HCT CO.,LTD.
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
TEL: +82-31-645-6300 FAX: +82-31-645-6401

FCC WPT REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Address:
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Date of Issue:
August 27, 2020

Test Site/Location:
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA

Report No.: HCT-RF-2008-FC061

FCC ID:	**A3LSMG781U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

According to the Evaluation report, all of the data contained herein is reused from the reference FCC ID : A3LSMG781V report.

Model:	SM-G781U
Additional Model	SM-G781U1/DS, SM-G781W
EUT Type:	Mobile Phone
Frequency of Operation & Max. Transmit Power:	110 kHz ~ 148 kHz(Power sharing) : 8.78 dBuV/m @300 m
FCC Classification:	Part 15 Low Power Transmitter Below 1705 kHz (DCD)
FCC Rule Part(s):	FCC Part 15, Subpart C (15.209)

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)

REVIEWED BY

Report prepared by : Jung Ki Lim
Engineer of Telecommunication Testing Center

Report approved by : Jong Seok Lee
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2008-FC061	August 27, 2020	- First Approval Report

Table of Contents

1. EUT DESCRIPTION

Model	SM-G781U
Additional Model	SM-G781U1/DS, SM-G781W
EUT Type	Mobile Phone
Power Supply	DC 3.85 V
Battery Information	Model: EB-BG781ABY Type: Li-ion Battery
Travel Adapter Information (15W)	Model : EP-TA200 Manufacture: DONGYANG E&P
Travel Adapter Information (25W)	Model : EP-TA800 Manufacture: DONGYANG E&P
Data Cable Information (15W)	Model : EP-DG780BWE Manufacture: KSD
Data Cable Information (25W)	Model : EP-DG980BBE Manufacture: KSD
Ear-jack Information	Model : GH59-15252A Manufacture: CRESYN
Frequency of Operation	110 kHz ~ 148 kHz(Power sharing)
Max. Transmit Power	8.78 dBuV/m @300 m
Date(s) of Tests	July 08, 2020 ~ August 13, 2020

2. TEST METHODOLOGY

The measurement procedure described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Device (ANSI C63.10-2013) is used in the measurement of the test device.

EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2013) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1GHz. Above 1GHz with 1.5m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 6.6.5 of ANSI C63.10. (Version: 2013).

3. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

Espectially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

4. FACILITIES AND ACCREDITATIONS

FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil,

Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA.

The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22.

Detailed description of test facility was submitted to the Commission and accepted dated April 02, 2018 (Registration Number: KR0032).

EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5. ANTENNA REQUIREMENTS

According to FCC 47 CFR §15.203:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

(1) The antennas of this E.U.T are permanently attached.

(2) The E.U.T Complies with the requirement of §15.203

6. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (±dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.82
Radiated Disturbance (9 kHz ~ 30 MHz)	3.40
Radiated Disturbance (30 MHz ~ 1 GHz)	4.80
Radiated Disturbance (1 GHz ~ 18 GHz)	5.70
Radiated Disturbance (18 GHz ~ 40 GHz)	5.05

7. Worst case configuration

Mode	EUT State	Position of Client device	Battery of Client device	Client device
Power sharing	Charging from EUT to Client device (See Note 3)	Aligned	***1 % ~ 20 %***	Phone (See Note 2)
			20 % ~ 50 %	
			90 % ~ 100 %	
		Cross	***1 % ~ 20 %***	
			20 % ~ 50 %	
			90 % ~ 100 %	
	Charging from EUT(Charging from TA) to Client device 15W	Aligned	***1 % ~ 20 %***	
			20 % ~ 50 %	
			90 % ~ 100 %	
		Cross	***1 % ~ 20 %***	
			20 % ~ 50 %	
			90 % ~ 100 %	
	Charging from EUT(Charging from TA) to Client device 25W	Aligned	***1 % ~ 20 %***	
			20 % ~ 50 %	
			90 % ~ 100 %	
		Cross	***1 % ~ 20 %***	
			20 % ~ 50 %	
			90 % ~ 100 %	

Note:

1. Client device:
   Of Phone and Wearable device, we tested on Phone.
2. Phone(Client device):
- Model : SM-G986B/DS
- Manufacturer : SAMSUNG
- FCC ID : A3LSMG986B
3. EUT can operate the power sharing mode when battery level is over 30%.
   Because test results are not different between fully charged status and battery level 30% status(EUT condition), test were performed fully charged condition.
4. All position of loop antenna were investigated and the worst position results are reported.
   - Position : Horizontal, Vertical, Parallel to the ground plane
   - Worst Position : Horizontal
5. The EUT was tested in three orthogonal axis(X, Y, Z) and the worst position results are reported.
   - Axis : X, Y, Z
   - Worst Axis : X

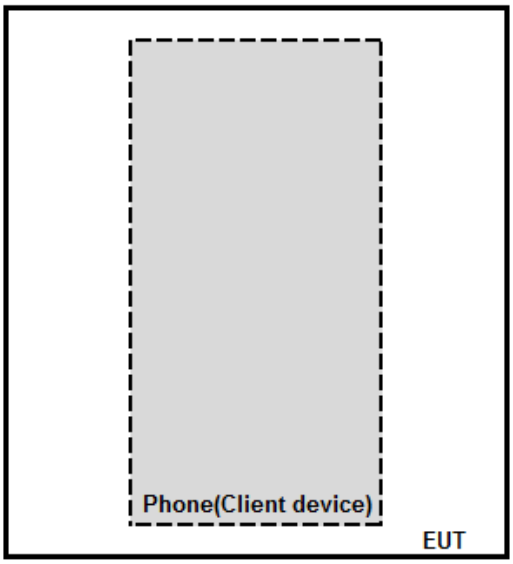
6. SM-G781W, SM-G781U, SM-G781U1/DS were tested and the worst case results are reported.
(Worst case : SM-G781U)

AC Power line Conducted Emissions

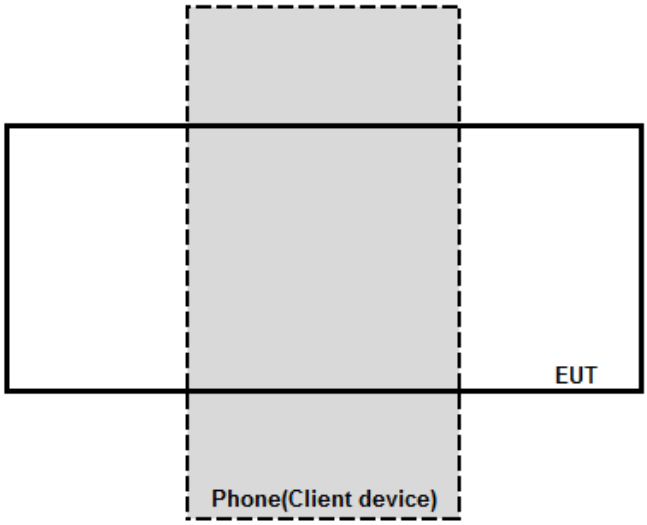
1. All modes of operation were investigated and the worst case configuration results are reported.
   - Mode : EUT + External accessories(Earphone, etc) + Travel Adapter + Phone(Client device)
     , EUT + Travel Adapter + Phone(Client device)
   - Worstcase : EUT + Travel Adapter + Phone(Client device)
2. SM-G781W, SM-G781U, SM-G781U1/DS were tested and the worst case results are reported.
(Worst case : SM-G781U)

Test Setup Diagram:

Aligned



Cross



8. TEST SUMMARY

Test Description	FCC Rule	Limit	Condition	Result
Radiated emission	§15.209	cf. Section 9	Radiated	Pass
AC Power Line Conducted Emission	§15.207	cf. Section 10		Pass
Emission bandwidth.	§2.1049	**See note1**		**See note1**

Note:

1. For reporting purposes only.

9. RADIATED EMISSION MEASUREMENT

Test Settings

1. Analyzer frequency set to the frequency of the radiated spurious emissipn of interst
2. RBW :
   9kHz – 150kHz : 300Hz
   150kHz – 30MHz : 10kHz
   30MHz – 1GHz : 100kHz
3. VBW : ≥ 3 x RBW
4. Sweep time : Auto couple
5. Detector : Peak
6. Trace : Maxhold
7. Trace was allowed to stabilize

Limit(FCC)

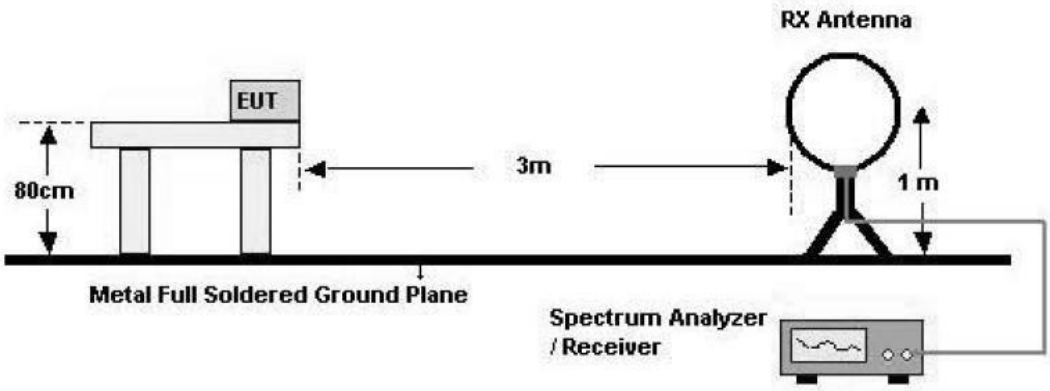
Except as provided elsewhere in this paragraph the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Rule Part	Frequency (MHz)	Limit
Part 15.209	0.009 ~ 0.490	2400/F(kHz) uV/m@300 m
	0.490 ~1.705	24000/F(kHz) uV/m@30 m
	1.705 ~ 30	30 uV/m@30 m
	30 ~ 88	100 ** uV/m@3 m
	88 ~ 216	150 ** uV/m@3 m
	216 ~ 960	200 ** uV/m@3 m
	Above 960	500 uV/m@3 m

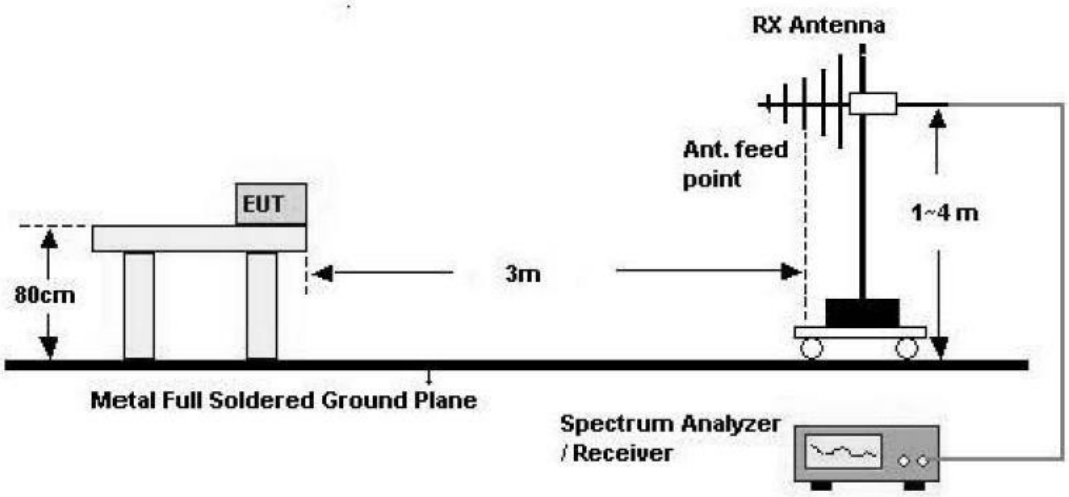
** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

Test Set-up

Below 30 MHz



30 MHz - 1 GHz



Test Procedure of Radiated spurious emissions(Below 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3 m from the EUT.
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization and Parallel to the ground plane in detecting antenna.
5. The limit is converted from microvolts/meter to decibel microvolts/meter. Sample Calculation:
   * Result level(dBμV/m@30m)
     = Reading level(dBμV/m@3m) + Ant factor(dB/m) + Cable Loss(dB) – Distance Correction Factor.
6. Distance Correction
   * 0.009 MHz – 0.490 MHz :
     40log(3 m/300 m) = - 80 dB
   * 0.490 MHz – 30MHz :
     40log(3 m/30 m) = - 40 dB
7. Plots were taken without using any correction factors.
8. The worst case plots are reported.

KDB 414788 OFS and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

Test Procedure of Radiated spurious emissions(Below 1GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8m above ground plane.
3. The Hybrid antenna was placed at a location 3m from the EUT, which is varied from 1m to 4m to find out the highest emissions.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Spectrum Setting
   (1) Measurement Type(Peak):
   - Measured Frequency Range : 30 MHz – 1 GHz
   - Detector = Peak
   - Trace = Maxhold
   - RBW = 100 kHz
   - VBW ≥ 3 x RBW
7. Total = Reading Value + Antenna Factor(A.F) + Cable Loss(C.L)
8. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

▣**Test Result**

▣**Test Result**

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
47.402	24.473	17.2	0.42	-80	-37.91	34.09	72.00
# 113.0	68.700	17.1	0.42	-80	6.22	26.54	20.32
115.0	32.682	17.1	0.42	-80	-29.80	26.39	56.19
338.1	47.310	17.1	0.42	-80	-15.17	17.03	32.20
3270.0	15.450	17.8	0.42	-40	-6.33	29.54	35.87

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT to Phone
3. Position: Aligned
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
49.404	32.231	17.2	0.42	-80	-30.15	33.73	63.88
# 113.05	71.074	17.1	0.42	-80	8.59	26.54	17.95
111.1	36.525	17.1	0.42	-80	-25.96	26.69	52.65
338.1	49.735	17.1	0.42	-80	-12.75	17.03	29.78
3054	17.936	17.8	0.42	-40	-3.84	29.54	33.38

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT(Charging from TA) to Phone 15W
3. Position: Aligned
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
41.578	33.303	17.2	0.42	-80	-29.08	35.23	64.31
#113.1	70.873	17.1	0.42	-80	8.39	26.53	18.14
115.1	36.292	17.1	0.42	-80	-26.19	26.38	52.57
338.1	49.500	17.1	0.42	-80	-12.98	17.03	30.01
3054	17.528	17.8	0.42	-40	-4.25	29.54	33.79

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT(Charging from TA) to Phone 25W
3. Position: Aligned
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
48.222	23.150	17.2	0.4	-80	-39.23	33.94	73.17
# 112.9	67.448	17.1	0.4	-80	4.97	26.55	21.58
114.9	29.688	17.1	0.4	-80	-32.79	26.40	59.19
338.1	46.446	17.1	0.4	-80	-16.03	17.03	33.06
3513	16.768	17.8	0.4	-40	-5.01	29.54	34.55

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT to Phone
3. Position: Cross
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
48.676	31.706	17.2	0.42	-80	-30.67	33.86	64.53
#113.05	71.261	17.1	0.42	-80	8.78	26.54	17.76
115.05	32.929	17.1	0.42	-80	-29.55	26.39	55.94
338.1	49.454	17.1	0.42	-80	-13.03	17.03	30.06
3054	17.172	17.8	0.42	-40	-4.61	29.54	34.15

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT(Charging from TA) to Phone 15W
3. Position: Cross
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

Frequency (kHz)	Reading Level (dBuV/m)@3m	Ant.Factor (dB/m)	Cable Loss (dB)	Distance Correction (dB)	Result Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
42.943	33.910	17.2	0.42	-80	-28.47	34.95	63.42
#113.1	69.985	17.1	0.42	-80	7.51	26.53	19.03
115.05	27.311	17.1	0.42	-80	-35.17	26.39	61.56
338.1	49.012	17.1	0.42	-80	-13.47	17.03	30.50
3270	18.200	17.8	0.42	-40	-3.58	29.54	33.12

Note

1. "#" Fundamental Frequency
2. EUT Mode: Charging from EUT(Charging from TA) to Phone 25W
3. Position: Cross
4. 30 MHz – 1GHz : No Critical peaks found
5. The fundamental frequency(110kHz – 148kHz) varies depending on the position of client device.
   All fundamental frequency were investigated and the worst results are reported.

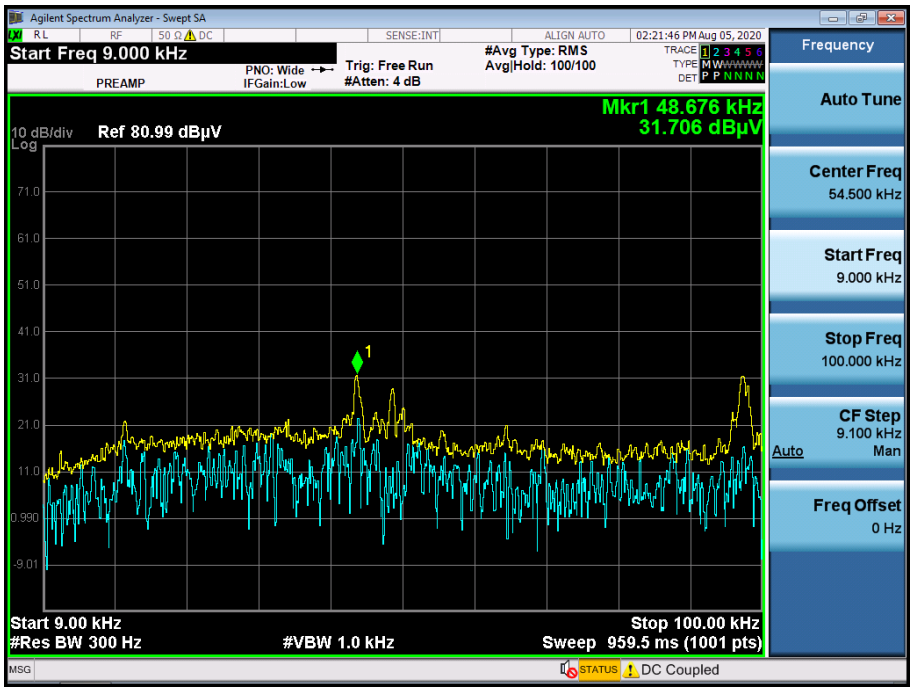
▣Test Plot

In order to simplify the report, the worst case results are reported.

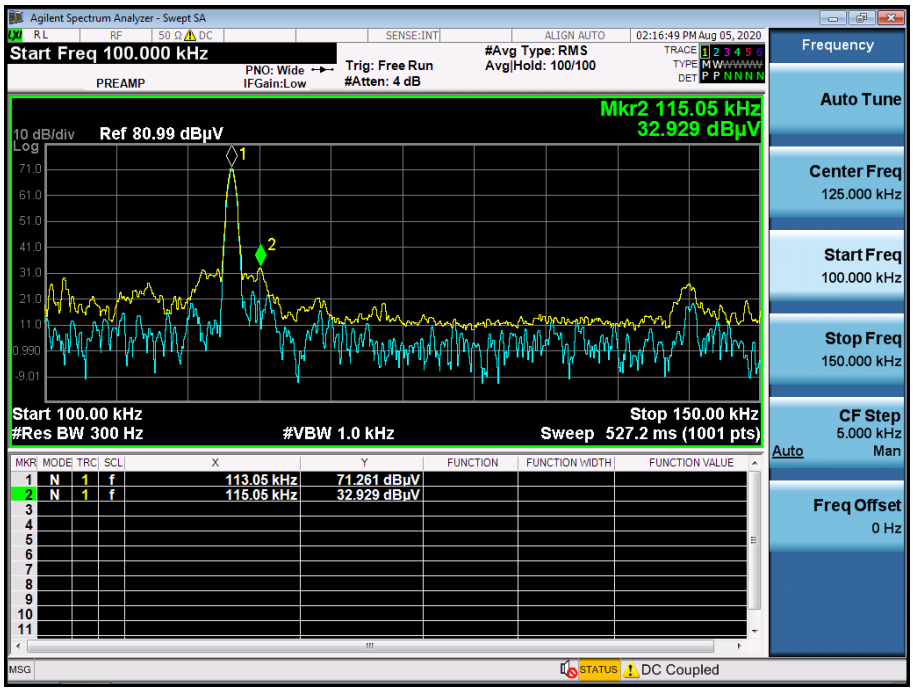
Worst case

- EUT Mode: Charging from EUT(Charging from TA) to Phone 15W
- Position: Cross

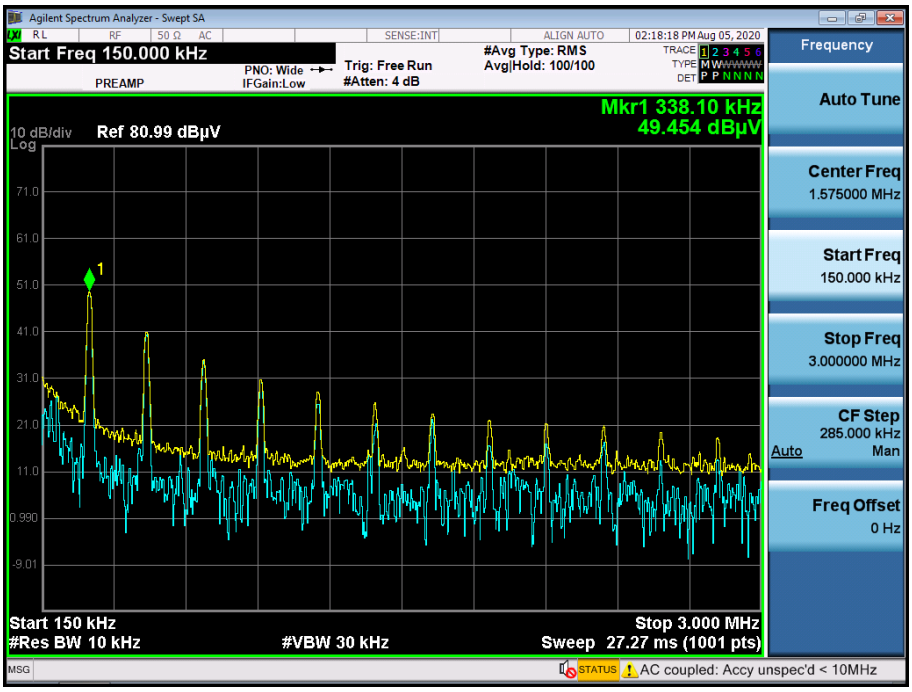
Frequency Range : 9 kHz – 100kHz



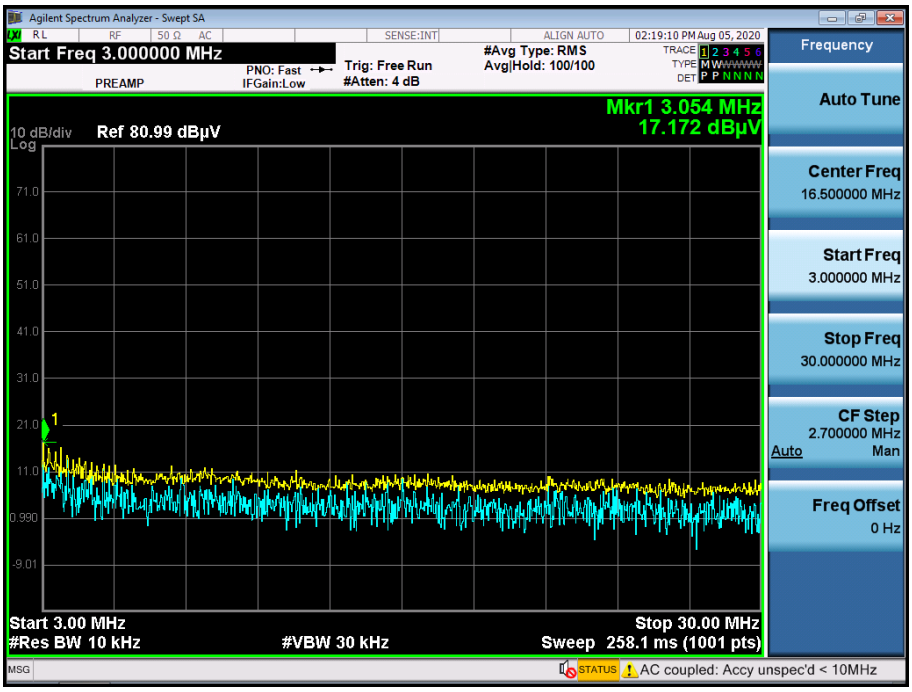
Frequency Range : 100 kHz – 150kHz



Frequency Range : 150 kHz – 3 MHz

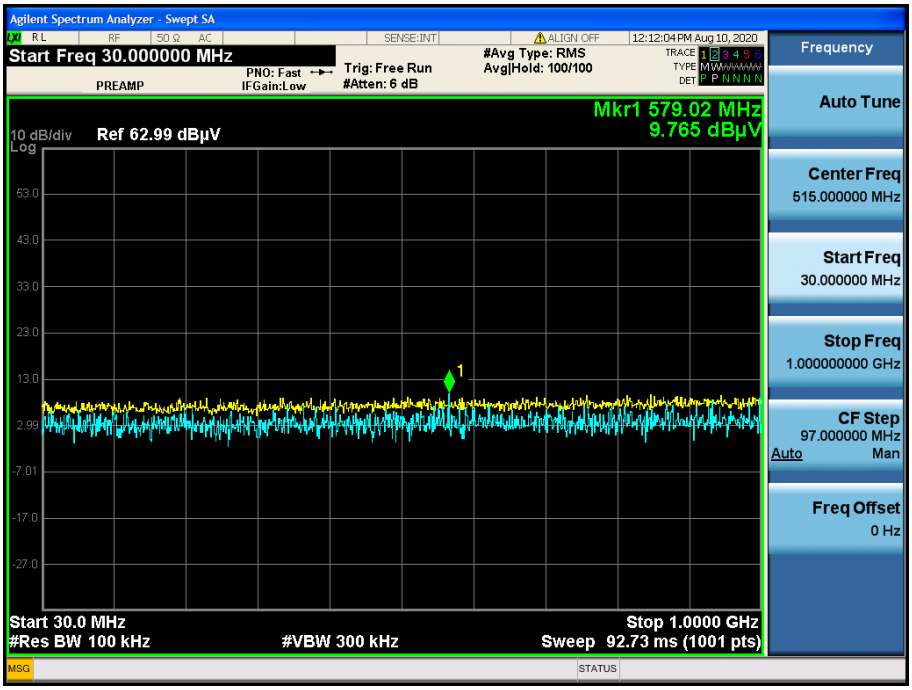


Frequency Range : 3 MHz – 30 MHz



Frequency Range : 30 MHz – 1 GHz

(30 MHz – 1GHz : No Critical peaks found)



Note :

In order to simplify the report, attached plots were only the worstcase

10. POWERLINE CONDUCTE EMISSIONS

Limit

For an intentional radiator 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, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56[a]	56 to 46[a]
0.50 to 5	56	46
5 to 30	60	50

[a]Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.
5. The EUT is the device operating below 30 MHz.
   - For unterminated the Antenna, the AC line conducted tests are performed with the antenna connected
   - For terminated the Antenna, the AC line conducted tests are performed with a dummy load connected to the EUT antenna output terminal.

Sample Calculation

Quasi-peak(Final Result) = Reading Value + Correction Factor

Test Result & Plot (Position: Aligned, 15W)

Conducted Emissions (Line 1)

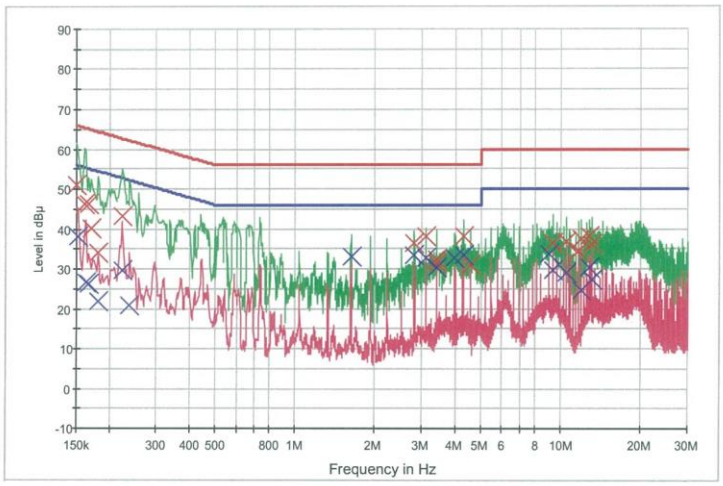
POWER SHARING ALIGNED 1~20% L1 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING ALIGNED 1~20% L1

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	51.1	9.000	Off	L1	9.8	14.9	66.0
0.160000	46.4	9.000	Off	L1	9.8	19.0	65.5
0.166000	46.1	9.000	Off	L1	9.8	19.0	65.2
0.170000	40.1	9.000	Off	L1	9.8	24.8	65.0
0.180000	33.9	9.000	Off	L1	9.8	30.6	64.5
0.224000	43.2	9.000	Off	L1	9.8	19.4	62.7
2.808000	36.3	9.000	Off	L1	9.9	19.7	56.0
3.102000	38.2	9.000	Off	L1	9.9	17.8	56.0
3.394000	31.3	9.000	Off	L1	9.9	24.7	56.0
3.398000	32.4	9.000	Off	L1	9.9	23.6	56.0
4.282000	38.2	9.000	Off	L1	10.0	17.8	56.0
4.574000	31.1	9.000	Off	L1	10.0	24.9	56.0
9.304000	36.3	9.000	Off	L1	10.2	23.7	60.0
10.486000	36.7	9.000	Off	L1	10.2	23.3	60.0
11.668000	34.5	9.000	Off	L1	10.3	25.5	60.0
11.960000	37.3	9.000	Off	L1	10.3	22.7	60.0
12.846000	38.2	9.000	Off	L1	10.3	21.8	60.0
13.142000	36.0	9.000	Off	L1	10.3	24.0	60.0

2020-08-06 오전 9:53:24

POWER SHARING ALIGNED 1~20% L1 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	38.2	9.000	Off	L1	9.8	17.7	55.9
0.162000	26.6	9.000	Off	L1	9.8	28.8	55.4
0.166000	26.4	9.000	Off	L1	9.8	28.8	55.2
0.180000	22.0	9.000	Off	L1	9.8	32.5	54.5
0.222000	29.7	9.000	Off	L1	9.8	23.0	52.7
0.238000	20.8	9.000	Off	L1	9.8	31.4	52.2
1.624000	32.9	9.000	Off	L1	9.9	13.1	46.0
2.806000	33.5	9.000	Off	L1	9.9	12.5	46.0
3.102000	32.8	9.000	Off	L1	9.9	13.2	46.0
3.396000	30.4	9.000	Off	L1	9.9	15.6	46.0
3.988000	32.9	9.000	Off	L1	10.0	13.1	46.0
4.282000	33.3	9.000	Off	L1	10.0	12.7	46.0
9.008000	33.8	9.000	Off	L1	10.2	16.2	50.0
9.304000	29.5	9.000	Off	L1	10.2	20.5	50.0
10.486000	28.9	9.000	Off	L1	10.2	21.1	50.0
11.960000	24.7	9.000	Off	L1	10.3	25.3	50.0
12.844000	30.5	9.000	Off	L1	10.3	19.5	50.0
13.142000	27.4	9.000	Off	L1	10.3	22.6	50.0

2020-08-06 오전 9:53:24

Conducted Emissions (Line 2)

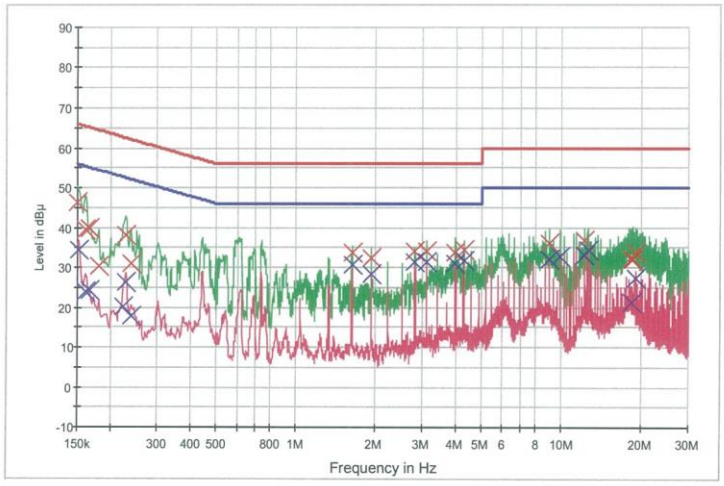
POWER SHARING ALIGNED 1~20% N 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING ALIGNED 1~20% N

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	46.1	9.000	Off	N	9.8	19.9	66.0
0.160000	39.4	9.000	Off	N	9.8	26.1	65.5
0.166000	39.8	9.000	Off	N	9.8	25.3	65.2
0.180000	30.2	9.000	Off	N	9.8	34.2	64.5
0.228000	38.2	9.000	Off	N	9.8	24.3	62.5
0.240000	31.0	9.000	Off	N	9.8	31.1	62.1
1.624000	33.8	9.000	Off	N	9.9	22.2	56.0
1.918000	32.2	9.000	Off	N	9.9	23.8	56.0
2.806000	34.1	9.000	Off	N	9.9	21.9	56.0
3.102000	34.2	9.000	Off	N	9.9	21.8	56.0
3.988000	33.8	9.000	Off	N	10.0	22.2	56.0
4.282000	34.5	9.000	Off	N	10.0	21.5	56.0
9.008000	36.0	9.000	Off	N	10.2	24.0	60.0
12.256000	36.8	9.000	Off	N	10.3	23.2	60.0
18.368000	32.2	9.000	Off	N	10.6	27.8	60.0
18.418000	32.0	9.000	Off	N	10.6	28.0	60.0
18.464000	32.0	9.000	Off	N	10.6	28.0	60.0
19.050000	33.9	9.000	Off	N	10.6	26.1	60.0

2020-08-06 오전 10:02:30

POWER SHARING ALIGNED 1~20% N 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	34.3	9.000	Off	N	9.8	21.6	55.9
0.160000	23.9	9.000	Off	N	9.8	31.6	55.5
0.166000	24.2	9.000	Off	N	9.8	31.0	55.2
0.222000	20.1	9.000	Off	N	9.8	32.7	52.7
0.228000	26.4	9.000	Off	N	9.8	26.2	52.5
0.240000	17.9	9.000	Off	N	9.8	34.2	52.1
1.624000	30.8	9.000	Off	N	9.9	15.2	46.0
1.918000	28.2	9.000	Off	N	9.9	17.8	46.0
2.806000	31.4	9.000	Off	N	9.9	14.6	46.0
3.102000	31.3	9.000	Off	N	9.9	14.7	46.0
3.988000	31.0	9.000	Off	N	10.0	15.0	46.0
4.282000	31.5	9.000	Off	N	10.0	14.5	46.0
9.008000	32.1	9.000	Off	N	10.2	17.9	50.0
9.894000	32.7	9.000	Off	N	10.2	17.3	50.0
12.256000	33.0	9.000	Off	N	10.3	17.0	50.0
12.552000	34.2	9.000	Off	N	10.4	15.8	50.0
18.384000	21.0	9.000	Off	N	10.6	29.0	50.0
19.050000	27.2	9.000	Off	N	10.6	22.8	50.0

2020-08-06 오전 10:02:30

Test Result & Plot (Position: Cross, 15W)

Conducted Emissions (Line 1)

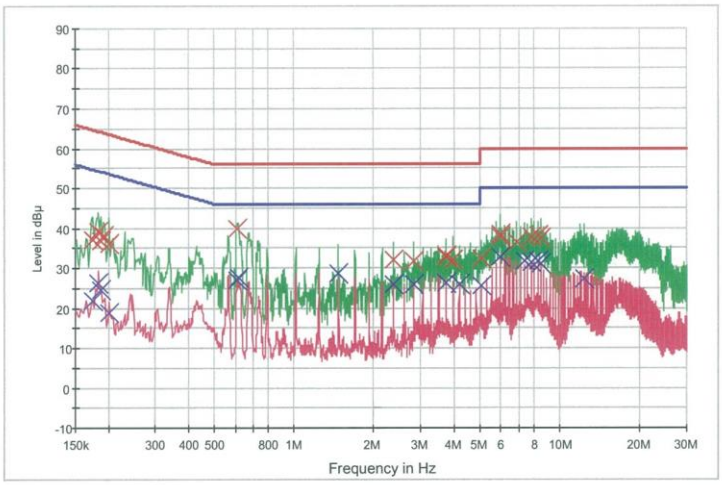
POWER SHARING CROSS 1~20% L1 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING CROSS 1~20% L1

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	37.0	9.000	Off	L1	9.8	27.8	64.8
0.184000	39.3	9.000	Off	L1	9.8	25.0	64.3
0.188000	36.8	9.000	Off	L1	9.8	27.3	64.1
0.192000	38.0	9.000	Off	L1	9.8	25.9	63.9
0.202000	36.0	9.000	Off	L1	9.8	27.6	63.5
0.612000	39.7	9.000	Off	L1	9.8	16.3	56.0
2.374000	32.0	9.000	Off	L1	9.9	24.0	56.0
2.826000	31.7	9.000	Off	L1	9.9	24.3	56.0
3.730000	33.2	9.000	Off	L1	10.0	22.8	56.0
3.734000	32.6	9.000	Off	L1	10.0	23.4	56.0
3.956000	32.1	9.000	Off	L1	10.0	23.9	56.0
5.088000	32.5	9.000	Off	L1	10.0	27.5	60.0
5.992000	38.5	9.000	Off	L1	10.0	21.5	60.0
5.996000	37.7	9.000	Off	L1	10.0	22.3	60.0
6.900000	36.5	9.000	Off	L1	10.1	23.5	60.0
7.802000	38.0	9.000	Off	L1	10.1	22.0	60.0
8.256000	38.1	9.000	Off	L1	10.1	21.9	60.0
8.480000	37.5	9.000	Off	L1	10.2	22.5	60.0

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POWER SHARING CROSS 1~20% L1 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	21.9	9.000	Off	L1	9.8	32.9	54.8
0.184000	26.3	9.000	Off	L1	9.8	28.0	54.3
0.188000	24.5	9.000	Off	L1	9.8	29.6	54.1
0.202000	18.8	9.000	Off	L1	9.8	34.7	53.5
0.610000	26.9	9.000	Off	L1	9.8	19.1	46.0
0.616000	27.7	9.000	Off	L1	9.8	18.3	46.0
1.470000	28.5	9.000	Off	L1	9.9	17.5	46.0
2.374000	26.0	9.000	Off	L1	9.9	20.0	46.0
2.828000	26.0	9.000	Off	L1	9.9	20.0	46.0
3.734000	26.2	9.000	Off	L1	10.0	19.8	46.0
4.184000	25.8	9.000	Off	L1	10.0	20.2	46.0
5.088000	25.6	9.000	Off	L1	10.0	24.4	50.0
5.992000	32.6	9.000	Off	L1	10.0	17.4	50.0
7.350000	31.7	9.000	Off	L1	10.1	18.3	50.0
7.804000	31.3	9.000	Off	L1	10.1	18.7	50.0
8.256000	31.7	9.000	Off	L1	10.1	18.3	50.0
8.480000	31.0	9.000	Off	L1	10.2	19.0	50.0
12.328000	27.4	9.000	Off	L1	10.3	22.6	50.0

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Conducted Emissions (Line 2)

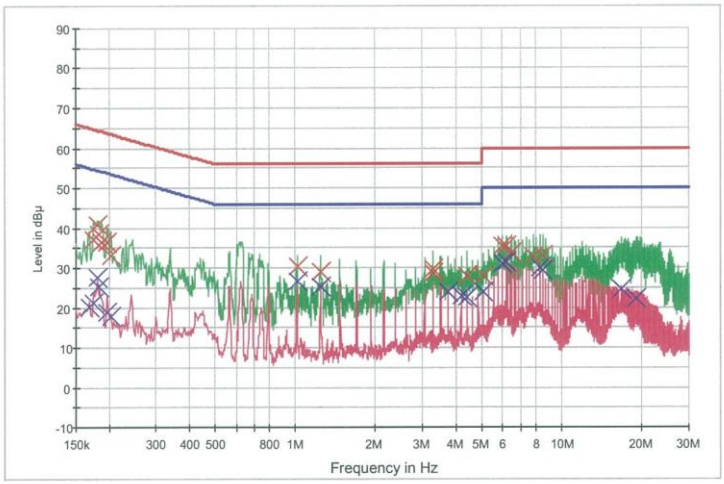
POWER SHARING CROSS 1~20% N 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING CROSS 1~20% N

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	37.2	9.000	Off	N	9.8	27.6	64.8
0.180000	40.9	9.000	Off	N	9.8	23.6	64.5
0.184000	38.5	9.000	Off	N	9.8	25.8	64.3
0.188000	36.5	9.000	Off	N	9.8	27.6	64.1
0.196000	36.4	9.000	Off	N	9.8	27.4	63.8
0.204000	33.0	9.000	Off	N	9.8	30.5	63.4
1.018000	30.3	9.000	Off	N	9.8	25.7	56.0
1.246000	29.1	9.000	Off	N	9.8	26.9	56.0
3.278000	29.6	9.000	Off	N	9.9	26.4	56.0
3.282000	28.8	9.000	Off	N	9.9	27.2	56.0
4.412000	28.0	9.000	Off	N	10.0	28.0	56.0
5.092000	27.9	9.000	Off	N	10.0	32.1	60.0
5.994000	35.6	9.000	Off	N	10.1	24.4	60.0
6.220000	35.3	9.000	Off	N	10.1	24.7	60.0
6.448000	33.8	9.000	Off	N	10.1	26.2	60.0
7.806000	32.7	9.000	Off	N	10.1	27.3	60.0
8.260000	30.1	9.000	Off	N	10.2	29.9	60.0
8.484000	33.1	9.000	Off	N	10.2	26.9	60.0

2020-08-06 오전 10:10:56

POWER SHARING CROSS 1~20% N 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.168000	20.3	9.000	Off	N	9.8	34.7	55.1
0.174000	21.2	9.000	Off	N	9.8	33.5	54.8
0.180000	27.7	9.000	Off	N	9.8	26.8	54.5
0.184000	25.2	9.000	Off	N	9.8	29.1	54.3
0.196000	19.0	9.000	Off	N	9.8	34.8	53.8
0.204000	17.8	9.000	Off	N	9.8	35.6	53.4
1.018000	26.5	9.000	Off	N	9.8	19.5	46.0
1.246000	25.4	9.000	Off	N	9.8	20.6	46.0
3.734000	24.0	9.000	Off	N	10.0	22.0	46.0
4.186000	22.9	9.000	Off	N	10.0	23.1	46.0
4.412000	22.4	9.000	Off	N	10.0	23.6	46.0
5.090000	23.9	9.000	Off	N	10.0	26.1	50.0
5.994000	31.0	9.000	Off	N	10.1	19.0	50.0
6.220000	31.4	9.000	Off	N	10.1	18.6	50.0
8.256000	30.0	9.000	Off	N	10.2	20.0	50.0
8.482000	29.3	9.000	Off	N	10.2	20.7	50.0
16.624000	24.5	9.000	Off	N	10.5	25.5	50.0
19.114000	22.2	9.000	Off	N	10.6	27.8	50.0

2020-08-06 오전 10:10:56

Test Result & Plot (Position: Aligned, 25W)

Conducted Emissions (Line 1)

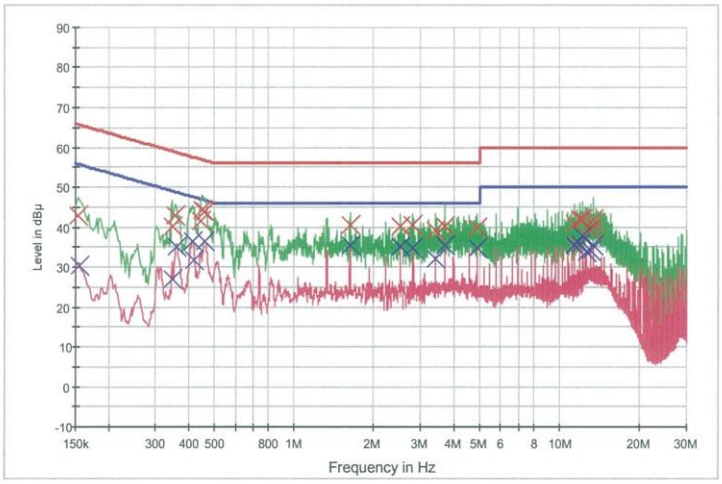
POWER SHARING ALIGNED 1~20% L1 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING ALIGNED 1~20% L1

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	42.7	9.000	Off	L1	9.8	23.1	65.8
0.348000	40.2	9.000	Off	L1	9.8	18.8	59.0
0.358000	42.9	9.000	Off	L1	9.8	15.9	58.8
0.446000	41.4	9.000	Off	L1	9.8	15.6	56.9
0.452000	44.1	9.000	Off	L1	9.8	12.7	56.8
0.462000	43.9	9.000	Off	L1	9.8	12.7	56.7
1.624000	40.3	9.000	Off	L1	9.9	15.7	56.0
2.510000	40.0	9.000	Off	L1	9.9	16.0	56.0
2.806000	40.4	9.000	Off	L1	9.9	15.6	56.0
3.398000	39.0	9.000	Off	L1	9.9	17.0	56.0
3.694000	40.2	9.000	Off	L1	10.0	15.8	56.0
4.872000	39.9	9.000	Off	L1	10.0	16.1	56.0
11.370000	40.9	9.000	Off	L1	10.3	19.1	60.0
11.962000	41.9	9.000	Off	L1	10.3	18.1	60.0
12.258000	42.0	9.000	Off	L1	10.3	18.0	60.0
13.138000	39.3	9.000	Off	L1	10.3	20.7	60.0
13.436000	42.0	9.000	Off	L1	10.3	18.0	60.0
13.440000	40.6	9.000	Off	L1	10.3	19.4	60.0

2020-08-06 오전 9:42:44

POWER SHARING ALIGNED 1~20% L1 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.156000	30.2	9.000	Off	L1	9.8	25.5	55.7
0.348000	26.9	9.000	Off	L1	9.8	22.1	49.0
0.362000	35.1	9.000	Off	L1	9.8	13.6	48.7
0.416000	36.3	9.000	Off	L1	9.8	11.2	47.5
0.422000	31.6	9.000	Off	L1	9.8	15.9	47.4
0.462000	36.4	9.000	Off	L1	9.8	10.3	46.7
1.624000	35.4	9.000	Off	L1	9.9	10.6	46.0
2.510000	35.0	9.000	Off	L1	9.9	11.0	46.0
2.806000	34.7	9.000	Off	L1	9.9	11.3	46.0
3.398000	32.1	9.000	Off	L1	9.9	13.9	46.0
3.692000	35.4	9.000	Off	L1	10.0	10.6	46.0
4.872000	34.8	9.000	Off	L1	10.0	11.2	46.0
11.370000	35.4	9.000	Off	L1	10.3	14.6	50.0
11.960000	35.7	9.000	Off	L1	10.3	14.3	50.0
12.256000	37.7	9.000	Off	L1	10.3	12.3	50.0
12.552000	33.8	9.000	Off	L1	10.3	16.2	50.0
13.140000	34.0	9.000	Off	L1	10.3	16.0	50.0
13.436000	35.4	9.000	Off	L1	10.3	14.6	50.0

2020-08-06 오전 9:42:44

Conducted Emissions (Line 2)

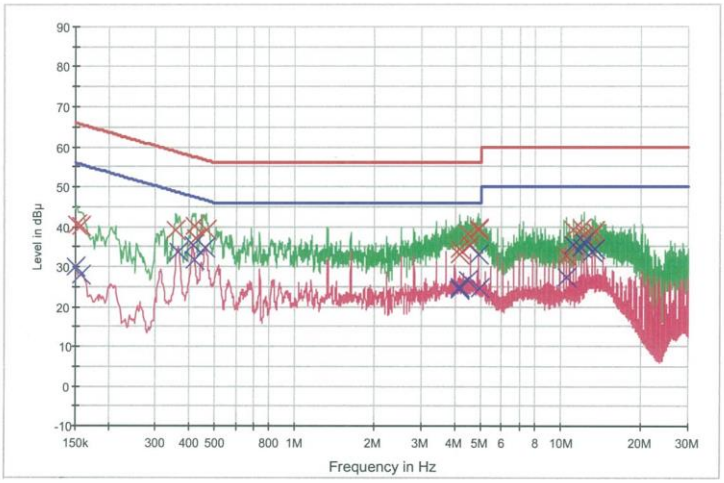
POWER SHARING ALIGNED 1~20% N 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING ALIGNED 1~20% N

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	40.6	9.000	Off	N	9.8	25.3	65.9
0.158000	40.0	9.000	Off	N	9.8	25.5	65.6
0.358000	39.1	9.000	Off	N	9.8	19.6	58.8
0.420000	40.2	9.000	Off	N	9.8	17.2	57.4
0.424000	37.1	9.000	Off	N	9.8	20.2	57.4
0.466000	39.1	9.000	Off	N	9.8	17.5	56.6
4.148000	34.5	9.000	Off	N	10.0	21.5	56.0
4.162000	32.9	9.000	Off	N	10.0	23.1	56.0
4.448000	38.1	9.000	Off	N	10.0	17.9	56.0
4.548000	35.5	9.000	Off	N	10.0	20.5	56.0
4.868000	39.2	9.000	Off	N	10.0	16.8	56.0
4.872000	39.5	9.000	Off	N	10.0	16.5	56.0
10.482000	32.8	9.000	Off	N	10.3	27.2	60.0
11.074000	39.3	9.000	Off	N	10.3	20.7	60.0
11.960000	39.6	9.000	Off	N	10.3	20.4	60.0
12.252000	37.7	9.000	Off	N	10.3	22.3	60.0
13.140000	37.9	9.000	Off	N	10.4	22.1	60.0
13.436000	38.9	9.000	Off	N	10.4	21.1	60.0

2020-08-06 오전 9:32:33

POWER SHARING ALIGNED 1~20% N 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.9	9.000	Off	N	9.8	26.1	56.0
0.158000	28.1	9.000	Off	N	9.8	27.5	55.6
0.366000	33.9	9.000	Off	N	9.8	14.7	48.6
0.414000	35.6	9.000	Off	N	9.8	12.0	47.6
0.420000	31.7	9.000	Off	N	9.8	15.8	47.4
0.462000	34.9	9.000	Off	N	9.8	11.8	46.7
4.148000	24.3	9.000	Off	N	10.0	21.7	46.0
4.154000	24.4	9.000	Off	N	10.0	21.6	46.0
4.162000	24.9	9.000	Off	N	10.0	21.1	46.0
4.448000	26.6	9.000	Off	N	10.0	19.4	46.0
4.874000	33.1	9.000	Off	N	10.0	12.9	46.0
4.926000	24.7	9.000	Off	N	10.0	21.3	46.0
10.482000	27.4	9.000	Off	N	10.3	22.6	50.0
11.074000	35.5	9.000	Off	N	10.3	14.5	50.0
11.960000	34.8	9.000	Off	N	10.3	15.2	50.0
12.254000	36.0	9.000	Off	N	10.3	14.0	50.0
13.140000	33.7	9.000	Off	N	10.4	16.3	50.0
13.436000	34.3	9.000	Off	N	10.4	15.7	50.0

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Test Result & Plot (Position: Cross, 25W)

Conducted Emissions (Line 1)

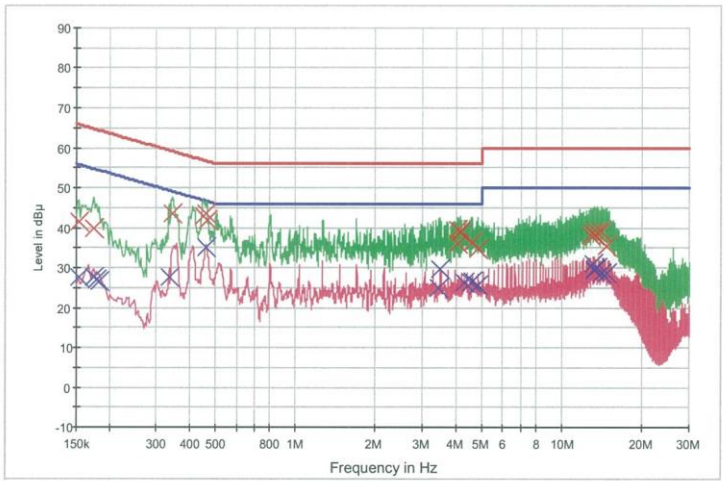
POWER SHARING CROSS 1~20% L1 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING CROSS 1~20% L1

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	41.6	9.000	Off	L1	9.8	24.2	65.8
0.174000	40.0	9.000	Off	L1	9.8	24.8	64.8
0.346000	43.5	9.000	Off	L1	9.8	15.6	59.1
0.450000	42.7	9.000	Off	L1	9.8	14.1	56.9
0.460000	43.4	9.000	Off	L1	9.8	13.3	56.7
0.464000	42.0	9.000	Off	L1	9.8	14.6	56.6
4.074000	36.3	9.000	Off	L1	10.0	19.7	56.0
4.082000	39.5	9.000	Off	L1	10.0	16.5	56.0
4.138000	39.3	9.000	Off	L1	10.0	16.7	56.0
4.148000	39.0	9.000	Off	L1	10.0	17.0	56.0
4.614000	36.3	9.000	Off	L1	10.0	19.7	56.0
4.856000	34.8	9.000	Off	L1	10.0	21.2	56.0
12.728000	38.1	9.000	Off	L1	10.3	21.9	60.0
13.004000	39.0	9.000	Off	L1	10.3	21.0	60.0
13.190000	38.2	9.000	Off	L1	10.3	21.8	60.0
13.578000	38.9	9.000	Off	L1	10.3	21.1	60.0
14.050000	39.1	9.000	Off	L1	10.3	20.9	60.0
14.712000	35.5	9.000	Off	L1	10.4	24.5	60.0

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POWER SHARING CROSS 1~20% L1 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	27.5	9.000	Off	L1	9.8	28.3	55.8
0.174000	27.6	9.000	Off	L1	9.8	27.2	54.8
0.178000	26.9	9.000	Off	L1	9.8	27.7	54.6
0.182000	26.6	9.000	Off	L1	9.8	27.8	54.4
0.336000	27.5	9.000	Off	L1	9.8	21.8	49.3
0.460000	35.2	9.000	Off	L1	9.8	11.5	46.7
3.450000	25.0	9.000	Off	L1	9.9	21.0	46.0
3.504000	29.7	9.000	Off	L1	9.9	16.3	46.0
4.300000	26.4	9.000	Off	L1	10.0	19.6	46.0
4.546000	26.4	9.000	Off	L1	10.0	19.6	46.0
4.614000	26.6	9.000	Off	L1	10.0	19.4	46.0
4.856000	25.6	9.000	Off	L1	10.0	20.4	46.0
13.004000	31.0	9.000	Off	L1	10.3	19.0	50.0
13.190000	29.5	9.000	Off	L1	10.3	20.5	50.0
13.228000	29.3	9.000	Off	L1	10.3	20.7	50.0
13.578000	29.9	9.000	Off	L1	10.3	20.1	50.0
14.050000	28.8	9.000	Off	L1	10.3	21.2	50.0
14.712000	28.6	9.000	Off	L1	10.4	21.4	50.0

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Conducted Emissions (Line 2)

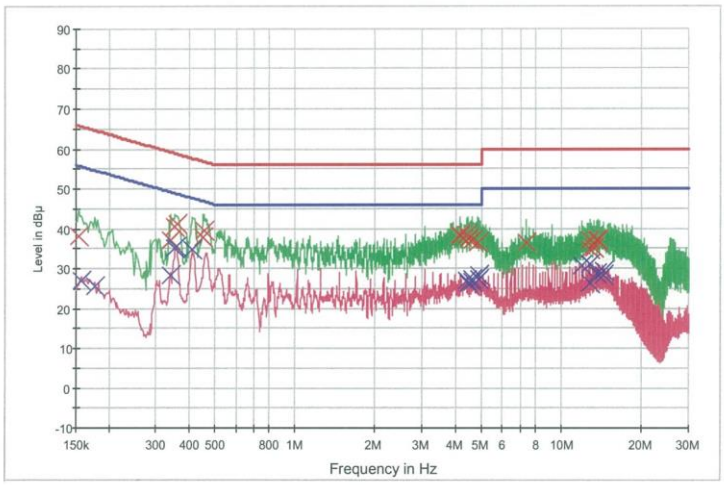
POWER SHARING CROSS 1~20% N 1 / 2

HCT TEST Report

Common Information

EUT:	SM-G781V
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	POWER SHARING CROSS 1~20% N

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	38.3	9.000	Off	N	9.8	27.5	65.8
0.342000	37.0	9.000	Off	N	9.8	22.1	59.2
0.354000	40.6	9.000	Off	N	9.8	18.3	58.9
0.362000	41.0	9.000	Off	N	9.8	17.7	58.7
0.450000	37.7	9.000	Off	N	9.8	19.2	56.9
0.456000	39.5	9.000	Off	N	9.8	17.3	56.8
4.148000	38.4	9.000	Off	N	10.0	17.6	56.0
4.152000	38.1	9.000	Off	N	10.0	17.9	56.0
4.404000	38.4	9.000	Off	N	10.0	17.6	56.0
4.452000	37.6	9.000	Off	N	10.0	18.4	56.0
4.616000	37.3	9.000	Off	N	10.0	18.7	56.0
4.862000	36.5	9.000	Off	N	10.0	19.5	56.0
7.356000	36.3	9.000	Off	N	10.1	23.7	60.0
12.710000	34.7	9.000	Off	N	10.4	25.3	60.0
12.784000	37.1	9.000	Off	N	10.4	22.9	60.0
13.168000	35.2	9.000	Off	N	10.4	24.8	60.0
13.500000	37.3	9.000	Off	N	10.4	22.7	60.0
13.688000	37.0	9.000	Off	N	10.4	23.0	60.0

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POWER SHARING CROSS 1~20% N 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.158000	27.0	9.000	Off	N	9.8	28.6	55.6
0.176000	25.7	9.000	Off	N	9.8	29.0	54.7
0.342000	28.2	9.000	Off	N	9.8	20.9	49.2
0.354000	35.1	9.000	Off	N	9.8	13.8	48.9
0.358000	35.4	9.000	Off	N	9.8	13.3	48.8
0.410000	34.6	9.000	Off	N	9.8	13.0	47.6
4.404000	27.1	9.000	Off	N	10.0	18.9	46.0
4.452000	26.1	9.000	Off	N	10.0	19.9	46.0
4.616000	27.3	9.000	Off	N	10.0	18.7	46.0
4.622000	26.6	9.000	Off	N	10.0	19.4	46.0
4.868000	28.4	9.000	Off	N	10.0	17.6	46.0
4.922000	27.1	9.000	Off	N	10.0	18.9	46.0
11.878000	30.5	9.000	Off	N	10.3	19.5	50.0
12.710000	26.4	9.000	Off	N	10.4	23.6	50.0
12.784000	31.0	9.000	Off	N	10.4	19.0	50.0
13.500000	28.6	9.000	Off	N	10.4	21.4	50.0
14.340000	28.1	9.000	Off	N	10.4	21.9	50.0
14.366000	29.3	9.000	Off	N	10.4	20.7	50.0

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11. EMISSION BANDWIDTH PLOT

Test Settings

1. Analyzer frequency set to the frequency of the radiated spurious emissipn of interst
2. RBW : 300 Hz
   (Becasuse the measured signal is CW/CW-like,adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.)
3. VBW : ≥ 3 x RBW
4. Sweep time : Auto couple
5. Detector : Peak
6. Trace : Maxhold
7. Trace was allowed to stabilize

Limit

None

(for reporting purposes only.)

▣Test Result

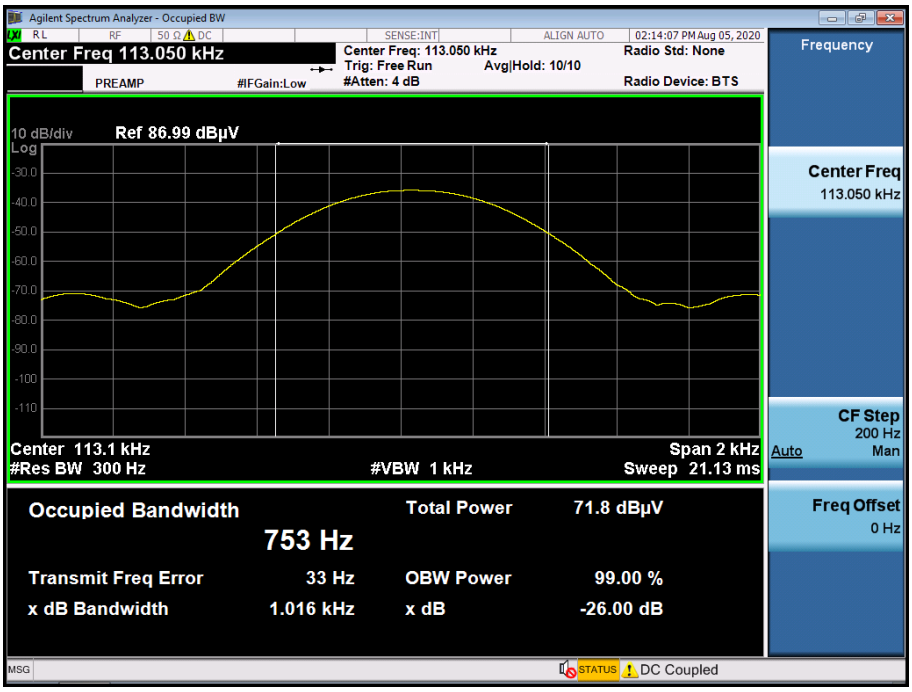
EUT Mode	Position	Test Frequency (kHz)	26dB Bandwidth (kHz)	Occupied Bandwidth (Hz)
Charging from EUT to Phone	Aligned	113.00	1.018	753
	Cross	112.90	1.010	752
Charging from EUT(Charging from TA) to Phone 15W	Aligned	113.05	1.016	753
	Cross	113.05	1.009	751
Charging from EUT(Charging from TA) to Phone 25W	Aligned	113.10	1.015	753
	Cross	113.10	1.005	748

▣Test Plot

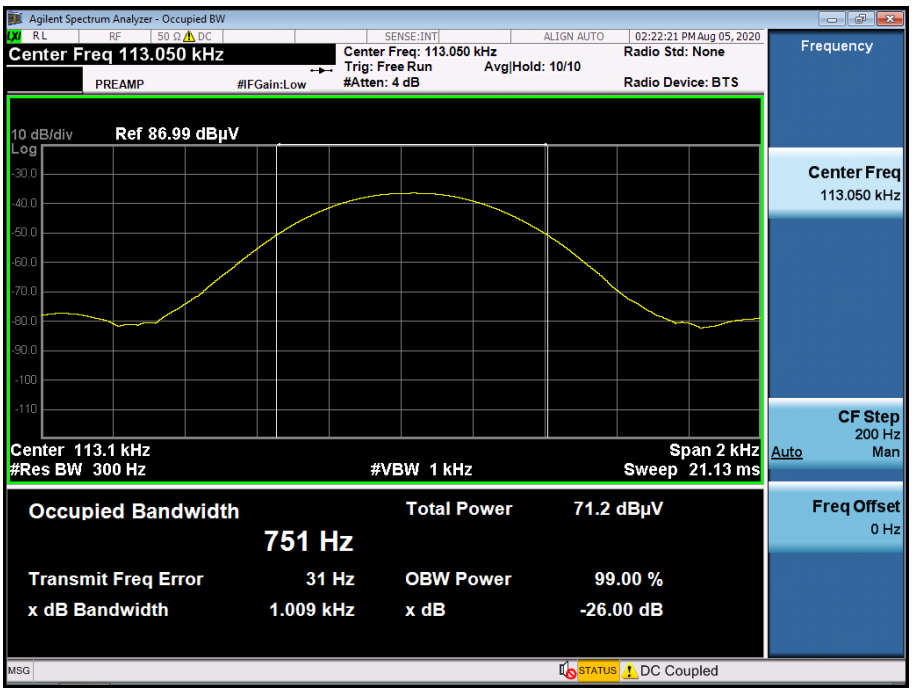
Charging from EUT to Phone – Position : Aligned

Charging from EUT to Phone – Position : Cross

Charging from EUT(Charging from TA) to Phone 15W – Position : Aligned

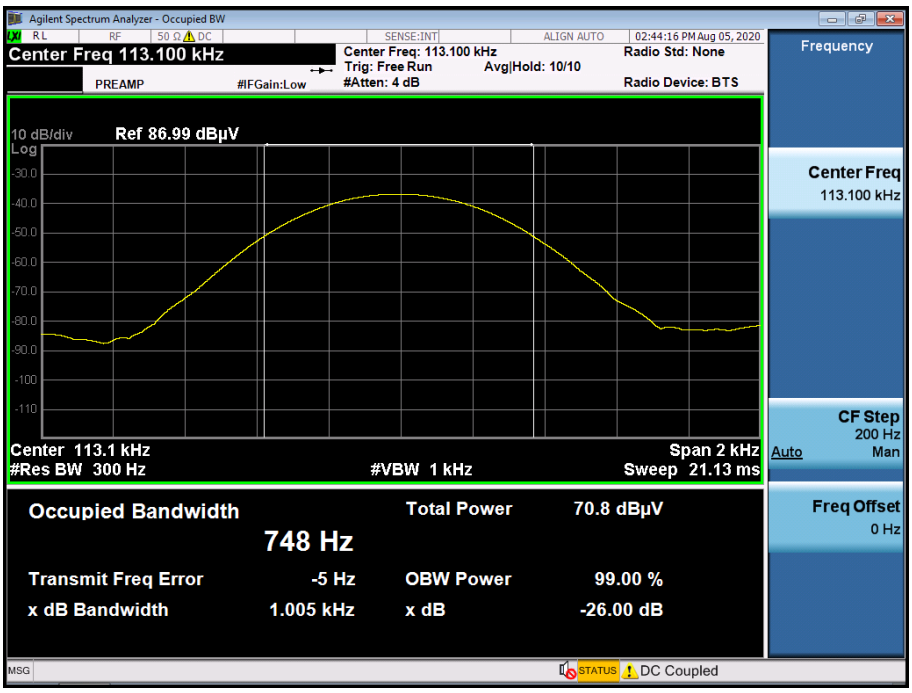


Charging from EUT(Charging from TA) to Phone 15W – Position : Cross



Charging from EUT(Charging from TA) to Phone 25W – Position : Aligned

Charging from EUT(Charging from TA) to Phone 25W – Position : Cross



12. LIST OF TEST EQUIPMENT

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	05/18/2020	Biennial	1513-175
Schwarzbeck	VULB 9168 / Hybrid Antenna	03/22/2019	Biennial	760
Rohde & Schwarz	FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer	04/27/2020	Annual	100854
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	09/26/2019	Annual	101068-SZ
Agilent	N9020A / Signal Analyzer	05/11/2020	Annual	MY51110085
Api tech.	18B-03 / Attenuator (3 dB)	03/02/2020	Annual	1
Agilent	8493C-10 / Attenuator(10 dB)	03/02/2020	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	03/02/2020	Annual	22964

13. Annex A_TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2008-FC061-P