



# FCC Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2016-1  
**FCC ID** : IHDT56YF1  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification

The product was received on Jun. 04, 2019 and testing was completed on Jul. 15, 2019. 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.

*Jason Jia*

Reviewed by: Jason Jia / Supervisor

*James Huang*

Approved by: James Huang / Manager



**Sporton International (Kunshan) Inc.**

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



# TABLE OF CONTENTS

**REVISION HISTORY..... 3**

**SUMMARY OF TEST RESULT ..... 4**

**1. GENERAL DESCRIPTION ..... 5**

    1.1. Applicant..... 5

    1.2. Manufacturer ..... 5

    1.3. Product Feature of Equipment Under Test ..... 5

    1.4. Product Specification of Equipment Under Test ..... 6

    1.5. Specification of Accessory ..... 7

    1.6. Modification of EUT ..... 8

    1.7. Test Location ..... 8

    1.8. Applicable Standards ..... 8

**2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST ..... 9**

    2.1. Test Mode ..... 9

    2.2. Connection Diagram of Test System ..... 11

    2.3. Support Unit used in test configuration and system ..... 12

    2.4. EUT Operation Test Setup ..... 12

**3. TEST RESULT ..... 13**

    3.1. Test of AC Conducted Emission Measurement ..... 13

    3.2. Test of Radiated Emission Measurement ..... 17

**4. LIST OF MEASURING EQUIPMENT ..... 21**

**5. UNCERTAINTY OF EVALUATION ..... 22**

**APPENDIX A. SETUP PHOTOGRAPHS**





### 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 9.53 dB at 0.150 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.36 dB at 38.730 MHz for Quasi-Peak



# 1. General Description

## 1.1. Applicant

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2. Manufacturer

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2016-1
FCC ID	IHDT56YF1
EUT supports Radios application	GSM/WCDMA/LTE/FM Receiver/GNSS WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth BR/EDR/LE
IMEI Code	Conduction: 357205100013675/357205100013683 Radiation: 357205100013758/357205100013766
HW Version	DVT2
SW Version	PMD29.55
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. There are two types of EUT, sample 1 is dual SIM card, sample 2 is single SIM card, all the others are the same. Since the difference does not affect evaluated, we choose the sample 1 to perform all tests.



### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	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 LTE Band 41 : 2537.5 MHz ~ 2652.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
<b>Rx Frequency</b>	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 LTE Band 41 : 2537.5 MHz ~ 2652.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM : 88 - 108 MHz
<b>Antenna Type</b>	WWAN : PIFA Antenna WLAN : Loop Antenna Bluetooth : Loop Antenna GNSS: Loop Antenna FM : External Handset Antenna
<b>Type of Modulation</b>	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) DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM 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



Note: GNSS Rx = GPS Rx + Glonass Rx + Galileo Rx

### 1.5. Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola (Salom)	Model Name	SC-41
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(EU)	Brand Name	Motorola (Salom)	Model Name	SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(UK)	Brand Name	Motorola (Salom)	Model Name	SC-43
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(IN)	Brand Name	Motorola (Salom)	Model Name	SC-44
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(AU)	Brand Name	Motorola (Salom)	Model Name	SC-45
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(AR)	Brand Name	Motorola (Salom)	Model Name	SC-46
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(BR)	Brand Name	Motorola (Salom)	Model Name	SC-47
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 1(Chile)	Brand Name	Motorola (Salom)	Model Name	SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 2(US)	Brand Name	Motorola (Acbel)	Model Name	SC-41
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 2(EU)	Brand Name	Motorola (Acbel)	Model Name	SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 2(UK)	Brand Name	Motorola (Acbel)	Model Name	SC-43
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 2(AU)	Brand Name	Motorola (Acbel)	Model Name	SC-45
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
AC Adapter 2(AR)	Brand Name	Motorola (Acbel)	Model Name	SC-46
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A		
Battery	Brand Name	Motorola (ATL)	Model Name	KG40
	Power Rating	3.8Vdc, 3760/4000mAh		
Earphone	Brand Name	Huizhou New Leader Industry Co., Ltd.	Model Name	NLD-EM307K-01SF
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core		
USB Cable 1	Brand Name	Motorola (SaiBao)	Model Name	SWT-A096A
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	Brand Name	Motorola (LiQi)	Model Name	LQ025289
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		



### 1.6. Modification of EUT

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

### 1.7. Test Location

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

<b>Test Firm</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS 03CH02-KS	CN1257	314309

### 1.8. Applicable Standards

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

- 47 CFR Part 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).

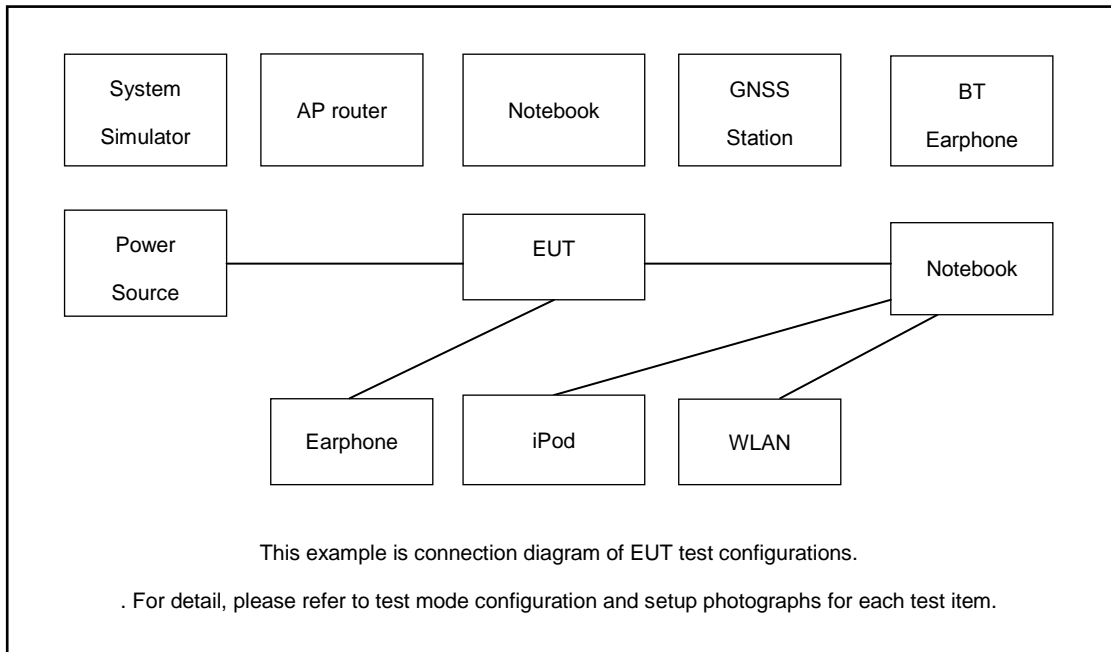
Test Items	Function Type
AC Conducted Emission	Mode 1: GSM850 Rx(Middle) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + Camera(Rear) + WLAN (2.4G) Idle + SIM1
	Mode 2: PCS 1900 Rx + USB Cable 2(Charging from Adapter 2)+ Earphone + Bluetooth Idle + Camera(Front) + WLAN (2.4G) Idle + SIM2
	Mode 3: WCDMA Band V Rx(High) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + MPEG4 + WLAN (2.4G) Idle + SIM1
	Mode 4: LTE Band 5 Rx(Low) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + FM Rx(98MHZ) + WLAN (2.4G) Idle + SIM2
	Mode 5: LTE Band 2 Rx + USB Cable 1(Data Link with Notebook) + Earphone + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1
	Mode 6: LTE Band 4 Rx + USB Cable 2(Data Link with Notebook) + Earphone + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM2
Radiated Emissions	Mode 1: GSM850 Rx(Middle) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + Camera(Rear) + WLAN (2.4G) Idle + SIM1
	Mode 2: PCS 1900 Rx + USB Cable 2(Charging from Adapter 2)+ Earphone + Bluetooth Idle + Camera(Front) + WLAN (2.4G) Idle + SIM2
	Mode 3: WCDMA Band V Rx(High) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + MPEG4 + WLAN (2.4G) Idle + SIM1
	Mode 4: LTE Band 5 Rx(Low) + USB Cable 1(Charging from Adapter 1)+ Earphone + Bluetooth Idle + FM Rx(88MHZ) + WLAN (2.4G) Idle + SIM2
	Mode 5: LTE Band 2 Rx + USB Cable 1(Data Link with Notebook) + Earphone + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1
	Mode 6: LTE Band 4 Rx + USB Cable 2(Data Link with Notebook) + Earphone + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1



**Remark:**

1. The worst case of AC is mode 3; only the test data of this mode is reported.
2. The worst case of RE is mode 4; only the test data of this mode is reported.
3. Data Link with Notebook means data application transferred mode between EUT and Notebook.
4. Pre-scanned Low/Middle/High channel for GSM850/WCDMA Band V/LTE Band 5 and FM Rx, the worst channel was recorded in this report.

## 2.2.Connection Diagram of Test System



### 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	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
3.	Signal Generator	R&S	SMBV100A	N/A	N/A	Unshielded,1.8m
4.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
5.	WLAN AP	TP-Link	AC66U	N/A	N/A	Unshielded,1.8m
6.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
7.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
8.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
9.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
10.	Bluetooth Earphone	Lenovo	LYEJ02LM	N/A	N/A	N/A
11.	SD Card	Kingston	8GB	N/A	N/A	N/A
12.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
13.	Hard Disk	Lenovo	FH310	N/A	N/A	N/A
14.	Earphone	Lenovo	N/A	N/A	N/A	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. Turn on camera to capture images.
3. Turn on MPEG4 function.
4. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.
5. Turn on FM 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

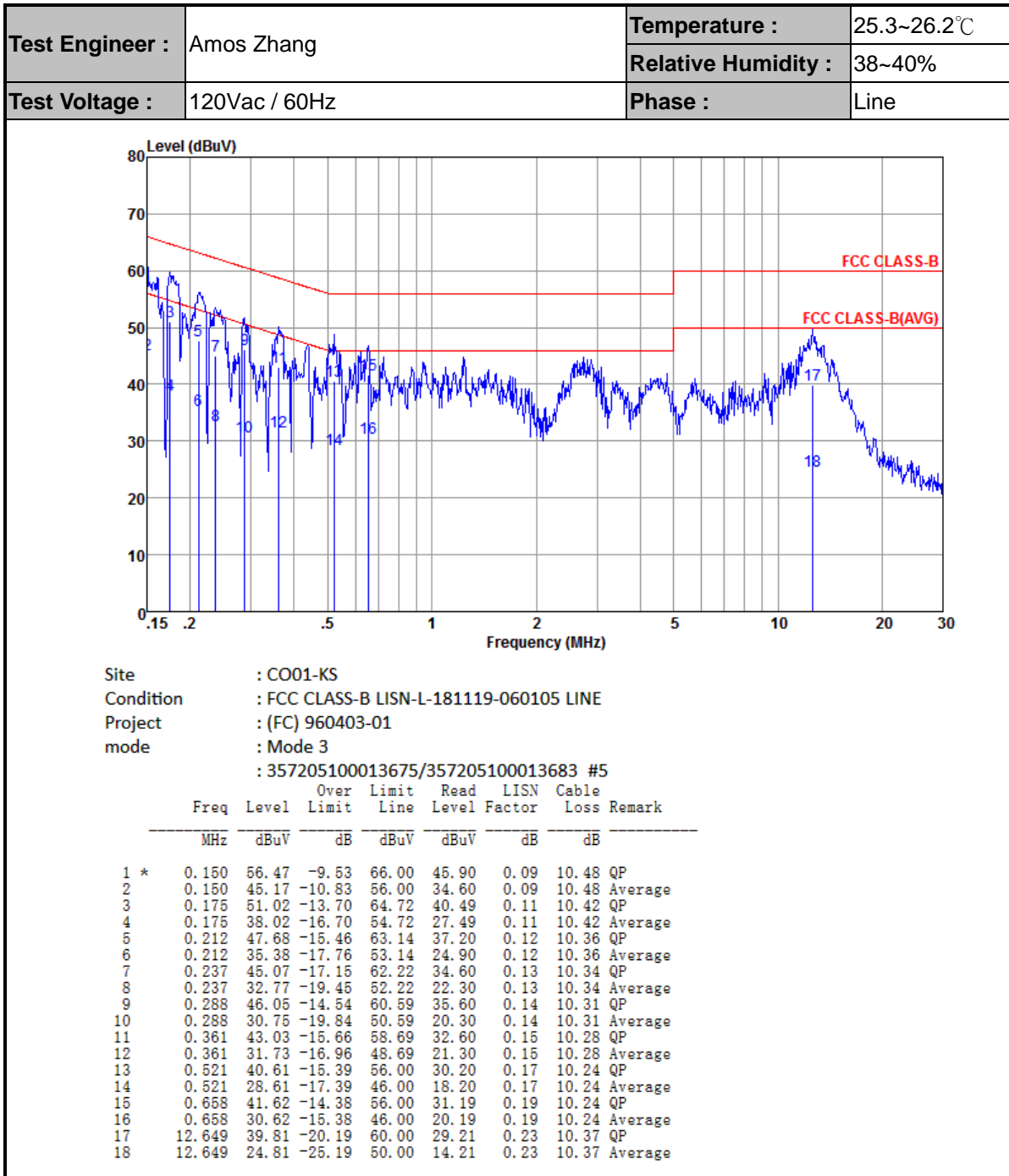
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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



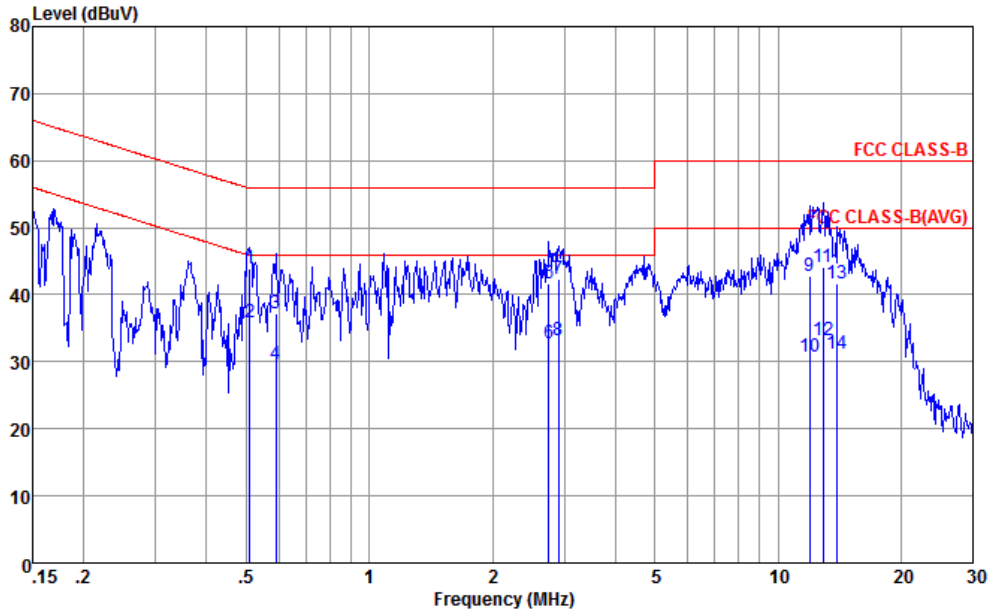


3.1.5 Test Result of AC Conducted Emission





Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Site : CO01-KS  
 Condition : FCC CLASS-B LISN-N-181119-060105 NEUTRAL  
 Project : (FC) 960403-01  
 mode : Mode 3  
 : 357205100013675/357205100013683 #5

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.510	43.98	-12.02	56.00	33.59	0.15	10.24	QP
2 *	0.510	35.88	-10.12	46.00	25.49	0.15	10.24	Average
3	0.592	37.18	-18.82	56.00	26.80	0.14	10.24	QP
4	0.592	29.58	-16.42	46.00	19.20	0.14	10.24	Average
5	2.750	41.60	-14.40	56.00	31.20	0.16	10.24	QP
6	2.750	32.70	-13.30	46.00	22.30	0.16	10.24	Average
7	2.900	42.30	-13.70	56.00	31.90	0.16	10.24	QP
8	2.900	33.30	-12.70	46.00	22.90	0.16	10.24	Average
9	11.933	42.81	-17.19	60.00	32.30	0.15	10.36	QP
10	11.933	30.71	-19.29	50.00	20.20	0.15	10.36	Average
11	12.920	44.01	-15.99	60.00	33.49	0.14	10.38	QP
12	12.920	33.11	-16.89	50.00	22.59	0.14	10.38	Average
13	13.989	41.72	-18.28	60.00	31.20	0.13	10.39	QP
14	13.989	31.12	-18.88	50.00	20.60	0.13	10.39	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

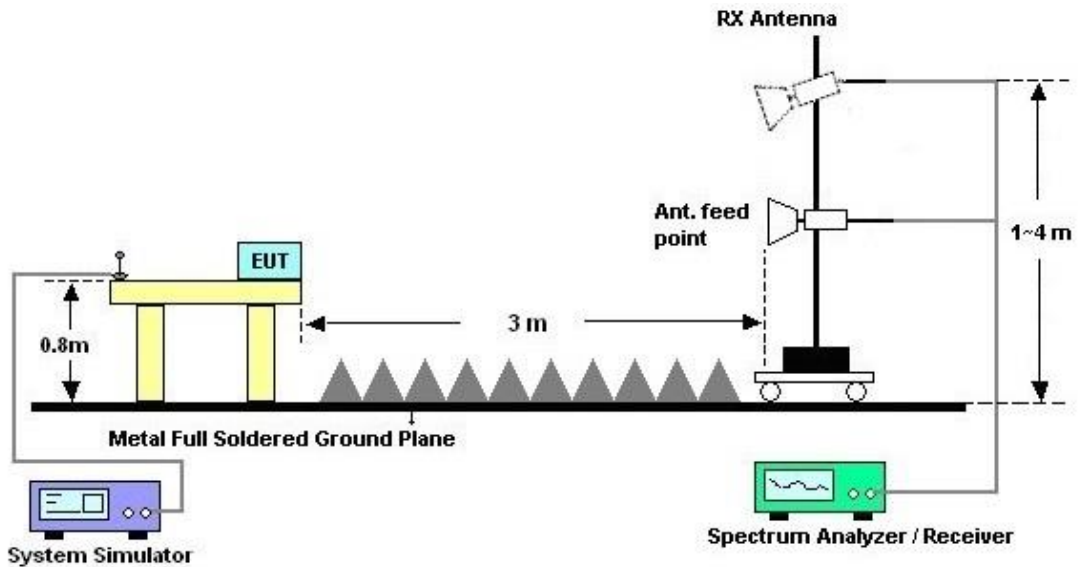
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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



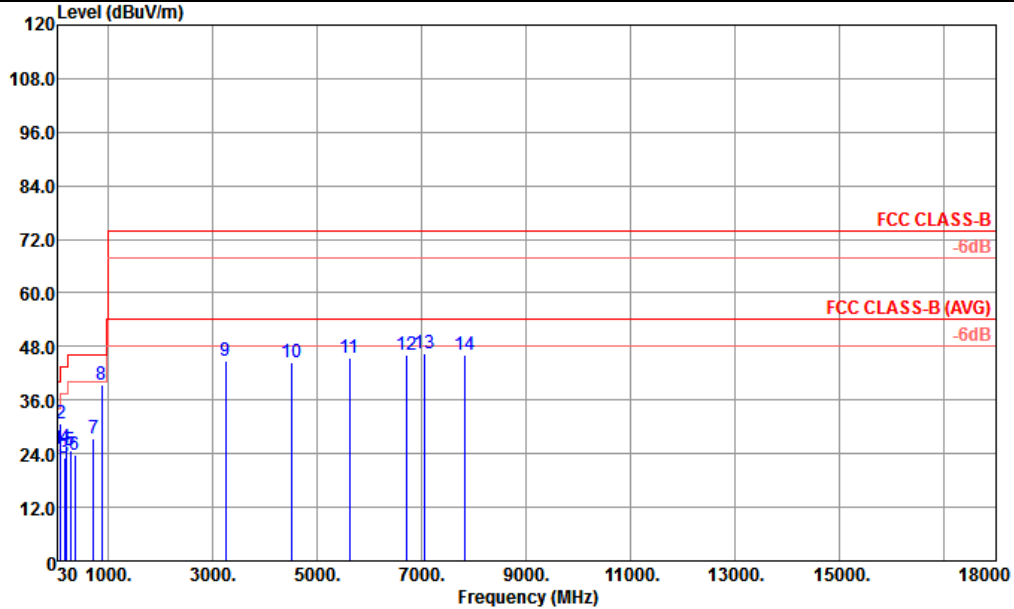
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Engineer :	Carl Ni	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Remark :	#8 is the system simulator signal which can be ignore		

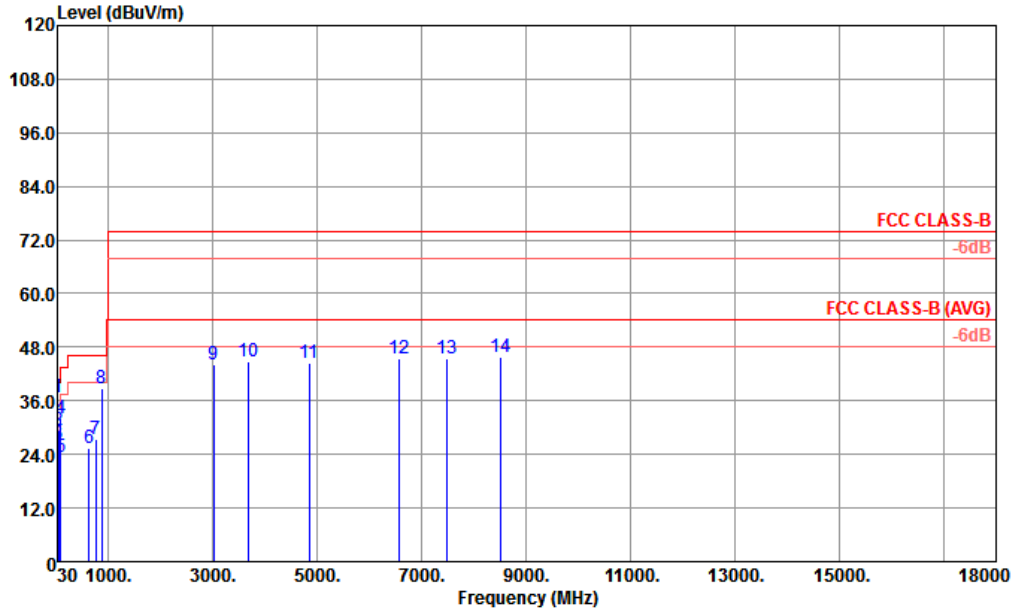


Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF 49922-3M HORIZONTAL  
 Project : (FC)960403-01  
 Mode : 4  
 IMEI : 357205100013758 357205100013766 #11

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	38.73	24.97	-15.03	40.00	36.04	20.18	0.71	31.96	100	0 Peak	
2	88.20	30.74	-12.76	43.50	46.81	14.76	1.09	31.92	---	---	Peak
3	160.95	23.05	-20.45	43.50	36.73	16.75	1.50	31.93	---	---	Peak
4	187.14	25.46	-18.04	43.50	40.16	15.64	1.57	31.91	---	---	Peak
5	274.44	24.59	-21.41	46.00	35.70	18.99	1.92	32.02	---	---	Peak
6	371.44	23.69	-22.31	46.00	32.46	21.16	2.16	32.09	---	---	Peak
7	729.37	27.30	-18.70	46.00	28.73	27.76	3.10	32.29	---	---	Peak
8	872.93	39.59			38.58	29.25	3.40	31.64	---	---	Peak
9	3248.00	44.91	-29.09	74.00	37.78	32.93	6.66	32.46	---	---	Peak
10	4520.00	44.51	-29.49	74.00	34.81	33.42	7.93	31.65	---	---	Peak
11	5624.00	45.61	-28.39	74.00	32.99	34.68	8.94	31.00	---	---	Peak
12	6720.00	45.97	-28.03	74.00	32.49	35.30	9.80	31.62	---	---	Peak
13	7064.00	46.56	-27.44	74.00	32.46	35.42	10.01	31.33	---	---	Peak
14	7824.00	46.10	-27.90	74.00	31.13	36.14	10.85	32.02	---	---	Peak



Test Engineer :	Carl Ni	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Remark :	#8 is the system simulator signal which can be ignore		



Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF 49922-3M VERTICAL  
 Project : (FC)960403-01  
 Mode : 4  
 IMEI : 357205100013758 357205100013766 #11

	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 !	38.73	36.64	-3.36	40.00	47.71	20.18	0.71	31.96	100	0 QP
2	52.31	29.27	-10.73	40.00	46.29	14.08	0.84	31.94	---	Peak
3	58.13	26.55	-13.45	40.00	45.03	12.58	0.87	31.93	---	Peak
4	88.20	32.07	-11.43	43.50	48.14	14.76	1.09	31.92	---	Peak
5	91.11	23.46	-20.04	43.50	39.15	15.12	1.11	31.92	---	Peak
6	630.43	25.55	-20.45	46.00	28.73	26.36	2.84	32.38	---	Peak
7	768.17	27.50	-18.50	46.00	28.12	28.39	3.19	32.20	---	Peak
8	874.87	38.66			37.64	29.25	3.40	31.63	---	Peak
9	3024.00	43.99	-30.01	74.00	37.04	32.84	6.35	32.24	---	Peak
10	3688.00	44.70	-29.30	74.00	36.26	33.20	7.14	31.90	---	Peak
11	4848.00	44.54	-29.46	74.00	34.04	33.73	8.14	31.37	---	Peak
12	6576.00	45.30	-28.70	74.00	32.02	35.24	9.66	31.62	---	Peak
13	7496.00	45.60	-28.40	74.00	31.10	36.20	10.28	31.98	---	Peak
14	8512.00	45.72	-28.28	74.00	29.89	36.49	11.27	31.93	---	Peak



### 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	Apr. 16, 2019	Jul. 06, 2019	Apr. 15, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 12, 2018	Jul. 06, 2019	Oct. 11, 2019	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Nov. 19, 2018	Jul. 06, 2019	Nov. 18, 2019	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2018	Jul. 06, 2019	Oct. 11, 2019	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 06, 2018	Jul. 15, 2019	Aug. 05, 2019	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 16, 2019	Jul. 15, 2019	Apr. 15, 2020	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz-2GHz	Dec. 29, 2018	Jul. 15, 2019	Dec. 28, 2019	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 27, 2019	Jul. 15, 2019	Jan. 26, 2020	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2019	Jul. 15, 2019	Jan. 04, 2020	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Jan. 14, 2019	Jul. 15, 2019	Jan. 13, 2020	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 06, 2018	Jul. 15, 2019	Aug. 05, 2019	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5G Hz	Apr. 15, 2019	Jul. 15, 2019	Apr. 14, 2020	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jul. 15, 2019	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jul. 15, 2019	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jul. 15, 2019	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% ( $U = 2Uc(y)$ )	2.9dB
---	-------

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.0dB
---	-------

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.1dB
---	-------