



FCC RADIO TEST REPORT

FCC ID : B94HNC09CMCL
Equipment : Convertible PC
Brand Name : HP
Model Name : HSN-C09C
Applicant : HP Inc.
1501 Page Mill Road, Palo Alto CA
94304 USA
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

The product was received on Aug. 21, 2020 and testing was started from Sep. 11, 2020 and completed on Sep. 14, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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 partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FG082123B	01	Initial issue of report	Oct. 29, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	§2.1046	Conducted Output Power	-	See Note
	§22.913 (a)(2)	Effective Radiated Power (Band 5) (Band 26)	-	
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 38) (Band 41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2)(4) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)		
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)		
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note



Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	\$2.1053 \$22.917 (a) \$24.238 (a) \$27.53 (c)(2) \$27.53 (f) \$27.53 (g) \$27.53 (h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	Pass	Under limit 18.72 dB at 10380.000 MHz
	\$2.1051 \$27.53 (m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)		

Note: The module (Model: T77W968) makes no difference after verifying output power, this report reuses test data from the module report.

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Cindy Liu



1 General Description

1.1 Product Feature of Equipment Under Test

WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, and GNSS.

Product Specification subjective to this standard	
WWAN Module	Brand Name: FOXCONN Model Name: T77W968
Antenna Type	WWAN <Ant. 1>: PIFA Antenna <Ant. 2>: PIFA Antenna (Rx only) <Ant. 3>: Couple Antenna <Ant. 4>: Couple Antenna (Rx only) WLAN <Ant. 1>: Couple Antenna <Ant. 2>: Couple Antenna Bluetooth: Couple Antenna GPS / Glonass / Galileo : PIFA Antenna

WWAN Antenna Information_NB Mode			
Antenna Part Number	Manufacture	Antenna Type	Peak Gain (dBi)
Tx1 Main Antenna 260-24315 DC33002FX20)	HONG-BO	PIFA	824-849MHz -5.33 dBi (peak)
			880-915MHz -5.19 dBi (peak)
			1710-1785MHz -3.50 dBi (peak)
			1850-1910MHz -1.81 dBi (peak)
			1920-1980MHz -0.23 dBi (peak)
			704-716MHz -5.56 dBi (peak)
			746-756MHz -3.93 dBi (peak)
			777-787MHz -5.35 dBi (peak)
			832-862MHz -4.85 dBi (peak)
			1710-1755MHz -4.61 dBi (peak)
			2500-2570MHz -1.34 dBi (peak)
			2570-2620MHz -3.21 dBi (peak)
			2300-2400MHz 0.40 dBi (peak)

WWAN Antenna Information_TB Mode			
Antenna Part Number	Manufacture	Antenna Type	Peak Gain loss (dBi)
Tx1 Main Antenna 260-24315 (DC33002FX20)	HONG-BO	PIFA	824-849MHz -4.92 dBi (peak)
			880-915MHz -5.52 dBi (peak)
			1710-1785MHz -0.09 dBi (peak)
			1850-1910MHz -0.45 dBi (peak)
			1920-1980MHz -0.17 dBi (peak)
			704-716MHz -8.11 dBi (peak)
			746-756MHz -7.17 dBi (peak)
			777-787MHz -6.54 dBi (peak)
			832-862MHz -4.92 dBi (peak)
			1710-1755MHz -0.31 dBi (peak)
			2500-2570MHz -3.24dBi (peak)
			2570-2620MHz -3.24 dBi (peak)
			2300-2400MHz -0.58 dBi (peak)



1.2 Modification of EUT

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

1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH11-HY
Test Engineer	Fu Chen, Troye Hsieh
Temperature	20.1~25.7℃
Relative Humidity	55.2~67.5%

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

FCC Designation No.: TW0007

1.4 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

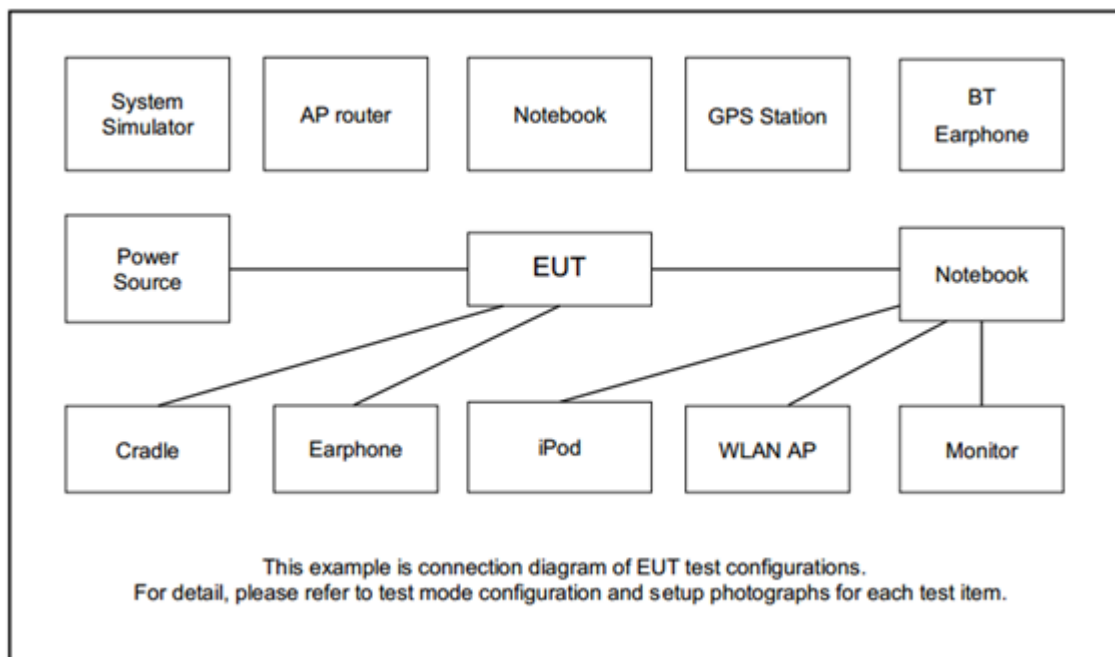
2.1 Test Mode

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

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z and Notebook type (Ant. Degree 45, Degree 90). The worst cases (Y plane for LTE Band 2, 13, 38, and 66; Notebook type with Ant. Degree 45 for LTE Band 12) were recorded in this report.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	2			v				v			v			v	v	v
	12				v	-	-	v			v			v	v	v
	13	-	-	v		-	-	v			v			v	v	v
	38	-	-				v	v			v			v	v	v
	66		v					v			v			v	v	v
Remark	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. All the radiated test cases were performed with Adapter 3.															

2.2 Connection Diagram of Test System





2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711

LTE Band 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

LTE Band 38 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	37850	38000	38150
	Frequency	2580.0	2595.0	2610.0

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5

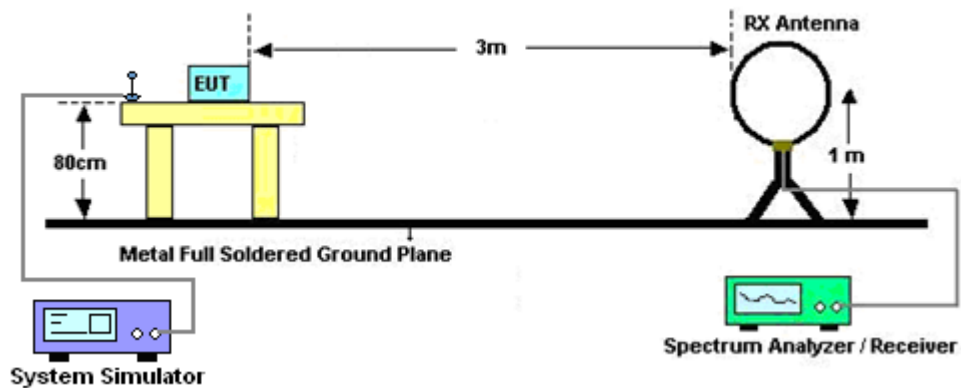
3 Radiated Test Items

3.1 Measuring Instruments

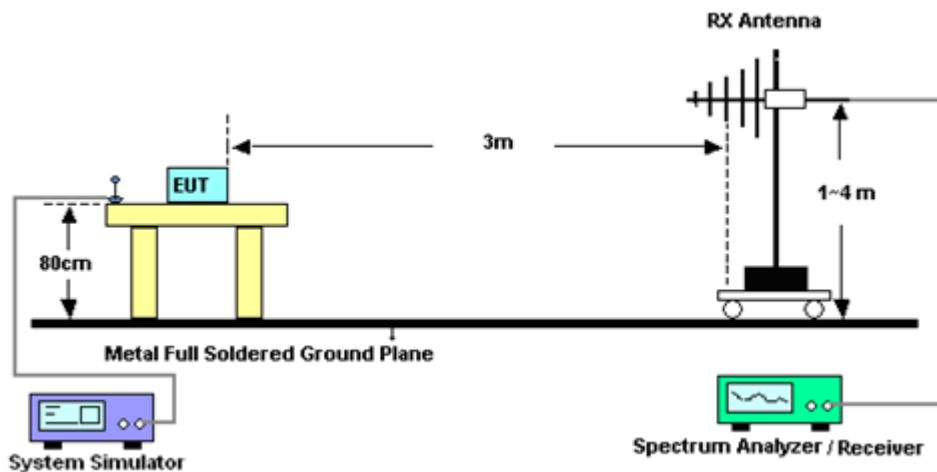
See list of measuring instruments of this test report.

3.1.1 Test Setup

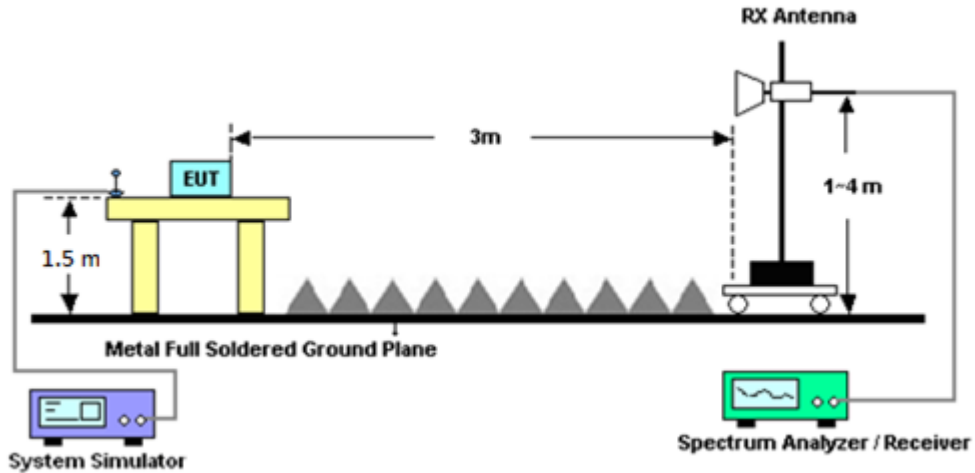
For radiated emissions below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



3.1.2 Test Result of Radiated Test

Please refer to Appendix A.

Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



3.2 Radiated Spurious Emission Measurement

3.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. 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.

For LTE Band 38,

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 $55 + 10 \log (P)$ dB.

For LTE Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 38,

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)

$EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$

$ERP \text{ (dBm)} = EIRP - 2.15$



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 03, 2019	Sep. 11, 2020~ Sep. 14, 2020	Dec. 02, 2020	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 12, 2019	Sep. 11, 2020~ Sep. 14, 2020	Oct. 11, 2020	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-132 6	1GHz ~ 18GHz	Nov. 04, 2019	Sep. 11, 2020~ Sep. 14, 2020	Nov. 03, 2020	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	Sep. 11, 2020~ Sep. 14, 2020	Jan. 08, 2021	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY532700 80	1GHz~26.5GHz	Nov. 13, 2019	Sep. 11, 2020~ Sep. 14, 2020	Nov. 12, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz ~ 44GHz	Oct. 28, 2019	Sep. 11, 2020~ Sep. 14, 2020	Oct. 27, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN11	1.53G Low Pass	Sep. 15, 2019	Sep. 11, 2020~ Sep. 13, 2020	Sep. 14, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-15 30-8000-40SS	SN11	1.53G Low Pass	Sep. 14, 2020	Sep. 14, 2020	Sep. 13, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0SS	SN3	3GHz High Pass	Sep. 15, 2019	Sep. 11, 2020~ Sep. 13, 2020	Sep. 14, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0SS	SN3	3GHz High Pass	Sep. 14, 2020	Sep. 14, 2020	Sep. 13, 2021	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 11, 2020~ Sep. 14, 2020	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Sep. 11, 2020~ Sep. 14, 2020	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Sep. 11, 2020~ Sep. 14, 2020	N/A	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY532900 45	20MHz~8.4GHz	Jan. 18, 2020	Sep. 11, 2020~ Sep. 14, 2020	Jan. 17, 2021	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-00104 2	N/A	N/A	Sep. 11, 2020~ Sep. 14, 2020	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	9kHz-30MHz	Mar. 12, 2020	Sep. 11, 2020~ Sep. 14, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 12, 2020	Sep. 11, 2020~ Sep. 14, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 PE	30M-18G	Mar. 12, 2020	Sep. 11, 2020~ Sep. 14, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 12, 2020	Sep. 11, 2020~ Sep. 14, 2020	Mar. 11, 2021	Radiation (03CH11-HY)
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	Feb. 15, 2020	Sep. 11, 2020~ Sep. 14, 2020	Feb. 14, 2021	Radiation (03CH11-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.29
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.32
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.08
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Appendix A. Test Results of Radiated Test

LTE Band 2

LTE Band 2 / 5MHz / QPSK									
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)
Lowest	3705	-57.08	-13	-44.08	-74.53	-68.87	0.72	12.52	H
	5557	-48.05	-13	-35.05	-70.4	-60.22	1.00	13.17	H
	7410	-52.24	-13	-39.24	-77.75	-61.62	1.18	10.56	H
									H
									H
									H
	3705	-55.65	-13	-42.65	-74.26	-67.44	0.72	12.52	V
	5557	-46.32	-13	-33.32	-68.79	-58.49	1.00	13.17	V
	7410	-52.35	-13	-39.35	-77.7	-61.73	1.18	10.56	V
									V
									V
									V
Middle	3760	-56.13	-13	-43.13	-73.69	-67.94	0.69	12.50	H
	5640	-47.75	-13	-34.75	-70.08	-59.88	0.98	13.12	H
	7520	-52.26	-13	-39.26	-77.68	-61.54	1.18	10.46	H
									H
									H
									H
	3760	-55.61	-13	-42.61	-74.37	-67.42	0.69	12.50	V
	5640	-48.19	-13	-35.19	-70.72	-60.323	0.98	13.12	V
	7520	-52.09	-13	-39.09	-77.56	-61.37	1.18	10.46	V
									V
									V
									V



Highest	3815	-56.93	-13	-43.93	-74.61	-68.72	0.68	12.47	H
	5722	-49.73	-13	-36.73	-72.14	-61.81	0.99	13.07	H
	7630	-50.87	-13	-37.87	-76.56	-60.45	1.18	10.76	H
									H
									H
									H
									H
	3815	-55.96	-13	-42.96	-74.85	-67.75	0.68	12.47	V
	5722	-48.27	-13	-35.27	-70.88	-60.35	0.99	13.07	V
	7630	-51.87	-13	-38.87	-77.29	-61.45	1.18	10.76	V
									V
									V
									V
									V

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

**LTE Band 12**

LTE Band 12 / 10MHz / QPSK									
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)
Lowest	1397	-59.40	-13	-46.40	-70.92	-65.43	0.50	8.68	H
	2096	-50.86	-13	-37.86	-64.71	-58.60	0.59	10.48	H
	2792	-58.59	-13	-45.59	-73.70	-66.71	0.70	10.98	H
									H
									H
									H
									H
	1397	-59.18	-13	-46.18	-70.73	-65.21	0.50	8.68	V
	2096	-58.26	-13	-45.26	-71.97	-66.00	0.59	10.48	V
	2792	-58.37	-13	-45.37	-73.86	-66.49	0.70	10.98	V
									V
									V
									V
									V
Middle	1408	-59.74	-13	-46.74	-71.38	-65.84	0.50	8.75	H
	2112	-52.84	-13	-39.84	-66.99	-60.59	0.59	10.49	H
	2816	-58.31	-13	-45.31	-73.48	-66.44	0.71	10.99	H
									H
									H
									H
									H
	1408	-59.27	-13	-46.27	-70.79	-65.37	0.50	8.75	V
	2112	-56.07	-13	-43.07	-70.10	-63.82	0.59	10.49	V
	2816	-58.20	-13	-45.20	-73.75	-66.33	0.71	10.99	V
									V
									V
									V
									V



Highest	1416	-58.77	-13	-45.77	-70.43	-64.91	0.50	8.80	H
	2120	-55.07	-13	-42.07	-69.23	-62.82	0.59	10.50	H
	2827	-58.65	-13	-45.65	-73.87	-66.79	0.71	11.00	H
									H
									H
									H
									H
	1416	-59.86	-13	-46.86	-71.36	-66.00	0.50	8.80	V
	2120	-57.27	-13	-44.27	-71.46	-65.02	0.59	10.50	V
	2827	-58.25	-13	-45.25	-73.79	-66.39	0.71	11.00	V
									V
									V
									V
									V

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

**LTE Band 13**

LTE Band 13 / 5MHz / QPSK									
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)
Lowest	1559	-61.66	-42.15	-19.51	-72.73	-68.43	0.51	9.43	H
	2338	-55.51	-13	-42.51	-70.14	-63.41	0.62	10.67	H
	3118	-57.85	-13	-44.85	-74.03	-66.41	0.74	11.45	H
									H
									H
									H
									H
	1559	-62.08	-42.15	-19.93	-72.59	-68.85	0.51	9.43	V
	2338	-56.04	-13	-43.04	-71.15	-63.94	0.62	10.67	V
	3118	-57.72	-13	-44.72	-74.07	-66.28	0.74	11.45	V
									V
									V
									V
									V
Middle	1564	-61.01	-42.15	-18.86	-72.07	-67.79	0.52	9.44	H
	2346	-53.65	-13	-40.65	-68.15	-61.55	0.62	10.68	H
	3128	-58.22	-13	-45.22	-74.40	-66.81	0.74	11.48	H
									H
									H
									H
									H
	1564	-61.68	-42.15	-19.53	-72.14	-68.46	0.52	9.44	V
	2346	-55.57	-13	-42.57	-70.65	-63.47	0.62	10.68	V
	3128	-57.81	-13	-44.81	-74.23	-66.40	0.74	11.48	V
									V
									V
									V
									V



Highest	1569	-62.02	-42.15	-19.87	-72.63	-68.81	0.52	9.45	H
	2353	-54.67	-13	-41.67	-69.16	-62.58	0.63	10.68	H
	3138	-57.81	-13	-44.81	-74.07	-66.43	0.74	11.51	H
									H
									H
									H
									H
	1569	-62.20	-42.15	-20.05	-72.63	-68.99	0.52	9.45	V
	2353	-55.69	-13	-42.69	-70.73	-63.60	0.63	10.68	V
	3138	-57.60	-13	-44.60	-74.09	-66.22	0.74	11.51	V
									V
									V
									V
									V

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

**LTE Band 38**

LTE Band 38 / 20MHz / QPSK									
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)
Lowest	5160	-55.49	-25	-30.49	-76.52	-67.03	0.98	12.52	H
	7740	-50.61	-25	-25.61	-76.49	-60.49	1.19	11.07	H
	10320	-45.82	-25	-20.82	-77.18	-55.91	1.40	11.49	H
									H
									H
									H
									H
	5160	-55.94	-25	-30.94	-77.16	-67.48	0.98	12.52	V
	7740	-50.81	-25	-25.81	-76.6	-60.69	1.19	11.07	V
	10320	-43.99	-25	-18.99	-77.15	-54.08	1.40	11.49	V
									V
									V
									V
									V
Middle	5190	-55.85	-25	-30.85	-76.98	-67.44	0.99	12.58	H
	7785	-50.32	-25	-25.32	-76.31	-60.33	1.19	11.20	H
	10380	-45.58	-25	-20.58	-76.88	-55.55	1.40	11.38	H
									H
									H
									H
									H
	5190	-55.52	-25	-30.52	-76.82	-67.11	0.99	12.58	V
	7785	-50.83	-25	-25.83	-76.77	-60.84	1.19	11.20	V
	10380	-43.72	-25	-18.72	-76.85	-53.69	1.40	11.38	V
									V
									V
									V
									V



Highest	5220	-55.92	-25	-30.92	-77.14	-67.56	1.00	12.64	H
	7830	-50.75	-25	-25.75	-76.98	-60.88	1.19	11.32	H
	10440	-45.62	-25	-20.62	-76.87	-55.47	1.41	11.26	H
									H
									H
									H
									H
	5220	-55.77	-25	-30.77	-77.15	-67.41	1.00	12.64	V
	7830	-50.33	-25	-25.33	-76.57	-60.46	1.19	11.32	V
	10440	-43.86	-25	-18.86	-76.96	-53.71	1.41	11.26	V
									V
									V
									V
									V
									V
									V

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

**LTE Band 66**

LTE Band 66 / 3MHz / QPSK									
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)
Lowest	3423	-57.05	-13	-44.05	-74.65	-68.65	0.77	12.37	H
	5134	-55.98	-13	-42.98	-76.97	-67.48	0.97	12.47	H
	6846	-53.68	-13	-40.68	-77.65	-64.50	0.82	11.64	H
									H
									H
									H
									H
	3423	-57.47	-13	-44.47	-74.92	-69.07	0.77	12.37	V
	5134	-55.69	-13	-42.69	-76.86	-67.19	0.97	12.47	V
	6846	-53.07	-13	-40.07	-77.52	-63.89	0.82	11.64	V
									V
									V
									V
									V
Middle	3490	-57.14	-13	-44.14	-74.79	-68.93	0.78	12.57	H
	5235	-54.10	-13	-41.10	-75.38	-65.77	1.00	12.67	H
	6980	-52.33	-13	-39.33	-76.64	-62.55	1.12	11.34	H
									H
									H
									H
									H
	3490	-56.49	-13	-43.49	-74.95	-68.28	0.78	12.57	V
	5235	-52.04	-13	-39.04	-73.46	-63.71	1.00	12.67	V
	6980	-51.97	-13	-38.97	-76.6	-62.19	1.12	11.34	V
									V
									V
									V
									V



Highest	3557	-57.90	-13	-44.90	-75.32	-69.69	0.78	12.58	H
	5335	-54.95	-13	-41.95	-76.5	-66.78	1.04	12.87	H
	7114	-51.83	-13	-38.83	-76.66	-61.75	1.18	11.09	H
									H
									H
									H
									H
	3557	-56.58	-13	-43.58	-75.02	-68.37	0.78	12.58	V
	5335	-53.80	-13	-40.80	-75.49	-65.63	1.04	12.87	V
	7114	-52.10	-13	-39.10	-77.25	-62.02	1.18	11.09	V
									V
									V
									V
									V

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

—————THE END—————