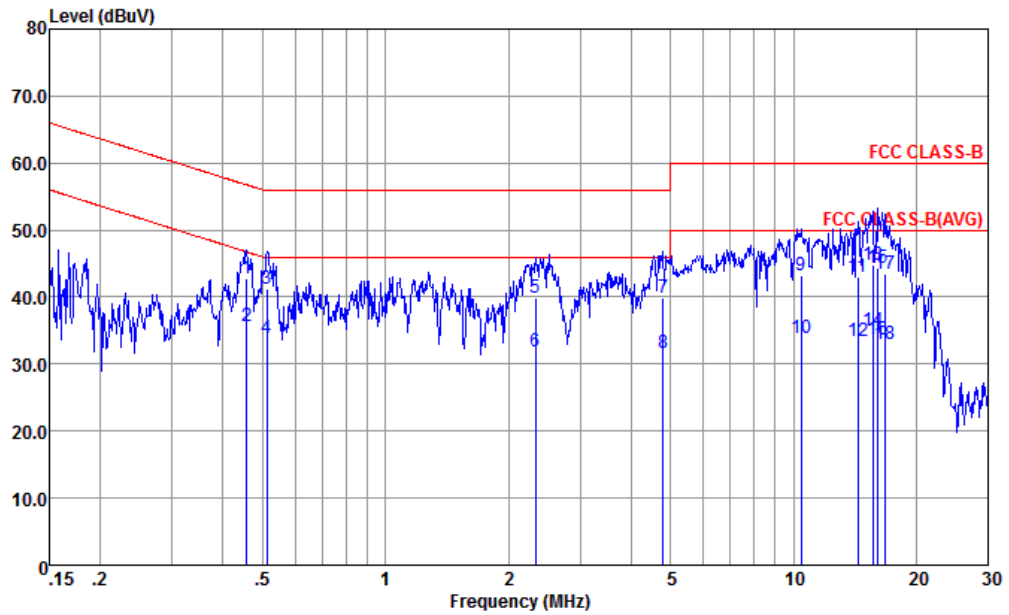


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.155	43.41	-22.33	65.74	32.50	0.52	10.39	QP
2	0.155	31.21	-24.53	55.74	20.30	0.52	10.39	Average
3	0.170	42.29	-22.65	64.94	31.50	0.42	10.37	QP
4	0.170	29.39	-25.55	54.94	18.60	0.42	10.37	Average
5	0.183	43.30	-21.03	64.33	32.60	0.35	10.35	QP
6	0.183	31.30	-23.03	54.33	20.60	0.35	10.35	Average
7	0.454	37.56	-19.24	56.80	27.10	0.27	10.19	QP
8 *	0.454	31.06	-15.74	46.80	20.60	0.27	10.19	Average
9	0.524	33.95	-22.05	56.00	23.49	0.27	10.19	QP
10	0.524	28.05	-17.95	46.00	17.59	0.27	10.19	Average
11	2.409	33.71	-22.29	56.00	23.30	0.21	10.20	QP
12	2.409	27.51	-18.49	46.00	17.10	0.21	10.20	Average



Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Amos Zhang	Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Charging from Adapter1) + Camera(Rear) + Battery		

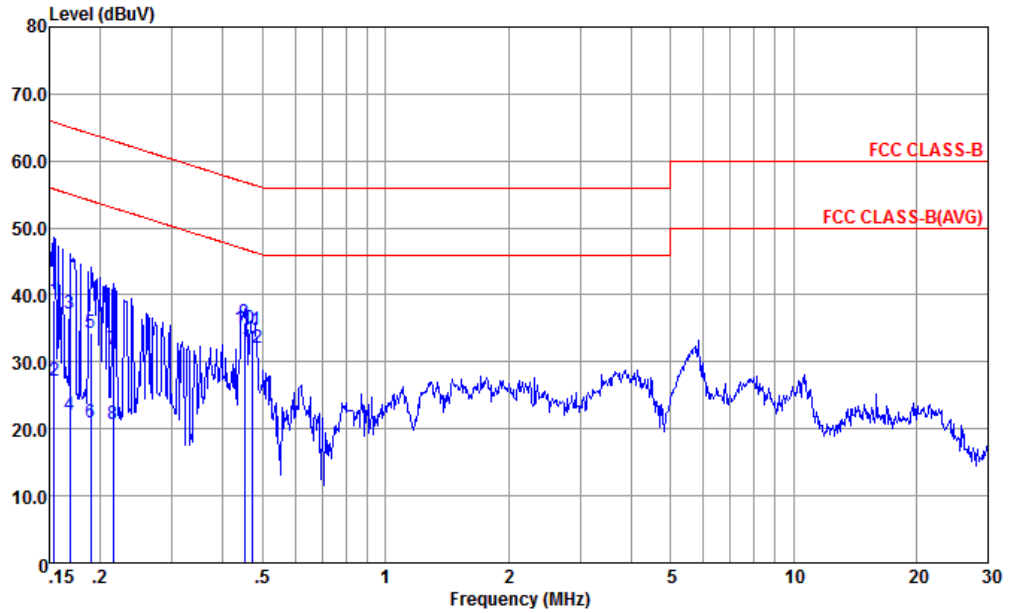


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.456	42.77	-13.99	56.76	32.20	0.38	10.19	QP
2 *	0.456	35.67	-11.09	46.76	25.10	0.38	10.19	Average
3	0.513	41.17	-14.83	56.00	30.60	0.38	10.19	QP
4	0.513	33.87	-12.13	46.00	23.30	0.38	10.19	Average
5	2.334	39.90	-16.10	56.00	29.30	0.40	10.20	QP
6	2.334	31.90	-14.10	46.00	21.30	0.40	10.20	Average
7	4.797	39.92	-16.08	56.00	29.30	0.38	10.24	QP
8	4.797	31.72	-14.28	46.00	21.10	0.38	10.24	Average
9	10.452	43.13	-16.87	60.00	32.50	0.28	10.35	QP
10	10.452	33.93	-16.07	50.00	23.30	0.28	10.35	Average
11	14.364	42.92	-17.08	60.00	32.20	0.28	10.44	QP
12	14.364	33.32	-16.68	50.00	22.60	0.28	10.44	Average
13	15.635	44.69	-15.31	60.00	33.89	0.28	10.52	QP
14	15.635	34.89	-15.11	50.00	24.09	0.28	10.52	Average
15	16.140	44.44	-15.56	60.00	33.59	0.28	10.57	QP
16	16.140	33.74	-16.26	50.00	22.89	0.28	10.57	Average
17	16.839	43.41	-16.59	60.00	32.50	0.28	10.63	QP
18	16.839	33.01	-16.99	50.00	22.10	0.28	10.63	Average



Test Mode :	Mode 4	Temperature :	23~25°C
Test Engineer :	Amos Zhang	Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery		

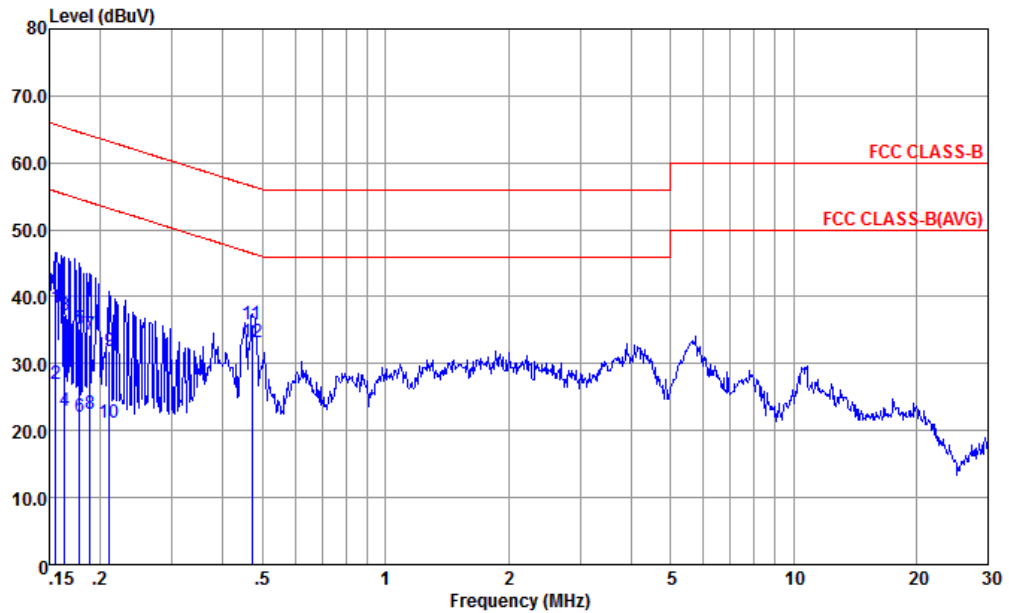


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	39.11	-26.67	65.78	28.19	0.53	10.39	QP
2	0.154	27.21	-28.57	55.78	16.29	0.53	10.39	Average
3	0.169	37.11	-27.92	65.03	26.30	0.44	10.37	QP
4	0.169	22.01	-33.02	55.03	11.20	0.44	10.37	Average
5	0.189	34.26	-29.80	64.06	23.60	0.32	10.34	QP
6	0.189	20.96	-33.10	54.06	10.30	0.32	10.34	Average
7	0.215	31.79	-31.22	63.01	21.20	0.27	10.32	QP
8	0.215	20.79	-32.22	53.01	10.20	0.27	10.32	Average
9	0.452	35.96	-20.89	56.85	25.50	0.27	10.19	QP
10 *	0.452	35.06	-11.79	46.85	24.60	0.27	10.19	Average
11	0.471	34.66	-21.83	56.49	24.20	0.27	10.19	QP
12	0.471	32.06	-14.43	46.49	21.60	0.27	10.19	Average



Test Mode :	Mode 4	Temperature :	23~25°C
Test Engineer :	Amos Zhang	Relative Humidity :	44~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery		



Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	38.33	-27.36	65.69	27.60	0.34	10.39	QP
2	0.156	26.93	-28.76	55.69	16.20	0.34	10.39	Average
3	0.163	37.31	-27.99	65.30	26.59	0.34	10.38	QP
4	0.163	23.01	-32.29	55.30	12.29	0.34	10.38	Average
5	0.178	35.29	-29.30	64.59	24.60	0.33	10.36	QP
6	0.178	21.99	-32.60	54.59	11.30	0.33	10.36	Average
7	0.188	34.28	-29.83	64.11	23.60	0.33	10.35	QP
8	0.188	22.58	-31.53	54.11	11.90	0.33	10.35	Average
9	0.211	31.86	-31.32	63.18	21.21	0.33	10.32	QP
10	0.211	21.26	-31.92	53.18	10.61	0.33	10.32	Average
11	0.471	35.77	-20.72	56.49	25.20	0.38	10.19	QP
12 *	0.471	33.17	-13.32	46.49	22.60	0.38	10.19	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

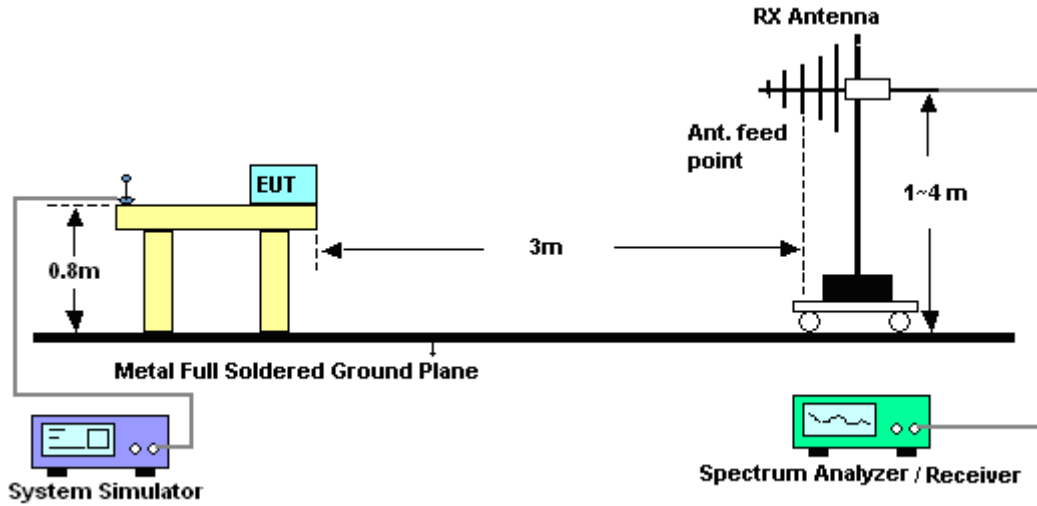
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

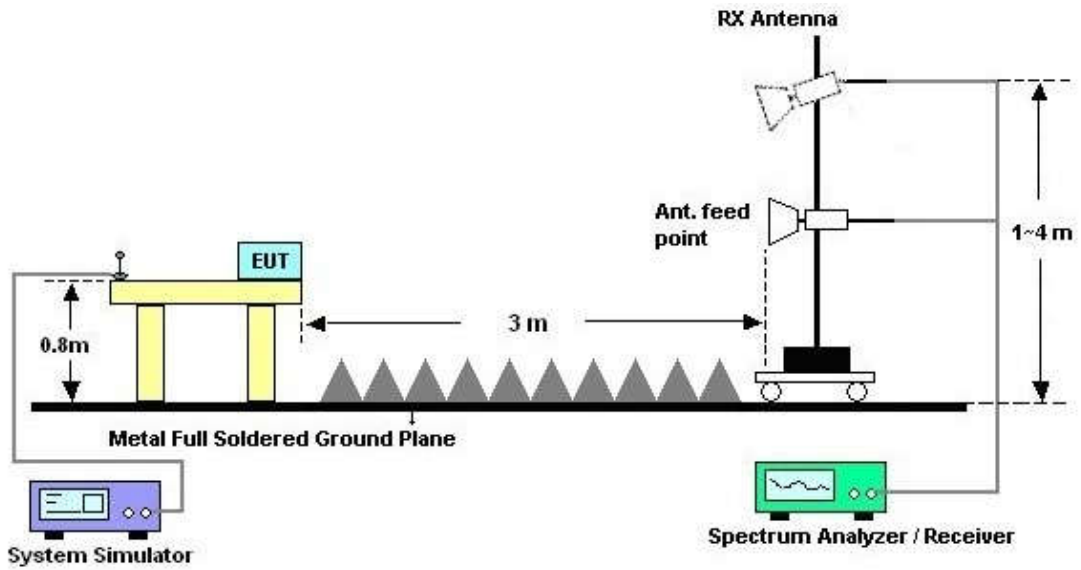
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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



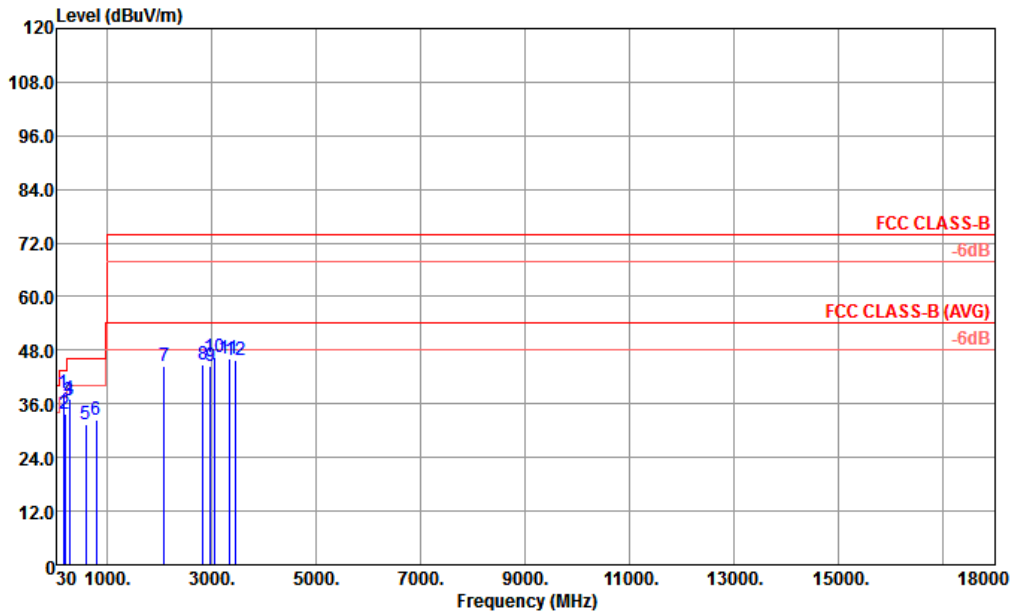
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 4	Temperature :	21~22°C
Test Engineer :	Peter Peng	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery		

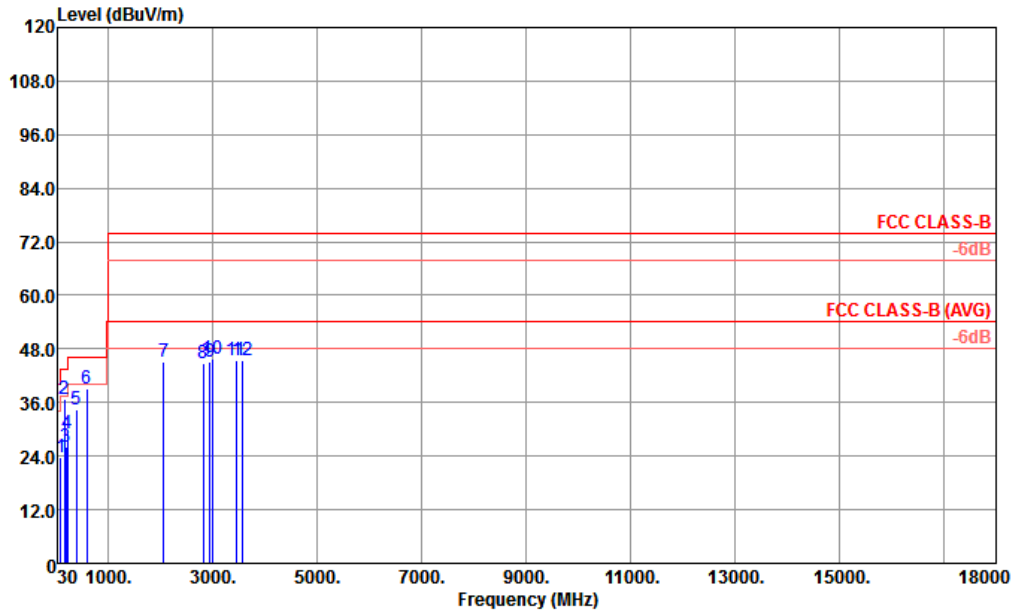


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 !	165.81	38.56	-4.94	43.50	53.00	16.96	0.35	31.75	200	89 QP	
2	194.16	33.75	-9.75	43.50	49.01	16.00	0.40	31.66	---	---	Peak
3	283.80	36.77	-9.23	46.00	49.68	17.78	0.56	31.25	---	---	Peak
4	285.69	36.97	-9.03	46.00	49.81	17.84	0.56	31.24	---	---	Peak
5	598.90	31.47	-14.53	46.00	35.48	24.60	0.90	29.51	---	---	Peak
6	799.10	32.43	-13.57	46.00	32.66	26.51	1.47	28.21	---	---	Peak
7	2090.00	44.44	-29.56	74.00	40.98	30.45	5.05	32.04	---	---	Peak
8	2832.00	44.68	-29.32	74.00	42.34	31.90	2.81	32.37	---	---	Peak
9	2978.00	44.55	-29.45	74.00	41.39	32.30	3.09	32.23	---	---	Peak
10	3048.00	46.38	-27.62	74.00	42.37	32.53	3.79	32.31	---	---	Peak
11	3336.00	46.02	-27.98	74.00	39.05	33.19	5.96	32.18	---	---	Peak
12	3450.00	45.74	-28.26	74.00	38.54	33.36	5.98	32.14	---	---	Peak



Test Mode :	Mode 4	Temperature :	21~22°C
Test Engineer :	Peter Peng	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 4 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + USB Cable(Data Link with Notebook) + GNSS Rx + Battery		



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	92.91	23.70	-19.80	43.50	38.32	17.13	0.22	31.97	---	---	Peak
2	165.81	36.69	-6.81	43.50	51.13	16.96	0.35	31.75	100	0	Peak
3	194.70	26.16	-17.34	43.50	41.48	15.94	0.40	31.66	---	---	Peak
4	222.78	29.15	-16.85	46.00	43.94	16.31	0.45	31.55	---	---	Peak
5	398.00	34.53	-11.47	46.00	38.77	25.47	0.92	30.63	---	---	Peak
6	598.20	39.07	-6.93	46.00	43.08	24.60	0.90	29.51	---	---	Peak
7	2060.00	44.99	-29.01	74.00	41.77	30.35	4.90	32.03	---	---	Peak
8	2818.00	44.87	-29.13	74.00	42.64	31.85	2.76	32.38	---	---	Peak
9	2948.00	45.18	-28.82	74.00	42.14	32.25	3.04	32.25	---	---	Peak
10	3015.00	45.89	-28.11	74.00	42.22	32.46	3.46	32.25	---	---	Peak
11	3453.00	45.55	-28.45	74.00	38.35	33.36	5.98	32.14	---	---	Peak
12	3564.00	45.62	-28.38	74.00	38.21	33.55	6.05	32.19	---	---	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	Aug. 22, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Aug. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Aug. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Aug. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;M ax 30dBm	Oct. 22, 2016	Aug. 22, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44G,MAX 30dB	Apr. 18, 2017	Aug. 22, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz~2GHz	Apr. 22, 2017	Aug. 22, 2017	Apr. 21, 2018	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 22, 2016	Aug. 22, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz ~40GHz	Feb. 15, 2017	Aug. 22, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1MHz ~1000MHz / 32 dB	Apr. 18, 2017	Aug. 22, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 13, 2016	Aug. 22, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Aug. 22, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Aug. 22, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Aug. 22, 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% ($U = 2Uc(y)$)	2.3dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.2 dB
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Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

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

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