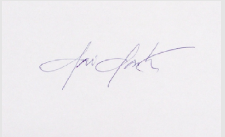
FCC Part 15B Compliance Test Report

Test Report no.:	FCC15B_RM-877_23	**Date of Report:**	15-May-2013
Number of pages:	17	**Customer's Contact person:**	Tero Huhtala
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 68 Sinitaival 5 FIN-33720 TAMPERE, FINLAND Tel. +358 (0) 7180 46800 Fax. +358 (0) 7180 46880
FCC listing no.: **IC recognition no.:**	94436 661AK-1		
Tested devices/ accessories:	**Phone RM-877 / Battery BV-5XW / AC charger AC-60 U / Charging data cable CA-190CD / Headset WH-208 / Laptop IBM Thinkpad T40, AC adapter 02K6543, Printer HP deskjet 1600CC3540A, Parallel cable for printer**		
FCC ID:	PDNB	**IC:**	661R-B
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). 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 cn=Jari Jantunen, o, ou, email=jari.a.jantunen@nokia.com, c=FI 2013.05.15 12:09:34 +03'00'		

Jari Jantunen, System Manager, EMC

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1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	12-Feb-2013
Testing completed	19-Mar-2013
The customer's contact person	Tero Huhtala
Test Plan referred to	T:\Projects\RM-877\TestPlan\RS_testplan_RM-877.xlsm
Notes	-
Document name	T:\Projects\RM-877\EMC\FCC15B_RM-877_23.docx

1.1. EUT and Accessory Information

The EUT is a mobile phone with following features:
GSM/WCDMA/WLAN
The EUT is tested with maximum rated TX power.

Devices under tests

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-877	004402471265557	1000	-	3012.0000.1304.10019	42979
Phone	RM-877	004402471264980	1000	-	3030.0000.1310.00000	42988
Charging data cable	CA-190CD	0730456246628	-	-	-	42977
Headset	WH-208	1411621	-	-	-	42831
Battery	BV-5XW	-	LG 2.3	-	-	42971
AC charger	AC-60U	409049304758020031 2;0675678	B1.0 HW0.2 MW0.2 PV02	-	-	42973
Laptop	IBM Thinkpad T40	99ARTGD	-	-	-	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	PASSED
15.109, a	5.5 (6.6)	Radiated emissions	PASSED

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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

LTE700 Lower (Band 17):

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

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 Laboratory.

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CONTENTS

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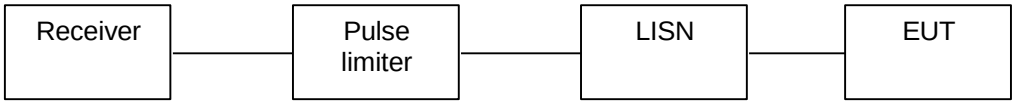
2. AC powerline conducted emissions

(FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-877, DUT 42979
Accessories with DUT numbers	BV-5XW, DUT 42971 ; CA-190CD, DUT 42977 ; WH-208, DUT 42831 ; 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	Continuous data transfer was active between the phone and the computer during the test.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 43 / 100.3
Date of measurements	19-Mar-2013
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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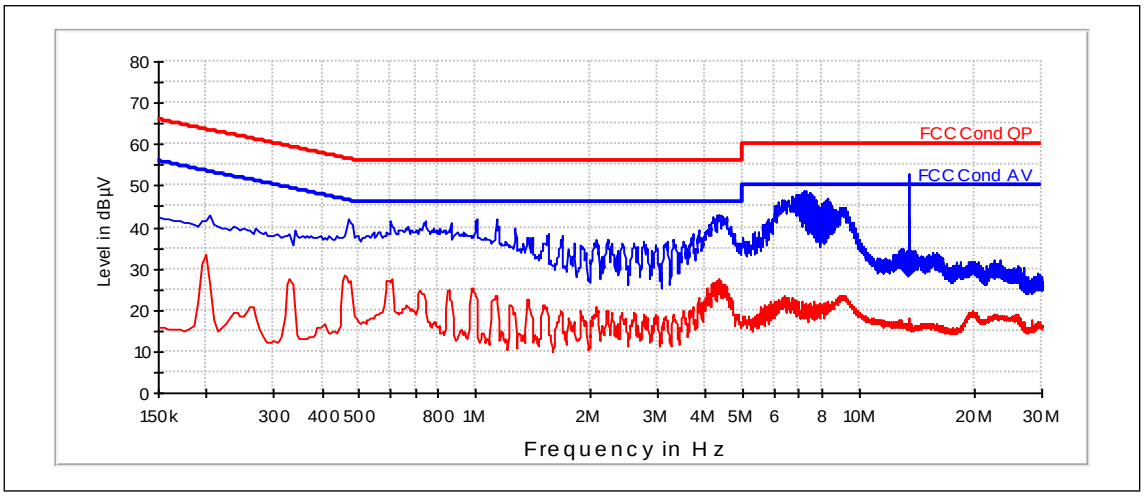
2.3. GSM 1900 Test results

Channel 661 / 1880.0 MHz



QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
13.57	30.23	L1	PASSED

QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
-	-	-	-

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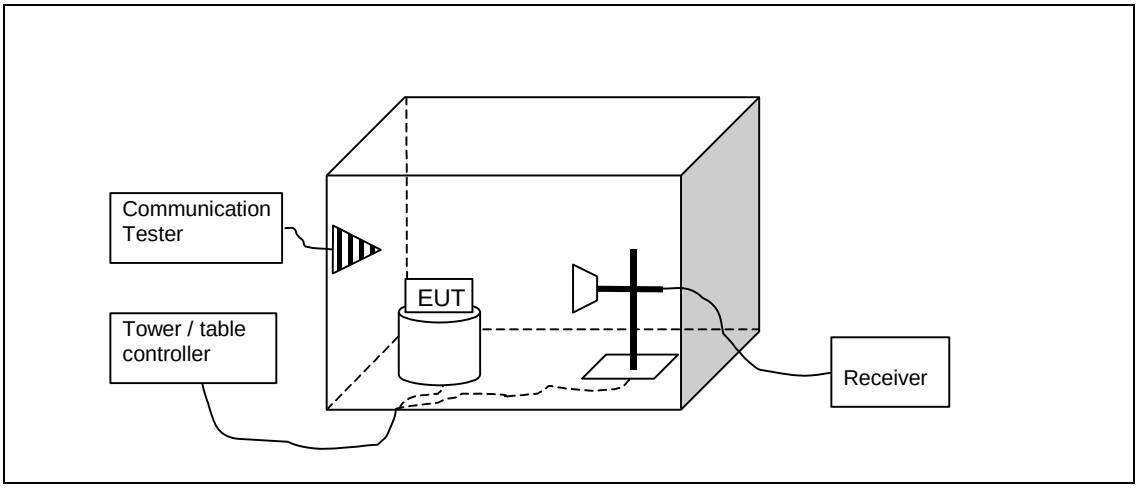
3. Radiated emissions

(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-877, DUT 42979
Accessories with DUT numbers	BV-5XW, DUT 42971 ; CA-190CD, DUT 42977 ; WH-208, DUT 42831 ; 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	datasetup
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	27 / 42 / 99.4
Date of measurements	07-Mar-2013
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.

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The measurement results are obtained as described below:

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

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	-	-
1000 - 3000	-	50	70
Above 3000	-	54	74

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3.3. GSM1900 test results

RX mode, channel 512 / 1930.2 MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3861.8	40.59	107.053	44.03	-3.44	33.4	74	PASSED
7720.8	44.97	177.296	42.59	2.38	29	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3861.8	27.73	24.344	31.17	-3.44	26.3	54	PASSED
7720.8	32.02	39.902	29.64	2.38	22	54	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	
39.329	30.16	32.203	59.86	-29.7	VERTICAL	PASSED
88.485	28.35	26.143	63.67	-35.32	VERTICAL	PASSED
99.35	23.94	15.743	58.91	-34.97	VERTICAL	PASSED
114.529	29.49	29.816	63.8	-34.31	VERTICAL	PASSED
140.888	33.44	46.968	67.81	-34.37	VERTICAL	PASSED
143.156	37.75	77.188	72.21	-34.46	VERTICAL	PASSED
200.19	33.86	49.34	70.84	-36.98	HORIZONTAL	PASSED
226.092	28.03	25.191	63.9	-35.87	VERTICAL	PASSED
399.511	19.32	9.244	50.46	-31.14	HORIZONTAL	PASSED
801.012	38.14	80.751	62.41	-24.27	VERTICAL	PASSED

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
7825.051	45.5	188.408	42.72	2.78	28.5	74	PASSED
7837.278	45.5	188.3	42.73	2.78	28.5	74	PASSED
7852.908	45.37	185.631	42.59	2.78	28.6	74	PASSED
7864.326	45.46	187.435	42.59	2.87	28.5	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
7825.051	32.48	42.078	29.7	2.78	21.5	54	PASSED
7837.278	32.53	42.335	29.76	2.78	21.5	54	PASSED
7852.908	32.71	43.187	29.93	2.78	21.3	54	PASSED
7864.326	32.78	43.536	29.91	2.87	21.2	54	PASSED

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RX mode, channel 810 / 1989.8 MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3980	40.86	110.344	44.04	-3.18	33.1	74	PASSED
7961.9	45.54	189.256	42.59	2.95	28.5	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3980	27.61	24.027	30.79	-3.18	26.4	54	PASSED
7961.9	32.77	43.516	29.82	2.95	21.2	54	PASSED

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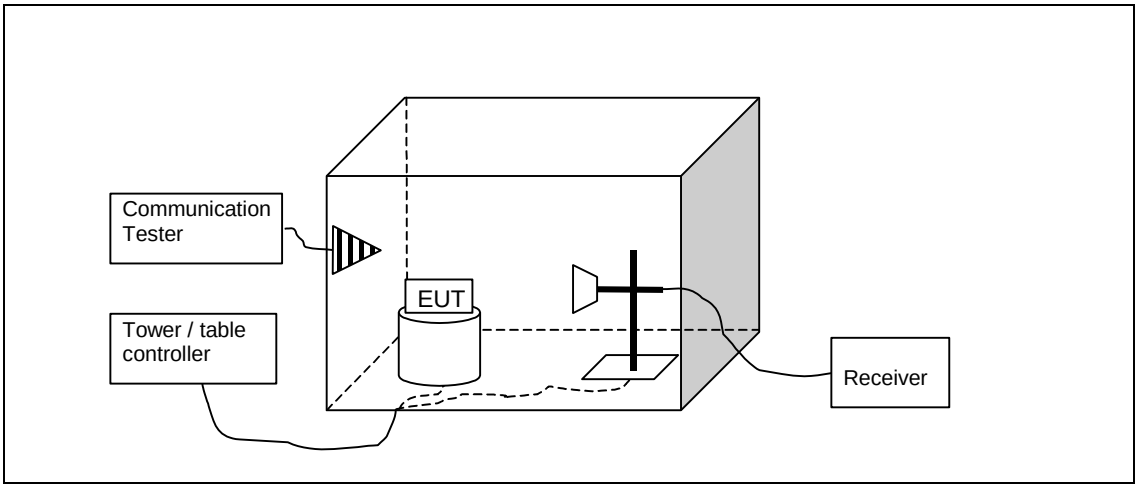
4. Radiated emissions

(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-877, DUT 42988
Accessories with DUT numbers	BV-5XW, DUT 42971 ; CA-190CD, DUT 42977 ; AC-60U, DUT 42973 ; WH-208, DUT 42831
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	26 / 43 / 99.8
Date of measurements	14-Mar-2013
Measured by	Jari Jantunen

4.1.1 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.

The measurement results are obtained as described below:

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

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)

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Frequency range [MHz]	Quasi peak limit [dBµV/m]	Average limit [dBµV/m]	Peak limit [dBµV/m]
30 - 230	40	-	-
230 – 1000	47	-	-
1000 - 3000	-	50	70
Above 3000	-	54	74

4.3. GSM850 + FM radio test results

RX mode, channel 128 / 869.2 MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3478.3	39.52	94.667	44.16	-4.64	34.5	74	PASSED
6954.9	47.53	237.876	46.97	0.56	26.5	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3478.3	26.51	21.147	31.15	-4.64	27.5	54	PASSED
6954.9	34.73	54.482	34.17	0.56	19.3	54	PASSED

RX mode, channel 190 / 881.6 MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
32.986	19.65	9.605	46.73	-27.08	20.4	40	PASSED
51.963	6.34	2.074	42.77	-36.43	33.7	40	PASSED

RX mode, channel 190 / 881.6 MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
7819.743	45.86	196.404	43.11	2.76	28.1	74	PASSED
7834.572	45.09	179.721	42.33	2.76	28.9	74	PASSED
7841.782	45.62	190.963	42.85	2.77	28.4	74	PASSED
7846.991	45.87	196.585	43.11	2.76	28.1	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
7819.743	32.63	42.781	29.88	2.76	21.4	54	PASSED
7834.572	32.62	42.756	29.86	2.76	21.4	54	PASSED
7841.782	32.67	43.008	29.9	2.77	21.3	54	PASSED
7846.991	32.72	43.266	29.96	2.76	21.3	54	PASSED

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RX mode, channel 251 / 893.8 MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3575.4	40.29	103.431	44.96	-4.67	33.7	74	PASSED
7151.7	43.96	157.761	42.46	1.5	30	74	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Margin	Limit [dBµV/m]	Results
3575.4	26.62	21.419	31.29	-4.67	27.4	54	PASSED
7151.7	31.3	36.707	29.8	1.5	22.7	54	PASSED

4.4. WCDMA 1700 (Band IV) + GPS receiver active Test results

Channel 1312 / 1712.4 MHz

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
4224.1	40.27	103.205	43.24	-2.97	VERTICAL	PASSED
6335.5	45.81	195.254	46.34	-0.53	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
4224.1	27.67	24.191	30.64	-2.97	VERTICAL	PASSED
6335.5	32.7	43.127	33.23	-0.53	VERTICAL	PASSED

Channel 1450 / 1740.0 MHz

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
32.988	18.38	8.299	45.46	-27.08	VERTICAL	PASSED
51.583	17.38	7.397	53.57	-36.19	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
7819.839	45.61	190.656	42.85	2.76	HORIZONTAL	PASSED
7841.179	45.75	193.821	42.98	2.77	VERTICAL	PASSED
7849.899	45.31	184.31	42.59	2.72	HORIZONTAL	PASSED
7859.118	46.13	202.535	43.37	2.76	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
7819.839	32.57	42.506	29.81	2.76	HORIZONTAL	PASSED
7841.179	32.63	42.815	29.86	2.77	VERTICAL	PASSED
7849.899	32.72	43.241	30	2.72	HORIZONTAL	PASSED
7859.118	32.82	43.742	30.06	2.76	HORIZONTAL	PASSED

Channel 1513 / 1752.6 MHz

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
4305.9	39.97	99.609	43.24	-3.27	HORIZONTAL	PASSED
6456.7	46.21	204.291	46.85	-0.64	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
4305.9	27.14	22.743	30.41	-3.27	HORIZONTAL	PASSED
6456.7	33.45	47.049	34.09	-0.64	VERTICAL	PASSED

4.5. LTE700 Lower (Band 17) + GPS receiver active Test results

RX mode, channel 5755 / 736.5 MHz

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1471.8	34.81	55.017	52.76	-17.95	VERTICAL	PASSED
2211.5	39.37	92.972	50.89	-11.52	VERTICAL	PASSED
3000.6	39.66	96.106	44.44	-4.78	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1471.8	22.04	12.642	39.99	-17.95	VERTICAL	PASSED
2211.5	26.16	20.317	37.68	-11.52	VERTICAL	PASSED
3000.6	27.1	22.633	31.88	-4.78	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1409.622	33.83	49.159	52.5	-18.67	HORIZONTAL	PASSED
1420.04	34.96	55.956	53.52	-18.56	HORIZONTAL	PASSED
2822.044	42.72	136.71	49.64	-6.92	HORIZONTAL	PASSED
2835.274	46.64	214.833	53.37	-6.73	HORIZONTAL	PASSED
2842.685	42.93	140.088	49.41	-6.48	HORIZONTAL	PASSED
2857.713	43.53	150.072	49.86	-6.33	VERTICAL	PASSED
2890.279	49.84	310.313	55.73	-5.89	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1409.622	21.27	11.568	39.94	-18.67	HORIZONTAL	PASSED
1420.04	21.51	11.892	40.07	-18.56	HORIZONTAL	PASSED
2822.044	30.26	32.587	37.18	-6.92	HORIZONTAL	PASSED
2835.274	30.58	33.81	37.31	-6.73	HORIZONTAL	PASSED
2842.685	30.59	33.834	37.07	-6.48	HORIZONTAL	PASSED
2857.713	30.8	34.666	37.13	-6.33	VERTICAL	PASSED
2890.279	31.14	36.074	37.03	-5.89	HORIZONTAL	PASSED

RX mode, channel 5825 / 743.5 MHz

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1489	35.16	57.306	53.14	-17.98	VERTICAL	PASSED
2229.6	40.34	103.968	51.5	-11.16	VERTICAL	PASSED

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

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Results
1489	22.38	13.154	40.36	-17.98	VERTICAL	PASSED
2229.6	27.09	22.61	38.25	-11.16	VERTICAL	PASSED

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5. Test Equipment

5.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM38112	Power supply	6632A	Agilent	22/24/27, 15C, 15E
TM38631	Signal Generator	83640L	Agilent	22/24/27, 15C, 15E, 15B
TM37678	Communication Tester	CMU200	R&S	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, 15E
TM23007	Oscilloscope	TDS684B	Tektronix	15E
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	22/24/27
2058	Receiver	ESPC	R&S	15C, 15B
2001	Bluetooth tester	CBT	R&S	15C, 15B
2002	Communication Tester	CMU200	R&S	22/24/27, 15C
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
2019	Power splitter	ZN2PD-9G-S+	Mini-Circuits	15E
2020	Power splitter	ZN2PD-9G-S+	Mini-Circuits	15E
2021	Communication Tester	CMW500	R&S	22/24/27
2023	Spectrum Analyzer	ESMI-RF	R&S	15B/15C
2024	Analyzer display unit	ESAI-D	R&S	15B/15C

5.2. 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, 15E, 15B
-	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C
TM26497	Antenna	3115	Emco	22/24/27, 15C, 15B
TM37773	Communication Tester	CMU200	R&S	22/24/27, 15B
TM38845	Receiver	ESIB 26	R&S	22/24/27, 15C, 15E, 15B
-	Antenna	HL562	R&S	22/24/27, 15C, 15E, 15B
-	Turntable	2188	EMCO	22/24/27, 15C, 15E, 15B
-	Turntable controller	2090	EMCO	22/24/27, 15C, 15E, 15B
-	RF system panel	TS-RSP	R&S	22/24/27, 15C, 15E, 15B
-	RF system panel	TS-RSP	R&S	22/24/27, 15C, 15E, 15B
-	Mini mast	2075-2	ETS Lindgren	22/24/27, 15C, 15B

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Eq. No	Equipment	Type	Manufacturer	Used in
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
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, 15E, 15B
TM38066	High pass filter	WHKX3.0/18G-12SS	Wainwright	22/24/27, 15C, 15E, 15B
2028	High pass filter	WHKX 1.0/15G-12SS	Wainwright	22/24/27, 15C,15E, 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	15C, 15B
6023	Antenna	VUBA 9117	Schwarzbeck	22/24/27
2021	Communication Tester	CMW500	R&S	22/24/27
2025	Antenna	HFH2-Z2	R&S	15C

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