FCC Part 15B Compliance Test Report

Test Report no.:	Cph_FCC_0818_03.doc	**Date of Report:**	28-Apr-2008
Number of pages:	17	**Customer's Contact person:**	Jyrki Juvani
Testing laboratory:	TCC Nokia Copenhagen Laboratory Frederikskaj 1790 COPENHAGEN V DENMARK Tel. +45 33 292929 Fax. +45 33 292934	**Customer:**	Nokia Corporation P.O. Box 50 Elektroniikkatie 10 FIN-90571 OULU, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 47222
FCC listing no.: **IC recognition no.:**	99059 661AD-1		
Tested devices/ accessories:	**Phone RM-419 / Battery BL-5F, AC-Charger AC-5E, Headset HS-47, Data cable CA-101, Laptop IBM Thinkpad T22, AC adapter 02K6543, Printer HP deskjet 1600CC3540A, Digital camera FUJI DS-7, Serial cable for camera, Parallel cable for printer**		
FCC ID:	LJPRM-419	**IC:**	661E-RM419
Supplement reports:	This report is based on report: Tre_FCC_0804_6		
Testing has been carried out in accordance with:	**CFR 47, FCC rules Part 15 Subpart B, ANSI C63.4 (2003), ICES-003, CISPR 22 and IC standards RSS-132 (Issue 2, September 2005), RSS-133 (Issue 4, February 2008), RSS-139 (Issue 1, February 2008) and RSS-210 (Issue 7, June 2007). Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".**		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test Results:	**The EUT complies with the requirements in respect of all parameters subject to the test.** The test results relate only to devices specified in this document.		
Date and signature for the contents:	Digitally signed by Niels Christian Andersen DN: cn=Niels Christian Andersen, c=DK, o=TCC Nokia, ou=EMC, email=christian.n.andersen@nokia.com Date: 2008.04.28 23:05:53 +02'00'		

Niels Christian Andersen, Test System Manager

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	21-Feb-2008
Testing completed	28-Feb-2008
The customer's contact person	Jyrki Juvani
Test Plan referred to	T:\Projects\RM-419\TestPlan_RS\RS_Testplan_RM-419.xls
Notes	Test results in this report is based on measurements results from report Tre_FCC_0804_6
Document name	\\satcc01nmp\TCC_salo\Projects\RM-419\EMC\Results\FCC\Cph_FCC_0818_03.doc

1.1. EUT and Accessory Information

The EUT is a 6-band (GSM850/900/1800/1900 and WCDMA Band II(1900)/V(850)) mobile phone with GPRS, EGPRS and Bluetooth. GSM and WCDMA bands are tested in idle mode. Bluetooth is tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
GSM-Phone	RM-367	004401015142744	0404	-	Vr 02.15	41404
Battery	BL-5F	-	-	-	-	41378
AC-Charger	AC-5E	-	-	-	-	41379
Headset	HS-47	-	-	-	-	41380
Data cable	CA-101	-	1.2	1.1	-	41244
Laptop	IBM Thinkpad T22	555V2PT	-	-	-	40201
AC Adapter	02K6543	-	-	-		40202
Printer	HP deskjet 1600CC3540A	USB8302546	-	-	-	40077
Digital camera	FUJI DS-7	7102516	-	-	-	40076
Serial cable for camera	-	-	-	-	-	40088

1.2. Summary of Test Results

GSM 850:

Section in CFR 47	Section in ICES-003 (RSS-132)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	PASSED
15.109, a	5.5 (6.6)	Radiated emissions	PASSED

GSM 1900:

Section in CFR 47	Section in ICES-003 (RSS-133)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	PASSED
15.109, a	5.5 (9)	Radiated emissions	PASSED

Bluetooth:

Section in CFR 47	Section in ICES-003	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	PASSED
15.109, a	5.5	Radiated emissions	PASSED

PASSED	The EUT complies with the essential requirements in the standard.
FAILED	The EUT does not comply with the essential requirements in the standard.
NP	The test was not performed by the TCC Nokia Tampere Laboratory.

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CONTENTS

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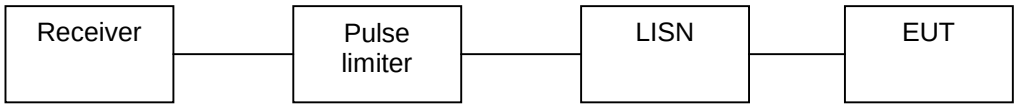
2. AC powerline conducted emissions

(FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-367 DUT 41404
Accessories with DUT numbers	BL-5F DUT 41378, AC-5E DUT 41379, HS-47 DUT 41380
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	FM radio on.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	19 / 52 / 98.9
Date of measurements	28-Feb-2008
Measured by	Jari Jantunen

2.1. Test setup



2.2. Test method and limit

The measurement is made according to ANSI C63.4-2003 as follows:

The EUT is placed on a wooden table 80 cm above the reference groundplane.

The EUT is connected via LISN to a test power supply.

The measurement results are obtained as described below:

$$U\ [dB\mu V] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

CISPR 22 Class B limits

Frequency range [MHz]	Quasi peak limit [dBµV]	Average limit [dBµV]
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

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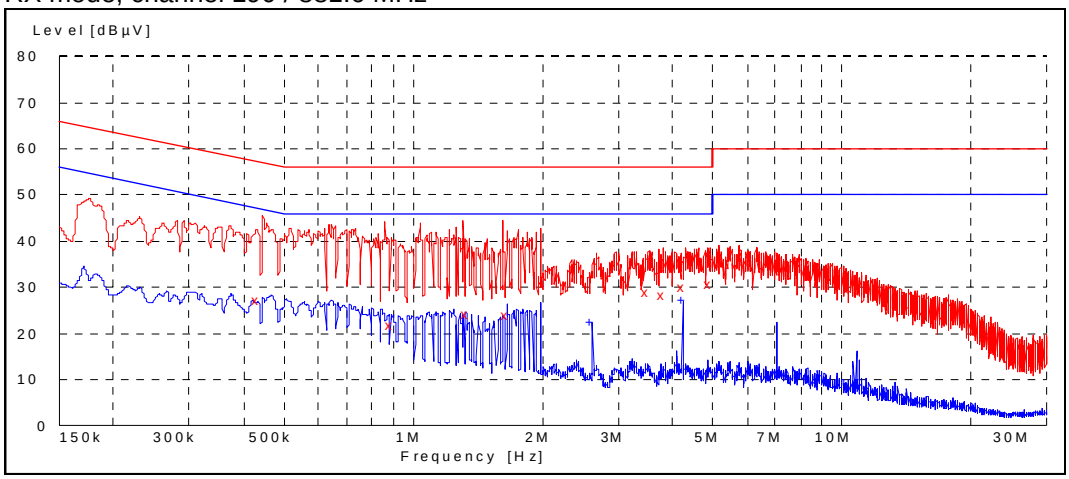
2.3. GSM 850 RX + FM radio on test results

RX mode, channel 190 / 881.6 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.435000	27.30	L1	PASSED
0.895000	21.80	L1	PASSED
1.335000	24.10	L1	PASSED
1.655000	23.80	L1	PASSED
3.530000	29.10	L1	PASSED
3.830000	28.40	L1	PASSED
4.290000	30.00	L1	PASSED
4.900000	30.60	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
2.625000	22.40	L1	PASSED
4.240000	27.20	L1	PASSED

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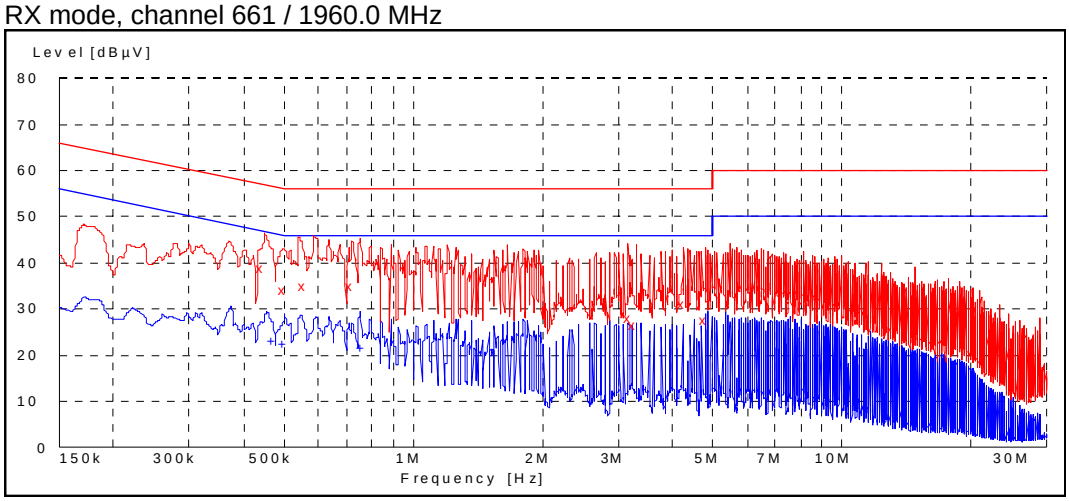
2.4. GSM 1900 RX

RX mode, channel 661 / 1960.0 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.445000	38.90	L1	PASSED
0.500000	34.10	L1	PASSED
0.555000	34.90	L1	PASSED
0.720000	34.80	L1	PASSED
3.200000	28.20	L1	PASSED
3.275000	26.50	L1	PASSED
4.240000	31.00	L1	PASSED
4.800000	27.50	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.470000	23.00	L1	PASSED
0.500000	22.60	L1	PASSED
0.760000	21.50	L1	PASSED

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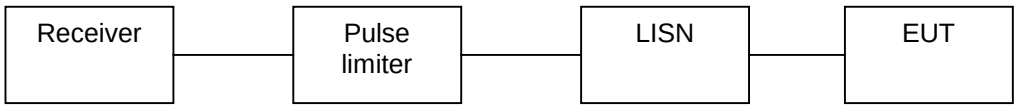
3. AC powerline conducted emissions

(FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-367 DUT 41404
Accessories with DUT numbers	BL-5F DUT 41378, AC-5E DUT 41379, HS-47 DUT 41380, CA-101 DUT 41244, IBM Thinkpad T22 DUT 40201, 02K6543 DUT 40202, HP deskjet 1600CC3540A DUT 40077, FUJI DS-7 DUT 40076, Serial cable for camera DUT 40088, Parallel cable for printer DUT 40087
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	Continuous data transfer was active between the phone and the computer during the test.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	19 / 52 / 98.9
Date of measurements	28-Feb-2008
Measured by	Jari Jantunen

3.1. Test setup



3.2. Test method and limit

The measurement is made according to ANSI C63.4-2003 as follows:

The EUT is placed on a wooden table 80 cm above the reference groundplane.

The EUT is connected via LISN to a test power supply.

The measurement results are obtained as described below:

$$U\ [dB\mu V] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

CISPR 22 Class B limits

Frequency range [MHz]	Quasi peak limit [dBµV]	Average limit [dBµV]
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

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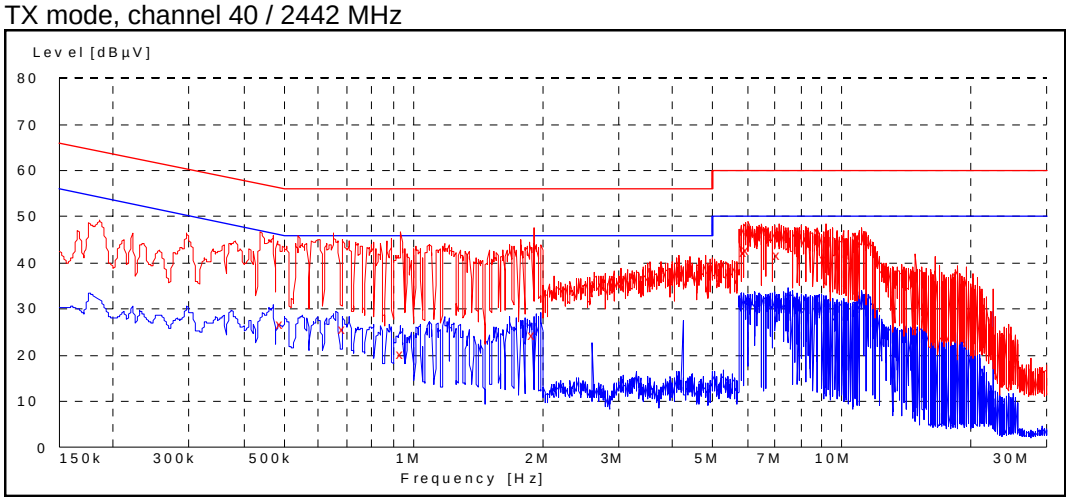
3.3. Bluetooth + Computer peripherals test results

TX mode, channel 40 / 2442 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.495000	26.70	L1	PASSED
0.690000	25.70	L1	PASSED
0.945000	20.30	N	PASSED
1.910000	24.40	N	PASSED
5.995000	42.20	L1	PASSED
6.030000	42.80	L1	PASSED
7.185000	41.60	L1	PASSED
9.225000	41.00	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
7.685000	32.90	L1	PASSED

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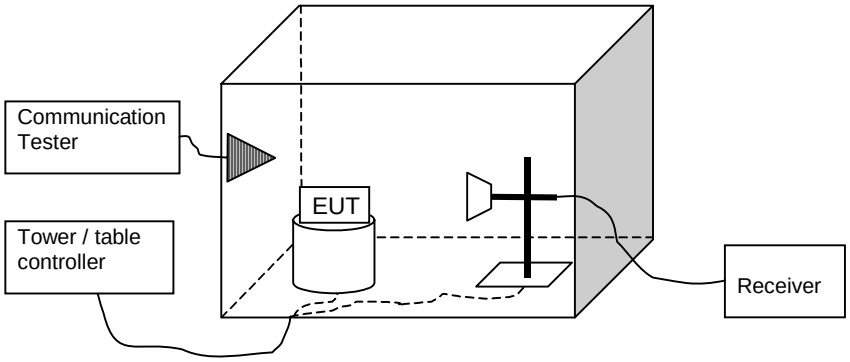
4. Radiated emissions

(FCC §15.109, ICES-003 section 5.5, RSS-132 6.6, RSS-133 9)

EUT with DUT number	RM-367 DUT 41404
Accessories with DUT numbers	BL-5F DUT 41378, AC-5E DUT 41379, HS-47 DUT 41380
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	FM radio on
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23-24 / 45-46 / 102.1-102.7
Date of measurements	08-13-Feb-2008
Measured by	Jari Jantunen

4.1. Test setup



4.2. Test method and limit

The measurement is made according to ANSI C63.4-2003as follows:

The measurement is performed in the Semi-Anechoic Chamber with conducting metal floor.

The measurement distance is 3 m.

The EUT is placed on a nonconductive plate at 80 cm height.

For each suspected frequency, the turntable is rotated 360 degrees and antenna is scanned from 1 to 4 m. This is repeated for both horizontal and vertical receive antenna polarizations.

The emissions less than 20 dB below the permissible value are reported.

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The measurement results are obtained as described below:

$$E\ [\mu V/m] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + AF - G_{PREAMP}$).

CISPR 22 and FCC Part 15 Class B limits (3 m measurement distance)

Frequency range [MHz]	Quasi peak limit [dBµV/m]	Average limit [dBµV/m]	Peak limit [dBµV/m]
30 – 230	40	-	-
230 – 1000	47	-	-
Above 1000	-	54	74

4.3. GSM 850 RX + FM radio on test results

RX mode, channel 128 / 869.2 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3476.800000	38.20	81.28	43.50	-5.3	VERTICAL	PASSED
6953.600000	43.70	153.11	42.10	1.6	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3476.800000	24.90	17.58	30.20	-5.3	HORIZONTAL	PASSED
6953.600000	30.70	34.28	29.10	1.6	VERTICAL	PASSED

RX mode, channel 190 / 881.6 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
35.452505	31.60	38.02	59.70	-28.1	VERTICAL	PASSED
70.138878	24.20	16.22	62.90	-38.7	HORIZONTAL	PASSED
87.553507	19.40	9.33	55.70	-36.3	VERTICAL	PASSED

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3526.400000	38.30	82.22	43.40	-5.10	HORIZONTAL	PASSED
7052.800000	41.50	118.85	39.70	1.80	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3526.400000	25.00	17.78	30.10	-5.10	HORIZONTAL	PASSED
7052.800000	29.00	28.18	27.20	1.80	VERTICAL	PASSED

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RX mode, channel 251 / 893.8 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3575.200000	38.90	88.10	43.80	-4.9	VERTICAL	PASSED
7150.400000	41.90	124.45	39.50	2.4	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3575.200000	25.10	17.99	30.00	-4.9	HORIZONTAL	PASSED
7150.400000	28.80	27.54	26.40	2.4	HORIZONTAL	PASSED

4.4. GSM 1900 RX

RX mode, channel 512 / 1930.2 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3860.000000	39.70	96.61	42.40	-2.7	HORIZONTAL	PASSED
7720.000000	43.20	144.54	39.50	3.7	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3860.000000	27.00	22.39	29.70	-2.7	HORIZONTAL	PASSED
7720.000000	30.20	32.36	26.50	3.7	VERTICAL	PASSED

RX mode, channel 661 / 1960.0 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
31.042886	31.60	38.02	57.70	-26.1	VERTICAL	PASSED
71.100802	21.60	12.02	60.20	-38.6	HORIZONTAL	PASSED
85.732064	20.60	10.72	57.10	-36.5	VERTICAL	PASSED
116.732665	8.50	2.66	42.60	-34.1	VERTICAL	PASSED

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3920.000000	40.20	102.33	42.70	-2.50	HORIZONTAL	PASSED
7840.000000	43.50	149.62	39.90	3.60	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3920.000000	27.00	22.39	29.50	-2.50	HORIZONTAL	PASSED
7840.000000	30.10	31.99	26.50	3.60	HORIZONTAL	PASSED

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RX mode, channel 810 / 1989.8 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3980.000000	40.10	101.16	42.70	-2.6	HORIZONTAL	PASSED
7960.000000	44.20	162.18	40.00	4.2	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3980.000000	27.30	23.17	29.90	-2.6	HORIZONTAL	PASSED
7960.000000	30.90	35.08	26.70	4.2	HORIZONTAL	PASSED

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5. Radiated emissions

(FCC §15.109, ICES-003 section 5.5, RSS-132 6.6, RSS-133 9)

EUT with DUT number	RM-367 DUT 41404
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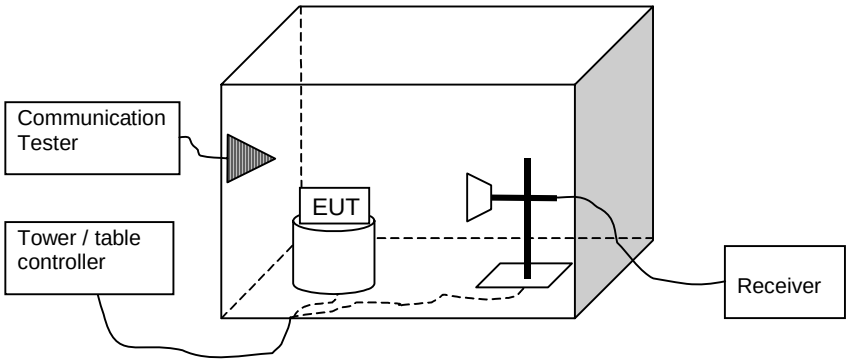
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	Continuous data transfer was active between the phone and the computer during the test.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23-24 / 45-46 / 102.1-102.7
Date of measurements	08-13-Feb-2008
Measured by	Jari Jantunen

5.1. Test setup



5.2. Test method and limit

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The measurement is performed in the Semi-Anechoic Chamber with conducting metal floor.

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For each suspected frequency, the turntable is rotated 360 degrees and antenna is scanned from 1 to 4 m. This is repeated for both horizontal and vertical receive antenna polarizations.

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The emissions less than 20 dB below the permissible value are reported.
The measurement results are obtained as described below:

$$E\ [\mu V/m] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + AF - G_{PREAMP}$).

CISPR 22 and FCC Part 15 Class B limits (3 m measurement distance)

Frequency range [MHz]	Quasi peak limit [dBµV/m]	Average limit [dBµV/m]	Peak limit [dBµV/m]
30 – 230	40	-	-
230 – 1000	47	-	-
Above 1000	-	54	74

5.3. Bluetooth Test results

TX mode, channel 0 / 2402 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4804.000000	39.30	92.26	41.10	-1.8	VERTICAL	PASSED
7206.000000	42.40	131.83	39.80	2.6	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4804.000000	25.70	19.28	27.50	-1.8	VERTICAL	PASSED
7206.000000	29.20	28.84	26.60	2.6	VERTICAL	PASSED

TX mode, channel 40 / 2442 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
37.535872	23.50	14.96	38.00	-14.5	VERTICAL	PASSED
240.781563	24.80	17.38	46.80	-22.0	HORIZONTAL	PASSED
248.798397	14.00	5.01	36.00	-22.0	VERTICAL	PASSED

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4938.877756	39.20	91.20	40.80	-1.6	HORIZONTAL	PASSED
4966.933868	39.70	96.61	40.90	-1.2	VERTICAL	PASSED
7277.061122	42.70	136.46	39.70	3.0	VERTICAL	PASSED
7344.185371	42.70	136.46	39.50	3.2	HORIZONTAL	PASSED
7408.819639	43.10	142.89	39.40	3.7	HORIZONTAL	PASSED
7423.841683	44.20	162.18	40.50	3.7	VERTICAL	PASSED
17935.377756	53.30	462.38	33.80	19.5	VERTICAL	PASSED

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Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4937.377756	26.60	21.38	28.20	-1.6	HORIZONTAL	PASSED
4966.433868	27.00	22.39	28.20	-1.2	VERTICAL	PASSED
7282.561122	30.30	32.73	27.30	3.0	VERTICAL	PASSED
7338.685371	30.10	31.99	27.00	3.1	HORIZONTAL	PASSED
7413.319639	30.40	33.11	26.70	3.7	HORIZONTAL	PASSED
7420.841683	30.70	34.28	27.00	3.7	VERTICAL	PASSED
17937.377756	40.30	103.51	20.80	19.5	VERTICAL	PASSED

TX mode, channel 78 / 2480 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4960.000000	39.60	95.50	40.90	-1.3	VERTICAL	PASSED
7440.000000	43.60	151.36	40.00	3.6	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4960.000000	26.80	21.88	28.10	-1.3	VERTICAL	PASSED
7440.000000	30.40	33.11	26.80	3.6	VERTICAL	PASSED

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6. Test Equipment

6.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM30597	Power splitter	11667A	Agilent	22/24/27, 15C
TM37499	Power splitter	11667A	Agilent	22/24/27, 15C
TM38111	Multimeter	34401A	Agilent	22/24/27, 15C
TM38112	DC power supply	6632A	Agilent	22/24/27, 15C
TM22901	Attenuator	8496A	Agilent	22/24/27, 15C
TM30636	Artificial mains net	L2-16	PMM	15C, 15B
TM37678	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B
TM37773	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B
TM30600	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
TM26490	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
TM37610	Spectrum analyzer	FSU	R&S	22/24/27, 15C
TM22835	Multimeter	87	Fluke	15C, 15B
TM37500	Microwave switch system	7116-MSW	Keithley	22/24/27, 15C, 15B
TM22638	Power supply	OL63743-901	Transformatic	22/24/27, 15C, 15B
	Temperature chamber	VT4002	Vötsch	22/24/27, 15C
2058	EMI Test receiver	ESPC	R&S	15C, 15B
2001	Bluetooth tester	CBT	R&S	22/24/27, 15C, 15B
2002	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B

6.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM30599	3m semi-anechoic chamber		TDK	22/24/27, 15C, 15B
TM38845	EMI receiver	ESI 40	R&S	22/24/27, 15C, 15B
TM37498	Preamplifier	AMF-5D-020180-26-10P	MITEQ	22/24/27, 15C, 15B
TM37523	Preamplifier	AMF-4D-10M-3G-25-20P	MITEQ	22/24/27, 15C, 15B
TM37516	Biconilog antenna	HL562	R&S	22/24/27, 15C, 15B
TM26496	Double ridged waveguide antenna	3115	EMCO	22/24/27, 15C, 15B
TM39158	Horn antenna	3116	EMCO	22/24/27, 15C, 15B
TM26492	Reference dipole set	UHAP/VHAP	Schwarzbeck	22/24/27, 15C, 15B
TM37501	Dipole antenna	3125-870	EMCO	22/24/27
TM37502	Dipole antenna	3125-1880	EMCO	22/24/27
TM37773	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B
TM38631	Signal generator	83640L	Agilent	22/24/27, 15C, 15B
TM38066	High pass filter	4HC3000/18000-3-KK	Trilithic	22/24/27, 15C, 15B
TM26511	Tunable notch filter	WRCA870	Wainwright	22/24/27
TM38215	Tunable notch filter	WRCD1850/1910-0.2/40	Wainwright	22/24/27
TM38214	Band reject filter	WRCT 2402/2480-2400/2483.5-30	Wainwright	15C
TM30642	Mast/Turntable controller	HD-100	Deisel	22/24/27, 15C, 15B
TM26500	Turntable	DS412	Deisel	22/24/27, 15C, 15B
TM38842	Antenna mast controller	2090	EMCO	22/24/27, 15C, 15B
TM38843	Antenna mast	2075	EMCO	22/24/27, 15C, 15B
TM38114	DC power supply	6632A	Agilent	22/24/27, 15C, 15B
TM38323	Preamplifier	PA-02 18-26 GHz	EMC Automation	22/24/27, 15C, 15B
TM37678	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B
TM22638	Power supply	OL63743-901	Transformatic	22/24/27, 15C, 15B
TM23892	Yaesu controller	G-1000SDX	Yaesu	22/24/27, 15C, 15B
2001	Bluetooth tester	CBT	R&S	22/24/27, 15C, 15B
2002	Radio communication tester	CMU-200	R&S	22/24/27, 15C, 15B

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