

FCC Part 15B Compliance Test Report

Test Report no.:	FCC15B_RM-680_11.docx	Date of Report:	12-Apr-2011
Number of pages:	15	Customer's Contact person:	Juvani Jyrki
Testing laboratory:	TCC Nokia Tampere Laboratory P.O. Box 68 Sinitaival 5 FIN-33720 TAMPERE, FINLAND Tel. +358 (0) 7180 46800 Fax. +358 (0) 7180 46880	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.:	94436		
IC recognition no.:	661AK-1		
Tested devices/ accessories:	Phone RM-680 / AC charger AC-10E / Headset WH-701		
FCC ID:	LJPRM-680	IC:	661E-RM680
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, RSS-132 (Issue 2, September 2005), RSS-133 (Issue 5, February 2009), RSS-139 (Issue 2, February 2009), RSS-210 (Issue 8, December 2010). 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:			
	Hannu Soderholm, Senior Engineer, EMC		

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	24-Mar-2011
Testing completed	11-Apr-2011
The customer's contact person	Juvani Jyrki
Test Plan referred to	T:\Projects\RM-680\TestPlan\RS_testplan_RM-680.xls
Notes	-
Document name	T:\Projects\RM-680\EMC\FCC15B_RM-680_11.docx

1.1. EUT and Accessory Information

The EUT is a 9-band (GSM850/900/1800/1900) and WCDMA Band (I/II(1900)/IV(1700)/V(850)/VIII) mobile phone with GPRS, EGPRS, HSDPA, HSUPA and WLAN and Bluetooth.

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-680	004402132933882	1122	-		42512
AC charger	AC-10E	3997910133012207808;0675408	-	-	-	42514
Headset	WH-701	069482302751A600121	-	-	-	42517
Laptop	T40	99ARTGD	2373 - NG3	-	Windows XP sp3	41868
AC Adapter	02K6543	-	-	-		40202
Printer	HP deskjet 1600CC3540A	USB8302546	-	-	-	40077
Parallel cable for printer	-	-	-	-	-	40087

1.2. Summary of Test Results

GSM850:

Section in CFR 47	Section in ICES-003 (RSS-132)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (4.6)	Radiated emissions	PASSED

WCDMA 850 (Band V):

Section in CFR 47	Section in ICES-003 (RSS-132)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (4.6)	Radiated emissions	NP

GSM1900:

Section in CFR 47	Section in ICES-003 (RSS-133)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (6.6)	Radiated emissions	PASSED

WCDMA 1900 (Band II):

Section in CFR 47	Section in ICES-003 (RSS-133)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (6.6)	Radiated emissions	NP

WCDMA 1700 (Band IV):

Section in CFR 47	Section in ICES-003 (RSS-139)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (6.6)	Radiated emissions	PASSED

WLAN:

Section in CFR 47	Section in ICES-003 (RSS-139)	Name of the test	Result
15.107, a	5.3	AC powerline conducted emissions	NP
15.109, a	5.5 (6.6)	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 Laboratory.

CONTENTS

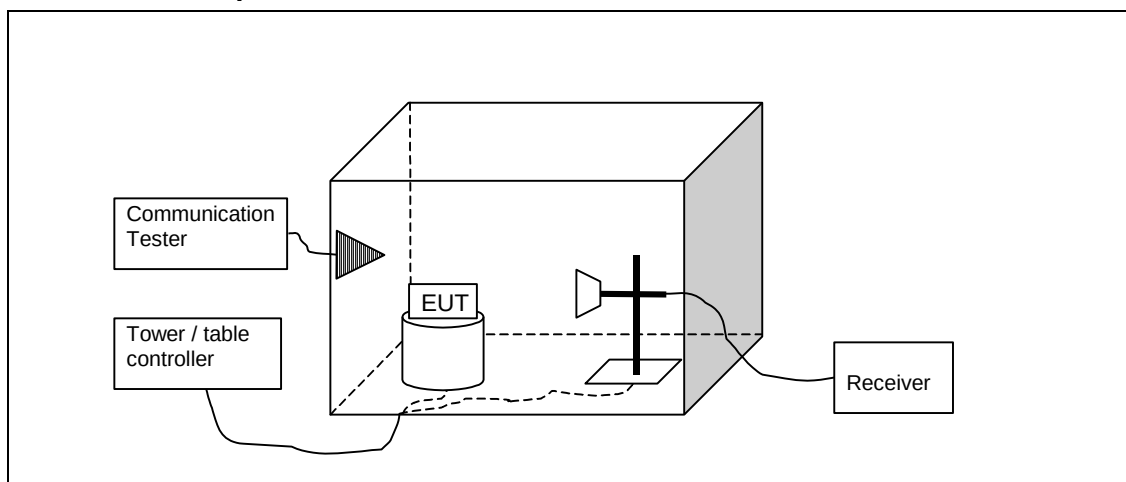
1. Summary for FCC Part 15B Compliance Test Report	2
1.1. EUT and Accessory Information	2
1.2. Summary of Test Results	3
2. Radiated emissions	
(FCC §15.109, ICES-003 section 5.5, RSS-132 4.6, RSS-133 6.6, RSS-139 6.6).....	5
2.2. Test method and limit	6
2.3. GSM850 Test results.....	7
2.4. GSM1900 Test results.....	8
2.5. WCDMA 1700 (Band IV) Test results	9
2.6. Bluetooth Test results.....	10
3. Radiated emissions	
(FCC §15.109, ICES-003 section 5.5, RSS-132 4.6, RSS-133 6.6, RSS-139 6.6).....	11
3.2. Test method and limit	12
3.3. WLAN Test results	13
4. Test Equipment	14
4.1. Conducted measurements	14
4.2. Radiated measurements	14

2. Radiated emissions

(FCC §15.109, ICES-003 section 5.5, RSS-132 4.6, RSS-133 6.6, RSS-139 6.6)

EUT with DUT number	RM-680, DUT 42512
Accessories with DUT numbers	AC-10E, DUT 42514 ; WH-701, DUT 42517
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	25 / 45 / 100.8
Date of measurements	05-Apr-2011
Measured by	Hannu Söderholm

2.1.1 Test Setup



2.2. 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:

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

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

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

2.3. GSM850 Test results

RX mode, channel 128 / 869.2 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3475.3	39.26	91.791	44.92	-5.66	VERTICAL	PASSED
6951.7	47.38	233.884	47.29	0.09	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3475.3	26.23	20.495	31.89	-5.66	VERTICAL	PASSED
6951.7	34.27	51.719	34.18	0.09	VERTICAL	PASSED

RX mode, channel 190 / 881.6 MHz

Quasi peak (RBW: 120 kHz, VBW: 300 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
31.71	15.85	6.198	43.95	-28.1	VERTICAL	PASSED
35.784	11.62	3.808	41.33	-29.71	VERTICAL	PASSED
41.039	12.1	4.029	43.98	-31.88	VERTICAL	PASSED
42.753	21.18	11.455	53.78	-32.6	VERTICAL	PASSED
71.403	11.86	3.919	50.42	-38.56	HORIZONTAL	PASSED
79.458	17.39	7.401	54.59	-37.2	VERTICAL	PASSED
101.805	21.45	11.818	55.58	-34.13	VERTICAL	PASSED
102.145	21.83	12.344	55.9	-34.07	VERTICAL	PASSED
115.417	18.94	8.855	52.14	-33.2	VERTICAL	PASSED
173.826	24.12	16.069	59.61	-35.49	HORIZONTAL	PASSED

RX mode, channel 251 / 893.8 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3577.1	39.64	95.907	44.92	-5.28	VERTICAL	PASSED
7150.4	43.53	150.124	42.91	0.62	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3577.1	26.33	20.735	31.61	-5.28	VERTICAL	PASSED
7150.4	30.77	34.538	30.15	0.62	VERTICAL	PASSED

2.4. GSM1900 Test results

RX mode, channel 512 / 1930.2 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3861.6	41.44	118.059	43.85	-2.41	HORIZONTAL	PASSED
7720.6	44.63	170.432	42.78	1.85	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3861.6	28.34	26.113	30.75	-2.41	HORIZONTAL	PASSED
7720.6	31.73	38.583	29.88	1.85	HORIZONTAL	PASSED

RX mode, channel 661 / 1960.0 MHz

Quasi peak (RBW: 120 kHz, VBW: 300 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
31.65	22.02	12.614	50.09	-28.07	VERTICAL	PASSED
39.338	17.85	7.803	49.02	-31.17	VERTICAL	PASSED
42.216	16.39	6.6	48.76	-32.37	VERTICAL	PASSED
73.395	18.65	8.562	57.01	-38.36	HORIZONTAL	PASSED
78.567	18.48	8.398	55.79	-37.31	VERTICAL	PASSED
94.727	19.32	9.247	55.2	-35.88	VERTICAL	PASSED
99.65	20.6	10.72	55.17	-34.57	VERTICAL	PASSED
101.565	19.97	9.964	54.14	-34.17	VERTICAL	PASSED
114.439	18.96	8.868	52.22	-33.26	VERTICAL	PASSED
173.195	24.33	16.455	59.86	-35.53	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3500.303	39.48	94.232	44.91	-5.43	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3500.303	26.6	21.367	32.03	-5.43	VERTICAL	PASSED

RX mode, channel 810 / 1989.8 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3980.9	40.78	109.421	43.71	-2.93	VERTICAL	PASSED
7958.2	45.32	184.438	42.91	2.41	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3980.9	28.2	25.692	31.13	-2.93	VERTICAL	PASSED
7958.2	32.6	42.638	30.19	2.41	HORIZONTAL	PASSED

2.5. WCDMA 1700 (Band IV) Test results

RX mode, channel 1537 / 2112.4 MHz

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
4223.8	40.35	104.16	43.98	-3.63	VERTICAL	PASSED
6336	45.45	187.262	46.79	-1.34	VERTICAL	PASSED

Average(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
4223.8	27.69	24.224	31.32	-3.63	VERTICAL	PASSED
6336	32.15	40.518	33.49	-1.34	VERTICAL	PASSED

RX mode, channel 1637 / 2132.4 MHz

Quasi peak (RBW: 120 kHz, VBW: 300 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Polarisation	Result
31.71	21.15	11.418	49.25	-28.1	VERTICAL	PASSED
39.144	20.8	10.962	51.89	-31.09	VERTICAL	PASSED
39.269	21.02	11.249	52.16	-31.14	VERTICAL	PASSED
42.715	20.77	10.924	53.35	-32.58	VERTICAL	PASSED
76.429	22.41	13.204	59.99	-37.58	VERTICAL	PASSED
78.848	26.08	20.13	63.36	-37.28	VERTICAL	PASSED
102.696	27.05	22.522	61.01	-33.96	VERTICAL	PASSED
112.862	26.97	22.313	60.41	-33.44	VERTICAL	PASSED
156.363	19.79	9.758	54.58	-34.79	VERTICAL	PASSED

RX mode, channel 1738 / 2152.6 MHz

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
4303.2	39.47	94.102	43.44	-3.97	VERTICAL	PASSED
6456.7	45.6	190.612	47.04	-1.44	VERTICAL	PASSED

Average(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
4303.2	27.06	22.537	31.03	-3.97	VERTICAL	PASSED
6456.7	32.81	43.677	34.25	-1.44	VERTICAL	PASSED

2.6. Bluetooth Test results

2.6.1 GFSK modulation, PRBS packet type

TX mode, Channel 0 / 2402 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4806.2	40.98	111.892	43.72	-2.74	HORIZONTAL	PASSED
7203.8	43.99	158.362	43.17	0.82	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4806.2	27.58	23.93	30.32	-2.74	HORIZONTAL	PASSED
7203.8	30.8	34.666	29.98	0.82	VERTICAL	PASSED

TX mode, Channel 40 / 2442 MHz

Quasi peak (RBW: 120 kHz, VBW: 300 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
33.016	21.9	12.442	50.47	-28.57	VERTICAL	PASSED
39.379	21.64	12.08	52.77	-31.13	VERTICAL	PASSED
41.434	17.01	7.085	49.01	-32	VERTICAL	PASSED
70.302	19.38	9.31	58.43	-39.05	VERTICAL	PASSED
97.496	25.94	19.824	61.1	-35.16	VERTICAL	PASSED
152.539	19.96	9.952	54.19	-34.23	VERTICAL	PASSED
946.012	31.52	37.662	51.98	-20.46	HORIZONTAL	PASSED
950.227	17.47	7.475	38	-20.53	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3510.023	39.93	99.14	45.42	-5.49	VERTICAL	PASSED
4946.392	48.88	278.099	50.84	-1.96	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3510.023	26.41	20.919	31.9	-5.49	VERTICAL	PASSED
4946.392	34.6	53.697	36.56	-1.96	VERTICAL	PASSED

TX mode, Channel 78 / 2480 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.6	42.53	133.737	44.25	-1.72	HORIZONTAL	PASSED
7438.6	43.48	149.279	42.02	1.46	HORIZONTAL	PASSED

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

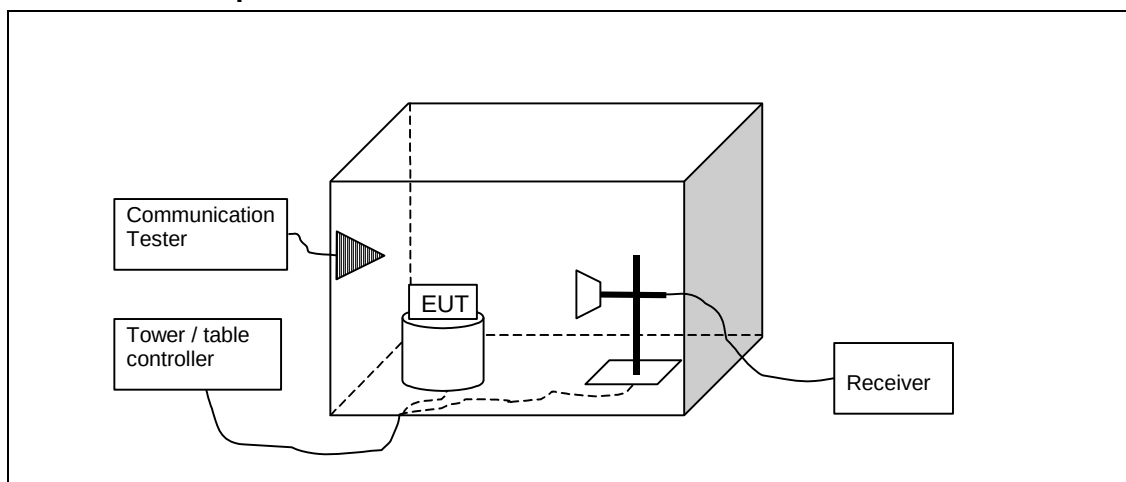
Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.6	29.44	29.652	31.16	-1.72	HORIZONTAL	PASSED
7438.6	30.62	33.955	29.16	1.46	HORIZONTAL	PASSED

3. Radiated emissions

(FCC §15.109, ICES-003 section 5.5, RSS-132 4.6, RSS-133 6.6, RSS-139 6.6)

EUT with DUT number	RM-680, DUT 42512
Accessories with DUT numbers	WH-701, DUT 42517 IBM Thinkpad T40 DUT 41868, 02K6543 DUT 40202, HP deskjet 1600CC3540A DUT 40077, Parallel cable for printer DUT 40087
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	24 / 45 /101-0
Date of measurements	11-Apr-2011
Measured by	Hannu Söderholm

3.1.1 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:

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

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

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. WLAN Test results

3.3.1 WLAN RX mode

Channel 1 / 2412 MHz

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4823.4	40.24	102.742	42.86	-2.62	HORIZONTAL	PASSED
7235.2	43.75	153.922	42.61	1.14	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4823.4	27.74	24.364	30.36	-2.62	HORIZONTAL	PASSED
7235.2	31.06	35.744	29.92	1.14	VERTICAL	PASSED

Channel 7 / 2442 Mhz

Quasi peak (RBW: 120 kHz, VBW: 300 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
76.679	32.64	42.85	70.61	-37.97	HORIZONTAL	PASSED
77.083	32.99	44.602	70.9	-37.91	HORIZONTAL	PASSED
114.559	34.73	54.488	67.98	-33.25	VERTICAL	PASSED
153.996	28.87	27.768	63.78	-34.91	HORIZONTAL	PASSED
171.233	30.25	32.527	65.89	-35.64	HORIZONTAL	PASSED
257.055	41.42	117.801	75.07	-33.65	HORIZONTAL	PASSED
257.064	41.29	115.985	74.94	-33.65	HORIZONTAL	PASSED
400.471	34.95	55.905	64.48	-29.53	HORIZONTAL	PASSED
700.591	39.38	93.1	63.19	-23.81	HORIZONTAL	PASSED
800.992	39.44	93.756	63.01	-23.57	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
3509.017	39.26	91.812	44.75	-5.49	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3509.017	26.48	21.096	31.97	-5.49	HORIZONTAL	PASSED

Channel 11 / 2462 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4922.3	42.39	131.613	44.35	-1.96	HORIZONTAL	PASSED
7384.6	44.25	163.174	42.73	1.52	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4922.3	29.42	29.57	31.38	-1.96	HORIZONTAL	PASSED
7384.6	31.32	36.813	29.8	1.52	HORIZONTAL	PASSED

4. Test Equipment

4.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM38112	Power supply	6632A	Agilent	22/24/27, 15C
TM38631	Signal Generator	83640L	Agilent	22/24/27, 15C, 15B
OM06312	Signal Generator	E4422B	Agilent	22/24
TM37678	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
TM37773	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
TM30600	Impulse limiter	ESH3-Z2	R&S	15C, 15B
TM26490	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
TM26491	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
TM37610	Spectrum Analyzer	FSU26	R&S	22/24/27, 15C
TM22806	Battery	BAT 20/E	Fiskars	15C, 15B
TM22805	UPS	PS 20/1.2	Fiskars	15C, 15B
-	Temperature and humidity logger	175-H2	Testo	15C, 15B
-	Temperature and humidity logger	175-H2	Testo	22/24/27, 15C
-	Air pressure and temperature logger	635-2	Testo	22/24/27, 15C, 15B
-	Air pressure sensor	0638-1835	Testo	22/24/27, 15C, 15B
-	Temperature test chamber	VT 4002	Vötsch	22/24
2058	Receiver	ESPC	R&S	15C, 15B
2001	Bluetooth tester	CBT	R&S	22/24/27, 15C, 15B
2002	Communication Tester	CMU200	R&S	22/24/27
2009	LISN 50 µH	ENV216	R&S	15C, 15B
2010	LISN 50 µH	ENV216	R&S	15C, 15B
2012	Power splitter	11667B	Agilent	22/24/27, 15C
2013	Attenuator	8493C	Agilent	22/24/27, 15C
2014	Attenuator	8493C	Agilent	22/24/27, 15C

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM38114	Power supply	6632A	Agilent	22/24/27, 15C, 15B
TM38631	Signal Generator	83640L	Agilent	22/24/27, 15C, 15B
TM38323	Preamplifier	PA-02 18-26 GHz	EMC Automation	22/24/27, 15C, 15B
-	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C
TM26497	Antenna	3115	Emco	22/24/27, 15C, 15B
TM37678	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
TM37773	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
TM38845	Receiver	ESIB 26	R&S	22/24/27, 15C, 15B
-	Antenna	HL562	R&S	22/24/27, 15C, 15B
-	Turntable	2188	EMCO	22/24/27, 15C, 15B
-	Turntable controller	2090	EMCO	22/24/27, 15C, 15B
-	RF system panel	TS-RSP	R&S	22/24/27, 15C, 15B
-	RF system panel	TS-RSP	R&S	22/24/27, 15C, 15B
-	Mini mast	2075-2	ETS Lindgren	22/24/27, 15C, 15B
TM38843	Mini mast	2075	Emco	22/24/27, 15C, 15B
TM38842	Antenna mast controller	2090	Emco	22/24/27, 15C, 15B
TM30643	LISN 50 µH	LISN-5-20-2	FCC	22/24/27, 15C, 15B
TM30644	LISN 50 µH	LISN-5-20-2	FCC	22/24/27, 15C, 15B
-	Temperature and humidity logger	175-H2	Testo	22/24/27, 15C, 15B
-	Air pressure and temperature logger	635-2	Testo	22/24/27, 15C, 15B
-	Air pressure sensor	0638-1835	Testo	22/24/27, 15C, 15B

Eq. No	Equipment	Type	Manufacturer	Used in
TM39180	Laser distance meter	Disto Pro	Leica	22/24/27, 15C, 15B
TM37523	Preamplifier	AMF-4D-10M-3G-25-20P	Miteq	22/24/27, 15C, 15B
TM37498	Preamplifier	AMF-5D-020180-26-10P	Miteq	22/24/27, 15C, 15B
TM30599	Semi anechoic chambre	UNKNOWN	TDK	22/24/27, 15C, 15B
TM22638	Power supply	OL63743-901	-	22/24/27, 15C, 15B
TM38066	High pass filter	4HC3000/18000-3-KK	Trilithic	22/24/27, 15C, 15B
-	High pass filter	WHKX 1.6/15G-12SS	Wainwright	22/24/27, 15C, 15B
TM37545	Tunable notch filter	800.0/960.0-0.2/40-8SSK	Wainwright	22
TM26512	Tunable notch filter	WRCD1850/1910-0.2/40-10SSK	Wainwright	24
-	Band reject filter	WRCG1877/1883-1870/1890-40/6EE	Wainwright	24
-	Band reject filter	WRCG1729.4/1735.4-1722.4/1742.4-40/6SS	Wainwright	27
-	Band reject filter	WRCG832/838-825/848-40/5SS	Wainwright	22
TM23892	Controller	G-1000SDX	Yaesu	22/24/27
2001	Bluetooth tester	CBT	R&S	22/24/27, 15C, 15B
6023	Antenna	VUBA 9117	Schwarzbeck	22/24/27, 15C