

HCT CO., LTD.

CERTIFICATE OF COMPLIANCE FCC Certification

Applicant Name: SAMSUNG Electronics Co., Ltd.	Date of Issue: February 12, 2014
Address: 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, 443-742 Rep. of Korea	Test Site/Location: HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea.
	Report No.: HCTR1402F013
	HCT FRN: 0005866421

FCC ID : A3LSMN7506V

APPLICANT : SAMSUNG Electronics Co., Ltd.

FCC Model(s): SM-N7506V
EUT Type: Mobile Phone
RF Output Field Strength -0.80 dBuV/m
Frequency of Operation: 13.560114 MHz
Modulation type ASK
FCC Classification: Low Power Communication Device – Transmitter
FCC Rule Part(s): FCC Part 15.225 Subpart C

Engineering Statement:

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)



Report prepared by
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Test engineer of RF Team



Approved by
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FCC PT.15.225 TEST REPORT		FCC CERTIFICATION REPORT		www.hct.co.kr
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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCTR1402F013	February 12, 2014	- First Approval Report

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1. GENERAL INFORMATION

Applicant: SAMSUNG Electronics Co., Ltd.
Address: 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, 443-742 Rep. of Korea
FCC ID: A3LSMN7506V
EUT Type: Mobile Phone
Model name(s): SM-N7506V
Date(s) of Tests: February 03, 2014 ~ February 12, 2014
Place of Tests: HCT Co., Ltd.
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea.
(IC Recognition No. : 5944A-3)
Applicant: SAMSUNG Electronics Co., Ltd.

2. EUT DESCRIPTION

Product	Mobile Phone
FCC Model Name	SM-N7506V
Power Supply	DC 3.8 V
Battery Type	Li-ion Battery(Standard)
Frequency of Operation	13.560114 MHz
Transmit Power	-0.80 dBuV/m
Modulation Type	ASK
Antenna Specification	Manufacturer: AMOTECH Antenna type: FPCB Antenna

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3. TEST METHODOLOGY

The measurement procedure described in the American National Standard for Testing Unlicensed Wireless Devices(ANSI C63.10-2009).

3.1 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.

3.2 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 15.225 under the FCC Rules Part 15 Subpart C.

3.3 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 :2009) 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. 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 6.3 of ANSI C63.10. (Version: 2009).

3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

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3.5 STANDARDS

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance With
FCC Part 15.Subpart C

Regulation	Measurement standard	Range
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(a)	ANSI C63.10:2009	13.553MHz to 13.567MHz
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(d)	ANSI C63.10:2009	outside of the 13.110-14.010 MHz band
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.209	ANSI C63.10:2009	9kHz to 30MHz
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.209	ANSI C63.10:2009	30MHz to 1GHz
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.207	ANSI C63.10:2009	150kHz to 30MHz
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(e)	ANSI C63.10:2009	0.01% of nominal
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.215(c)	ANSI C63.10:2009	-



4. 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.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The 10 m semi anechoic chamber used to collect the Conducted and Radiated data is located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4. Detailed description of test facilities was submitted to the Commission and accepted dated June. 21, 2011 (Registration Number: 90661)

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned loop, 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."

6. 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."

* The antennas of this E.U.T are permanently attached.

*The E.U.T Complies with the requirement of §15.203

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7. TEST SUMMARY

The results in this report apply only to sample tested

Regulation	Test Type	Range	Result
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(a)	Radiated Electric Field Emissions	13.553MHz to 13.567MHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(b)	Radiated Electric Field Emissions	13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(c)	Radiated Electric Field Emissions	13.110 MHz to 13.410 MHz and 13.710 MHz to 14.010 MHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.209 (d)	Radiated Electric Field Emissions	9kHz to 30MHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.209	Radiated Electric Field Emissions	30MHz to 1GHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.207	AC power conducted emissions	150kHz to 30MHz	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.225(e)	Frequency Stability	0.01% of nominal	Pass
Title 47 of the CFR:2012, Part 15 Subpart (c), Clause 15.215(c)	20 dB Bandwidth	-	Pass

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8. RADIATED EMISSION MEASUREMENT

Requirement(s): 15.209, 15.225

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:

Minimum Standard: FCC Part 15.225 / 15.209

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

** 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, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

15.225 Operation within the band 13.110 – 14.010 MHz.

(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter (= 84 dBuV/m) at 30 meters.

(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter (=50.5dBuV/m) at 30 meters.

(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter (=40.5 dBuV/m) at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

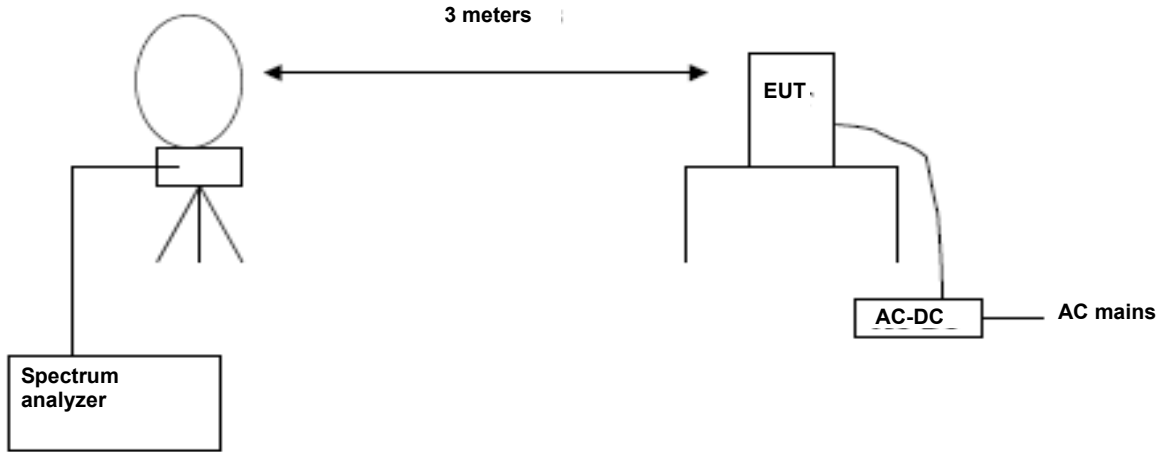
(e) The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

(f) In the case of radio frequency powered tags designed to operate with a device authorized under this section, the tag may be approved with the device or be considered as a separate device subject to its own authorization. Powered tags approved with a device under a single application shall be labeled with the same identification number as the device.

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8.1. RADIATED EMISSION 9 kHz – 30 MHz

Test Set-up



Test Procedure

The EUT was placed on a non-conductive table located on a large open test site. The loop antenna was placed at a location 3m from the EUT. Radiated emissions were measured with the loop antenna both parallel and perpendicular to the plane of the EUT loop antenna.

The limit is converted from microvolts/meter to decibel microvolts/meter. Sample Calculation:

Corrected Amplitude = Raw Amplitude(dB μ V/m) + ACF(dB) + Cable Loss(dB) – Distance Correction Factor

The spectrum analyzer is set to:

Frequency Range = 9 kHz ~ 1GHz

RBW = 9 kHz (9 kHz ~ 30MHz)
= 120 kHz (30 MHz ~ 1 GHz)

Trace Mode = max hold

Detector Mode = peak / Quasi-peak

Sweep time = auto

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Test Results

13.553 MHz-13.567 MHz						
Frequency (MHz)	Read Level (dBuV)@3m	Ant.Factor+Cable Loss (dB/m)	Distance Correction (dB)	Result Level (dBuV/m)@30m	Limit (dBuV/m)@30m	Margin (dB)
13.5604	29.39(H)*	9.81	-40	-0.80	84	84.80
13.5596	25.02(V)*	9.81	-40	-5.17	84	89.17

13.410 MHz-13.553 MHz and 13.567 MHz-13.710 MHz						
Frequency (MHz)	Read Level (dBuV)@3m	Ant.Factor+Cable Loss (dB/m)	Distance Correction (dB)	Result Level (dBuV/m)@30m	Limit (dBuV/m)@30m	Margin (dB)
13.5530	17.58	9.81	-40	-12.61	50.47	63.08
13.5670	18.37	9.81	-40	-11.82	50.47	62.29

13.110 MHz – 13.410 MHz and 13.710 MHz-14.010 MHz						
Frequency (MHz)	Read Level (dBuV)@3m	Ant.Factor+Cable Loss (dB/m)	Distance Correction (dB)	Result Level (dBuV/m)@30m	Limit (dBuV/m)@30m	Margin (dB)
13.3482	17.20	9.81	-40	-12.99	40.51	53.50
13.7724	16.99	9.81	-40	-13.20	40.51	53.71

9 kHz -30 MHz						
Frequency (MHz)	Read Level (dBuV)@3m	Ant.Factor+Cable Loss (dB/m)	Distance Correction (dB)	Result Level (dBuV/m)@30m	Limit (dBuV/m)@30m	Margin (dB)
9.7037	14.61	9.81	-40	-15.58	29.54	45.12
27.7614	12.75	9.81	-40	-17.44	29.54	46.98



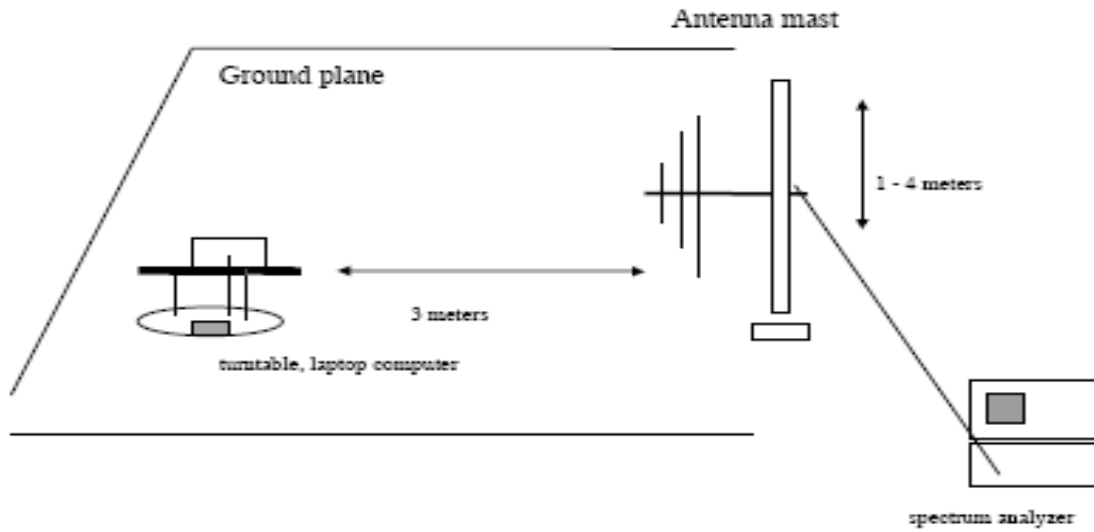
Note :

1. Distance Correction Below 30MHz = $40\log(3m/30m) = - 40 \text{ dB}$
Measurement Distance : 3 m (Below 30 MHz)
2. Factor = Antenna Factor + Cable Loss
3. Result Level = Read Level + Factor + Distance Correction
4. Margin = Limit – Result Level
5. (H)* and (V)* mean antenna polarization.
6. Worst case of operating mode is type A, analog mode and 106 kbps.

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8.2. RADIATED EMISSION 30 MHz – 1000 MHz

Test Set-up



Test Procedures: Radiated emissions were measured according to ANSI C63.10.

The EUT was set to transmit at the highest output power.

The EUT was set 3 meter away from the measuring antenna.

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dB μ V	dB / m	dB	(H/V)	dB μ V/m	dB μ V/m	dB
No Critical peaks found							

Remark

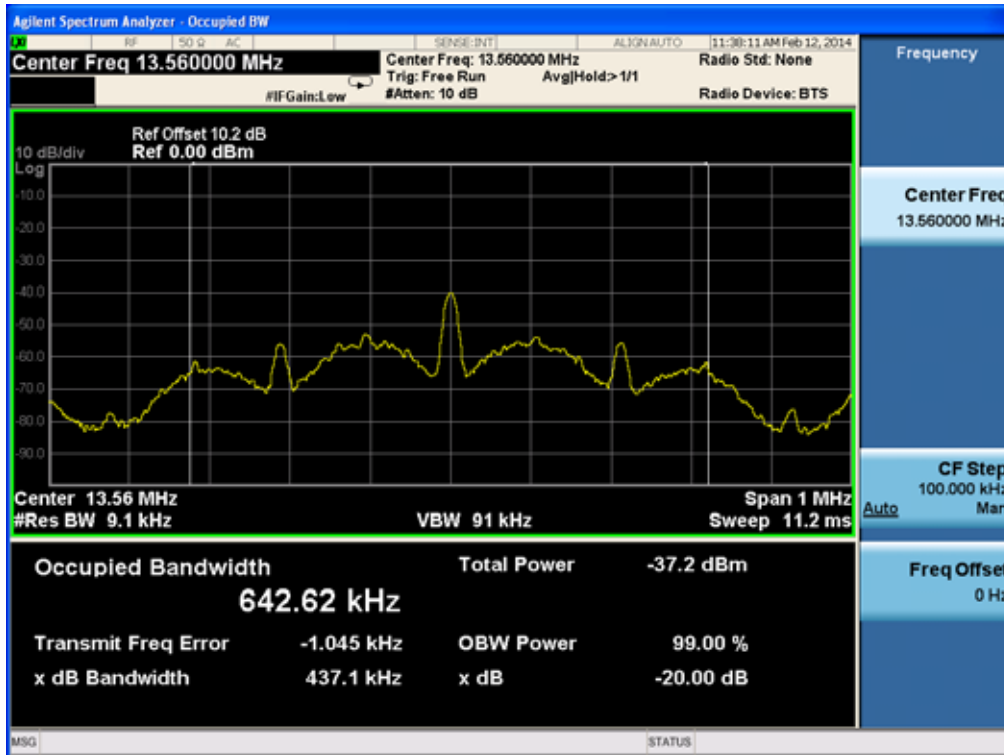
1. Result Level = Read Level + (Antenna Factor+ Cable Loss)
2. Margin = Limit – Result Level

9. EMISSION BANDWIDTH PLOT.

Requirement(s):

Test Set-up: The EUT was connected to a spectrum analyzer.

Test Procedure: The 20 dB bandwidth was measured by using a spectrum analyzer.



10. FREQUENCY TOLERANCE

Procedure: Part 15.225, ANSI 63.10

If required, the operating or transmitting frequency of an intentional radiator should be measured in accordance with the following procedure to ensure that the device operates outside certain precluded frequency bands and within the frequency range. No modulation needs to be supplied to the intentional radiator during these tests, unless modulation is required to produce an output, e.g., single-sideband suppressed carrier transmitters.

The frequency stability of the transmitter is measured by:

- a) Temperature: The temperature is varied from -20°C to + 50°C using an environmental chamber.
- b) For battery operated equipment, the equipment tests shall be performed using a new battery.

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency.

Measurement Result:

VOLTAGE (%)	POWER (VDC)	Temperature (°C)	Frequency (MHz)	Frequency Error (Hz)
100%	3.8 V	-20	13.560137	23
100%		-10	13.560094	-20
100%		0	13.560038	-76
100%		10	13.560028	-86
100%		20	13.560114	0
100%		30	13.560135	21
100%		40	13.560178	64
100%		50	13.560197	83
115%	4.37	+20	13.560230	116
Batt. Endpoint	3.5	+20	13.560212	98

11. POWERLINE CONDUCTE EMISSIONS

LIMIT

For an intentional radiator which 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 250 microvolt (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

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 Appendix 1 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.



Test Plots

Untermine the Antenna

Conducted Emissions (Line 1)

EMI Auto Test(1)

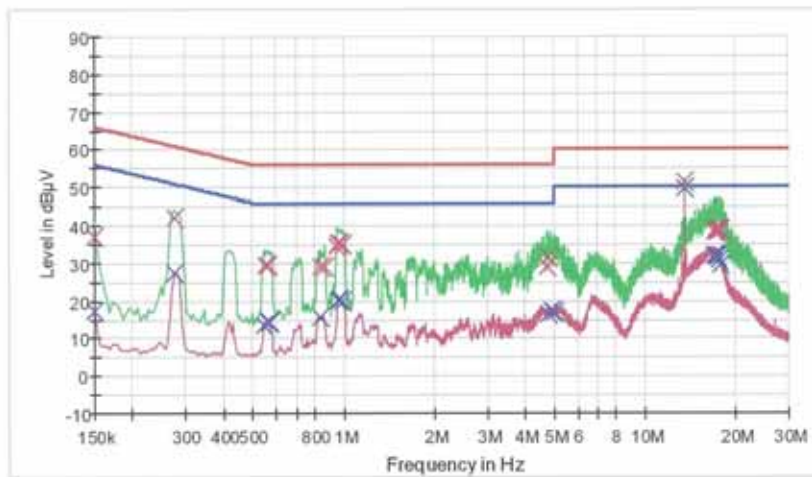
1 / 2

HCT TEST Report

Common Information

EUT: SM-N7506V
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: NFC MODE(UNTERMINATED)
 Operator Name: JC SHIN

FCC CLASS B



— FCCCLASS B_OP — FCCCLASS B_AV — Preview Result 1-OPK
— Preview Result 2-AVG x Final Result 1-OPK x Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	37.2	9.000	Off	N	9.7	28.8	66.0
0.276000	42.0	9.000	Off	N	9.7	18.9	60.9
0.554000	29.7	9.000	Off	N	9.8	26.3	56.0
0.563000	29.7	9.000	Off	N	9.8	26.3	56.0
0.842000	29.3	9.000	Off	N	9.8	26.7	56.0
0.869000	29.2	9.000	Off	N	9.8	26.8	56.0
0.950000	34.7	9.000	Off	N	9.8	21.3	56.0
0.963500	35.4	9.000	Off	N	9.8	20.6	56.0
0.972500	35.2	9.000	Off	N	9.8	20.8	56.0
0.995000	34.8	9.000	Off	N	9.8	21.2	56.0
4.761500	29.2	9.000	Off	N	10.1	26.8	56.0
4.779500	31.4	9.000	Off	N	10.1	24.5	56.0
13.559000	51.2	9.000	Off	N	10.6	8.8	60.0
17.028500	38.2	9.000	Off	N	10.7	21.8	60.0
17.213000	39.1	9.000	Off	N	10.7	20.9	60.0
17.411000	38.5	9.000	Off	N	10.7	21.5	60.0

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Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
17.640500	39.0	9.000	Off	N	10.7	21.0	60.0
17.865500	38.6	9.000	Off	N	10.7	21.4	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	17.1	9.000	Off	N	9.7	38.9	56.0
0.276000	27.3	9.000	Off	N	9.7	23.6	50.9
0.545000	13.5	9.000	Off	N	9.8	32.5	46.0
0.563000	14.4	9.000	Off	N	9.8	31.6	46.0
0.572000	14.3	9.000	Off	N	9.8	31.7	46.0
0.842000	15.6	9.000	Off	N	9.8	30.4	46.0
0.963500	20.2	9.000	Off	N	9.8	25.8	46.0
0.972500	20.1	9.000	Off	N	9.8	25.9	46.0
0.990500	20.0	9.000	Off	N	9.8	26.0	46.0
4.815500	16.5	9.000	Off	N	10.1	29.5	46.0
4.910000	17.2	9.000	Off	N	10.1	28.8	46.0
4.995500	16.8	9.000	Off	N	10.1	29.2	46.0
13.559000	49.8	9.000	Off	N	10.6	0.2	50.0
17.028500	31.8	9.000	Off	N	10.7	18.2	50.0
17.213000	32.1	9.000	Off	N	10.7	17.9	50.0
17.384000	31.5	9.000	Off	N	10.7	18.5	50.0
17.573000	30.7	9.000	Off	N	10.7	19.3	50.0
17.888000	29.6	9.000	Off	N	10.7	20.4	50.0

Conducted Emissions (Line 2)

EMI Auto Test(1)

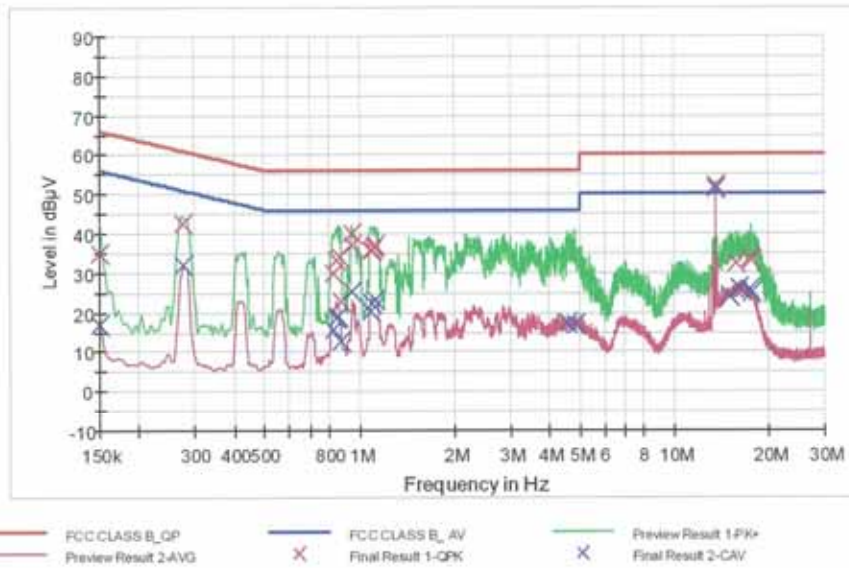
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HCT TEST Report

Common Information

EUT: SM-N7506V
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: NFC MODE(UNTERMINATED)
 Operator Name: JC SHIN

FCC CLASS B



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	35.1	9.000	Off	L1	9.7	30.9	66.0
0.276000	42.3	9.000	Off	L1	9.7	18.6	60.9
0.828500	29.8	9.000	Off	L1	9.8	26.2	56.0
0.846500	33.1	9.000	Off	L1	9.8	22.9	56.0
0.864500	34.3	9.000	Off	L1	9.8	21.7	56.0
0.873500	22.8	9.000	Off	L1	9.8	33.2	56.0
0.945500	37.0	9.000	Off	L1	9.8	19.0	56.0
0.954500	40.0	9.000	Off	L1	9.8	16.0	56.0
1.085000	36.0	9.000	Off	L1	9.8	20.0	56.0
1.094000	35.9	9.000	Off	L1	9.8	20.1	56.0
1.107500	36.4	9.000	Off	L1	9.8	19.6	56.0
1.125500	37.1	9.000	Off	L1	9.8	18.9	56.0
13.559000	52.1	9.000	Off	L1	10.6	7.9	60.0
15.746000	32.6	9.000	Off	L1	10.7	27.4	60.0
17.348000	33.6	9.000	Off	L1	10.8	26.4	60.0
17.429000	33.7	9.000	Off	L1	10.8	26.3	60.0

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11:14:44

EMI Auto Test(1)

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Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
17.568500	33.5	9.000	Off	L1	10.8	26.5	60.0
17.618000	33.4	9.000	Off	L1	10.8	26.6	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	17.0	9.000	Off	L1	9.7	39.0	56.0
0.276000	32.2	9.000	Off	L1	9.7	18.7	50.9
0.828500	15.7	9.000	Off	L1	9.8	30.3	46.0
0.846500	18.5	9.000	Off	L1	9.8	27.5	46.0
0.860000	19.1	9.000	Off	L1	9.8	26.9	46.0
0.873500	12.7	9.000	Off	L1	9.8	33.3	46.0
0.954500	25.2	9.000	Off	L1	9.8	20.8	46.0
1.085000	20.3	9.000	Off	L1	9.8	25.7	46.0
1.098500	22.2	9.000	Off	L1	9.8	23.8	46.0
1.125500	23.1	9.000	Off	L1	9.8	22.9	46.0
4.572500	17.4	9.000	Off	L1	10.1	28.6	46.0
4.842500	16.7	9.000	Off	L1	10.1	29.3	46.0
13.559000	51.4	9.000	Off	L1	10.6	-1.4	50.0
14.972000	24.2	9.000	Off	L1	10.7	25.8	50.0
16.155500	26.2	9.000	Off	L1	10.8	23.8	50.0
17.348000	25.6	9.000	Off	L1	10.8	24.4	50.0
17.456000	25.6	9.000	Off	L1	10.8	24.4	50.0
17.568500	24.7	9.000	Off	L1	10.8	25.3	50.0

2/10/2014

11:14:44

FCC PT.15.225 TEST REPORT		FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No. HCTR1402F013	Date of Issue: February 12, 2014	EUT Type: Mobile Phone		FCC ID: A3LSMN7506V

**Terminate the Antenna
Conducted Emissions (Line 1)**

EMI Auto Test(1)

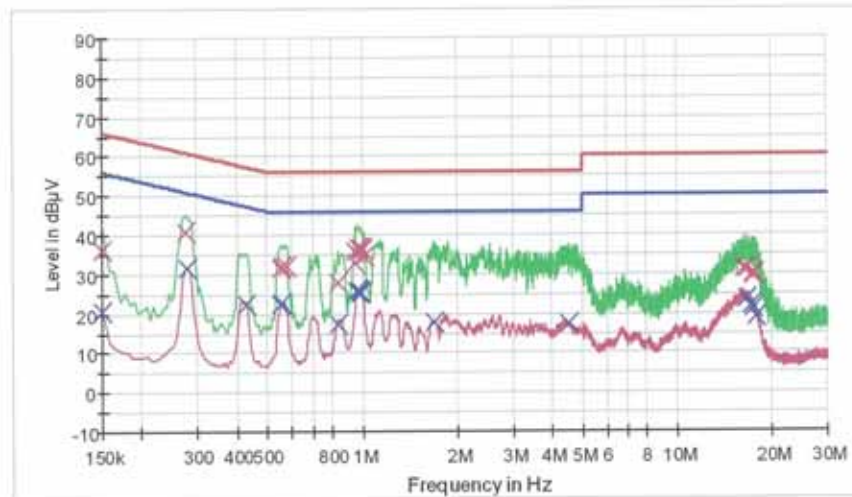
1 / 2

HCT TEST Report

Common Information

EUT: SM-N7506V
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: NFC MODE(TERMINATED)
 Operator Name: JC SHIN

FCC CLASS B



— FCC CLASS B_LQP — FCC CLASS B_AV — Preview Result 1-FPR
 — Preview Result 2-AVG X Final Result 1-QPK X Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	36.2	9.000	Off	L1	9.7	29.8	66.0
0.276000	40.9	9.000	Off	L1	9.7	20.0	60.9
0.549500	31.7	9.000	Off	L1	9.8	24.3	56.0
0.558500	32.0	9.000	Off	L1	9.8	24.0	56.0
0.576500	32.1	9.000	Off	L1	9.8	23.9	56.0
0.842000	27.8	9.000	Off	L1	9.8	28.2	56.0
0.945500	32.8	9.000	Off	L1	9.8	23.2	56.0
0.954500	35.8	9.000	Off	L1	9.8	20.2	56.0
0.968000	36.7	9.000	Off	L1	9.8	19.3	56.0
0.990500	36.5	9.000	Off	L1	9.8	19.5	56.0
1.008500	36.1	9.000	Off	L1	9.8	19.9	56.0
1.017500	34.5	9.000	Off	L1	9.8	21.5	56.0
16.187000	31.1	9.000	Off	L1	10.8	28.9	60.0
16.214000	31.0	9.000	Off	L1	10.8	29.0	60.0
16.628000	31.2	9.000	Off	L1	10.8	28.8	60.0
17.447000	29.9	9.000	Off	L1	10.8	30.1	60.0

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11:00:09

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
17.465000	29.6	9.000	Off	L1	10.8	30.4	60.0
17.649500	29.7	9.000	Off	L1	10.8	30.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	20.7	9.000	Off	L1	9.7	35.3	56.0
0.280500	31.5	9.000	Off	L1	9.7	19.3	50.8
0.429000	22.4	9.000	Off	L1	9.7	24.9	47.3
0.549500	22.2	9.000	Off	L1	9.8	23.8	46.0
0.558500	22.8	9.000	Off	L1	9.8	23.2	46.0
0.842000	17.5	9.000	Off	L1	9.8	28.5	46.0
0.963500	25.5	9.000	Off	L1	9.8	20.5	46.0
0.977000	25.6	9.000	Off	L1	9.8	20.4	46.0
0.986000	25.4	9.000	Off	L1	9.8	20.6	46.0
0.995000	25.2	9.000	Off	L1	9.8	20.8	46.0
1.683500	17.6	9.000	Off	L1	9.8	28.4	46.0
4.523000	17.1	9.000	Off	L1	10.1	28.9	46.0
16.569500	23.4	9.000	Off	L1	10.8	26.6	50.0
16.646000	23.8	9.000	Off	L1	10.8	26.2	50.0
17.208500	22.0	9.000	Off	L1	10.8	28.0	50.0
17.447000	21.0	9.000	Off	L1	10.8	29.0	50.0
17.460500	21.0	9.000	Off	L1	10.8	29.0	50.0
17.888000	19.0	9.000	Off	L1	10.8	31.0	50.0

Conducted Emissions (Line 2)

EMI Auto Test(1)

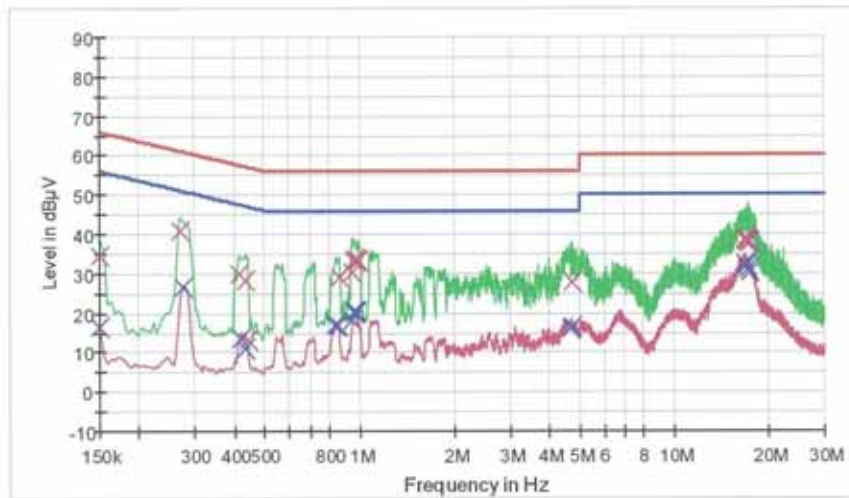
1 / 2

HCT TEST Report

Common Information

EUT: SM-N7506V
 Manufacturer: SAMSUNG
 Test Site: SHIELD ROOM
 Operating Conditions: NFC MODE(TERMINATED)
 Operator Name: JC SHIN

FCC CLASS B



— FCCCLASS B_GP
 — FCCCLASS B_AV
 — Preview Result 1PK
— Preview Result 2-4VG
 x Final Result 1-OPK
 x Final Result 2-CAV

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	34.7	9.000	Off	N	9.7	31.3	66.0
0.271500	40.7	9.000	Off	N	9.7	20.4	61.1
0.415500	29.8	9.000	Off	N	9.8	27.7	57.5
0.433500	28.4	9.000	Off	N	9.8	28.8	57.2
0.442500	13.2	9.000	Off	N	9.8	43.8	57.0
0.864500	29.0	9.000	Off	N	9.8	27.0	56.0
0.945500	30.1	9.000	Off	N	9.8	25.9	56.0
0.959000	33.3	9.000	Off	N	9.8	22.7	56.0
0.968000	33.8	9.000	Off	N	9.8	22.2	56.0
0.977000	33.2	9.000	Off	N	9.8	22.8	56.0
0.995000	33.1	9.000	Off	N	9.8	22.9	56.0
4.752500	27.6	9.000	Off	N	10.1	28.4	56.0
16.767500	38.7	9.000	Off	N	10.7	21.3	60.0
16.893500	38.3	9.000	Off	N	10.7	21.7	60.0
16.938500	37.9	9.000	Off	N	10.7	22.1	60.0
17.159000	38.1	9.000	Off	N	10.7	21.9	60.0

2/10/2014

10:52:43

FCC PT.15.225 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No. HCTR1402F013	Date of Issue: February 12, 2014	EUT Type: Mobile Phone	FCC ID: A3LSMN7506V

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
17.177000	38.2	9.000	Off	N	10.7	21.8	60.0
17.433500	37.8	9.000	Off	N	10.7	22.2	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	16.4	9.000	Off	N	9.7	39.6	56.0
0.276000	26.4	9.000	Off	N	9.7	24.5	50.9
0.420000	13.5	9.000	Off	N	9.8	33.9	47.4
0.433500	11.1	9.000	Off	N	9.8	36.1	47.2
0.842000	16.7	9.000	Off	N	9.8	29.3	46.0
0.855500	16.9	9.000	Off	N	9.8	29.1	46.0
0.950000	18.1	9.000	Off	N	9.8	27.9	46.0
0.959000	20.1	9.000	Off	N	9.8	25.9	46.0
0.972500	20.4	9.000	Off	N	9.8	25.6	46.0
0.986000	20.1	9.000	Off	N	9.8	25.9	46.0
4.689500	16.0	9.000	Off	N	10.1	30.0	46.0
4.752500	16.3	9.000	Off	N	10.1	29.7	46.0
16.767500	32.4	9.000	Off	N	10.7	17.6	50.0
16.893500	32.2	9.000	Off	N	10.7	17.8	50.0
16.938500	31.9	9.000	Off	N	10.7	18.1	50.0
17.159000	31.4	9.000	Off	N	10.7	18.6	50.0
17.177000	31.3	9.000	Off	N	10.7	18.7	50.0
17.433500	30.5	9.000	Off	N	10.7	19.5	50.0

12. LIST OF TEST EQUIPMENT

Manufacturer	Model / Equipment	Calibration Interval	Calibration Due	Serial No.
Rohde & Schwarz	ENV216/ LISN	Annual	01/29/2015	100073
Schwarzbeck	VULB 9160/ TRILOG Antenna	Biennial	12/17/2014	3150
Rohde & Schwarz	ESI 40 / EMI TEST RECEIVER	Annual	04/16/2014	831564103
Agilent	E4440A/ Spectrum Analyzer	Annual	04/25/2014	US45303008
Agilent	N9020A/ SIGNAL ANALYZER	Annual	05/14/2014	MY51110063
HD	MA240/ Antenna Position Tower	N/A	N/A	556
EMCO	1050/ Turn Table	N/A	N/A	114
HD GmbH	HD 100/ Controller	N/A	N/A	13
HD GmbH	KMS 560/ SlideBar	N/A	N/A	12
Rohde & Schwarz	SCU-18/ Signal Conditioning Unit	Annual	09/10/2014	10094
CERNEK	CBL18265035 / POWER AMP	Annual	07/24/2014	22966
CERNEK	CBL26405040 / POWER AMP	Annual	04/16/2014	19660
Schwarzbeck	BBHA 9120D/ Horn Antenna	Biennial	07/05/2015	1151
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	Biennial	10/30/2014	BBHA9170124
Rohde & Schwarz	FSP / Spectrum Analyzer	Annual	01/24/2015	839117/011
Agilent	N1911A/Power Meter	Annual	01/24/2015	MY45100523
Agilent	N1921A /POWER SENSOR	Annual	07/11/2014	MY45241059
Wainwright Instrument	WHF3.0/18G-10EF / High Pass Filter	Annual	02/03/2015	F6
Wainwright Instrument	WHNX6.0/26.5G-6SS / High Pass Filter	Annual	04/16/2014	1
Wainwright Instrument	WHNX7.0/18G-8SS / High Pass Filter	Annual	04/16/2014	29
Wainwright Instrument	WRCJ2400/2483.5-2370/2520-60/14SS / Band Reject Filter	Annual	03/19/2014	1
Hewlett Packard	11636B/Power Divider	Annual	10/22/2014	11377
Agilent	87300B/Directional Coupler	Annual	12/18/2014	3116A03621
Hewlett Packard	11667B / Power Splitter	Annual	05/29/2014	05001
DIGITAL	EP-3010 /DC POWER SUPPLY	Annual	10/29/2014	3110117
ITECH	IT6720 / DC POWER SUPPLY	Annual	11/05/2014	010002156287001199
TESCOM	TC-3000C / BLUETOOTH TESTER	Annual	04/24/2014	3000C000276
Rohde & Schwarz	CBT / BLUETOOTH TESTER	Annual	04/25/2014	100422
Rohde & Schwarz	LOOP ANTENNA	Biennial	08/14/2014	100179
Agilent	8493C / Attenuator(10 dB)	Annual	07/24/2014	76649
WEINSCHL	2-3 / Attenuator(3 dB)	Annual	10/28/2014	BR0617
CERNEK	CBL06185030 / POWER AMP	Annual	07/24/2014	22965
CERNEK	CBLU1183540 / POWER AMP	Annual	07/24/2014	22964