FCC Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	MI
MODEL NAME	:	M1806E7TH
FCC ID	:	2AFZZ-RMSE7TH
STANDARD	:	FCC CFR Title 47 Part 15 Subpart B
CLASSIFICATION	:	Certification

The product was received on Jun. 26, 2018 and testing was completed on Aug. 14, 2018. 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.

James Huang

NVLAP®
TESTING
NVLAP LAB CODE 600155-0

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
FC862604-01	Rev. 01	Initial issue of report	Aug. 21, 2018

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 4.85 dB at 0.159 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.93 dB at 40.670 MHz for Quasi-Peak

1. General Description

1.1. Applicant

Xiaomi Communications Co., Ltd.
The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.2. Manufacturer

Xiaomi Communications Co., Ltd.
The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	MI
Model Name	M1806E7TH
FCC ID	2AFZZ-RMSE7TH
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
IMEI Code	Conduction: 869804030101021/869804030104801 Radiation: 869804030101021/869804030104801
HW Version	P2.0
SW Version	MIUI 9
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. All test is use 4 + 64GB memory prototype test, only the worst model using 4 + 32GB prototype test, according to the different memory, 4 + 64GB prototype test data can completely replace 4 + 32GB prototype test data.

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 38 : 2572.5 MHz ~ 2617.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5720 MHz 5745 MHz ~ 5805 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 : 2622.5 MHz ~ 2687.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5720 MHz 5745 MHz ~ 5805 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM : 88 MHz ~ 108 MHz
Antenna Type	WWAN : PIFA & Loop 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/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (Uplink is not supported) DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM / 256QAM (Downlink only) 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) : π/4-DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK FM

Note:

1. GNSS=GPS + GLONASS + Beidou + Galileo + SBAS
2. WLAN operation in 5600 MHz ~ 5650 MHz is notched.

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	03CH03-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 CFR Title 47 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.

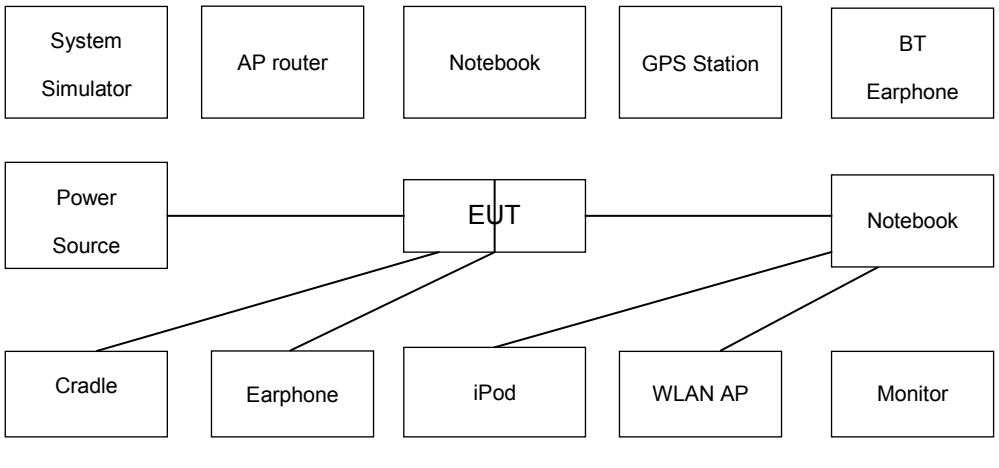
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + USB Cable1(Charging from Adapter1) + Antenna 1 Mode 2: GSM 1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 3: WCDMA Band V Idle + Earphone+ Bluetooth Idle + WLAN Idle(2.4G) + MPEG4 + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 4: WCDMA Band II Idle + Earphone+ Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + USB Cable1(Data Link with Notebook) + Antenna 1 Mode 5: LTE Band 4 Idle + Earphone+ Bluetooth Idle + WLAN Idle(2.4G) + GNSS Rx + USB Cable2(Data Link with Notebook) + Antenna 1 Mode 6: LTE Band 7 Idle + Earphone+ Bluetooth Idle + WLAN Idle(5G) + FM Rx + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 7: GSM 1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + USB Cable2(Charging from Adapter2) + Antenna 2
Radiated Emissions	Mode 1: GSM 850 Idle + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + USB Cable1(Charging from Adapter1) + Antenna 1 Mode 2: GSM 1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 3: WCDMA Band V Idle + Earphone+ Bluetooth Idle + WLAN Idle(2.4G) + MPEG4 + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 4: WCDMA Band II Idle + Earphone+ Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + USB Cable1(Data Link with Notebook) + Antenna 1 Mode 5: LTE Band 4 Idle + Earphone+ Bluetooth Idle + WLAN Idle(2.4G) + GNSS Rx + USB Cable2(Data Link with Notebook) + Antenna 1 Mode 6: LTE Band 7 Idle + Earphone+ Bluetooth Idle + WLAN Idle(5G) + FM Rx + USB Cable2(Charging from Adapter2) + Antenna 1 Mode 7: GSM 1900 Idle + Earphone + Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + USB Cable2(Charging from Adapter2) + Antenna 2

Remark:

1. The worst case of AC is mode 2; only the test data of this mode is reported.
2. The worst case of RE is mode 2; only the test data of this mode is reported.
3. Data Link with Notebook means data application transferred mode between EUT and Notebook.
4. Antenna 1: Bottom Antenna, Antenna 2: Top Antenna. The Antenna 2 is verified worse case of Antenna 1.

2.2. Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

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,1.8m
2.	GNSS Station	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded, 1.8 m
3.	FM Station	R&S	SMBV100A	258305	N/A	N/A
4.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
5.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
6.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
8.	Bluetooth Earphone	Xiaomi	LYEJ02LM	N/A	N/A	N/A
9.	SD Card	Kingston	8GB	N/A	N/A	N/A
10.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
11.	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. Turn on GNSS function to make the EUT receive continuous signals from GNSS station
5. Turn on FM receiver function to make the EUT receive continuous signals from FM 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.

<Class B Limit>

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.

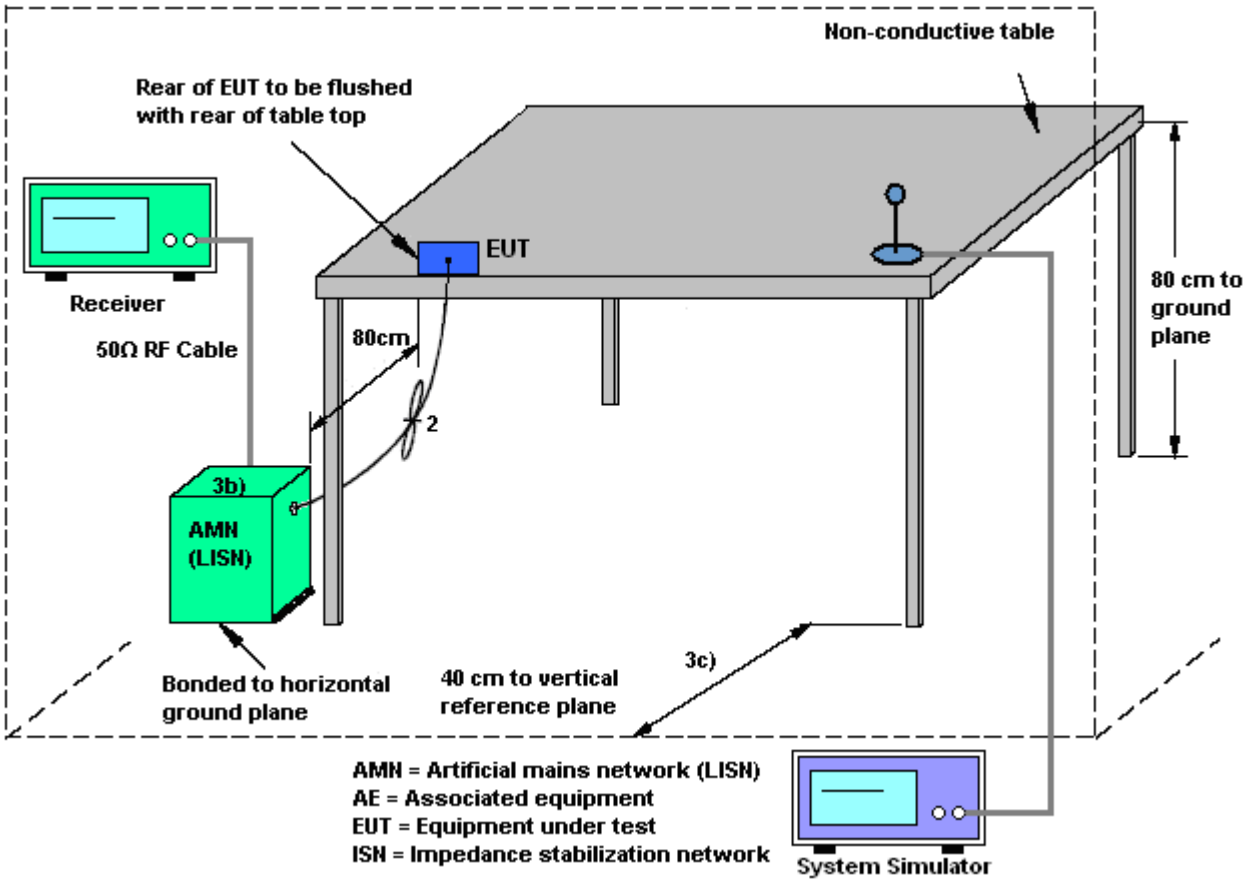
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

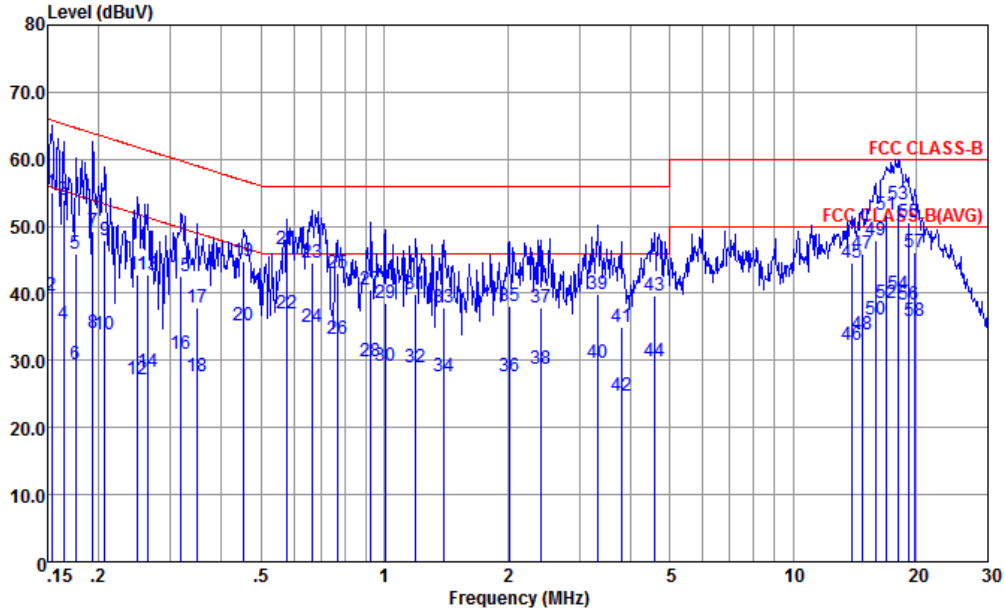
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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

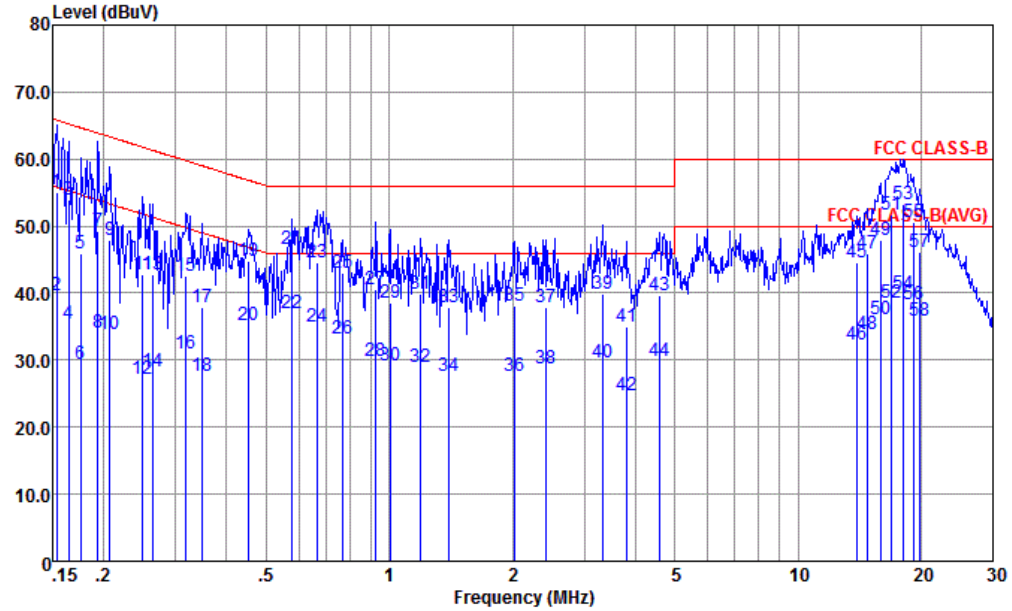
Test Engineer :	Amos Zhang	Temperature :	29.3~29.8℃
		Relative Humidity :	55~59%
Test Voltage :	120Vac / 60Hz	Phase :	Line



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 862604-01
mode : Mode 2
: 869804030101021/869804030104801 #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	54.97	-10.85	65.82	44.20	0.16	10.61	QP
2	0.153	39.57	-16.25	55.82	28.80	0.16	10.61	Average
3	0.164	53.94	-11.31	65.25	43.20	0.17	10.57	QP
4	0.164	35.34	-19.91	55.25	24.60	0.17	10.57	Average
5	0.176	45.91	-18.77	64.68	35.20	0.18	10.53	QP
6	0.176	29.31	-25.37	54.68	18.60	0.18	10.53	Average
7	0.193	49.27	-14.62	63.89	38.60	0.20	10.47	QP
8	0.193	34.17	-19.72	53.89	23.50	0.20	10.47	Average
9	0.207	47.86	-15.46	63.32	37.21	0.20	10.45	QP
10	0.207	33.96	-19.36	53.32	23.31	0.20	10.45	Average
11	0.249	42.85	-18.93	61.78	32.20	0.21	10.44	QP
12	0.249	27.25	-24.53	51.78	16.60	0.21	10.44	Average
13	0.263	42.85	-18.49	61.34	32.19	0.22	10.44	QP
14	0.263	28.25	-23.09	51.34	17.59	0.22	10.44	Average
15	0.318	42.55	-17.20	59.75	31.90	0.23	10.42	QP
16	0.318	30.95	-18.80	49.75	20.30	0.23	10.42	Average
17	0.348	37.85	-21.15	59.00	27.19	0.24	10.42	QP

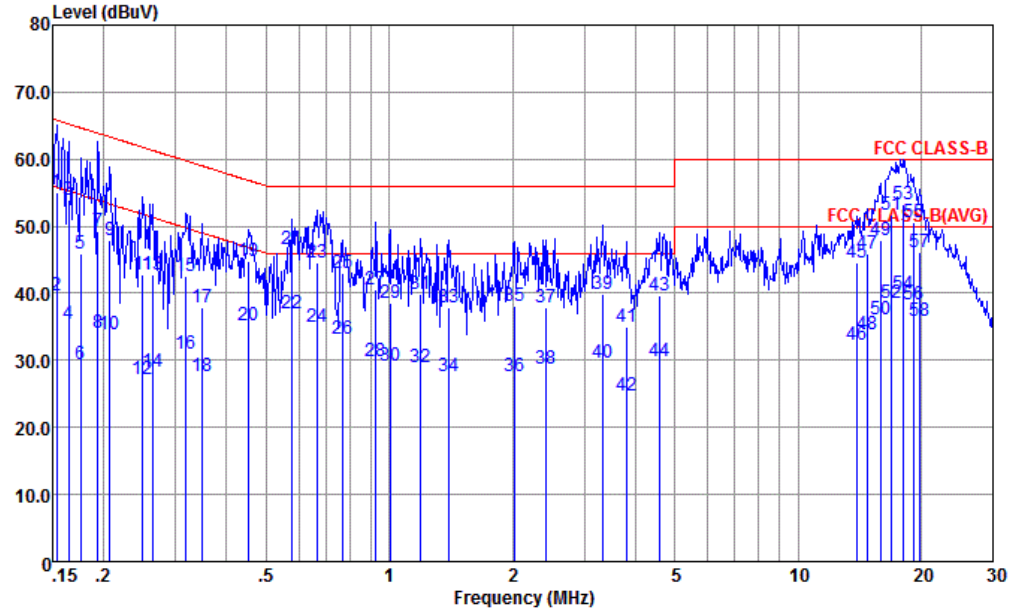
Test Engineer :	Amos Zhang	Temperature :	29.3~29.8℃
		Relative Humidity :	55~59%
Test Voltage :	120Vac / 60Hz	Phase :	Line



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 862604-01
mode : Mode 2
: 869804030101021/869804030104801 #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
18	0.348	27.55	-21.45	49.00	16.89	0.24	10.42	Average
19	0.454	44.80	-12.00	56.80	34.20	0.25	10.35	QP
20	0.454	35.20	-11.60	46.80	24.60	0.25	10.35	Average
21	0.579	46.46	-9.54	56.00	35.96	0.26	10.24	QP
22	0.579	37.10	-8.90	46.00	26.60	0.26	10.24	Average
23	0.665	44.64	-11.36	56.00	34.20	0.26	10.18	QP
24	0.665	35.04	-10.96	46.00	24.60	0.26	10.18	Average
25	0.767	42.98	-13.02	56.00	32.60	0.26	10.12	QP
26	0.767	33.28	-12.72	46.00	22.90	0.26	10.12	Average
27	0.928	40.57	-15.43	56.00	30.20	0.26	10.11	QP
28	0.928	29.97	-16.03	46.00	19.60	0.26	10.11	Average
29	1.005	38.57	-17.43	56.00	28.20	0.26	10.11	QP
30	1.005	29.27	-16.73	46.00	18.90	0.26	10.11	Average
31	1.191	39.90	-16.10	56.00	29.51	0.26	10.13	QP
32	1.191	29.00	-17.00	46.00	18.61	0.26	10.13	Average
33	1.403	37.93	-18.07	56.00	27.50	0.27	10.16	QP
34	1.403	27.63	-18.37	46.00	17.20	0.27	10.16	Average
35	2.023	37.99	-18.01	56.00	27.50	0.28	10.21	QP
36	2.023	27.69	-18.31	46.00	17.20	0.28	10.21	Average

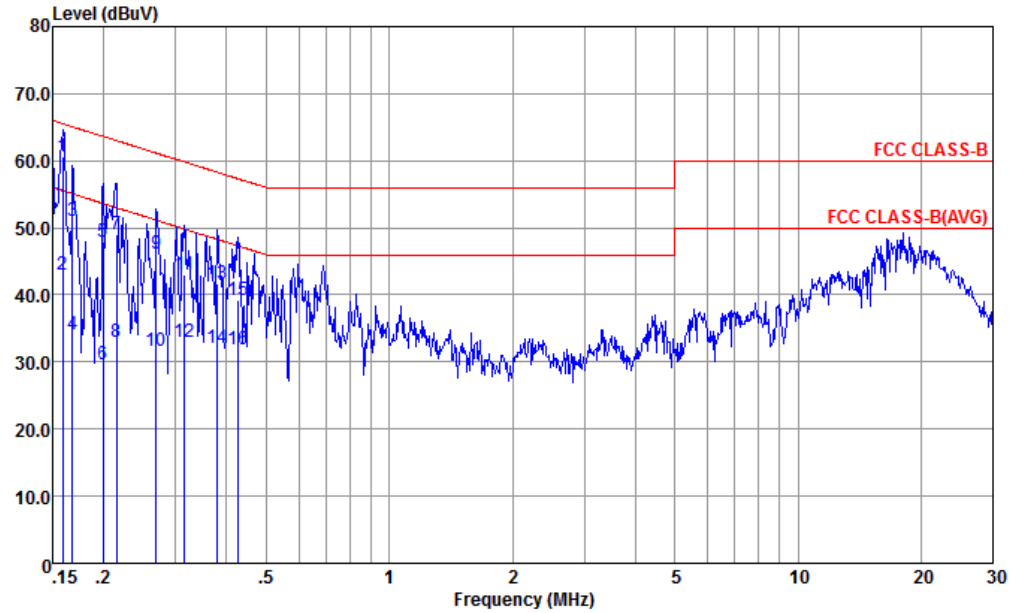
Test Engineer :	Amos Zhang	Temperature :	29.3~29.8℃
		Relative Humidity :	55~59%
Test Voltage :	120Vac / 60Hz	Phase :	Line



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 862604-01
mode : Mode 2
: 869804030101021/869804030104801 #10

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
37		2.409	37.80	-18.20	56.00	27.30	0.30	10.20	QP
38		2.409	28.70	-17.30	46.00	18.20	0.30	10.20	Average
39		3.328	39.81	-16.19	56.00	29.30	0.33	10.18	QP
40		3.328	29.71	-16.29	46.00	19.20	0.33	10.18	Average
41		3.799	35.01	-20.99	56.00	24.50	0.34	10.17	QP
42		3.799	24.81	-21.19	46.00	14.30	0.34	10.17	Average
43		4.598	39.77	-16.23	56.00	29.20	0.36	10.21	QP
44		4.598	29.87	-16.13	46.00	19.30	0.36	10.21	Average
45		13.915	44.47	-15.53	60.00	33.79	0.28	10.40	QP
46		13.915	32.27	-17.73	50.00	21.59	0.28	10.40	Average
47		14.750	45.98	-14.02	60.00	35.30	0.27	10.41	QP
48		14.750	33.88	-16.12	50.00	23.20	0.27	10.41	Average
49		15.885	47.87	-12.13	60.00	37.20	0.24	10.43	QP
50		15.885	36.17	-13.83	50.00	25.50	0.24	10.43	Average
51		16.928	51.77	-8.23	60.00	41.10	0.23	10.44	QP
52		16.928	38.56	-11.44	50.00	27.89	0.23	10.44	Average
53	*	18.039	53.17	-6.83	60.00	42.50	0.21	10.46	QP
54		18.039	39.97	-10.03	50.00	29.30	0.21	10.46	Average
55		19.224	50.56	-9.44	60.00	39.90	0.19	10.47	QP
56		19.224	38.26	-11.74	50.00	27.60	0.19	10.47	Average
57		19.845	46.16	-13.84	60.00	35.50	0.18	10.48	QP
58		19.845	35.86	-14.14	50.00	25.20	0.18	10.48	Average

Test Engineer :	Amos Zhang	Temperature :	29.3~29.8℃
		Relative Humidity :	55~59%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
Project : (FC) 862604-01
mode : Mode 2
: 869804030101021/869804030104801 #10

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	*	0.159	60.67	-4.85	65.52	49.80	0.28	10.59	QP
2		0.159	42.97	-12.55	55.52	32.10	0.28	10.59	Average
3		0.168	51.03	-14.05	65.08	40.20	0.28	10.55	QP
4		0.168	34.03	-21.05	55.08	23.20	0.28	10.55	Average
5		0.200	47.94	-15.68	63.62	37.20	0.28	10.46	QP
6		0.200	29.64	-23.98	53.62	18.90	0.28	10.46	Average
7		0.215	48.93	-14.08	63.01	38.20	0.28	10.45	QP
8		0.215	33.03	-19.98	53.01	22.30	0.28	10.45	Average
9		0.269	46.02	-15.14	61.16	35.31	0.28	10.43	QP
10		0.269	31.62	-19.54	51.16	20.91	0.28	10.43	Average
11		0.315	42.91	-16.93	59.84	32.21	0.28	10.42	QP
12		0.315	33.01	-16.83	49.84	22.31	0.28	10.42	Average
13		0.379	41.60	-16.70	58.30	30.90	0.29	10.41	QP
14		0.379	32.20	-16.10	48.30	21.50	0.29	10.41	Average
15		0.426	39.27	-18.06	57.33	28.60	0.29	10.38	QP
16		0.426	31.87	-15.46	47.33	21.20	0.29	10.38	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:

<Class B Limit>

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

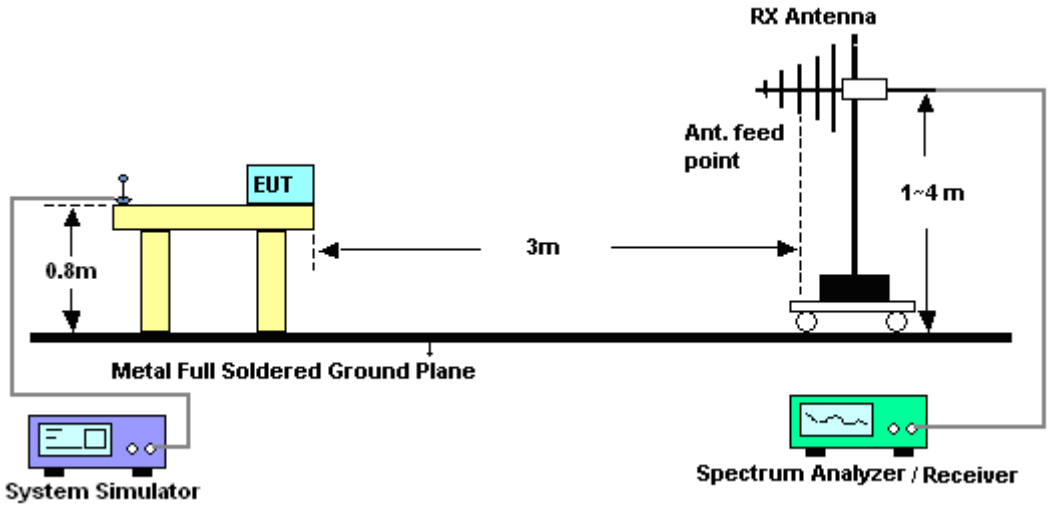
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

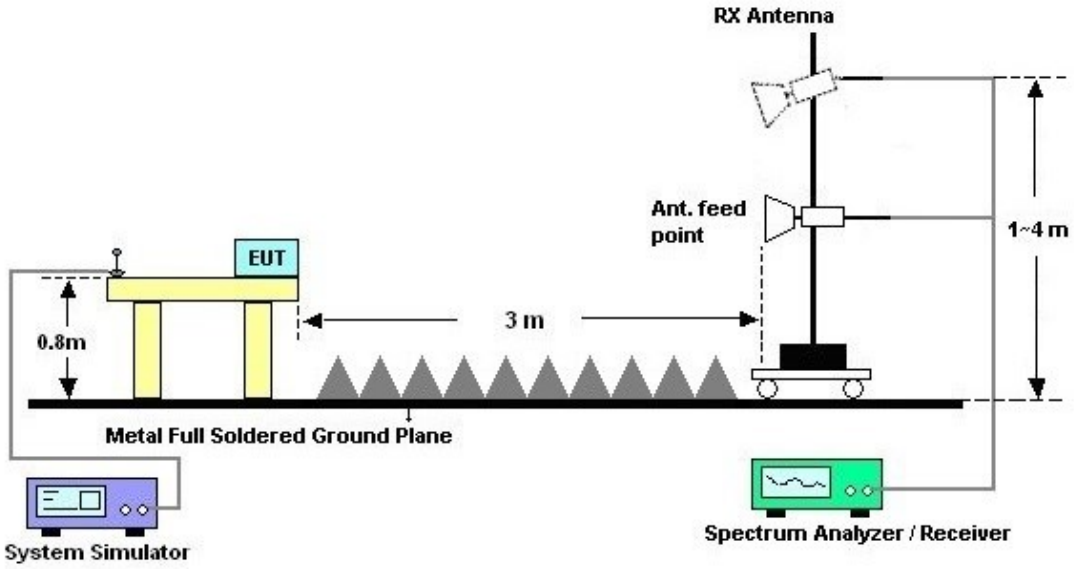
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

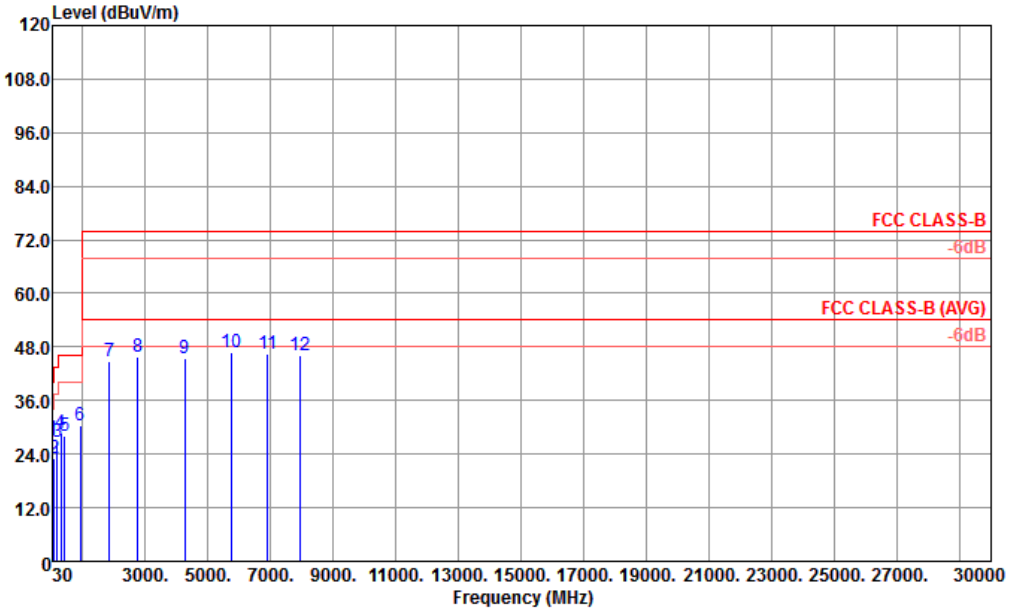


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

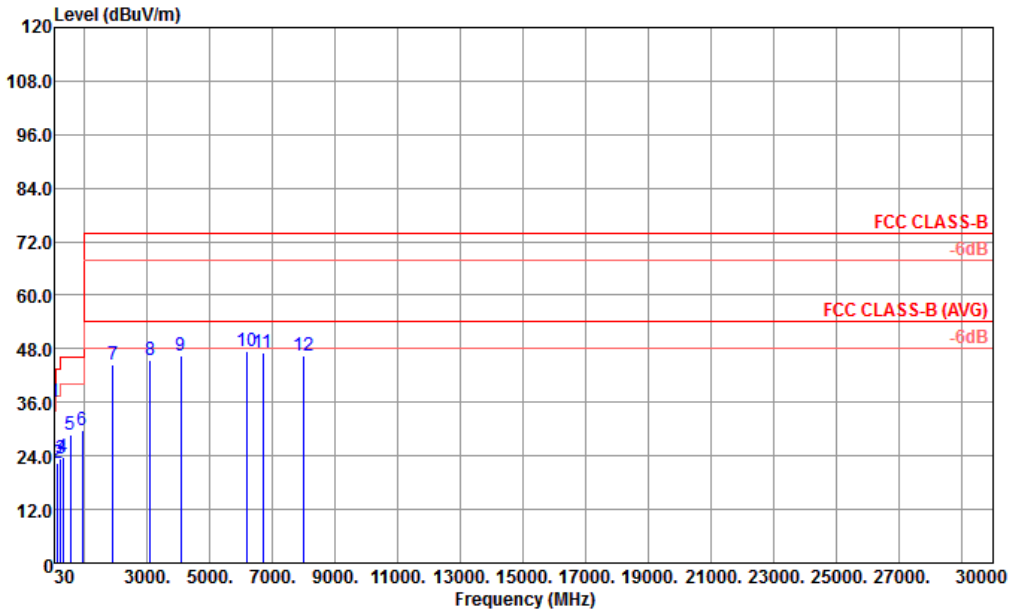
Test Engineer :	Maker Qi	**Temperature :**	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	**Polarization :**	Horizontal



Condition : FCC CLASS-B 3m CBL6112D SN 23188 HORIZONTAL
Project : (FC)862604-01
Mode : 2
IMEI : 869804030101021 869804030104801#10

	Freq	Level	Over Limit	Limit Line	Read 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	41.64	27.32	-12.68	40.00	39.89	17.50	0.62	30.69	100	0	Peak
2	81.41	23.05	-16.95	40.00	39.89	12.91	0.92	30.67	---	---	Peak
3	181.32	26.70	-16.80	43.50	40.73	15.32	1.40	30.75	---	---	Peak
4	315.18	28.68	-17.32	46.00	37.88	19.59	1.88	30.67	---	---	Peak
5	412.18	27.96	-18.04	46.00	34.37	21.93	2.15	30.49	---	---	Peak
6	920.46	30.33	-15.67	46.00	30.08	26.70	3.29	29.74	---	---	Peak
7	1864.00	44.77	-29.23	74.00	45.63	31.17	4.71	36.74	---	---	Peak
8	2760.00	45.75	-28.25	74.00	43.37	32.33	5.78	35.73	---	---	Peak
9	4256.00	45.29	-28.71	74.00	39.51	33.40	7.33	34.95	---	---	Peak
10	5768.00	46.86	-27.14	74.00	38.82	34.73	8.45	35.14	---	---	Peak
11	6912.00	46.40	-27.60	74.00	36.91	35.70	9.57	35.78	---	---	Peak
12	7920.00	46.26	-27.74	74.00	36.23	35.90	10.01	35.88	---	---	Peak

Test Engineer :	Maker Qi	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical



Condition : FCC CLASS-B 3m CBL6112D SN 23188 VERTICAL
Project : (FC)862604-01
Mode : 2
IMEI : 869804030101021 869804030104801#10

		Freq	Level	Over Limit	Limit Line	Read 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	!	40.67	36.07	-3.93	40.00	48.25	17.90	0.61	30.69	100	56	QP
2		129.91	22.50	-21.00	43.50	34.29	17.75	1.16	30.70	---	---	Peak
3		234.67	23.40	-22.60	46.00	35.57	16.88	1.67	30.72	---	---	Peak
4		302.57	23.86	-22.14	46.00	33.43	19.27	1.85	30.69	---	---	Peak
5		549.92	28.75	-17.25	46.00	32.65	24.04	2.51	30.45	---	---	Peak
6		924.34	29.84	-16.16	46.00	29.55	26.74	3.30	29.75	---	---	Peak
7		1896.00	44.61	-29.39	74.00	45.04	31.50	4.75	36.68	---	---	Peak
8		3088.00	45.61	-28.39	74.00	41.95	32.97	6.19	35.50	---	---	Peak
9		4064.00	46.40	-27.60	74.00	40.78	33.50	7.14	35.02	---	---	Peak
10		6200.00	47.52	-26.48	74.00	38.45	35.40	8.89	35.22	---	---	Peak
11		6688.00	47.18	-26.82	74.00	37.71	35.60	9.27	35.40	---	---	Peak
12		8008.00	46.41	-27.59	74.00	36.28	36.00	10.03	35.90	---	---	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. 19, 2018	Aug. 14, 2018	Apr. 18, 2019	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2017	Aug. 14, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2017	Aug. 14, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2017	Aug. 14, 2018	Oct. 11, 2018	Conduction (CO01-KS)
Transient limiter	COM-POWER	LIT-153	531040	150kHz~30MHz	Aug. 25, 2017	Aug. 14, 2018	Aug. 24, 2018	Conduction (CO01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 19, 2017	Aug. 10, 2018	Oct. 18, 2018	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44GHz	Apr. 17, 2018	Aug. 10, 2018	Apr. 16, 2019	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	47610	30MHz-1GHz	Sep. 12, 2017	Aug. 10, 2018	Sep. 11, 2018	Radiation (03CH03-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 21, 2018	Aug. 10, 2018	Jan. 20, 2019	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz ~40GHz	Dec. 06, 2017	Aug. 10, 2018	Dec. 05, 2018	Radiation (03CH03-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Oct. 12, 2017	Aug. 10, 2018	Oct. 11, 2018	Radiation (03CH03-KS)
Amplifier	com-power	PA-103A	161069	1MHz ~1000MHz / 32 dB	Apr. 17, 2018	Aug. 10, 2018	Apr. 16, 2019	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 12, 2017	Aug. 10, 2018	Oct. 11, 2018	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Aug. 10, 2018	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Aug. 10, 2018	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Aug. 10, 2018	NCR	Radiation (03CH03-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))	**2.9 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.9 dB**