

FCC Part 15C Compliance Test Report

Test Report no.:	FCC15CWLAN_RM-1116_07.docx	Date of Report:	9-Sep-2015
Number of pages:	20	Customer's Contact person:	Tia Melava
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FCC listing no.:	94436		
IC recognition no.:	661AK-1		
Tested devices/ accessories:	Phone RM-1116 / Battery BV-T4D / Charger AC-100E / Headset WH-308		
FCC ID:	PYARM-1116	IC:	661X-RM1116
Supplement reports:	-		
Testing has been carried out in accordance with:	CFR 47, FCC rules Part 15 Subpart C, ANSI C63.4 (2014), DTS procedures KDB 558074, IC standards, 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 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:			

Hannu Söderholm, Engineer, EMC

1. Summary for FCC Part 15C Compliance Test Report

Date of receipt	04-Sep-2015
Testing completed	8-Sep-2015
The customer's contact person	Tia Melava
Test Plan referred to	T:\Projects\RM-1116\TestPlan\RS_TestPlan_RM-1116.xlsm
Notes	-
Document name	T:\Projects\RM-1116\EMC\FCC15CWLAN_RM-1116_07.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-1116	351832070006920	3030	-	010075.00000.15361.59000	400045
Battery	BV-T4D	4955405174010300359;0670771	LG v3.0	-	-	400025
Charger	AC-100E	40904951255803017590675758	0.3	-	-	400013
Headset	WH-308	-	-	-	-	400014

1.2. Summary of Test Results

WLAN:

Section in CFR 47	Section in RSS-GEN or RSS-210	Name of the test	Result
15.247(b)(1)	A8.4(4)	Conducted peak output power	-
15.247(d), 15.205(b)	A8.5	Band edge compliance of RF emissions	PASSED
15.247(d)	A8.5	Spurious RF conducted emissions	-
15.247(d), 15.209	A8.5	Spurious radiated emissions	PASSED
15.207	7.2.4	AC powerline conducted emissions	-
15.247(a)(2)	A8.2(a)	6dB(bandwidth)	-
15.247(e)	A8.2(b)	Power spectral density	-

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.

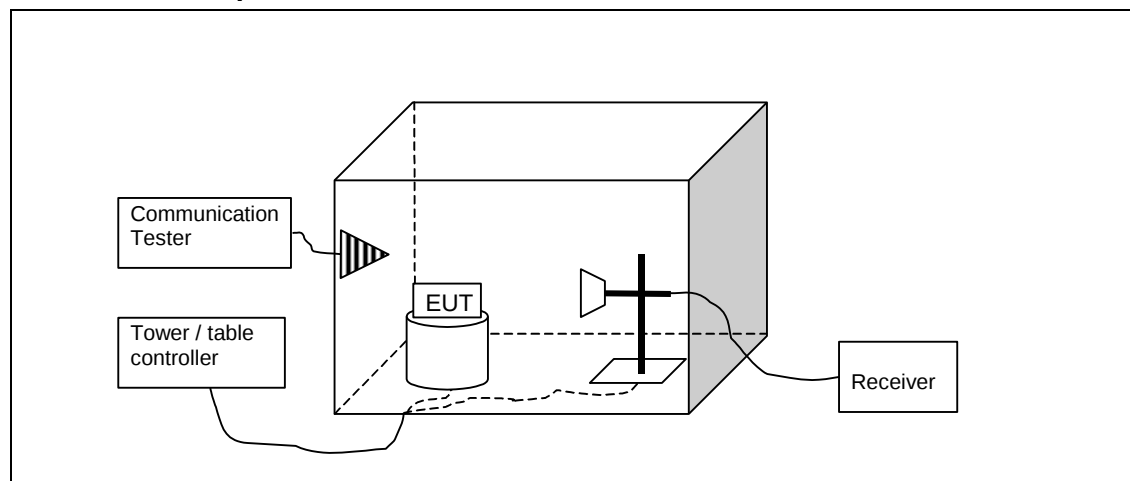
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2. Band edge compliance of RF emissions (FCC 15.247(d), 15.205(b), RSS-210 A8.5)

EUT with DUT number	RM-1116, DUT 400045
Accessories with DUT numbers	BV-T4D, DUT 400025 ; AC-100E, DUT 400013 ; WH-308, DUT 400014
Operation Voltage [V] / [Hz]	115 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 50 / 101
Date of measurements	08-Sep-2015
Measured by	Hannu Söderholm

2.1.1 Test setup



2.2. Test method and limit

The measurement is made according to DTS procedures KDB 558074 and IC standard RSS-210.

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 ($A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$).

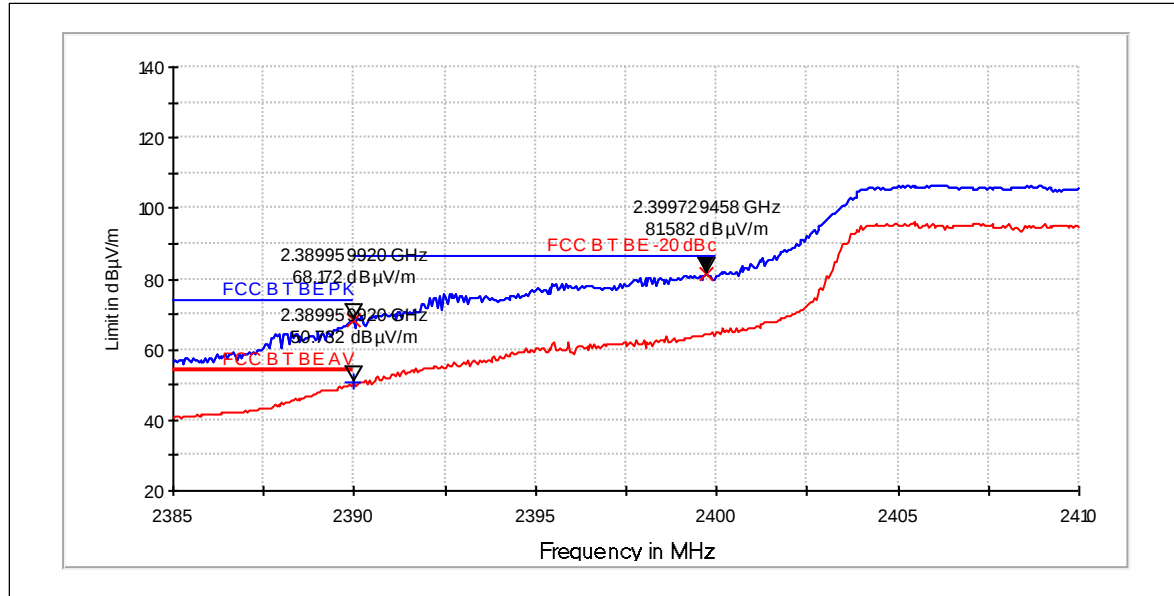
Limits for band edge compliance of RF emissions measurements (3 m measurement distance)

Frequency range [MHz]	Limit
Below 2390 and above 2483.5	54 dBuV/m (avg) and 74 dBuV/m (pk)
2390 - 2400	-20 dBc (pk)

2.3. WLAN test results

2.3.1 802.11g, 16QAM modulation, 24 Mbps data rate.

Channel 1 / 2412 MHz



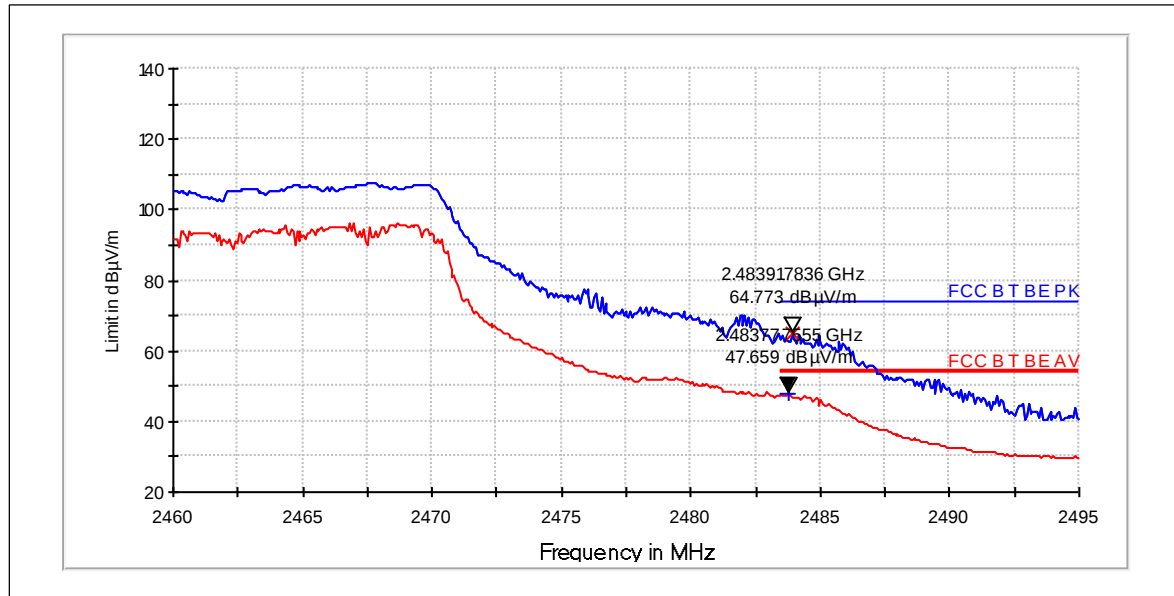
Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	68.17	2562.123	77.96	-9.79	PASSED
2400	81.58	11997.755	91.37	-9.79	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	50.73	344.033	60.52	-9.79	PASSED

Channel 11 / 2462 MHz



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

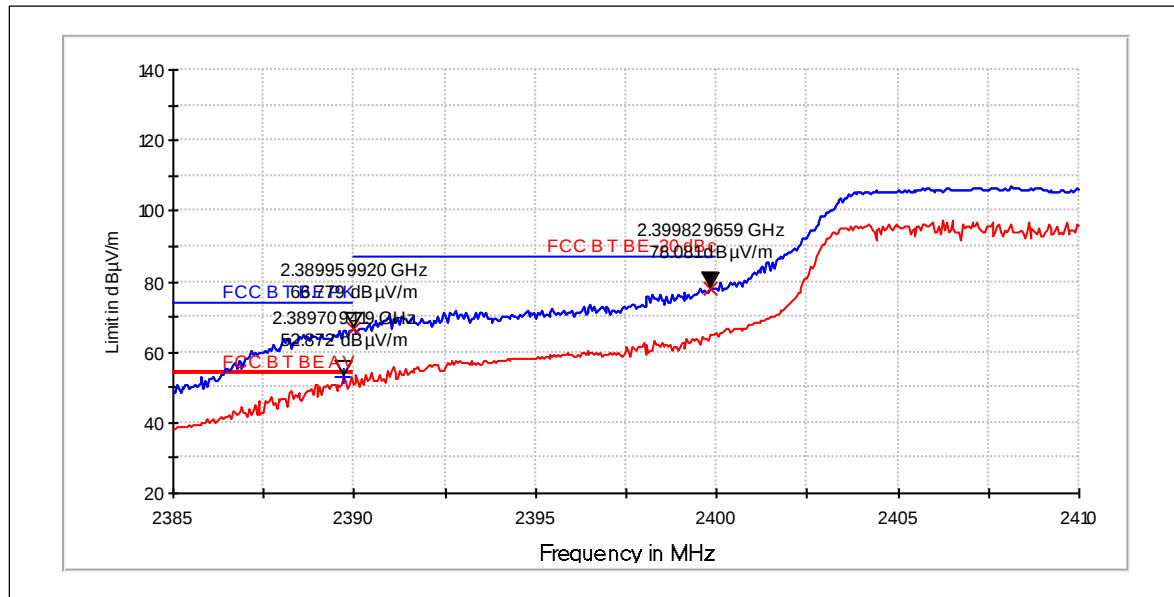
Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	64.77	1732.407	74.6	-9.83	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	47.66	241.518	57.49	-9.83	PASSED

2.3.2 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 1 / 2412 MHz



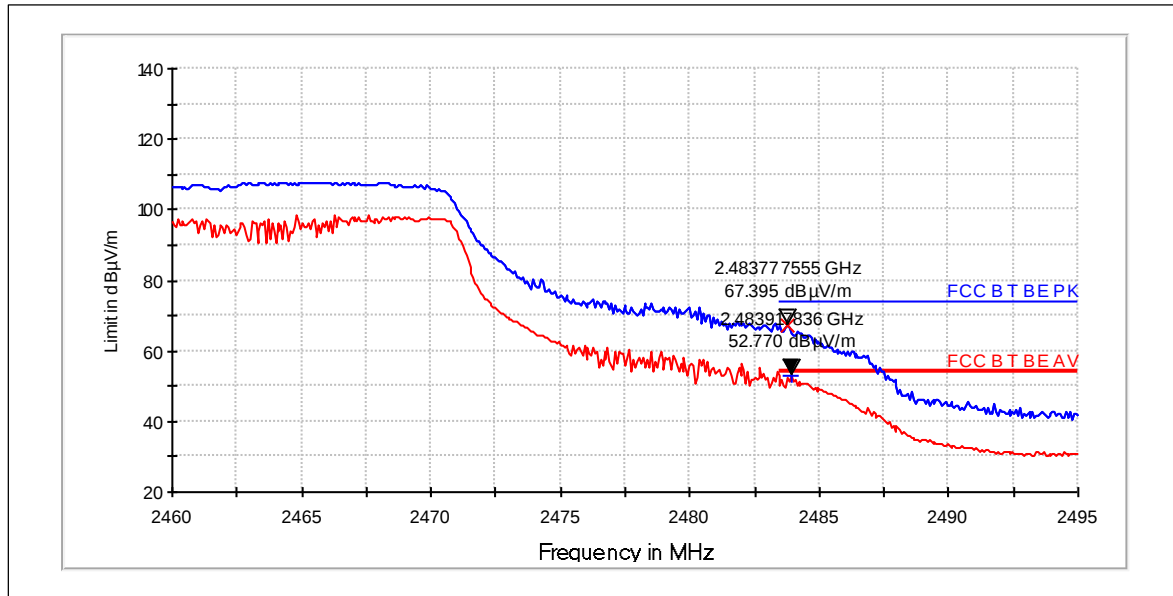
Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	66.78	2182.479	76.57	-9.79	PASSED
2400	78.08	8017.704	87.87	-9.79	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	52.87	440.149	62.66	-9.79	PASSED

Channel 11 / 2462 MHz



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

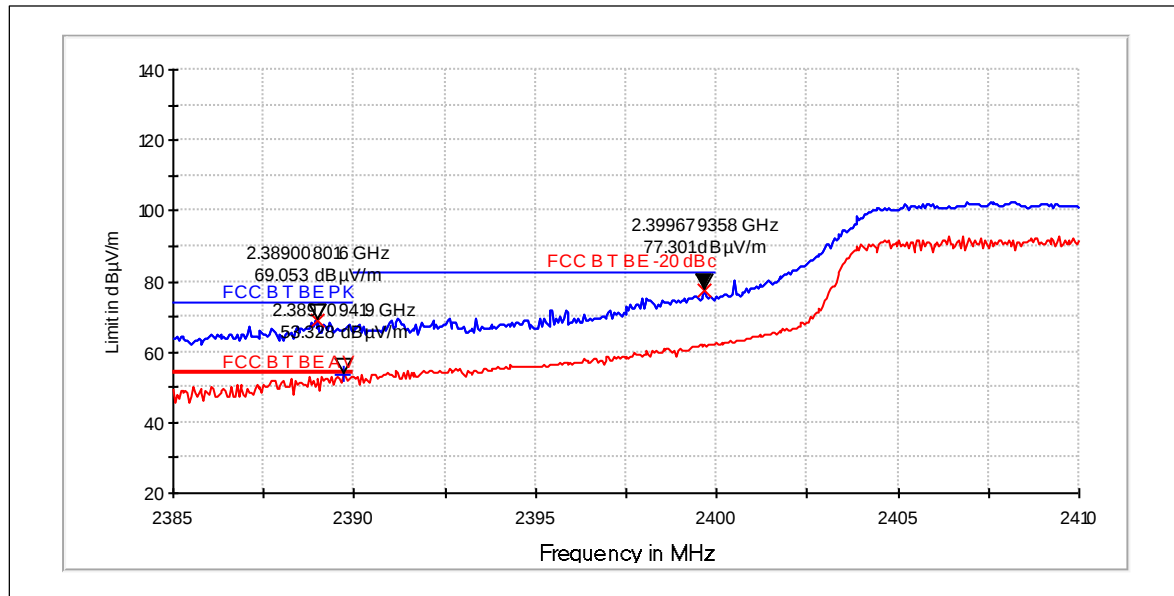
Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	67.4	2342.88	77.23	-9.83	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	52.77	435.011	62.6	-9.83	PASSED

2.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 1-5 / 2422MHz



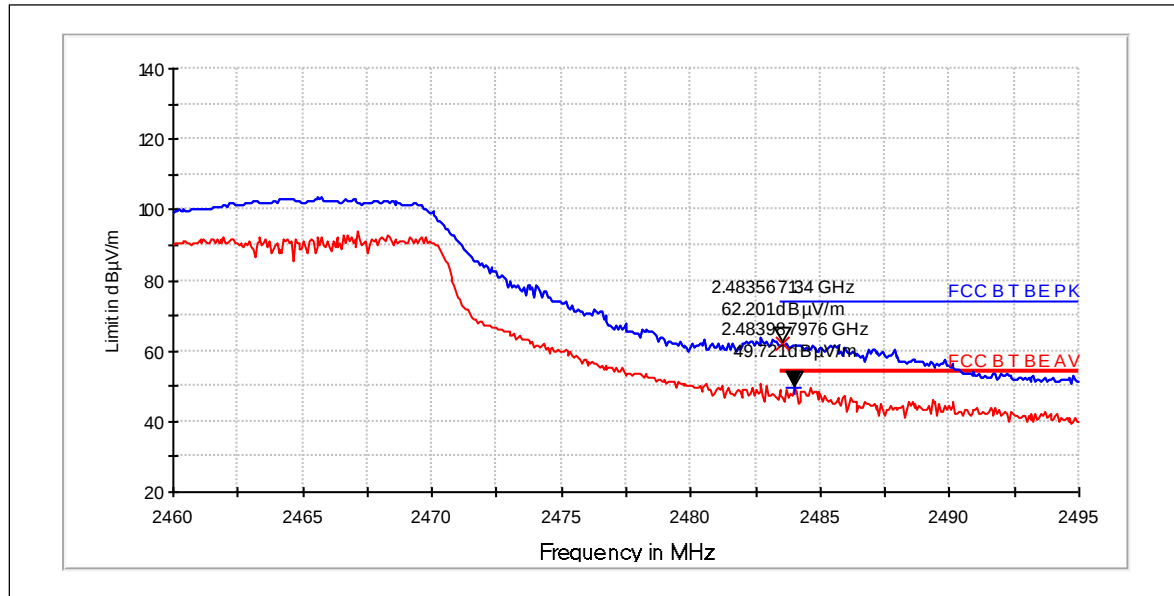
Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2389	69.05	2835.633	78.84	-9.79	PASSED
2400	77.3	7329.089	87.09	-9.79	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	53.33	463.874	63.12	-9.79	PASSED

Channel 7-11 / 2452MHz



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

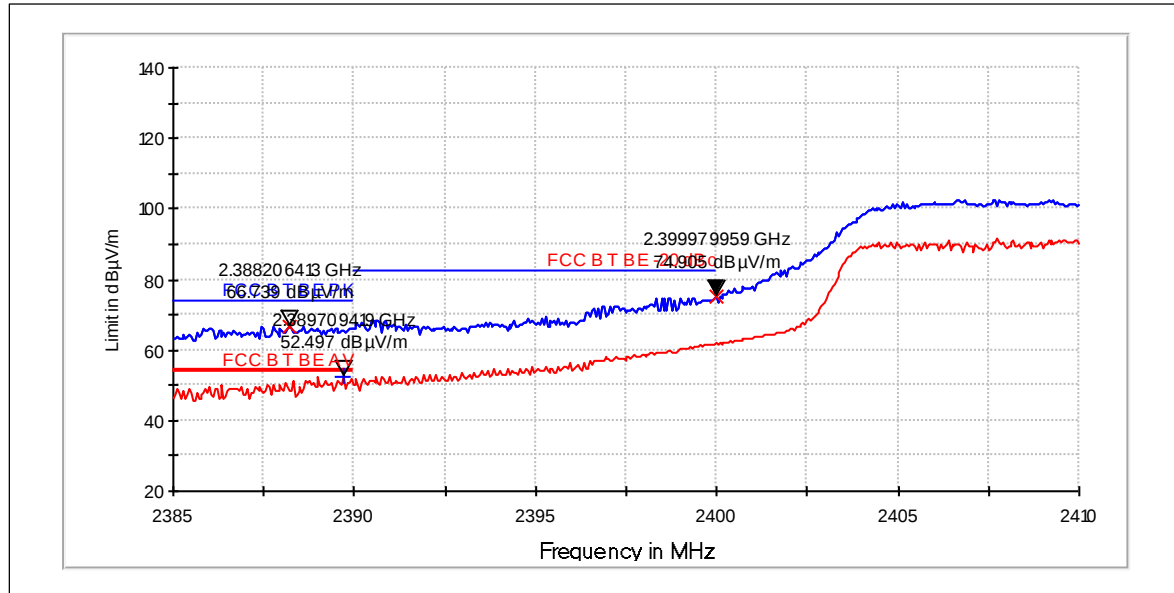
Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	62.2	1288.398	71.99	-9.79	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	49.72	306.232	59.51	-9.79	PASSED

2.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 1-5 / 2422MHz



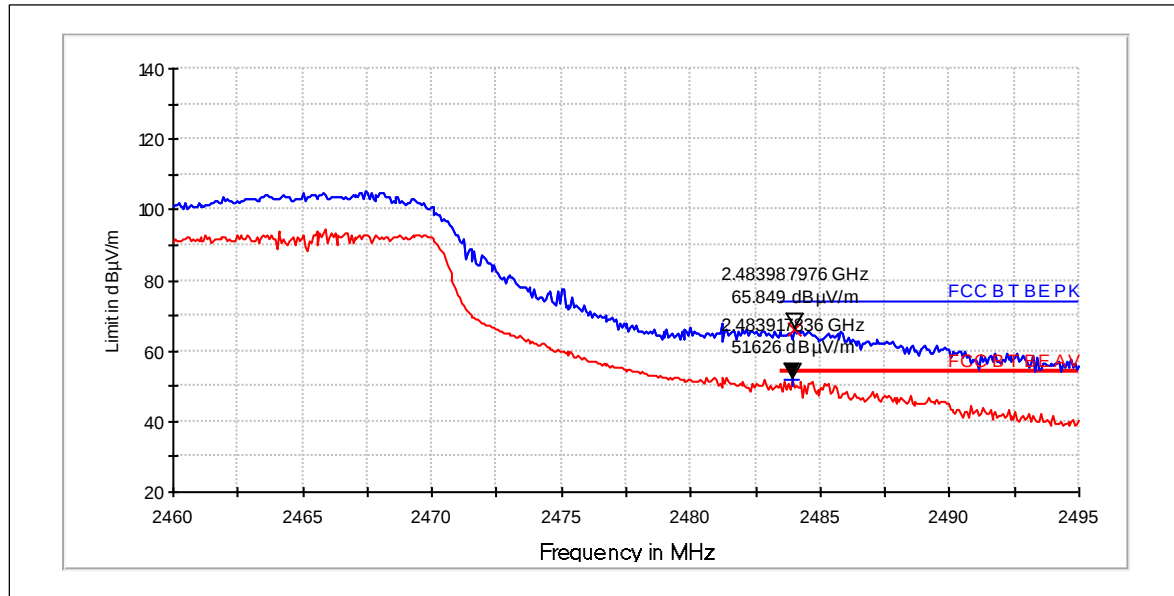
Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2388	66.74	2172.451	76.53	-9.79	PASSED
2400	74.91	5562.244	84.7	-9.79	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2390	52.5	421.551	62.29	-9.79	PASSED

Channel 7-11 / 2452MHz



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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	65.85	1960.875	75.64	-9.79	PASSED

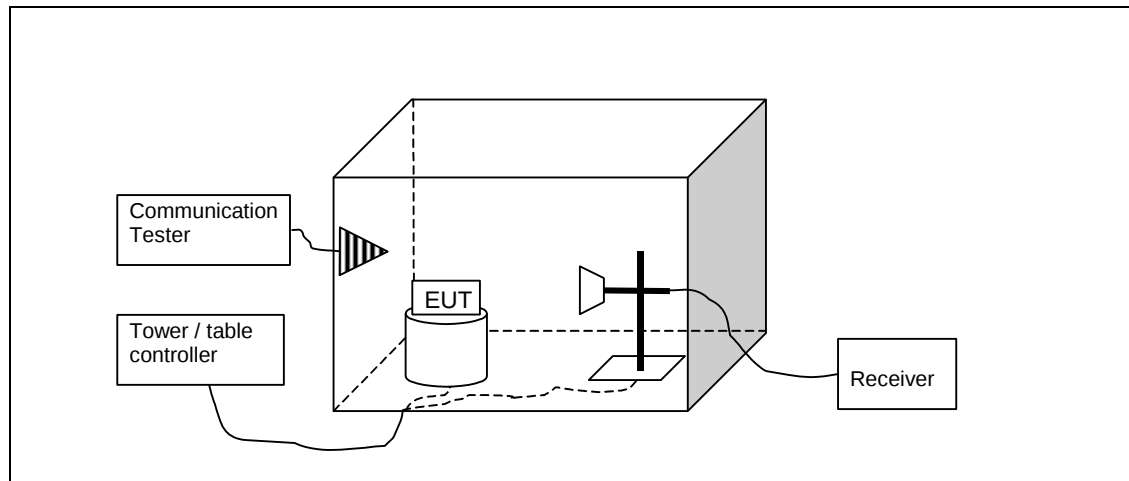
Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Results
2484	51.63	381.329	61.42	-9.79	PASSED

3. Spurious radiated emissions (FCC 15.247(d), 15.209, RSS-210 A8.5)

EUT with DUT number	RM-1116, DUT 400045
Accessories with DUT numbers	BV-T4D, DUT 400025 ; AC-100E, DUT 400013 ; WH-308, DUT 400014
Operation Voltage [V] / [Hz]	115 60
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 50 / 101
Date of measurements	08-Sep-2015
Measured by	Timo Raiskio

3.1.1 Test setup



3.2. Test method and limit

The measurement is made according to DTS procedures KDB 558074 and IC standard RSS-210 as follows:

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with absorbers on the floor and measuring antenna at fixed height using 2-axis EUT position system.

The Final Measurement is performed in the Semi-Anechoic Chamber with conducting metal floor, if the Preliminary Measurement results are closer than 20 dB to the permissible value.

The EUT is placed at nonconductive plate at the turntable center.

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 is made up to 10th harmonic of the EUT highest TX channel.

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 ($A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$).

Limits for spurious radiated emissions measurements (3 m measurement distance)

Frequency range [MHz]	Limit [$\mu V/m$]	Limit [dB $\mu V/m$]	Detector
30 - 88	100	40	Quasi peak
88 – 216	150	43.5	Quasi peak
216 – 960	200	46	Quasi peak
960 – 1000	500	54	Quasi peak
Above 1000	500	54	Average
Above 1000	5000	74	Peak

3.3. WLAN test results

3.3.1 802.11g, 16QAM modulation, 24 Mbps data rate.

Channel 1 / 2412 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
4824	53.31	462.914	58.01	-4.7	74	20.67	PASSED
7234.9	44.74	172.584	43.84	0.9	95	50.49	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
4824	40.51	106.047	45.21	-4.7	54	13.47	PASSED
7234.9	32.01	39.857	31.11	0.9	---	---	PASSED

Channel 6 / 2437 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
30.12	24.73	17.239	45.43	-20.7	40	15.27	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
4879.8	46.02	199.986	50.22	-4.2	74	27.96	PASSED
7320	45.8	194.984	44.5	1.3	74	28.18	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
4879.8	31.93	39.491	36.13	-4.2	54	22.05	PASSED
7320	32.27	41.068	30.97	1.3	54	21.71	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]	Limit [dBμV/m]	Margin	Results
4924.6	55.07	566.892	59.17	-4.1	74	18.91	PASSED
7387.7	45.88	196.789	44.38	1.5	74	28.1	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
4924.6	41.85	123.737	45.95	-4.1	54	12.13	PASSED
7387.7	32.2	40.738	30.7	1.5	54	21.78	PASSED

3.3.2 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 1 / 2412 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
4822.1	54.1	506.991	58.8	-4.7	74	19.88	PASSED
7235.7	45.17	181.343	44.27	0.9	95	50.06	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
4822.1	38.08	80.168	42.78	-4.7	54	15.9	PASSED
7235.7	31.97	39.673	31.07	0.9	---	---	PASSED

Channel 6 / 2437 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
30.27	24.11	16.051	44.81	-20.7	40	15.89	PASSED
30.36	23.71	15.329	44.51	-20.8	40	16.29	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
4879.5	47.01	224.13	51.21	-4.2	74	26.97	PASSED
7320.6	45.26	183.231	43.96	1.3	74	28.72	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
4879.5	33.02	44.771	37.22	-4.2	54	20.96	PASSED
7320.6	32.24	40.926	30.94	1.3	54	21.74	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]	Limit [dBμV/m]	Margin	Results
4922.1	57.18	722.77	61.28	-4.1	74	16.8	PASSED
7385.1	46.01	199.756	44.51	1.5	74	27.97	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
4922.1	41.29	116.011	45.39	-4.1	54	12.69	PASSED
7385.1	32.42	41.783	30.92	1.5	54	21.56	PASSED

3.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 1-5 / 2422MHz

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
2384.024	59.73	969.393	66.93	-7.2	74	14.25	PASSED
2386.7	59.31	923.634	66.21	-6.9	74	14.67	PASSED
4843.8	49.57	300.954	54.07	-4.5	74	24.41	PASSED
7264.4	44.71	171.989	43.51	1.2	74	29.27	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
2384.024	41.8	123.027	49	-7.2	54	12.18	PASSED
2386.7	43.42	148.252	50.32	-6.9	54	10.56	PASSED
4843.8	36.48	66.681	40.98	-4.5	54	17.5	PASSED
7264.4	32.24	40.926	31.04	1.2	54	21.74	PASSED

Channel 6 / 2437 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
30	23.68	15.276	44.28	-20.6	40	16.32	PASSED
913.195	22.38	13.152	37.78	-15.4	46	23.64	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
4879	45.78	194.536	49.98	-4.2	74	28.2	PASSED
7319.5	44.86	174.985	43.56	1.3	74	29.12	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
4879	32.21	40.785	36.41	-4.2	54	21.77	PASSED
7319.5	32.28	41.115	30.98	1.3	54	21.7	PASSED

Channel 7-11 / 2452MHz

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
30.24	23.04	14.191	43.74	-20.7	40	16.96	PASSED
955.271	30.36	32.961	45.66	-15.3	46	15.66	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
4903.6	52.89	441.062	57.09	-4.2	74	21.09	PASSED
7355.5	45.67	192.088	44.37	1.3	74	28.31	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
4903.6	40.17	101.976	44.37	-4.2	54	13.81	PASSED
7355.5	32.13	40.411	30.83	1.3	54	21.85	PASSED

3.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 1-5 / 2422MHz

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
913.765	22.43	13.228	37.83	-15.4	46	23.59	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
2387	66.68	2157.744	73.58	-6.9	74	7.3	PASSED
4844.1	46.97	223.1	51.47	-4.5	74	27.01	PASSED
7265.3	45.27	183.443	44.07	1.2	74	28.71	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
2387	44.92	176.198	51.82	-6.9	54	9.06	PASSED
4844.1	34.45	52.784	38.95	-4.5	54	19.53	PASSED
7265.3	32.19	40.691	30.99	1.2	54	21.79	PASSED

Channel 6 / 2437 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
30	23.89	15.649	44.49	-20.6	40	16.11	PASSED
192.973	24.4	16.596	55.7	-31.3	44	19.12	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
4878.7	46.13	202.535	50.33	-4.2	74	27.85	PASSED
7320.7	44.96	177.011	43.66	1.3	74	29.02	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
4878.7	31.36	36.983	35.56	-4.2	54	22.62	PASSED
7320.7	32.19	40.691	30.89	1.3	54	21.79	PASSED

Channel 7-11 / 2452MHz

QuasiPeak

Frequency [MHz]	QuasiPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
30.03	23.69	40	16.31	170	V	22	2.5	PASSED
204.096	27	43.52	16.52	170	V	-7	0.5	PASSED

MaxPeak

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
4905.2	51.49	73.98	22.49	170	V	7	2.5	PASSED
7357.6	45.41	73.98	28.57	170	V	-5	0.5	PASSED

Average

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
4905.2	38.34	53.98	15.64	170	V	7	2.5	PASSED
7357.6	32.11	53.98	21.87	170	V	-5	0.5	PASSED

4. Test Equipment

4.1. 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
TM210233	Communication Tester	CMU200	R&S	22/24/27
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
-	Communication Tester	CMU200	R&S	22/24/27, 15B

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
-	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C
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
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 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
2002	Communication Tester	CMU200	R&S	22/24/27, 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