

FCC Part 15C Compliance Test Report

Test Report no.:	FCC15C_RM-675_27.docx	Date of Report:	25-Aug-2010
Number of pages:	39	Customer's Contact person:	Alison Lenaghan

Testing laboratory:	TCC Nokia Copenhagen Laboratory Frederikskaj 1790 COPENHAGEN V DENMARK Tel. +45 33 292929 Fax. +45 33 292934	Customer:	Nokia Corporation Nokia House Summit Avenue, Southwood FARNBOROUGH HAMPSHIRE GU14 0NG UK Tel. +44 1252 866000 Fax. +44 1252 866001
FCC listing no.:	99059		
IC recognition no.:	661AL-1		

Tested devices/ accessories:	Phone RM-675 / Battery BL-5K / AC-Charger AC-15E / Headset WH-102
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FCC ID:	QFXRM-675X	IC:	661Z-RM675
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Supplement reports:	
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Testing has been carried out in accordance with:	CFR 47, FCC rules Part 15 Subpart C, ANSI C63.4 (2003), Public Notice DA 00-705, DTS procedures KDB 558074, IC standards RSS-GEN (Issue 2, June 2007) and RSS-210 (Issue 7, June 2007). Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".
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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.
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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.
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Date and signature for the contents:	
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Christian Andersen, System Specialist, EMC

1. Summary for FCC Part 15C Compliance Test Report

Date of receipt	03-Aug-2010
Testing completed	20-Aug-2010
The customer's contact person	Alison Lenaghan
Test Plan referred to	T:\Projects\RM-675\TestPlan\RS_testplan_RM-675_HW3999.xls
Notes	None
Document name	FCC15C_RM-675_27.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)/VII) mobile phone with GPRS, EGPRS, Bluetooth, WLAN and FM transmitter. Bluetooth and WLAN are tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-675	004402131422366	3999	-	010.021	24153
Phone	RM-675	004402131423737	3999	-	010.021	24157
Battery	BL-5K	4620400051K10101703;0670580	-	-	-	24147
Battery	BL-5K	4620400051K10101246;0670580	-	-	-	24199
AC-Charger	AC-15E	4090499512230701366;0675463	-	-	-	24188
Headset	WH-102	069478694531R00419	-	-	-	24377

1.2. Summary of Test Results

WLAN:

Section in CFR 47	Section in <i>RSS-GEN</i> or <i>RSS-210</i>	Name of the test	Result
15.247(b)(1)	A8.4 (4)	Conducted peak output power	Passed
15.247(d)	A8.5	Band edge compliance of RF emissions	Passed
15.247(d)	A8.5	Spurious RF conducted emissions	Passed
15.247(d), 15.209	A8.5	Spurious radiated emissions	Passed
15.207	7.2.2	AC powerline conducted emissions	NP
15.247(a)(2)	A8.2 (a)	6 dB bandwidth	Passed
15.247(e)	A8.2 (b)	Power spectral density	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.

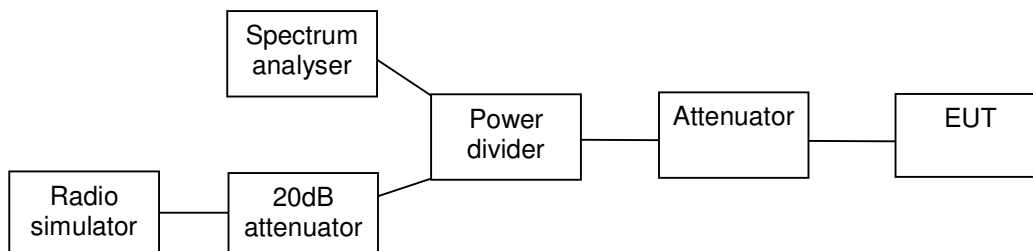
The test was not performed by the TCC Nokia Copenhagen Laboratory.

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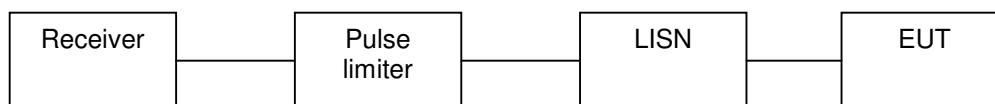
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2. Test setups

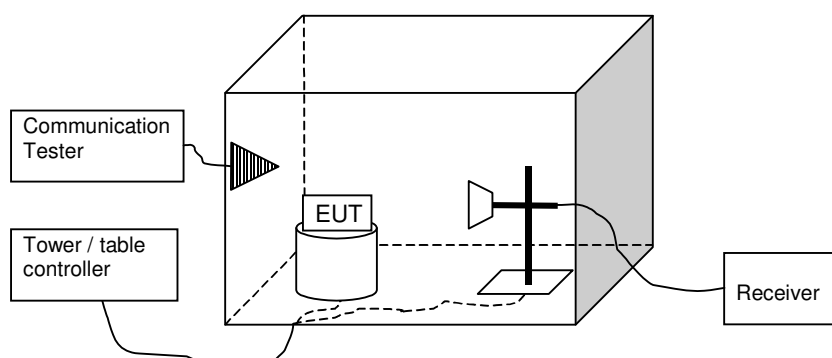
2.1. Conducted RF test setup



2.2. AC powerline conducted emissions test setup



2.3. Radiated test setup



3. Conducted peak output power (FCC §15.247(b)(1), RSS-210 A8.4 (4))

EUT with DUT number	RM-675 DUT 24157
Accessories with DUT numbers	BL-5K DUT 24199; AC-15E DUT 24188; WH-102 DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 45 / 99.8
Date of measurements	20-Aug-2010
Measured by	Bo Moltved Christiansen

3.1. Test method and limit

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

Limits for conducted peak output power measurements

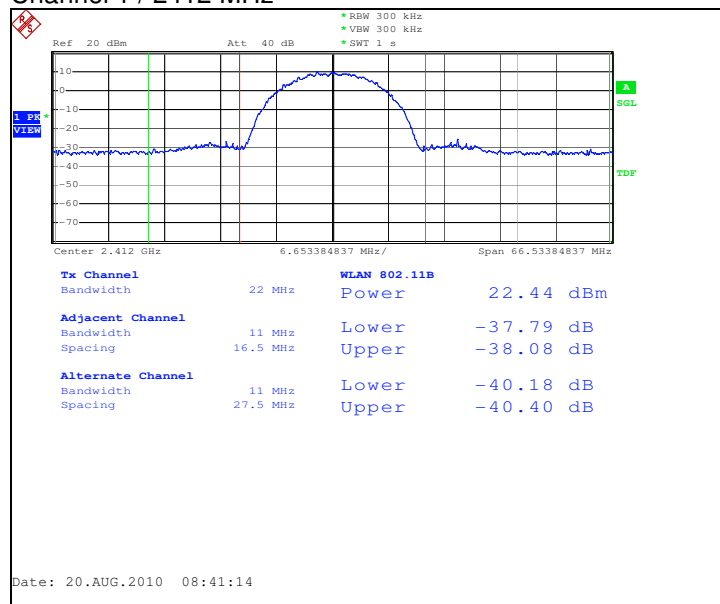
Frequency range [MHz]	Limit [W]	Limit [dBm]
2400 – 2483.5	≤ 1	≤ 30

3.2. WLAN Test results

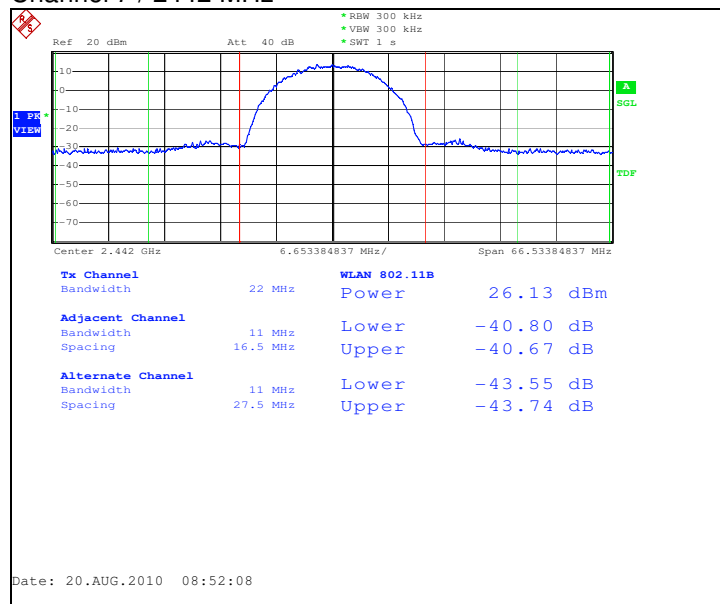
3.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [W]	Result
1 / 2412	22.44	0.175	Passed
7 / 2442	26.13	0.410	Passed
11 / 2462	22.59	0.182	Passed

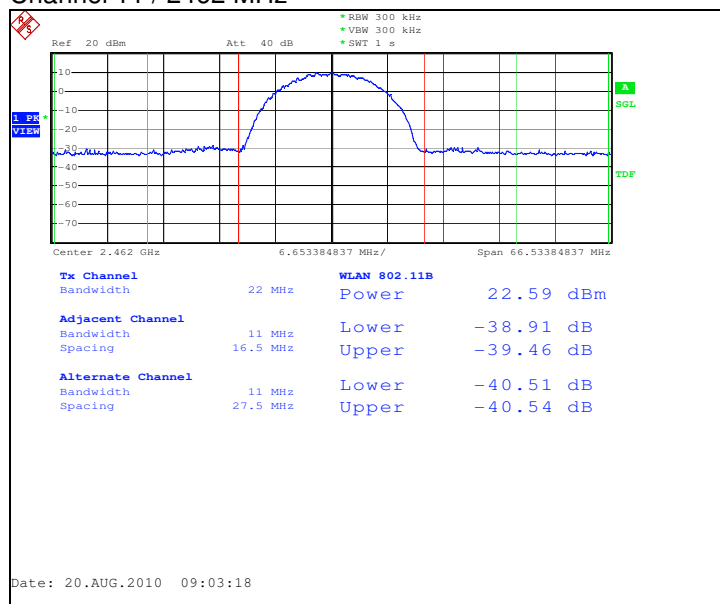
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



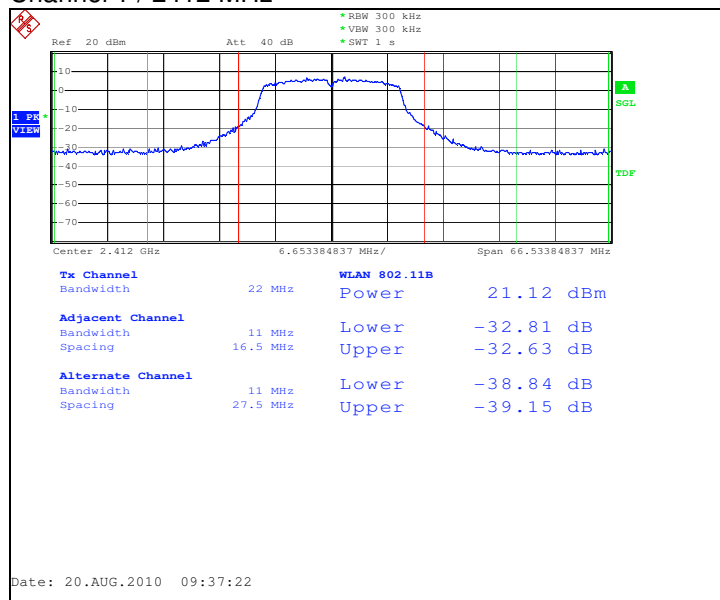
Channel 11 / 2462 MHz



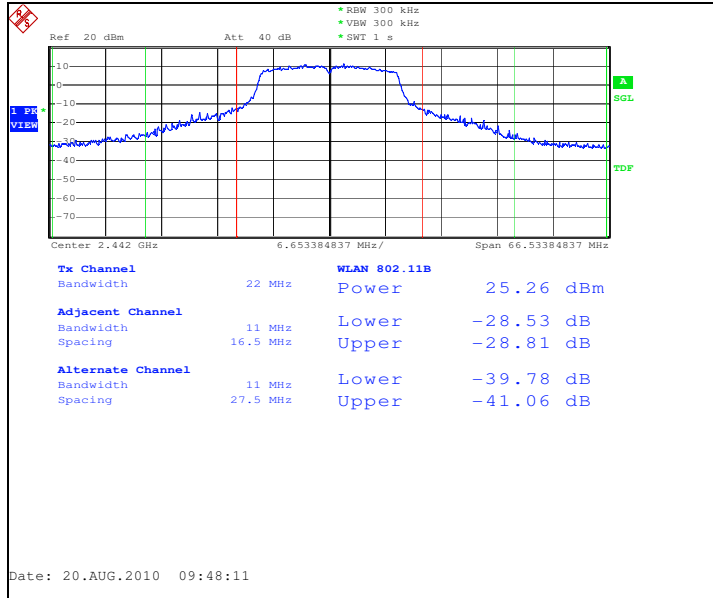
3.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [W]	Result
1 / 2412	21.12	0.129	Passed
7 / 2442	25.26	0.336	Passed
11 / 2462	21.01	0.126	Passed

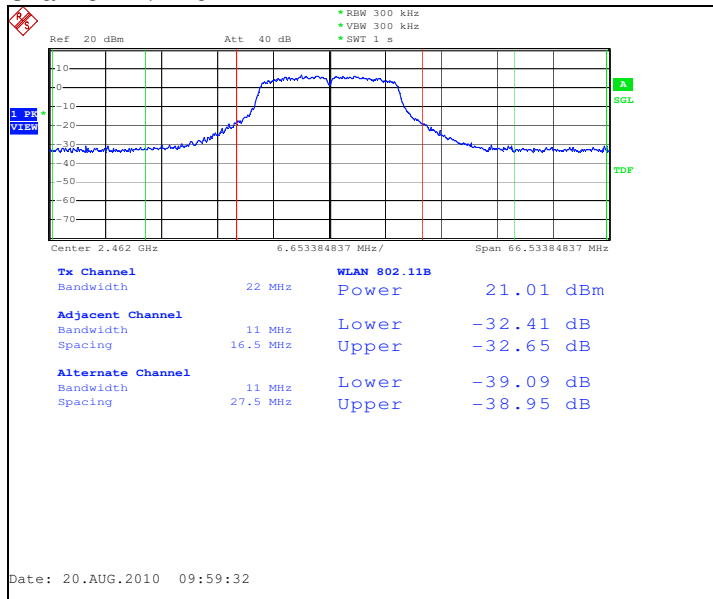
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



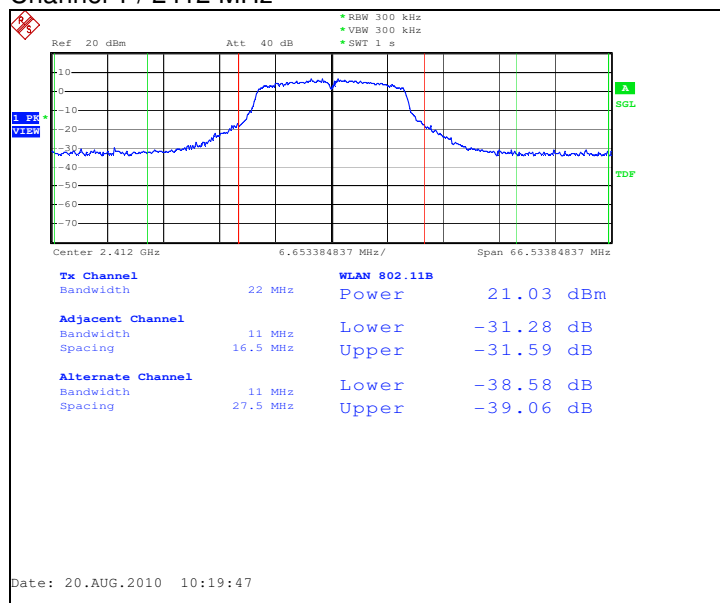
Channel 11 / 2462 MHz



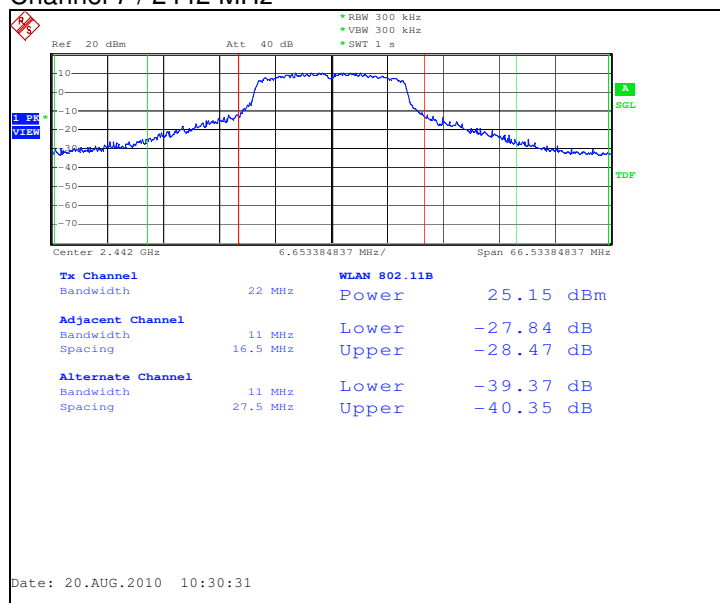
3.2.3 WLAN 802.11n 0 MSC

Channel / f _c [MHz]	P [dBm]	P [W]	Result
1 / 2412	21.03	0.127	Passed
7 / 2442	25.15	0.327	Passed
11 / 2462	21.06	0.128	Passed

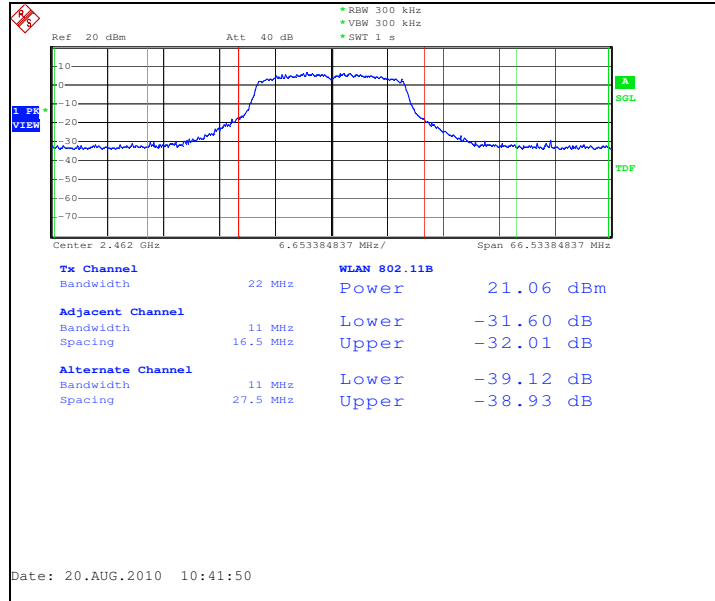
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



4. Band edge compliance of RF emissions (FCC §15.247(d), RSS-210 A8.5)

EUT with DUT number	RM-675, DUT 24153
Accessories with DUT numbers	BL-5K, DUT 24147 ; AC-15E, DUT 24188 ; WH-102, DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	24 / 44 / 100.1
Date of measurements	18-Aug-2010
Measured by	Christian Andersen

4.1. Test method and limit

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

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

Frequency range [MHz]	Limit Average [dBμV/m]	Limit Peak [dBμV/m]
Below 2390 and above 2483.5	≤ 54	≤ 74

4.2. WLAN Test results

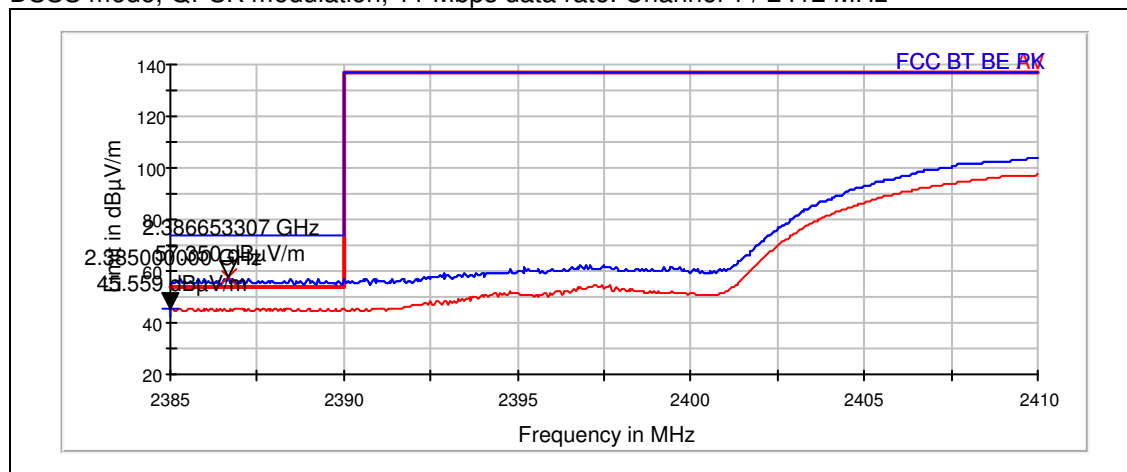
Average (RBW: 1 MHz, VBW: 1 MHz)

Channel / f_c [MHz]	E [dB μ V/m]	Result
1 / 2412 (DSSS,QPSK,11)	45.56	Passed
11 / 2462 (DSSS,QPSK,11)	46.09	Passed
11 / 2462 (OFDM,BPSK,6)	46.81	Passed
1 / 2412 (OFDM,BPSK,6)	46.81	Passed
1 / 2412 (WLAN 802.11n 0 MSC)	47.97	Passed
11 / 2462 (WLAN 802.11n 0 MSC)	46.79	Passed

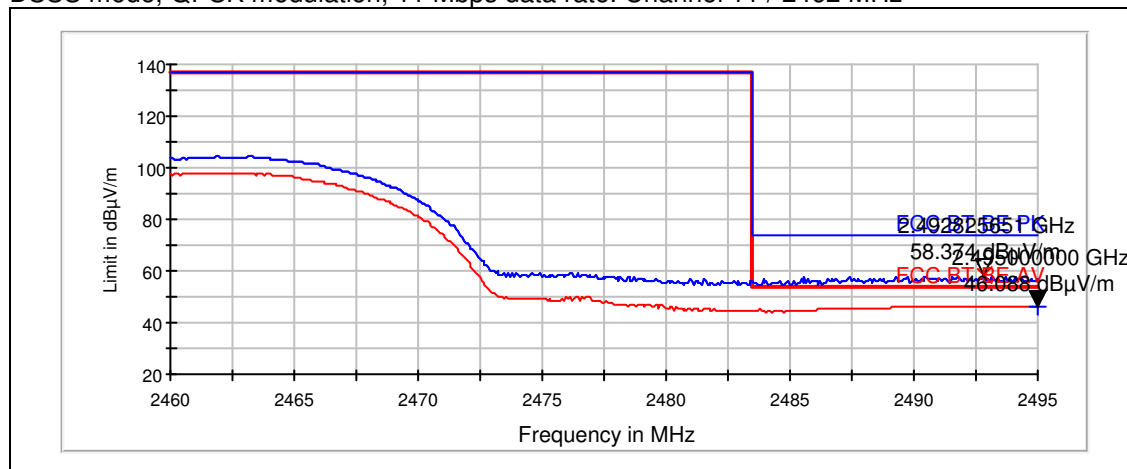
Peak (RBW: 1 MHz, VBW: 1 MHz)

Channel / f_c [MHz]	E [dB μ V/m]	Result
1 / 2412 (DSSS,QPSK,11)	57.35	Passed
11 / 2462 (DSSS,QPSK,11)	58.37	Passed
11 / 2462 (OFDM,BPSK,6)	59.51	Passed
1 / 2412 (OFDM,BPSK,6)	64.33	Passed
1 / 2412 (WLAN 802.11n 0 MSC)	65.42	Passed
11 / 2462 (WLAN 802.11n 0 MSC)	61.34	Passed

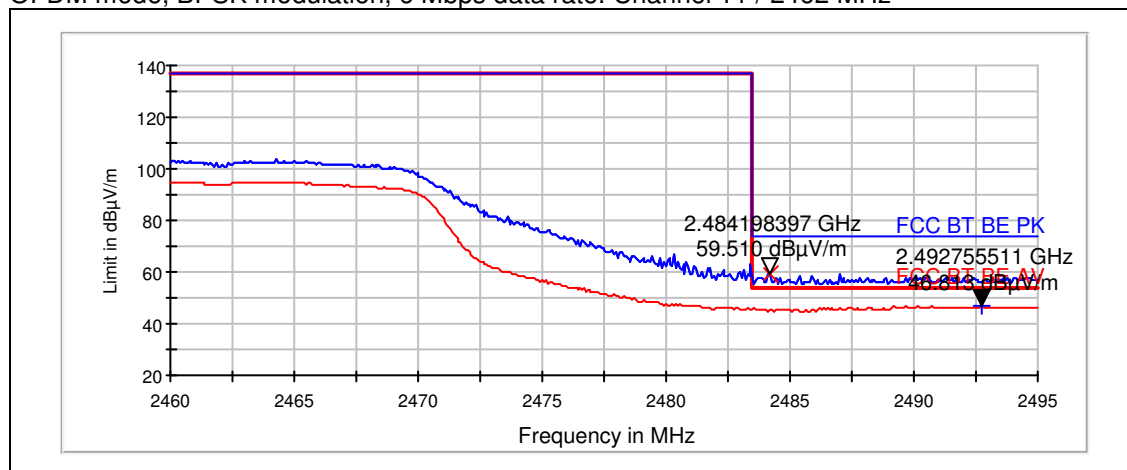
DSSS mode, QPSK modulation, 11 Mbps data rate. Channel 1 / 2412 MHz



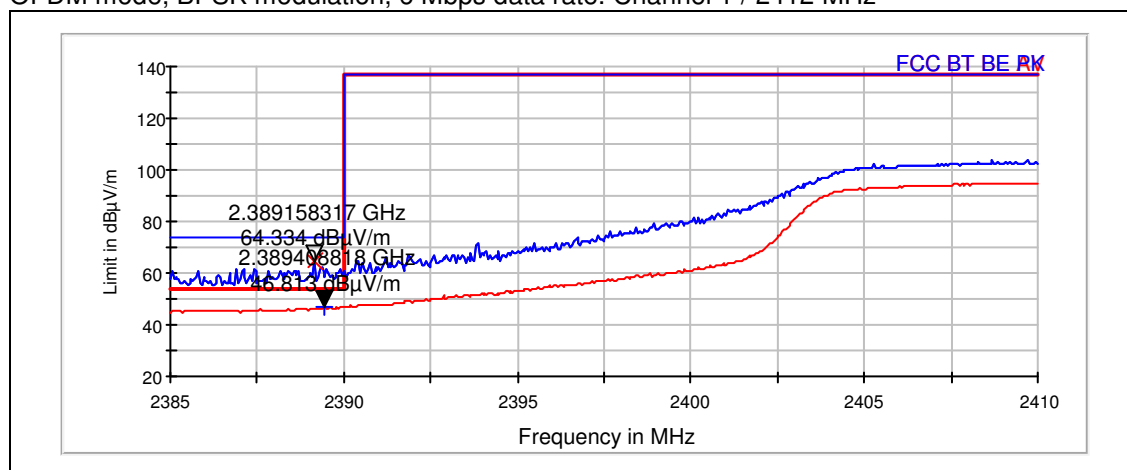
DSSS mode, QPSK modulation, 11 Mbps data rate. Channel 11 / 2462 MHz



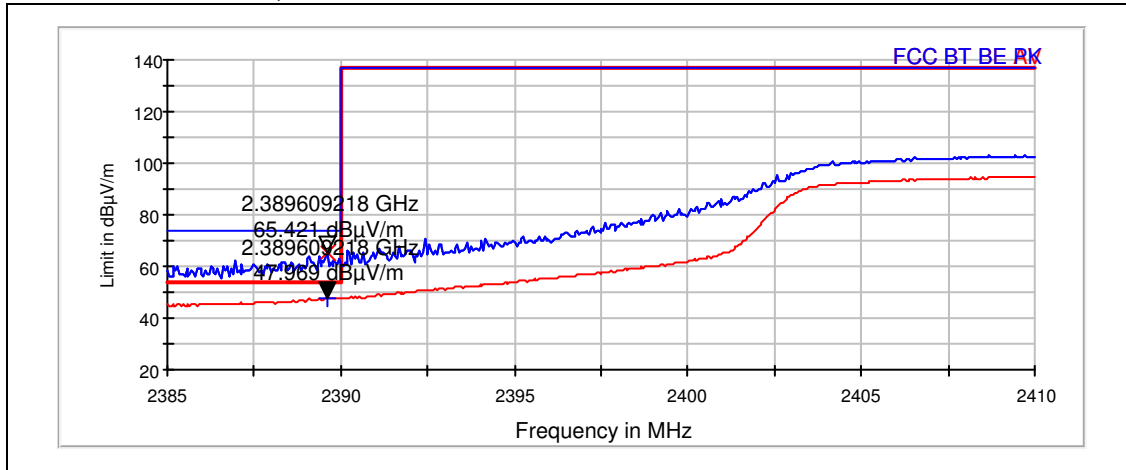
OFDM mode, BPSK modulation, 6 Mbps data rate. Channel 11 / 2462 MHz



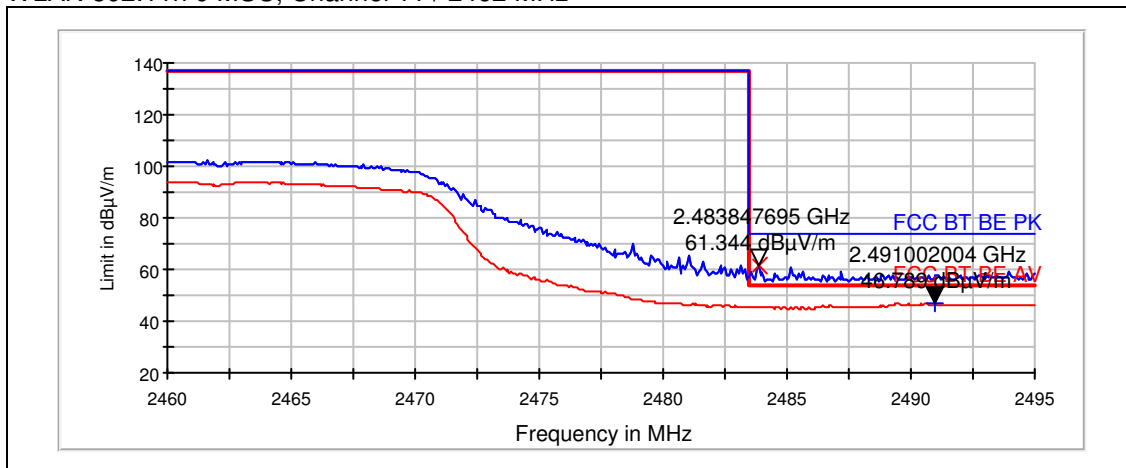
OFDM mode, BPSK modulation, 6 Mbps data rate. Channel 1 / 2412 MHz



WLAN 802.11n 0 MSC, Channel 1 / 2412 MHz



WLAN 802.11n 0 MSC, Channel 11 / 2462 MHz



5. Spurious RF conducted emissions (FCC §15.247(d), RSS-210 A8.5)

EUT with DUT number	RM-675 DUT 24157
Accessories with DUT numbers	BL-5K DUT 24199; AC-15E DUT 24188; WH-102 DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 45 / 99.8
Date of measurements	20-Aug-2010
Measured by	Bo Moltved Christiansen

5.1. Test method and limit

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

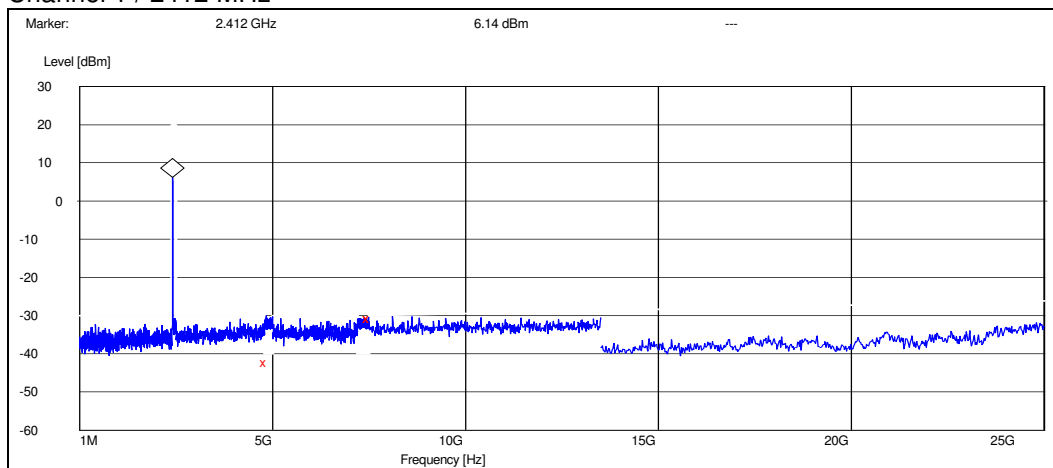
Limits for spurious RF conducted emissions measurements

Frequency range [MHz]	Limit [dBc]
1 – 25000	≤ -20

5.2. WLAN Test results

5.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

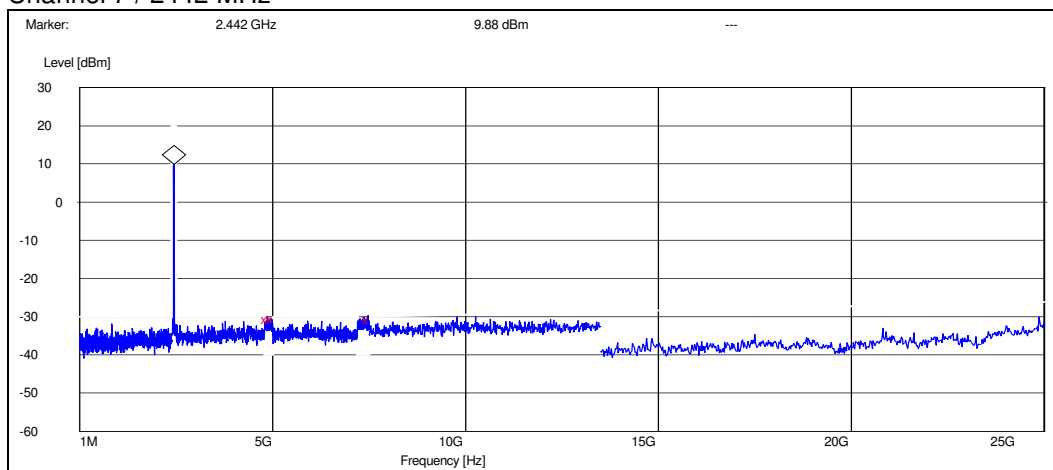
Channel 1 / 2412 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4845.600000	-48.344447	Passed
7493.400000	-36.844447	Passed
7500.000000	-36.944447	Passed

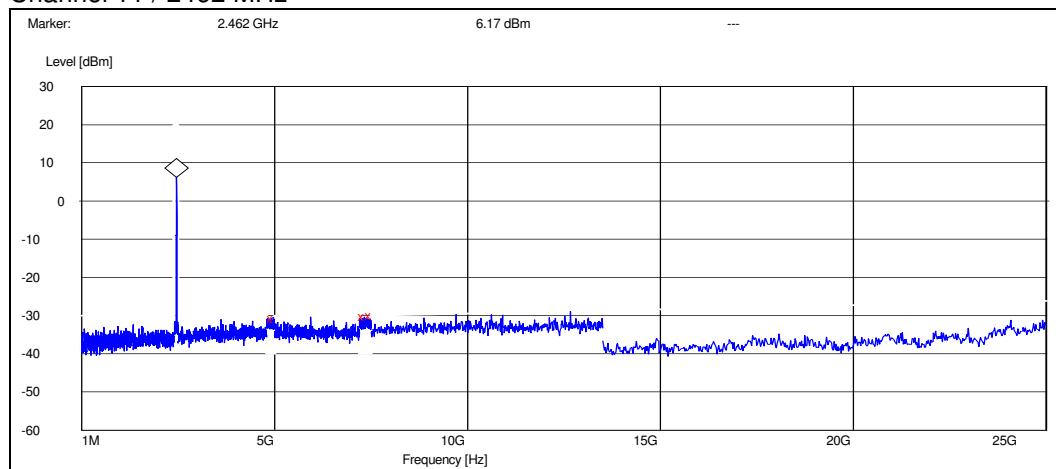
Channel 7 / 2442 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4866.800000	-40.678647	Passed
5000.000000	-40.478647	Passed
7483.200000	-40.778647	Passed

Channel 11 / 2462 MHz

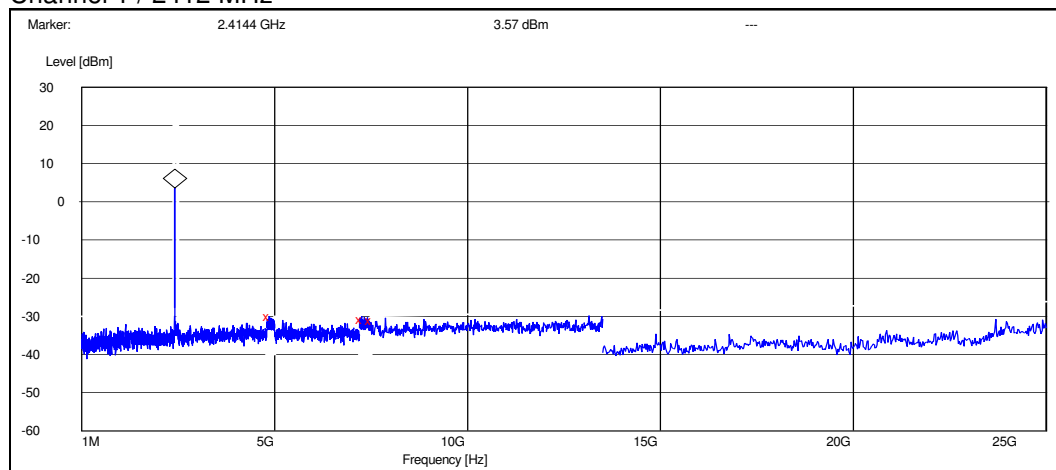


Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4963.200000	-37.070319	Passed
7321.800000	-36.470319	Passed
7500.000000	-36.270319	Passed

5.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

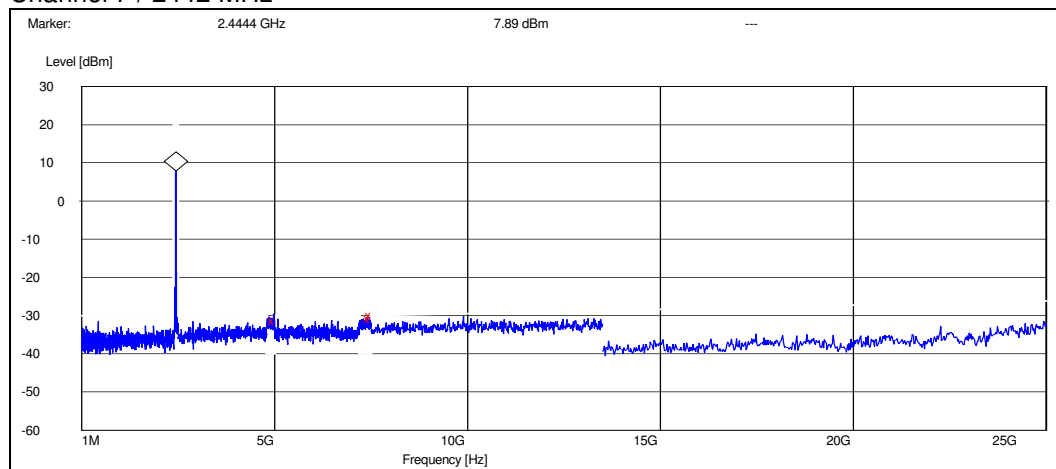
Channel 1 / 2412 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4865.200000	-33.666750	Passed
7258.800000	-34.466750	Passed
7500.000000	-34.766750	Passed

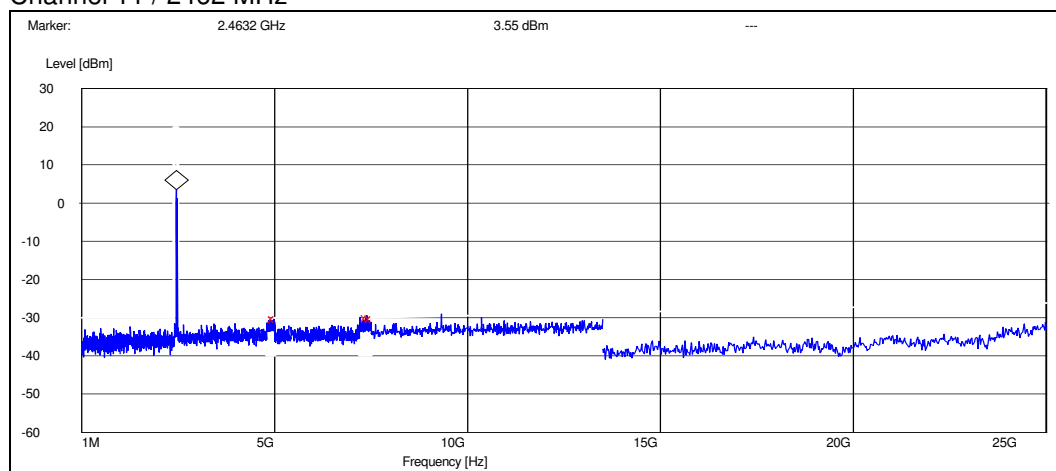
Channel 7 / 2442 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4986.000000	-39.089282	Passed
7457.400000	-38.689282	Passed
7500.000000	-37.989282	Passed

Channel 11 / 2462 MHz

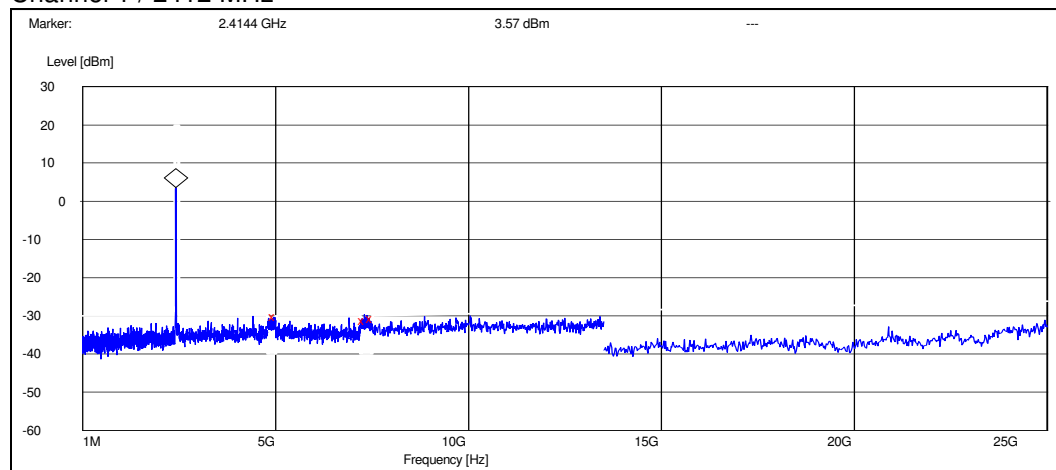


Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4992.000000	-33.649042	Passed
7400.400000	-33.449042	Passed
7500.000000	-33.749042	Passed

5.2.3 WLAN 802.11n 0 MSC

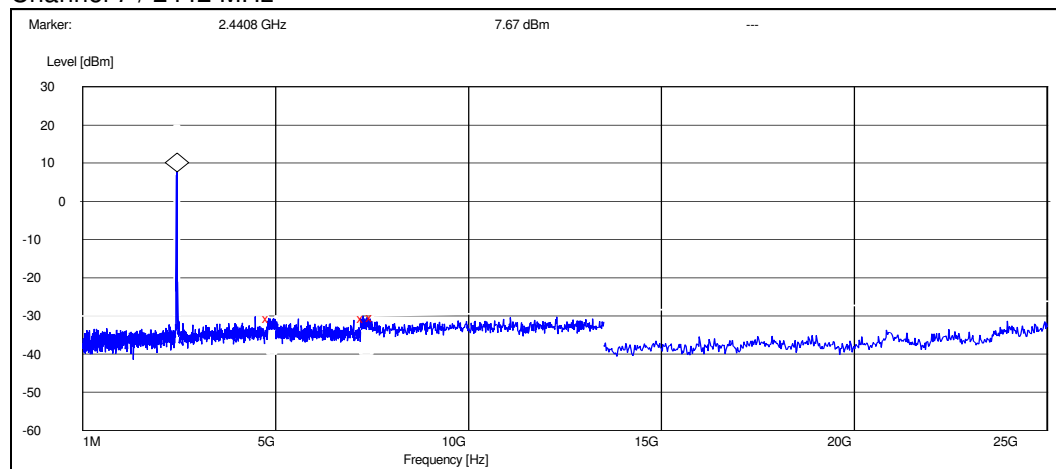
Channel 1 / 2412 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4979.600000	-33.765186	Passed
7299.600000	-34.765186	Passed
7500.000000	-34.165186	Passed

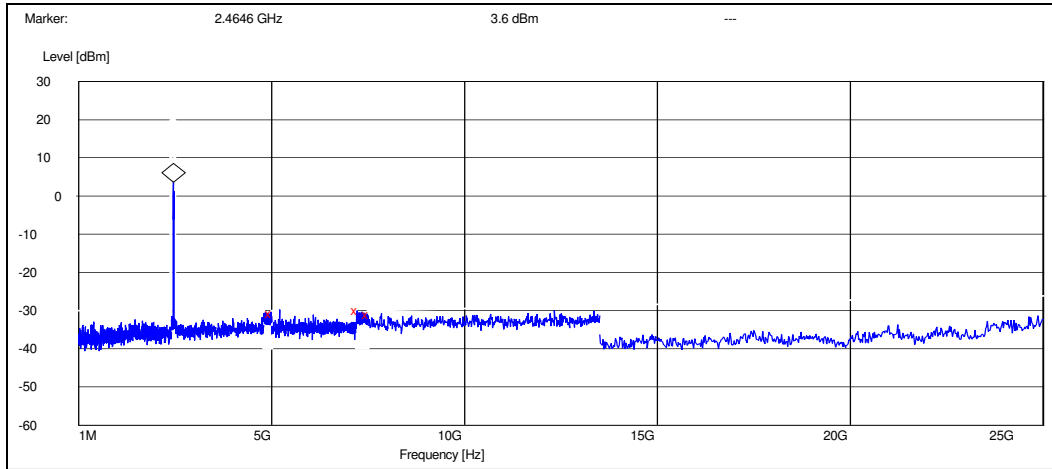
Channel 7 / 2442 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4828.800000	-38.273203	Passed
7276.800000	-38.273203	Passed
7500.000000	-38.073203	Passed

Channel 11 / 2462 MHz



Peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	P [dBc]	Result
4991.600000	-34.402493	Passed
7212.000000	-33.702493	Passed
7500.000000	-34.702493	Passed

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

EUT with DUT number	RM-675, DUT 24153
Accessories with DUT numbers	BL-5K, DUT 24147 ; AC-15E, DUT 24188 ; WH-102, DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	24 / 44 / 100.1
Date of measurements	18-Aug-2010
Measured by	Christian Andersen

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

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

Frequency range [MHz]	Limit [$\mu\text{V/m}$]	Limit [dB $\mu\text{V/m}$]	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

6.2. WLAN Test results

6.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel 1 / 2412 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4823.8	30.28	32.655	28.74	1.54	HORIZONTAL	Passed
7236.2	34.3	51.904	24.42	9.88	VERTICAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4823.8	43.78	154.543	42.24	1.54	HORIZONTAL	Passed
7236.2	46.77	218.072	36.89	9.88	VERTICAL	Passed

Channel 7 / 2442 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
3915.832	25.57	18.978	26.66	-1.09	HORIZONTAL	Passed
3929.76	25.52	18.869	26.6	-1.08	HORIZONTAL	Passed

Quasi peak (RBW: 100 kHz)

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
30.99	35.16	57.293	40.86	-5.7	VERTICAL	Passed
31.05	34.88	55.482	40.62	-5.74	VERTICAL	Passed
31.08	35.21	57.584	40.97	-5.76	VERTICAL	Passed
31.08	35	56.215	40.76	-5.76	VERTICAL	Passed
875.932	59.57	951.262	65.69	-6.12	VERTICAL	Passed

*876.0 MHz frequency is coming from communication tester and thus ignored.

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
3915.832	38.76	86.666	39.85	-1.09	HORIZONTAL	Passed
3929.76	38.4	83.167	39.48	-1.08	HORIZONTAL	Passed

Channel 11 / 2462 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4923.9	32.52	42.262	30.16	2.36	HORIZONTAL	Passed
7385.1	36.38	65.917	24.46	11.92	HORIZONTAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4923.9	45.51	188.604	43.15	2.36	HORIZONTAL	Passed
7385.1	49.88	311.709	37.96	11.92	HORIZONTAL	Passed

6.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel 1 / 2412 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4822.7	28.37	26.215	26.81	1.56	HORIZONTAL	Passed
7235	34.49	52.997	24.54	9.95	HORIZONTAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4822.7	41.16	114.248	39.6	1.56	HORIZONTAL	Passed
7235	47.64	241.046	37.69	9.95	HORIZONTAL	Passed

Channel 7 / 2442 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
10619.238	41.98	125.589	24.29	17.69	HORIZONTAL	Passed
11409.22	42.54	133.952	24.31	18.23	VERTICAL	Passed

Quasi peak (RBW: 100 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
31.17	24.97	17.728	30.79	-5.82	VERTICAL	Passed
31.26	36.8	69.143	42.68	-5.88	VERTICAL	Passed
31.35	26.62	21.431	32.56	-5.94	VERTICAL	Passed
875.932	52.71	432.165	58.83	-6.12	VERTICAL	Passed

*876.0 MHz frequency is coming from communication tester and thus ignored.

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
10619.238	55.25	578.695	37.56	17.69	HORIZONTAL	Passed
11409.22	54.99	561.565	36.76	18.23	VERTICAL	Passed

Channel 11 / 2462 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4925.8	30.55	33.674	28.16	2.39	HORIZONTAL	Passed
7385.9	36.21	64.64	24.23	11.98	VERTICAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4925.8	43.37	147.316	40.98	2.39	HORIZONTAL	Passed
7385.9	49.27	290.737	37.29	11.98	VERTICAL	Passed

6.2.3 WLAN 802.11n 0 MSC

Channel 1 / 2412 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4822.8	28.22	25.772	26.67	1.55	HORIZONTAL	Passed
7234.5	34.52	53.217	24.53	9.99	HORIZONTAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4822.8	41.16	114.222	39.61	1.55	HORIZONTAL	Passed
7234.5	48.46	264.911	38.47	9.99	HORIZONTAL	Passed

Channel 7 / 2442 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3906.313	24.89	17.557	25.97	-1.08	VERTICAL	Passed
10683.567	42.27	129.897	24.14	18.13	HORIZONTAL	Passed

Quasi peak (RBW: 100 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
30.15	35.7	60.961	40.84	-5.14	VERTICAL	Passed
30.8	36.2	64.543	41.77	-5.57	VERTICAL	Passed
30.83	36.15	64.224	41.74	-5.59	VERTICAL	Passed
30.93	35.94	62.683	41.6	-5.66	VERTICAL	Passed
875.932	52.63	427.809	58.75	-6.12	VERTICAL	Passed

*876.0 MHz frequency is coming from communication tester and thus ignored.

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
3906.313	37.51	75.11	38.59	-1.08	VERTICAL	Passed
10683.567	54.76	546.89	36.63	18.13	HORIZONTAL	Passed

Channel 11 / 2462 MHz

Average(RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4922.2	30.48	33.431	28.15	2.33	VERTICAL	Passed
7386.5	36.26	65.035	24.28	11.98	HORIZONTAL	Passed

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4922.2	43.55	150.557	41.22	2.33	VERTICAL	Passed
7386.5	48.74	273.653	36.76	11.98	HORIZONTAL	Passed

7. 6 dB bandwidth (FCC §15.247(a)(2), RSS-210 A8.2 (a))

EUT with DUT number	RM-675 DUT 24157
Accessories with DUT numbers	BL-5K DUT 24199; AC-15E DUT 24188; WH-102 DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 45 / 998
Date of measurements	20-Aug-2010
Measured by	Bo Moltved Christiansen

7.1. Test method and limit

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

Limits for 6 dB bandwidth measurements

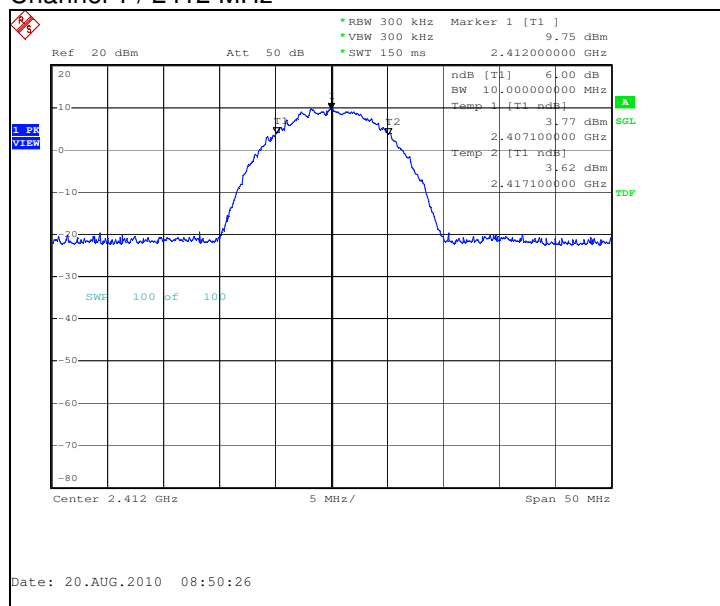
Limit [kHz]
≥ 500

7.2. WLAN test results

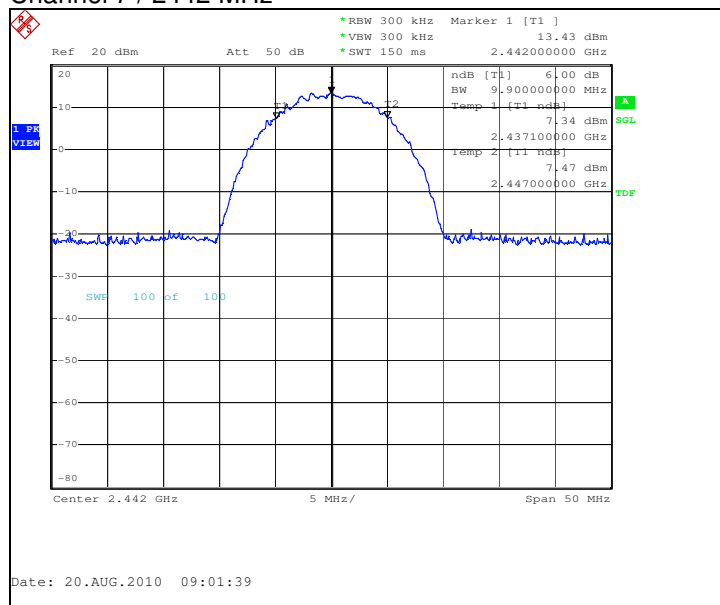
7.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f_c [MHz]	6 dB bandwidth [kHz]	Result
1	10000.000	Passed
7	9900.000	Passed
11	9900.000	Passed

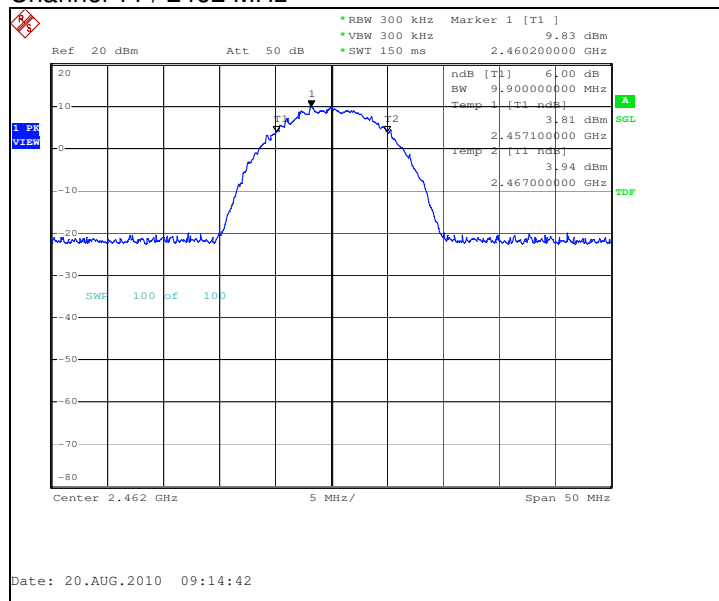
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



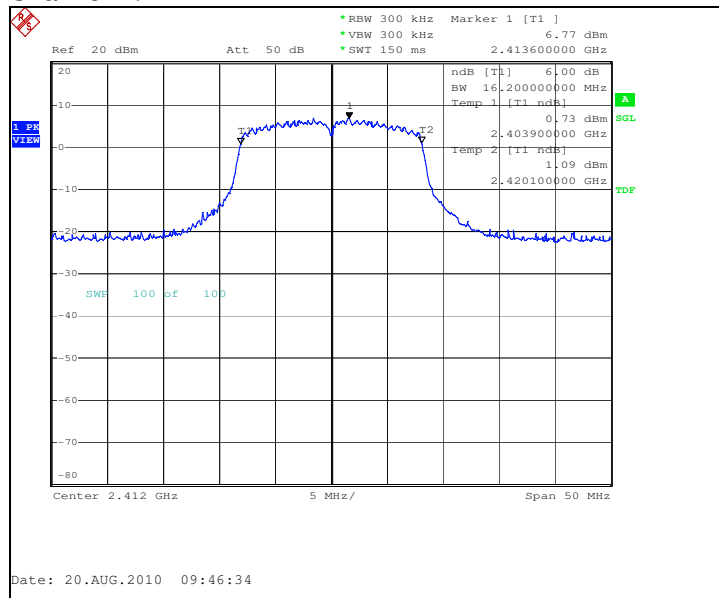
Channel 11 / 2462 MHz



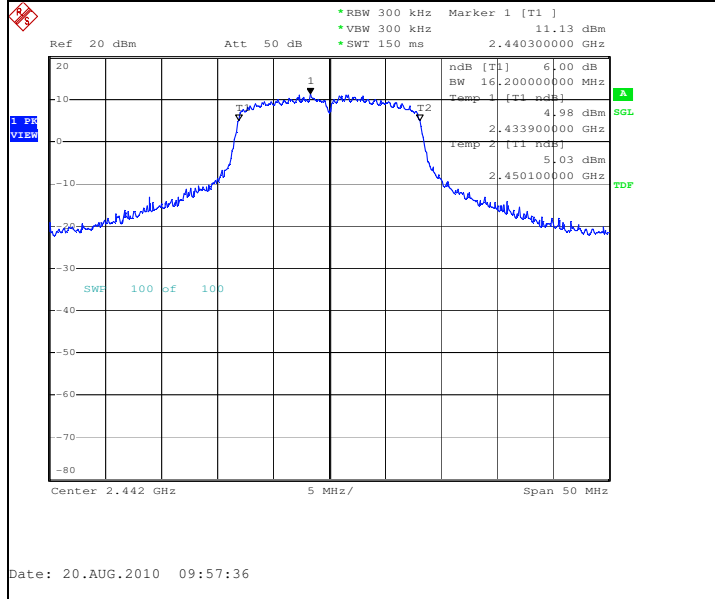
7.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	6 dB bandwidth [kHz]	Result
1	16200.000	Passed
7	16200.000	Passed
11	16200.000	Passed

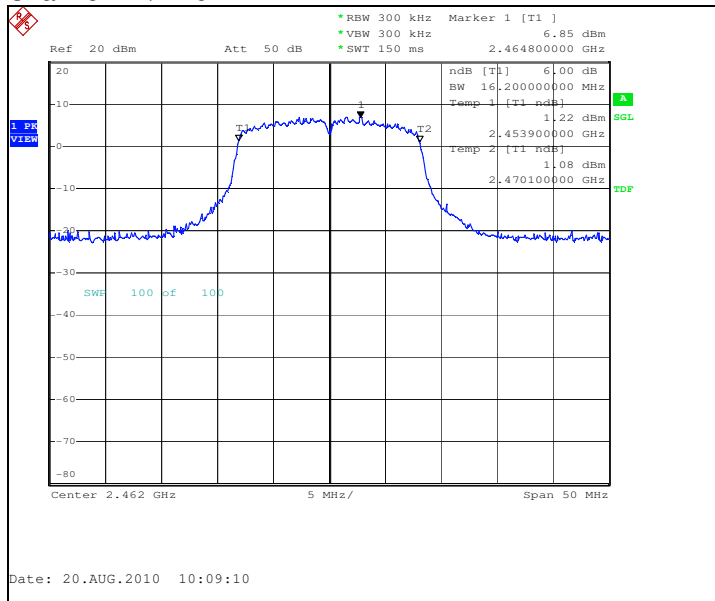
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



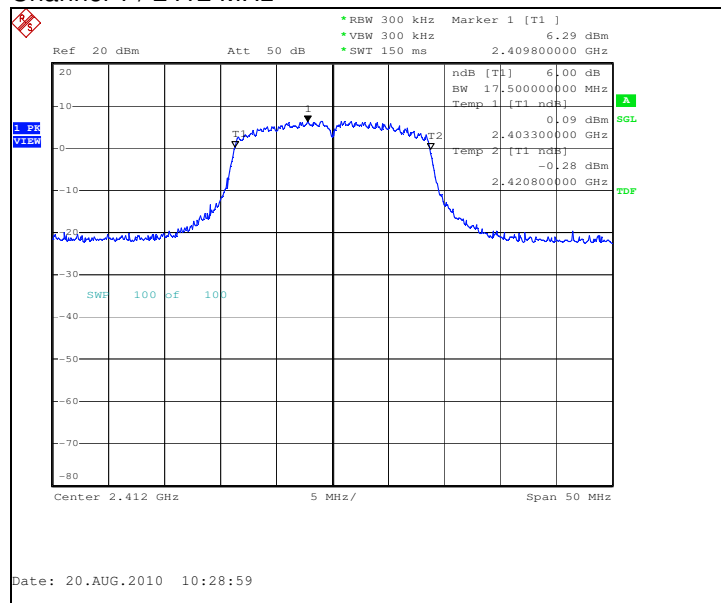
Channel 11 / 2462 MHz



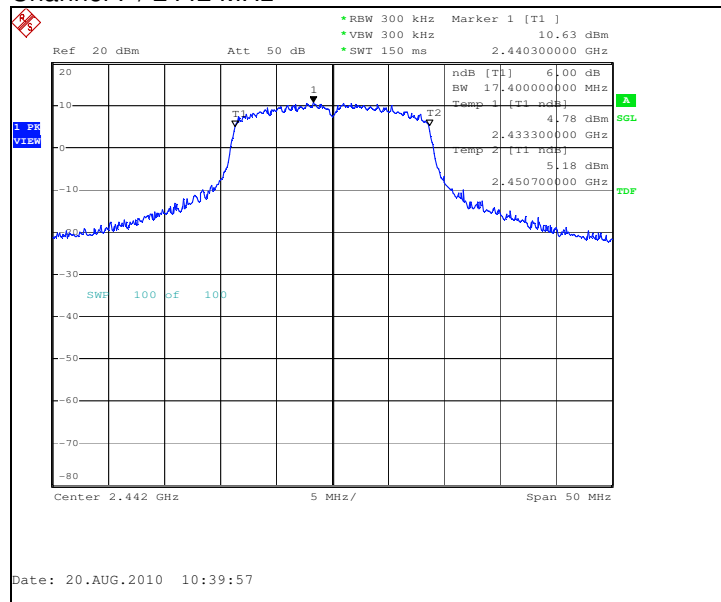
7.2.3 N WLAN 802.11n 0 MSC

Channel / f _c [MHz]	6 dB bandwidth [kHz]	Result
1	17500.000	Passed
7	17400.000	Passed
11	17400.000	Passed

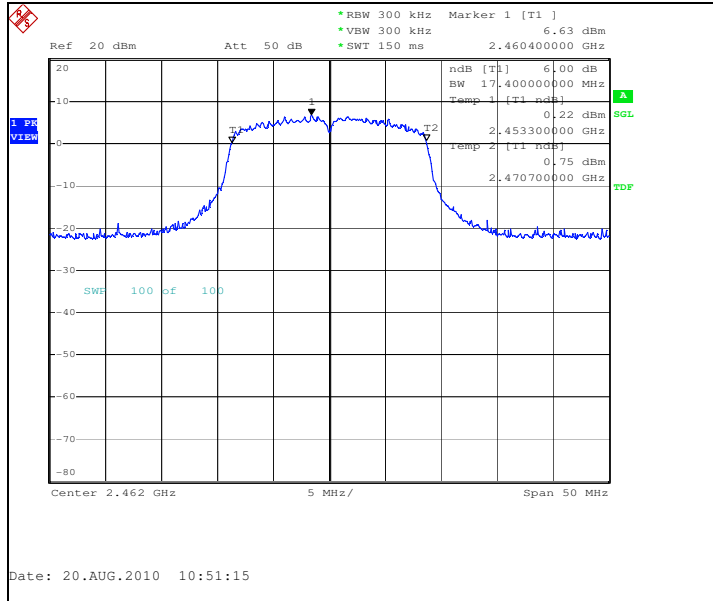
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



8. Power spectral density (FCC §15.247(e), RSS-210 A8.2 (b))

EUT with DUT number	RM-675 DUT 24157
Accessories with DUT numbers	BL-5K DUT 24199; AC-15E DUT 24188; WH-102 DUT 24377
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	None
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 45 / 99.8
Date of measurements	20-Aug-2010
Measured by	Bo Moltved Christiansen

8.1. Test method and limit

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

Limits for power spectral density measurements

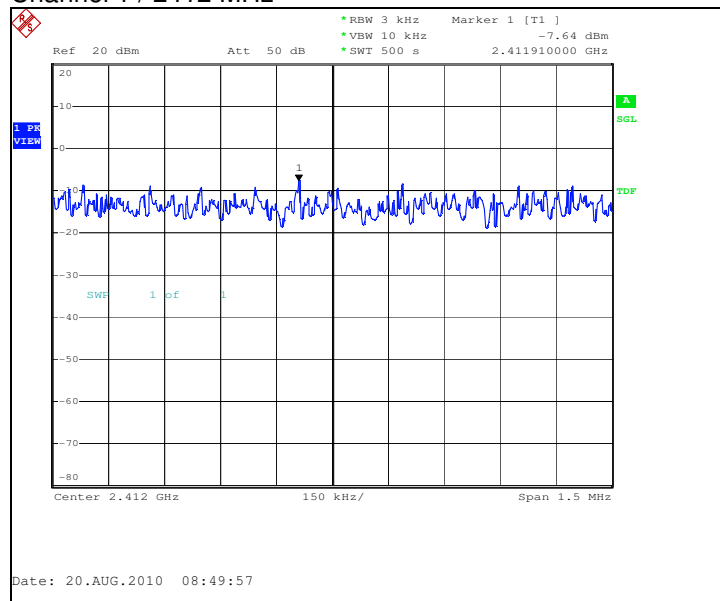
Limit [dBm] @ 3 kHz
≤ 8

8.2. WLAN test results

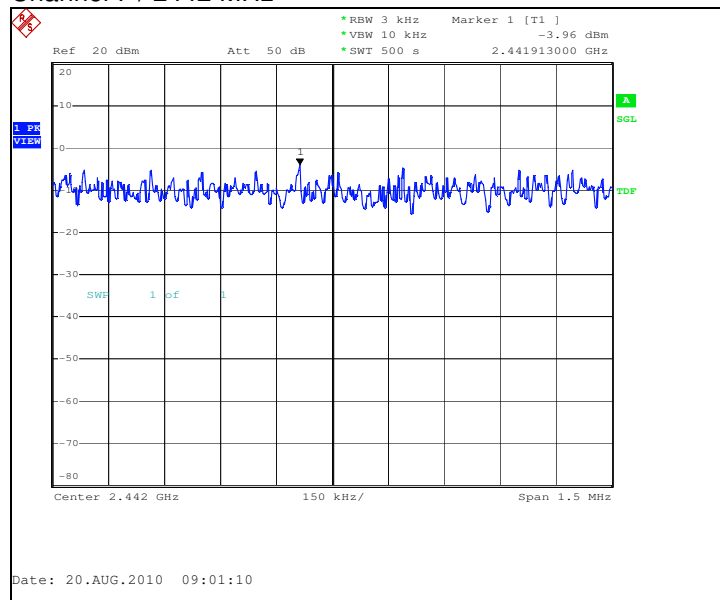
8.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Frequency	Level	Transd	Spectr Density
2412.000000	-7.64	17.0	Passed

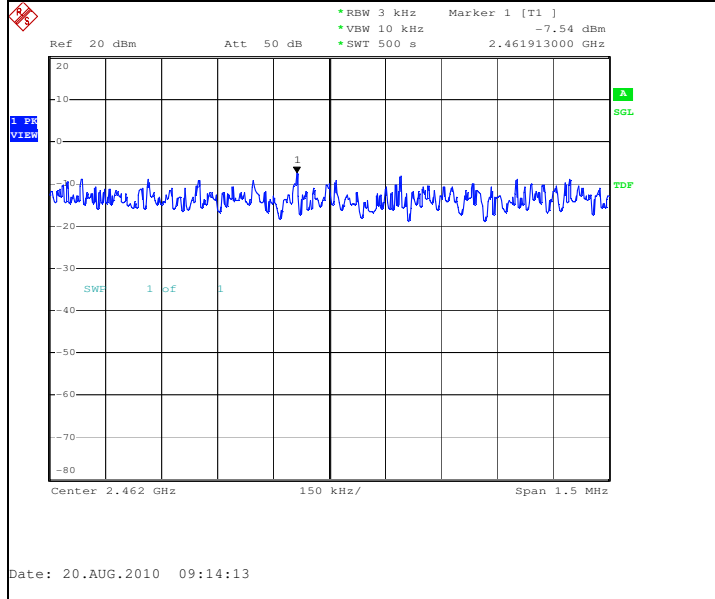
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



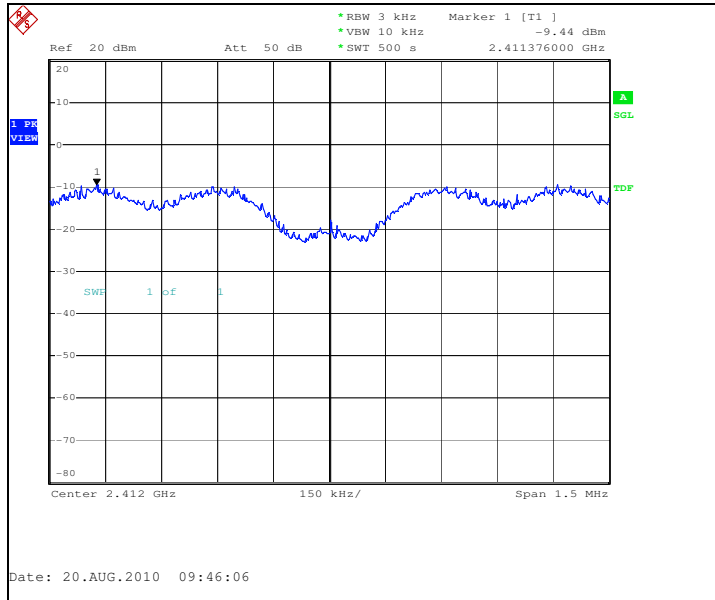
Channel 11 / 2462 MHz



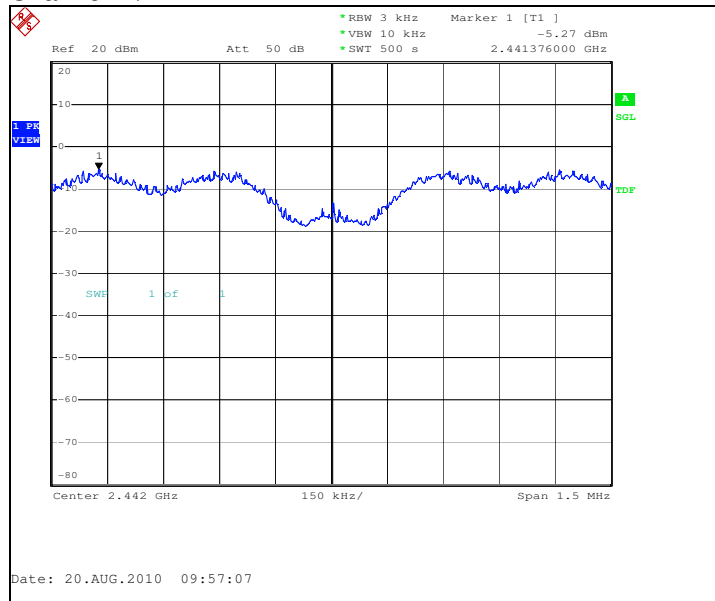
8.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Frequency	Level	Transd	Spectr Density
2412.000000	-9.44	17.0	Passed

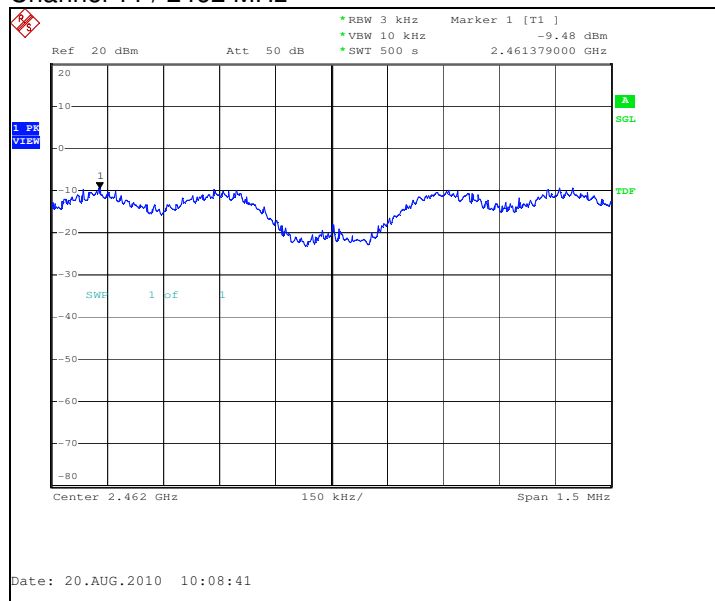
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



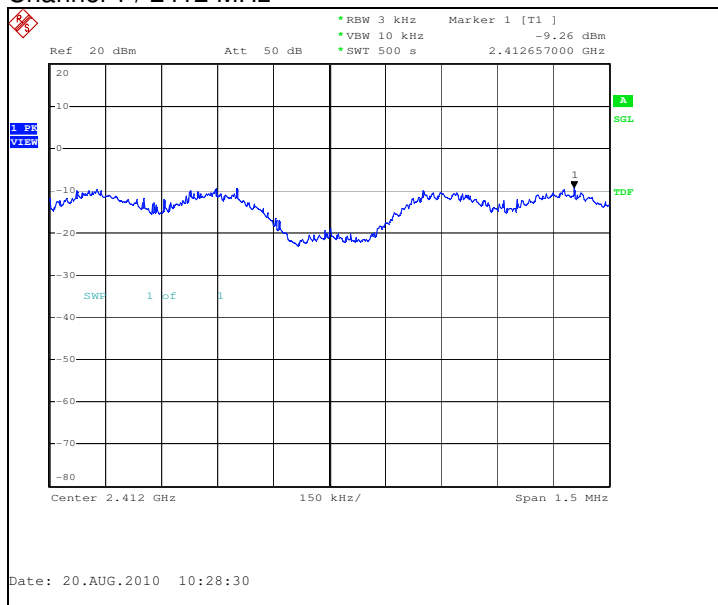
Channel 11 / 2462 MHz



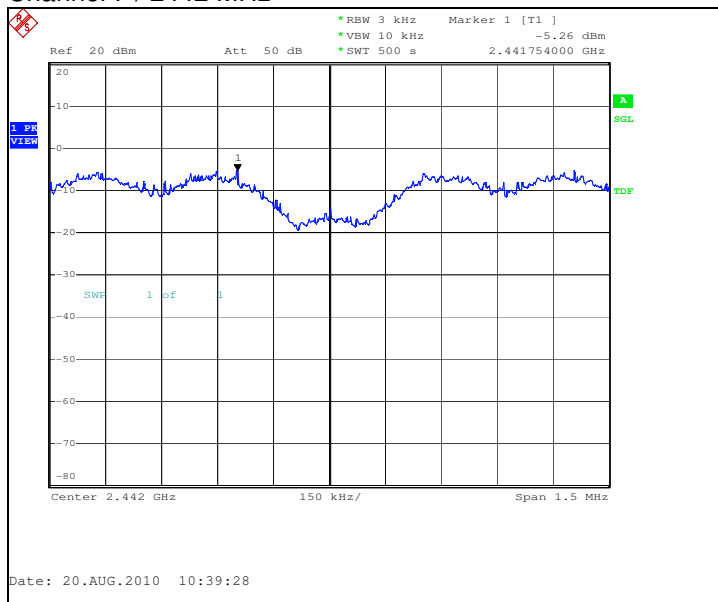
8.2.3 WLAN 802.11n 0 MSC

Frequency	Level	Transd	Spectr Density
2412.000000	-9.26	17.0	Passed

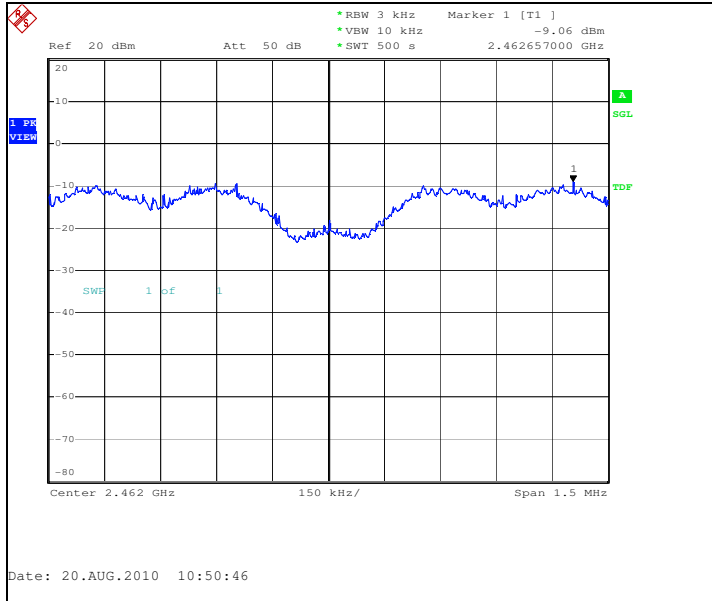
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



9. Test Equipment

9.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
20168	Bluetooth Tester	CBT	Rohde&Schwarz	22/24/27, 15C, 15B
18772	Shielded Chamber	RFD-100	ETS-Lindgren	15C, 15B
13037	Power Supply 0-15V 10A	EA3012	LP Instruments	15C, 15B
13513	Pulse Limiter	ESH3Z2	Rohde&Schwarz	15C, 15B
13666	Receiver	ESPC	Rohde&Schwarz	15C, 15B
13935	LISN	ESH3-Z5	Rohde&Schwarz	15C, 15B
16995	Directional Coupler 20dB 0,5-2,0 GHz SMA Conn.	1538RA-20	Weinschel	15C, 15B
18772	Shielded Chamber	RFD-100	ETS-Lindgren	15C, 15B
19171	Communication Tester	CMU200	Rohde&Schwarz	15C, 15B
11386	DC Power Supply	HP6632A	Hewlett Packard	22/24/27, 15C, 15B
19678	Spectrum Analyzer	FSP	Rohde&Schwarz	22/24/27, 15C, 15B
16601	Communication Tester	CMU200	Rohde&Schwarz	22/24/27, 15C, 15B
19625	Climatic Chamber	VT4002EMC	Vötsch	22/24/27, 15C, 15B
13357	Signal Generator	SMP02	Rohde&Schwarz	22/24/27, 15C, 15B
19116	Power splitter	-	various	22/24/27, 15C, 15B
20544	Transformer. 230/115V	-	Nokia	22/24/27, 15C, 15B
20543	UPS. 700V/A 490W	PW 9120 700i	Powerware	22/24/27, 15C, 15B

9.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
18792	Mast/turntable controller	2090	ETS-EMCO	22/24/27, 15C, 15B
18416	Communication Tester	CMU200	Rohde&Schwarz	22/24/27, 15C, 15B
20168	Bluetooth Tester	CBT	Rohde&Schwarz	22/24/27, 15C, 15B
13077	Power Supply	EA-3016	-	22/24/27, 15C, 15B
15742	Programmable Relay Switching System	-----	Pickering	22/24/27, 15C, 15B
20078	Relay 2x6 Chnl μ Wave Mux	10-785B-522	Pickering	22/24/27, 15C, 15B
14021	Relay Dual 6 Chnl μ Wave Mux	10-785-522	-	22/24/27, 15C, 15B
-	Relay Dual 6 Chnl μ Wave Mux	10-785-522	-	22/24/27, 15C, 15B
17644	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
16948	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
16949	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
18861	Receiver	EMI Test Receiver 20Hz-26,5GHz ESI	Rohde&Schwarz	22/24/27, 15C, 15B
18860	Antenna	HL562	Rohde&Schwarz	22/24/27, 15C, 15B
18773	Anechoic chamber	RFD-100	ETS-Lindgren	22/24/27, 15C, 15B
18774	Anechoic chamber	RFSD-F/A-100	ETS-Lindgren	22/24/27, 15C, 15B
19151	High Pass Filter	WHJS3000-10SS	Wainwright	22/24/27, 15C, 15B
13937	Band reject filter	WRCA902.4-0.2/40-6SS	Wainwright Instruments	22/24/27, 15C, 15B
13936	Band reject filter	WRCD1747.5-0.2/40-10SS	Wainwright Instruments	22/24/27, 15C, 15B
14114	Highpass Filter	WHK1000-12SS	Wainwright Instruments	22/24/27, 15C, 15B
14188	Band reject filter	WRCA902.4-0.2/40-6SS	Wainwright	22/24/27, 15C, 15B
14187	Band reject filter	WRCD1747.5-0.2/40-10SS	Wainwright	22/24/27, 15C, 15B

Eq. No	Equipment	Type	Manufacturer	Used in
16633	Band reject filter	WRCD1880.0-0.2/40-10SS	Wainwright	22/24/27, 15C, 15B
19587	Band reject filter	WRCG2400/2483-2390/2493-35/10SS	Wainwright	22/24/27, 15C, 15B
20115	Band reject filter	-	Wainwright	22/24/27, 15C, 15B
20114	Band reject filter	WRCG1737/1743-1733/1747-40/6SS	Wainwright	22/24/27, 15C, 15B
20116	Band reject filter	WRCG832/83/-825/845-40/5SS	Wainwright	22/24/27, 15C, 15B
20698	Antenna	BBHA 9120 D	SCHWARZBECK	22/24/27, 15C, 15B
19966	Antenna	HFH2-Z2	Rohde&Schwarz	15C, 15B
13799	Signal Generator	SMP02	Rohde&Schwarz	22/24/27, 15C, 15B
15191	Turntable Contoller Unit	G-800SDX	YAESU	22/24/27, 15C, 15B
14900	Antenna Controller	HD100	HD GmbH	22/24/27, 15C, 15B
20544	Transformer. 230/115V	-	Nokia	22/24/27, 15C, 15B
20543	UPS. 700V/A 490W	PW 9120 700i	Powerware	22/24/27, 15C, 15B