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EMI CERTIFICATION REPORT

Applicant: **Kyocera Corporation** **1-34 Sanyo-cho, Daito-Shi, Osaka 574-8501** **Japan**	**Date of Issue: March 11, 2014** **Test Report No.: HCT-E-1403-F010** **Test Site: HCT CO., LTD.** **HCT FRN: 0005-8664-21**

FCC ID: **V65C6530**

Rule Part(s) / Standard(s)	: FCC PART 15 Subpart B Class B
Equipment Type	: Mobile Phone
Model Name	: C6530N
Port / Connector(s)	: USB / Earphone Port
Date of Test	: February 28, 2014 – March 10, 2014

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4/2003. (See Test Report if any modifications were made for compliance)
I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been denial the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Tested By

Dong-Hyun Park
Test Engineer
EMC Team
Certification Division

Reviewed By

Sang-Jun Lee
Technical Manager
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DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1403-F010	March 11, 2014	Initial Release

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1. GENERAL INFORMATION

1.1 Product Description

Equipment Under Test is manufactured by **Kyocera Corporation.**
Its basic purpose is used for communications.

Model Name	C6530N
FCC ID	V65C6530
EUT Type	Mobile Phone
TX Frequency	824.20 ㎒ to 848.80 ㎒ (GSM 850) 1 850.20 ㎒ to 1 909.80 ㎒ (GSM 1 900) 826.40 ㎒ to 846.60 ㎒ (WCDMA 850) 1 852.4 ㎒ to 1 907.6 ㎒ (WCDMA 1 900) 1712.4 ㎒ to 1752.6 ㎒ (AWS WCDMA 1 700)
RX Frequency	869.20 ㎒ to 893.80 ㎒ (GSM 850) 1 930.20 ㎒ to 1 989.80 ㎒ (GSM 1 900) 871.40 ㎒ to 891.60 ㎒ (WCDMA 850) 1 932.4 ㎒ to 1 987.6 ㎒ (WCDMA 1 900) 2 112.4 ㎒ to 2 152.6 ㎒ (AWS WCDMA 1 700)

1.2 Related Submittal(s) / Grant(s)

Original submittal only.

1.3 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Model Name	Manufacturer	FCC ID / DoC	Connected To
EUT	C6530N	Kyocera Corporation	V65C6530	Notebook PC Ear-phone
USB cable	SCP17-SDC	Donguan City ShenglanElectronics Co., Ltd.	-	E.U.T Notebook PC
Ear-phone	S3FXDW-033	Skullcandy	-	E.U.T
Notebook PC	ProBook6560b	H.P	DoC	EUT Notebook PC adaptor
Notebook PC adaptor	PPP009D	DELTA Electronics (JIANGSU)LTD	-	Notebook PC
Gateway	MV440	Axesstel	PH7MV440	Notebook PC, Adaptor
Serial Mouse	Serial 2 Button mouse	Radio shack	FSUGMZE3	Notebook PC
Adaptor	DA-60M12	Yang Ming Industrial	-	Gateway
RJ45 cable	-	-	-	Notebook PC, Gateway
Micro SD card (8GB)	-	Sandisk	-	E.U.T

* Ear-Phone is not provided.

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	Micro USB	Y	Y	(P,D)1.0
	Ear-phone	N/A	N	(D)1.4
Notebook PC	RJ 45	N/A	N	(D)1.5
	Serial (Mouse)	N/A	N	(D)1.8
	DC in	N	N/A	(P)1.8
Gateway	DC in	N	N/A	(P)1.8

* The marked "(D)" means the data cable and "(P)" means the power cable.

1.5 Noise Suppression Parts on Cable. (I/O cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	Micro USB	N	N/A	Y	Both End
	Ear-phone	N	N/A	N	EUT End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial (Mouse)	N	N/A	N	Notebook PC End

1.6 Test Methodology

Both Conducted and Radiated testing was performed according to the procedures in ANSI C63.4/2003. Radiated testing was performed at an antenna to EUT distance of 3 m.

1.7 Test Facility

Chamber used to collect the test 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 C63.4/2003.

Measurement Facilities	Reg. No.
Radiated Field strength measurement facility (3m)	90661 (June 21, 2011)
Radiated Field strength measurement facility (10m)	90661 (June 21, 2011)

1.8 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

Highest frequency generated or used in the device or on which the device operates or tunes (㎒)	Upper frequency of measurement range (㎒)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5^{th} harmonic of the highest frequency or 40 ㎓, whichever is lower

2. DESCRIPTION OF TEST

2.1 Conducted Emission Test

EUT was connected to LISN via Notebook PC adaptor and Base Station. Preliminary Power Line Conducted Emission tests were performed by using the procedure in ANSI C63.4/2003 7.2.3 to determine the worst operating conditions.

[Conducted Emission Limits]

Frequency (㎒)	Quasi-Peak(dB㎶)	Average(dB㎶)
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

*Decreases with the logarithm of the frequency.

2.2 Radiated Emission Test

Preliminary Radiated Emission tests were performed by using the procedure in ANSI C63.4/2003 8.3.1.1 to determine the worst operating condition. Final Radiated Emission tests were performed at 3 ㎙ semi-anechoic chamber.

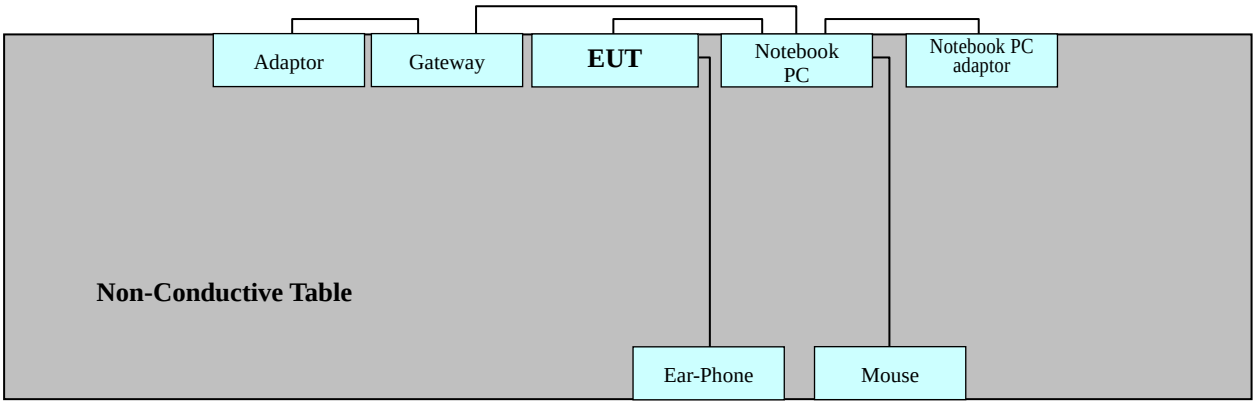
[Radiated Emission Limits]

Frequency (㎒)	Field Strength(㎶/㎙)	Quasi-Peak (dB㎶/㎙)
30 to 88	100	40.0
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

Frequency (㎒)	Peak (dB㎶/㎙)	Average (dB㎶/㎙)
1 000 to 12 000*	74	54

* 5th harmonic of highest fundamental frequency or 40 ㎓, whichever is lower.

2.3 Configuration of Tested System



Power Line: 120 VAC

3. PRELIMINARY TEST

3.1 Conducted Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: ☒ Data Communication mode

3. 2 Radiated Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: ☒ Data Communication mode

4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission Test

The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak, Average (6 dB Bandwidth: 9 ㎑)
Operation Mode : Data Communication mode

Temperature : 22.6°C
Humidity Level : 25.3 %
Test Date : March 10, 2014

Frequency	Transd	Conductor	Quasi-Peak			Average		
			Limit	Measurement Level	Result Level	Limit	Measurement Level	Result Level
(㎒)	(dB)		(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV]
0.1590	9.7	N	65.5	43.6	53.3	55.5	-	-
0.1680	9.7	N	65.1	42.9	52.6	55.1	22.6	32.3
0.2040	9.7	L1	63.4	42.4	52.1	53.4	26.1	35.8
4.6040	10.1	L1	56.0	28.9	39.0	46.0	20.5	30.6

※ **NOTE:** Refer to page 11 to page 14 for details.

1. Conductor L1 = Hot, Conductor N = Neutral
2. Transducer = LISN Factor + Cable Loss Factor
3. Result Level = Measurement Level + Transducer Factor

* 'Result Level' in above table is same as the 'Quasi-Peak' and 'CAverage' of the test data

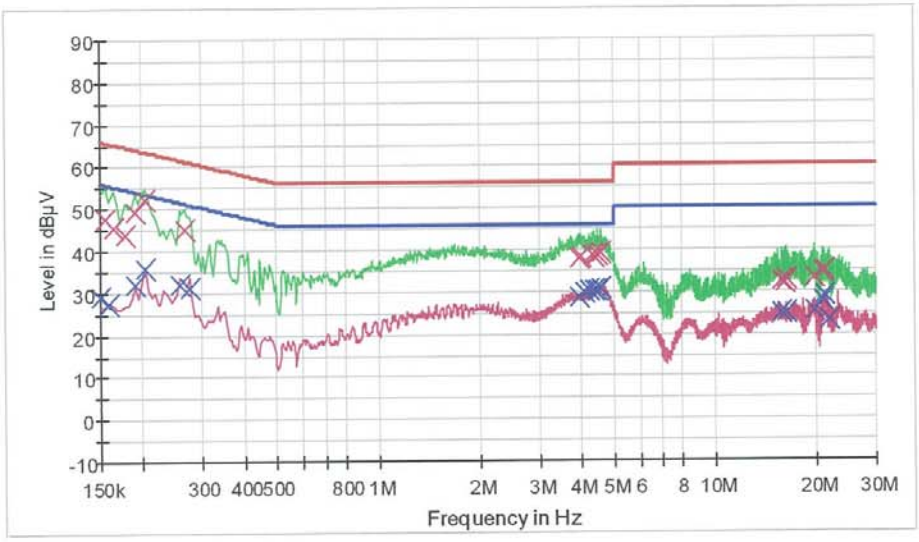
EMI Auto Test(1) 1 / 2

HCT TEST Report

Common Information

EUT:	C6530N
Manufacturer:	KYOCERA CORPORATION
Test Site:	SHIELD ROOM
Operating Conditions:	DATA MODE
Operator Name:	

FCC CLASS B



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	47.4	9.000	Off	L1	9.7	18.4	65.8
0.163500	45.5	9.000	Off	L1	9.7	19.8	65.3
0.177000	43.8	9.000	Off	L1	9.7	20.8	64.6
0.190500	49.1	9.000	Off	L1	9.7	14.9	64.0
0.204000	52.1	9.000	Off	L1	9.7	11.3	63.4
0.267000	45.0	9.000	Off	L1	9.7	16.2	61.2
3.933500	37.8	9.000	Off	L1	10.1	18.2	56.0
3.983000	38.5	9.000	Off	L1	10.1	17.5	56.0
4.320500	38.8	9.000	Off	L1	10.1	17.2	56.0
4.392500	38.5	9.000	Off	L1	10.1	17.5	56.0
4.464500	38.8	9.000	Off	L1	10.1	17.2	56.0
4.604000	39.0	9.000	Off	L1	10.1	17.0	56.0
15.728000	32.2	9.000	Off	L1	10.7	27.8	60.0
16.173500	31.8	9.000	Off	L1	10.8	28.2	60.0
16.362500	32.8	9.000	Off	L1	10.8	27.2	60.0
19.625000	33.2	9.000	Off	L1	10.9	26.8	60.0

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EMI Auto Test(1) 2 / 2

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
20.988500	34.5	9.000	Off	L1	10.9	25.5	60.0
21.110000	35.0	9.000	Off	L1	10.9	25.0	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	29.1	9.000	Off	L1	9.7	26.9	56.0
0.159000	27.4	9.000	Off	L1	9.7	28.1	55.5
0.190500	32.2	9.000	Off	L1	9.7	21.8	54.0
0.204000	35.8	9.000	Off	L1	9.7	17.6	53.4
0.258000	32.0	9.000	Off	L1	9.7	19.5	51.5
0.276000	31.1	9.000	Off	L1	9.7	19.8	50.9
3.938000	28.8	9.000	Off	L1	10.1	17.2	46.0
4.109000	30.0	9.000	Off	L1	10.1	16.0	46.0
4.253000	30.2	9.000	Off	L1	10.1	15.8	46.0
4.392500	30.3	9.000	Off	L1	10.1	15.7	46.0
4.464500	30.5	9.000	Off	L1	10.1	15.5	46.0
4.604000	30.6	9.000	Off	L1	10.1	15.4	46.0
15.728000	24.9	9.000	Off	L1	10.7	25.1	50.0
16.362500	24.8	9.000	Off	L1	10.8	25.2	50.0
19.625000	25.5	9.000	Off	L1	10.9	24.5	50.0
20.988500	28.0	9.000	Off	L1	10.9	22.0	50.0
21.110000	29.1	9.000	Off	L1	10.9	20.9	50.0
21.753500	23.3	9.000	Off	L1	11.0	26.7	50.0

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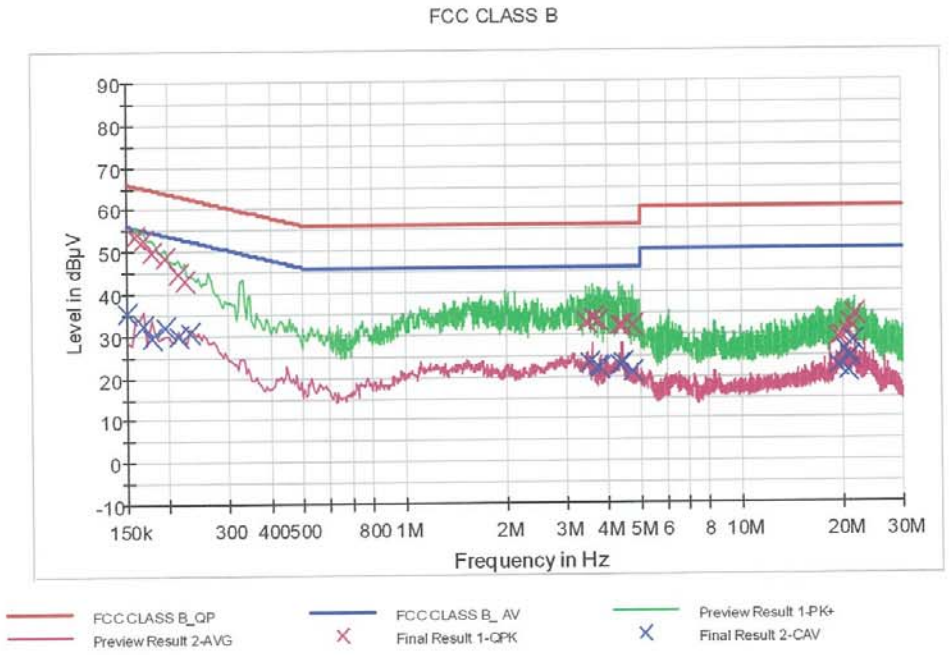
EMI Auto Test(1) 1 / 2

HCT TEST Report

Common Information

EUT:	C6530N
Manufacturer:	KYOCERA CORPORATION
Test Site:	SHIELD ROOM
Operating Conditions:	DATA MODE
Operator Name:	



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.159000	53.3	9.000	Off	N	9.7	12.2	65.5
0.168000	52.6	9.000	Off	N	9.7	12.5	65.1
0.177000	49.7	9.000	Off	N	9.7	14.9	64.6
0.195000	48.5	9.000	Off	N	9.7	15.3	63.8
0.213000	44.4	9.000	Off	N	9.7	18.7	63.1
0.222000	43.1	9.000	Off	N	9.7	19.6	62.7
3.465500	32.9	9.000	Off	N	10.0	23.1	56.0
3.596000	33.6	9.000	Off	N	10.0	22.4	56.0
3.735500	33.2	9.000	Off	N	10.0	22.8	56.0
4.343000	31.8	9.000	Off	N	10.1	24.2	56.0
4.428500	32.0	9.000	Off	N	10.1	24.0	56.0
4.721000	32.0	9.000	Off	N	10.1	24.0	56.0
19.193000	29.0	9.000	Off	N	10.8	31.0	60.0
19.202000	28.9	9.000	Off	N	10.8	31.1	60.0
19.625000	29.4	9.000	Off	N	10.8	30.6	60.0
20.597000	30.4	9.000	Off	N	10.8	29.6	60.0

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EMI Auto Test(1) 2 / 2

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
20.966000	32.6	9.000	Off	N	10.8	27.4	60.0
21.591500	34.4	9.000	Off	N	10.9	25.6	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	35.6	9.000	Off	N	9.7	20.4	56.0
0.168000	32.3	9.000	Off	N	9.7	22.8	55.1
0.177000	29.7	9.000	Off	N	9.7	24.9	54.6
0.195000	32.1	9.000	Off	N	9.7	21.7	53.8
0.213000	30.0	9.000	Off	N	9.7	23.1	53.1
0.231000	30.7	9.000	Off	N	9.7	21.7	52.4
3.542000	23.2	9.000	Off	N	10.0	22.8	46.0
3.735500	22.2	9.000	Off	N	10.0	23.8	46.0
3.767000	22.1	9.000	Off	N	10.0	23.9	46.0
4.343000	23.0	9.000	Off	N	10.1	23.0	46.0
4.428500	23.1	9.000	Off	N	10.1	22.9	46.0
4.721000	21.3	9.000	Off	N	10.1	24.7	46.0
19.193000	22.4	9.000	Off	N	10.8	27.6	50.0
19.202000	22.5	9.000	Off	N	10.8	27.5	50.0
20.259500	26.2	9.000	Off	N	10.8	23.8	50.0
20.597000	21.3	9.000	Off	N	10.8	28.7	50.0
20.966000	24.3	9.000	Off	N	10.8	25.7	50.0
21.461000	28.2	9.000	Off	N	10.9	21.8	50.0

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4.2 Radiated Emission Test

The following table shows the highest levels of Radiated Emissions on both polarization of horizontal and vertical.

-For measurement below 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak (6 ㏈ Bandwidth: 120 ㎑)
Operation Mode : Data Communication mode

Temperature : 20.4°C
Humidity Level : 24.9 %
Test Date : March 05, 2014

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
55.60	17.42	V	1.5	12.06	3.51	40.0	33.0	7.0
600.50	19.24	H	1.1	19.71	5.35	46.0	40.0	6.0
700.00	11.91	H	1.3	20.79	5.50	46.0	38.2	7.8

-For measurement above 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 ㎒, VBW: 1 ㎒)
: Average mode: Peak (RBW: 1 ㎒, VBW: 10 ㎐)

Temperature : 20.2°C
Humidity Level : 25.2 %
Test Date : February 28, 2014

Frequency (㎓)	Peak			POL	Average		
	Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)		Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1.3310	51.2	74	22.8	V	33.0	54	21.0
1.9995	57.0	74	17.0	V	38.5	54	15.5
2.6640	52.7	74	21.3	V	34.9	54	19.1

※ **NOTE:**

1. Measurement above 1 ㎓ was performed from 1 ㎓ to the 5th harmonic of highest fundamental frequency. Test was measured by 12 ㎓.

5. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the antenna factor and cable factor.
The basic equation with a sample calculation is as follows:

FS = RA + AF + CF

Where FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation Factor

Assume a receiver reading of 21.5 dBμV is obtained. The antenna factor of 7.4 dB/m and a cable factor of 1.1 dB are added. The 30 dBμV/m value is mathematically converted to its corresponding level in μV/m.

FS = 21.5 + 7.4 + 1.1 = 30 dBμV/m

6. TEST EQUIPMENT

Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Next CAL Date
Conducted Emission					
☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	2015.01.24
☒ LISN	EMCO	3816/2SH	9706-1070	1 year	2014.04.26
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	2015.01.29
☐ EMI Test Receiver	Rohde & Schwarz	ESCI	100033	1 year	2014.06.23
☐ LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	2014.07.03
☐ Attenuator	Rohde & Schwarz	ESH3-Z2	357.8810.352	1 year	2014.07.03
Radiated Emission					
-For measurement below 1 ㎓					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2014.04.16
☒ Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	2014.12.17
☒ Antenna master	HD GmbH	MA240	240/520	N/A	-
☒ Turn Table	HD GmbH	2090	9702/1224	N/A	-
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☐ Trilog Antenna	Schwarzbeck	VULB9168	185	2 year	2015.04.16
☐ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
-For measurement above 1 ㎓					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2014.04.16
☒ Antenna master	HD GmbH	MA240	240/520	N/A	-
☒ Turn Table	HD GmbH	2090	9702/1224	N/A	-
☒ Power Amplifier	CERNEX	CBLU1183540	21690	1 year	2014.07.12
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	2014.12.13
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☐ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-

7. CONCLUSION

The data collected shows that the **EUT type: Mobile Phone, FCC ID: V65C6530, Model: C6530N** complies with §15.107 and §15.109 of the FCC rules.