

FCC Part 15B Compliance Test Report

Test Report no.:	FCC15B_RM-1072_20.docx	Date of Report:	28-Jan-2015
Number of pages:	19	Customer's Contact person:	Juha Paukku
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FCC listing no.:	94436		
IC recognition no.:	661AK-1		
Tested devices/ accessories:	Phone RM-1072 / Battery BV-T5C / AC charger AC-20E / Headset WH-108 / Laptop Asus T100TA / Charger AC-50E / USB Cable CA-190CD		
FCC ID:	PYARM-1072	IC:	-
Supplement reports:	-		
Testing has been carried out in accordance with:	CFR 47, FCC rules Part 15 Subpart B, ANSI C63.4 (2003), CISPR 22 and IC standards, RSS-GEN (Issue 3, December 2010), RSS-132 (Issue 3, January 2013), RSS-133 (Issue 6, January 2013), RSS-199 (Issue 2, October 2014). 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 Microsoft.		
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:			

Timo Raiskio, Specialist, EMC & SAR

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	17-Nov-2014
Testing completed	12-Dec-2014
The customer's contact person	Juha Paukku
Test Plan referred to	T:\Projects\RM-1072\TestPlan\RS_testplan_RM-1072.xlsm
Notes	-
Document name	T:\Projects\RM-1072\EMC\FCC15B_RM-1072_20.docx

1.1. EUT and Accessory Information

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

Devices under tests

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-1072	004402740484534	1500	-	02148.00000.14431.29000	43238
Battery	BV-T5C	-	LG HW3.0	-	-	43235
AC charger	AC-20E	4090494156670711801;0675628	-	-	-	43229
Headset	WH-108	4235VFA	-	-	-	43230
Laptop	Asus T100TA-DK024H	E6NOBCO54692236	-	-	-	43219
Charger	AC-50E	4090492023260400093	-	-	-	42768
USB Cable	CA-190CD	-	-	-	-	42770
USB Cable	CA-190CD	-	-	-	-	43038

1.2. Summary of Test Results

GSM 850:

Section in CFR 47	Section in RSS-GEN	Name of the test	Result
15.107, a	7.2.4	AC powerline conducted emissions	NP
15.109, a	6.1	Radiated emissions	PASSED

GSM 1900:

Section in CFR 47	Section in RSS-GEN	Name of the test	Result
15.107, a	7.2.4	AC powerline conducted emissions	PASSED
15.109, a	6.1	Radiated emissions	PASSED

LTE7:

Section in CFR 47	Section in RSS-GEN	Name of the test	Result
15.107, a	7.2.4	AC powerline conducted emissions	NP
15.109, a	6.1	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 Microsoft Laboratory.

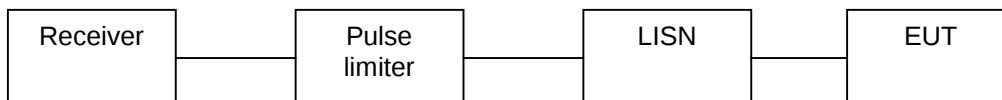
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2. AC powerline conducted emissions (FCC §15.107, a, RSS-GEN, section 7.2.4)

EUT with DUT number	RM-1072, DUT 43238
Accessories with DUT numbers	BV-T5C, DUT 43235 ; WH-108, DUT 43230 ; Asus T100TA, DUT 43219 ; AC-50E, DUT 42768 ; CA-190CD, DUT 42770 ; CA-190CD, DUT 43038
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23 / 40 / 99.4
Date of measurements	12-Dec-2014
Measured by	Timo Raiskio

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:

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

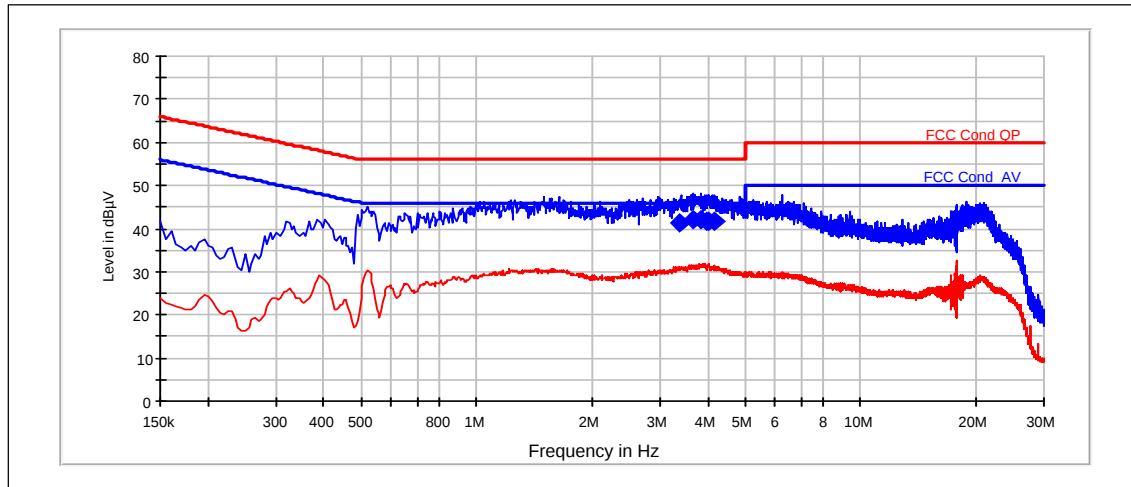
Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

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 1900 Test results

Channel 661 / 1880.0 MHz



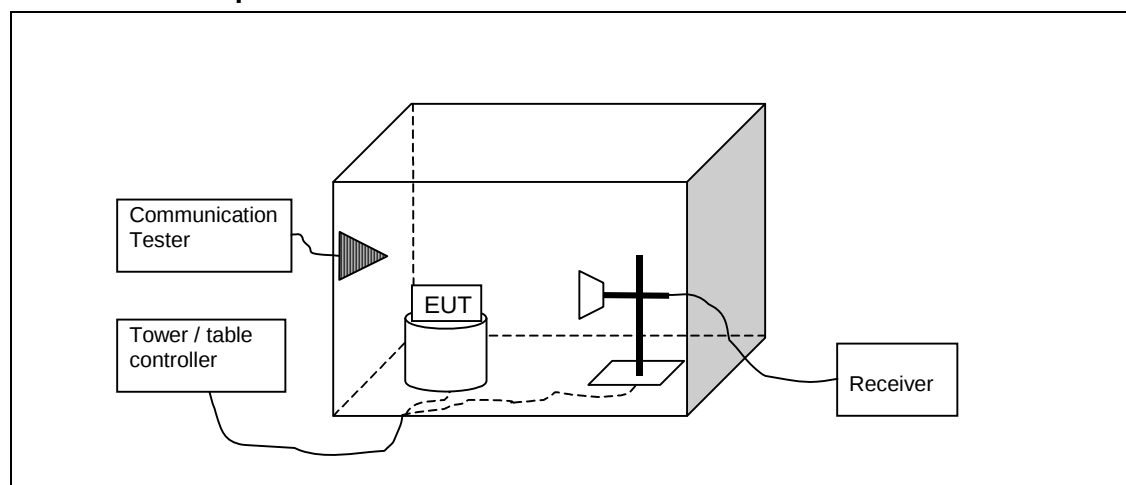
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
3.375	41.39	L1	PASSED
3.645	41.97	L1	PASSED
3.83	41.98	L1	PASSED
3.96	41.53	L1	PASSED
4.04	41.83	L1	PASSED
4.175	41.79	L1	PASSED

3. Radiated emissions (FCC 15.109, a, RSS-132 6.1, RSS-133 6.1, RSS-199 6.1)

EUT with DUT number	RM-1072, DUT 43238
Accessories with DUT numbers	BV-T5C, DUT 43235 ; AC-20E, DUT 43229 ; WH-108, DUT 43230
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20 / 38 / 101.9
Date of measurements	05-Dec-2014
Measured by	Timo Raisio

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:

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

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

3.3. GSM 850 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]	Limit [dBμV/m]	Margin	Results
3478.2	37.7	76.736	45.5	-7.8	74	36.3	PASSED
6951.9	46.77	218.022	47.37	-0.6	74	27.23	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3478.2	24.66	17.1	32.46	-7.8	54	29.34	PASSED
6951.9	33.99	50.061	34.59	-0.6	54	20.01	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]	Limit [dBμV/m]	Margin	Results
32.995	22.07	12.691	50.17	-28.1	40	17.93	PASSED
38.917	22.24	12.942	52.74	-30.5	40	17.76	PASSED
44.699	21	11.22	54.3	-33.3	40	19	PASSED
73.597	23.73	15.364	62.73	-39	40	16.27	PASSED
74.573	22.18	12.853	61.08	-38.9	40	17.82	PASSED
109.228	14.96	5.598	50.66	-35.7	40	25.04	PASSED

RX mode, channel 190 / 881.6 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7824.746	46.28	206.063	43.38	2.9	74	27.72	PASSED
7840.583	45.78	194.536	42.88	2.9	74	28.22	PASSED
7855.71	45.93	197.925	42.93	3	74	28.07	PASSED
7861.223	46.1	201.837	43.1	3	74	27.9	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7824.746	32.92	44.259	30.02	2.9	54	21.08	PASSED
7840.583	32.96	44.463	30.06	2.9	54	21.04	PASSED
7855.71	33	44.668	30	3	54	21	PASSED
7861.223	33.13	45.342	30.13	3	54	20.87	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]	Limit [dBμV/m]	Margin	Results
3577	37.47	74.731	45.47	-8	74	36.53	PASSED
7150.2	45.19	181.761	44.69	0.5	74	28.81	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3577	24.56	16.904	32.56	-8	54	29.44	PASSED
7150.2	31.43	37.282	30.93	0.5	54	22.57	PASSED

3.4. GSM 1900 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]	Limit [dBμV/m]	Margin	Results
3860	38.13	80.631	45.33	-7.2	74	35.87	PASSED
7718.8	45.1	179.887	42.7	2.4	74	28.9	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3860	24.99	17.762	32.19	-7.2	54	29.01	PASSED
7718.8	32.18	40.644	29.78	2.4	54	21.82	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
33.017	22.94	14.028	51.04	-28.1	40	17.06	PASSED
38.947	21.48	11.858	51.98	-30.5	40	18.52	PASSED
44.399	21.56	11.967	54.66	-33.1	40	18.44	PASSED
73.637	22.8	13.804	61.8	-39	40	17.2	PASSED
74.132	20.91	11.105	59.81	-38.9	40	19.09	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
1960.019	49.81	309.386	63.81	-14	70	20.19	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
1960.019	47.05	225.165	61.05	-14	50	2.95	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7818.74	45.95	198.381	43.05	2.9	74	28.05	PASSED
7823.446	45.63	191.205	42.73	2.9	74	28.37	PASSED
7857.719	46.07	201.141	43.07	3	74	27.93	PASSED
7864.029	45.63	191.205	42.53	3.1	74	28.37	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7818.74	32.84	43.853	29.94	2.9	54	21.16	PASSED
7823.446	32.93	44.31	30.03	2.9	54	21.07	PASSED
7857.719	33.05	44.926	30.05	3	54	20.95	PASSED
7864.029	33.13	45.342	30.03	3.1	54	20.87	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3922	38.82	87.297	45.72	-6.9	74	35.18	PASSED
7840.1	45.88	196.789	42.98	2.9	74	28.12	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3922	25.27	18.344	32.17	-6.9	54	28.73	PASSED
7840.1	32.99	44.617	30.09	2.9	54	21.01	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]	Limit [dBμV/m]	Margin	Results
3978.7	37.99	79.341	44.59	-6.6	74	36.01	PASSED
7960	46.18	203.704	42.98	3.2	74	27.82	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3978.7	25.37	18.557	31.97	-6.6	54	28.63	PASSED
7960	33.2	45.709	30	3.2	54	20.8	PASSED

3.5. LTE7 test results

RX mode, channel 2775 / 2622.5 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5245.6	41.35	116.815	45.35	-4	74	32.65	PASSED
7869.1	46.73	217.02	43.63	3.1	74	27.27	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5245.6	28.37	26.212	32.37	-4	54	25.63	PASSED
7869.1	33.21	45.761	30.11	3.1	54	20.79	PASSED

RX mode, channel 3100 / 2655 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
32.726	21.91	12.459	49.91	-28	40	18.09	PASSED
38.918	25.21	18.218	55.71	-30.5	40	14.79	PASSED
44.238	21.22	11.508	54.22	-33	40	18.78	PASSED
73.487	23.94	15.74	62.94	-39	40	16.06	PASSED
74.503	22.86	13.9	61.76	-38.9	40	17.14	PASSED
910.942	15.39	5.882	38.29	-22.9	47	31.61	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
2656.113	55.39	588.166	63.39	-8	70	14.61	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
2656.113	40.33	103.872	48.33	-8	50	9.67	PASSED

RX mode, channel 3100 / 2655 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7820.539	45.83	195.659	42.93	2.9	74	28.17	PASSED
7836.171	45.87	196.562	42.97	2.9	74	28.13	PASSED
7840.679	46.13	202.535	43.23	2.9	74	27.87	PASSED
7854.908	46.05	200.678	43.05	3	74	27.95	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7820.539	32.9	44.157	30	2.9	54	21.1	PASSED
7836.171	33.03	44.823	30.13	2.9	54	20.97	PASSED
7840.679	33	44.668	30.1	2.9	54	21	PASSED
7854.908	33.05	44.926	30.05	3	54	20.95	PASSED

RX mode, channel 3100 / 2655 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5311.2	40.49	105.803	44.59	-4.1	74	33.51	PASSED
7965.8	46.1	201.837	42.8	3.3	74	27.9	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5311.2	27.87	24.746	31.97	-4.1	54	26.13	PASSED
7965.8	33.23	45.867	29.93	3.3	54	20.77	PASSED

RX mode, channel 3425 / 2687.5 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5376.8	41.57	119.812	45.57	-4	74	32.43	PASSED
8063.4	46.58	213.304	42.98	3.6	74	27.42	PASSED

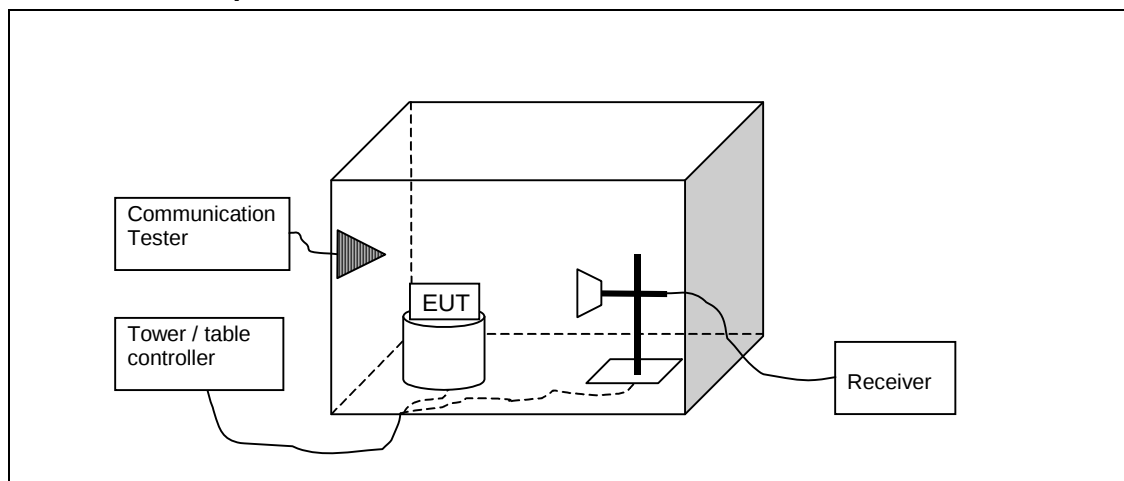
Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5376.8	28.48	26.546	32.48	-4	54	25.52	PASSED
8063.4	33.94	49.774	30.34	3.6	54	20.06	PASSED

4. Radiated emissions (FCC 15.109, a, RSS-132 6.1, RSS-133 6.1, RSS-199 6.1)

EUT with DUT number	RM-1072, DUT 43238
Accessories with DUT numbers	BV-T5C, DUT 43235 ; WH-108, DUT 43230 ; Asus T100TA, DUT 43219 ; AC-50E, DUT 42768 ; CA-190CD, DUT 42770 ; CA-190CD, DUT 43038
Operation Voltage [V] / [Hz]	115 / 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20 / 38 / 101.9
Date of measurements	05-Dec-2014
Measured by	Timo Raisio

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)

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. GSM 1900 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]	Limit [dBμV/m]	Margin	Results
3859.6	37.75	77.179	44.95	-7.2	74	36.25	PASSED
7718.9	45.59	190.327	43.19	2.4	74	28.41	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3859.6	25	17.783	32.2	-7.2	54	29	PASSED
7718.9	32.21	40.785	29.81	2.4	54	21.79	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
179.98	13.91	4.96	50.91	-37	40	26.09	PASSED
194.79	4.89	1.756	42.89	-38	40	35.11	PASSED
210.01	6.55	2.126	43.85	-37.3	40	33.45	PASSED
223.731	7.85	2.469	44.25	-36.4	40	32.15	PASSED
240.01	45.54	189.234	81.34	-35.8	47	1.46	PASSED
255.079	10.36	3.296	46.06	-35.7	47	36.64	PASSED
479.99	38.14	80.724	67.34	-29.2	47	8.86	PASSED
720.02	26.42	20.941	51.42	-25	47	20.58	PASSED
735	34.87	55.399	59.67	-24.8	47	12.13	PASSED
910.922	29.94	31.405	52.84	-22.9	47	17.06	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7817.234	45.71	192.975	42.81	2.9	74	28.29	PASSED
7824.248	46.28	206.063	43.38	2.9	74	27.72	PASSED
7833.569	45.64	191.426	42.74	2.9	74	28.36	PASSED
7842.484	45.51	188.582	42.61	2.9	74	28.49	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
7817.234	32.81	43.702	29.91	2.9	54	21.19	PASSED
7824.248	32.98	44.566	30.08	2.9	54	21.02	PASSED
7833.569	32.94	44.361	30.04	2.9	54	21.06	PASSED
7842.484	32.89	44.106	29.99	2.9	54	21.11	PASSED

RX mode, channel 661 / 1960.0 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3920.5	38.19	81.19	45.09	-6.9	74	35.81	PASSED
7838.1	45.88	196.789	42.98	2.9	74	28.12	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3920.5	25.26	18.323	32.16	-6.9	54	28.74	PASSED
7838.1	33.07	45.03	30.17	2.9	54	20.93	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]	Limit [dBμV/m]	Margin	Results
3980.2	39.14	90.573	45.74	-6.6	74	34.86	PASSED
7958.5	45.94	198.153	42.74	3.2	74	28.06	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
3980.2	25.36	18.535	31.96	-6.6	54	28.64	PASSED
7958.5	33.18	45.604	29.98	3.2	54	20.82	PASSED

5. Test Equipment

5.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM38112	Power supply	6632A	Agilent	22/24/27, 15C, 15E
TM38114	Power supply	6632A	Agilent	22/24/27, 15C, 15E
TM37773	Communication Tester	CMU200	R&S	22/24/27, 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
2001	Bluetooth tester	CBT	R&S	15C, 15B
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
2022	Communication Tester	CMU200	R&S	22/24/27
2023	Spectrum Analyzer	ESMI-RF	R&S	15B/15C
2024	Analyzer display unit	ESAI-D	R&S	15B/15C
2026	Signal Generator	SMF 100A	R&S	22/24/27, 15C, 15E, 15B
-	Bluetooth tester	CBT	R&S	15C, 15B

5.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
-	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C
TM37678	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	OSP130	R&S	22/24/27, 15C, 15E, 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

Eq. No	Equipment	Type	Manufacturer	Used in
TM30644	LISN 50 μ H	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 chamber	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
TM23892	Controller	G-1000SDX	Yaesu	22/24/27, 15C, 15E
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
2026	Signal Generator	SMF 100A	R&S	22/24/27, 15C, 15E, 15B
2052	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C, 15B, 15E
-	Antenna	QSH18S20	Q-Par	22/24/27, 15C, 15B, 15E
-	Antenna	QSH20S20	Q-Par	22/24/27, 15C, 15B, 15E
-	Antenna	QSH20S20	Q-Par	22/24/27, 15C, 15B, 15E
-	Bluetooth tester	CBT	R&S	15C, 15B