

FCC Part 15C Compliance Test Report

Test Report no.:	Tre_FCC_0736_02.doc	Date of Report:	21.9.2007
Number of pages:	62	Customer's Contact person:	Niko Balabanis
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 300 Yrtyipellontie 6 FIN-90230 OULU, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 58300
FCC listing no.:	94436		
IC recognition no.:	3608		
Tested devices/ accessories:	Transceiver RX-44 / Battery BP-4L, AC-Charger AC-4E, Headset HS-48		
FCC ID:	LJPRX-44	IC:	661E-RX44
Supplement reports:	-		
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 and RSS-210. 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, System Manager

1. Summary for FCC Part 15C Compliance Test Report

Date of receipt	30.08.2007
Testing completed	
The customer's contact person	Niko Balabanis
Test Plan referred to	T:\Projects\
Notes	-
Document name	T:\Projects\accessor\RX-44\EMC\Results\FCC\Tre_FCC_0736_02.doc

1.1. EUT and Accessory Information

The EUT is a Bluetooth and WLAN device. Bluetooth and WLAN are tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
Transceiver	RX-44	Z6A009043	0703	-	0.2007.34-9	41250
Transceiver	RX-44	Z6A008900	0703	-	0.2007.34-9	41252
Battery	BP-4L	-	-	-	-	41248
Battery	BP-4L	-	-	-	-	41247
Charger	AC-4E	-	-	-	-	41245
Charger	AC-4E	-	-	-	-	41246
Headset	HS-48	-	-	-	-	41242

1.2. Summary of Test Results

Bluetooth:

Section in CFR 47	Section in RSS-GEN or RSS-210	Name of the test	Result
15.247(b)(1)	A8.4 (2)	Conducted peak output power	PASSED
15.247(c)	A8.5	Band edge compliance of RF emissions	NP
15.247(c)	A8.5	Spurious RF conducted emissions	PASSED
15.247(c), 15.209	A8.5	Spurious radiated emissions	PASSED
15.207	7.2.2	AC powerline conducted emissions	PASSED
15.247(a)(1)	A8.1 (1)	20 dB bandwidth	PASSED
15.247(a)(1)	A8.1 (2)	Carrier frequency separation	PASSED
15.247(a)(1)(iii)	A8.1 (4)	Number of hopping frequencies	PASSED
15.247(a)(1)(iii)	A8.1 (4)	Time of occupancy	PASSED

WLAN:

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

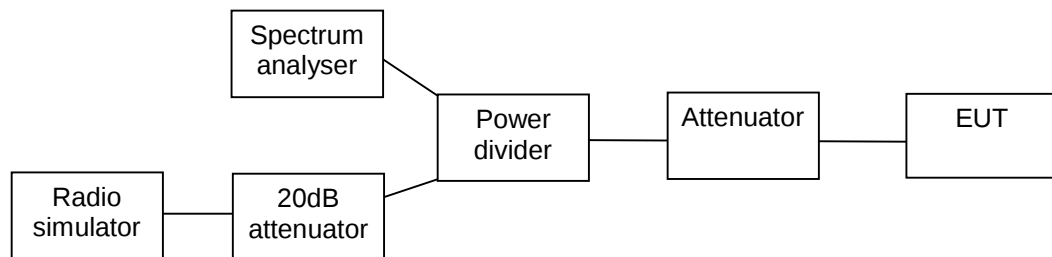
CONTENTS

1. Summary for FCC Part 15C Compliance Test Report.....	2
1.1. EUT and Accessory Information	2
1.2. Summary of Test Results	2
2. Test setups.....	6
2.1. Conducted RF test setup	6
2.2. AC powerline conducted emissions test setup.....	6
2.3. Spurious radiated emissions test setup	6
3. Conducted peak output power (FCC §15.247(b)(1), RSS-210 A8.4 (2))	7
3.1. Test method and limit.....	7
3.2. Bluetooth Test results	8
4. Spurious RF conducted emissions (FCC §15.247(c), RSS-A8.5).....	11
4.1. Test method and limit.....	11
4.2. Bluetooth Test results	12
5. Spurious radiated emissions (FCC §15.247(c), §15.209, RSS-210 A8.5).....	15
5.1. Test method and limit.....	15
5.2. Bluetooth Test results	16
6. AC powerline conducted emissions (FCC §15.207, RSS-GEN 7.2.2)	19
6.1. Test method and limit.....	19
6.2. Bluetooth Test results	20
7. 20 dB bandwidth (FCC §15.247(a)(1), RSS-210 A8.1 (1))	22
7.1. Test method and limit.....	22
7.2. Bluetooth Test results	23
8. Carrier frequency separation (FCC §15.247(a)(1), RSS-210 A8.1 (2))	27
8.1. Test method and limit.....	27
8.2. Bluetooth Test results	28
9. Number of hopping frequencies (FCC §15.247(a)(1)(iii), RSS-210 A8.1 (4))	30
9.1. Test method and limit.....	30
9.2. Bluetooth Test results	31
10. Time of occupancy (FCC §15.247(a)(1)(iii), RSS-210 A8.1 (4))	33
10.1. Test method and limit.....	33
10.2. Bluetooth test results.....	34
11. Conducted peak output power (FCC §15.247(b)(1), RSS-210 A8.4 (4)).....	36

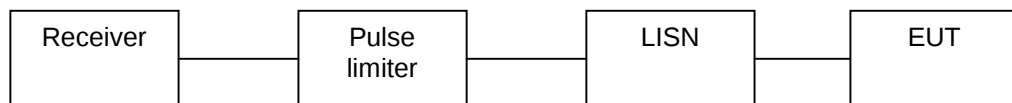
11.1.	Test method and limit	36
11.2.	WLAN Test results	37
12.	Spurious RF conducted emissions (FCC §15.247(c), RSS-210 A8.5)	41
12.1.	Test method and limit	41
12.2.	WLAN Test results	42
13.	Spurious radiated emissions (FCC §15.247(c), §15.209, RSS-210 A8.5)	45
13.1.	Test method and limit	45
13.2.	WLAN Test results	46
14.	AC powerline conducted emissions (FCC §15.207, RSS-GEN 7.2.2)	49
14.1.	Test method and limit	49
14.2.	WLAN Test results	50
15.	6 dB bandwidth (FCC §15.247(a)(2), RSS-210 A8.2 (1))	52
15.1.	Test method and limit	52
15.2.	WLAN test results	53
16.	Power spectral density (FCC §15.247(e), RSS-210 A8.2 (2))	57
16.1.	Test method and limit	57
16.2.	WLAN test results	58
17.	Test Equipment	62
17.1.	Conducted measurements	62
17.2.	Radiated measurements	62

2. Test setups

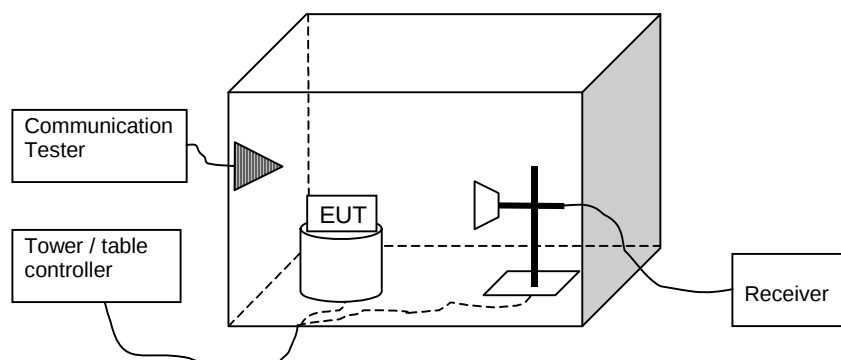
2.1. Conducted RF test setup



2.2. AC powerline conducted emissions test setup



2.3. Spurious radiated emissions test setup



3. Conducted peak output power (FCC §15.247(b)(1), RSS-210 A8.4 (2))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

3.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210.

Limits for conducted peak output power measurements

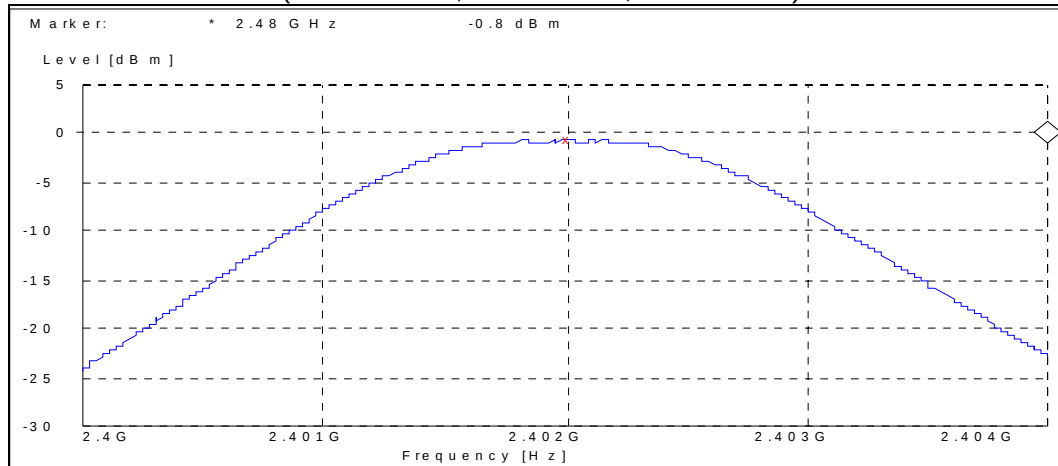
Frequency range [MHz]	Limit [W]	Limit [dBm]
2400 – 2483.5	≤ 1	≤ 30

3.2. Bluetooth Test results

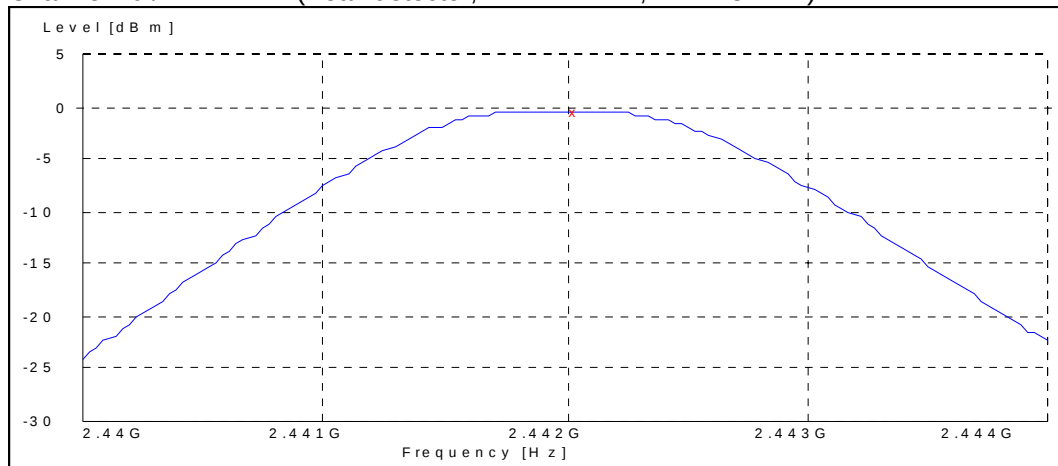
3.2.1 GFSK modulation, PRBS packet type

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
0 / 2402	-0.70	0.851	PASSED
40 / 2442	-0.40	0.912	PASSED
78 / 2480	-0.80	0.832	PASSED

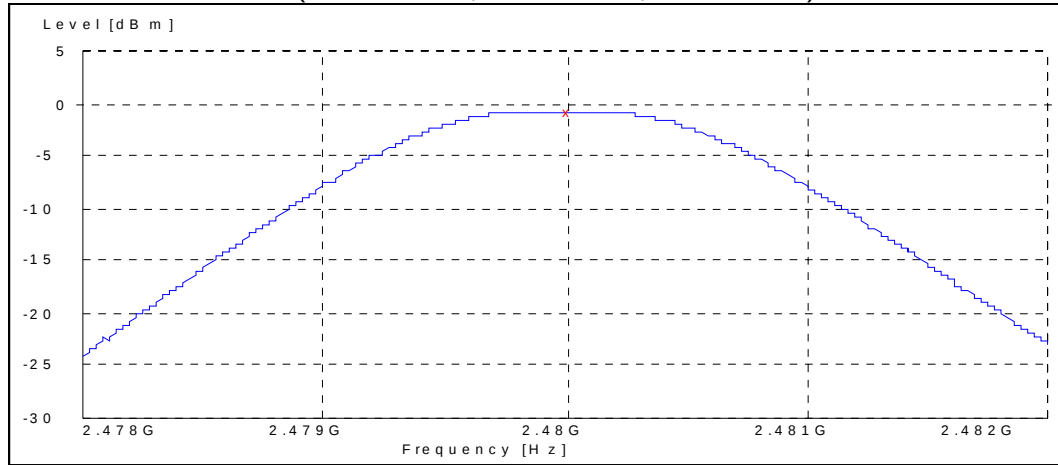
Channel 0 / 2402 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



Channel 40 / 2442 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



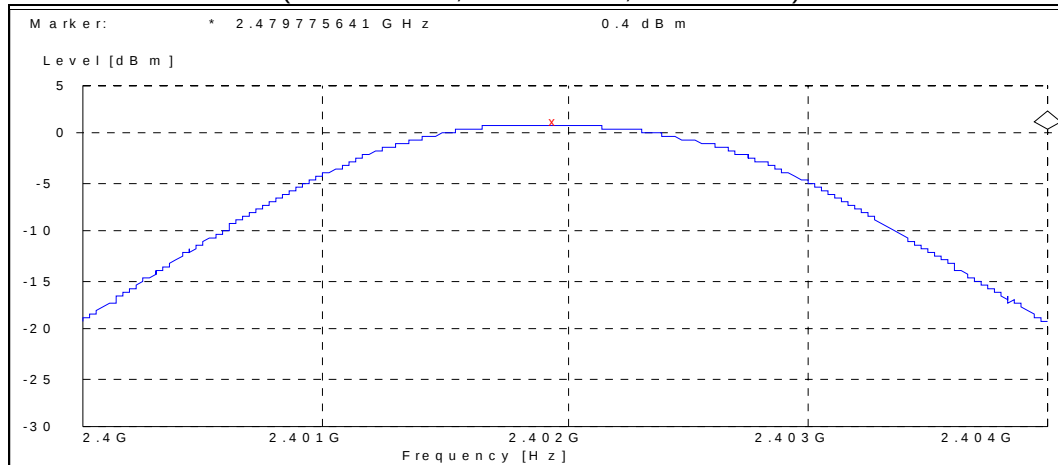
Channel 78 / 2480 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



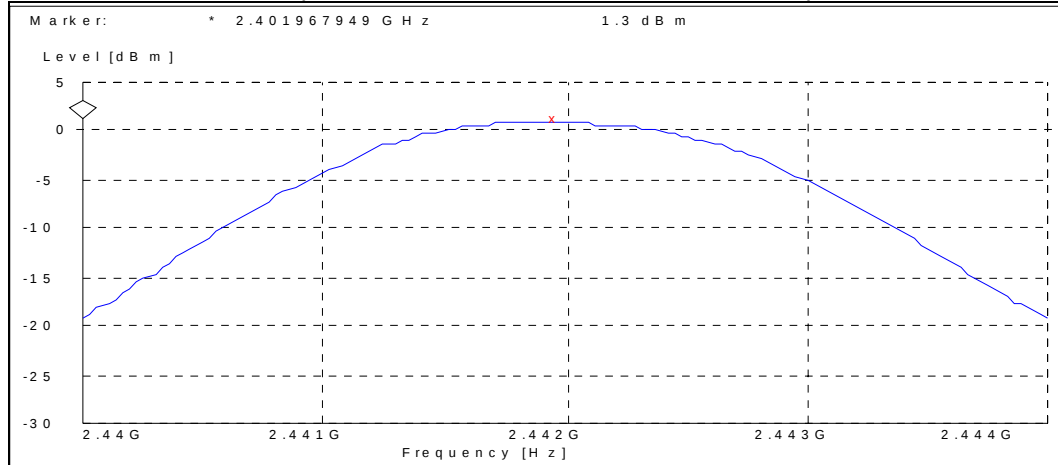
3.2.2 8DPSK modulation, PRBS packet type

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
0 / 2402	1.30	1.349	PASSED
40 / 2442	1.20	1.318	PASSED
78 / 2480	0.40	1.096	PASSED

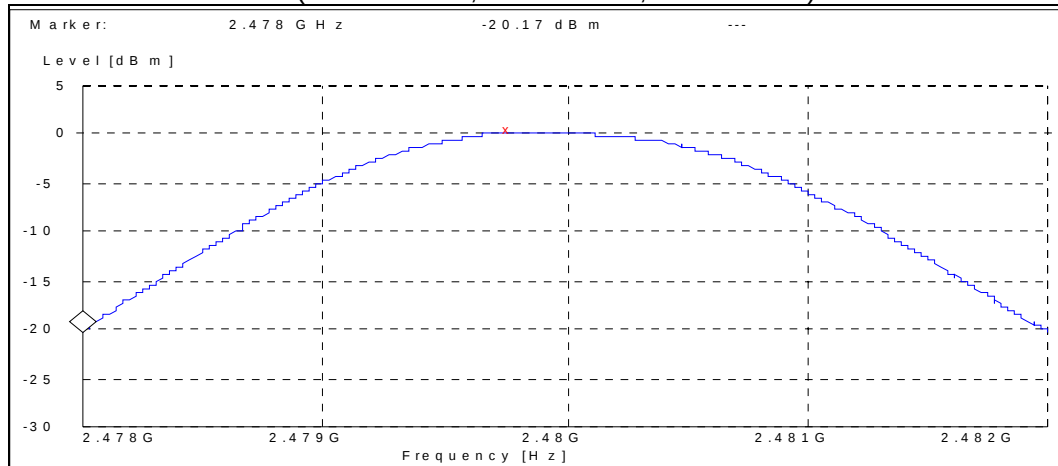
Channel 0 / 2402 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



Channel 40 / 2442 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



Channel 78 / 2480 MHz (Peak detector, RBW: 1 MHz, VBW: 3 MHz)



4. Spurious RF conducted emissions (FCC §15.247(c), RSS-A8.5)

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

4.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210.

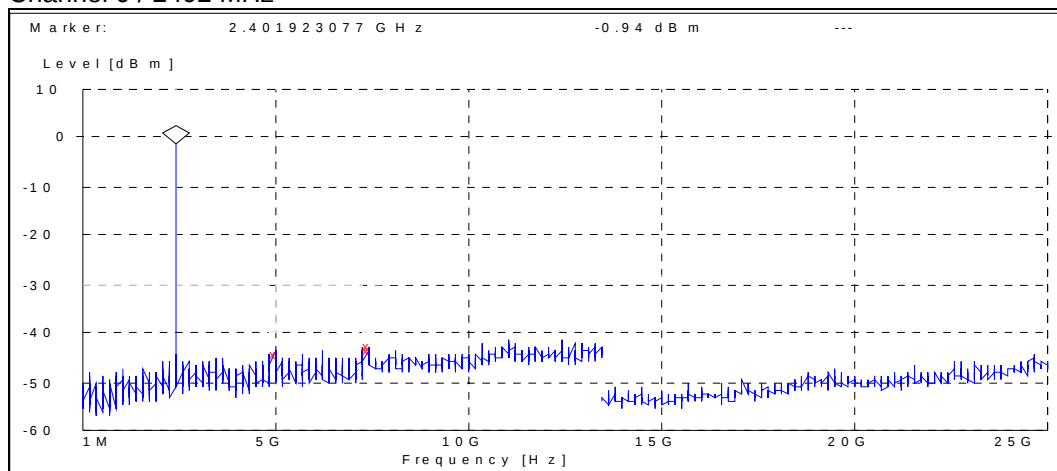
Limits for spurious RF conducted emissions measurements

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

4.2. Bluetooth Test results

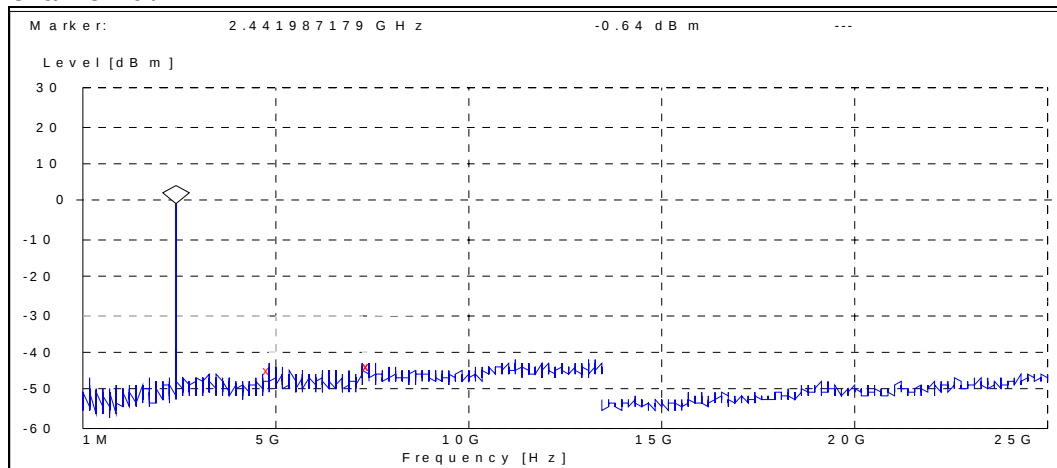
4.2.1 GFSK modulation, PRBS packet type

Channel 0 / 2402 MHz



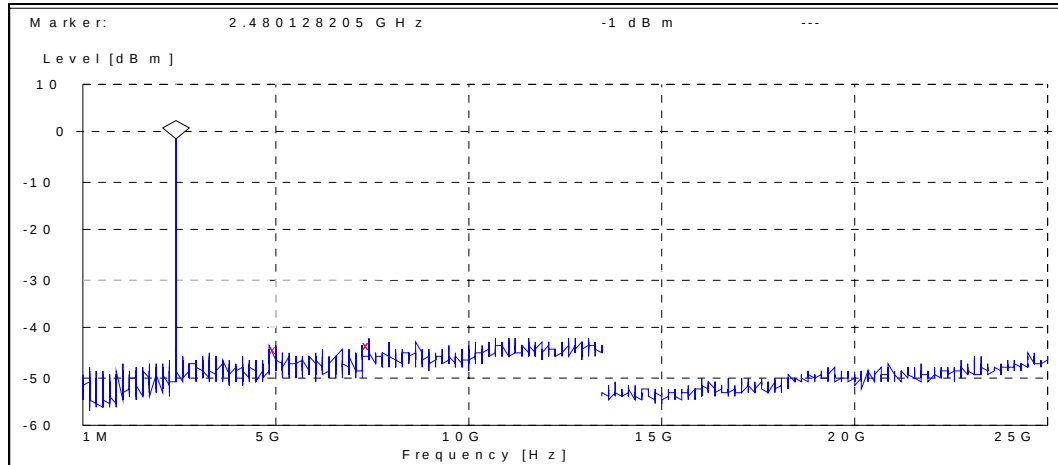
Frequency [MHz]	P [dBc]	Result
4976.282051	-43.255407	PASSED
7463.461538	-42.355407	PASSED
7500.000000	-42.255407	PASSED

Channel 40 / 2442 MHz



Frequency [MHz]	P [dBc]	Result
4835.897436	-43.658538	PASSED
7358.173077	-43.458538	PASSED
7500.000000	-43.258538	PASSED

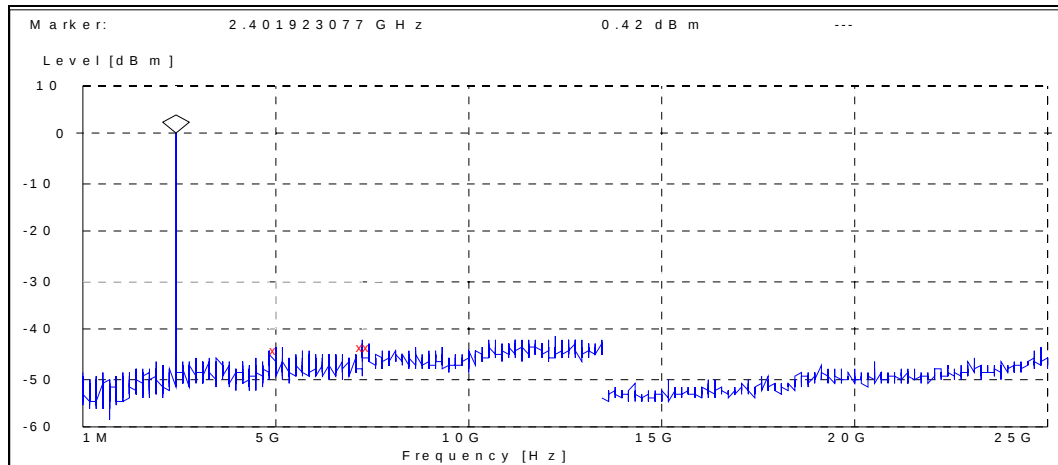
Channel 78 / 2480 MHz



Frequency [MHz]	P [dBc]	Result
4986.858974	-43.295975	PASSED
7351.442308	-42.695975	PASSED
7500.000000	-42.295975	PASSED

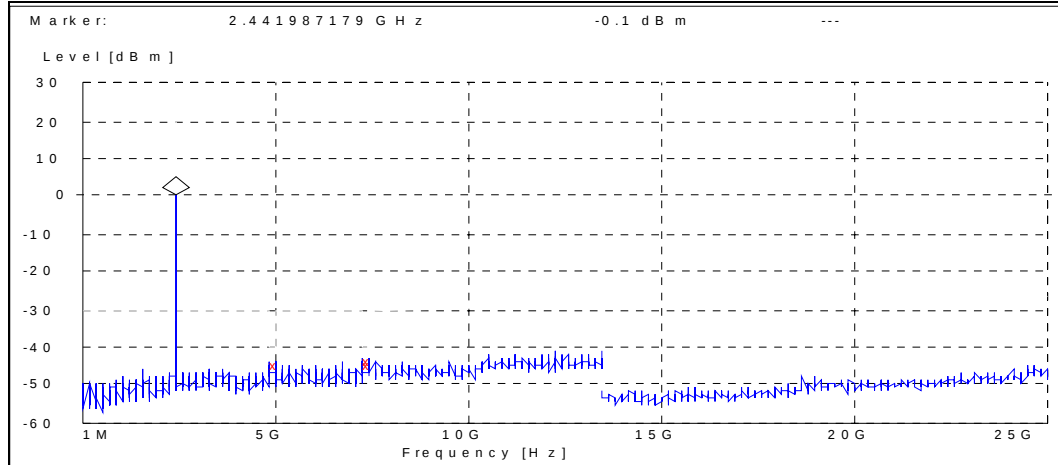
4.2.2 8DPSK modulation, PRBS packet type

Channel 0 / 2402 MHz



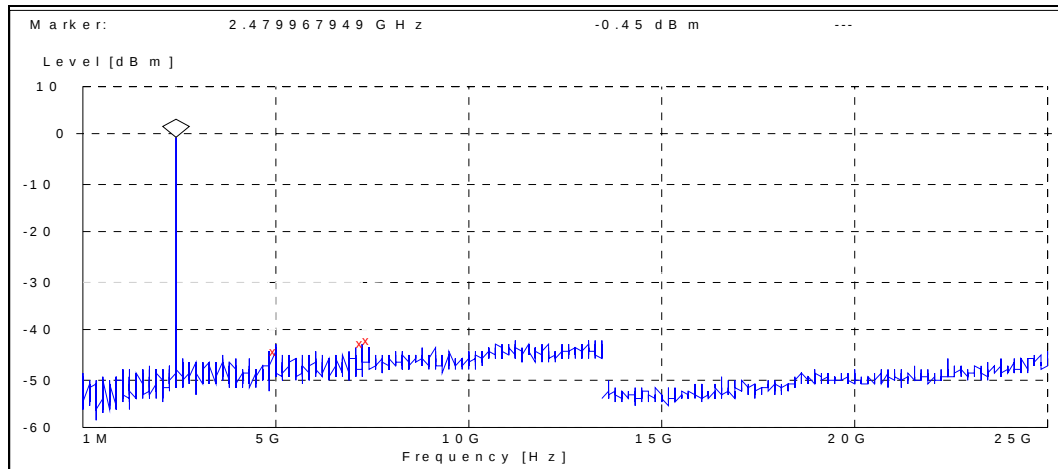
Frequency [MHz]	P [dBc]	Result
4988.461538	-44.623953	PASSED
7273.557692	-44.223953	PASSED
7500.000000	-44.423953	PASSED

Channel 40 / 2442 MHz



Frequency [MHz]	P [dBc]	Result
4956.730769	-44.804078	PASSED
7428.846154	-44.604078	PASSED
7500.000000	-43.904078	PASSED

Channel 78 / 2480 MHz



Frequency [MHz]	P [dBc]	Result
4986.858974	-44.250392	PASSED
7219.711538	-42.750392	PASSED
7500.000000	-41.850392	PASSED

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

EUT with DUT number	RX-44 DUT 41250
Accessories with DUT numbers	BP-4L DUT 41248, AC-4E DUT 41245, HS-48 DUT 41242
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 51 / 100.6
Date of measurements	10.9.2007
Measured by	Jari Jantunen

5.1. Test method and limit

The measurement is made according to Public notice DA 00-705 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

5.2. Bluetooth Test results

5.2.1 GFSK modulation, PRBS packet type

Channel 0 / 2402 MHz

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	38.80	87.10	40.60	-1.8	VERTICAL	PASSED
7206.000000	42.20	128.82	39.80	2.4	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	26.20	20.42	28.00	-1.8	HORIZONTAL	PASSED
7206.000000	28.70	27.23	26.30	2.4	HORIZONTAL	PASSED

Channel 40 / 2442 MHz

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
30.100000	23.00	14.13	32.60	-9.6	VERTICAL	PASSED
37.895391	17.50	7.50	32.50	-15.0	VERTICAL	PASSED
53.105210	23.00	14.13	47.50	-24.5	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4823.649299	40.50	105.93	42.20	-1.7	HORIZONTAL	PASSED
4938.875752	41.20	114.82	42.60	-1.4	HORIZONTAL	PASSED
7285.069138	42.50	133.35	39.50	3.0	HORIZONTAL	PASSED
7336.667335	42.90	139.64	39.80	3.1	HORIZONTAL	PASSED
7418.841683	43.30	146.22	39.60	3.7	HORIZONTAL	PASSED
17493.485972	51.60	380.19	33.40	18.2	VERTICAL	PASSED
17994.995992	55.00	562.34	33.50	21.5	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4824.149299	26.50	21.13	28.20	-1.7	HORIZONTAL	PASSED
4940.875752	27.30	23.17	28.60	-1.3	HORIZONTAL	PASSED
7283.569138	29.90	31.26	26.90	3.0	HORIZONTAL	PASSED
7332.667335	29.60	30.20	26.50	3.1	HORIZONTAL	PASSED
7423.841683	30.10	31.99	26.40	3.7	HORIZONTAL	PASSED
17495.985972	38.90	88.10	20.60	18.3	VERTICAL	PASSED
17998.495992	42.50	133.35	21.00	21.5	HORIZONTAL	PASSED

Channel 78 / 2480 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	40.80	109.65	41.90	-1.1	HORIZONTAL	PASSED
7440.000000	42.90	139.64	39.40	3.5	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	27.50	23.71	28.60	-1.1	HORIZONTAL	PASSED
7440.000000	29.80	30.90	26.30	3.5	HORIZONTAL	PASSED

5.2.2 8DPSK modulation, PRBS packet type

Channel 0 / 2402 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	38.80	87.10	40.60	-1.8	HORIZONTAL	PASSED
7206.000000	42.20	128.82	39.80	2.4	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4804.000000	26.10	20.18	27.90	-1.8	HORIZONTAL	PASSED
7206.000000	28.70	27.23	26.30	2.4	HORIZONTAL	PASSED

Channel 40 / 2442 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
32.845291	20.50	10.59	32.10	-11.6	VERTICAL	PASSED
37.776353	18.00	7.94	33.00	-15.0	VERTICAL	PASSED
51.102806	20.40	10.47	43.80	-23.4	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4963.433868	40.20	102.33	41.30	-1.1	HORIZONTAL	PASSED
7282.561122	43.20	144.54	40.20	3.0	HORIZONTAL	PASSED
7284.067134	42.70	136.46	39.70	3.0	HORIZONTAL	PASSED
7404.307615	42.70	136.46	39.00	3.7	HORIZONTAL	PASSED
7407.321643	42.60	134.90	38.90	3.7	VERTICAL	PASSED
17491.987976	51.70	384.59	33.50	18.2	VERTICAL	PASSED
17958.413828	55.50	595.66	34.10	21.4	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
7280.561122	29.80	30.90	26.80	3.0	HORIZONTAL	PASSED
7285.067134	29.80	30.90	26.80	3.0	HORIZONTAL	PASSED
7405.307615	30.10	31.99	26.40	3.7	HORIZONTAL	PASSED
7412.821643	30.00	31.62	26.30	3.7	VERTICAL	PASSED
17497.987976	38.90	88.10	20.60	18.3	VERTICAL	PASSED
17958.913828	42.30	130.32	20.90	21.4	VERTICAL	PASSED

Channel 78 / 2480 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	39.90	98.86	41.00	-1.1	HORIZONTAL	PASSED
7440.000000	42.50	133.35	39.00	3.5	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4960.000000	27.10	22.65	28.20	-1.1	HORIZONTAL	PASSED
7440.000000	29.80	30.90	26.30	3.5	HORIZONTAL	PASSED

6. AC powerline conducted emissions (FCC §15.207, RSS-GEN 7.2.2)

EUT with DUT number	RX-44 DUT 41250
Accessories with DUT numbers	BP-4L DUT 41248, AC-4E DUT 41245, HS-48 DUT 41242
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 48 / 99.5
Date of measurements	17.9.2007
Measured by	Jari Jantunen

6.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-GEN 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.

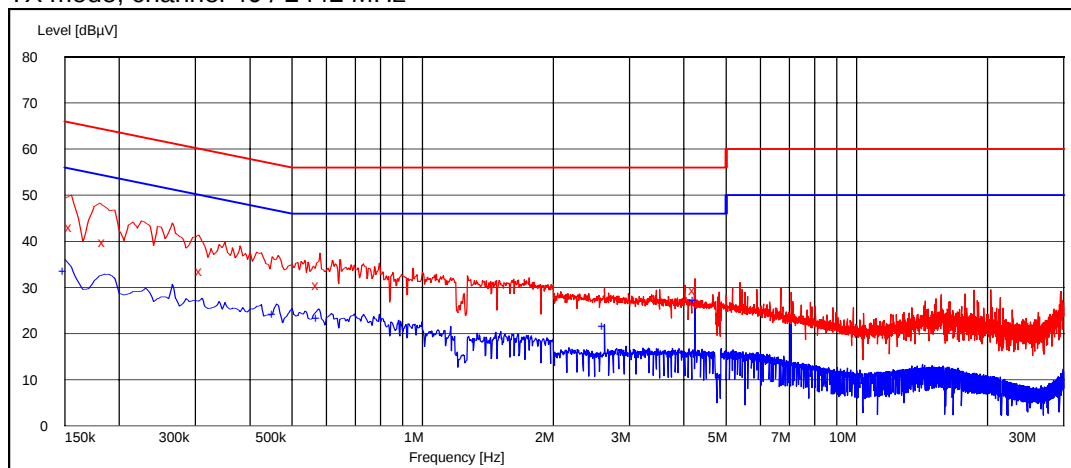
CISPR 22 Class B limits

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

6.2. Bluetooth Test results

6.2.1 GFSK modulation, PRBS packet type

TX mode, channel 40 / 2442 MHz



Quasi peak (RBW: 9 kHz)

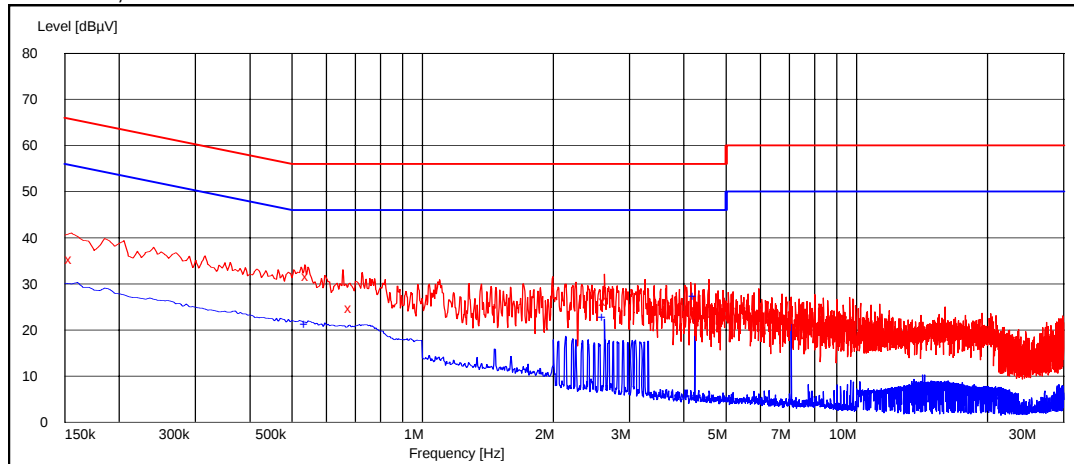
Frequency [MHz]	U [dBμV]	Line	Result
0.155000	43.10	N	PASSED
0.185000	39.80	N	PASSED
0.310000	33.50	N	PASSED
0.575000	30.60	L1	PASSED
4.240000	29.40	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.150000	33.50	L1	PASSED
0.455000	24.30	L1	PASSED
0.575000	23.30	L1	PASSED
2.625000	21.60	L1	PASSED
4.240000	27.30	L1	PASSED

6.2.2 8DPSK modulation, PRBS packet type

TX mode, channel 40 / 2442 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.155000	35.40	N	PASSED
0.545000	31.70	L1	PASSED
0.685000	24.70	L1	PASSED
2.635000	26.30	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.540000	21.30	L1	PASSED
2.625000	22.90	L1	PASSED
4.240000	27.40	L1	PASSED

7. 20 dB bandwidth (FCC §15.247(a)(1), RSS-210 A8.1 (1))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

7.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210.

Limits for 20 dB bandwidth measurements

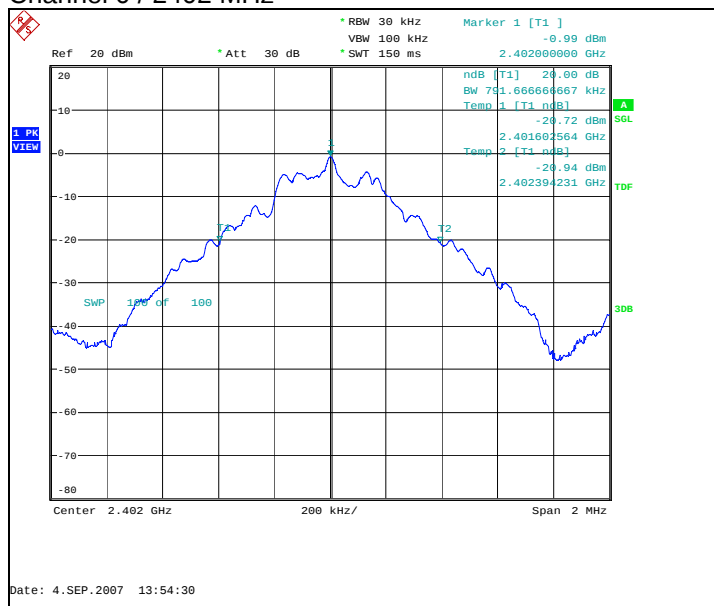
Limit [MHz]
N/A

7.2. Bluetooth Test results

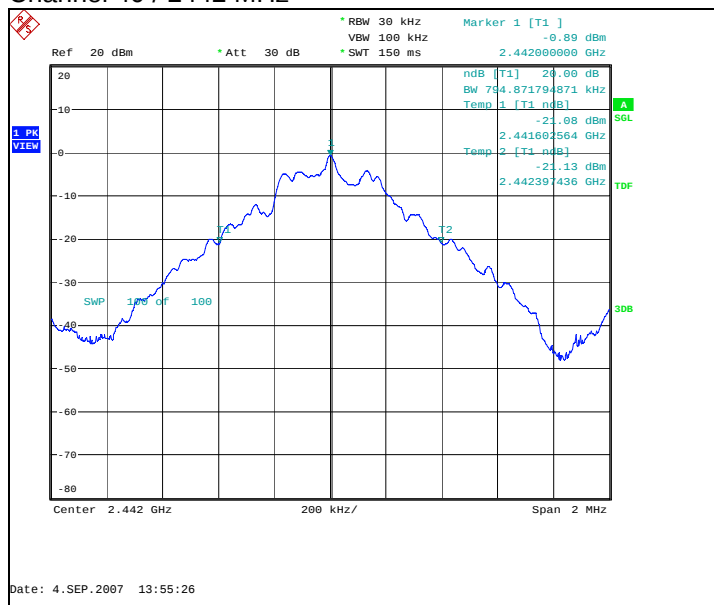
7.2.1 GFSK modulation, PRBS packet type

Channel / f_c [MHz]	20 dB bandwidth [kHz]	Result
0 / 2402	791.667	PASSED
40 / 2442	794.872	PASSED
78 / 2480	794.872	PASSED

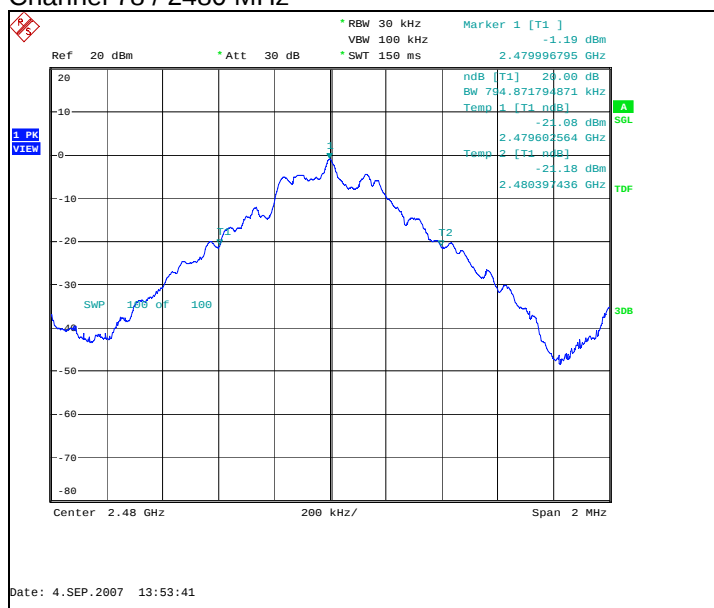
Channel 0 / 2402 MHz



Channel 40 / 2442 MHz



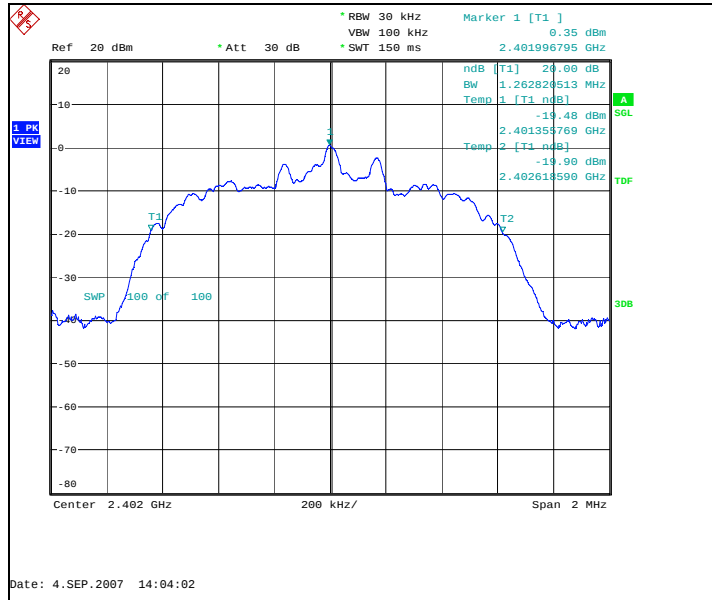
Channel 78 / 2480 MHz



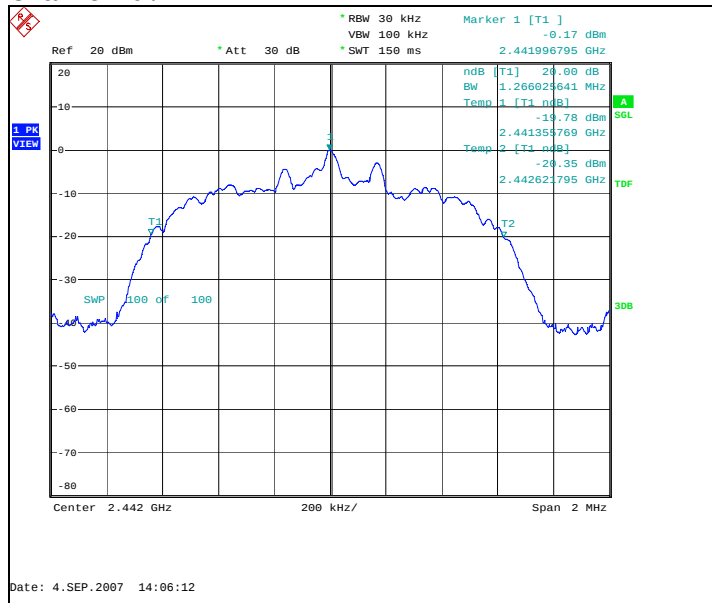
7.2.2 8DPSK modulation, PRBS packet type

Channel / f_c [MHz]	20 dB bandwidth [kHz]	Result
0 / 2402	1262.821	PASSED
40 / 2442	1266.026	PASSED
78 / 2480	1266.026	PASSED

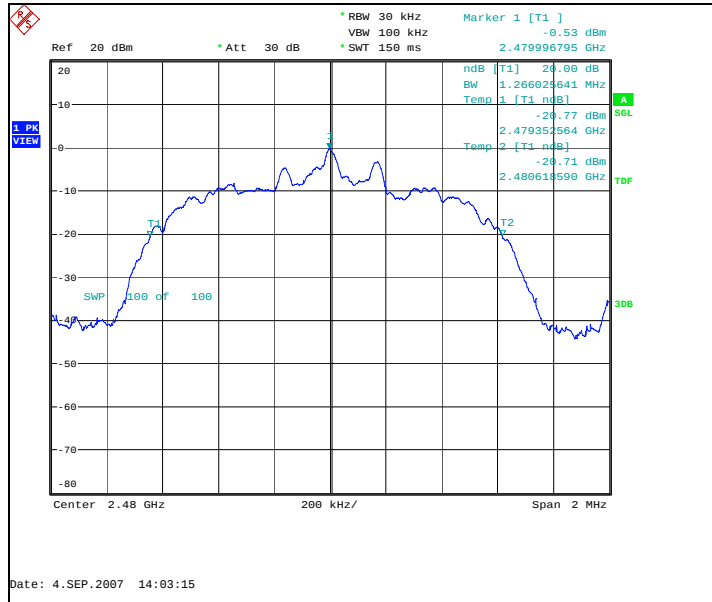
Channel 0 / 2402 MHz



Channel 40 / 2442 MHz



Channel 78 / 2480 MHz



8. Carrier frequency separation (FCC §15.247(a)(1), RSS-210 A8.1 (2))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

8.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210.

Limits for carrier frequency separation measurements

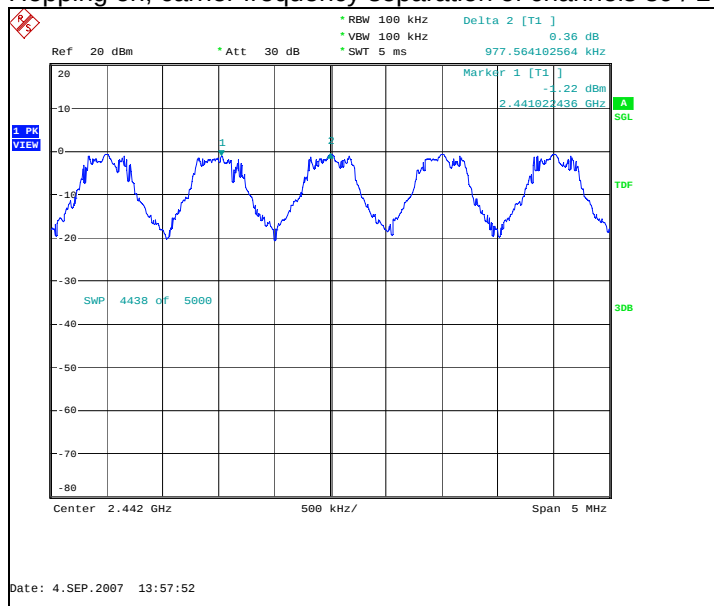
Limit [MHz]
≥ 0.025 or 2/3 of the 20 dB bandwidth

8.2. Bluetooth Test results

8.2.1 GFSK modulation, PRBS packet type

Carrier frequency separation [kHz]	Result
977.564	PASSED

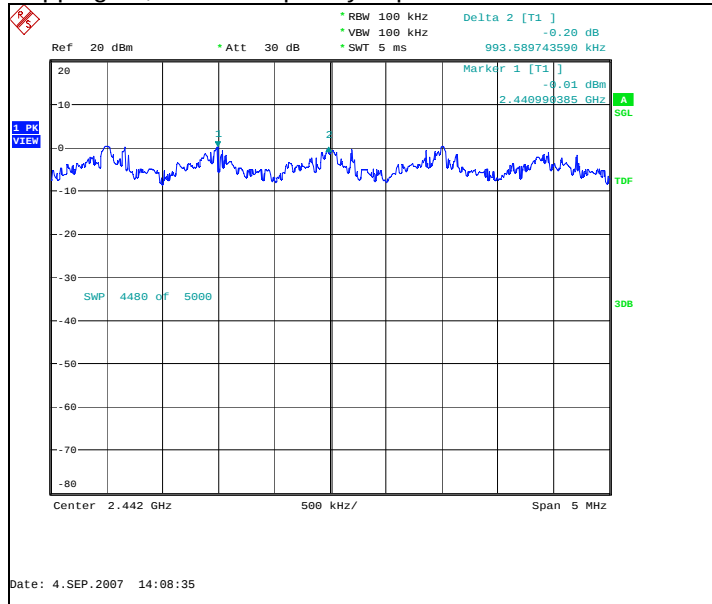
Hopping on, carrier frequency separation of channels 39 / 2441 MHz and 40 / 2442 MHz



8.2.2 8DPSK modulation, PRBS packet type

Carrier frequency separation [kHz]	Result
993.59	PASSED

Hopping on, carrier frequency separation of channels 39 / 2441 MHz and 40 / 2442 MHz



9. Number of hopping frequencies (FCC §15.247(a)(1)(iii), RSS-210 A8.1 (4))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

9.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210.

Limits for number of hopping frequencies measurements

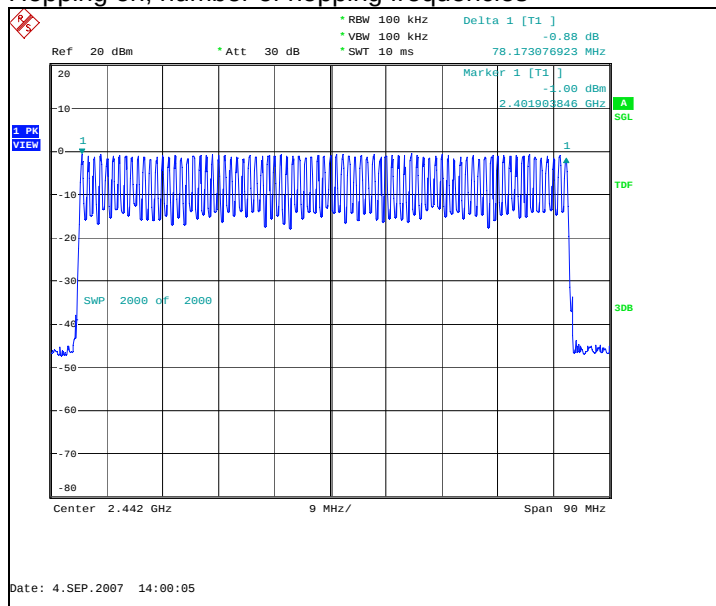
Limit [number]
≥ 15

9.2. Bluetooth Test results

9.2.1 GFSK modulation, PRBS packet type

Measured number of hopping frequencies	Result
79	PASSED

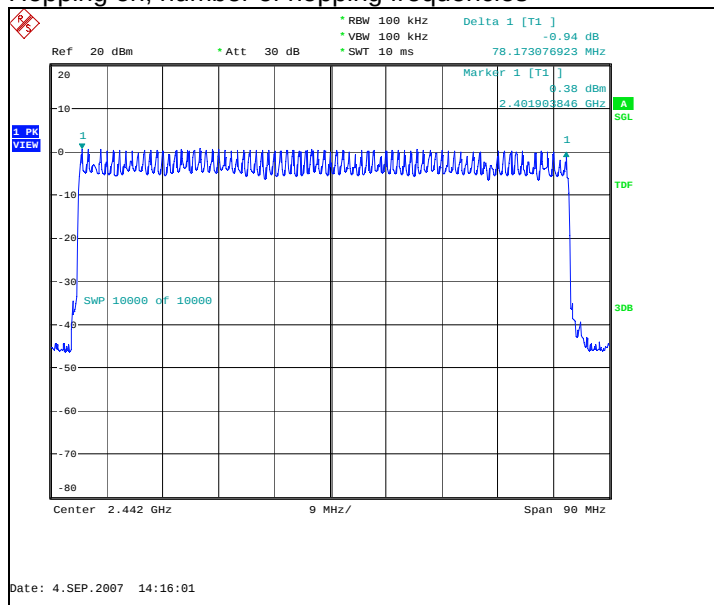
Hopping on, number of hopping frequencies



9.2.2 8DPSK modulation, PRBS packet type

Measured number of hopping frequencies	Result
71	PASSED

Hopping on, number of hopping frequencies



10. Time of occupancy (FCC §15.247(a)(1)(iii), RSS-210 A8.1 (4))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

10.1. Test method and limit

The measurement is made according to Public notice DA 00-705 and IC standard RSS-210 as follows:

The total time of occupancy is get by multiplying the measured number of transmissions occurred during 31.6 second period with the duration of one transmission.

Limits for time of occupancy measurements

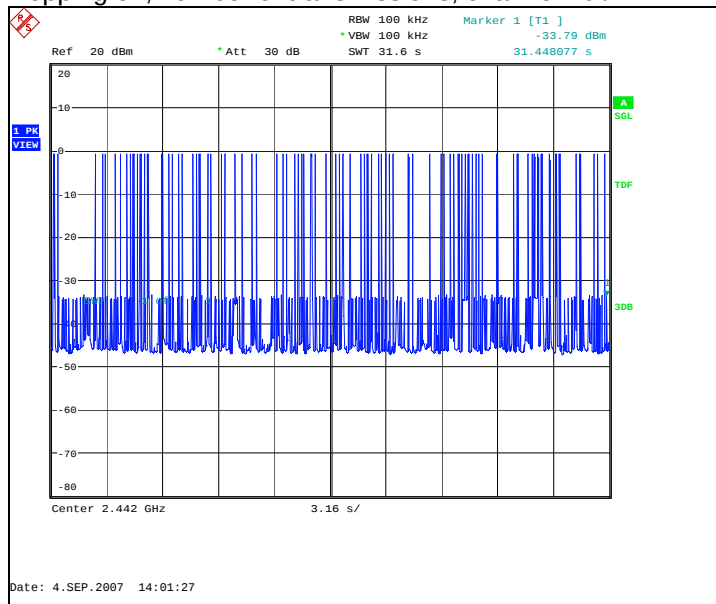
Limit [s]
≤ 0.4

10.2. Bluetooth test results

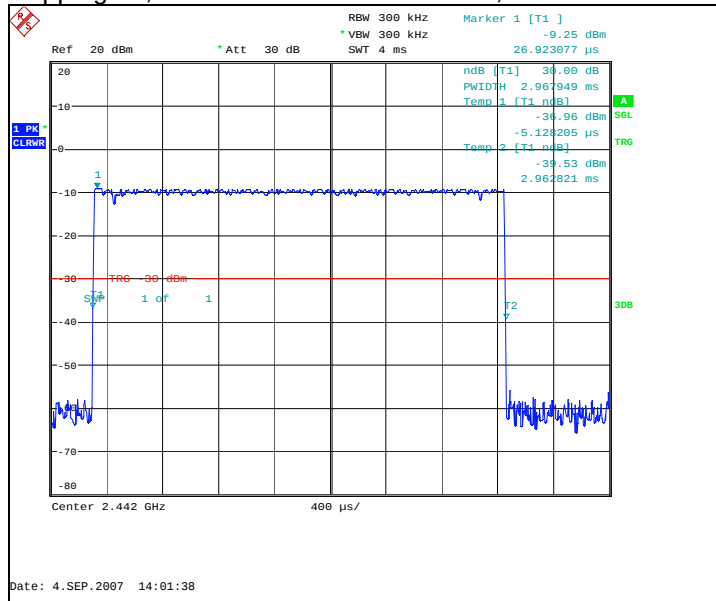
10.2.1 GFSK modulation, PRBS packet type

Measured number of transmissions	Duration of one transmission [μs]	Time of occupancy [s]	Result
77	2,968	0.228532	PASSED

Hopping on, number of transmissions, channel 40 / 2442 MHz



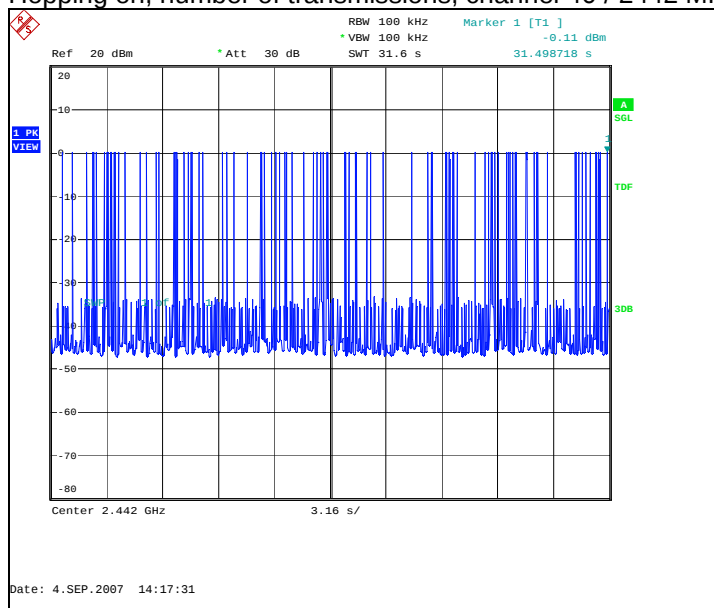
Hopping on, duration of one transmission, channel 40 / 2442 MHz



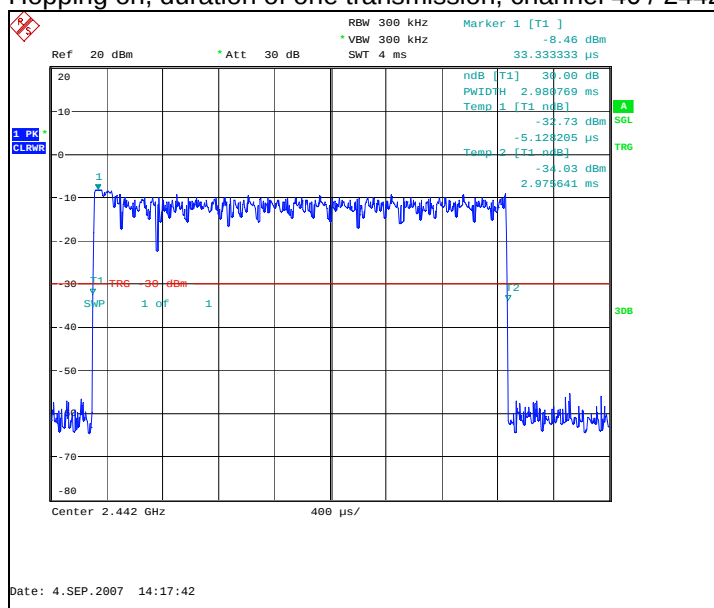
10.2.2 8DPSK modulation, PRBS packet type

Measured number of transmissions	Duration of one transmission [μ s]	Time of occupancy [s]	Result
77	2,981	0.229519	PASSED

Hopping on, number of transmissions, channel 40 / 2442 MHz



Hopping on, duration of one transmission, channel 40 / 2442 MHz



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

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

11.1. 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

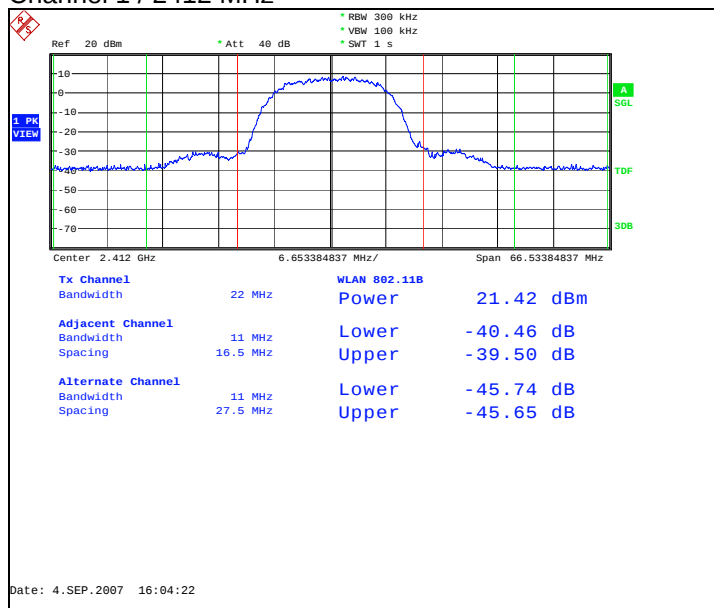
Frequency range [MHz]	Limit [W]	Limit [dBm]
2400 – 2483.5	≤ 1	≤ 30

11.2. WLAN Test results

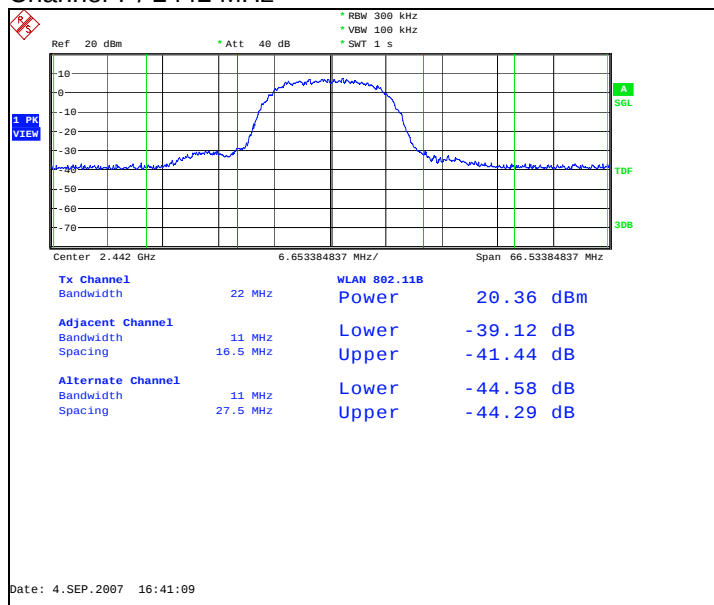
11.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [W]	Result
1 / 2412	21.42	0.139	PASSED
7 / 2442	20.36	0.109	PASSED
11 / 2462	21.32	0.136	PASSED

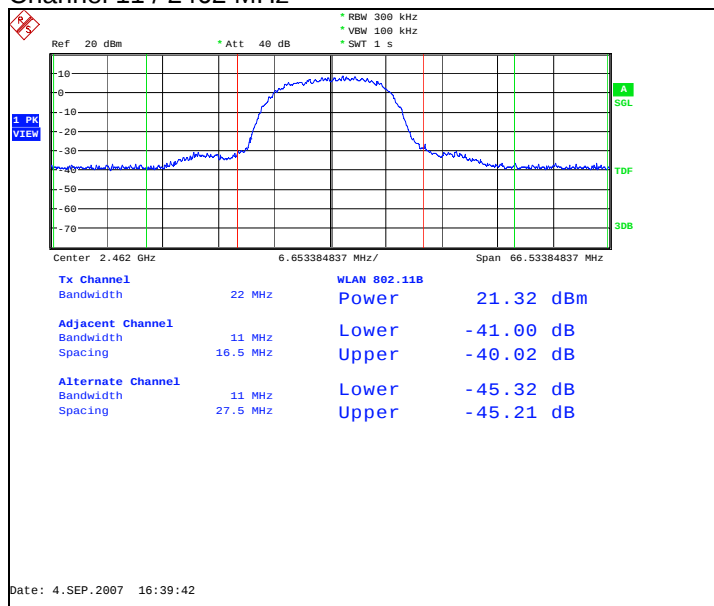
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



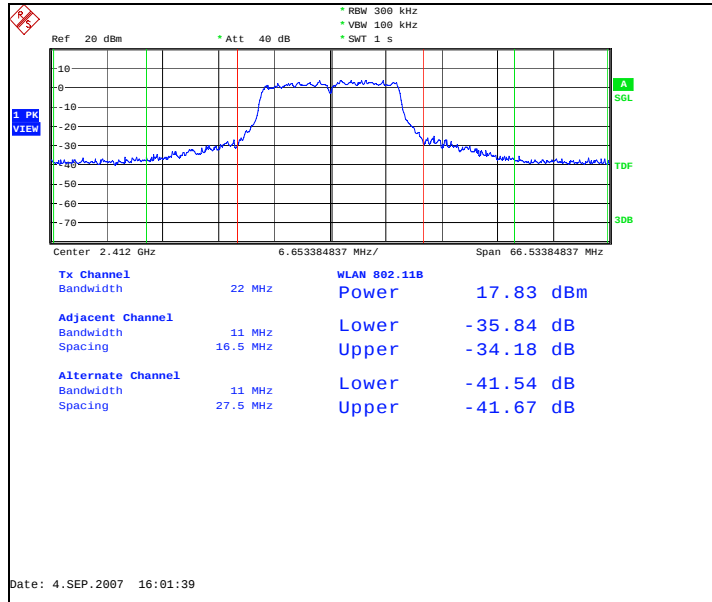
Channel 11 / 2462 MHz



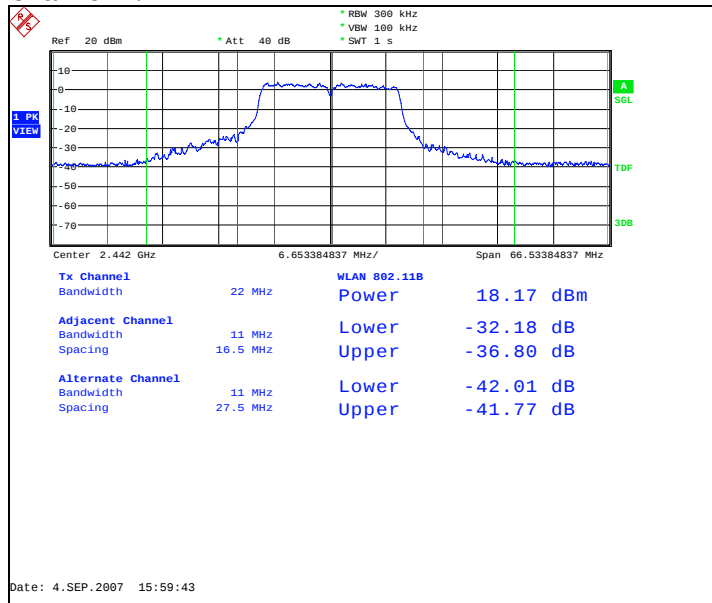
11.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [W]	Result
1 / 2412	17.83	0.061	PASSED
7 / 2442	18.17	0.066	PASSED
11 / 2462	19.02	0.080	PASSED

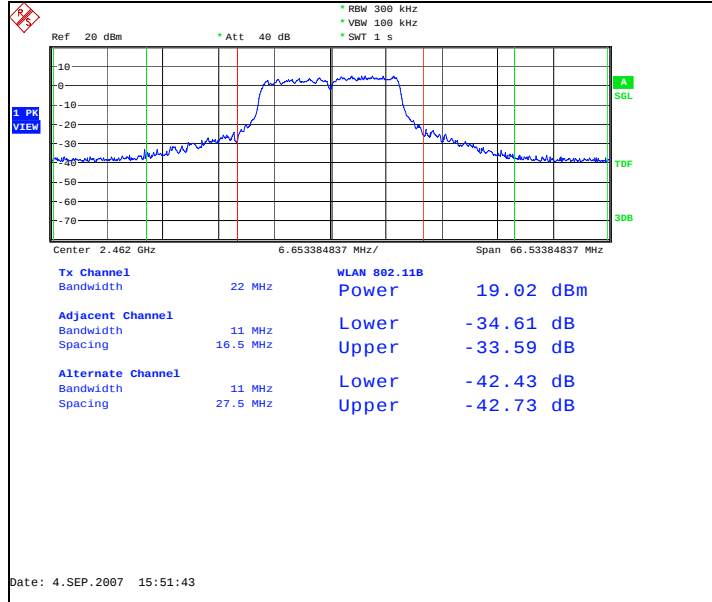
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



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

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

12.1. Test method and limit

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

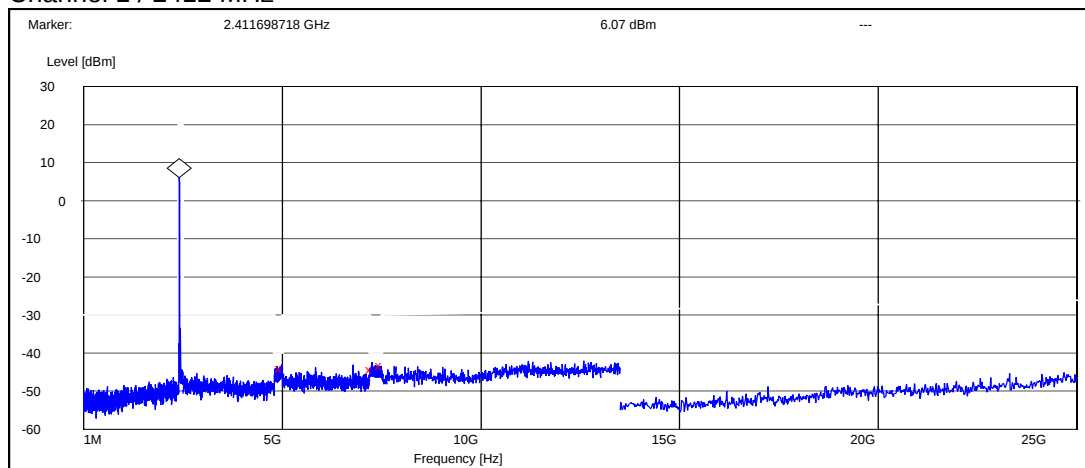
Limits for spurious RF conducted emissions measurements

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

12.2. WLAN Test results

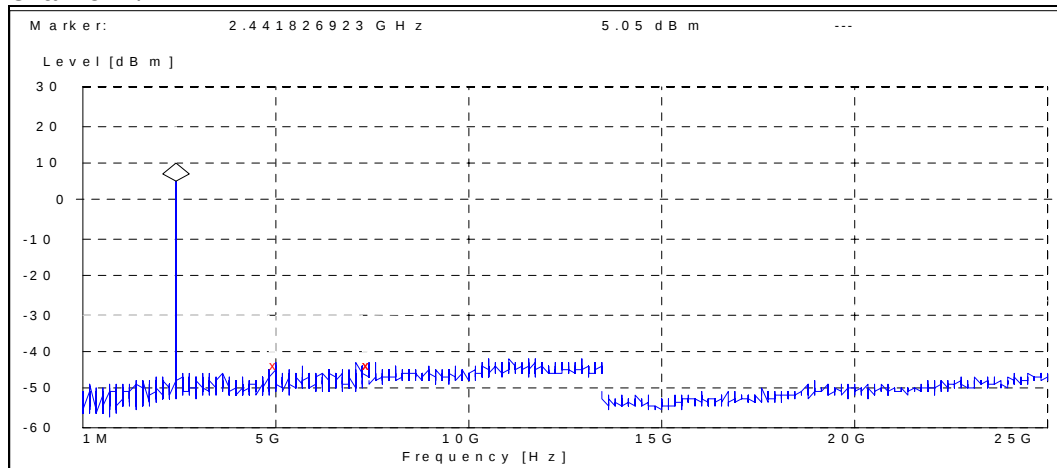
12.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel 1 / 2412 MHz



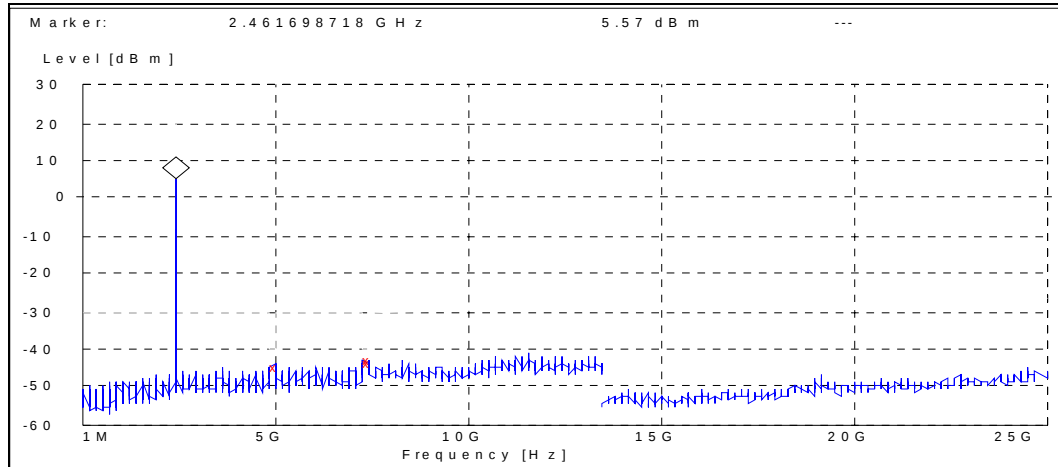
Frequency [MHz]	P [dBc]	Result
4993.269231	-50.067642	PASSED
7261.057692	-50.267642	PASSED
7500.000000	-49.267642	PASSED

Channel 7 / 2442 MHz



Frequency [MHz]	P [dBc]	Result
4988.141026	-48.850507	PASSED
7365.384615	-48.850507	PASSED
7500.000000	-49.050507	PASSED

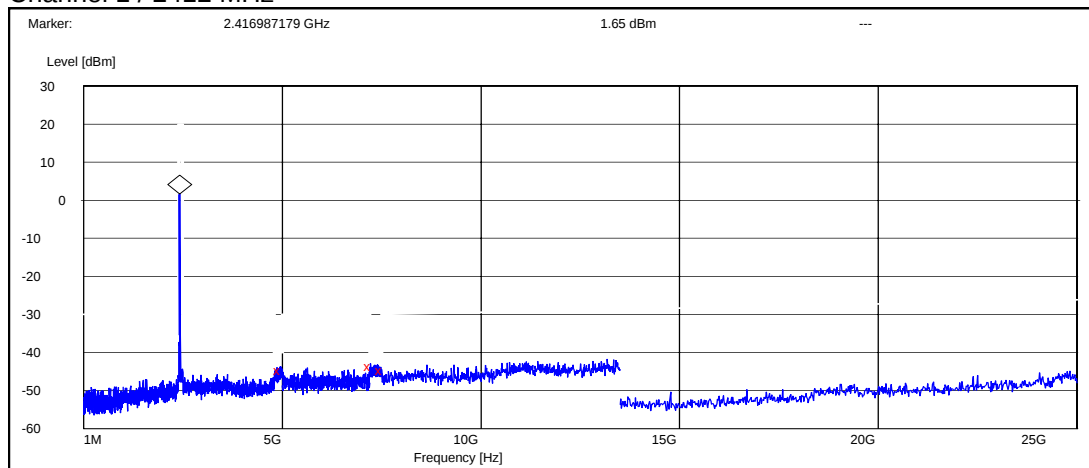
Channel 11 / 2462 MHz



Frequency [MHz]	P [dBc]	Result
4951.282051	-50.566279	PASSED
7413.942308	-48.366279	PASSED
7500.000000	-49.366279	PASSED

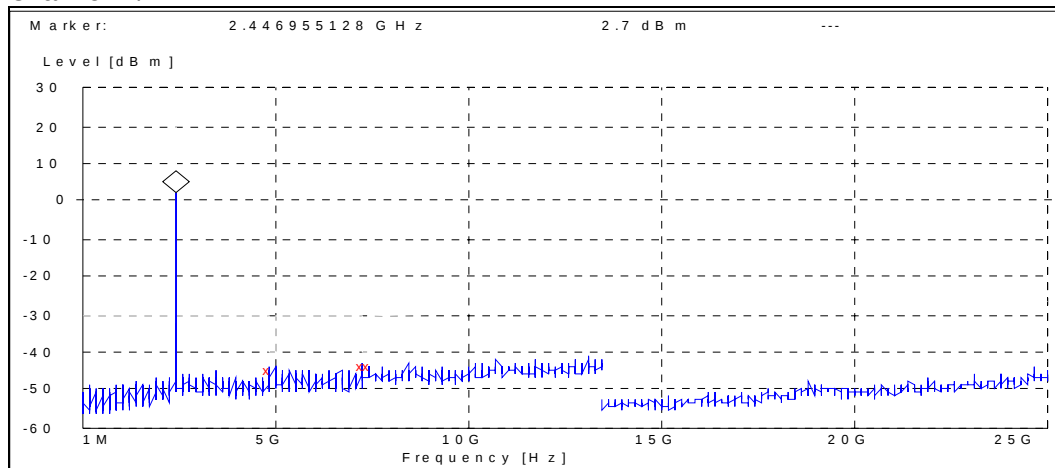
12.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel 1 / 2412 MHz



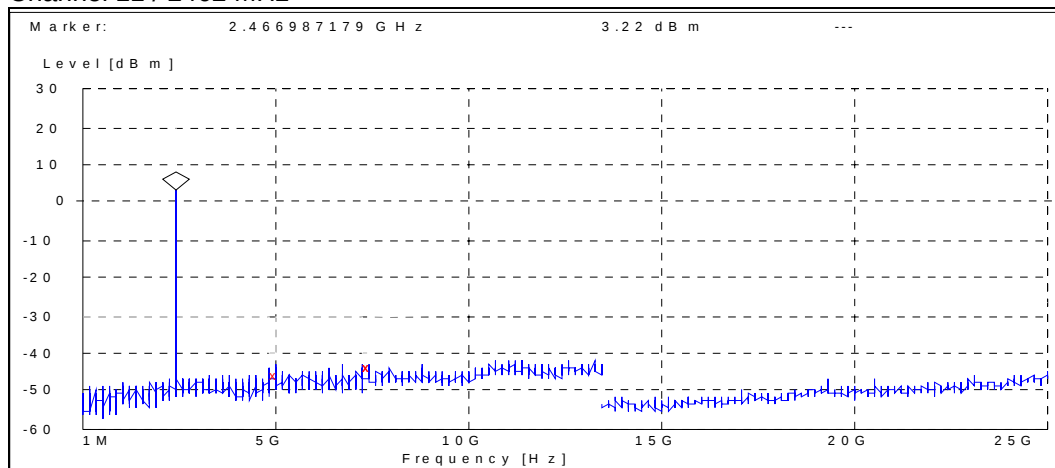
Frequency [MHz]	P [dBc]	Result
4951.602564	-46.151248	PASSED
7218.269231	-45.251248	PASSED
7500.000000	-46.351248	PASSED

Channel 7 / 2442 MHz



Frequency [MHz]	P [dBc]	Result
4931.089744	-47.002924	PASSED
7212.500000	-46.402924	PASSED
7500.000000	-46.302924	PASSED

Channel 11 / 2462 MHz



Frequency [MHz]	P [dBc]	Result
4945.192308	-48.617706	PASSED
7378.846154	-47.417706	PASSED
7500.000000	-47.017706	PASSED

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

EUT with DUT number	RX-44 DUT 41250
Accessories with DUT numbers	BP-4L DUT 41248, AC-4E DUT 41245, HS-48 DUT 41242
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 51 / 100.6
Date of measurements	10.9.2007
Measured by	Jari Jantunen

13.1. 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

13.2. WLAN Test results

13.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel 1 / 2412 MHz

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4824.000000	44.60	169.82	46.30	-1.7	HORIZONTAL	PASSED
7236.000000	56.70	683.91	54.10	2.6	VERTICAL	PASSED

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4824.000000	30.20	32.36	31.90	-1.7	HORIZONTAL	PASSED
7236.000000	46.70	216.27	44.10	2.6	VERTICAL	PASSED

Channel 7 / 2442 MHz

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
33.588176	20.90	11.09	33.00	-12.1	VERTICAL	PASSED
38.195391	18.80	8.71	34.00	-15.2	VERTICAL	PASSED
52.586172	23.40	14.79	47.70	-24.3	VERTICAL	PASSED

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

Frequency [MHz]	E [dB $\mu\text{V/m}$]	E [$\mu\text{V/m}$]	U _{RX} [dB μV]	A _{TOT} [dB]	Polarisation	Result
4883.771543	50.60	338.84	52.30	-1.7	HORIZONTAL	PASSED
4884.269539	50.40	331.13	52.10	-1.7	HORIZONTAL	PASSED
7324.653307	59.70	966.05	56.70	3.0	VERTICAL	PASSED
7327.661323	59.60	954.99	56.60	3.0	VERTICAL	PASSED
17973.447896	55.40	588.84	33.90	21.5	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4883.771543	37.60	75.86	39.30	-1.7	HORIZONTAL	PASSED
4884.269539	37.50	74.99	39.20	-1.7	HORIZONTAL	PASSED
7324.653307	49.60	302.00	46.60	3.0	VERTICAL	PASSED
7326.661323	48.80	275.42	45.80	3.0	VERTICAL	PASSED
17971.447896	42.30	130.32	20.80	21.5	VERTICAL	PASSED

Channel 11 / 2462 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4924.000000	52.20	407.38	53.80	-1.6	HORIZONTAL	PASSED
7386.000000	57.60	758.58	54.10	3.5	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4924.000000	38.50	84.14	40.10	-1.6	HORIZONTAL	PASSED
7386.000000	47.00	223.87	43.50	3.5	VERTICAL	PASSED

13.2.2 OFDM mode, BPSK modulation, 6 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]	Polarisation	Result
4824.000000	41.80	123.03	43.50	-1.7	HORIZONTAL	PASSED
7236.000000	57.20	724.44	54.60	2.6	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4824.000000	29.50	29.85	31.20	-1.7	HORIZONTAL	PASSED
7236.000000	45.90	197.24	43.30	2.6	VERTICAL	PASSED

Channel 7 / 2442 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
30.261924	23.50	14.96	33.20	-9.7	VERTICAL	PASSED
37.576353	18.80	8.71	33.60	-14.8	VERTICAL	PASSED
53.067134	26.00	19.95	50.50	-24.5	HORIZONTAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4885.773547	44.40	165.96	46.10	-1.7	VERTICAL	PASSED
7328.151303	61.70	1 216.19	58.70	3.0	VERTICAL	PASSED
7328.157315	62.00	1 258.93	59.00	3.0	VERTICAL	PASSED
7346.197395	57.30	732.82	54.10	3.2	VERTICAL	PASSED
9775.551102	56.00	630.96	48.20	7.8	HORIZONTAL	PASSED
17952.405812	55.20	575.44	33.80	21.4	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4886.273547	31.10	35.89	32.80	-1.7	VERTICAL	PASSED
7328.151303	49.10	285.10	46.10	3.0	VERTICAL	PASSED
7328.157315	49.00	281.84	46.00	3.0	VERTICAL	PASSED
7345.697395	40.30	103.51	37.10	3.2	VERTICAL	PASSED
9775.551102	41.30	116.14	33.50	7.8	HORIZONTAL	PASSED
17951.905812	42.30	130.32	20.90	21.4	VERTICAL	PASSED

Channel 11 / 2462 MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4924.000000	46.90	221.31	48.50	-1.6	HORIZONTAL	PASSED
7386.000000	60.20	1 023.29	56.70	3.5	VERTICAL	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Polarisation	Result
4924.000000	35.60	60.26	37.20	-1.6	HORIZONTAL	PASSED
7386.000000	49.00	281.84	45.50	3.5	VERTICAL	PASSED

14. AC powerline conducted emissions (FCC §15.207, RSS-GEN 7.2.2)

EUT with DUT number	RX-44 DUT 41250
Accessories with DUT numbers	BP-4L DUT 41248, AC-4E DUT 41245, HS-48 DUT 41242
Operation Voltage [V] / [Hz]	115 / 60
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21 / 48 / 99.5
Date of measurements	17.9.2007
Measured by	Jari Jantunen

14.1. Test method and limit

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

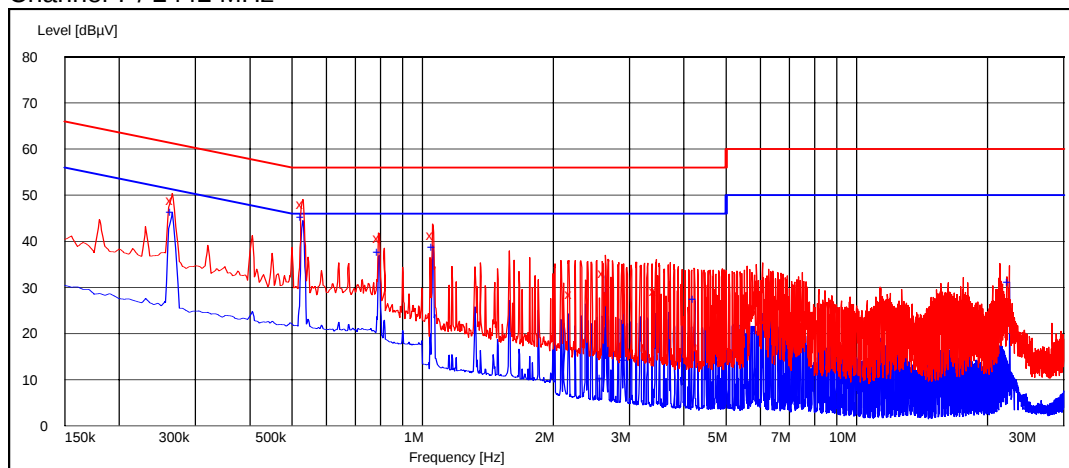
CISPR 22 Class B limits

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

14.2. WLAN Test results

14.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel 7 / 2442 MHz



Quasi peak (RBW: 9 kHz)

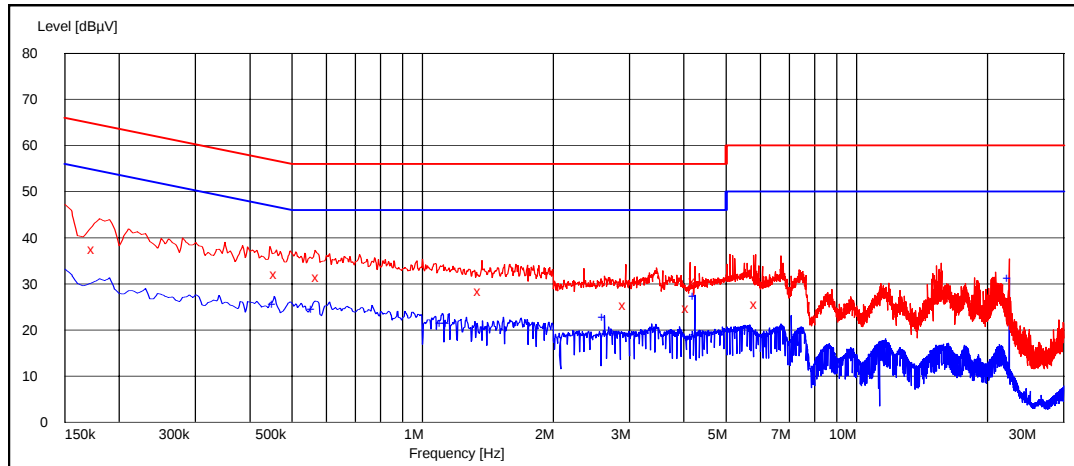
Frequency [MHz]	U [dBμV]	Line	Result
0.265000	49.00	L1	PASSED
0.530000	48.10	L1	PASSED
0.795000	40.80	L1	PASSED
1.055000	41.40	L1	PASSED
2.205000	28.50	L1	PASSED
2.625000	33.10	L1	PASSED
3.445000	29.20	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.265000	46.30	L1	PASSED
0.530000	45.20	L1	PASSED
0.795000	37.60	L1	PASSED
1.060000	38.80	L1	PASSED
2.595000	10.30	N	PASSED
2.935000	14.20	L1	PASSED
4.240000	27.40	L1	PASSED
22.500000	31.20	L1	PASSED

14.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel 7 / 2442 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.175000	37.50	L1	PASSED
0.460000	32.10	L1	PASSED
0.575000	31.50	L1	PASSED
1.360000	28.50	L1	PASSED
2.930000	25.40	L1	PASSED
4.105000	24.80	L1	PASSED
4.240000	30.50	L1	PASSED
5.895000	25.60	L1	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.455000	25.70	L1	PASSED
0.560000	24.50	L1	PASSED
1.110000	21.60	L1	PASSED
1.145000	21.60	L1	PASSED
2.625000	22.70	L1	PASSED
4.240000	27.40	L1	PASSED
22.500000	31.20	L1	PASSED

15. 6 dB bandwidth (FCC §15.247(a)(2), RSS-210 A8.2 (1))

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

15.1. 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

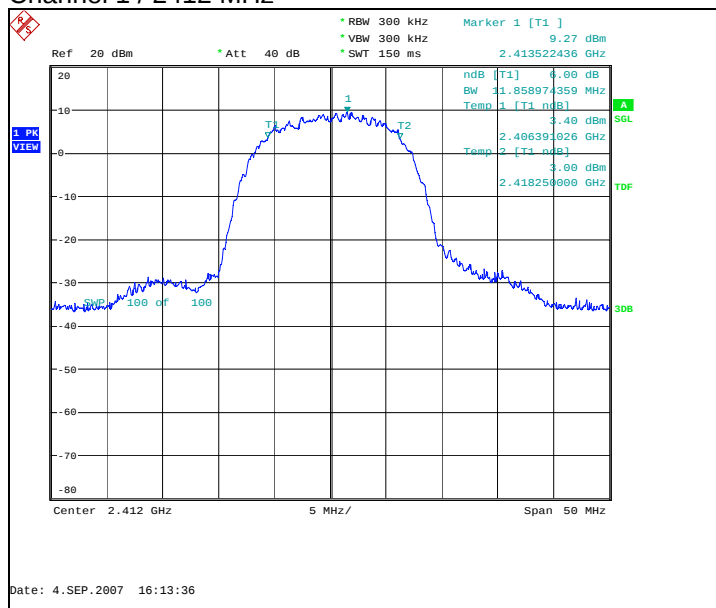
Limit [kHz]
≥ 500

15.2. WLAN test results

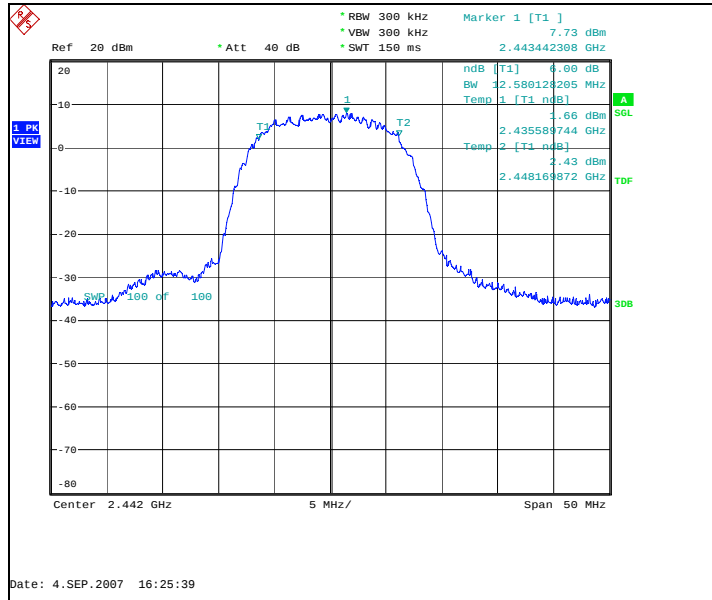
15.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f_c [MHz]	6 dB bandwidth [kHz]	Result
1	11858.974	PASSED
7	12580.128	PASSED
11	12019.231	PASSED

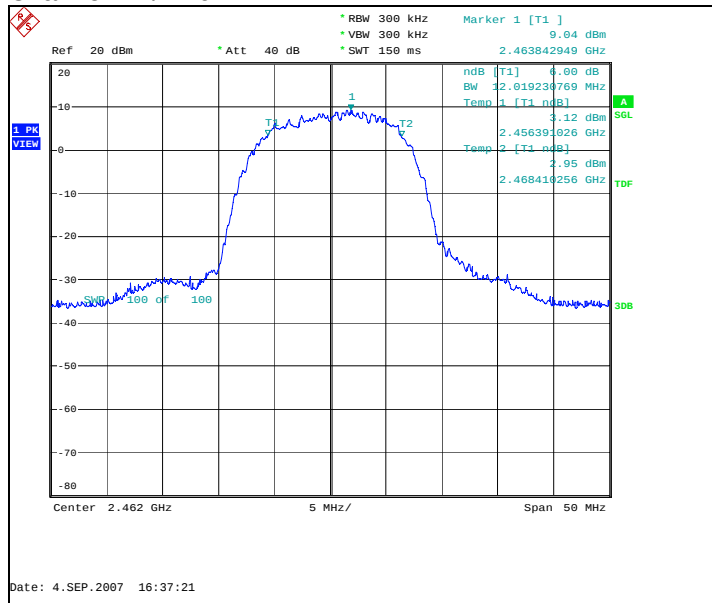
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



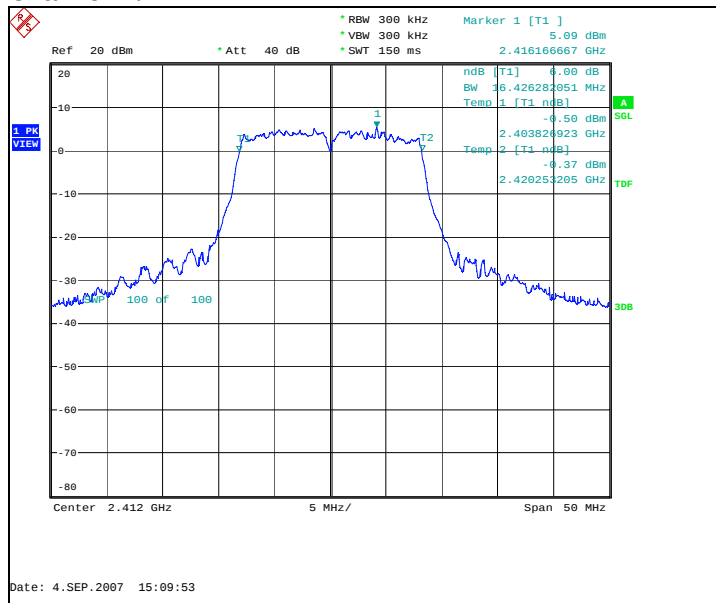
Channel 11 / 2462 MHz



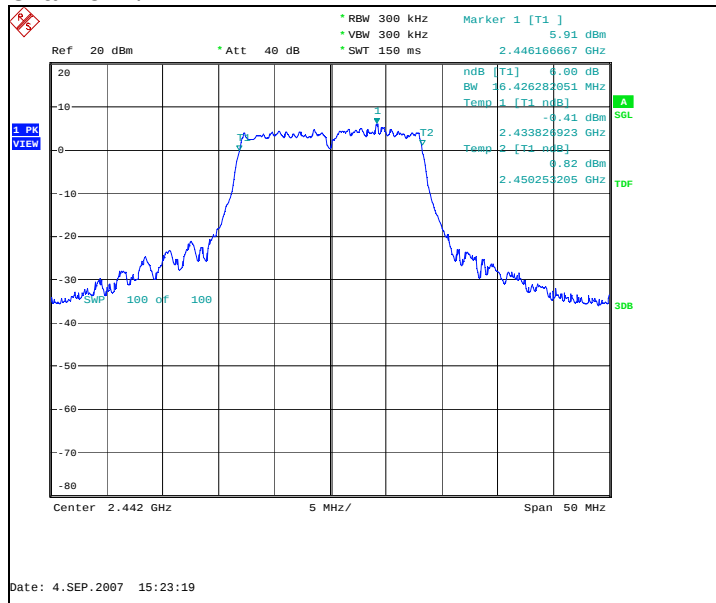
15.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel / f_c [MHz]	6 dB bandwidth [kHz]	Result
1	16426.282	PASSED
7	16426.282	PASSED
11	8333.333	PASSED

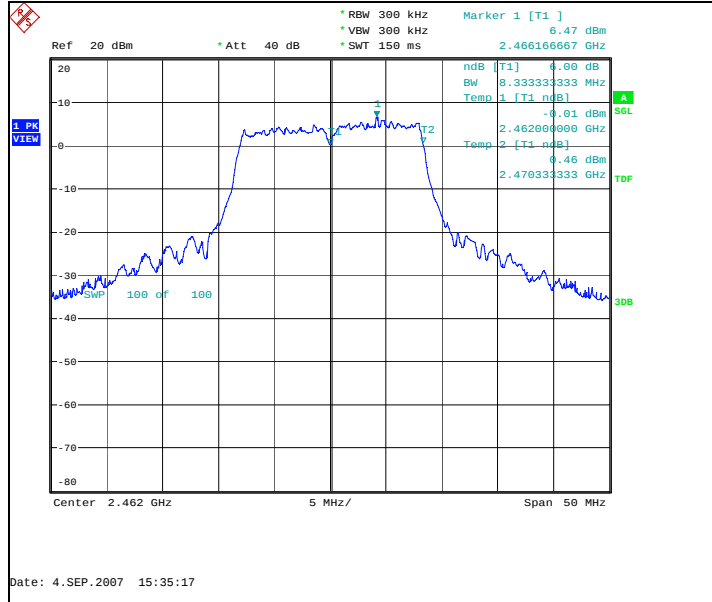
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



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

EUT with DUT number	RX-44 DUT 41252
Accessories with DUT numbers	BP-4L DUT 41247/ AC-4E DUT 41246
Operation Voltage [V] / [Hz]	Nominal
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20/50/100.5
Date of measurements	04.09.2007
Measured by	Petteri Suni

16.1. 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

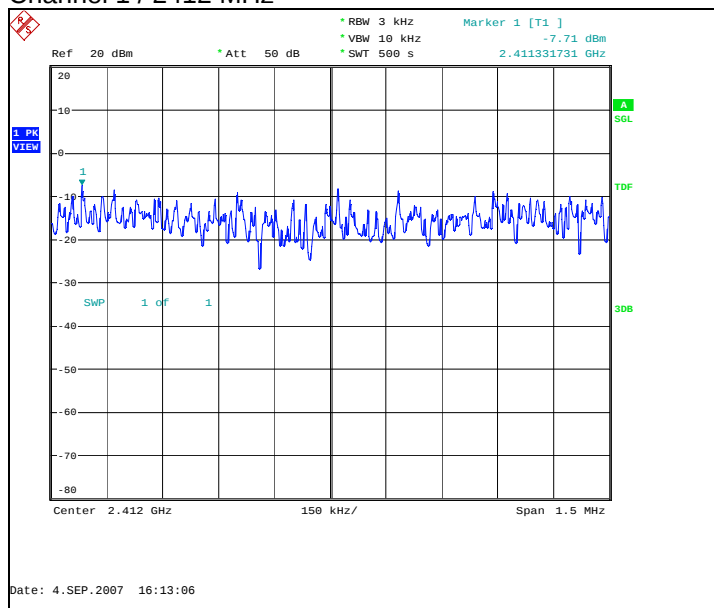
Limit [dBm] @ 3 kHz
≤ 8

16.2. WLAN test results

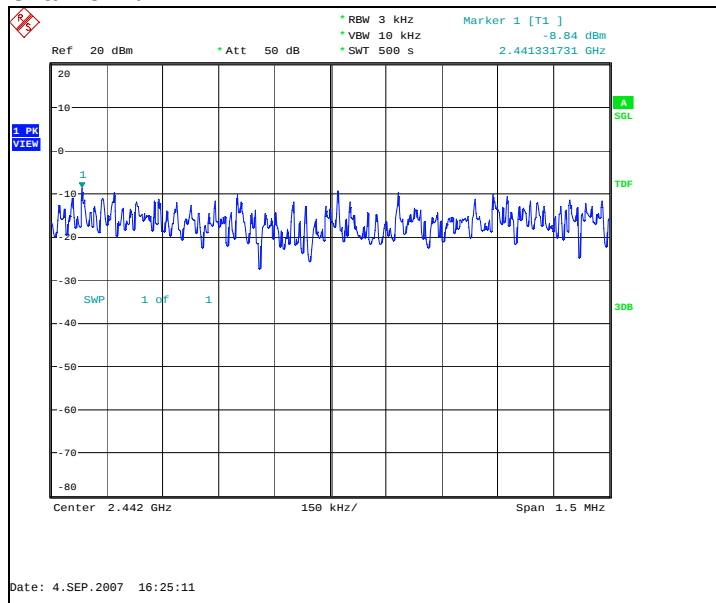
16.2.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f_c [MHz]	P [dBm]	Result
1 / 2412	-7.71	PASSED
7 / 2442	-8.84	PASSED
11 / 2462	-8.20	PASSED

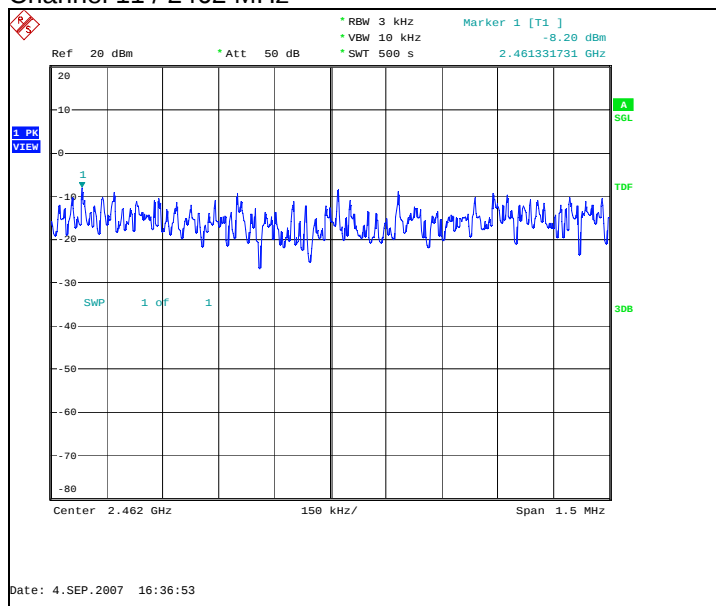
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



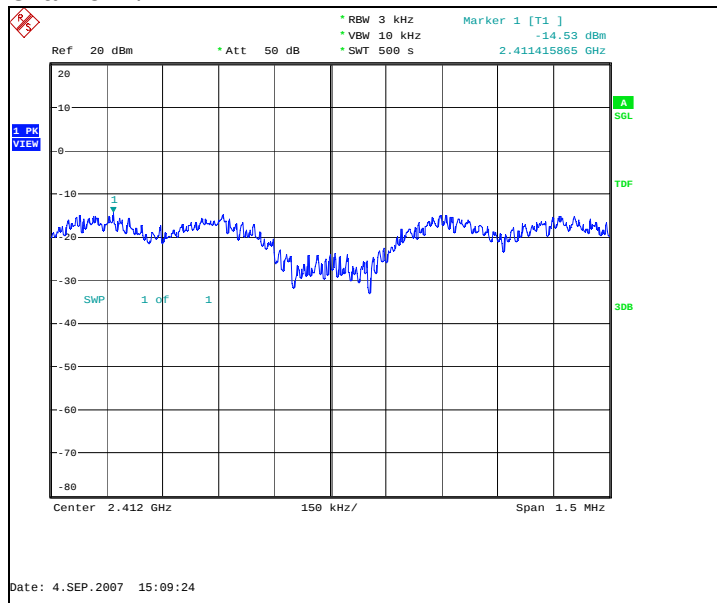
Channel 11 / 2462 MHz



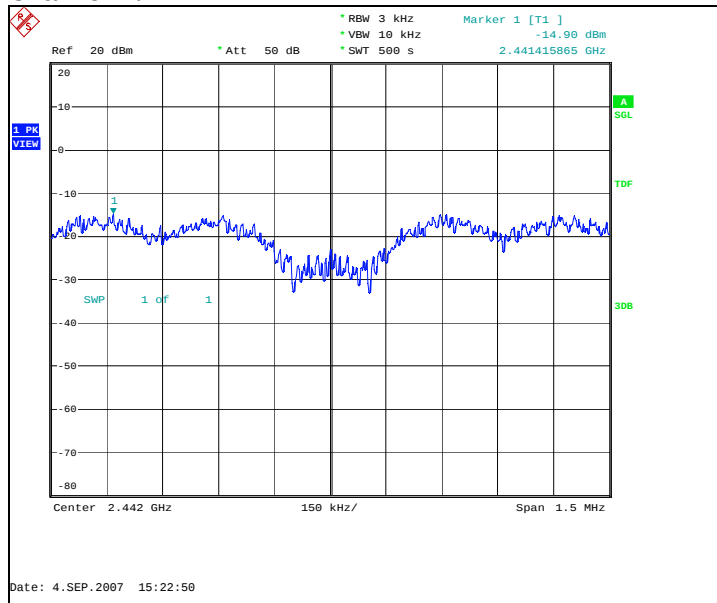
16.2.2 OFDM mode, BPSK modulation, 6 Mbps data rate

Channel / f_c [MHz]	P [dBm]	Result
1 / 2412	-14.53	PASSED
7 / 2442	-14.90	PASSED
11 / 2462	-14.12	PASSED

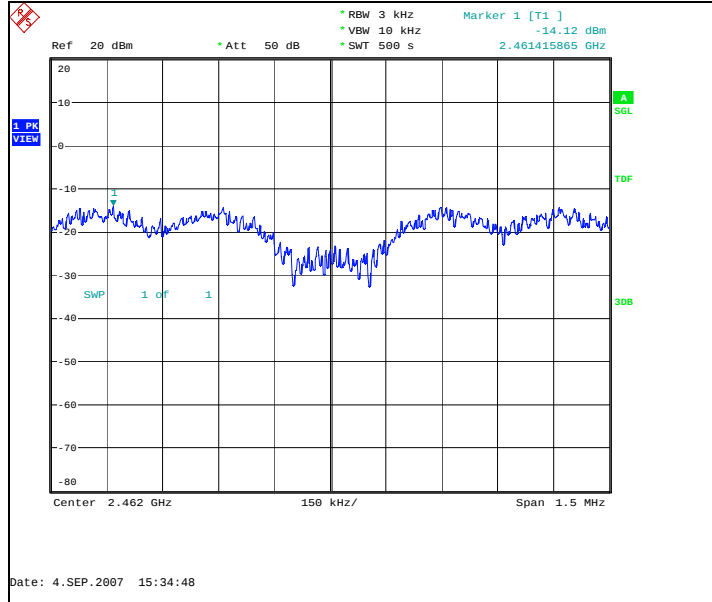
Channel 1 / 2412 MHz



Channel 7 / 2442 MHz



Channel 11 / 2462 MHz



17. Test Equipment

17.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM37610	Spectrum analyzer	FSU	R&S	22/24, 15C
TM37678	Radio communication tester	CMU-200	R&S	22/24, 15C
	Attenuator 10 dB	6251.17.A	Huber+Suhner AG	22/24, 15C
TM37499	Power splitter	11667A	Agilent	22/24, 15C
	Temperature chamber	VT4002	Vötsch	22/24, 15C
TM38112	DC power supply	6632A	Agilent	22/24, 15C
TM38111	Multimeter	34401A	Agilent	22/24, 15C
	EMI Test receiver	ESPC	R&S	15C, 15B
TM37773	Radio communication tester	CMU-200	R&S	15C, 15B
TM38631	Signal generator	83640L	Agilent	15C, 15B
TM38114	DC power supply	6632A	Agilent	15C, 15B
TM22835	Multimeter	87	Fluke	15C, 15B
TM30600	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
TM26490	LISN 50 µH	ESH3-Z5/	R&S	15C, 15B
TM30636	LISN 50 µH	L2-16/	PMM	15C, 15B

17.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
TM30599	3m semi-anechoic chamber		TDK	22/24, 15C, 15B
TM38845	EMI receiver	ESI 40	R&S	22/24, 15C, 15B
TM37498	Preamplifier	AMF-5D-020180-26-10P	MITEQ	22/24, 15C, 15B
TM37523	Preamplifier	AMF-4D-10M-3G-25-20P	MITEQ	22/24, 15C, 15B
TM37516	Biconilog antenna	HL562	R&S	22/24, 15C, 15B
TM26496	Double ridged waveguide antenna	3115	EMCO	22/24, 15C, 15B
TM39158	Horn antenna	3116	EMCO	22/24, 15C, 15B
TM26492	Reference dipole set	UHAP/VHAP	Schwarzbeck	22/24, 15C, 15B
TM37501	Dipole antenna	3125-870	EMCO	22/24
TM37502	Dipole antenna	3125-1880	EMCO	22/24
TM37773	Radio communication tester	CMU-200	R&S	22/24, 15C, 15B
TM38631	Signal generator	83640L	Agilent	22/24, 15C, 15B
TM38066	High pass filter	4HC3000/18000-3-KK	Trilithic	22/24, 15C, 15B
	High pass filter	WHK2010-10SS	Trilithic	22/24, 15C, 15B
	Low pass filter	WLK1750-10SS	Trilithic	22/24, 15C, 15B
TM26511	Tunable notch filter	WRCA870	Wainwright	22/24
TM38215	Tunable notch filter	WRCD1850/1910-0.2/40	Wainwright	22/24
TM38214	Band reject filter	WRCT 2402/2480-2400/2483.5-30	Wainwright	15C
TM30642	Turntable controller	HD-100	Deisel	22/24, 15C, 15B
TM26500	Turntable	DS412	Deisel	22/24, 15C, 15B
TM38842	Antenna mast controller	2090	EMCO	22/24, 15C, 15B
TM38843	Antenna mast	2075	EMCO	22/24, 15C, 15B
TM38114	DC power supply	6632A	Agilent	22/24, 15C, 15B
TM22835	Multimeter	87	Fluke	22/24, 15C, 15B