

FCC Part 15B Compliance Test Report

Test Report no.:	Tre_FCC_0722_03.doc	Date of Report:	26.6.2007
Number of pages:	18	Customer's Contact person:	Pasi Vainio
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FCC listing no.:	94436		
IC recognition no.:	3608		
Tested devices/ accessories:	GSM phone RM-320 / Audio Adapter AD-54, Headset HS-45, AC charger AC-5, Battery BL-6F, Data cable DKE-2, 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:	PDNRM-320	IC:	661R-RM320
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:			

Jari Jantunen, System Manager

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	28.5.2007
Testing completed	4.6.2007
The customer's contact person	Pasi Vainio
Test Plan referred to	T:\Projects\
Notes	-
Document name	T:\Projects\RM-320\EMC\Results\FCC\Tre_FCC_0722_03.doc

1.1. EUT and Accessory Information

The EUT is a 5-band (GSM850/900/1800/1900 and WCDMA Band I) mobile phone with GPRS, EGPRS, Bluetooth and WLAN. GSM bands are tested in idle mode. Bluetooth and WLAN are tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
GSM phone	RM-320	004401013435124	3040	-	V1.19.008	41093
Battery	BL-6F	-	-	-	-	41094
Audio Adapter	AD-54	-	-	-	-	41099
Headset	HS-45	-	-	-	-	41100
Ac Charger	AC-5	-	-	-	-	41096
Data cable	DKE-2	-	-	-	-	41097
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
Parallel cable for printer	-	-	-	-	-	40087

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

WLAN:

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.

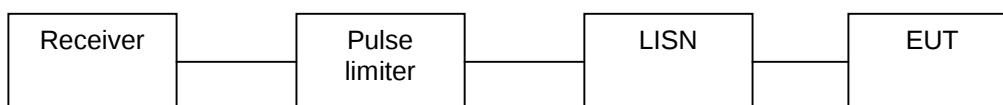
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2. AC powerline conducted emissions (FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-320 DUT 41093
Accessories with DUT numbers	AD-54 DUT 41099, HS-45 DUT 41100, BL-6F DUT 41094, AC-5 DUT 41096, DKE-2 DUT 41097, 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]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	18 / 51 / 100.9
Date of measurements	30.5.2007
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:

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

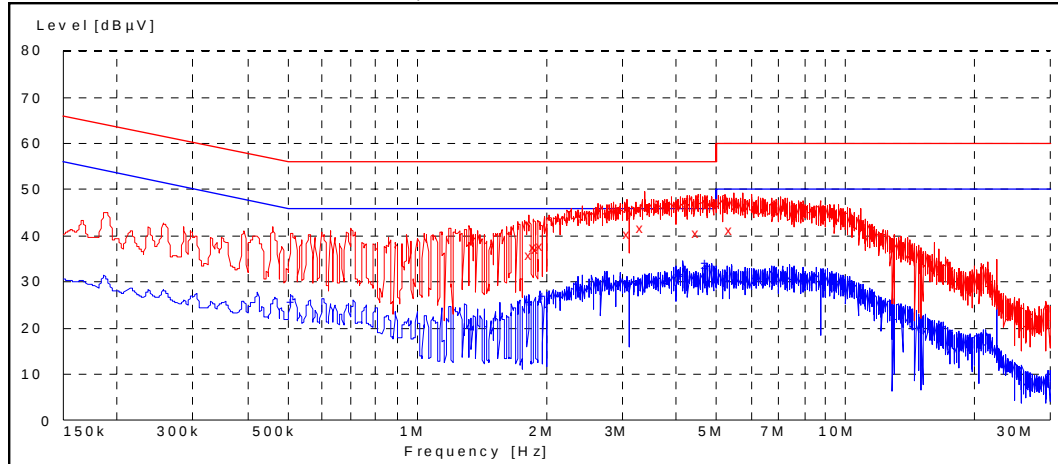
Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

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

2.3. GSM 850 Test results with GPS active

RX mode and GPS receiver active, channel 190 / 881.6 MHz



Quasi peak (RBW: 9 kHz)

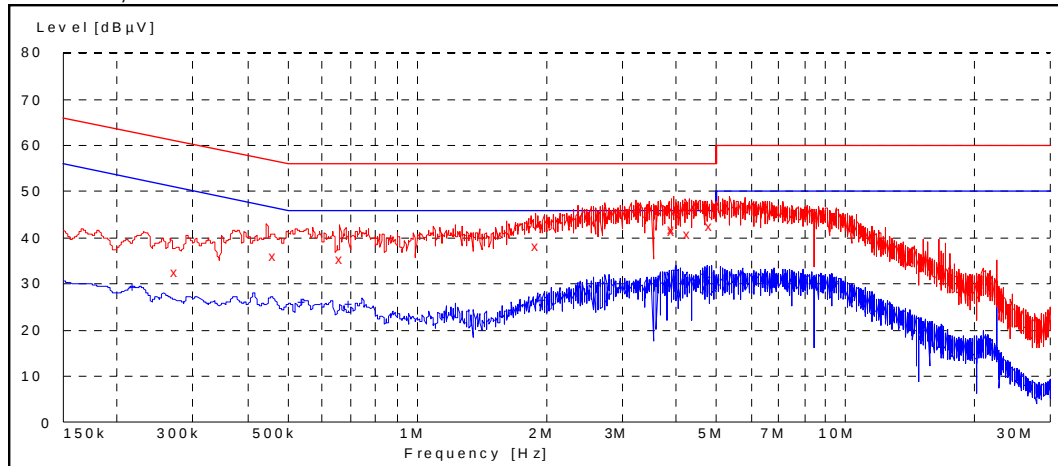
Frequency [MHz]	U [dBμV]	Line	Result
1.840000	35.90	N	PASSED
1.885000	37.50	L1	PASSED
1.920000	37.10	L1	PASSED
1.960000	37.60	L1	PASSED
3.115000	40.40	L1	PASSED
3.375000	41.60	L1	PASSED
4.535000	40.60	N	PASSED
5.435000	41.20	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.510000	25.70	L1	PASSED
1.840000	25.60	L1	PASSED
1.850000	25.60	L1	PASSED
1.975000	27.10	L1	PASSED
4.165000	31.20	N	PASSED
4.735000	33.00	L1	PASSED
4.775000	33.90	L1	PASSED
4.820000	33.50	L1	PASSED

2.4. GSM 1900 Test results

RX mode, channel 661 / 1960.0 MHz



Quasi peak (RBW: 9 kHz)

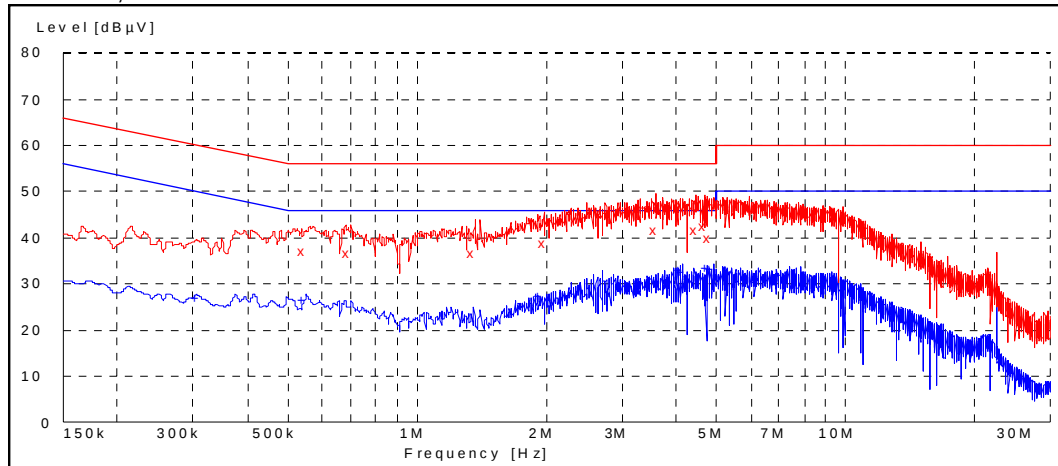
Frequency [MHz]	U [dBμV]	Line	Result
0.275000	32.70	N	PASSED
0.465000	36.10	L1	PASSED
0.670000	35.50	L1	PASSED
1.925000	38.40	L1	PASSED
3.965000	41.30	L1	PASSED
3.975000	42.00	L1	PASSED
4.310000	40.70	N	PASSED
4.850000	42.50	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.220000	29.20	L1	PASSED
0.545000	26.00	L1	PASSED
0.700000	25.70	L1	PASSED
1.990000	26.50	N	PASSED
4.065000	32.80	L1	PASSED
4.765000	32.00	N	PASSED
4.810000	31.40	N	PASSED

2.5. Bluetooth Test results

TX mode, channel 40 / 2442 MHz



Quasi peak (RBW: 9 kHz)

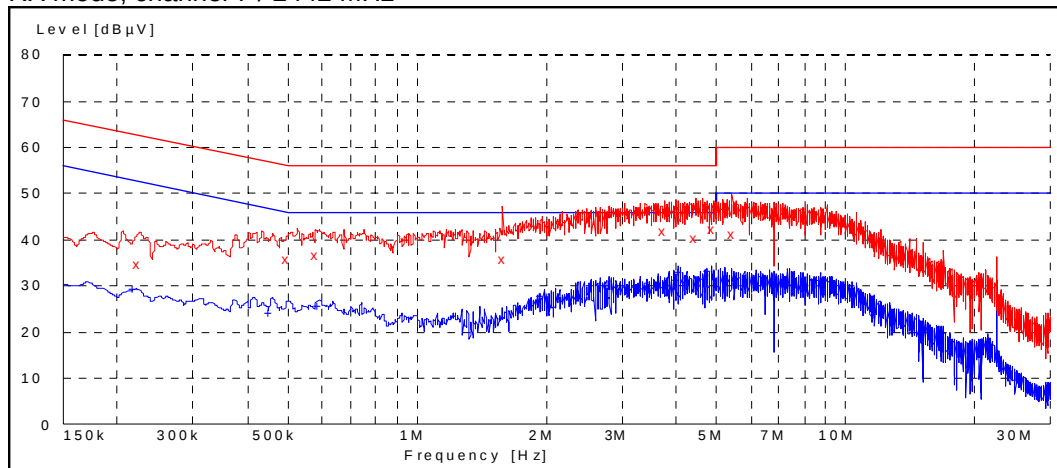
Frequency [MHz]	U [dBμV]	Line	Result
0.545000	37.10	L1	PASSED
0.690000	36.50	L1	PASSED
1.360000	36.50	L1	PASSED
1.970000	38.90	L1	PASSED
3.630000	41.60	L1	PASSED
4.485000	41.60	L1	PASSED
4.720000	42.60	L1	PASSED
4.820000	39.90	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.305000	27.00	L1	PASSED
0.545000	26.40	L1	PASSED
1.930000	27.20	L1	PASSED
4.110000	33.00	L1	PASSED
4.150000	32.70	L1	PASSED
4.765000	33.60	L1	PASSED
4.855000	33.20	L1	PASSED

2.6. WLAN Test results

RX mode, channel 7 / 2442 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.225000	34.70	N	PASSED
0.500000	35.90	L1	PASSED
0.585000	36.50	L1	PASSED
1.600000	35.70	L1	PASSED
3.760000	42.00	L1	PASSED
4.485000	40.30	N	PASSED
4.940000	42.40	L1	PASSED
5.460000	41.10	L1	PASSED

Average (RBW: 9 kHz)

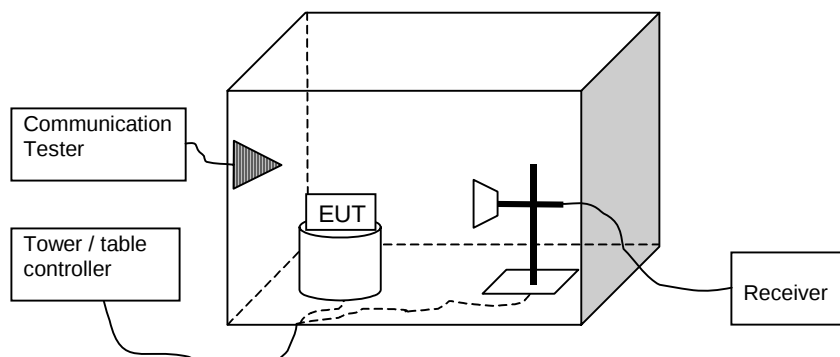
Frequency [MHz]	U [dBμV]	Line	Result
0.220000	29.30	L1	PASSED
0.455000	24.30	L1	PASSED
0.590000	25.70	L1	PASSED
1.965000	27.70	L1	PASSED
4.065000	31.20	N	PASSED
4.105000	32.90	L1	PASSED
4.760000	31.50	N	PASSED
4.810000	33.30	L1	PASSED

3. Radiated emissions

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

EUT with DUT number	RM-320 DUT 41093
Accessories with DUT numbers	AD-54 DUT 41099, HS-45 DUT 41100, BL-6F DUT 41094, AC-5 DUT 41096, DKE-2 DUT 41097, 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]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 45 / 102.9
Date of measurements	4.6.2007
Measured by	Jari Jantunen

3.1. Test setup



3.2. 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.

The measurement results are obtained as described below:

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

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 with GPS active

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	38.80	87.10	43.90	-5.1	VERTICAL	PASSED
6953.600000	43.30	146.22	42.40	0.9	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3476.800000	25.90	19.72	31.00	-5.1	HORIZONTAL	PASSED
6953.600000	30.30	32.73	29.40	0.9	HORIZONTAL	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
49.859920	28.70	27.23	63.70	-35.0	VERTICAL	PASSED
349.196994	27.60	23.99	58.60	-31.0	HORIZONTAL	PASSED
637.072545	28.20	25.70	53.70	-25.5	VERTICAL	PASSED
648.598597	30.20	32.36	55.10	-24.9	VERTICAL	PASSED
881.663527	52.90	441.57	74.90	-22.0	VERTICAL	PASSED
896.091583	37.40	74.13	59.20	-21.8	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
1295.097194	55.30	582.10	73.30	-18.0	VERTICAL	PASSED
1315.637275	52.00	398.11	70.00	-18.0	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
1195.398798	27.10	22.65	46.40	-19.3	VERTICAL	PASSED
1233.466934	33.90	49.55	53.00	-19.1	VERTICAL	PASSED
1295.097194	30.10	31.99	48.10	-18.0	VERTICAL	PASSED
1296.599198	27.70	24.27	45.70	-18.0	VERTICAL	PASSED
1315.137275	26.70	21.63	44.70	-18.0	VERTICAL	PASSED
1336.669339	26.00	19.95	44.10	-18.1	VERTICAL	PASSED
1669.832665	25.10	17.99	40.30	-15.2	VERTICAL	PASSED
1989.483968	33.60	47.86	45.60	-12.0	VERTICAL	PASSED
2985.973948	32.90	44.16	37.20	-4.3	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	38.80	87.10	43.40	-4.6	VERTICAL	PASSED
7150.400000	41.40	117.49	39.90	1.5	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3575.200000	26.10	20.18	30.70	-4.6	HORIZONTAL	PASSED
7150.400000	28.20	25.70	26.70	1.5	HORIZONTAL	PASSED

3.4. GSM 1900 Test results

RX mode, channel 1 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	40.20	102.33	42.60	-2.4	VERTICAL	PASSED
7720.000000	43.20	144.54	40.50	2.7	VERTICAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3860.000000	27.60	23.99	30.00	-2.4	HORIZONTAL	PASSED
7720.000000	29.40	29.51	26.70	2.7	VERTICAL	PASSED

RX mode, channel 661 / 1960.0 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
49.919439	28.60	26.92	63.70	-35.1	VERTICAL	PASSED
99.639479	40.70	108.39	76.10	-35.4	HORIZONTAL	PASSED
348.496994	26.90	22.13	58.00	-31.1	HORIZONTAL	PASSED
616.832465	28.90	27.86	54.80	-25.9	VERTICAL	PASSED
647.194589	29.80	30.90	54.70	-24.9	VERTICAL	PASSED
895.791583	34.40	52.48	56.20	-21.8	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
1297.593186	52.20	407.38	70.10	-17.9	VERTICAL	PASSED
1311.629259	52.10	402.72	70.10	-18.0	VERTICAL	PASSED
1959.919840	52.60	426.58	65.00	-12.4	VERTICAL	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
1232.966934	34.40	52.48	53.50	-19.1	VERTICAL	PASSED
1260.519038	34.00	50.12	52.70	-18.7	VERTICAL	PASSED
1296.093186	26.50	21.13	44.50	-18.0	VERTICAL	PASSED
1297.099198	28.00	25.12	46.00	-18.0	VERTICAL	PASSED
1317.629259	25.50	18.84	43.50	-18.0	VERTICAL	PASSED
1333.665331	27.00	22.39	45.10	-18.1	VERTICAL	PASSED
1866.233467	33.70	48.42	46.80	-13.1	VERTICAL	PASSED
1991.483968	36.00	63.10	48.00	-12.0	VERTICAL	PASSED

RX mode, channel 810 / 1989.8 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
3980.000000	43.90	156.68	46.60	-2.7	VERTICAL	PASSED
7960.000000	42.50	133.35	39.40	3.1	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
3980.000000	28.80	27.54	31.50	-2.7	VERTICAL	PASSED
7960.000000	29.70	30.55	26.60	3.1	VERTICAL	PASSED

3.5. 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	39.00	89.13	40.70	-1.7	VERTICAL	PASSED
7206.000000	42.10	127.35	40.40	1.7	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	26.20	20.42	27.90	-1.7	HORIZONTAL	PASSED
7206.000000	28.40	26.30	26.70	1.7	HORIZONTAL	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
37.695391	7.50	2.37	18.60	-11.1	HORIZONTAL	PASSED

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4950.899800	40.60	107.15	41.80	-1.2	HORIZONTAL	PASSED
7273.541082	42.80	138.04	40.50	2.3	VERTICAL	PASSED
7278.563126	42.80	138.04	40.40	2.4	VERTICAL	PASSED
7418.837675	43.00	141.25	40.20	2.8	VERTICAL	PASSED
7438.871743	42.50	133.35	39.80	2.7	VERTICAL	PASSED
17994.483968	55.50	595.66	34.20	21.3	HORIZONTAL	PASSED

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4953.399800	27.30	23.17	28.50	-1.2	HORIZONTAL	PASSED
7272.541082	29.60	30.20	27.30	2.3	VERTICAL	PASSED
7282.063126	29.70	30.55	27.30	2.4	VERTICAL	PASSED
7419.337675	29.90	31.26	27.10	2.8	VERTICAL	PASSED
7434.371743	29.70	30.55	27.00	2.7	VERTICAL	PASSED
17991.983968	42.40	131.83	21.10	21.3	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	40.10	101.16	41.30	-1.2	HORIZONTAL	PASSED
7440.000000	42.50	133.35	39.80	2.7	VERTICAL	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
4960.000000	27.10	22.65	28.30	-1.2	HORIZONTAL	PASSED
7440.000000	29.60	30.20	26.90	2.7	HORIZONTAL	PASSED

3.6. WLAN Test results

Channel 1 / 2412 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
4824.000000	44.50	167.88	46.20	-1.7	HORIZONTAL	PASSED
7236.000000	42.80	138.04	40.80	2.0	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
4824.000000	31.90	39.36	33.60	-1.7	HORIZONTAL	PASSED
7236.000000	30.30	32.73	28.30	2.0	HORIZONTAL	PASSED

Channel 7 / 2442 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
37.595391	7.60	2.40	18.60	-11.0	VERTICAL	PASSED

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
4883.769539	43.00	141.25	44.60	-1.6	HORIZONTAL	PASSED
7250.003006	42.50	133.35	40.40	2.1	VERTICAL	PASSED
7323.143287	42.70	136.46	40.40	2.3	HORIZONTAL	PASSED
7415.829659	42.30	130.32	39.50	2.8	HORIZONTAL	PASSED
7417.337675	43.30	146.22	40.50	2.8	VERTICAL	PASSED
17987.473948	55.60	602.56	34.30	21.3	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
4883.769539	29.40	29.51	31.00	-1.6	HORIZONTAL	PASSED
7253.503006	29.20	28.84	27.10	2.1	VERTICAL	PASSED
7317.643287	29.40	29.51	27.10	2.3	HORIZONTAL	PASSED
7416.829659	29.80	30.90	27.00	2.8	HORIZONTAL	PASSED
7420.837675	29.70	30.55	26.90	2.8	VERTICAL	PASSED
17988.473948	42.30	130.32	21.00	21.3	HORIZONTAL	PASSED

Channel 11 / 2462 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
4924.000000	43.60	151.36	45.00	-1.4	VERTICAL	PASSED
7386.000000	42.60	134.90	40.00	2.6	VERTICAL	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
4924.000000	30.20	32.36	31.60	-1.4	VERTICAL	PASSED
7386.000000	30.20	32.36	27.60	2.6	HORIZONTAL	PASSED

4. Test Equipment

4.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM37610	Spectrum analyzer	FSU	R&S	22/24, 15C
TM37678	Radio communication tester	CMU-200	R&S	22/24, 15C
	Attenuator 10 dB	6251.17.A	Huber+Suhner AG	22/24, 15C
TM37499	Power splitter	11667A	Agilent	22/24, 15C
	Temperature chamber	VT4002	Vötsch	22/24, 15C
TM38112	DC power supply	6632A	Agilent	22/24, 15C
TM38111	Multimeter	34401A	Agilent	22/24, 15C
	EMI Test receiver	ESPC	R&S	15C, 15B
TM37773	Radio communication tester	CMU-200	R&S	15C, 15B
TM38631	Signal generator	83640L	Agilent	15C, 15B
TM38114	DC power supply	6632A	Agilent	15C, 15B
TM22835	Multimeter	87	Fluke	15C, 15B
TM30600	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
TM26490	LISN 50 µH	ESH3-Z5/	R&S	15C, 15B
TM30636	LISN 50 µH	L2-16/	PMM	15C, 15B

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM30599	3m semi-anechoic chamber		TDK	22/24, 15C, 15B
TM38845	EMI receiver	ESI 40	R&S	22/24, 15C, 15B
TM37498	Preamplifier	AMF-5D-020180-26-10P	MITEQ	22/24, 15C, 15B
TM37523	Preamplifier	AMF-4D-10M-3G-25-20P	MITEQ	22/24, 15C, 15B
TM37516	Biconilog antenna	HL562	R&S	22/24, 15C, 15B
TM26496	Double ridged waveguide antenna	3115	EMCO	22/24, 15C, 15B
TM39158	Horn antenna	3116	EMCO	22/24, 15C, 15B
TM26492	Reference dipole set	UHAP/VHAP	Schwarzbeck	22/24, 15C, 15B
TM37501	Dipole antenna	3125-870	EMCO	22/24
TM37502	Dipole antenna	3125-1880	EMCO	22/24
TM37773	Radio communication tester	CMU-200	R&S	22/24, 15C, 15B
TM38631	Signal generator	83640L	Agilent	22/24, 15C, 15B
TM38066	High pass filter	4HC3000/18000-3-KK	Trilithic	22/24, 15C, 15B
	High pass filter	WHK2010-10SS	Trilithic	22/24, 15C, 15B
	Low pass filter	WLK1750-10SS	Trilithic	22/24, 15C, 15B
TM26511	Tunable notch filter	WRCA870	Wainwright	22/24
TM38215	Tunable notch filter	WRCD1850/1910-0.2/40	Wainwright	22/24
TM38214	Band reject filter	WRCT 2402/2480-2400/2483.5-30	Wainwright	15C
TM30642	Turntable controller	HD-100	Deisel	22/24, 15C, 15B
TM26500	Turntable	DS412	Deisel	22/24, 15C, 15B
TM38842	Antenna mast controller	2090	EMCO	22/24, 15C, 15B
TM38843	Antenna mast	2075	EMCO	22/24, 15C, 15B
TM38114	DC power supply	6632A	Agilent	22/24, 15C, 15B

Eq. No	Equipment	Type	Manufacturer	Used in
TM22835	Multimeter	87	Fluke	22/24, 15C, 15B