

FCC Part 15B Compliance Test Report

Test Report no.:	Salo_FCC_0638_08.doc	Date of Report:	20.10.2006
Number of pages:	18	Customer's Contact person:	Tero Huhtala
Testing laboratory:	TCC Nokia Salo Laboratory P.O. Box 86 Joensuunkatu 7H / Kiila 1B FIN-24101 SALO, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 45220	Customer:	Nokia Corporation P.O. Box 50 Mattianniemi 6-8 FIN-40101 JYVÄSKYLÄ, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 78000
FCC listing no.:	533467		
IC recognition no.:	5385		
Tested devices/ accessories:	Phone RM-128 / Battery BL-5BT, Data Cable CA-53, AC- Charger AC-4 Laptop T-20 and Printer H&P LaserJet 5L C3941A		
FCC ID:	QURRM-128	IC:	661AC-RM128
Supplement reports:	-		
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, RSS-133 and RSS-210. 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:			
	Sami Lehtonen, System Manager		

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	11.09.2006
Testing completed	26.09.2006
The customer's contact person	Tero Huhtala
Test Plan referred to	T:\Projects\RM-128\TestPlan_RS\RM-128_RS_test_plan_HW4000.xls
Notes	-
Document name	T:\Projects\RM-128\EMC\Results\FCC\Salo_FCC_0638_08.doc

1.1. EUT and Accessory Information

The EUT is a hexa band (GSM850/900/1800/1900 and WCDMA1900/850) 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
Phone	RM-128	004400/98/169150/2	4000	-	1.0635.0.0.6	11463
Phone	RM-128	004400/98/169094/2	4000	-	1.0635.0.0.6	11499
Battery	BL-5BT	3635636354310100021;0670547	-	-	-	11492
Battery	BL-5BT	3635636354310100022;0670547	-	-	-	11500
Data Cable	CA-53	108882604450	-	-	-	11495
AC- Charger	AC-4E	1103336132081207158;0675384	1.1	1.0	-	11494
Laptop	T-20	55105MW009	-	-	-	11425
Printer H&P LaserJet 5L	C3941A	CNVMO55419	-	-	-	10854

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

FAILED

NP

The EUT complies with the essential requirements in the standard.

The EUT does not comply with the essential requirements in the standard.

The test was not performed by the TCC Nokia Salo Laboratory.

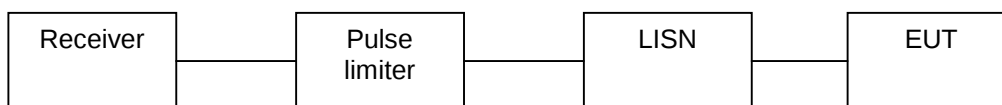
CONTENTS

1. Summary for FCC Part 15B Compliance Test Report.....	2
1.1. EUT and Accessory Information	2
1.2. Summary of Test Results.....	2
2. AC powerline conducted emissions (FCC §15.107, ICES-003 section 5.3).....	4
2.1. Test setup	4
2.2. Test method and limit.....	4
2.3. GSM 850 Test results	5
2.4. GSM 1900 Test results	6
2.5. Bluetooth Test results	9
3. Radiated emissions (FCC §15.109, ICES-003 section 5.5, RSS-132 6.6, RSS-133 9) 10	
3.1. Test setup	10
3.2. Test method and limit.....	11
3.3. GSM 850 Test results	12
3.4. GSM 1900 Test results	13
3.5. Bluetooth Test results	14
4. Test Equipment.....	17
4.1. Conducted measurements	17
4.2. Radiated measurements	17

2. AC powerline conducted emissions (FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-128, DUT 11499
Accessories with DUT numbers	BL-5BT, DUT 11500; CA-53, DUT 11495; AC-4E, DUT 11494; T-20, DUT 11425; C3941A, DUT 10854
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	During the test there was continuous data transfer between the phone and PC.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 55 / 102
Date of measurements	26.09.2006
Measured by	Anni Manninen

2.1. Test setup



2.2. Test method and limit

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

During the test there was continuous data transfer between the phone and PC.

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:

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

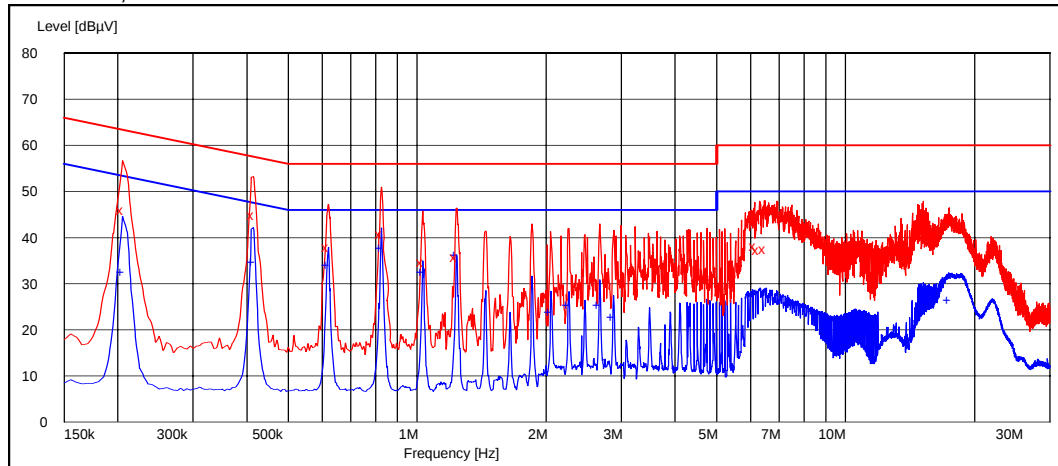
Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

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

2.3. GSM 850 Test results

RX mode, channel 190 / 881.6 MHz



Quasi peak (RBW: 9 kHz)

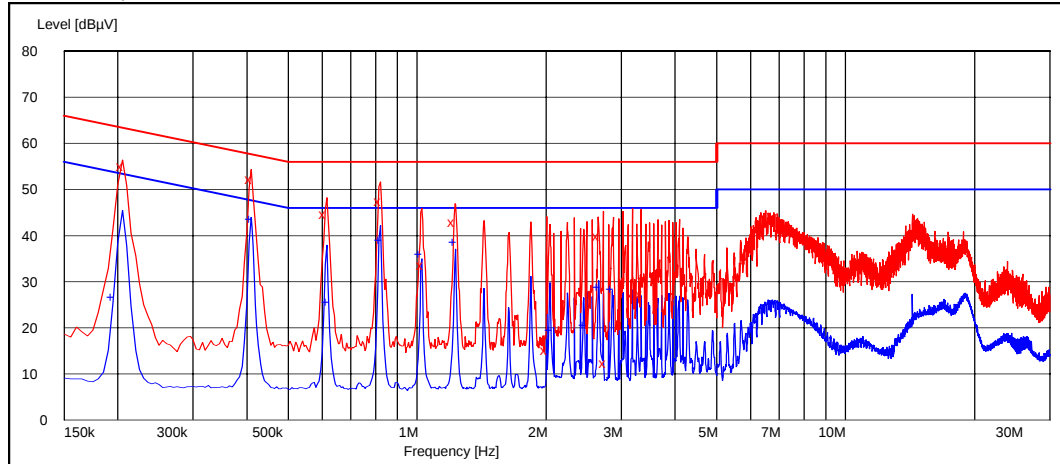
Frequency [MHz]	U [dBμV]	Line	Result
0.205000	46.00	N	PASSED
0.415000	44.80	N	PASSED
0.620000	38.00	N	PASSED
0.825000	40.80	N	PASSED
1.030000	34.60	N	PASSED
1.235000	35.80	N	PASSED
6.160000	38.10	L1	PASSED
6.270000	37.30	L1	PASSED
6.485000	37.60	L1	PASSED
14.780000	42.00	L1	PASSED
15.060000	40.80	L1	PASSED
15.175000	40.10	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.205000	32.50	N	PASSED
0.415000	34.60	N	PASSED
0.620000	34.00	N	PASSED
0.825000	37.80	N	PASSED
1.030000	32.60	N	PASSED
1.235000	36.20	N	PASSED
2.050000	23.90	N	PASSED
2.255000	25.40	N	PASSED
2.660000	25.30	N	PASSED
2.865000	22.80	L1	PASSED
17.475000	26.50	L1	PASSED

2.4. GSM 1900 Test results

RX mode, channel 661 / 1960.0 MHz



Quasi peak (RBW: 9 kHz)

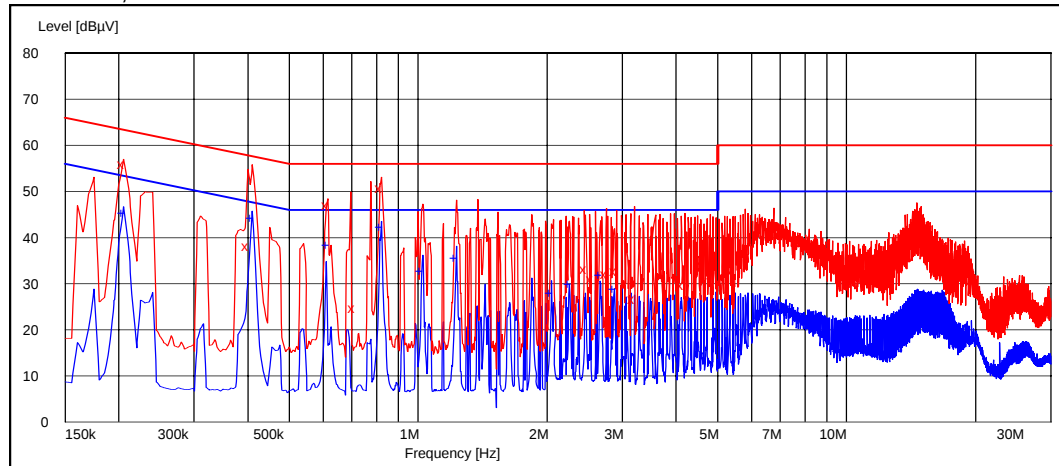
Frequency [MHz]	U [dBμV]	Line	Result
0.205000	55.10	L1	PASSED
0.410000	52.30	L1	PASSED
0.610000	44.60	L1	PASSED
0.820000	47.50	L1	PASSED
1.030000	33.50	L1	PASSED
1.220000	43.00	L1	PASSED
2.005000	15.10	L1	PASSED
2.655000	39.90	L1	PASSED
2.750000	12.30	N	PASSED
3.050000	30.10	L1	PASSED
3.195000	27.00	L1	PASSED
3.350000	27.30	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.195000	26.70	L1	PASSED
0.410000	43.60	L1	PASSED
0.620000	25.60	L1	PASSED
0.820000	39.00	N	PASSED
1.020000	35.90	L1	PASSED
1.225000	38.50	L1	PASSED
2.055000	19.60	L1	PASSED
2.460000	20.50	L1	PASSED
2.660000	28.90	L1	PASSED
2.860000	28.50	L1	PASSED

2.5. WCDMA 850 Test results

RX mode, channel 4408 / 881.6 MHz



Quasi peak (RBW: 9 kHz)

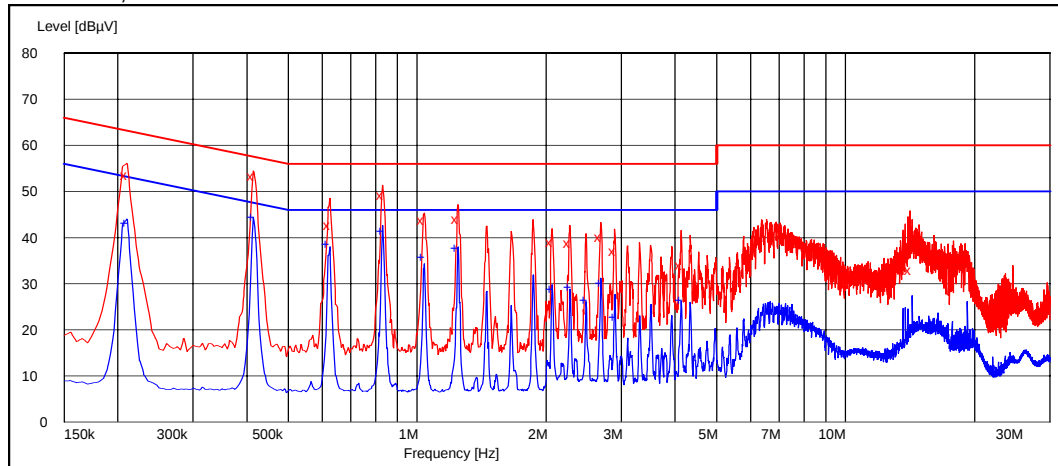
Frequency [MHz]	U [dBμV]	Line	Result
0.205000	55.90	L1	PASSED
0.400000	38.20	L1	PASSED
0.615000	47.10	L1	PASSED
0.710000	24.80	N	PASSED
0.820000	50.80	L1	PASSED
2.460000	33.10	N	PASSED
2.555000	30.90	L1	PASSED
2.750000	32.10	N	PASSED
2.895000	32.80	L1	PASSED
3.190000	26.60	L1	PASSED
4.150000	29.80	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.205000	45.30	L1	PASSED
0.410000	44.30	L1	PASSED
0.615000	38.50	L1	PASSED
0.820000	42.20	L1	PASSED
1.020000	32.70	L1	PASSED
1.225000	35.60	L1	PASSED
2.050000	27.90	L1	PASSED
2.260000	29.90	L1	PASSED
2.670000	31.80	L1	PASSED
2.875000	28.80	L1	PASSED

2.6. WCDMA 1900 Test results

RX mode, channel 9800 / 1960.0 MHz



Quasi peak (RBW: 9 kHz)

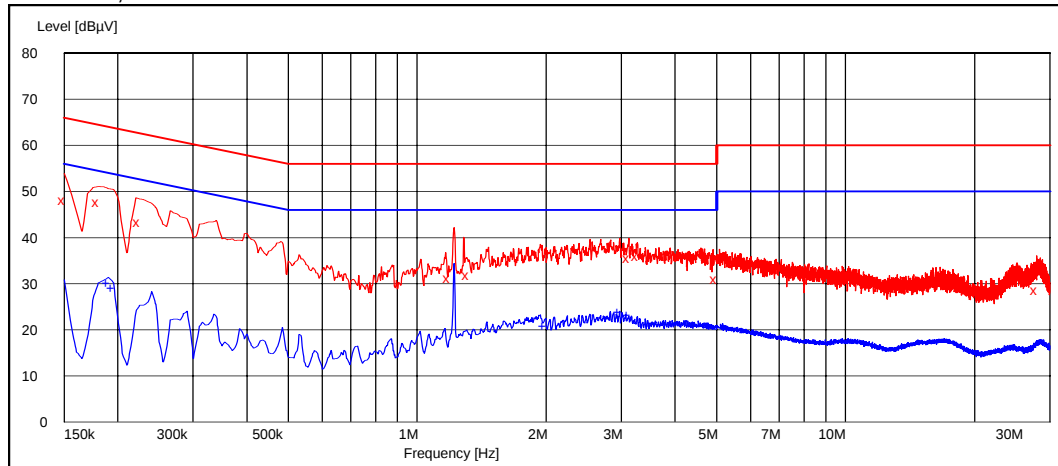
Frequency [MHz]	U [dBμV]	Line	Result
0.210000	53.60	L1	PASSED
0.415000	53.40	L1	PASSED
0.625000	42.80	L1	PASSED
0.830000	49.30	L1	PASSED
1.035000	43.80	L1	PASSED
1.245000	43.90	L1	PASSED
2.065000	39.00	L1	PASSED
2.270000	38.90	L1	PASSED
2.685000	40.20	L1	PASSED
2.895000	37.10	L1	PASSED
4.135000	34.00	N	PASSED
14.175000	33.00	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.210000	43.10	L1	PASSED
0.415000	44.40	L1	PASSED
0.620000	38.70	L1	PASSED
0.830000	41.50	L1	PASSED
1.035000	35.90	L1	PASSED
1.240000	37.80	L1	PASSED
2.065000	28.90	L1	PASSED
2.275000	29.40	L1	PASSED
2.480000	26.50	L1	PASSED
2.690000	30.20	L1	PASSED
2.895000	22.90	L1	PASSED
4.135000	26.50	L1	PASSED

2.7. Bluetooth Test results

TX mode, channel 40 / 2442 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.150000	48.20	L1	PASSED
0.180000	47.70	L1	PASSED
0.225000	43.40	N	PASSED
1.190000	31.10	L1	PASSED
1.315000	31.80	N	PASSED
3.120000	35.60	L1	PASSED
3.270000	36.00	L1	PASSED
4.990000	30.90	L1	PASSED
27.955000	28.70	L1	PASSED

Average (RBW: 9 kHz)

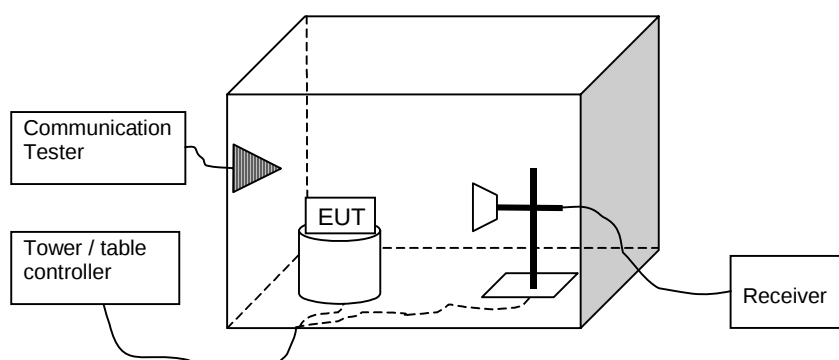
Frequency [MHz]	U [dBμV]	Line	Result
0.190000	30.20	N	PASSED
0.195000	29.10	N	PASSED
1.985000	20.70	N	PASSED
2.975000	23.80	L1	PASSED
3.120000	23.20	L1	PASSED

3. Radiated emissions

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

EUT with DUT number	RM-128, DUT 11463
Accessories with DUT numbers	BL-5BT, DUT 11492; CA-53, DUT 11495; AC-4E, DUT 11494; T-20, DUT 11425; C3941A, DUT 10854
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	During the test there was continuous data transfer between the phone and PC. Phone tested flip open mode.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20 / 50 / 101.4
Date of measurements	21.09.2006
Measured by	Sami Lehtonen

3.1. Test setup



3.2. Test method and limit

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

During the test there was continuous data transfer between the phone and PC.

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.

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

3.3. GSM 850 Test results

RX mode, channel 128 / 869.2 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
3476.800000	43.90	156.68	45.50	-1.60	HORIZONTAL	PASSED
6953.600000	47.10	226.46	43.80	3.30	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
3476.800000	30.90	35.08	32.50	-1.60	VERTICAL	PASSED
6953.600000	34.00	50.12	30.70	3.30	VERTICAL	PASSED

RX mode, channel 190 / 881.6 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
34.069138	36.00	63.10	46.90	-10.90	VERTICAL	PASSED
87.415431	34.60	53.70	55.70	-21.10	HORIZONTAL	PASSED
91.825050	41.00	112.20	62.00	-21.00	HORIZONTAL	PASSED
109.277756	42.00	125.89	63.00	-21.00	HORIZONTAL	PASSED
149.278557	20.70	10.84	44.40	-23.70	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
2945.389780	39.30	92.26	36.00	3.30	VERTICAL	PASSED
7948.889780	35.40	58.88	29.70	5.70	VERTICAL	PASSED

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	42.30	130.32	45.40	-3.10	VERTICAL	PASSED
7150.400000	45.70	192.75	43.00	2.70	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3575.200000	29.60	30.20	32.70	-3.10	VERTICAL	PASSED
7150.400000	33.00	44.67	30.30	2.70	VERTICAL	PASSED

3.4. GSM 1900 Test results

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	41.80	123.03	45.20	-3.40	HORIZONTAL	PASSED
7720.000000	46.90	221.31	42.80	4.10	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3860.000000	28.90	27.86	32.30	-3.40	VERTICAL	PASSED
7720.000000	33.80	48.98	29.70	4.10	HORIZONTAL	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
33.966733	31.60	38.02	42.50	-10.90	VERTICAL	PASSED
48.376553	31.90	39.36	51.50	-19.60	VERTICAL	PASSED
91.263126	39.80	97.72	60.80	-21.00	HORIZONTAL	PASSED
109.218236	42.20	128.82	63.20	-21.00	HORIZONTAL	PASSED
149.878557	22.20	12.88	45.90	-23.70	VERTICAL	PASSED
348.596192	17.00	7.08	38.20	-21.20	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
1959.919840	43.70	153.11	45.40	-1.70	VERTICAL	PASSED
2944.389780	39.20	91.20	35.90	3.30	HORIZONTAL	PASSED
7957.411824	35.30	58.21	29.50	5.80	VERTICAL	PASSED

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	42.40	131.83	45.30	-2.90	VERTICAL	PASSED
7960.000000	47.80	245.47	42.00	5.80	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3980.000000	29.30	29.17	32.20	-2.90	VERTICAL	PASSED
7960.000000	35.10	56.89	29.30	5.80	VERTICAL	PASSED

3.5. Bluetooth Test results

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	44.40	165.96	43.70	0.70	VERTICAL	PASSED
7206.000000	45.70	192.75	42.80	2.90	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	31.60	38.02	30.90	0.70	VERTICAL	PASSED
7206.000000	33.00	44.67	30.10	2.90	VERTICAL	PASSED

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
31.842886	18.60	8.51	34.70	-16.10	VERTICAL	PASSED
37.595391	20.60	10.72	39.20	-18.60	VERTICAL	PASSED
73.367535	19.80	9.77	47.90	-28.10	HORIZONTAL	PASSED
74.269940	16.60	6.76	44.60	-28.00	HORIZONTAL	PASSED

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4845.685371	44.40	165.96	43.10	1.30	VERTICAL	PASSED
7382.767535	46.50	211.35	42.70	3.80	VERTICAL	PASSED
13282.567134	51.50	375.84	39.60	11.90	HORIZONTAL	PASSED
14496.491984	52.20	407.38	37.80	14.40	VERTICAL	PASSED
15487.979960	52.70	431.52	35.90	16.80	VERTICAL	PASSED
15919.337675	53.90	495.45	35.90	18.00	HORIZONTAL	PASSED
16159.816633	55.30	582.10	36.90	18.40	VERTICAL	PASSED
17940.875752	57.20	724.44	38.40	18.80	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4843.185371	32.00	39.81	30.70	1.30	VERTICAL	PASSED
7384.267535	33.90	49.55	30.10	3.80	VERTICAL	PASSED
13287.567134	38.60	85.11	26.60	12.00	HORIZONTAL	PASSED
14496.491984	39.40	93.33	25.00	14.40	VERTICAL	PASSED
15486.479960	40.00	100.00	23.20	16.80	VERTICAL	PASSED
15920.837675	41.40	117.49	23.40	18.00	HORIZONTAL	PASSED
16160.316633	42.10	127.35	23.70	18.40	VERTICAL	PASSED
17934.375752	42.40	131.83	23.50	18.90	HORIZONTAL	PASSED

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	43.30	146.22	43.30	0.00	VERTICAL	PASSED
7440.000000	46.10	201.84	42.10	4.00	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	30.70	34.28	30.70	0.00	VERTICAL	PASSED
7440.000000	33.20	45.71	29.20	4.00	HORIZONTAL	PASSED

3.5.1 8DPSK modulation, PRBS packet type

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	53.40	467.74	52.70	0.70	VERTICAL	PASSED
7206.000000	45.80	194.98	42.90	2.90	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	38.40	83.18	37.70	0.70	VERTICAL	PASSED
7206.000000	33.10	45.19	30.20	2.90	VERTICAL	PASSED

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
37.795391	22.30	13.03	41.00	-18.70	VERTICAL	PASSED

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4883.767535	53.10	451.86	52.00	1.10	HORIZONTAL	PASSED
7388.769539	46.80	218.78	43.00	3.80	HORIZONTAL	PASSED
12489.471944	51.60	380.19	41.00	10.60	VERTICAL	PASSED
14498.000000	52.50	421.70	38.10	14.40	VERTICAL	PASSED
15420.343687	52.20	407.38	35.50	16.70	HORIZONTAL	PASSED
15859.715431	54.70	543.25	36.80	17.90	VERTICAL	PASSED
16179.358717	55.30	582.10	36.70	18.60	HORIZONTAL	PASSED
17986.467936	55.80	616.60	36.70	19.10	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
1627.252505	36.60	67.61	44.80	-8.20	VERTICAL	PASSED
1627.256513	36.60	67.61	44.80	-8.20	VERTICAL	PASSED
4883.767535	38.00	79.43	36.90	1.10	HORIZONTAL	PASSED
7383.269539	33.70	48.42	29.90	3.80	HORIZONTAL	PASSED
12482.471944	38.80	87.10	28.20	10.60	VERTICAL	PASSED
14498.500000	39.60	95.50	25.20	14.40	VERTICAL	PASSED
15422.843687	39.30	92.26	22.60	16.70	HORIZONTAL	PASSED
15859.215431	41.60	120.23	23.70	17.90	VERTICAL	PASSED
16181.858717	42.30	130.32	23.60	18.70	HORIZONTAL	PASSED
17983.967936	43.00	141.25	24.00	19.00	VERTICAL	PASSED

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	53.90	495.45	53.90	0.00	HORIZONTAL	PASSED
7440.000000	46.20	204.17	42.20	4.00	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	39.70	96.61	39.70	0.00	HORIZONTAL	PASSED
7440.000000	33.30	46.24	29.30	4.00	HORIZONTAL	PASSED

4. Test Equipment

4.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
1742	EMI Test Receiver	ESMI	R&S	15C, 15B
1759	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
1872	Thermo- Hygrograph	00.02520.150700	Lambrecht	15C, 15B
1916	Radio Communication tester	CMTA84	R&S	15C, 15B
2039	Power Supply	PL330QMD	THURLBY	15C, 15B
2060	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
2068	CDN-Antenna line	S1	NMP	15C, 15B
2097	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
2111	Multimeter	TX3	Tektronix	15C, 15B
2156	Digital Radio Communication Tester	CMU200	R&S	15C, 15B
2206	Signal generator	SMX	R&S	15C, 15B
2335	GPIB Switch 2 to 1	-	National Instruments	15C, 15B
2347	Digital Radio Communication Tester	CMU200	R&S	22/24, 15C, 15B
2352	Spectrum Analyzer	FSP	R&S	22/24, 15C
2359	Temperature Test system	VT4002	Vötsch Industrietechnik	22/24
2360	Serial Bus Converter	Serial 488A	IO Tech	22/24
2362	Power Supply	NGPX 70/5	R&S	22/24
-	RF Emission Software	ES-K1 v.1.60	R&S	15C, 15B

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
1748	Log. per. Antenna	HL025	R&S	22/24, 15C
1749	Log. per. Antenna	HL025	R&S	22/24, 15C
1875	Thermo- Hygrograph	00.02520.150700	Lambrecht	22/24, 15C, 15B
1917	Radio Communication tester	CMTA84	R&S	22/24, 15C, 15B
1933	Precision half-wave dipole antennas	HZ-13	R&S	22/24, 15C
1938	Precision half-wave dipole antennas	HZ-12	R&S	22/24, 15C
2006	Radiation Reference Source	VSQ	MEB	22/24, 15C, 15B
2009	Signal generator	SMP 22	R&S	22/24, 15C, 15B
2019	Multimeter	34401A	HP	22/24, 15C, 15B
2027	Coupling and Decoupling Network	M2 (modified) DC1	MEB	22/24, 15C, 15B
2028	Coupling and Decoupling Network	M3 (modified) DC2	MEB	22/24, 15C, 15B
2029	Power Supply	PL330	THURLBY	22/24, 15C
2043	Band Reject Filter	WRCA824/849-0,2-6SS	Wainwright	22/24, 15C, 15B
2047	Band Reject Filter	WRCC1800/2000-0.2-10SS	Wainwright	22/24, 15C, 15B
2051	High Pass Filter	4HC1700-1-KK	R&S	22/24, 15C
2057	Log. per. Antenna	HL025	R&S	22/24, 15C
2109	Power Supply	PL330QMD	THURLBY	22/24, 15C, 15B

Eq. No	Equipment	Type	Manufacturer	Used in
2110	Multimeter	34401A	HP	22/24, 15C, 15B
2112	Multimeter	TX3	Tektronix	22/24, 15C, 15B
2116	Controller	EMCO MODEL 2090	ETS	22/24, 15C, 15B
2133	Power Meter	NRVS	R&S	22/24, 15C
2134	Power Sensor	NRV-Z32	R&S	22/24, 15C
2135	Coupling and Decoupling Network	CDN 801-M3	LÜTHI	22/24, 15C, 15B
2138	Ultra Broadband Antenna	HL562	R&S	22/24, 15C, 15B
2140	Biconical Antenna	EMCO93110B	EMCO	22/24, 15C
2142	Log.-per.-dipol Antenna	3146	EMCO	22/24, 15C
2144	Attenuator	6803.17B	Huber-Suhner	22/24, 15C, 15B
2150	High Pass Filter	F-15041	RLC ELECTRONICS	22/24, 15C
2176	Coupling and Decoupling Network	CDN 801-M3	LÜTHI	22/24, 15C, 15B
2180	Digital Radio Communication Tester	CMU200	R&S	22/24, 15C, 15B
2188	Preamplifier	AFS4-00100300-20-23P-6	MITEQ	22/24, 15C, 15B
2330	EMI Test receiver	ESIB26	R&S	22/24, 15C, 15B
2334	GPIB Switch 2 to 1	-	National Instruments	22/24, 15C, 15B
2348	Yaesu controller	G-1000DXC	YAESU	22/24, 15C, 15B
2349	Computer controller (Yaesu)	GS-232B	YAESU	22/24, 15C, 15B
2350	Preamplifier	AMF-6D-020180-29-20P	MITEQ	22/24, 15C
2361	Anechoic chamber	3 meter semi/full anechoic chamber	Euroshield	22/24, 15C, 15B
2398	Horn antenna	HF906	R&S	22/24, 15C
2363	Band Reject Filter	WRCG 832/838-825/845/5SS	Wainwright	22/24
2364	Band Reject Filter	WRCG1877/1883 - 1870/1890-40/6SS	Wainwright	22/24
2365	Relay Switch Unit	TS-RSP	R&S	22/24, 15C, 15B
2366	Relay Switch Unit	TS-RSP	R&S	22/24, 15C, 15B
-	RF Emission Software	ES-K1 v.1.71	R&S	22/24, 15C, 15B