



FCC RF Test Report

APPLICANT : ASUSTeK COMPUTER INC.
EQUIPMENT : ASUS Phone (Mobile Phone)
BRAND NAME : ASUS
MODEL NAME : ASUS_X018D
FCC ID : MSQX018D
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E), 27(L)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Apr. 12, 2018 and testing was completed on May 03, 2018. We, Sporton International (Shenzhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI/TIA-603-E 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 (Shenzhen) Inc., the test report shall not be reproduced except in full.

Approved by: Eric Shih / Manager



Sporton International (Shenzhen) Inc.

**1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen City
Guangdong Province 518055 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 Modification of EUT	6
1.6 Maximum ERP/EIRP Power.....	7
1.7 Testing 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	10
2.3 Support Unit used in test configuration	10
3 CONDUCTED TEST RESULT	11
3.1 Measuring Instruments.....	11
3.2 Test Setup	11
3.3 Test Result of Conducted Test.....	11
3.4 Conducted Output Power and ERP/EIRP	12
4 RADIATED TEST ITEMS	13
4.1 Measuring Instruments.....	13
4.2 Test Setup	13
4.3 Test Result of Radiated Test.....	13
4.4 Field Strength of Spurious Radiation Measurement	14
5 LIST OF MEASURING EQUIPMENT	15
6 UNCERTAINTY OF EVALUATION	16
APPENDIX A. TEST RESULTS OF CONDUCTED TEST	
APPENDIX B. TEST RESULTS OF RADIATED TEST	
APPENDIX C. TEST SETUP PHOTOGRAPHS	
APPENDIX D. PRODUCT EQUALITY DECLARATION	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG783105-05A	Rev. 01	Initial issue of report	May 11, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(2)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power	< 1 Watts	PASS	-
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Field Strength of Spurious Radiation	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 30.77 dB at 5730.000 MHz



1 General Description

1.1 Applicant

ASUSTeK COMPUTER INC.

4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

1.2 Manufacturer

ASUSTeK COMPUTER INC.

4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	ASUS Phone (Mobile Phone)
Brand Name	ASUS
Model Name	ASUS_X018D
FCC ID	MSQX018D
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/HSPA+/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/HT40 Bluetooth v3.0+EDR/Bluetooth v4.0 LE
IMEI Code	Conducted: NA Radiation: 353427090020221/353427090020239
HW Version	WIUMA1A2-2
SW Version	WW_14.02.1804.53-20180323
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. This is a variant report for ASUS_X018D. The product equality declaration could be referred to Appendix D. Based on the similarity between current and previous project, only the Conducted Power, ERP/EIRP, and the worst case of Radiated Emission from original test report (Sporton Report Number FG783105-03A) were verified for the differences.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM/GPRS/EDGE: 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8MHz WCDMA: Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz
Rx Frequency	GSM/GPRS/EDGE: 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz WCDMA: Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz
Maximum Output Power to Antenna	GSM/GPRS/EDGE: 850: 32.35 dBm 1900: 28.69 dBm WCDMA: Band V: 22.07 dBm Band II: 22.42 dBm Band IV: 22.43 dBm
Antenna Type	LDS Antenna
Antenna Gain	Cellular Band: -0.80 dBi PCS Band: 0.80 dBi AWS Band: 0.80 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA : BPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM DC-HSDPA : 64QAM

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22H	GSM850 GSM	GMSK	0.8710
Part 22H	GSM850 EDGE class 8	8PSK	0.2213
Part 22H	WCDMA Band V RMC 12.2Kbps	BPSK	0.0817
Part 24E	GSM1900 GSM	GMSK	0.8892
Part 24E	GSM1900 EDGE class 8	8PSK	0.4395
Part 24E	WCDMA Band II RMC 12.2Kbps	BPSK	0.2099
Part 27L	WCDMA Band IV RMC 12.2Kbps	BPSK	0.2104



1.7 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600156-0) and the FCC designation No are CN5018 and CN5019.

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen City Guangdong Province 518055 China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	Sporton Site No.	FCC Test Firm Registration No.
	TH01-SZ	251365

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan District Shenzhen City Guangdong Province 518055 China TEL: +86-755-3320-2398	
Test Site No.	Sporton Site No.	FCC Test Firm Registration No.
	03CH03-SZ	577730

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

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 2, 22(H), 24(E), 27(L)
- ♦ ANSI/TIA-603-E
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

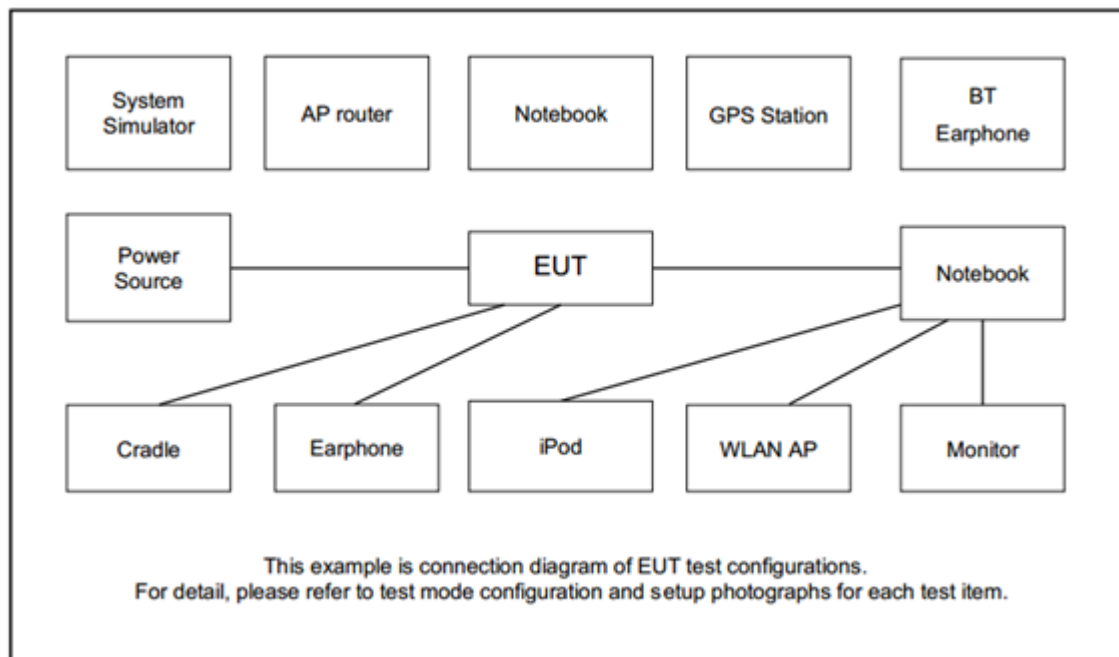
1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V.
2. 30 MHz to 10th harmonic for WCDMA Band IV.
3. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	■ GSM Link ■ EDGE class 8 Link	■ GSM Link ■ EDGE class 8 Link
GSM 1900	■ GSM Link ■ EDGE class 8 Link	■ GSM Link ■ EDGE class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GW INSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m

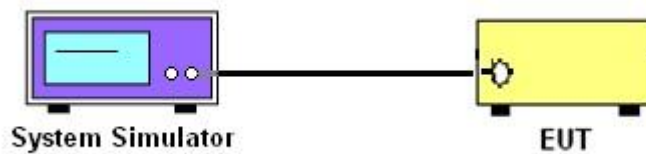
3 Conducted Test Result

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for GSM850 and WCDMA Band V.

The EIRP of mobile transmitters must not exceed 2 Watts for GSM1900 and WCDMA Band II.

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

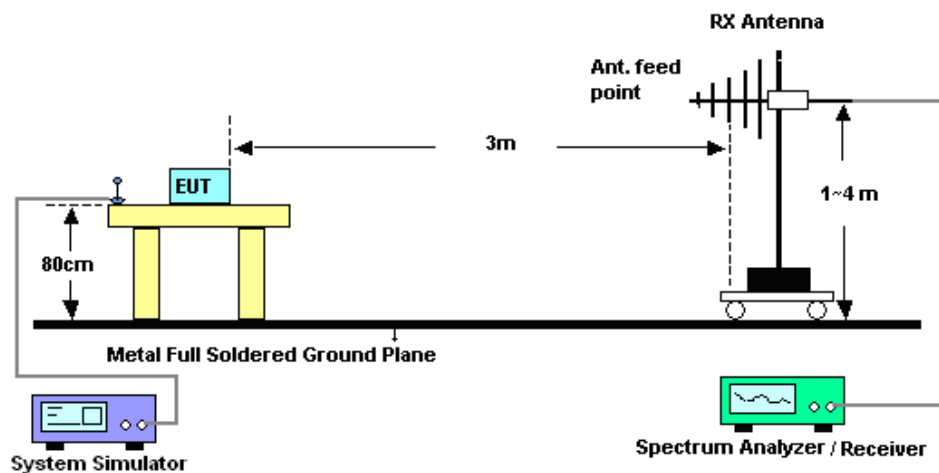
4 Radiated Test Items

4.1 Measuring Instruments

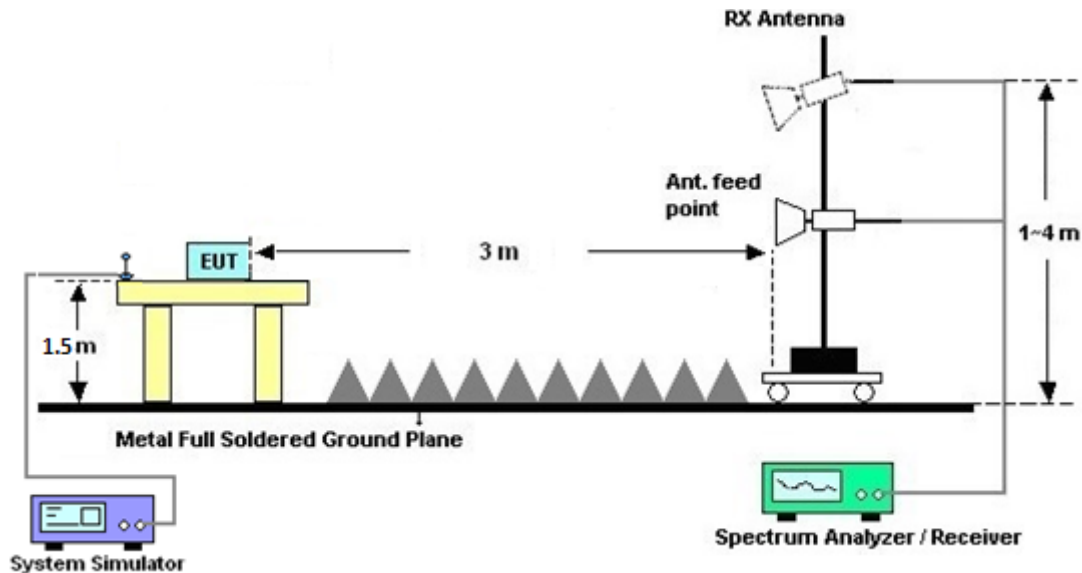
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI/TIA-603-E Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
12. $ERP \text{ (dBm)} = EIRP - 2.15$
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Radio communication analyzer	Anritsu	MT8820C	6201563777	2G/3G/4G	Dec.26,2017	May 03, 2018	Dec.25,2018	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 19, 2018	Apr. 24, 2018~May 03, 2018	Apr. 18, 2019	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 19, 2018	Apr. 24, 2018~May 03, 2018	Apr. 18, 2019	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	May 14, 2017	Apr. 24, 2018~May 03, 2018	May 13, 2018	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Jul. 09, 2017	Apr. 24, 2018~May 03, 2018	Jul. 08, 2018	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102210	0.01Hz ~3000MHz	Oct. 19, 2017	Apr. 24, 2018~May 03, 2018	Oct. 18, 2018	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 18, 2017	Apr. 24, 2018~May 03, 2018	Jul. 17, 2018	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Jun. 16, 2017	Apr. 24, 2018~May 03, 2018	Jun. 15, 2018	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 27, 2017	Apr. 24, 2018~May 03, 2018	Dec. 26, 2018	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Apr. 24, 2018~May 03, 2018	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Apr. 24, 2018~May 03, 2018	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Apr. 24, 2018~May 03, 2018	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required



6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.0 dB
---	--------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.6 dB
---	--------

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.8 dB
---	--------



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.30	32.35	32.29	28.69	28.45	28.28
GPRS class 8	32.28	32.34	32.27	28.66	28.43	28.27
GPRS class 10	31.45	31.55	31.48	27.91	27.67	27.54
GPRS class 11	29.61	29.73	29.69	26.12	25.88	25.75
GPRS class 12	28.46	28.59	28.58	25.06	24.83	24.67
EGPRS class 8	26.19	26.40	26.37	25.39	25.63	25.37
EGPRS class 10	25.30	25.48	25.43	24.31	24.59	24.35
EGPRS class 11	23.38	23.69	23.61	22.20	22.58	22.26
EGPRS class 12	22.43	22.58	22.56	21.05	21.38	21.07

Conducted Power (*Unit: dBm)									
Band	WCDMA Band V			WCDMA Band II			WCDMA Band IV		
Channel	4132	4182	4233	9262	9400	9538	1312	1413	1513
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
AMR 12.2K	22.06	21.98	22.00	22.00	22.31	22.41	22.35	22.41	22.32
RMC 12.2K	22.07	21.99	22.01	22.01	22.35	22.42	22.39	22.43	22.34
HSDPA Subtest-1	21.57	21.62	21.64	21.71	21.84	21.81	21.92	21.79	21.82
HSDPA Subtest-2	21.54	21.63	21.57	21.66	21.82	21.84	21.91	21.81	21.83
HSDPA Subtest-3	21.08	21.11	21.21	21.51	21.50	21.54	21.47	21.33	21.35
HSDPA Subtest-4	21.00	21.05	21.11	21.55	21.53	21.53	21.50	21.30	21.32
DC-HSDPA Subtest-1	21.36	21.35	21.32	21.12	21.15	21.14	21.34	21.37	21.36
DC-HSDPA Subtest-2	21.34	21.34	21.32	21.05	21.08	21.07	21.27	21.25	21.24
DC-HSDPA Subtest-3	21.07	21.06	21.05	20.55	20.54	20.56	21.08	21.06	21.04
DC-HSDPA Subtest-4	21.04	21.03	21.00	20.56	20.53	20.54	21.05	21.03	21.01
HSUPA Subtest-1	20.00	19.59	19.61	19.70	19.88	19.87	19.84	19.72	19.77
HSUPA Subtest-2	19.55	19.62	19.56	19.75	19.94	19.89	19.81	19.77	19.75
HSUPA Subtest-3	20.51	20.56	20.55	20.73	20.88	20.84	20.86	20.73	20.80
HSUPA Subtest-4	19.11	19.15	19.15	19.34	19.42	19.43	19.54	19.52	19.51
HSUPA Subtest-5	20.50	20.60	20.60	20.80	20.90	20.80	20.80	20.70	20.80
HSPA+ (16QAM) Subtest-1	19.08	19.20	19.12	19.18	19.23	19.26	19.28	19.27	19.56

ERP/EIRP

GSM850 ($G_T - L_C = -0.80\text{dB}$)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency	824.2	836.4	848.8
(MHz)			
Conducted Power (dBm)	32.30	32.35	32.29
Conducted Power (Watts)	1.6982	1.7179	1.6943
ERP(dBm)	29.35	29.40	29.34
ERP(Watts)	0.8610	0.8710	0.8590

EDGE850 ($G_T - L_C = -0.80\text{dB}$)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency	824.2	836.4	848.8
(MHz)			
Conducted Power (dBm)	26.19	26.40	26.37
Conducted Power (Watts)	0.4159	0.4365	0.4335
ERP(dBm)	23.24	23.45	23.42
ERP(Watts)	0.2109	0.2213	0.2198



GSM1900 ($G_T - L_C = 0.80\text{dB}$)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	28.69	28.45	28.28
Conducted Power (Watts)	0.7396	0.6998	0.6730
EIRP(dBm)	29.49	29.25	29.08
EIRP(Watts)	0.8892	0.8414	0.8091

EDGE1900 ($G_T - L_C = 0.80\text{dB}$)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	25.39	25.63	25.37
Conducted Power (Watts)	0.3459	0.3656	0.3443
EIRP(dBm)	26.19	26.43	26.17
EIRP(Watts)	0.4159	0.4395	0.4140



WCDMA Band V ($G_T - L_C = -0.80\text{dB}$)			
Channel	4132	4182	4233
	(Low)	(Mid)	(High)
Frequency	826.4	836.4	846.6
(MHz)			
Conducted Power (dBm)	22.07	21.99	22.01
Conducted Power (Watts)	0.1611	0.1581	0.1589
ERP(dBm)	19.12	19.04	19.06
ERP(Watts)	0.0817	0.0802	0.0805

WCDMA Band II ($G_T - L_C = 0.80\text{dB}$)			
Channel	9262	9400	9538
	(Low)	(Mid)	(High)
Frequency	1852.4	1880	1907.6
(MHz)			
Conducted Power (dBm)	22.01	22.35	22.42
Conducted Power (Watts)	0.1589	0.1718	0.1746
EIRP(dBm)	22.81	23.15	23.22
EIRP(Watts)	0.1910	0.2065	0.2099

WCDMA Band IV ($G_T - L_C = 0.80\text{dB}$)			
Channel	1312	1413	1513
	(Low)	(Mid)	(High)
Frequency	1712.4	1732.6	1752.6
(MHz)			
Conducted Power (dBm)	22.39	22.43	22.34
Conducted Power (Watts)	0.1734	0.1750	0.1714
EIRP(dBm)	23.19	23.23	23.14
EIRP(Watts)	0.2084	0.2104	0.2061



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

GSM850 (GSM)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-60.76	-13	-47.76	-66.32	-65.17	2.84	9.40	H
	2509.2	-51.41	-13	-38.41	-61.95	-56.16	3.7	10.60	H
	3345.6	-66.20	-13	-53.20	-80.96	-72.28	4.37	12.60	H
	4182	-60.54	-13	-47.54	-78.11	-66.16	4.85	12.62	H
	5018.4	-57.80	-13	-44.80	-78.31	-63.41	4.94	12.70	H
	1672.8	-67.84	-13	-54.84	-72.55	-72.25	2.84	9.40	V
	2509.2	-49.10	-13	-36.10	-60.59	-53.85	3.70	10.60	V
	3345.6	-64.75	-13	-51.75	-78.32	-70.83	4.37	12.60	V
	4182	-60.31	-13	-47.31	-78.02	-65.93	4.85	12.62	V
	5018.4	-58.27	-13	-45.27	-78.25	-63.88	4.94	12.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (GSM)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	3819.6	-51.11	-13	-38.11	-70.72	-58.85	4.88	12.62	H
	5729.4	-45.07	-13	-32.07	-68.52	-52.59	5.60	13.12	H
	7639.2	-44.35	-13	-31.35	-67.87	-49.09	6.58	11.32	H
	3822	-51.63	-13	-38.63	-72.02	-59.37	4.88	12.62	V
	5730	-43.77	-13	-30.77	-67.82	-51.29	5.60	13.12	V
	7638	-47.29	-13	-34.29	-70.83	-52.03	6.58	11.32	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



WCDMA Band V (RMC 12.2Kbps)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-70.32	-13	-57.32	-75.88	-74.73	2.84	9.40	H
	2509.2	-69.12	-13	-56.12	-79.54	-73.87	3.7	10.60	H
	3345.6	-66.08	-13	-53.08	-80.84	-72.16	4.37	12.60	H
	1672.8	-69.90	-13	-56.90	-74.61	-74.31	2.84	9.40	V
	2509.2	-69.86	-13	-56.86	-79.69	-74.61	3.70	10.60	V
	3345.6	-67.41	-13	-54.41	-80.98	-73.49	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II (RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-55.74	-13	-42.74	-75.35	-63.49	4.85	12.60	H
	5640	-55.91	-13	-42.91	-79.36	-63.43	5.58	13.10	H
	7520	-58.05	-13	-45.05	-81.57	-62.79	6.56	11.30	H
	3760	-52.96	-13	-39.96	-73.35	-60.71	4.85	12.60	V
	5640	-53.30	-13	-40.30	-77.35	-60.82	5.58	13.10	V
	7520	-56.06	-13	-43.06	-79.6	-60.80	6.56	11.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band IV (RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465.2	-58.86	-13	-45.86	-78.19	-67.09	4.35	12.58	H
	5197.8	-55.30	-13	-42.30	-79.46	-63.06	4.92	12.68	H
	6930.4	-57.07	-13	-44.07	-80.98	-62.45	6.3	11.68	H
	3465.2	-62.11	-13	-49.11	-78.19	-70.34	4.35	12.58	V
	5197.8	-61.59	-13	-48.59	-81.1	-69.35	4.92	12.68	V
	6930.4	-57.36	-13	-44.36	-81.27	-62.74	6.3	11.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



Appendix D. Product Equality Declaration

ASUSTeK COMPUTER INC.

4F, No. 150, LI-TE RD., PEITOU, TAIPEI, TAIWAN

Date: May 7, 2018

Product Equality Declaration

We, ASUSTeK COMPUTER INC., declare on our sole responsibility for the product of ASUS_X018D (FCC ID: MSQX018D/IC: 3568A-X018D) as below:

The software configuration of SP4T switch has been changed to improve the antenna performance for user experience.

Except listings above, the others are all the same.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,



Contact Person: Jackson Yen

Company: ASUSTeK Computer Inc

TEL: +886-2-28943447

FAX: +886-2-28987364

E-mail: jackson_yen@asus.com