

FCC Part 15E Compliance Test Report

Test Report no.:	FCC15E_RM-1045_22.docx	Date of Report:	05-May-2014
Number of pages:	180	Customer's Contact person:	Tia Melava
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FCC listing no.:	533467		
IC recognition no.:	661V-1		
Tested devices/ accessories:	Phone RM-1045 / AC-Charger AC-60E / Headset WH-208		
FCC ID:	PYARM-1045	IC:	661V-RM1045
Supplement reports:	-		
Testing has been carried out in accordance with:	CFR 47, FCC rules Part 15 Subpart E, ANSI C63.4 (2003), DTS procedures KDB 789033 D01, IC standards. 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:			

Kalle Hannila, System Manager, EMC

1. Summary for FCC Part 15E Compliance Test Report

Date of receipt	14-Apr-2014
Testing completed	01-May-2014
The customer's contact person	Tia Melava
Test Plan referred to	T:\Projects\RM-1045\TestPlan\RS_Testplan_RM-1045.xlsm
Notes	-
Document name	T:\Projects\RM-1045\EMC\FCC15E_RM-1045_22.docx

1.1. EUT and Accessory Information

The EUT is a mobile phone with following features:

GSM/WCDMA/WLAN/Bluetooth

The EUT is tested with maximum rated TX power.

Devices under tests

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-1045	004402478600640	1004	-	02061.00037.14145.00001	18220
Headset	WH-208	2145W41	-	-	-	18198
AC-Charger	AC-60E	09049324161031071560675677	-	-	-	18197
Phone	RM-1045	004402478600756	1004	-	02061.00037.14145.00001	18216
AC-Charger	AC-60E	409049326161030412560675677	-	-	-	18217
Headset	WH-208	2145W41	-	-	-	18218
USB-Cable	CA-190CD	07304562136C28	-	-	-	18219

1.2. Summary of Test Results

5 GHz RLAN:

Section in CFR 47	Section in RSS-GEN or RSS-210	Name of the test	Result
15.407(a)	A9.2	Conducted peak output power	PASSED
15.407(b)	A9.2	Band edge compliance of RF emissions	PASSED
15.407(a)(6)	A9.2	Peak excursion	PASSED
15.407(b)	A9.2	Spurious radiated emissions	PASSED
15.407(b)(6)	A9.2	AC powerline conducted emissions	
	A9.2	26dB(bandwidth)	PASSED
15.407(a)	A9.2	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 Laboratory.

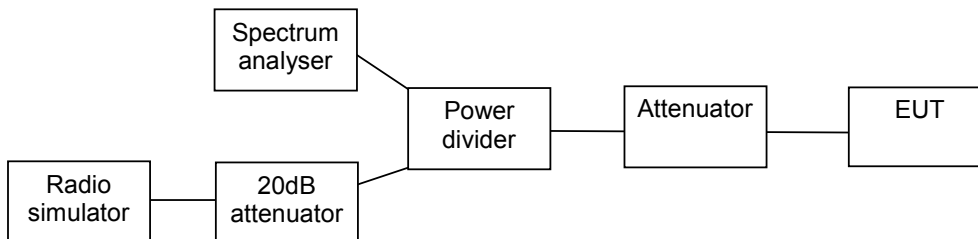
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2. Conducted peak output power (FCC §15.407(a), RSS-210 A9.2)

EUT with DUT number	RM-1045, DUT 18220
Accessories with DUT numbers	AC-60E, DUT 18197 ; WH-208, DUT 18198
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 37 / 101.3
Date of measurements	29-Apr-2014
Measured by	Jari Keto

2.1. Test Setup



2.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for Maximum conducted output power measurements

Frequency range [MHz]	Limit [mW] / (dBm)	Limit [dBm]	Limit [dBm] for B=20 MHz
5150-5250	50 (17)	4+10 log B	17
5250-5350	250 (24)	11+10 log B	24
5470-5725	250 (24)	11+10 log B	24
5725-5825	1000 (30)	17+10 log B	30

2.3. Power results summary

Channel / fC [MHz]	Mode	Modulation	Data rate	Level [dBm]
36 / 5180	802.11a	BPSK	6 Mbps	15.29
36 / 5180	802.11a	BPSK	9 Mbps	14.92
36 / 5180	802.11a	QPSK	12 Mbps	14.97
36 / 5180	802.11a	QPSK	18 Mbps	14.94
36 / 5180	802.11a	16QAM	24 Mbps	14.71
36 / 5180	802.11a	16QAM	36 Mbps	13.84
36 / 5180	802.11a	64QAM	48 Mbps	12.8
36 / 5180	802.11a	64QAM	54 Mbps	11.89
36 / 5180	802.11n	BPSK	6.5 / 7.25 Mbps	15.62
36 / 5180	802.11n	QPSK	13.0 / 14.4 Mbps	15.27
36 / 5180	802.11n	QPSK	19.5 / 21.7 Mbps	15.21
36 / 5180	802.11n	16QAM	26.0 / 28.9 Mbps	14.72
36 / 5180	802.11n	16QAM	39.0 / 43.3 Mbps	13.8
36 / 5180	802.11n	64QAM	52.0 / 57.8 Mbps	13.86
36 / 5180	802.11n	64QAM	58.5 / 65.0 Mbps	12.93
36 / 5180	802.11n	64QAM	65.0 / 72.2 Mbps	11.96
36+40 / 5190	802.11n	BPSK	13.5 / 15.0 Mbps	13.95
36+40 / 5190	802.11n	QPSK	27.0 / 30.0 Mbps	13.97
36+40 / 5190	802.11n	QPSK	40.5 / 45.0 Mbps	13.95
36+40 / 5190	802.11n	16QAM	54.0 / 60.0 Mbps	12.56
36+40 / 5190	802.11n	16QAM	81.0 / 90.0 Mbps	11.57
36+40 / 5190	802.11n	64QAM	108.0 / 120.0 Mbps	11.51
36+40 / 5190	802.11n	64QAM	121.5 / 135.0 Mbps	10.53
36+40 / 5190	802.11n	64QAM	135.0 / 150.0 Mbps	10.47
36+40 / 5190	802.11ac	256QAM	162.0 / 180.0 Mbps	7.14
36+40 / 5190	802.11ac	256QAM	180.0 / 200.0 Mbps	6.3
36-48 / 5210	802.11ac	BPSK	29.3 / 32.5 Mbps	12.31
36-48 / 5210	802.11ac	QPSK	58.5 / 65.0 Mbps	10.94
36-48 / 5210	802.11ac	QPSK	87.8 / 97.5 Mbps	10.76
36-48 / 5210	802.11ac	16QAM	117.0 / 130.0 Mbps	11.01
36-48 / 5210	802.11ac	16QAM	175.5 / 195.0 Mbps	9.37
36-48 / 5210	802.11ac	64QAM	234.0 / 260.0 Mbps	9.49
36-48 / 5210	802.11ac	64QAM	263.3 / 292.5 Mbps	8.43
36-48 / 5210	802.11ac	64QAM	292.5 / 325.0 Mbps	6.67
36-48 / 5210	802.11ac	256QAM	351.0 / 390.0 Mbps	6.11
36-48 / 5210	802.11ac	256QAM	390.0 / 433.3 Mbps	5.95
40 / 5200	802.11n	BPSK	6.5 / 7.25 Mbps	15.11
48 / 5240	802.11n	BPSK	6.5 / 7.25 Mbps	15.21
52 / 5260	802.11n	BPSK	6.5 / 7.25 Mbps	15.2
60 / 5300	802.11n	BPSK	6.5 / 7.25 Mbps	15.16
64 / 5320	802.11n	BPSK	6.5 / 7.25 Mbps	15.33
100 / 5500	802.11n	BPSK	6.5 / 7.25 Mbps	15.26
116 / 5580	802.11n	BPSK	6.5 / 7.25 Mbps	15.61
140 / 5700	802.11n	BPSK	6.5 / 7.25 Mbps	15.35
40 / 5200	802.11n	QPSK	13.0 / 14.4 Mbps	14.7
48 / 5240	802.11n	QPSK	13.0 / 14.4 Mbps	14.66
52 / 5260	802.11n	QPSK	13.0 / 14.4 Mbps	14.73
60 / 5300	802.11n	QPSK	13.0 / 14.4 Mbps	14.71
64 / 5320	802.11n	QPSK	13.0 / 14.4 Mbps	14.95
100 / 5500	802.11n	QPSK	13.0 / 14.4 Mbps	14.88
116 / 5580	802.11n	QPSK	13.0 / 14.4 Mbps	15.22

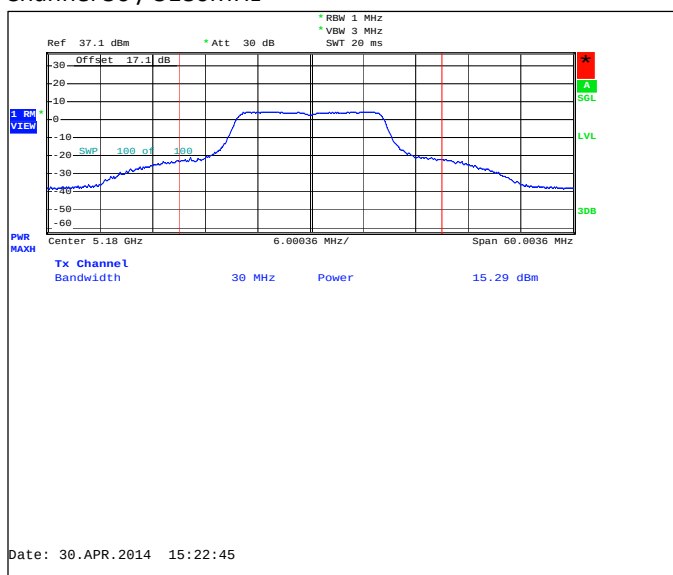
140 / 5700	802.11n	QPSK	13.0 / 14.4 Mbps	14.94
44+48 / 5230	802.11n	BPSK	13.5 / 15.0 Mbps	13.83
52+56 / 5270	802.11n	BPSK	13.5 / 15.0 Mbps	13.85
60+64 / 5310	802.11n	BPSK	13.5 / 15.0 Mbps	14.01
100+104 / 5510	802.11n	BPSK	13.5 / 15.0 Mbps	14.45
108+112 / 5550	802.11n	BPSK	13.5 / 15.0 Mbps	14.67
132+136 / 5670	802.11n	BPSK	13.5 / 15.0 Mbps	14.47
44+48 / 5230	802.11n	QPSK	27.0 / 30.0 Mbps	13.87
52+56 / 5270	802.11n	QPSK	27.0 / 30.0 Mbps	13.91
60+64 / 5310	802.11n	QPSK	27.0 / 30.0 Mbps	14.06
100+104 / 5510	802.11n	QPSK	27.0 / 30.0 Mbps	14.42
108+112 / 5550	802.11n	QPSK	27.0 / 30.0 Mbps	14.68
132+136 / 5670	802.11n	QPSK	27.0 / 30.0 Mbps	14.51
52-64 / 5290	802.11ac	BPSK	29.3 / 32.5 Mbps	13.27
100-112 / 5530	802.11ac	BPSK	29.3 / 32.5 Mbps	12.68
52-64 / 5290	802.11ac	16QAM	117.0 / 130.0 Mbps	11.29
100-112 / 5530	802.11ac	16QAM	117.0 / 130.0 Mbps	11.51

2.4. 5 GHz RLAN Test results

2.4.1 802.11a mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	15.29	33.806	PASSED

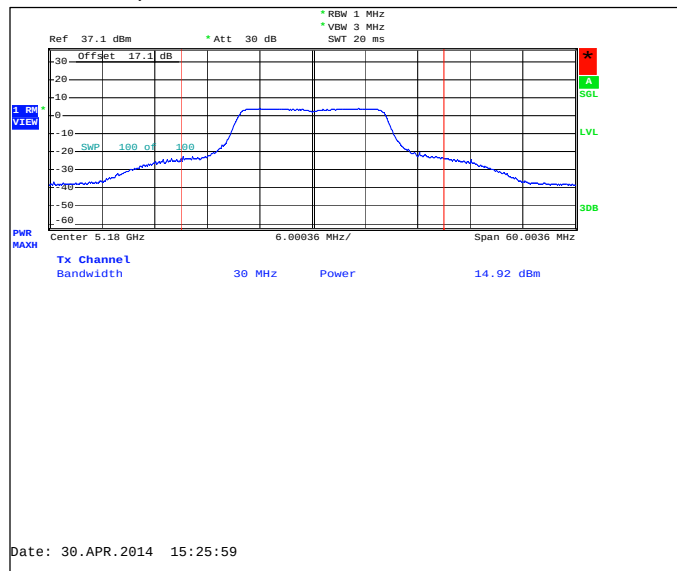
Channel 36 / 5180MHz



2.4.2 802.11a mode, BPSK modulation, 9 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	14.92	31.046	PASSED

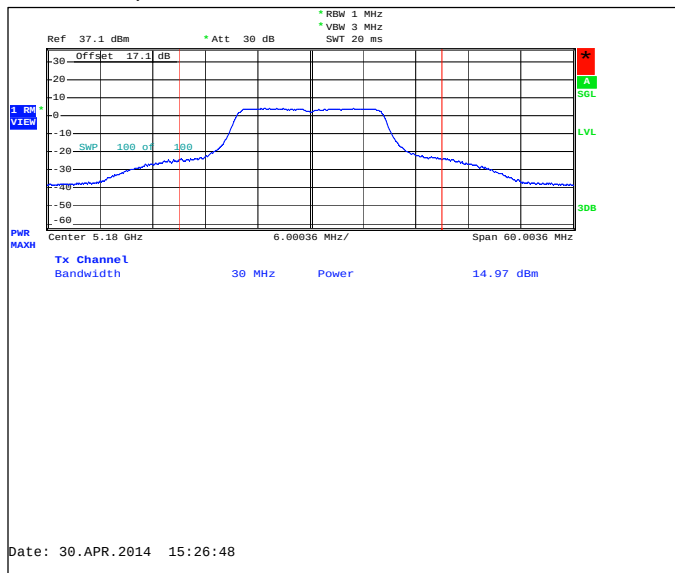
Channel 36 / 5180MHz



2.4.3 802.11a mode, QPSK modulation, 12 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	14.97	31.405	PASSED

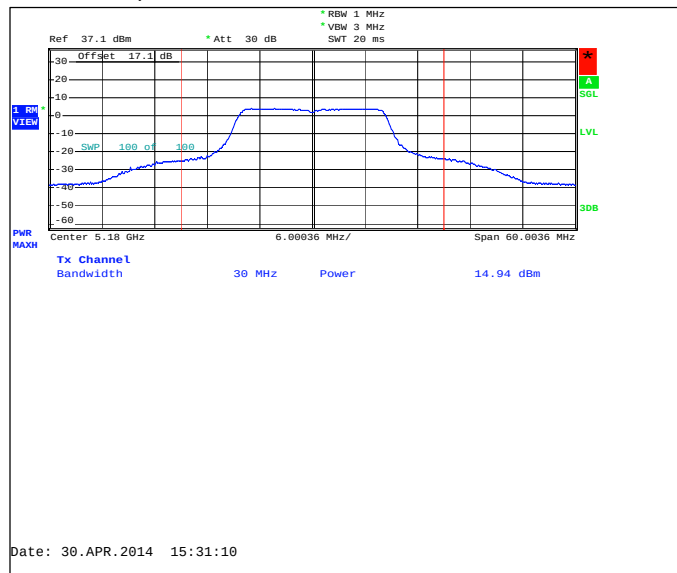
Channel 36 / 5180MHz



2.4.4 802.11a mode, QPSK modulation, 18 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	14.94	31.189	PASSED

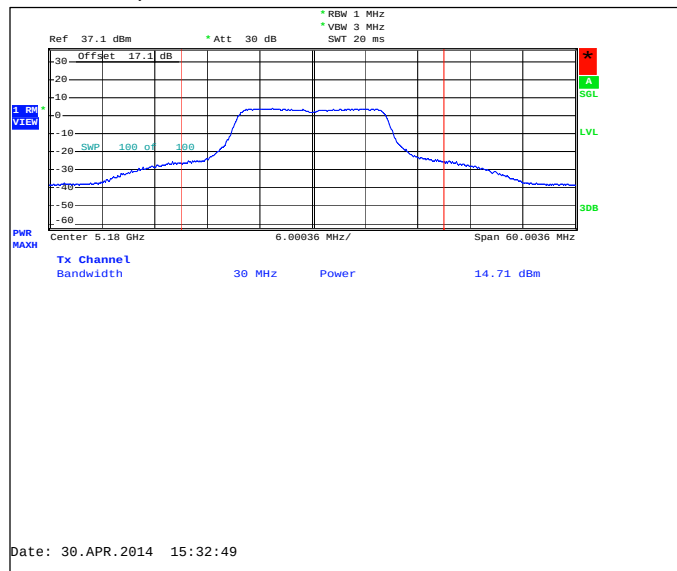
Channel 36 / 5180MHz



2.4.5 802.11a mode, 16QAM modulation, 24 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	14.71	29.58	PASSED

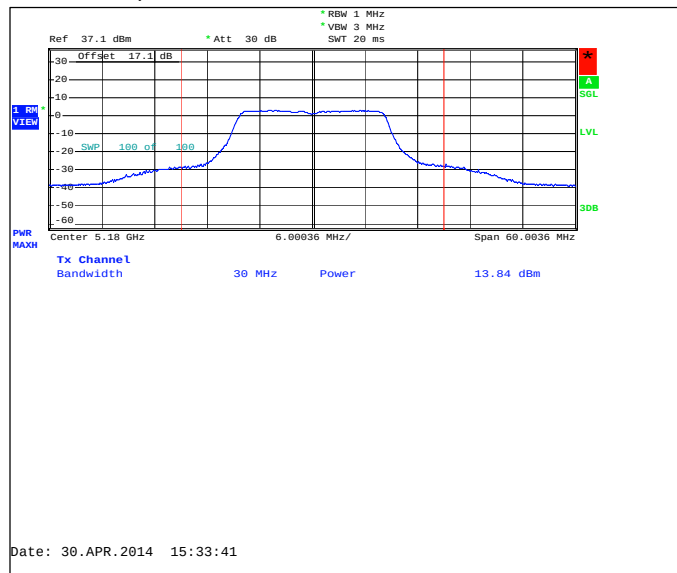
Channel 36 / 5180MHz



2.4.6 802.11a mode, 16QAM modulation, 36 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	13.84	24.21	PASSED

Channel 36 / 5180MHz



2.4.7 802.11a mode, 64QAM modulation, 48 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	12.8	19.055	PASSED

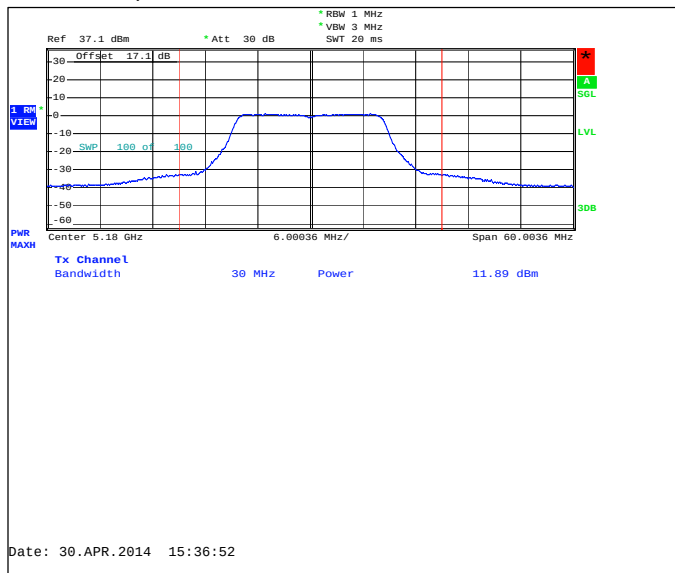
Channel 36 / 5180MHz



2.4.8 802.11a mode, 64QAM modulation, 54 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.89	15.453	PASSED

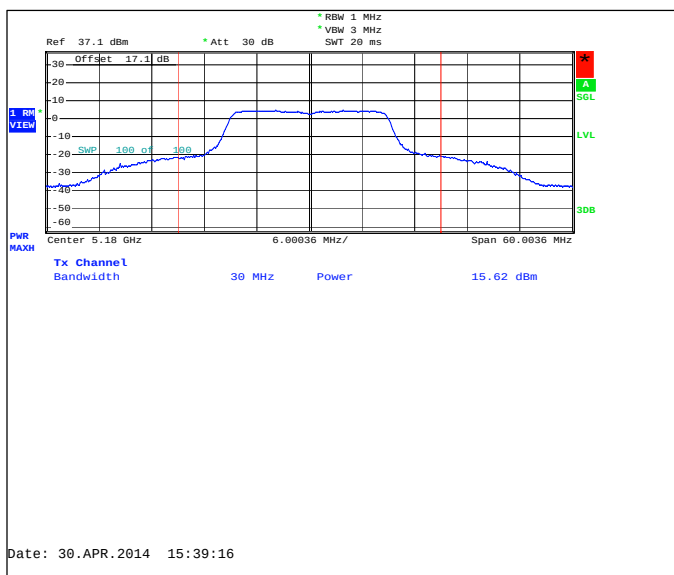
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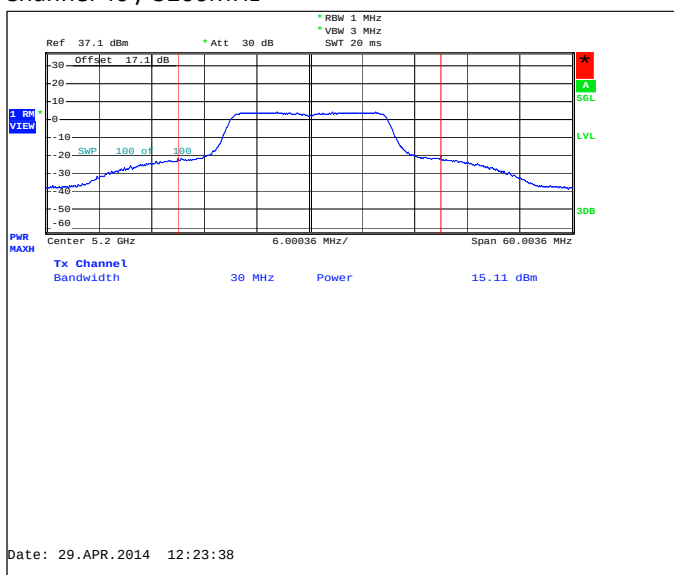
2.4.9 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	15.62	36.475	PASSED
40 / 5200	15.11	32.434	PASSED
48 / 5240	15.21	33.189	PASSED
52 / 5260	15.2	33.113	PASSED
60 / 5300	15.16	32.81	PASSED
64 / 5320	15.33	34.119	PASSED
100 / 5500	15.26	33.574	PASSED
116 / 5580	15.61	36.392	PASSED
140 / 5700	15.35	34.277	PASSED

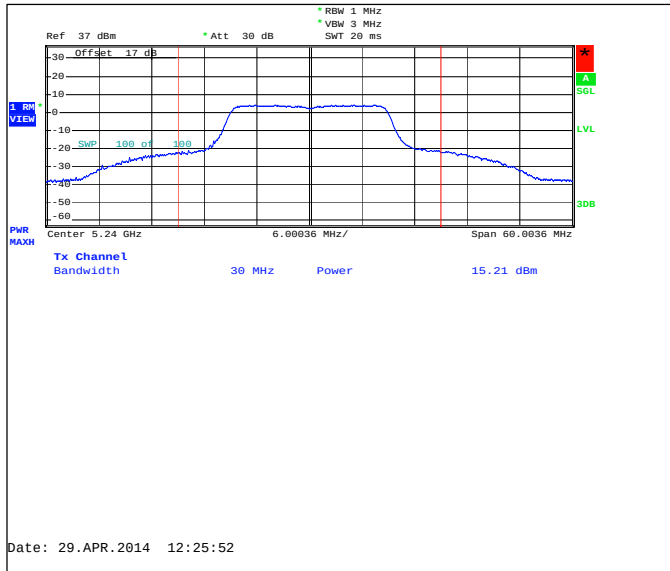
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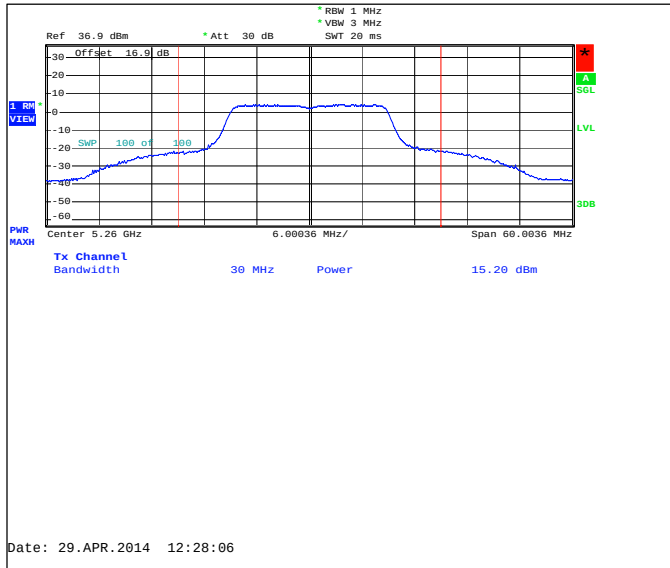
Channel 40 / 5200MHz



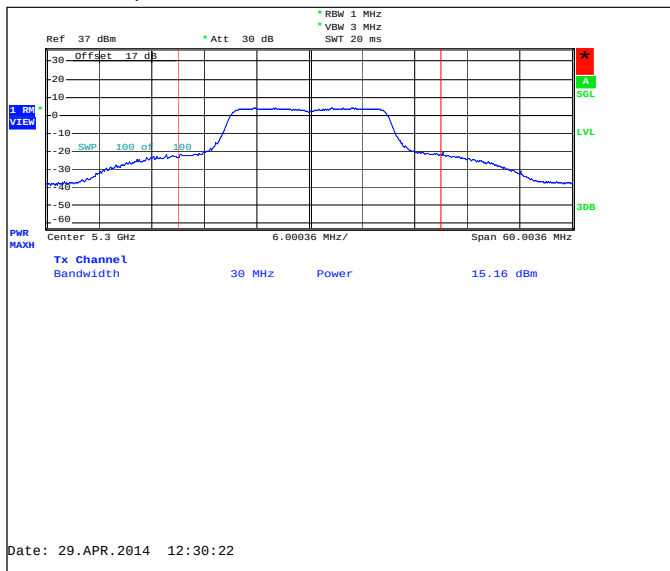
Channel 48 / 5240MHz



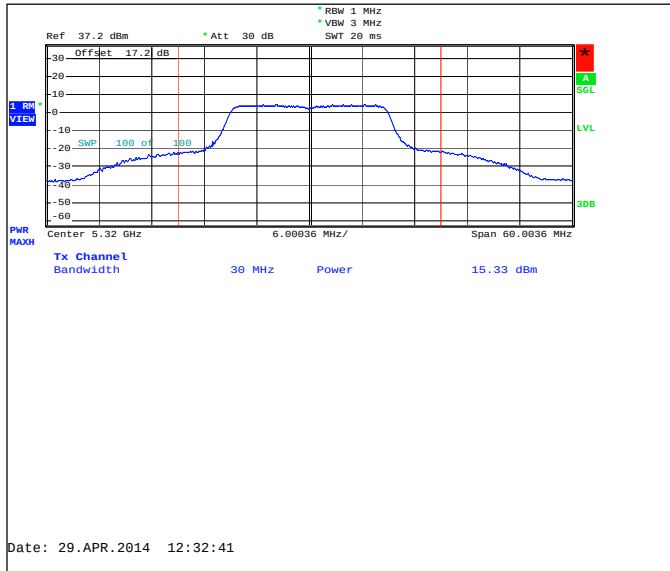
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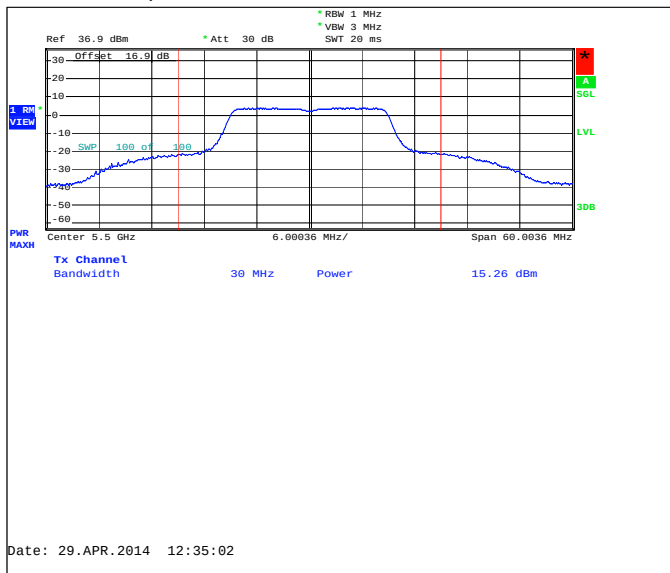
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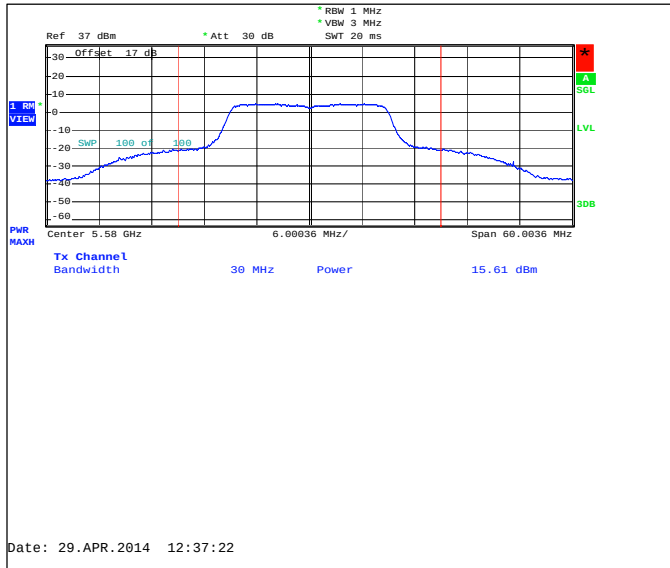
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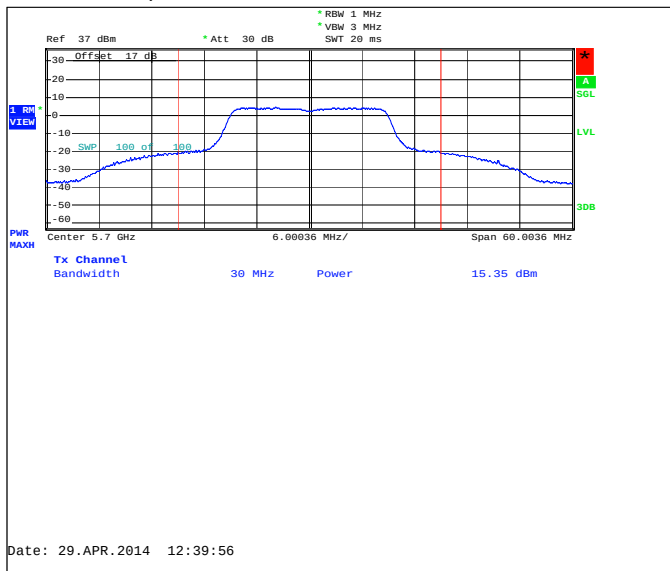
Channel 100 / 5500MHz



Channel 116 / 5580MHz



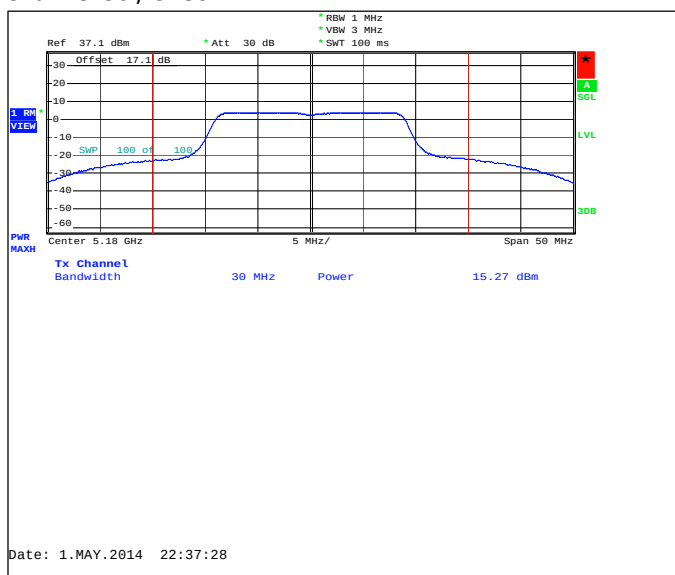
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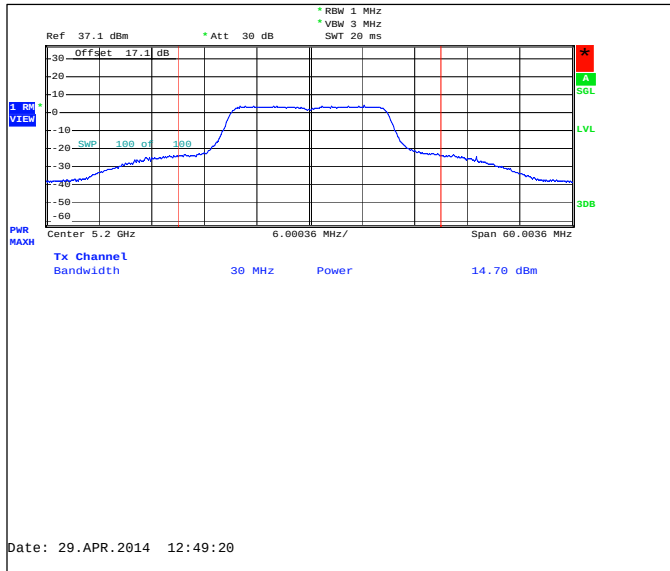
2.4.10 802.11n mode, QPSK modulation, 13.0 / 14.4 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	15.27	33.651	PASSED
40 / 5200	14.7	29.512	PASSED
48 / 5240	14.66	29.242	PASSED
52 / 5260	14.73	29.717	PASSED
60 / 5300	14.71	29.58	PASSED
64 / 5320	14.95	31.261	PASSED
100 / 5500	14.88	30.761	PASSED
116 / 5580	15.22	33.266	PASSED
140 / 5700	14.94	31.189	PASSED

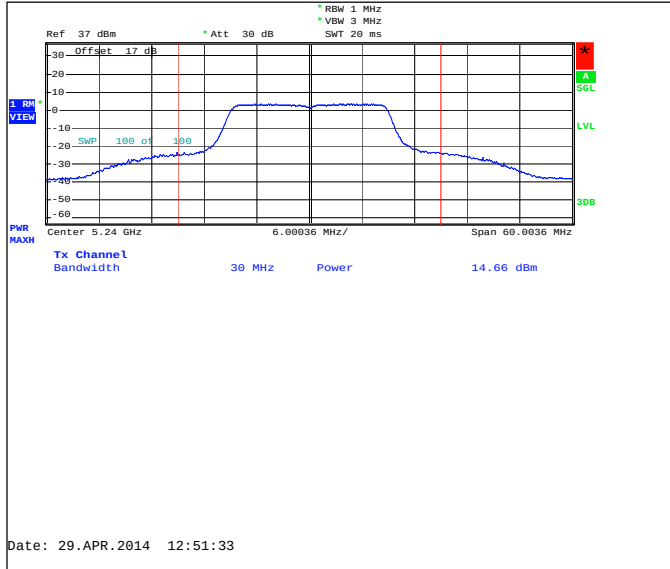
Channel 36 / 5180MHz



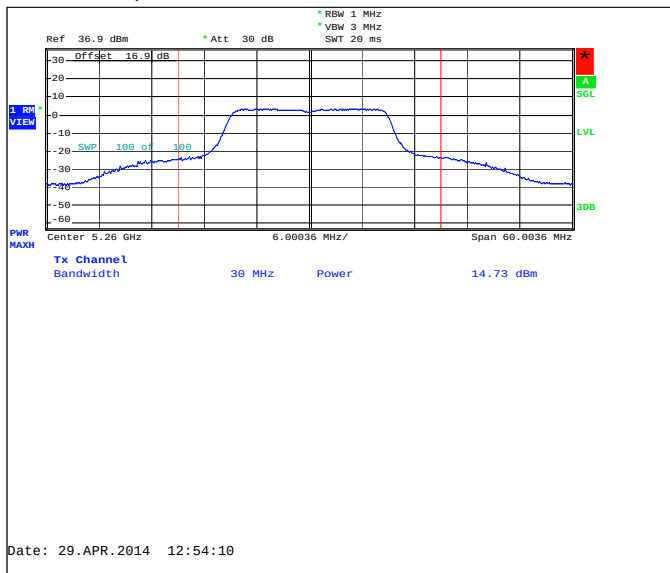
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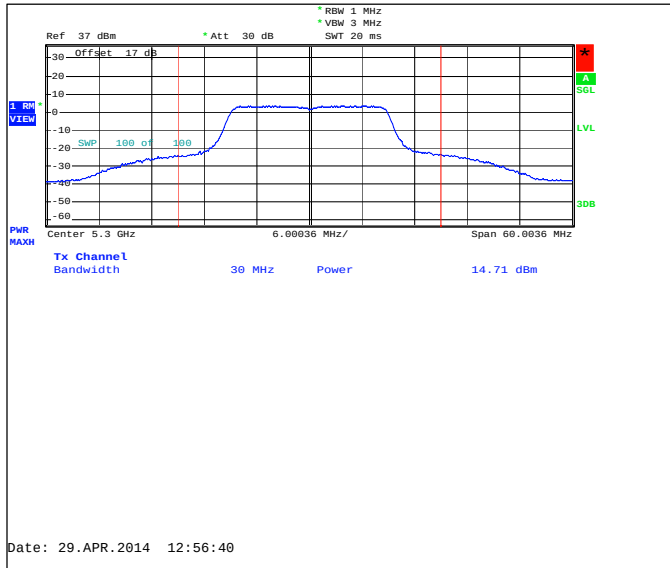
Channel 48 / 5240MHz



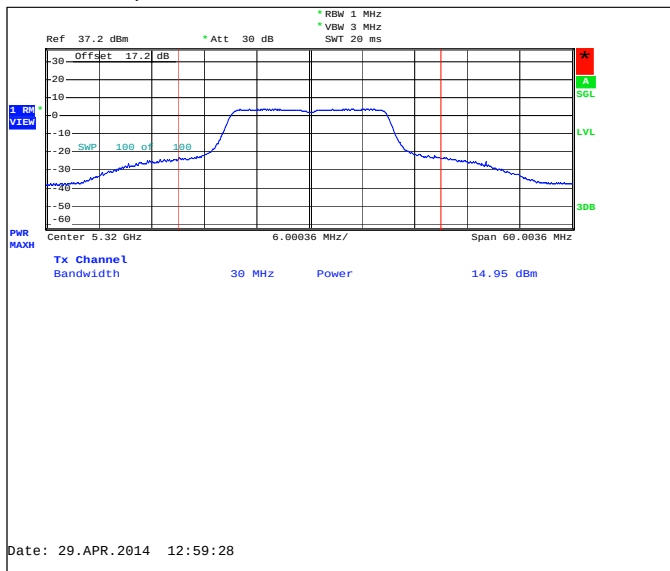
Channel 52 / 5260MHz



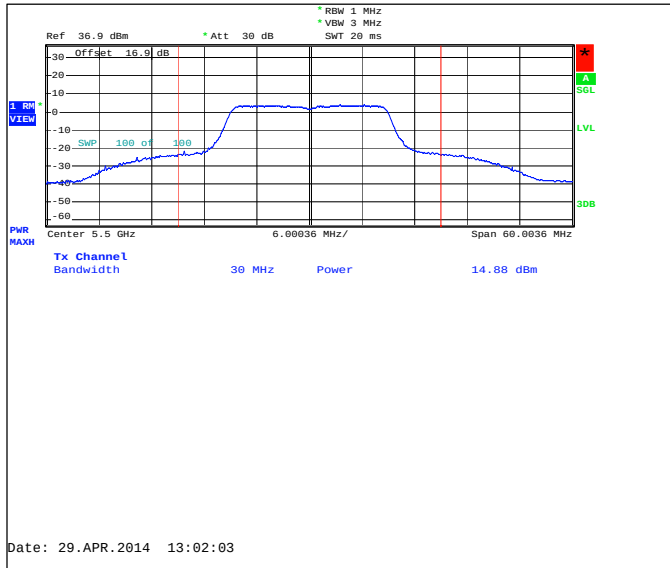
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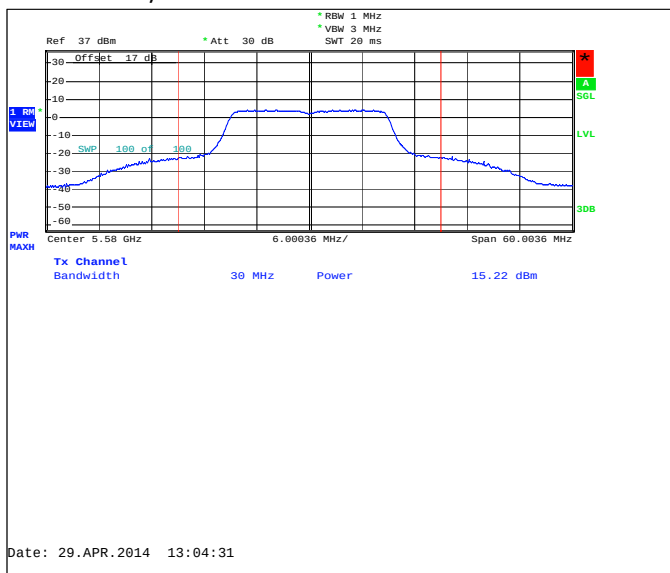
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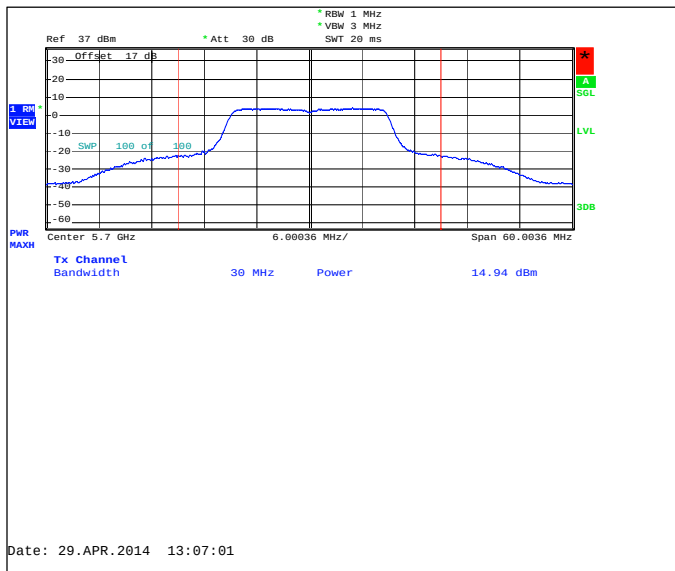
Channel 100 / 5500MHz



Channel 116 / 5580MHz



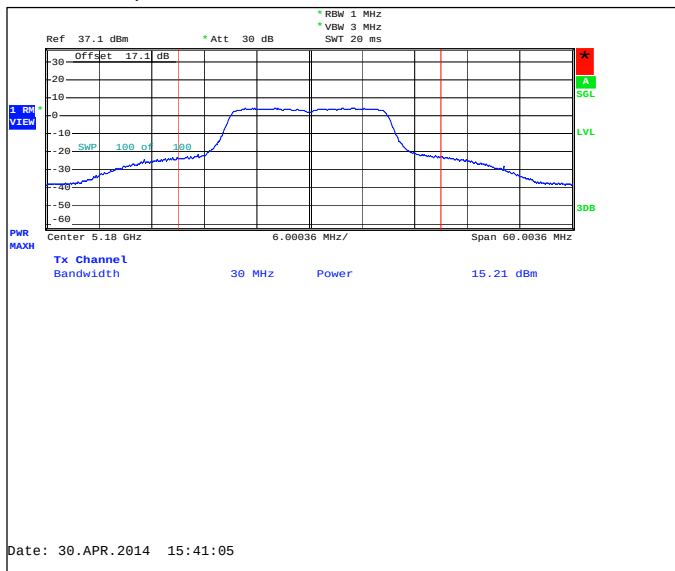
Channel 140 / 5700MHz



2.4.11 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	15.21	33.189	PASSED

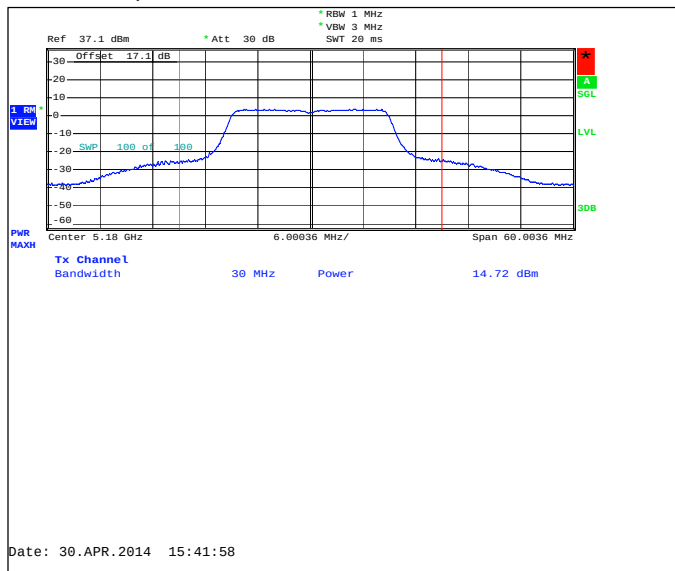
Channel 36 / 5180MHz



2.4.12 802.11n mode, 16QAM modulation, 26.0 / 28.9 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	14.72	29.648	PASSED

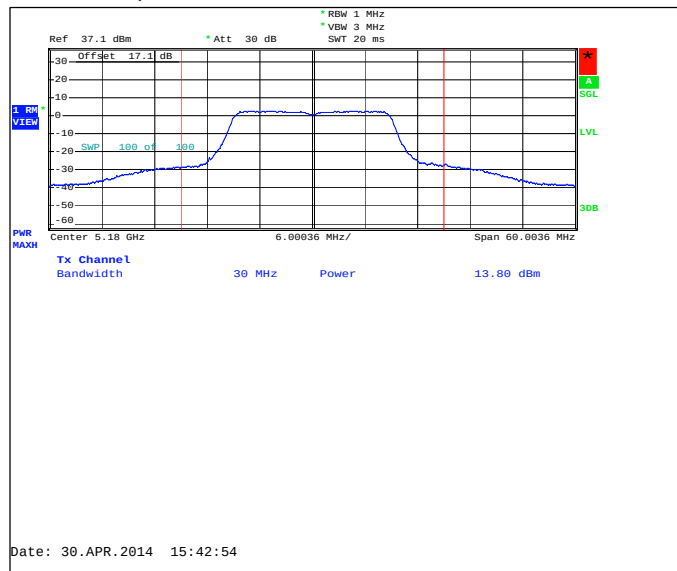
Channel 36 / 5180MHz



2.4.13 802.11n mode, 16QAM modulation, 39.0 / 43.3 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	13.8	23.988	PASSED

Channel 36 / 5180MHz



2.4.14 802.11n mode, 64QAM modulation, 52.0 / 57.8 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	13.86	24.322	PASSED

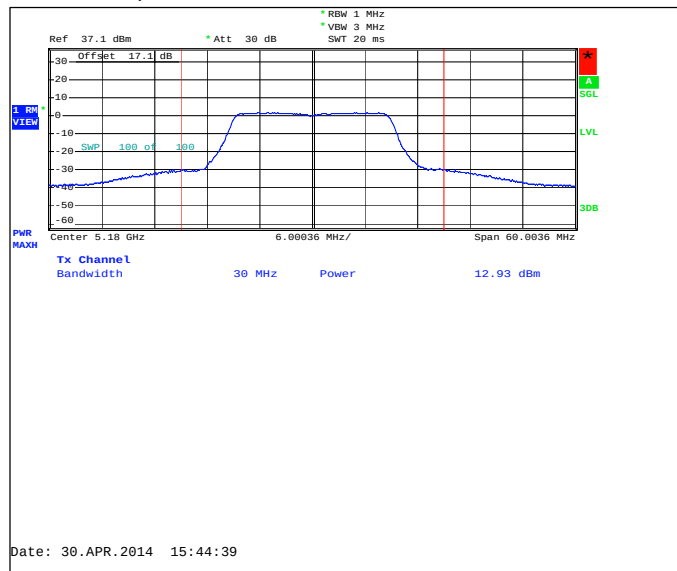
Channel 36 / 5180MHz



2.4.15 802.11n mode, 64QAM modulation, 58.5 / 65.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	12.93	19.634	PASSED

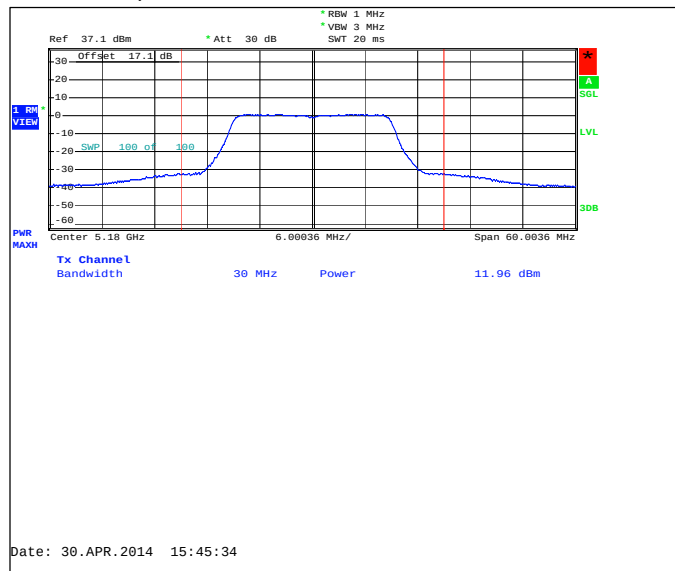
Channel 36 / 5180MHz



2.4.16 802.11n mode, 64QAM modulation, 65.0 / 72.2 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.96	15.704	PASSED

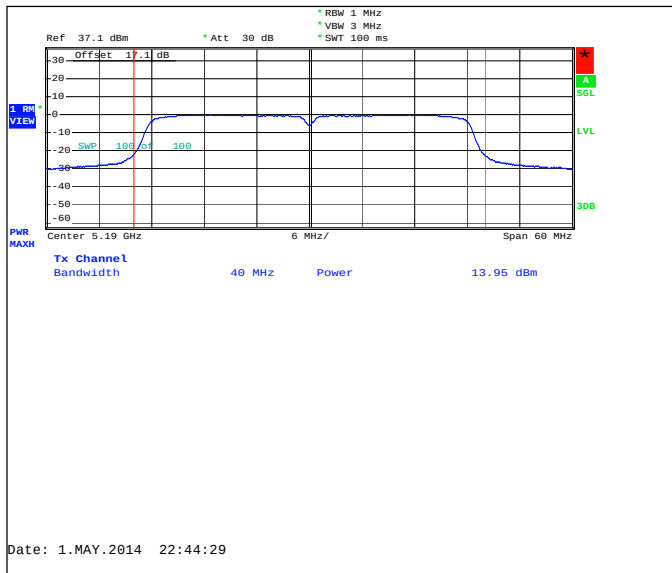
Channel 36 / 5180MHz



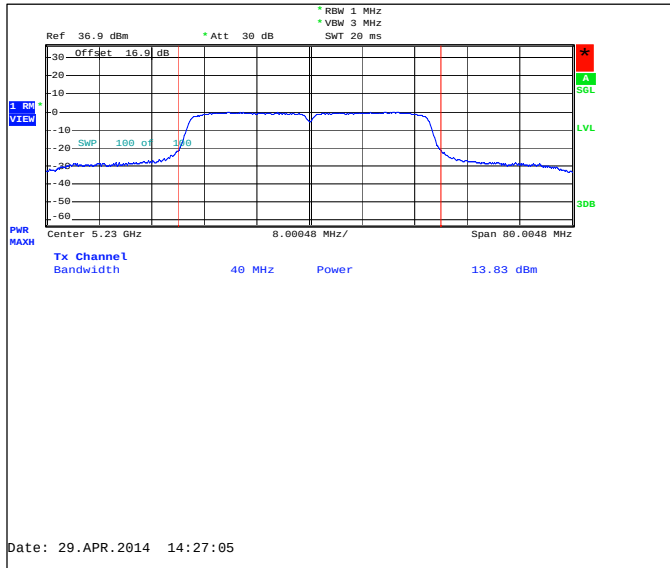
2.4.17 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	13.95	24.365	PASSED
44+48 / 5230	13.83	24.155	PASSED
52+56 / 5270	13.85	24.266	PASSED
60+64 / 5310	14.01	25.177	PASSED
100+104 / 5510	14.45	27.861	PASSED
108+112 / 5550	14.67	29.309	PASSED
132+136 / 5670	14.47	27.99	PASSED

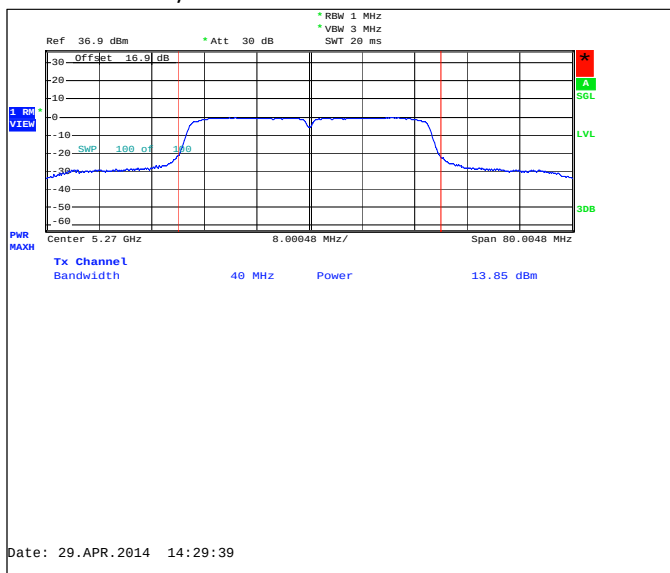
Channel 36+40 / 5190MHz



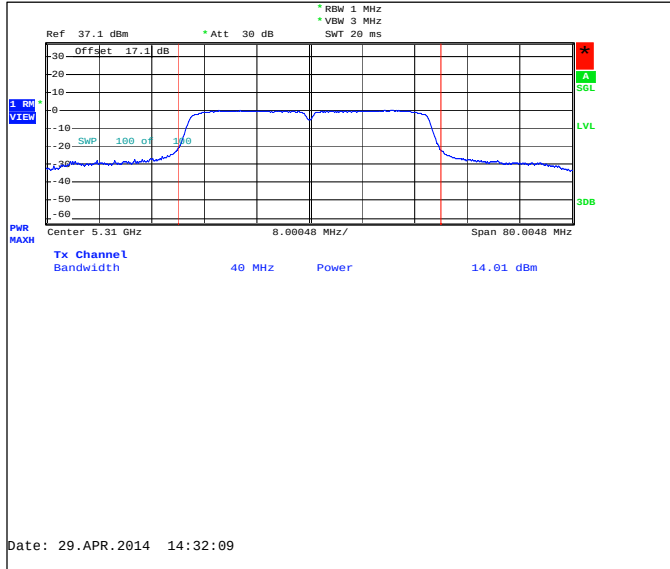
Channel 44+48 / 5230MHz



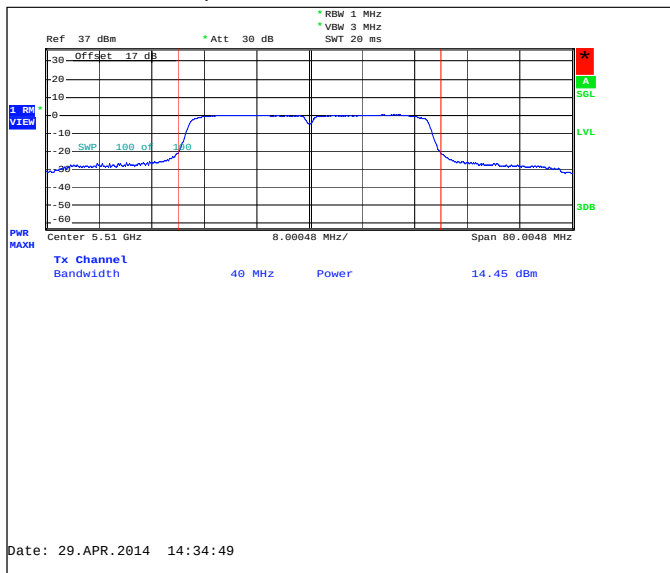
Channel 52+56 / 5270MHz



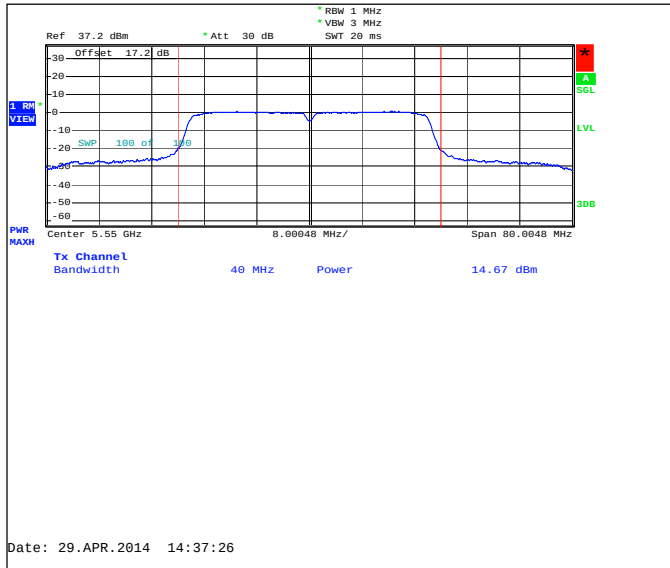
Channel 60+64 / 5310MHz



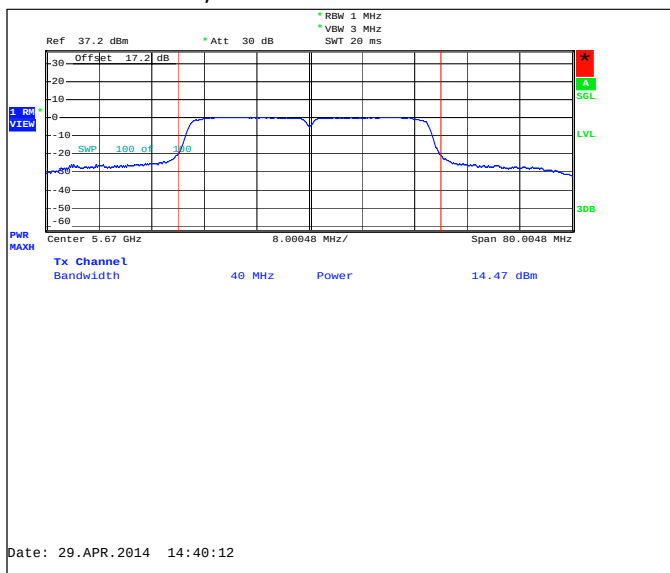
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



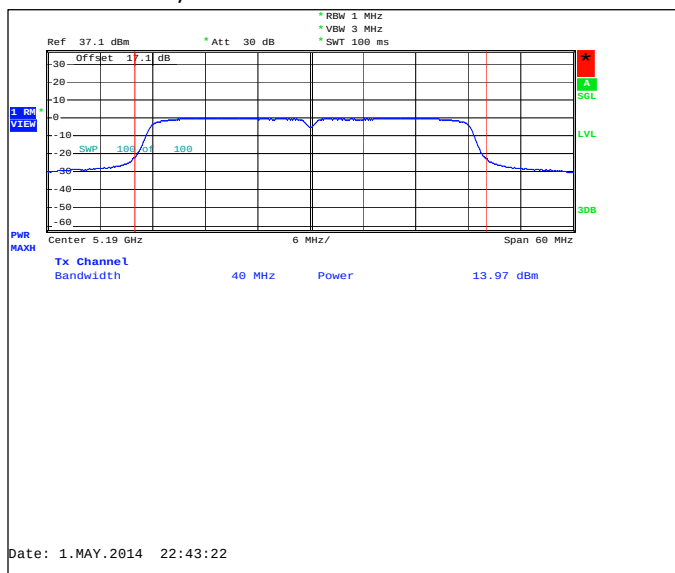
Channel 132+136 / 5670MHz



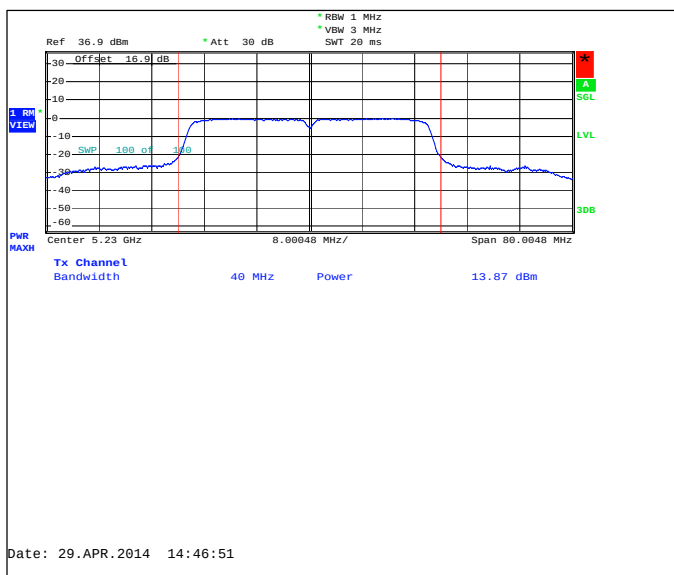
2.4.18 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	13.97	24.946	PASSED
44+48 / 5230	13.87	24.378	PASSED
52+56 / 5270	13.91	24.604	PASSED
60+64 / 5310	14.06	25.468	PASSED
100+104 / 5510	14.42	27.669	PASSED
108+112 / 5550	14.68	29.376	PASSED
132+136 / 5670	14.51	28.249	PASSED

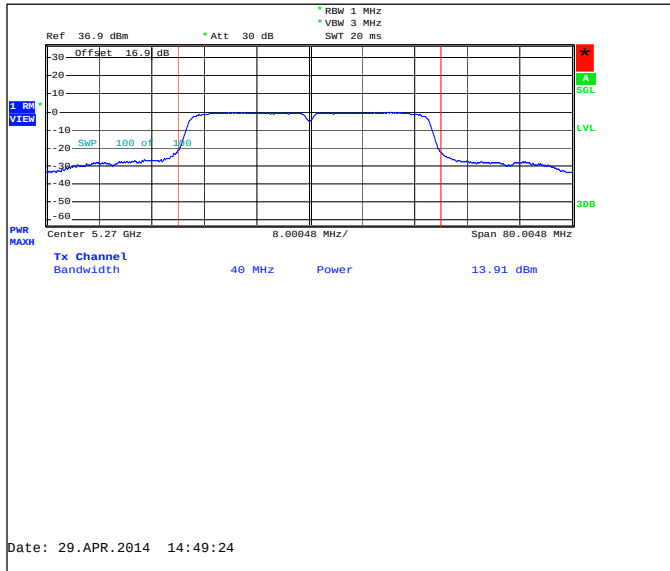
Channel 36+40 / 5190MHz



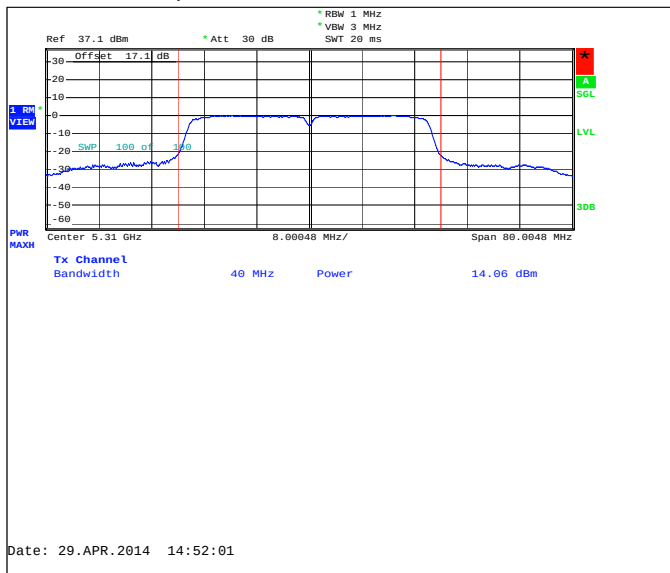
Channel 44+48 / 5230MHz



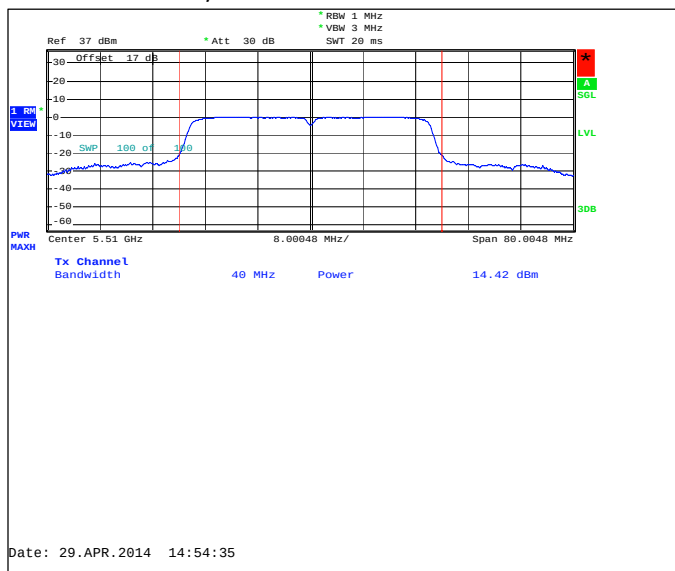
Channel 52+56 / 5270MHz



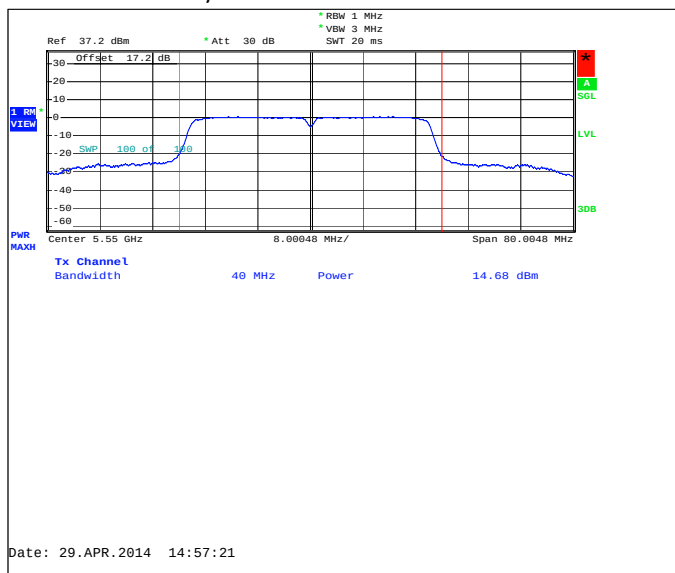
Channel 60+64 / 5310MHz



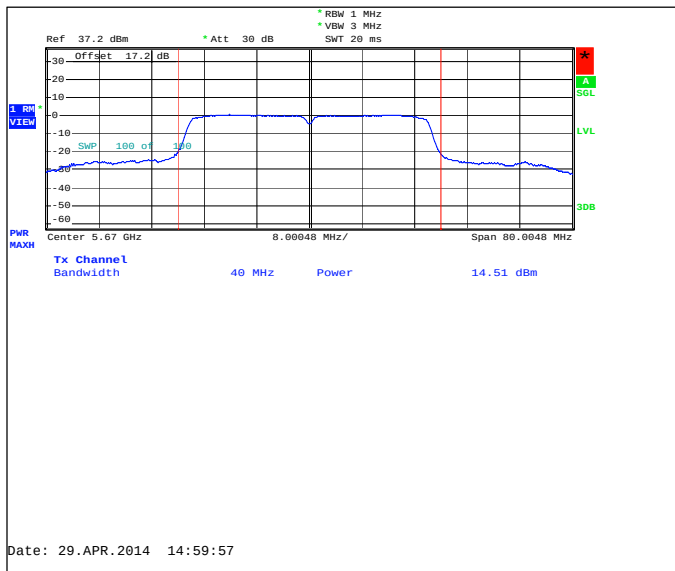
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



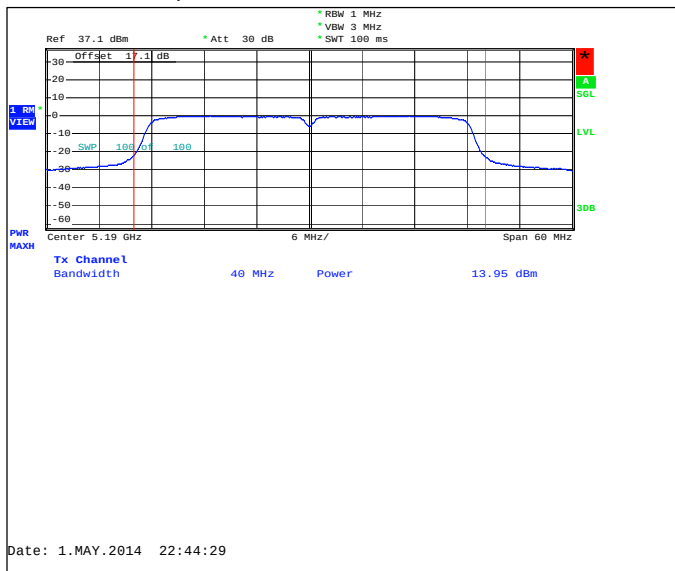
Channel 132+136 / 5670MHz



2.4.19 802.11n mode, QPSK modulation, 40.5 / 45.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	13.95	24.831	PASSED

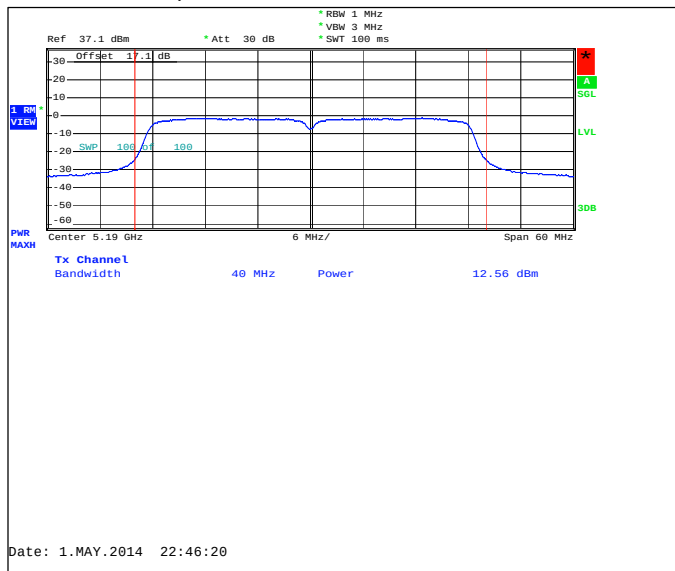
Channel 36+40 / 5190MHz



2.4.20 802.11n mode, 16QAM modulation, 54.0 / 60.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	12.56	18.03	PASSED

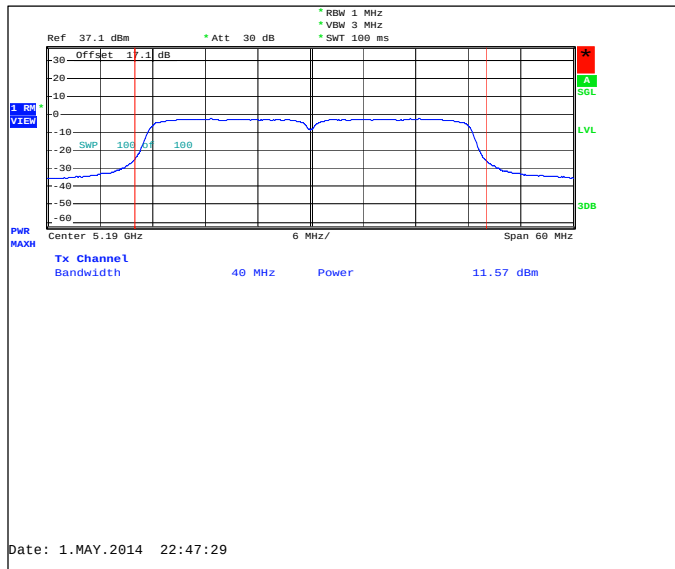
Channel 36+40 / 5190MHz



2.4.21 802.11n mode, 16QAM modulation, 81.0 / 90.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	11.57	14.355	PASSED

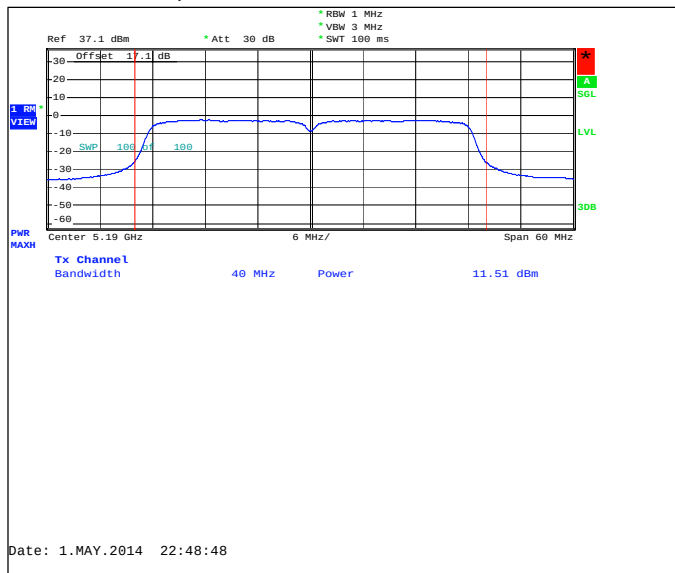
Channel 36+40 / 5190MHz



2.4.22 802.11n mode, 64QAM modulation, 108.0 / 120.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	11.51	14.158	PASSED

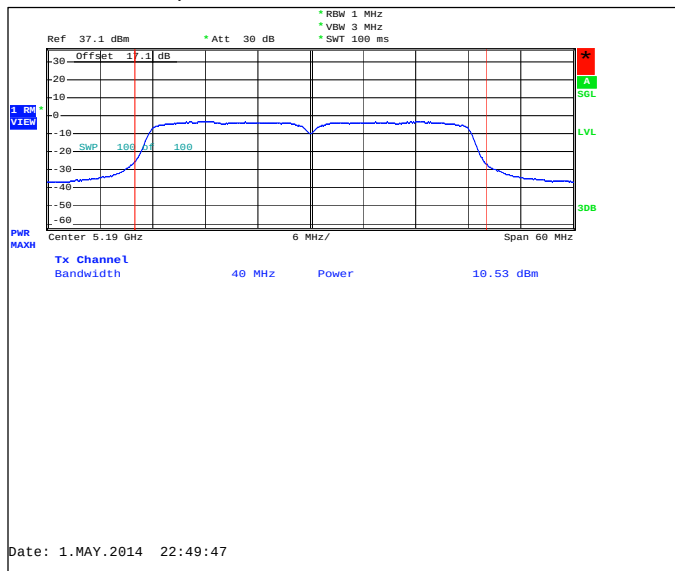
Channel 36+40 / 5190MHz



2.4.23 802.11n mode, 64QAM modulation, 121.5 / 135.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	10.53	11.298	PASSED

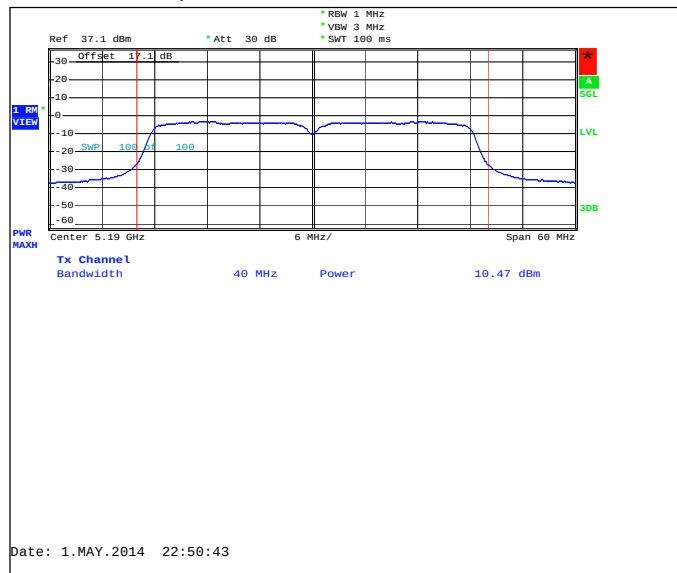
Channel 36+40 / 5190MHz



2.4.24 802.11n mode, 64QAM modulation, 135.0 / 150.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	10.47	11.143	PASSED

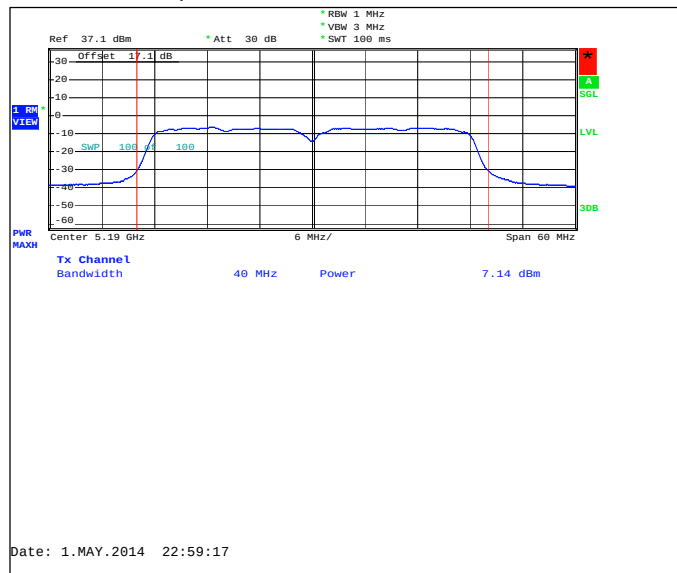
Channel 36+40 / 5190MHz



2.4.25 802.11ac mode, 256QAM modulation, 162.0 / 180.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	7.14	5.176	PASSED

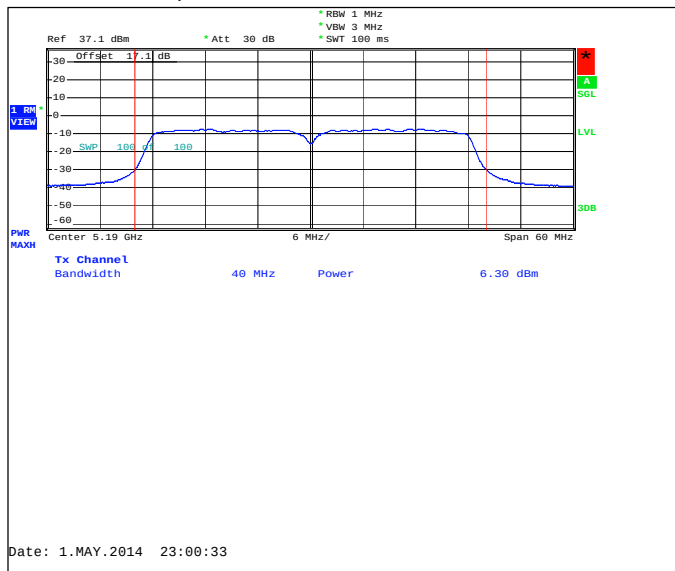
Channel 36+40 / 5190MHz



2.4.26 802.11ac mode, 256QAM modulation, 180.0 / 200.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	6.3	4.266	PASSED

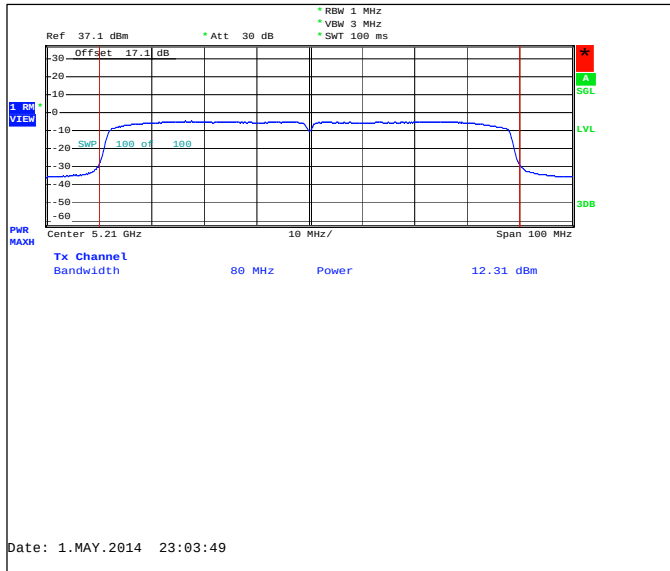
Channel 36+40 / 5190MHz



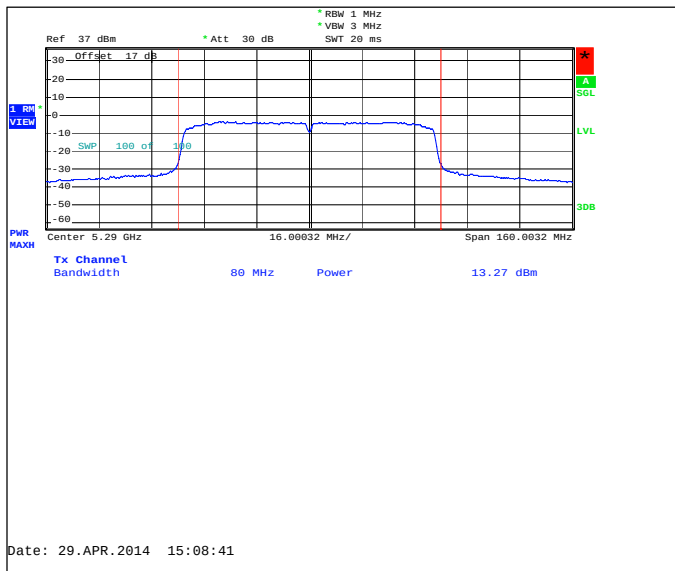
2.4.27 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	12.31	17.022	PASSED
52-64 / 5290	13.27	21.232	PASSED
100-112 / 5530	12.68	18.535	PASSED

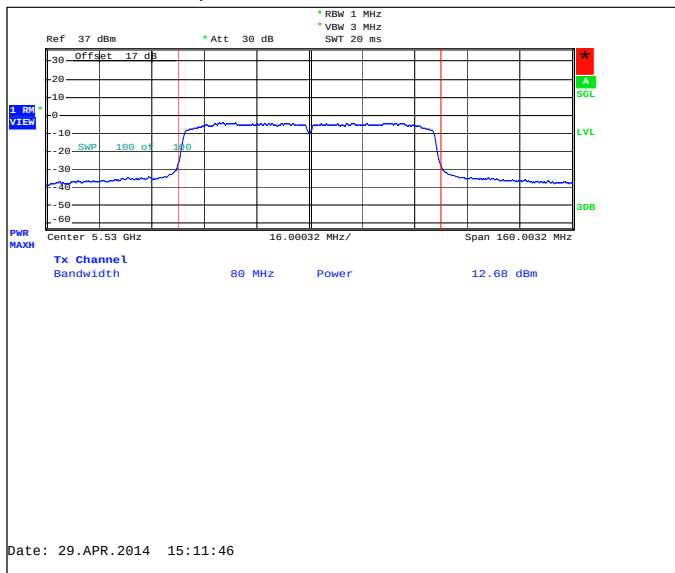
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



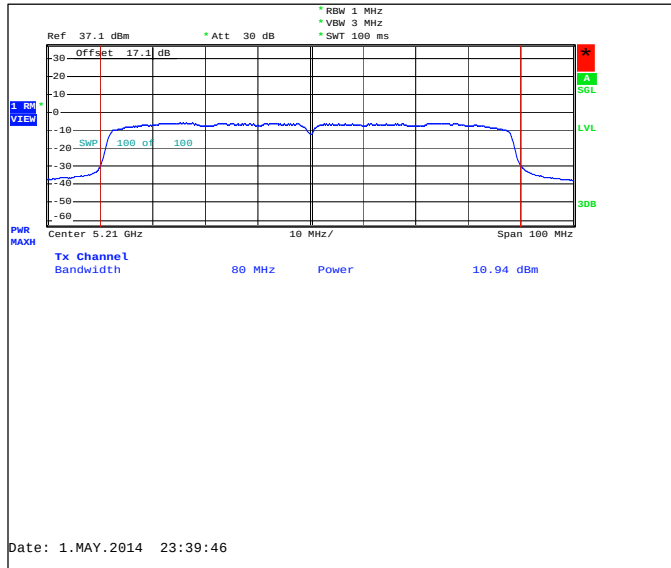
Channel 100-112 / 5530MHz



2.4.28 802.11ac mode, QPSK modulation, 58.5 / 65.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	10.94	12.417	PASSED

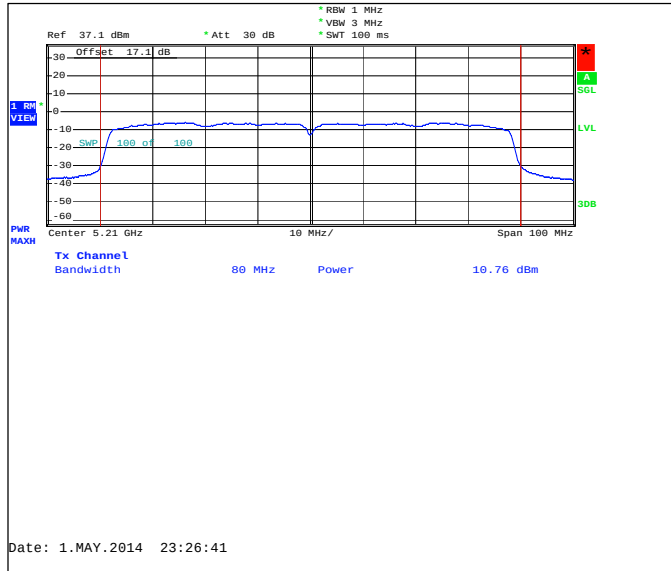
Channel 36-48 / 5210MHz



2.4.29 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	10.76	11.912	PASSED

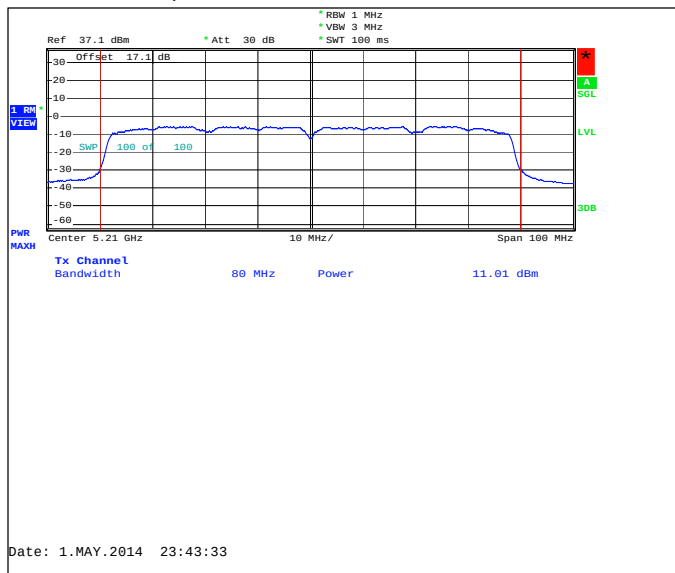
Channel 36-48 / 5210MHz



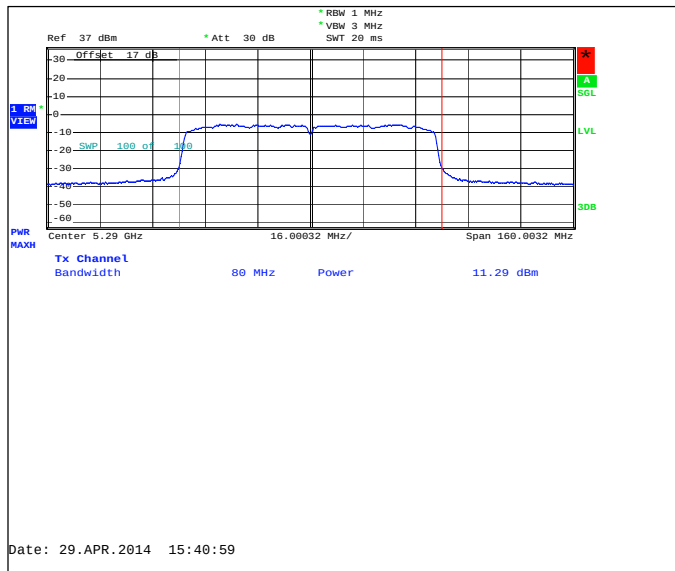
2.4.30 802.11ac mode, 16QAM modulation, 117.0 / 130.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	11.01	12.618	PASSED
52-64 / 5290	11.29	13.459	PASSED
100-112 / 5530	11.51	14.158	PASSED

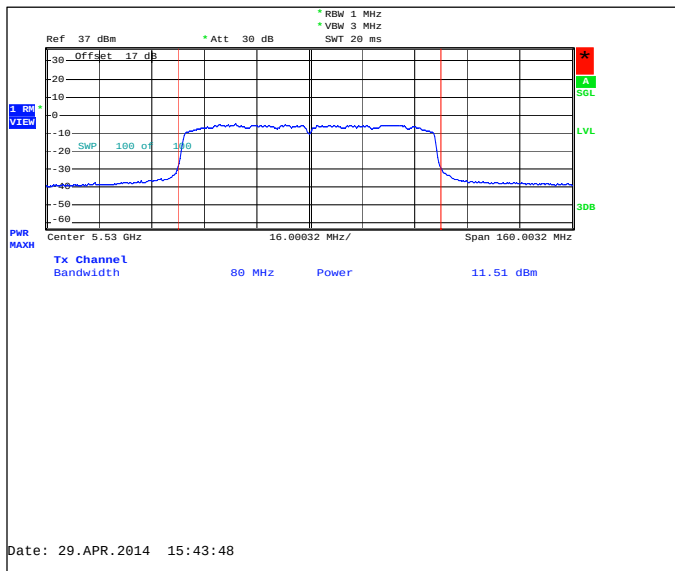
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



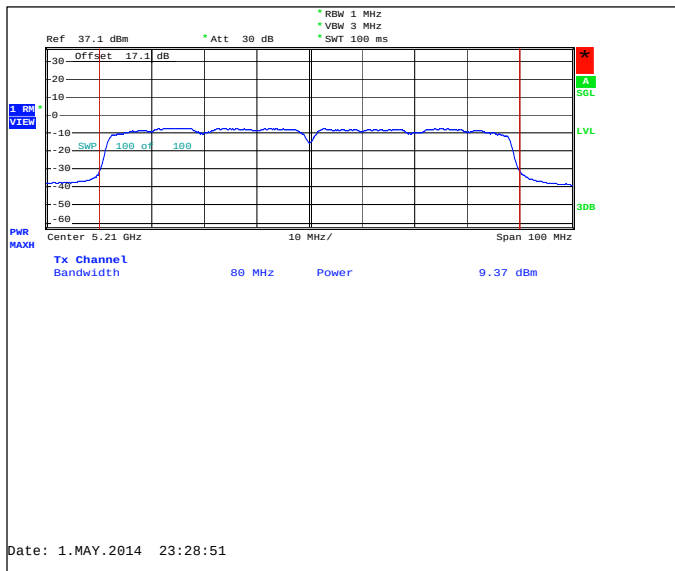
Channel 100-112 / 5530MHz



2.4.1 802.11ac mode, 16QAM modulation, 175.5 / 195.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	9.37	8.65	PASSED

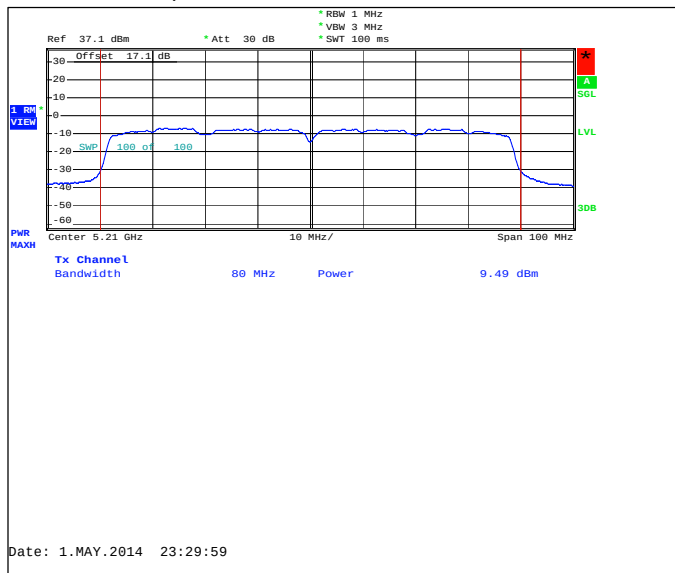
Channel 36-48 / 5210MHz



2.4.2 802.11ac mode, 64QAM modulation, 234.0 / 260.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	9.49	8.892	PASSED

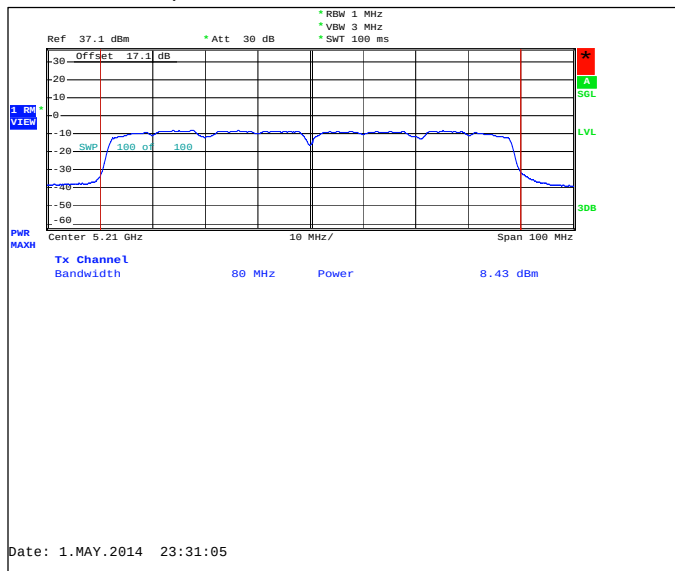
Channel 36-48 / 5210MHz



2.4.3 802.11ac mode, 64QAM modulation, 263.3 / 292.5 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	8.43	6.966	PASSED

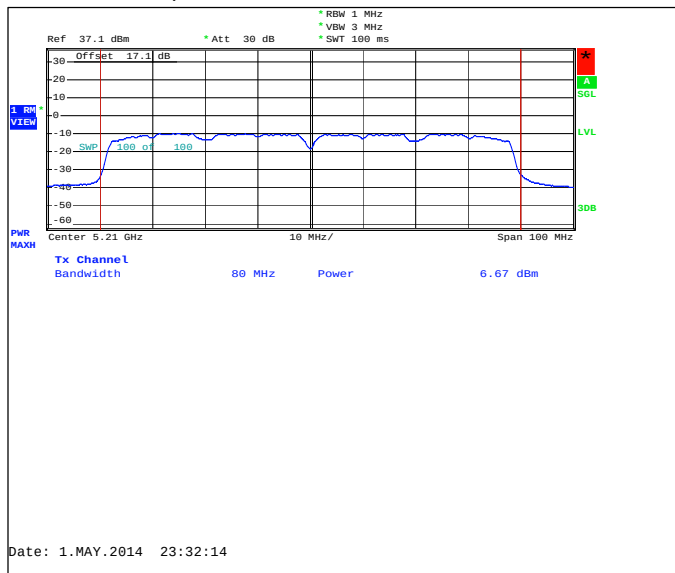
Channel 36-48 / 5210MHz



2.4.4 802.11ac mode, 64QAM modulation, 292.5 / 325.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	6.67	4.645	PASSED

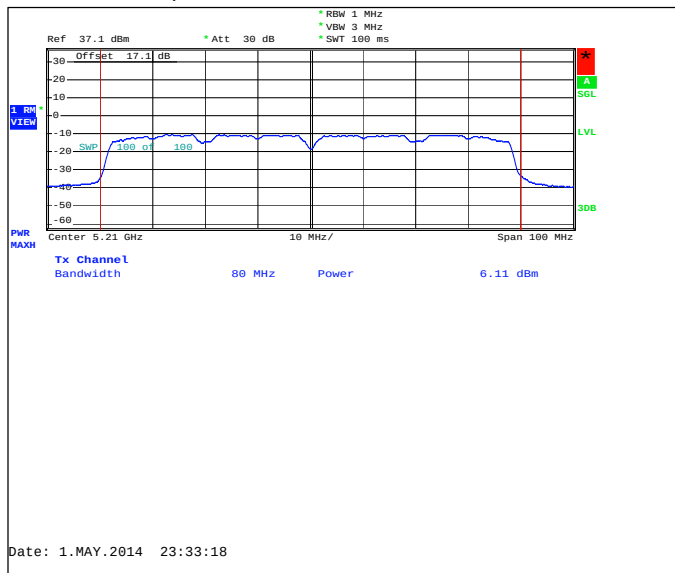
Channel 36-48 / 5210MHz



2.4.5 802.11ac mode, 256QAM modulation, 351.0 / 390.0 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	6.11	4.083	PASSED

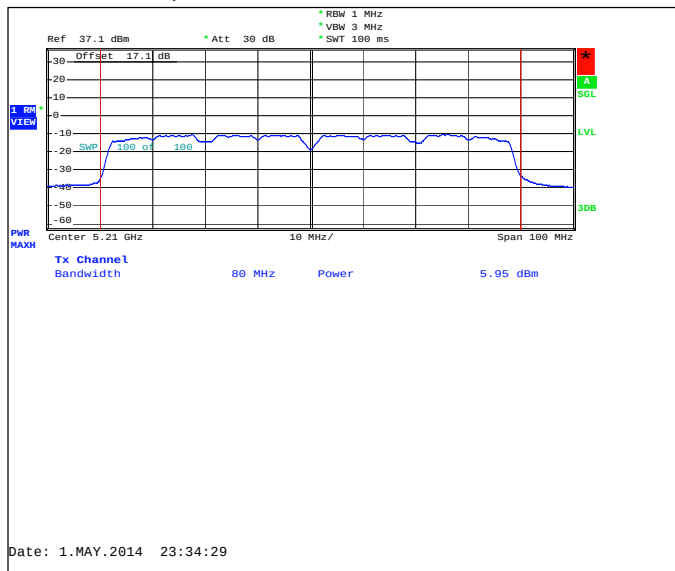
Channel 36-48 / 5210MHz



2.4.6 802.11ac mode, 256QAM modulation, 390.0 / 433.3 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	5.95	3.936	PASSED

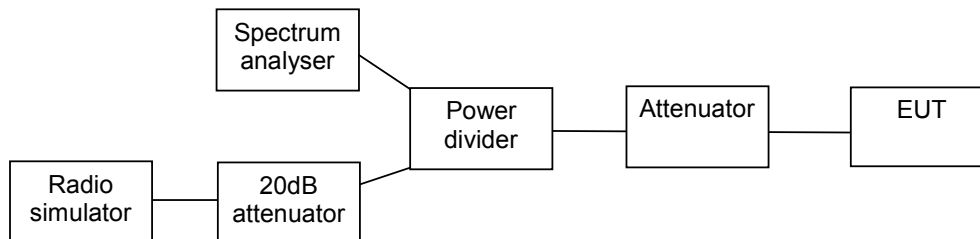
Channel 36-48 / 5210MHz



3. Peak excursion (FCC §15.407(a)(6), RSS-210 A9.2)

EUT with DUT number	RM-1045, DUT 18220
Accessories with DUT numbers	AC-60E, DUT 18197 ; WH-208, DUT 18198
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 37 / 101.3
Date of measurements	29-Apr-2014
Measured by	Jari Keto

3.1. Test Setup



3.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for peak excursion measurements

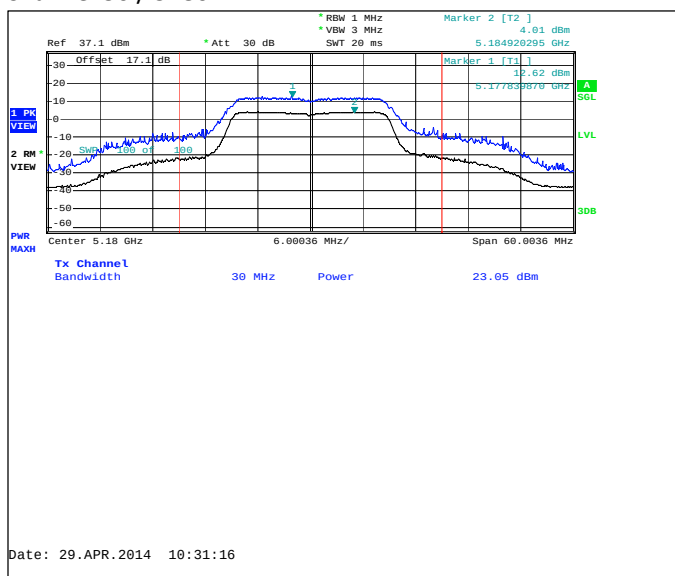
Limit [dB]
<= 13

3.3. 5 GHz RLAN Test results

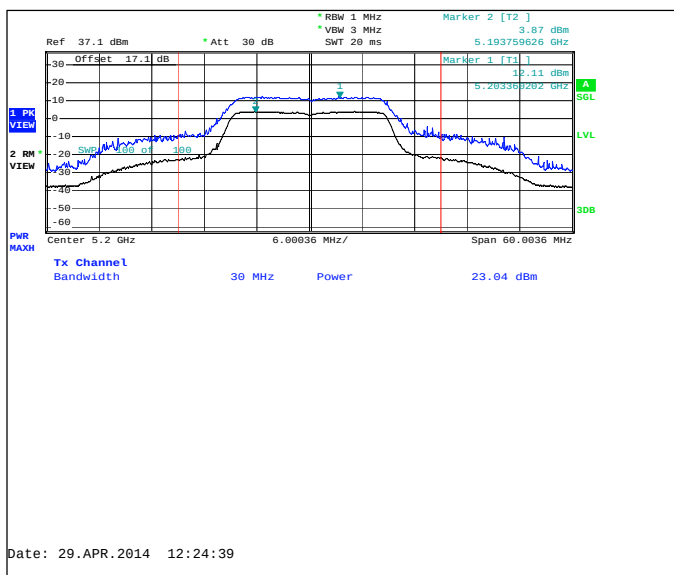
3.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36 / 5180	8.61	PASSED
40 / 5200	8.24	PASSED
48 / 5240	8.34	PASSED
52 / 5260	8.9	PASSED
60 / 5300	8.49	PASSED
64 / 5320	8.57	PASSED
100 / 5500	8.76	PASSED
116 / 5580	8.2	PASSED
140 / 5700	7.83	PASSED

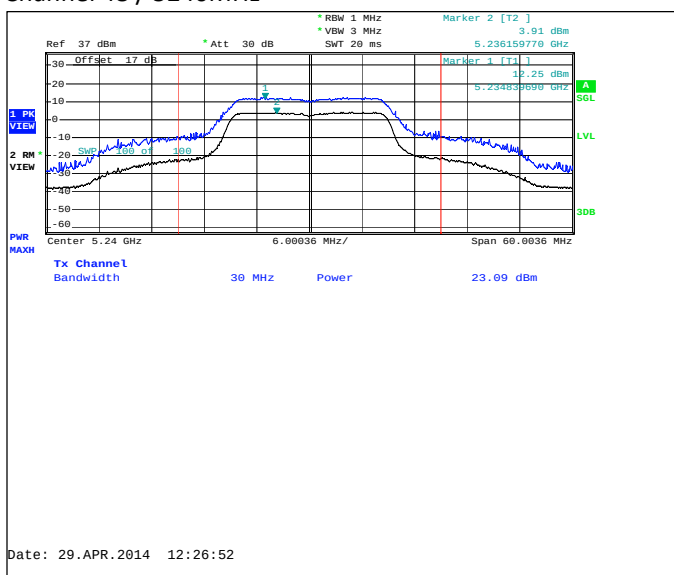
Channel 36 / 5180MHz



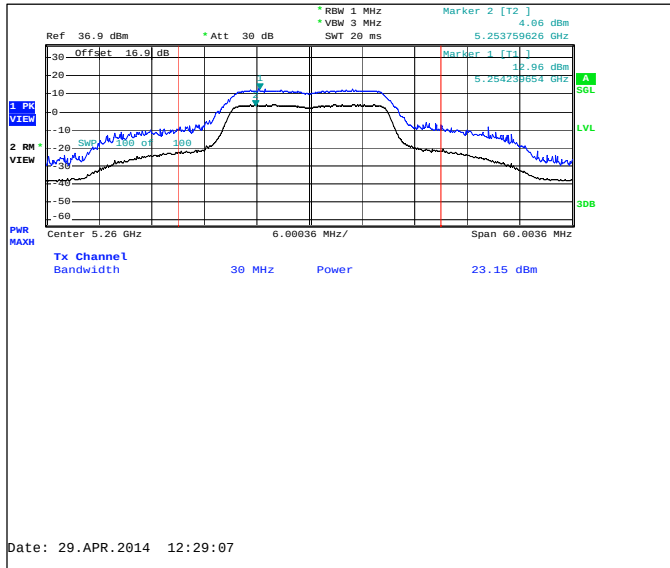
Channel 40 / 5200MHz



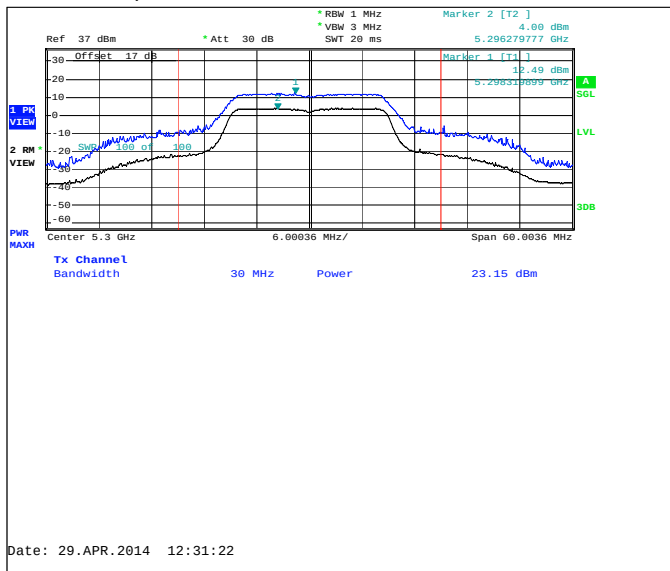
Channel 48 / 5240MHz



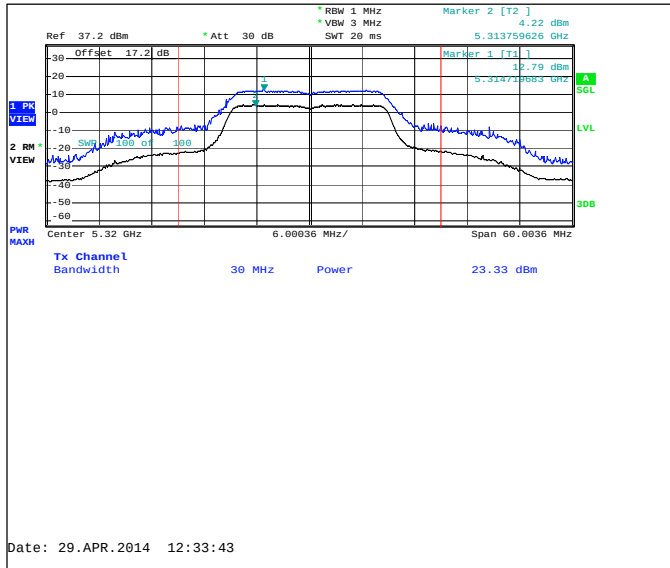
Channel 52 / 5260MHz



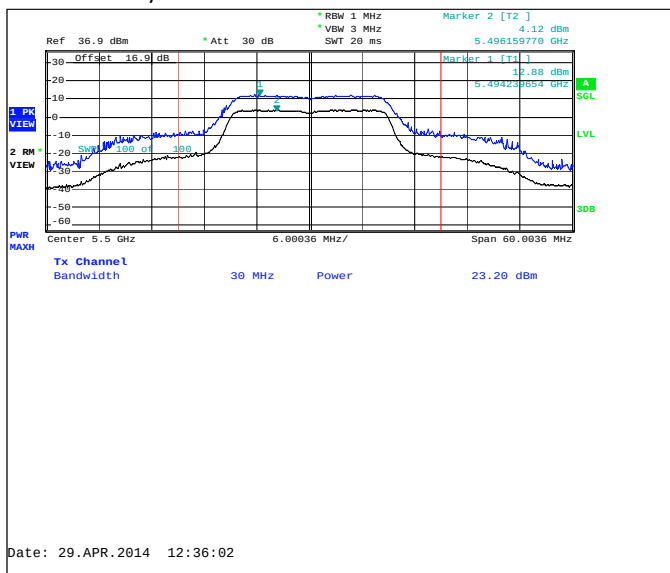
Channel 60 / 5300MHz



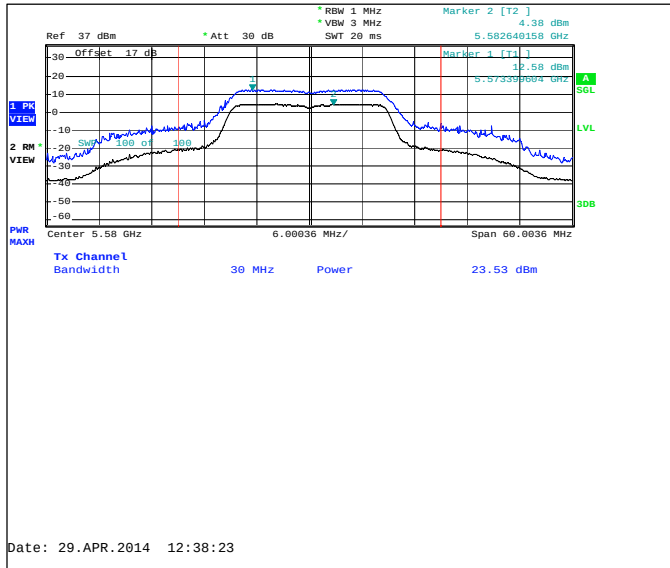
Channel 64 / 5320MHz



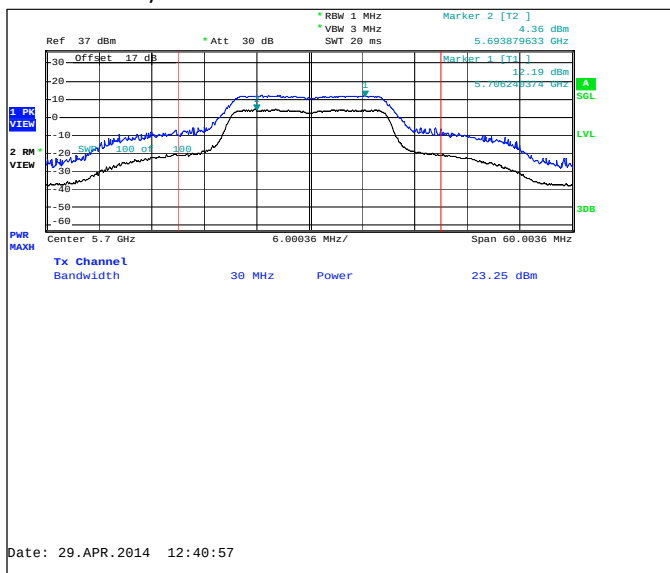
Channel 100 / 5500MHz



Channel 116 / 5580MHz



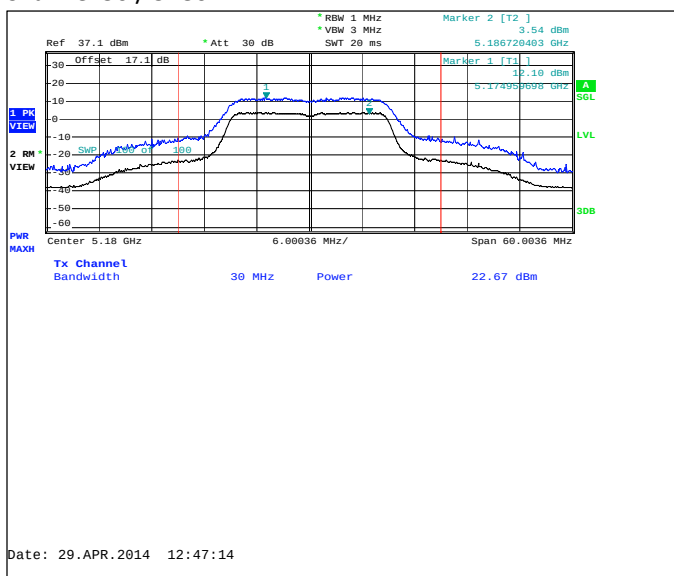
Channel 140 / 5700MHz



3.3.2 802.11n mode, QPSK modulation, 13.0 / 14.4 Mbps data rate

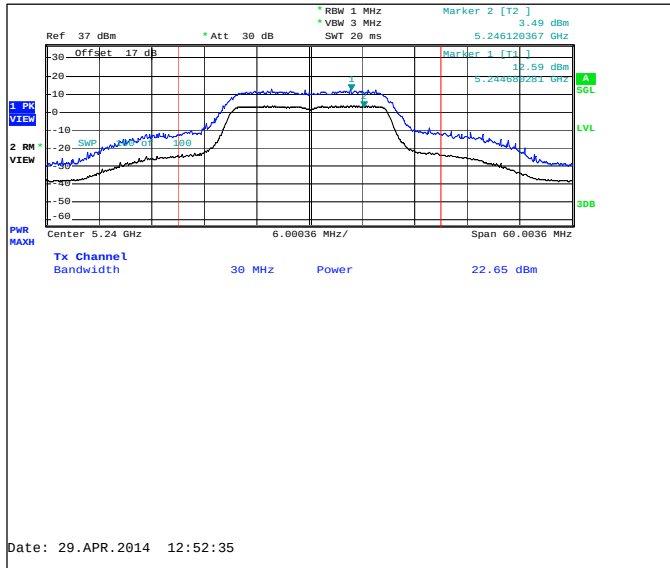
Channel / f_c [MHz]	Peak excursion [dB]	Result
36 / 5180	8.55	PASSED
40 / 5200	8.79	PASSED
48 / 5240	9.1	PASSED
52 / 5260	8.79	PASSED
60 / 5300	9.38	PASSED
64 / 5320	8.82	PASSED
100 / 5500	9.39	PASSED
116 / 5580	9.22	PASSED
140 / 5700	9.22	PASSED

Channel 36 / 5180MHz

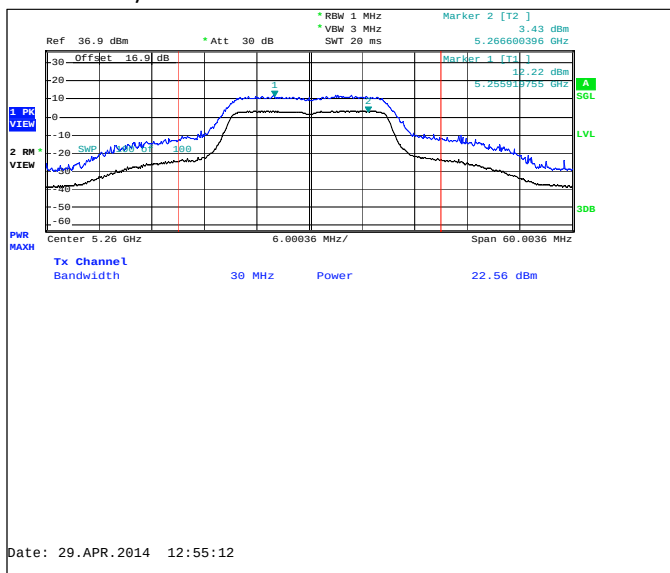


Channel 40 / 5200MHz

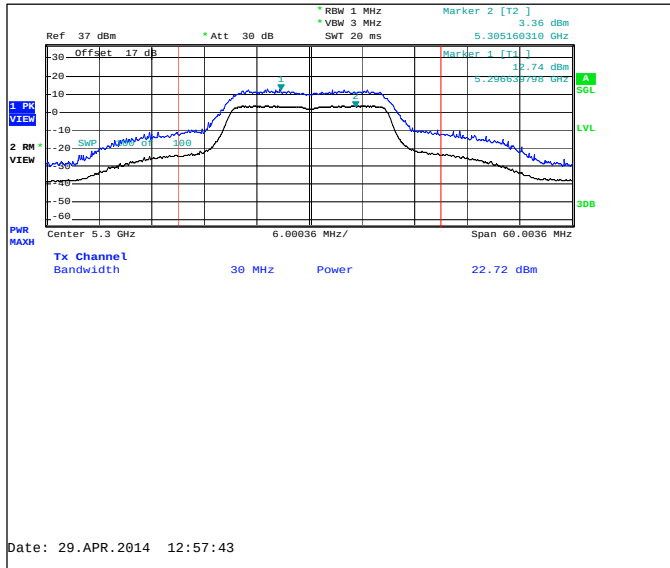
Channel 48 / 5240MHz



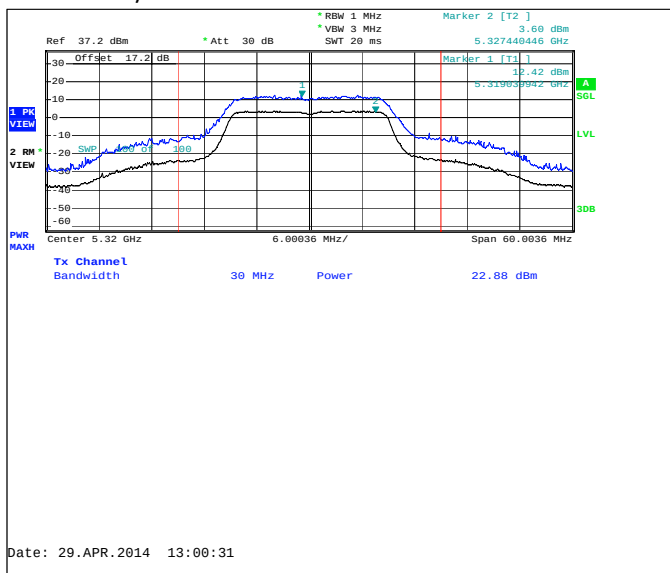
Channel 52 / 5260MHz



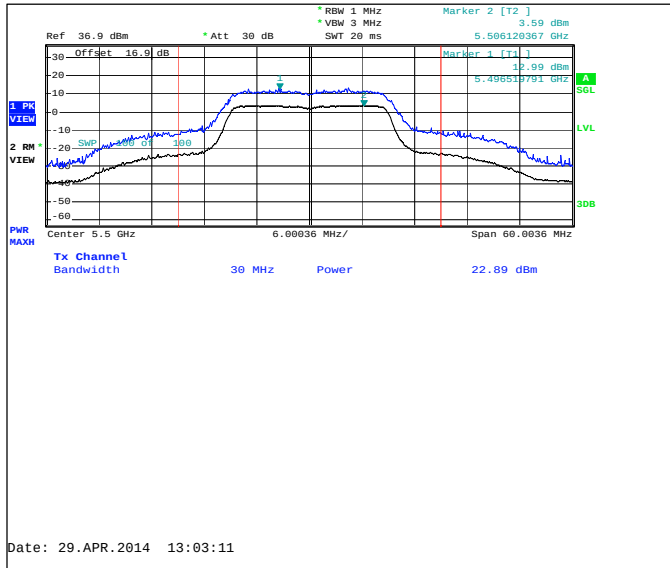
Channel 60 / 5300MHz



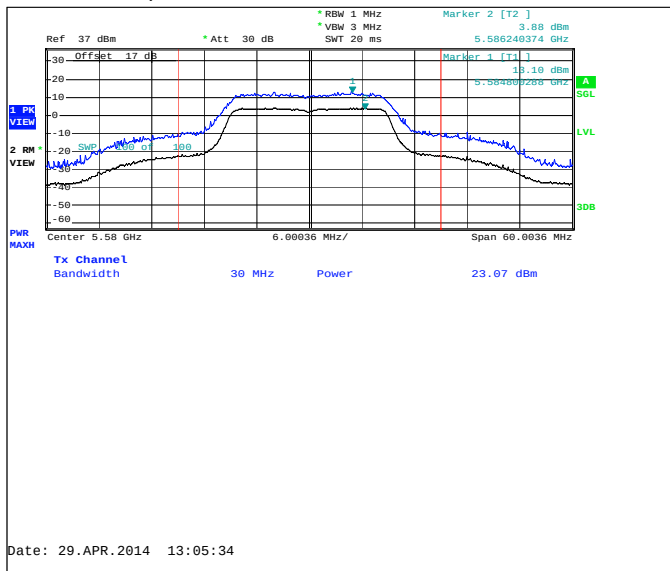
Channel 64 / 5320MHz



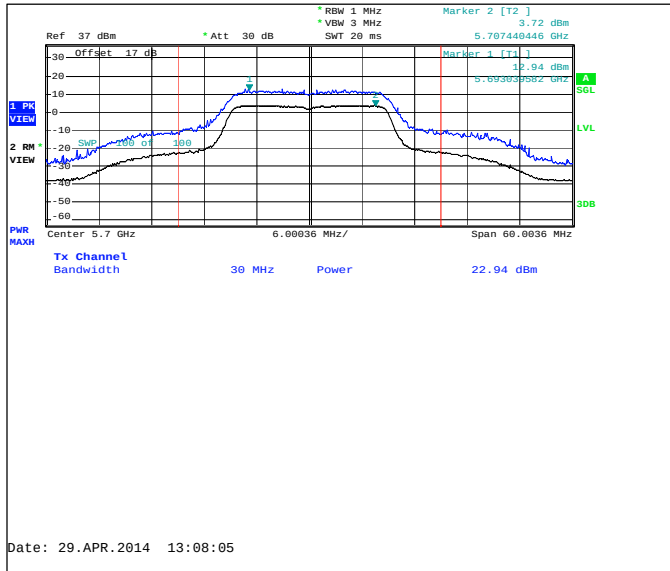
Channel 100 / 5500MHz



Channel 116 / 5580MHz



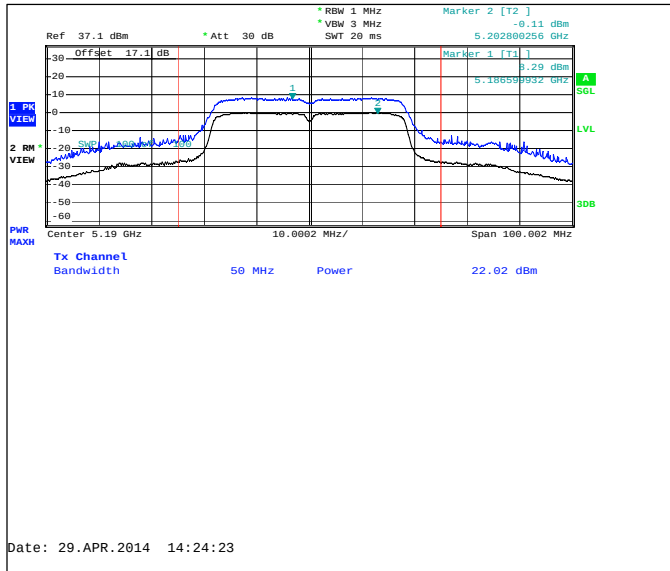
Channel 140 / 5700MHz



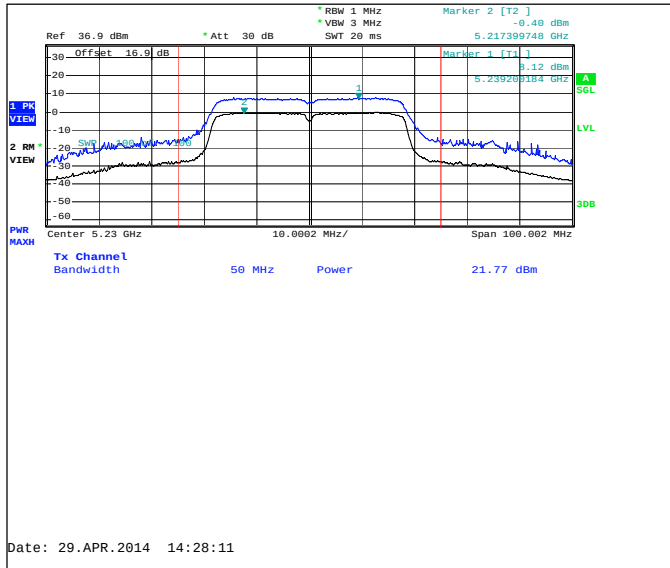
3.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36+40 / 5190	8.4	PASSED
44+48 / 5230	8.52	PASSED
52+56 / 5270	8.48	PASSED
60+64 / 5310	8.16	PASSED
100+104 / 5510	8.53	PASSED
108+112 / 5550	8.35	PASSED
132+136 / 5670	8.24	PASSED

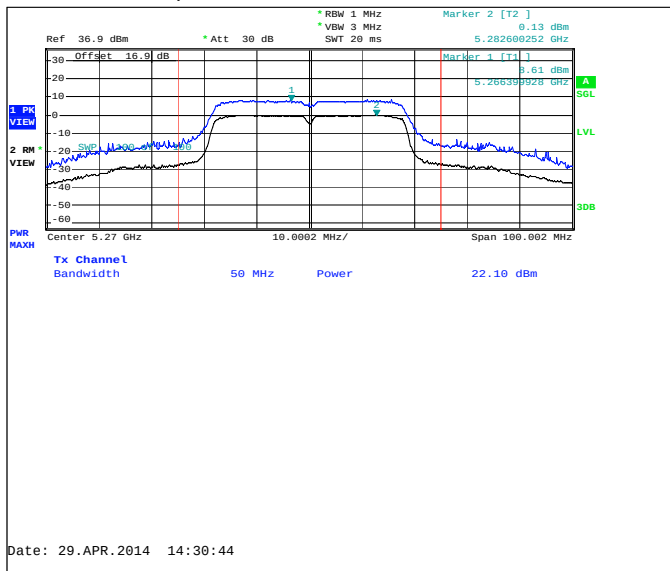
Channel 36+40 / 5190MHz



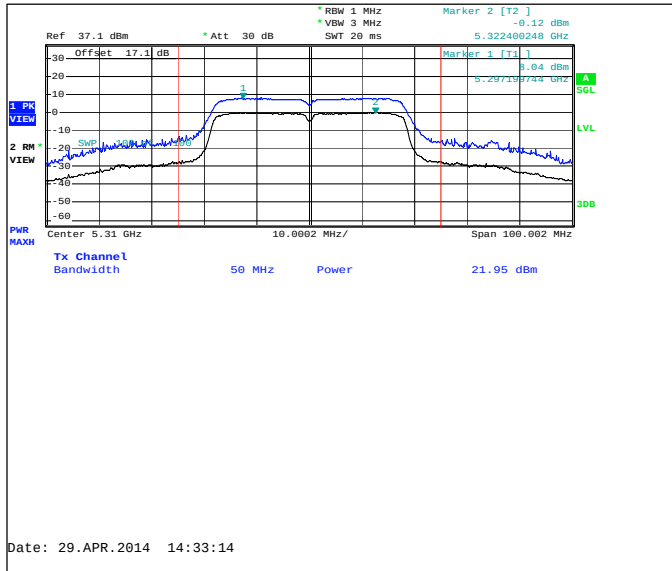
Channel 44+48 / 5230MHz



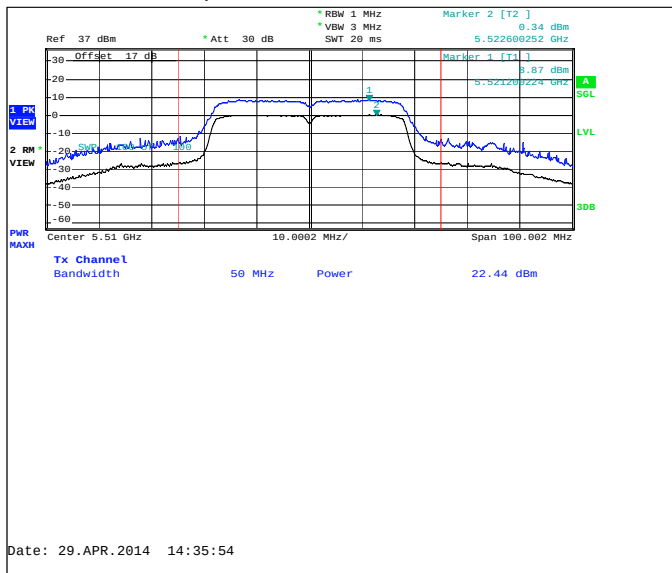
Channel 52+56 / 5270MHz



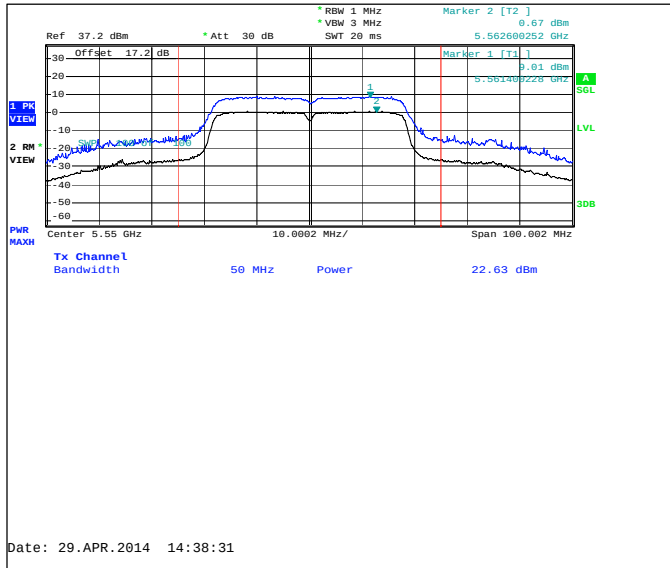
Channel 60+64 / 5310MHz



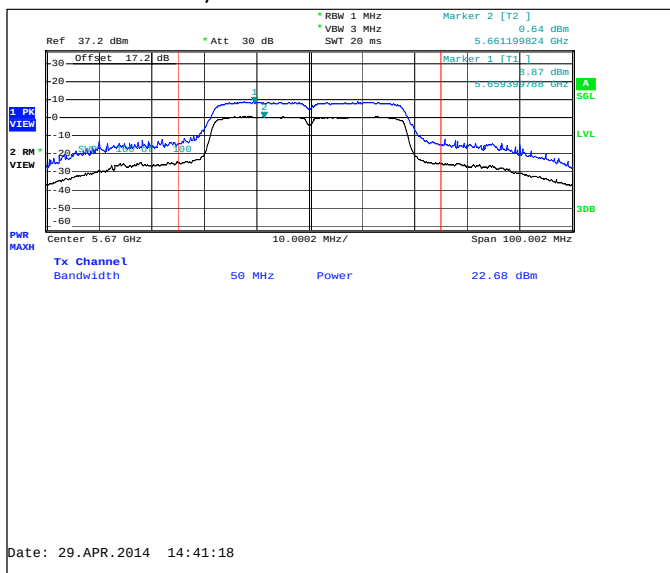
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



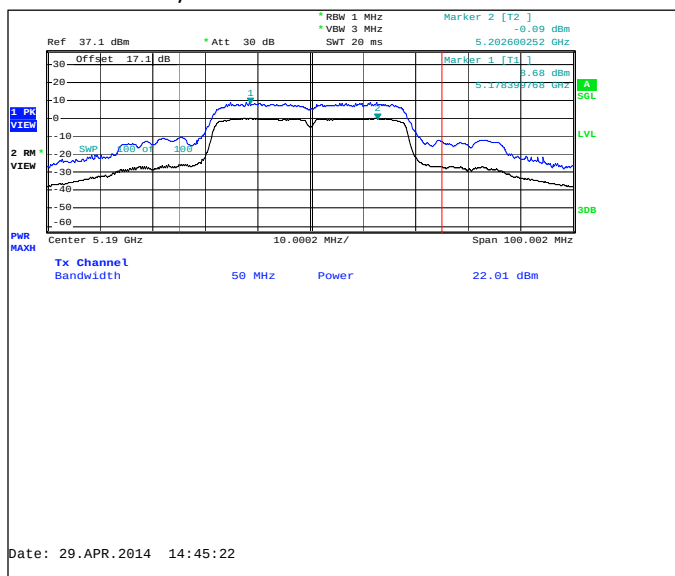
Channel 132+136 / 5670MHz



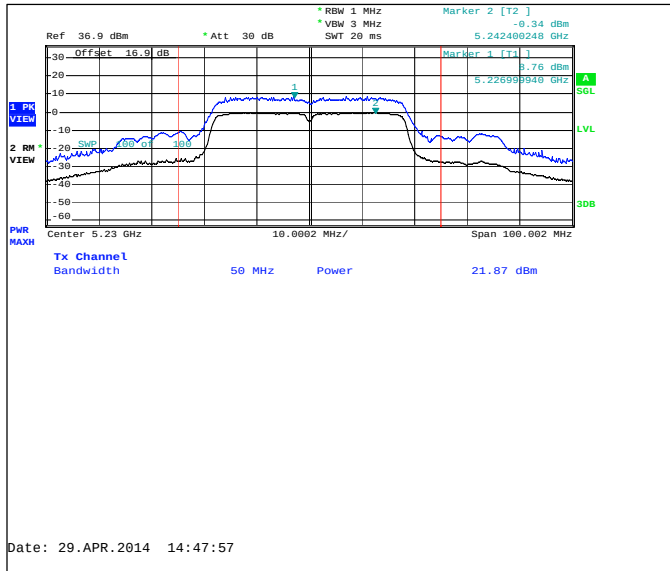
3.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f_c [MHz]	Peak excursion [dB]	Result
36+40 / 5190	8.78	PASSED
44+48 / 5230	9.1	PASSED
52+56 / 5270	9.1	PASSED
60+64 / 5310	9.4	PASSED
100+104 / 5510	9.44	PASSED
108+112 / 5550	8.97	PASSED
132+136 / 5670	8.76	PASSED

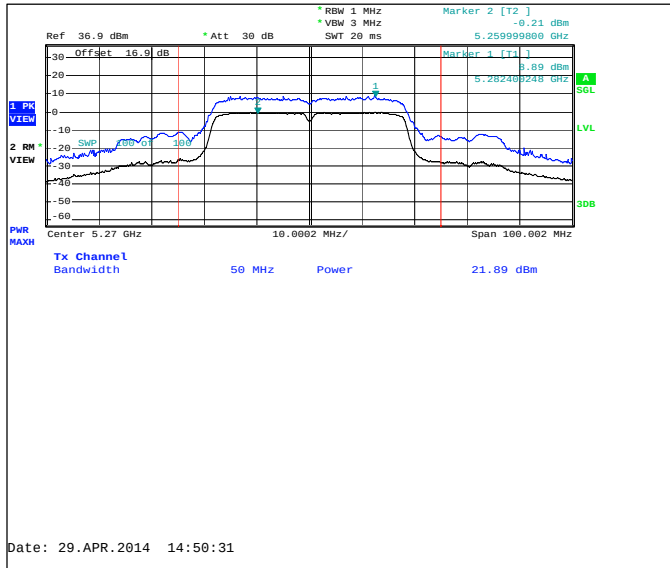
Channel 36+40 / 5190MHz



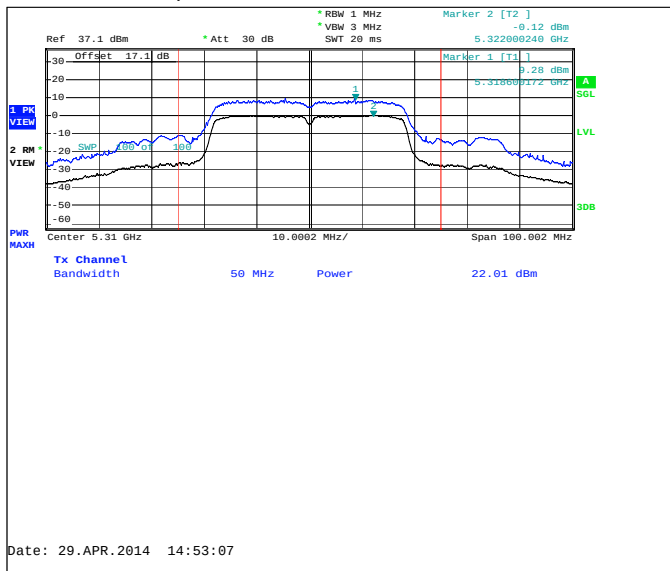
Channel 44+48 / 5230MHz



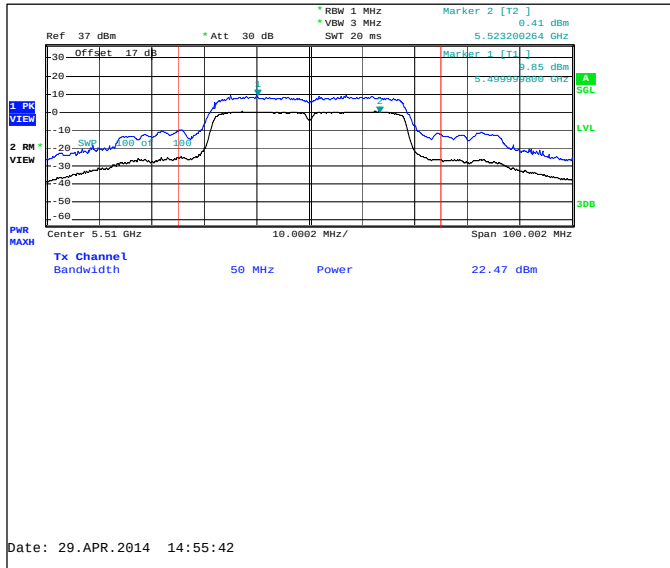
Channel 52+56 / 5270MHz



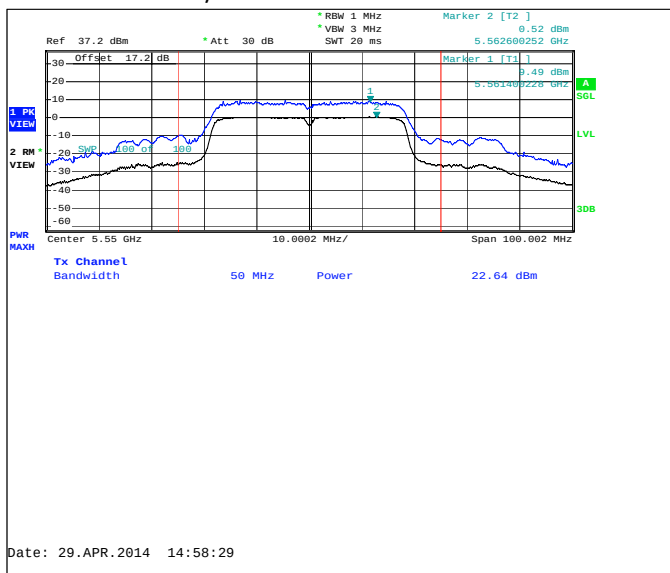
Channel 60+64 / 5310MHz



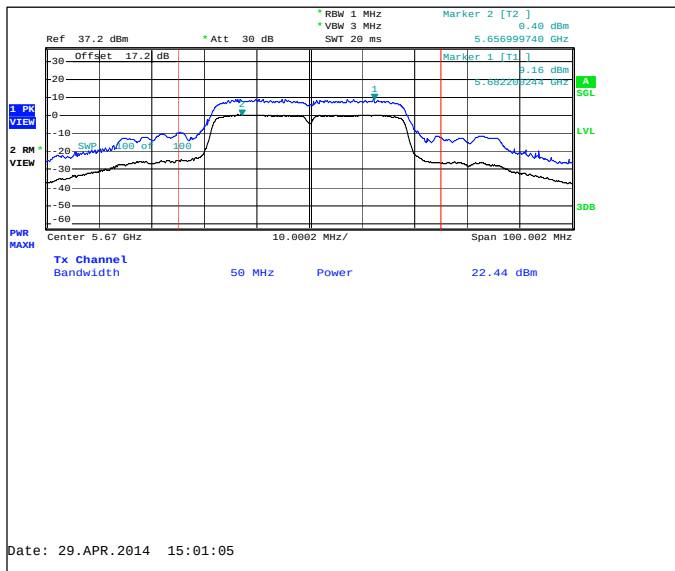
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



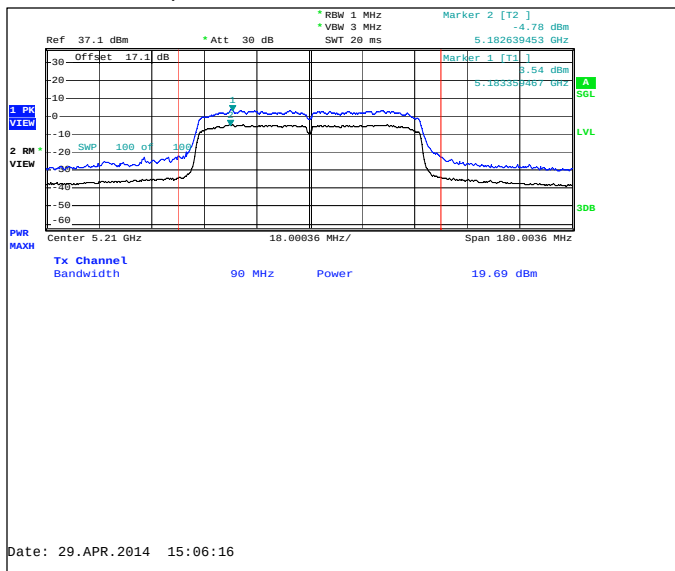
Channel 132+136 / 5670MHz



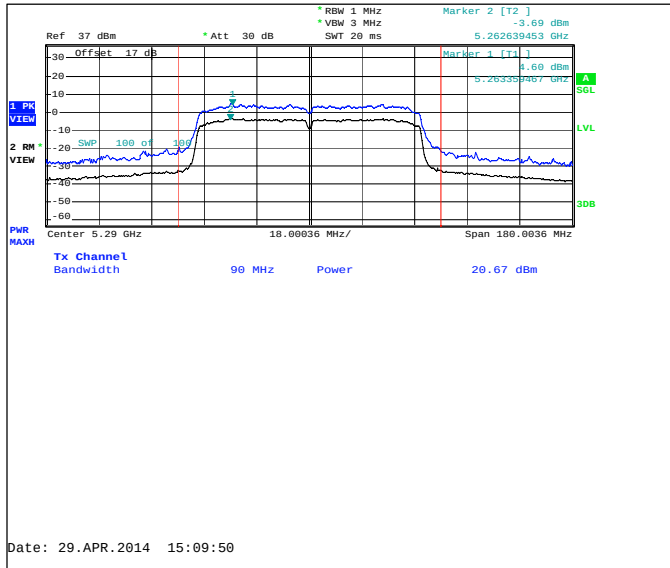
3.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f_c [MHz]	Peak excursion [dB]	Result
36-48 / 5210	8.32	PASSED
52-64 / 5290	8.29	PASSED
100-112 / 5530	8.29	PASSED

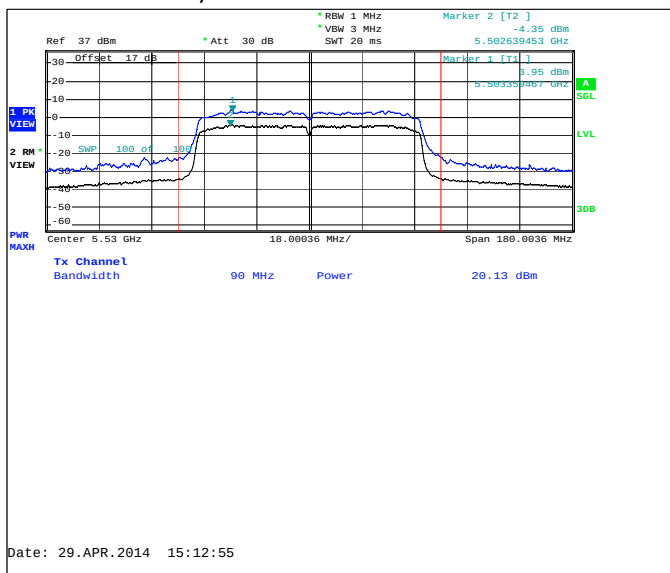
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



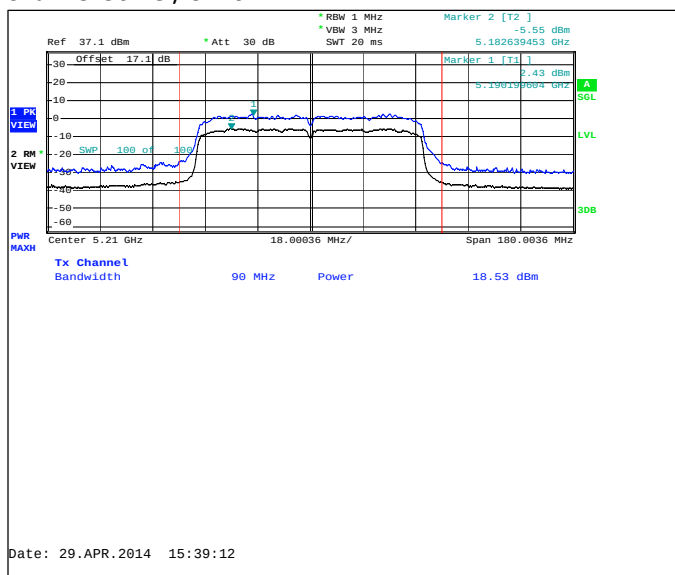
Channel 100-112 / 5530MHz



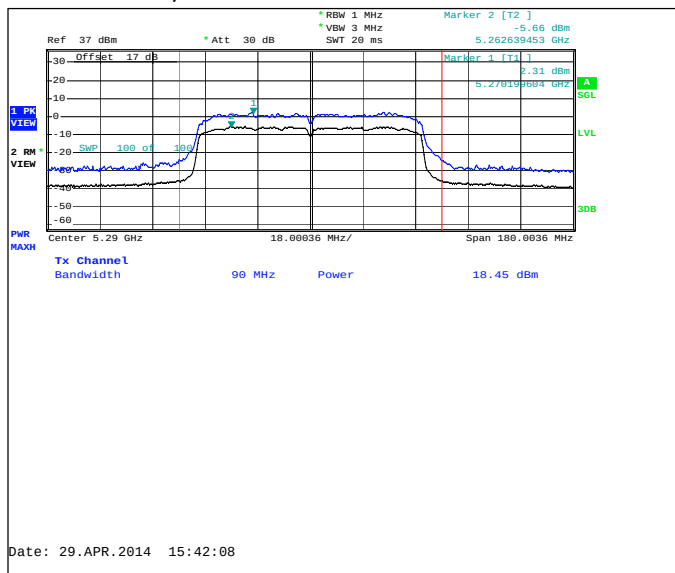
3.3.6 802.11ac mode, 16QAM modulation, 117.0 / 130.0 Mbps data rate

Channel / f_c [MHz]	Peak excursion [dB]	Result
36-48 / 5210	7.98	PASSED
52-64 / 5290	7.98	PASSED
100-112 / 5530	7.88	PASSED

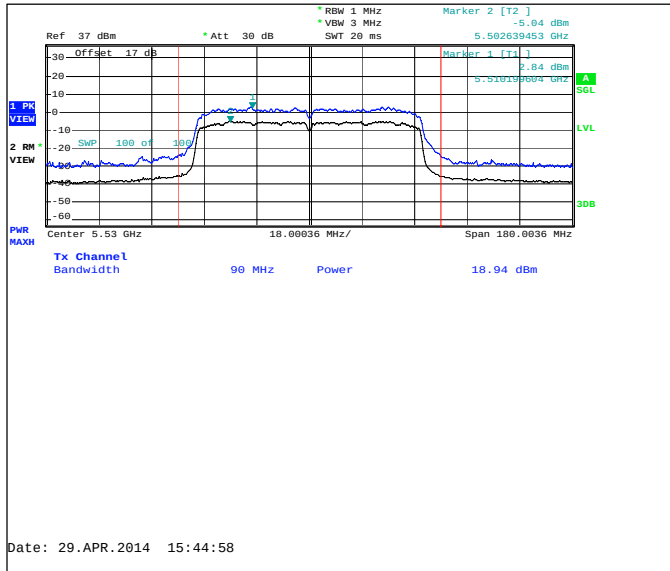
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



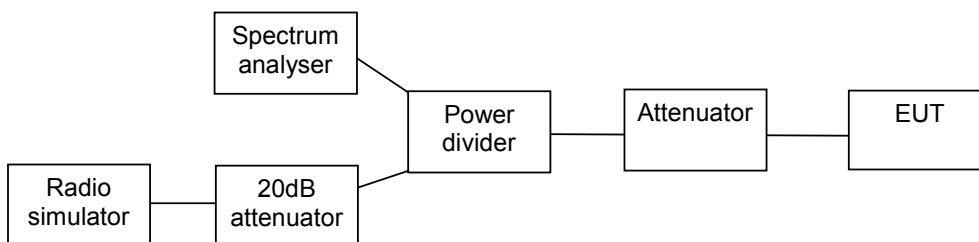
Channel 100-112 / 5530MHz



4. 26dB(bandwidth)

EUT with DUT number	RM-1045, DUT 18220
Accessories with DUT numbers	AC-60E, DUT 18197 ; WH-208, DUT 18198
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 37 / 101.3
Date of measurements	29-Apr-2014
Measured by	Jari Keto

4.1. Test Setup



4.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for 26 dB bandwidth measurements

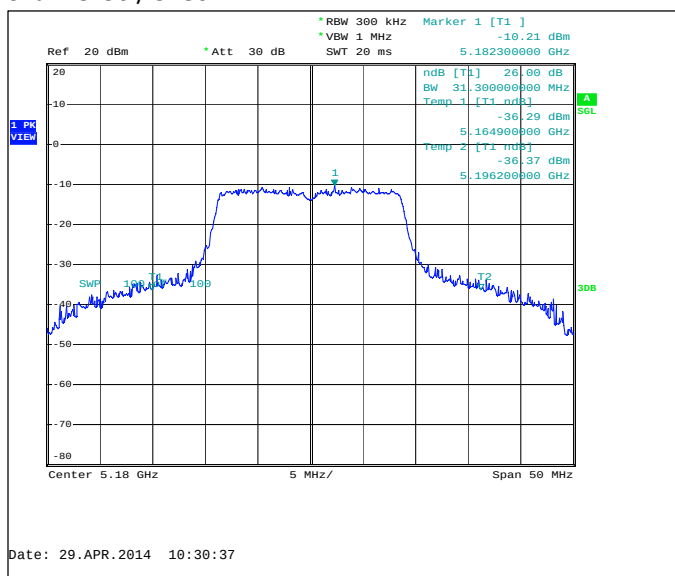
Limit [kHz]
No limit

4.3. 5 GHz RLAN Test results

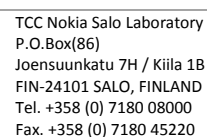
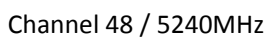
4.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36 / 5180	31300	PASSED
40 / 5200	29800	PASSED
48 / 5240	33000	PASSED
52 / 5260	30100	PASSED
60 / 5300	34000	PASSED
64 / 5320	32600	PASSED
100 / 5500	33500	PASSED
116 / 5580	34300	PASSED
140 / 5700	36100	PASSED

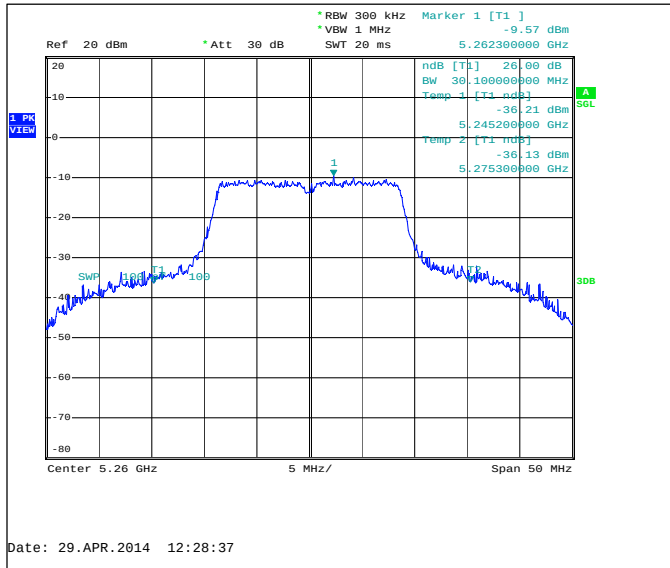
Channel 36 / 5180MHz



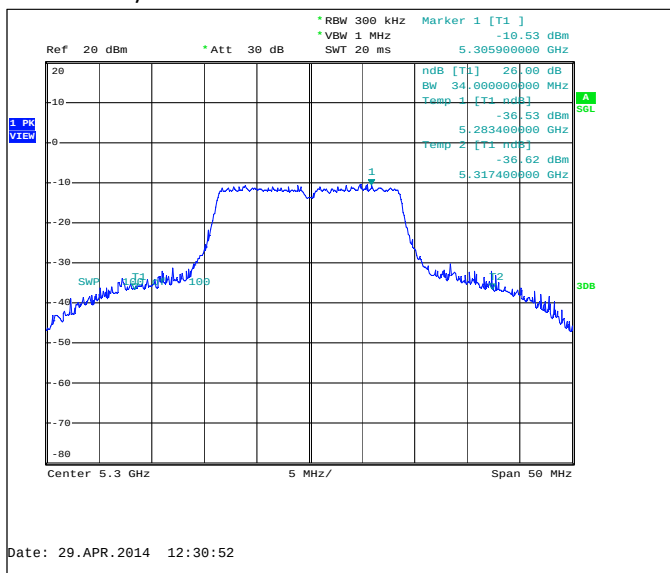
Channel 40 / 5200MHz



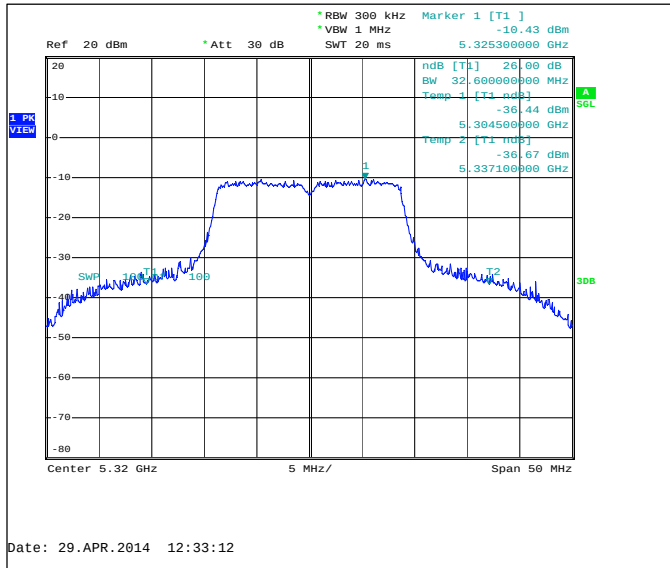
Channel 52 / 5260MHz



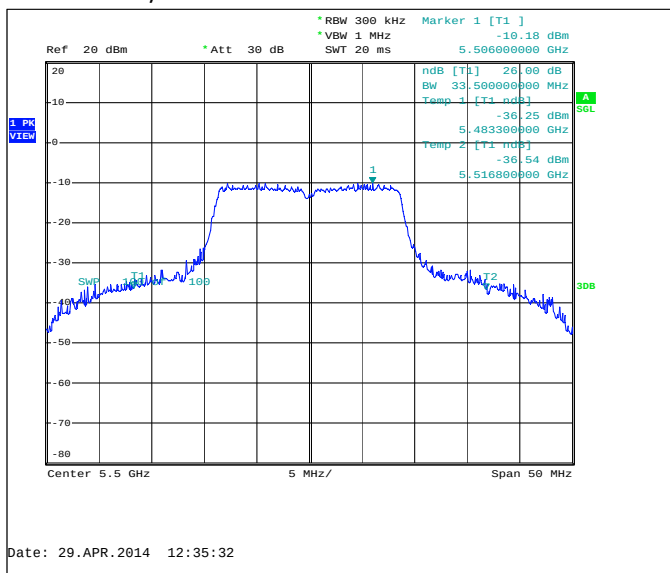
Channel 60 / 5300MHz



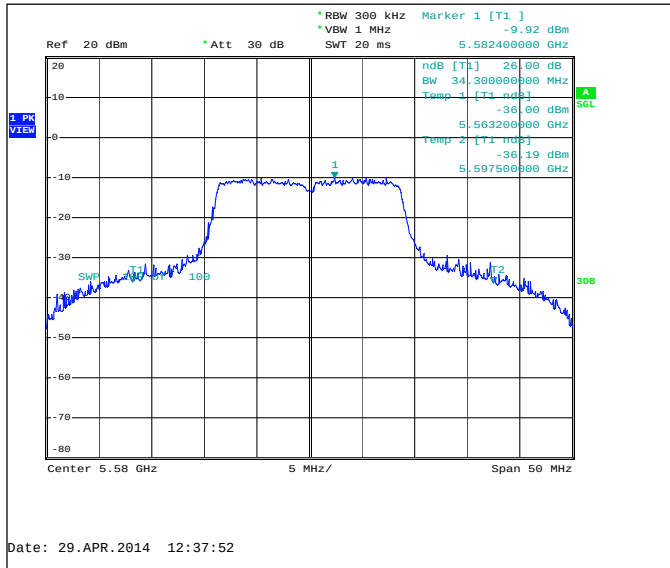
Channel 64 / 5320MHz



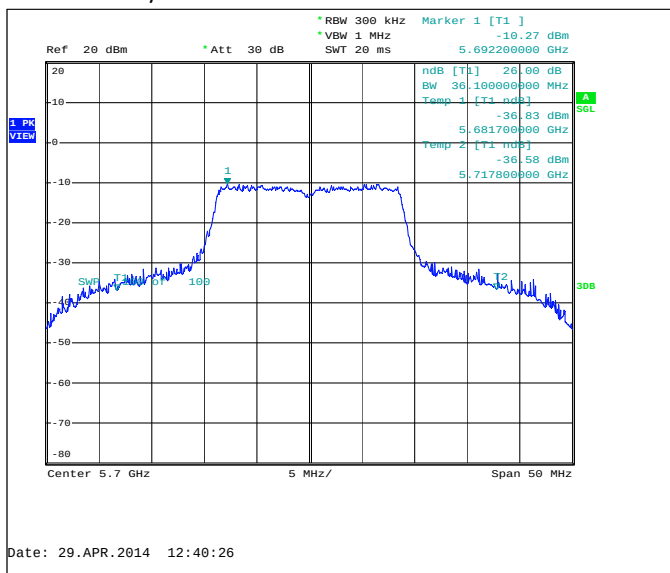
Channel 100 / 5500MHz



Channel 116 / 5580MHz



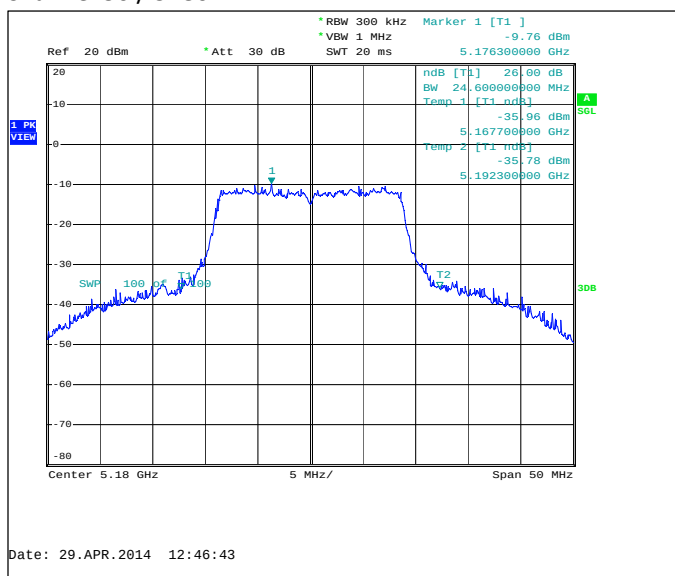
Channel 140 / 5700MHz



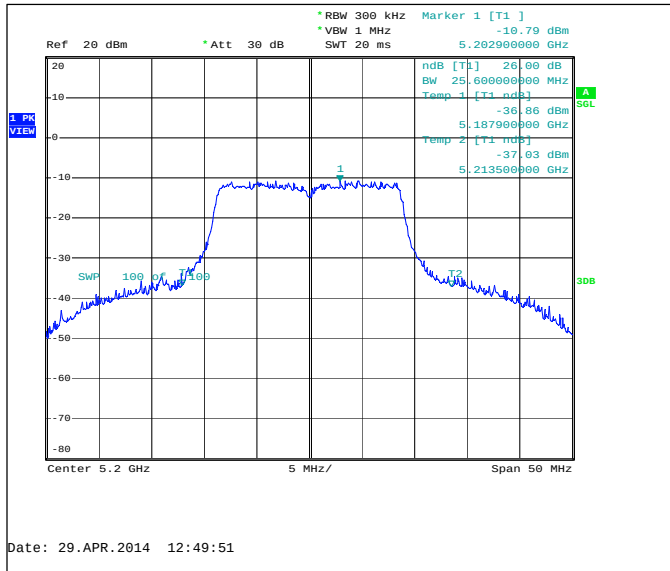
4.3.2 802.11n mode, QPSK modulation, 13.0 / 14.4 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36 / 5180	24600	PASSED
40 / 5200	25600	PASSED
48 / 5240	24000	PASSED
52 / 5260	24300	PASSED
60 / 5300	25200	PASSED
64 / 5320	24300	PASSED
100 / 5500	24200	PASSED
116 / 5580	25100	PASSED
140 / 5700	26900	PASSED

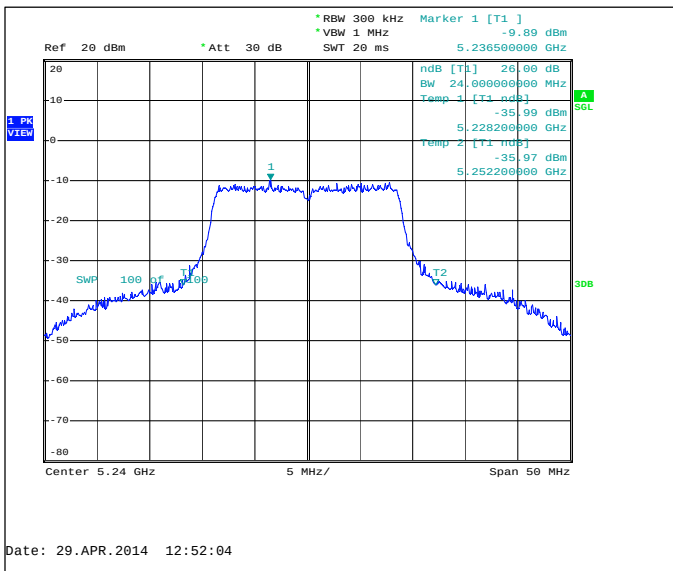
Channel 36 / 5180MHz



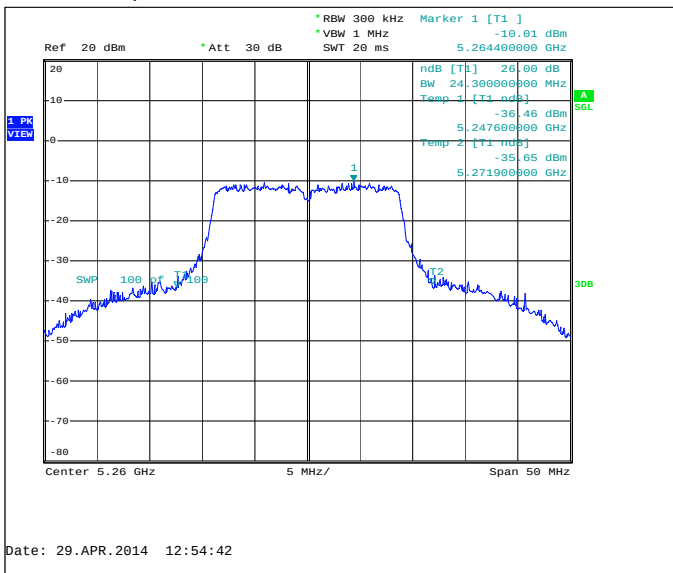
Channel 40 / 5200MHz



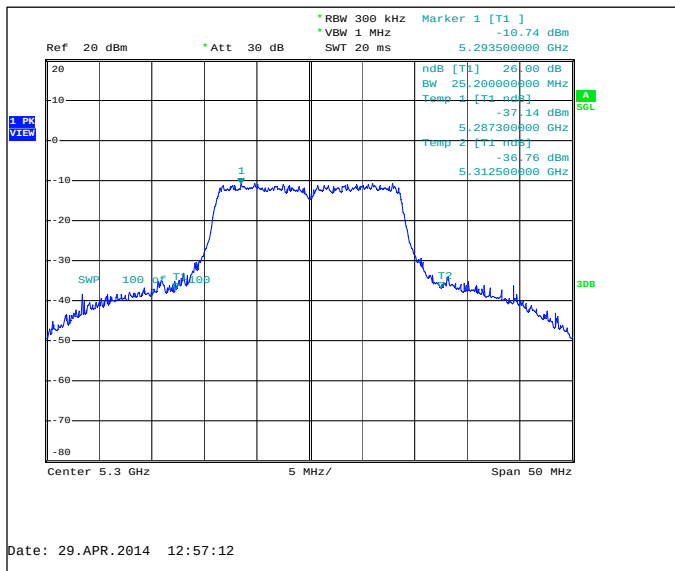
Channel 48 / 5240MHz



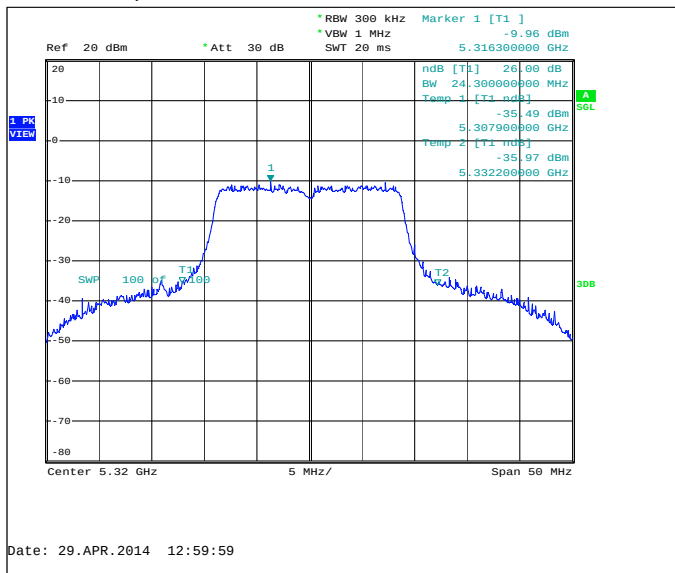
Channel 52 / 5260MHz



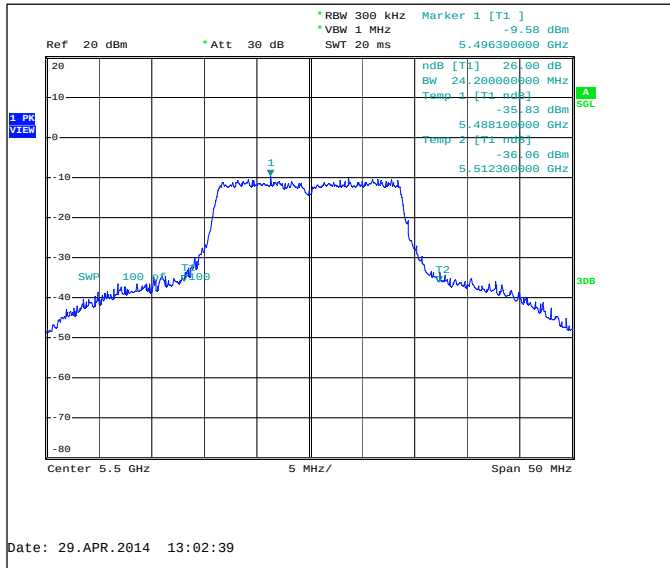
Channel 60 / 5300MHz



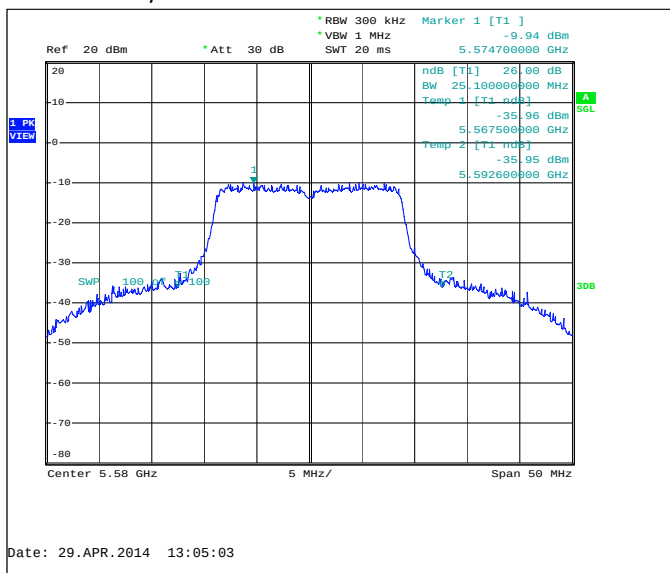
Channel 64 / 5320MHz



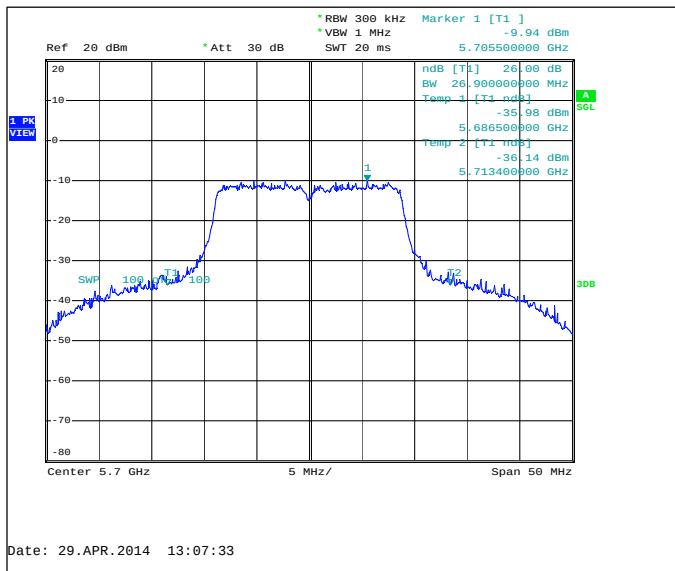
Channel 100 / 5500MHz



Channel 116 / 5580MHz



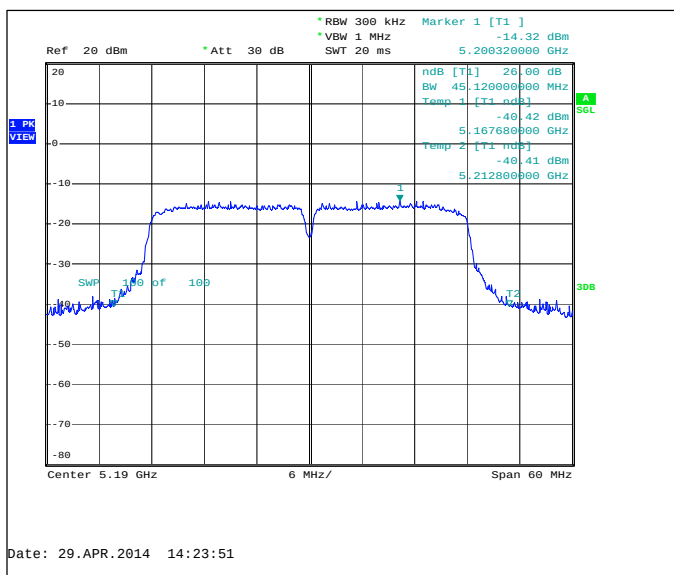
Channel 140 / 5700MHz



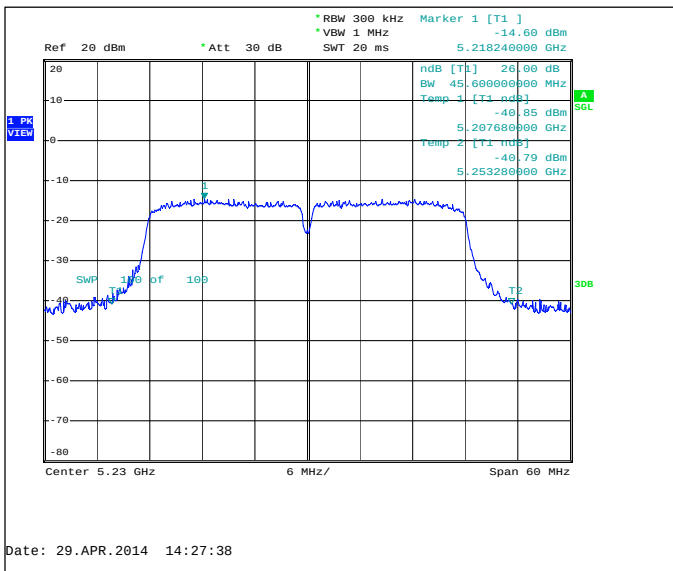
4.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36+40 / 5190	45120	PASSED
44+48 / 5230	45600	PASSED
52+56 / 5270	44880	PASSED
60+64 / 5310	43920	PASSED
100+104 / 5510	45720	PASSED
108+112 / 5550	46200	PASSED
132+136 / 5670	48480	PASSED

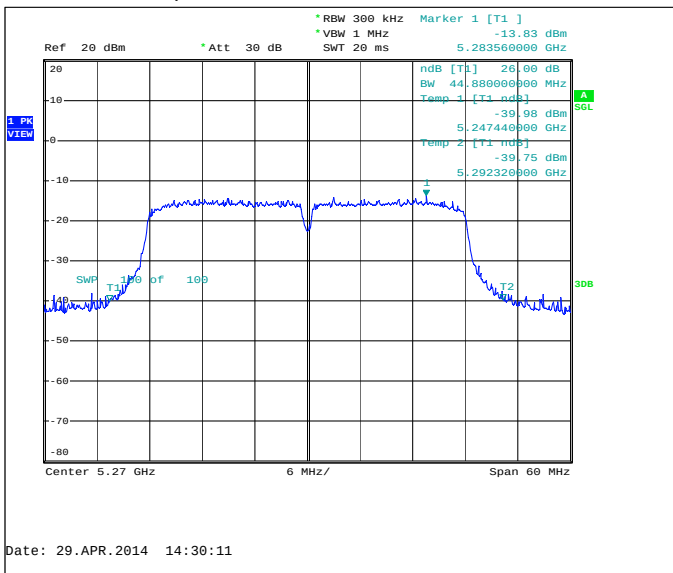
Channel 36+40 / 5190MHz



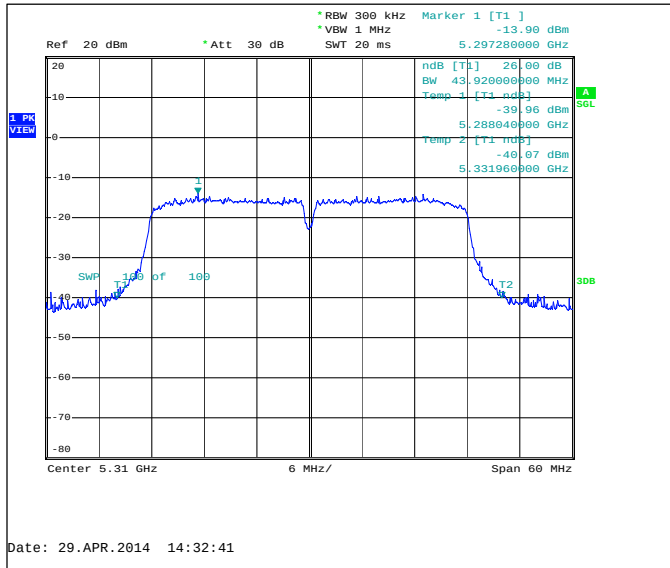
Channel 44+48 / 5230MHz



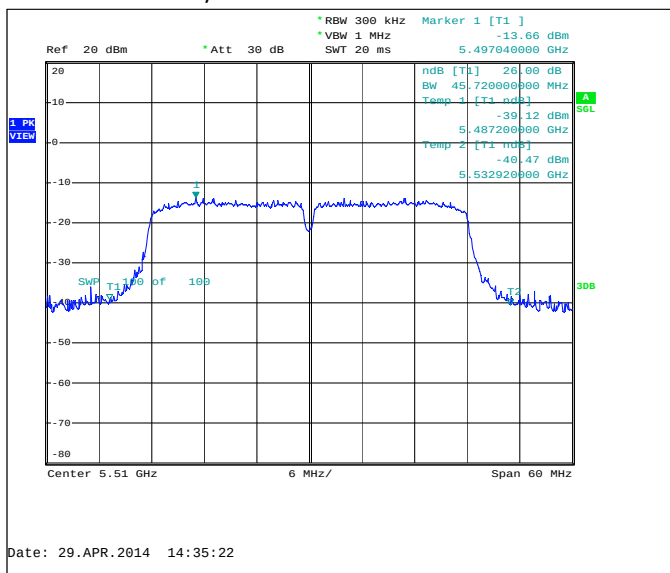
Channel 52+56 / 5270MHz



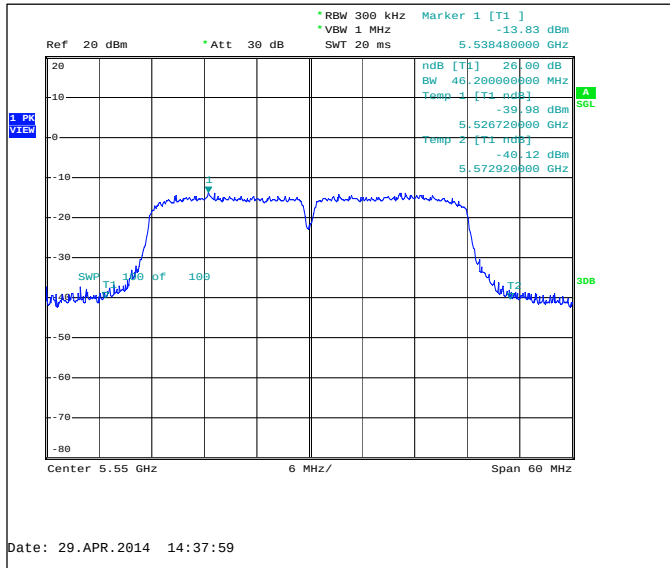
Channel 60+64 / 5310MHz



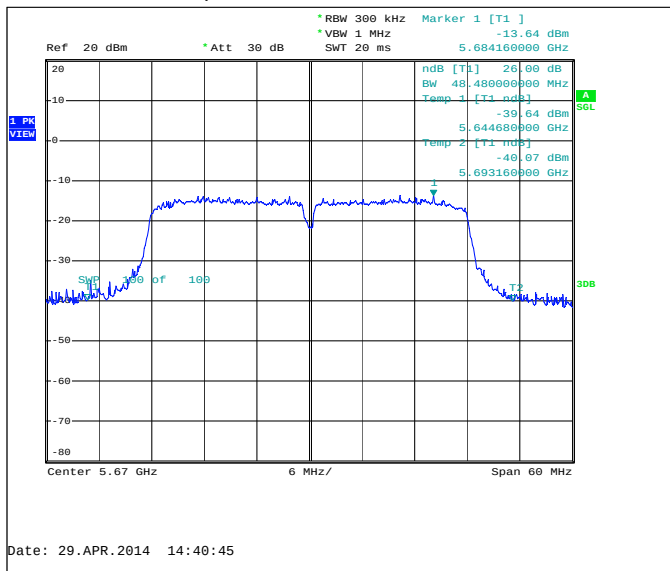
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



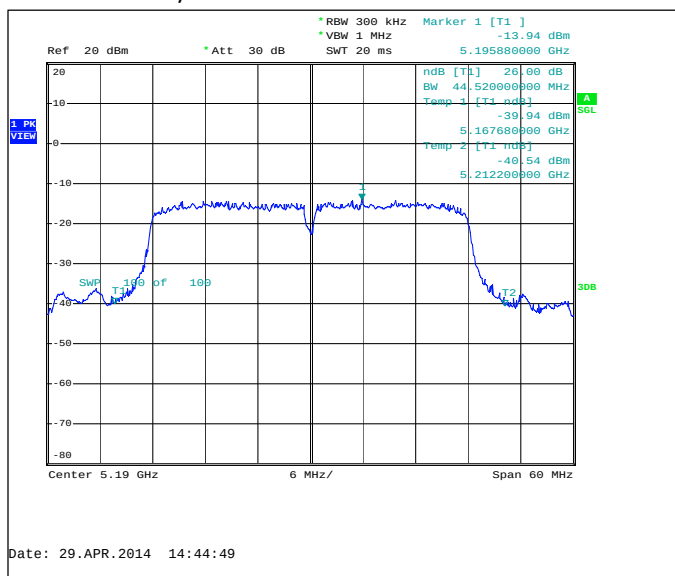
Channel 132+136 / 5670MHz



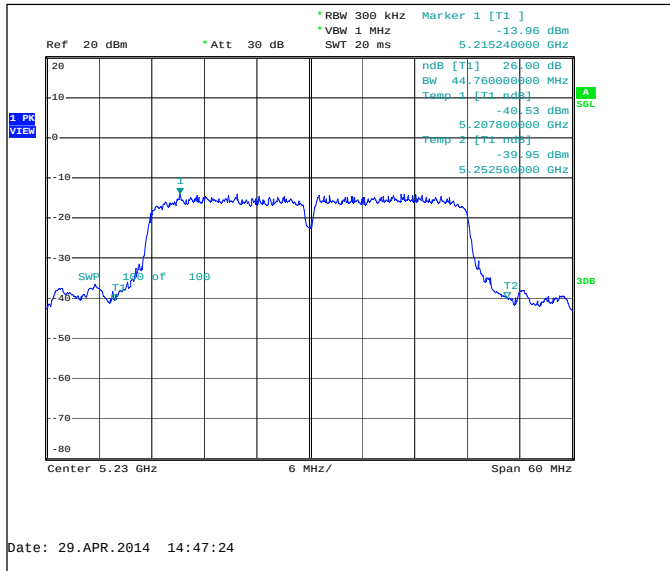
4.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36+40 / 5190	44520	PASSED
44+48 / 5230	44760	PASSED
52+56 / 5270	43440	PASSED
60+64 / 5310	45120	PASSED
100+104 / 5510	44760	PASSED
108+112 / 5550	54600	PASSED
132+136 / 5670	51840	PASSED

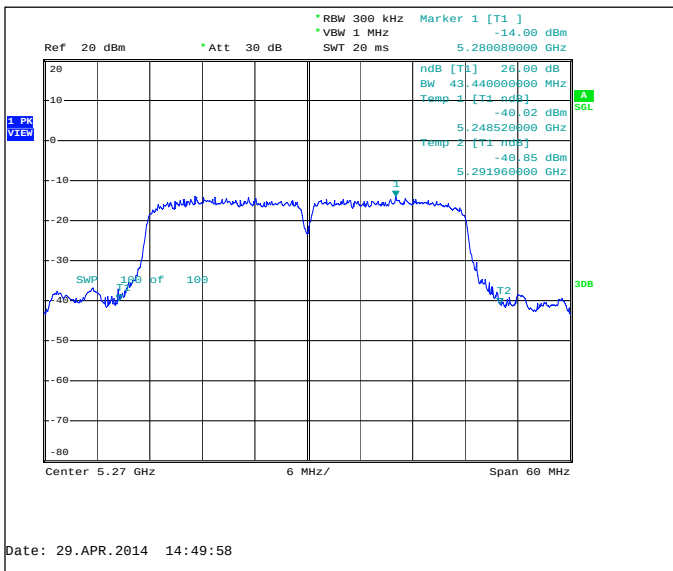
Channel 36+40 / 5190MHz



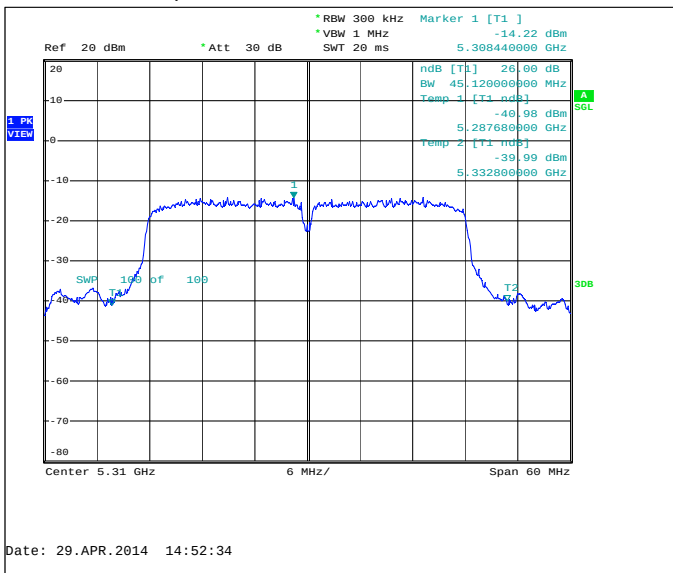
Channel 44+48 / 5230MHz



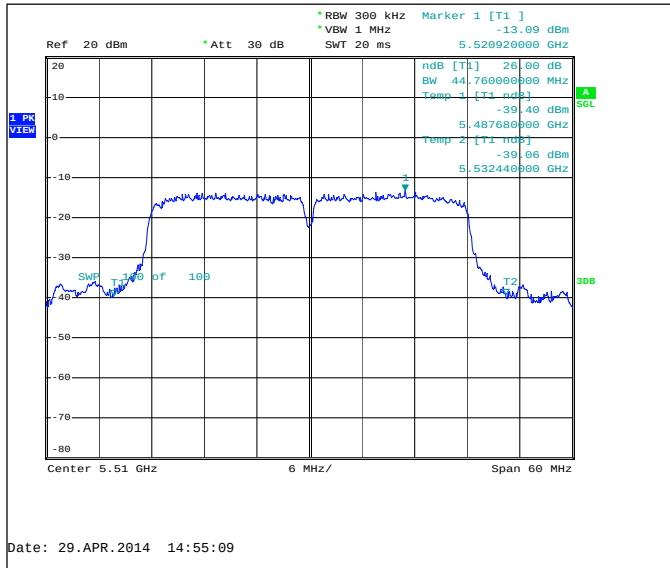
Channel 52+56 / 5270MHz



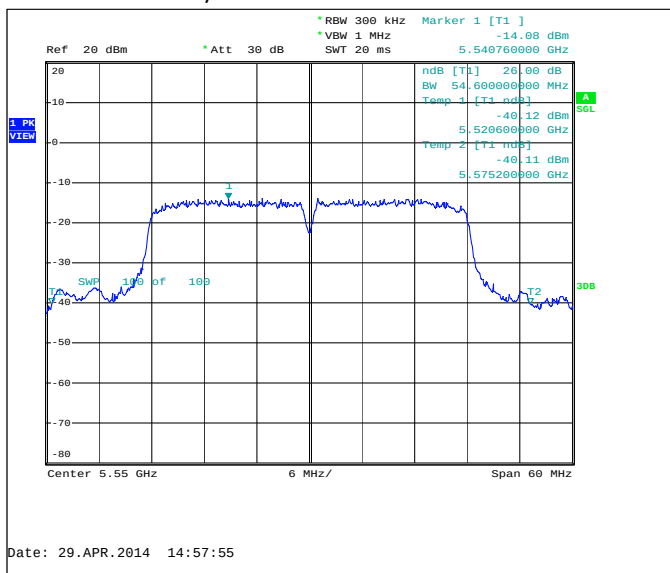
Channel 60+64 / 5310MHz



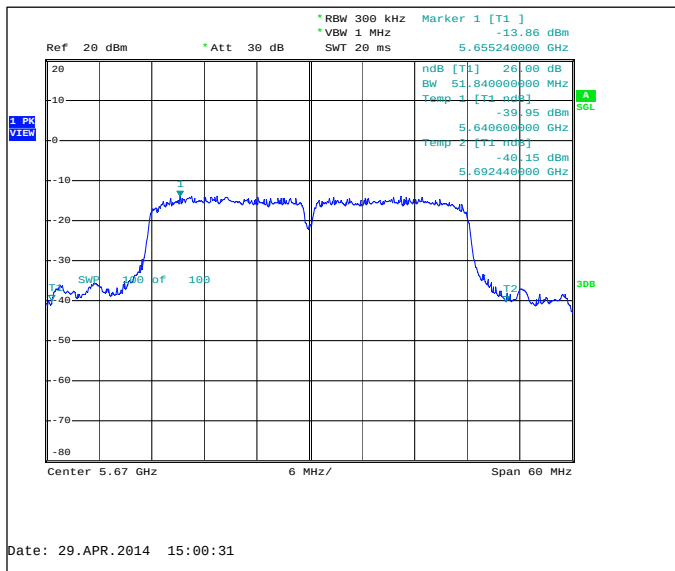
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



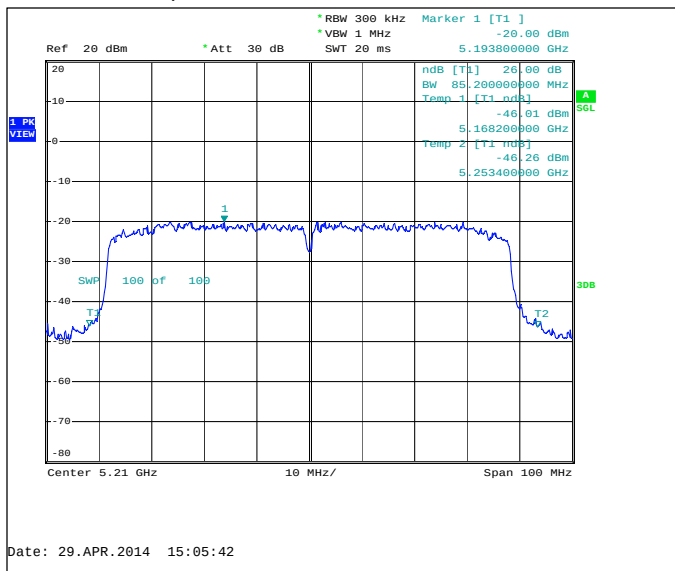
Channel 132+136 / 5670MHz



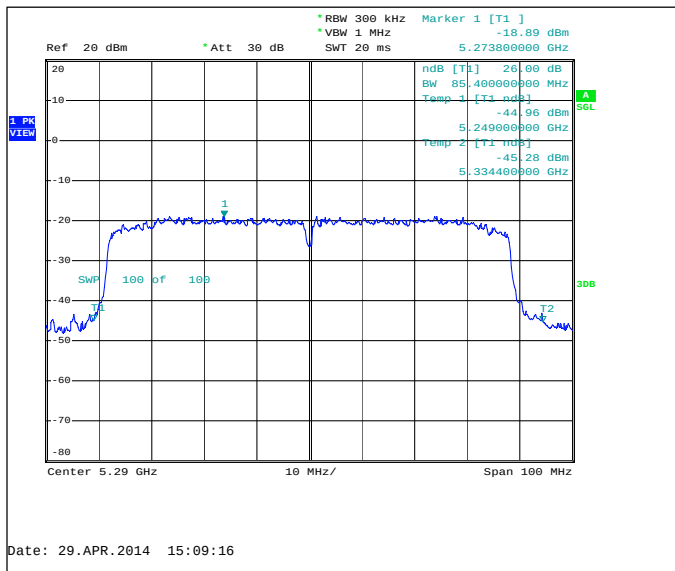
4.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36-48 / 5210	85200	PASSED
52-64 / 5290	85400	PASSED
100-112 / 5530	83400	PASSED

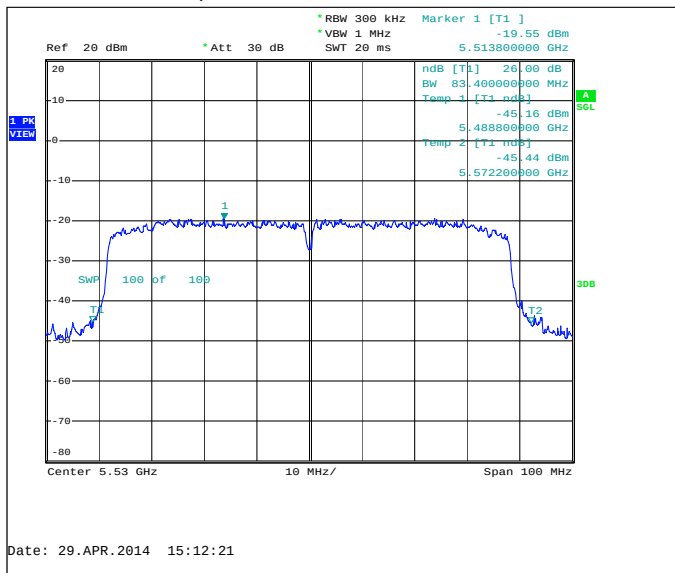
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



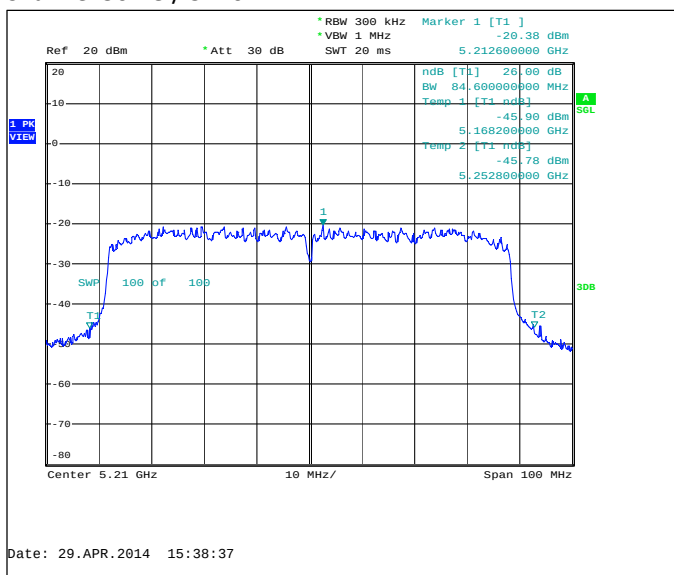
Channel 100-112 / 5530MHz



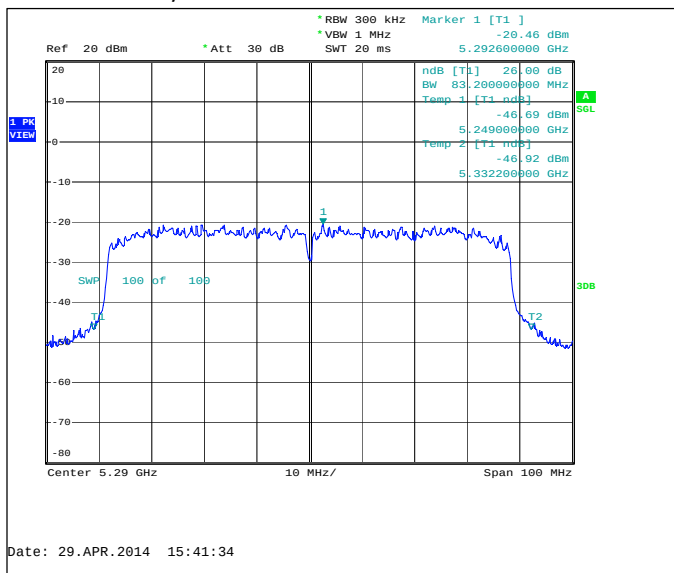
4.3.6 802.11ac mode, 16QAM modulation, 117.0 / 130.0 Mbps data rate

Channel / f_c [MHz]	26 dB bandwidth [kHz]	Result
36-48 / 5210	84600	PASSED
52-64 / 5290	83200	PASSED
100-112 / 5530	84200	PASSED

Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



Ref 20 dBm *Att 30 dB RBW 300 kHz VBW 1 MHz SWT 20 ms Marker 1 [T1] -19.93 dBm 5.532600000 GHz

ndB [T1] 26.00 dB
BW 84.20000000 MHz
Temp 1 [T1 ndB]
-47.25 dBm
5.488200000 GHz
Temp 2 [T1 ndB]
-46.01 dBm
5.572400000 GHz

1 PR VIEW

SWP 100 of 100

3dB

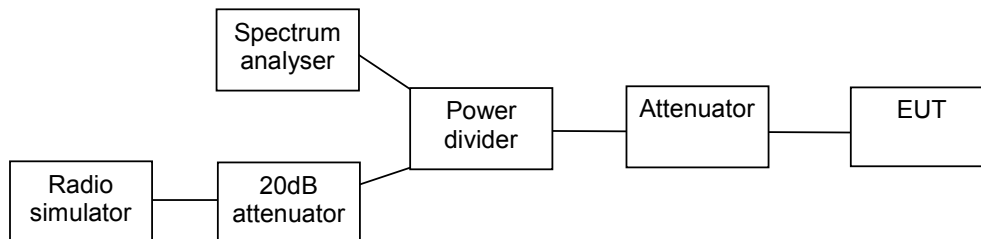
Center 5.53 GHz 10 MHz/ Span 100 MHz

Date: 29.APR.2014 15:44:23

5. Power spectral density (FCC §15.407(a), RSS-210 A9.2)

EUT with DUT number	RM-1045, DUT 18220
Accessories with DUT numbers	AC-60E, DUT 18197 ; WH-208, DUT 18198
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 37 / 101.3
Date of measurements	29-Apr-2014
Measured by	Jari Keto

5.1. Test Setup



5.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for power spectral density measurements

Frequency range [MHz]	Limit [dBm]
5150-5250	4
5250-5350	11
5470-5725	11
5725-5825	17

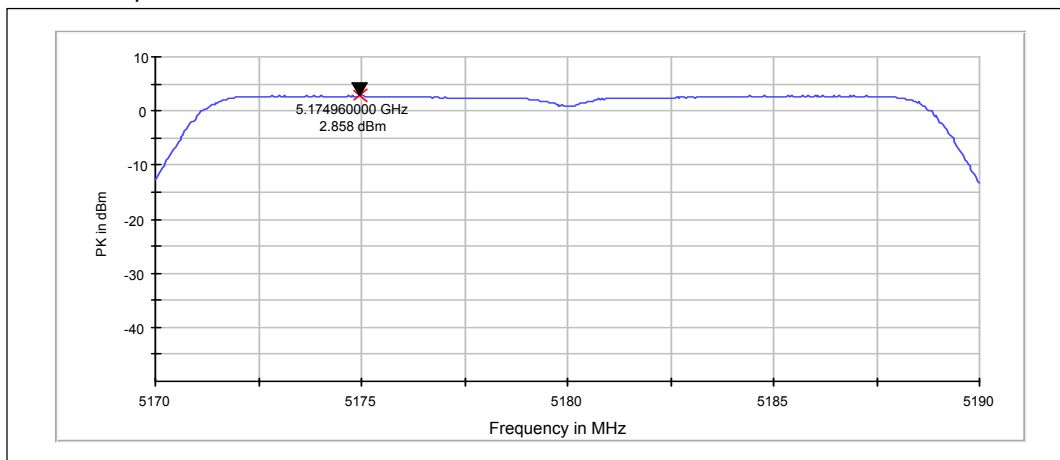
5.3. 5 GHz RLAN Test results

5.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

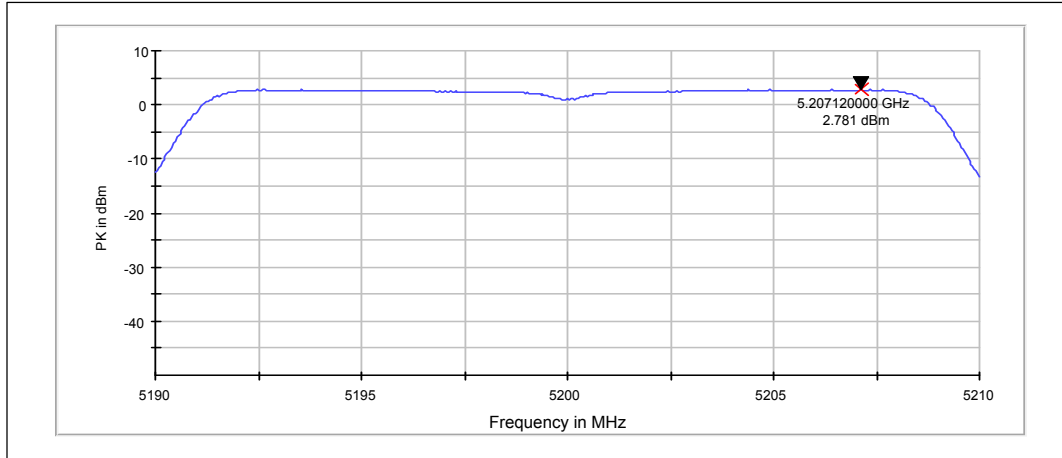
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f _c [MHz]	P [dBm]	Result
36 / 5180	2.86	PASSED
40 / 5200	2.78	PASSED
48 / 5240	2.89	PASSED
52 / 5260	2.97	PASSED
60 / 5300	3.02	PASSED
64 / 5320	3.13	PASSED
100 / 5500	3.06	PASSED
116 / 5580	3.31	PASSED
140 / 5700	3.25	PASSED

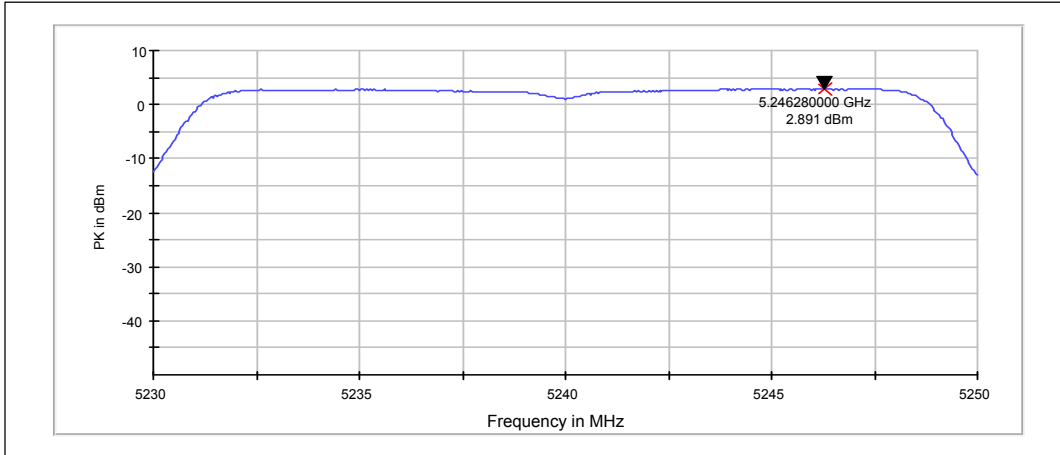
Channel 36 / 5180MHz



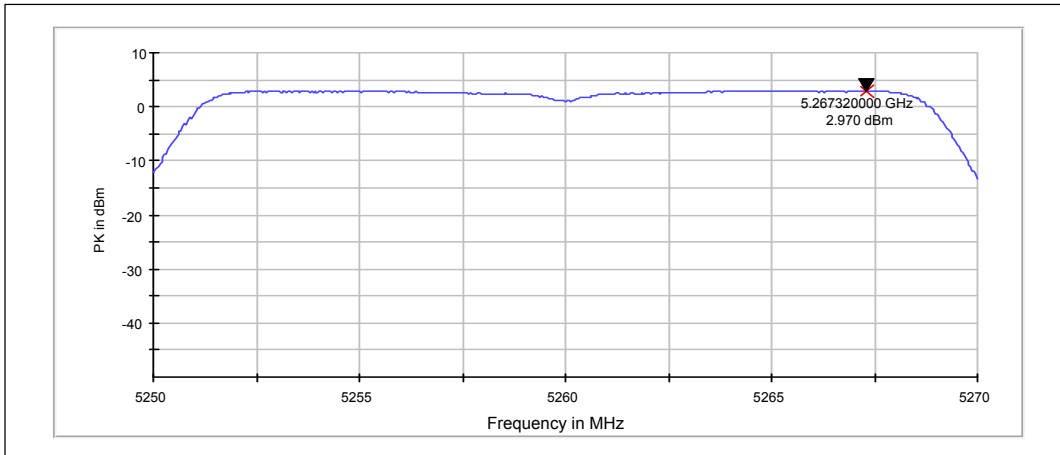
Channel 40 / 5200MHz



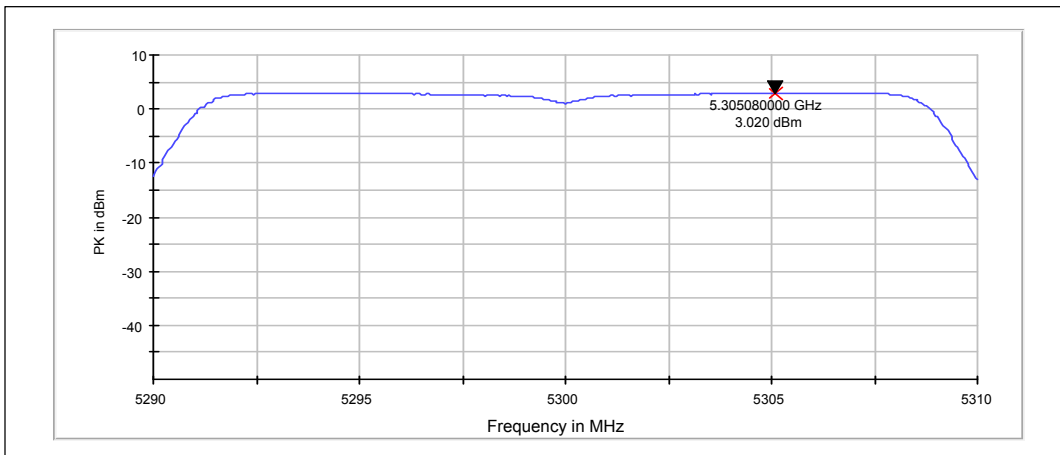
Channel 48 / 5240MHz



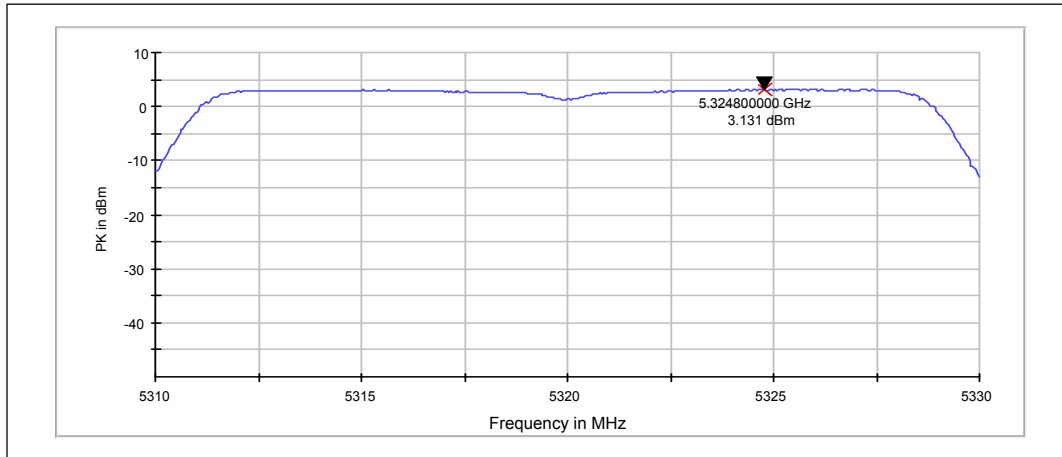
Channel 52 / 5260MHz



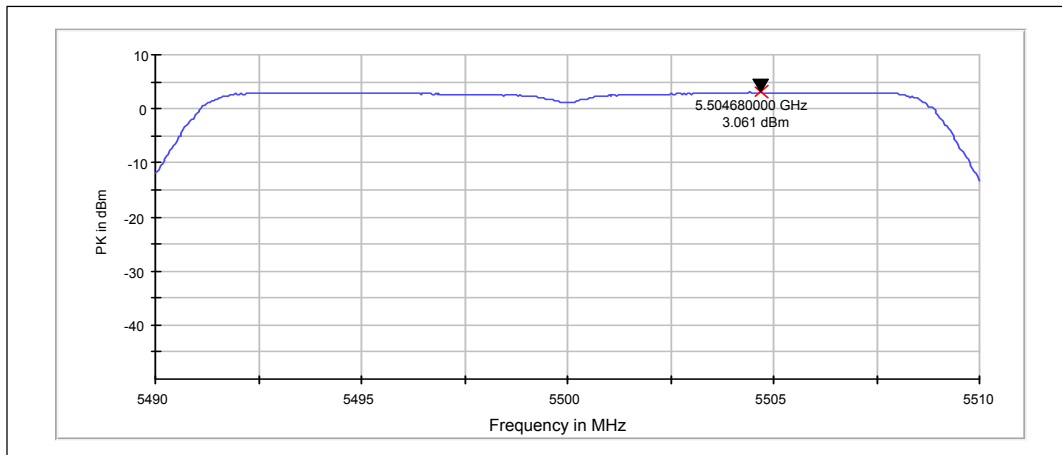
Channel 60 / 5300MHz



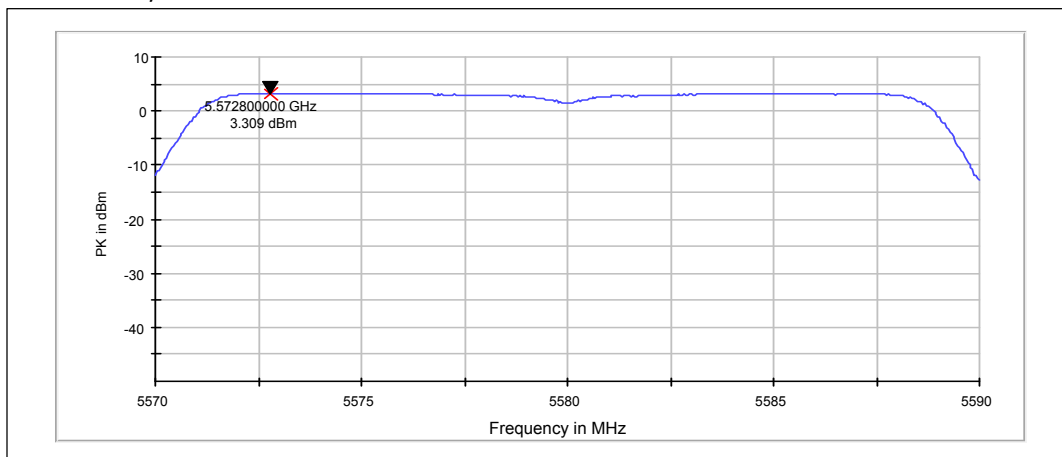
Channel 64 / 5320MHz



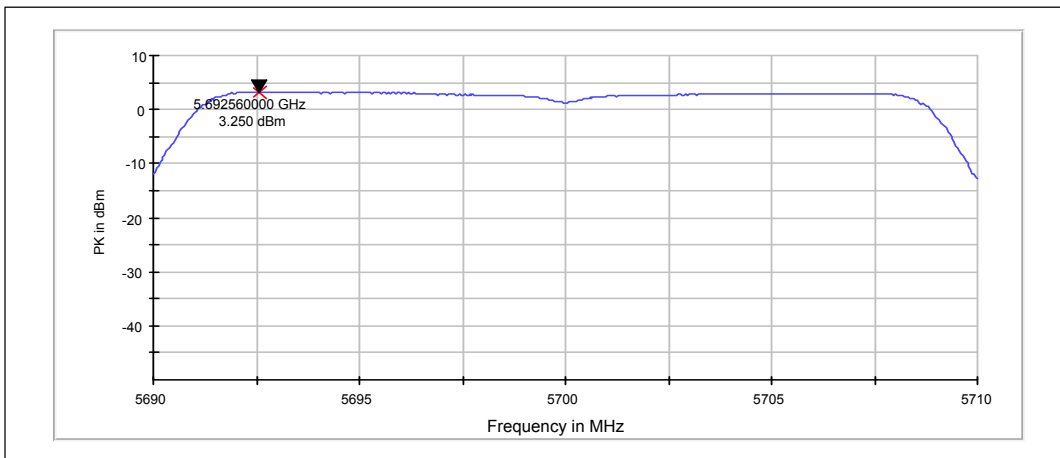
Channel 100 / 5500MHz



Channel 116 / 5580MHz



Channel 140 / 5700MHz

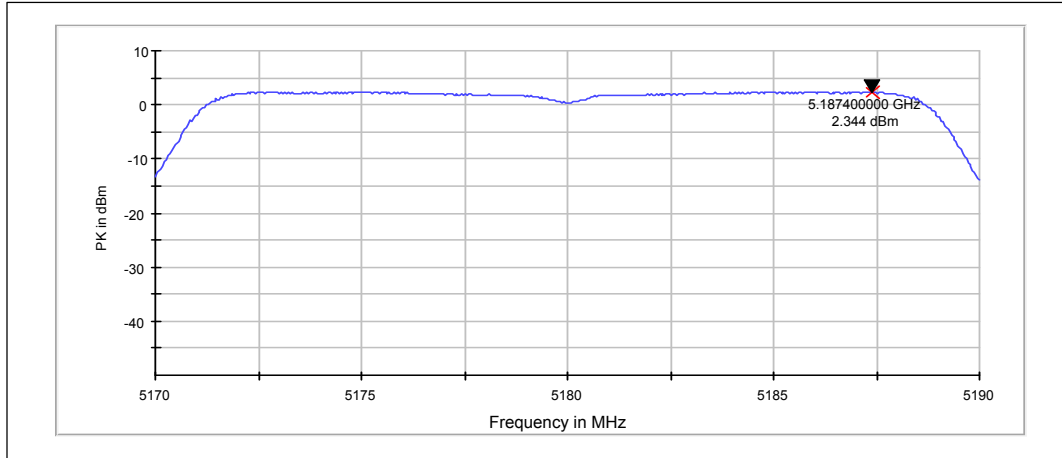


5.3.2 802.11n mode, QPSK modulation, 13.0 / 14.4 Mbps data rate

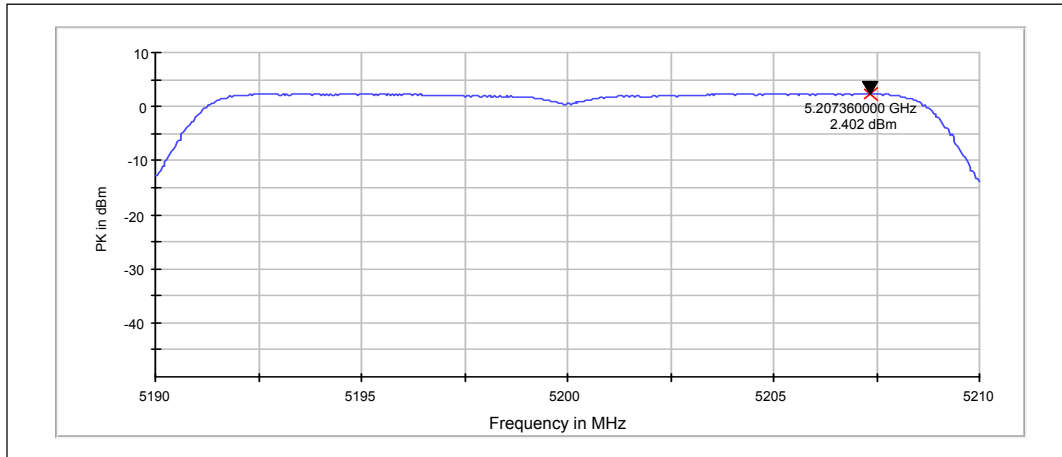
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f_c [MHz]	P [dBm]	Result
36 / 5180	2.34	PASSED
40 / 5200	2.4	PASSED
48 / 5240	2.33	PASSED
52 / 5260	2.43	PASSED
60 / 5300	2.52	PASSED
64 / 5320	2.57	PASSED
100 / 5500	2.61	PASSED
116 / 5580	2.83	PASSED
140 / 5700	2.83	PASSED

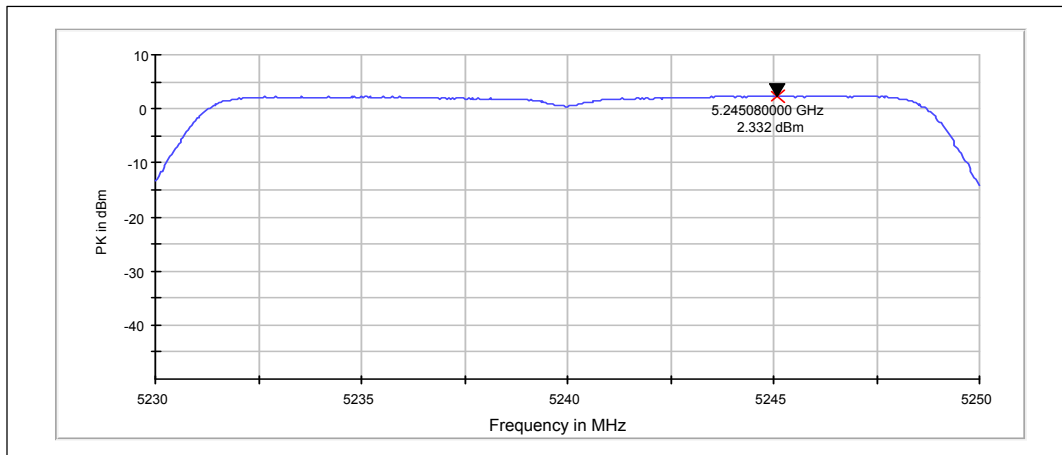
Channel 36 / 5180MHz



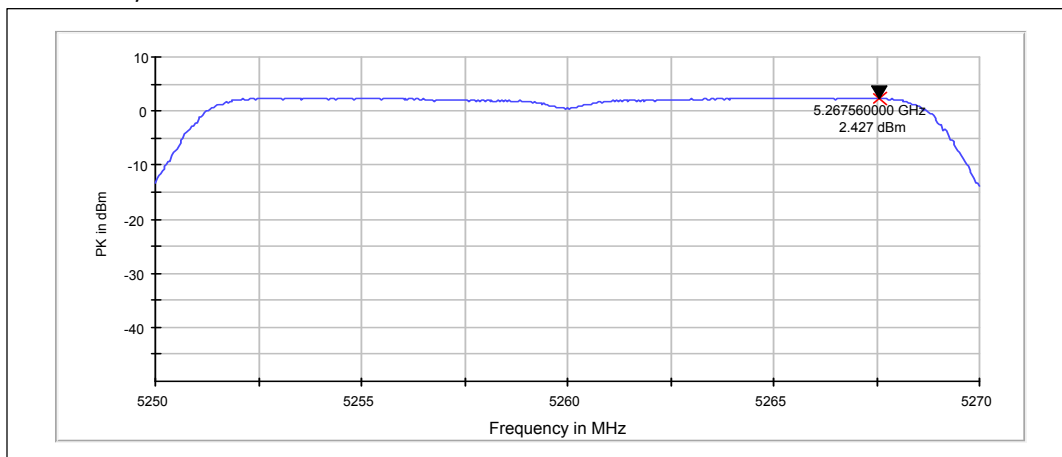
Channel 40 / 5200MHz



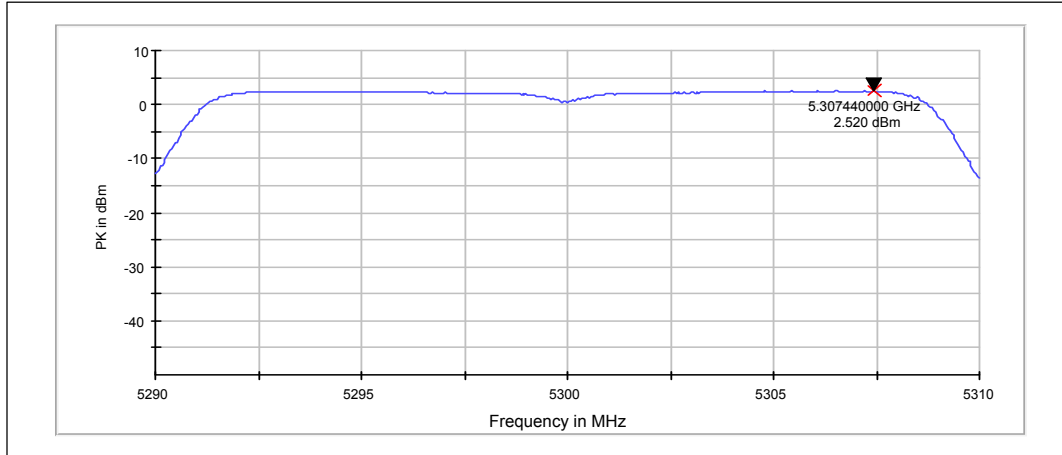
Channel 48 / 5240MHz



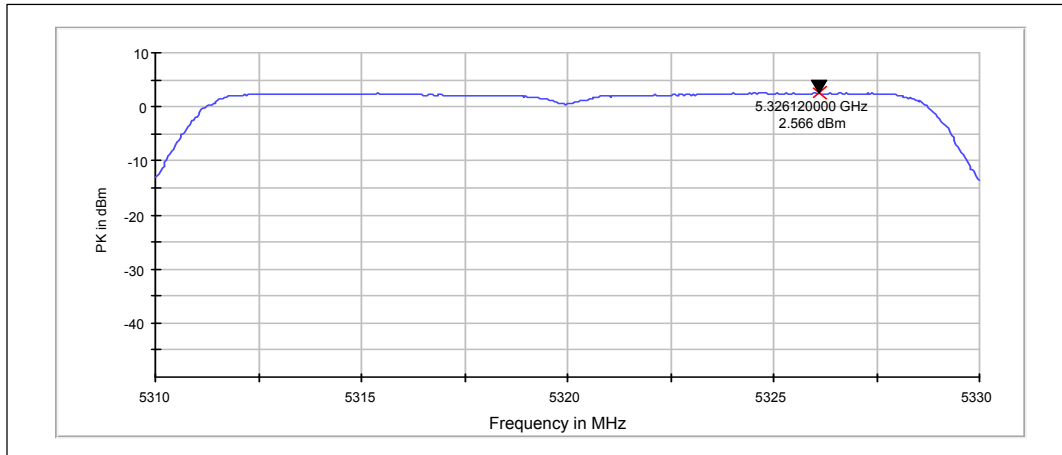
Channel 52 / 5260MHz



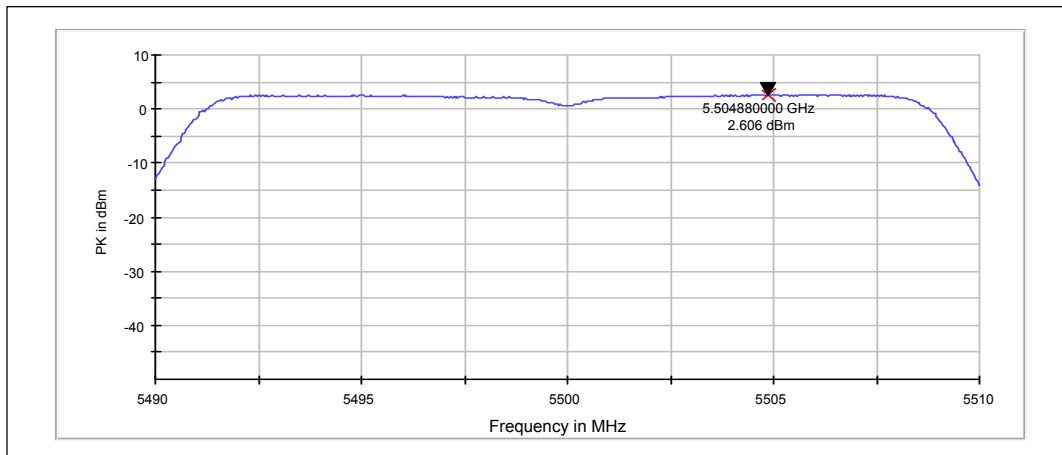
Channel 60 / 5300MHz



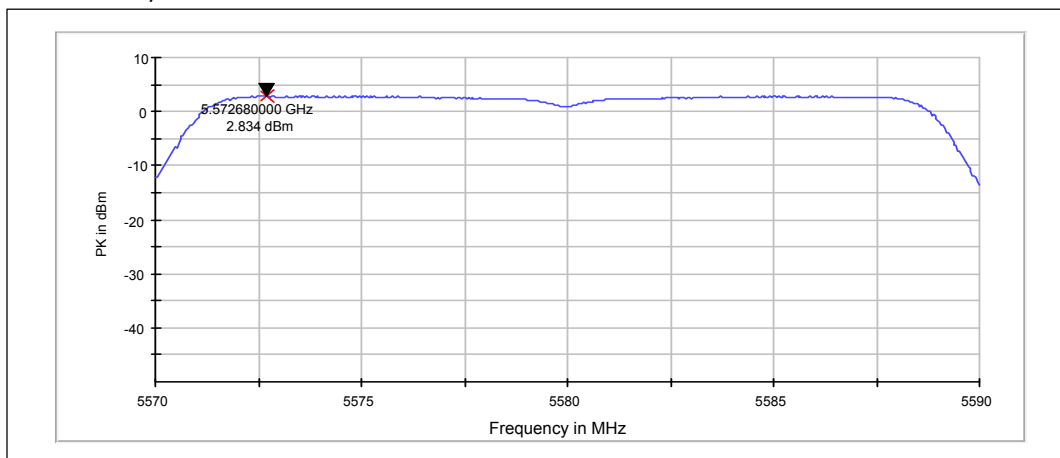
Channel 64 / 5320MHz



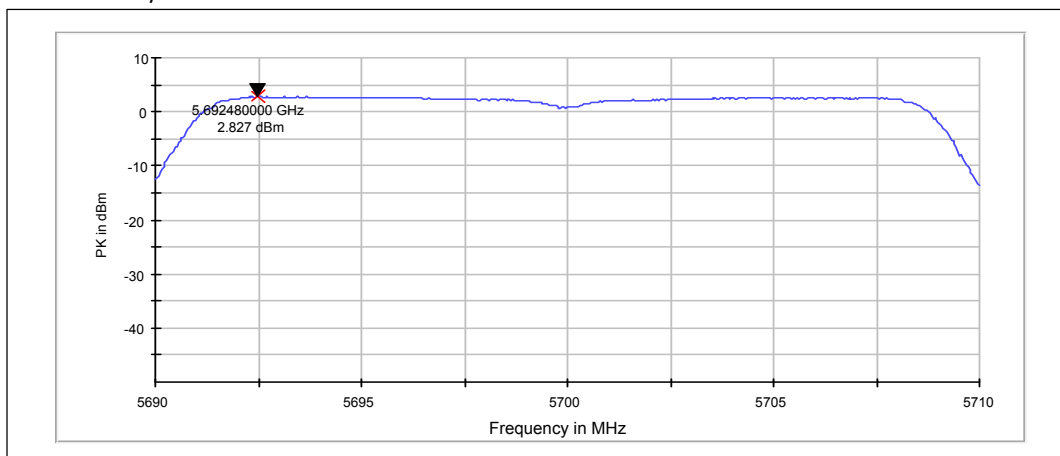
Channel 100 / 5500MHz



Channel 116 / 5580MHz



Channel 140 / 5700MHz

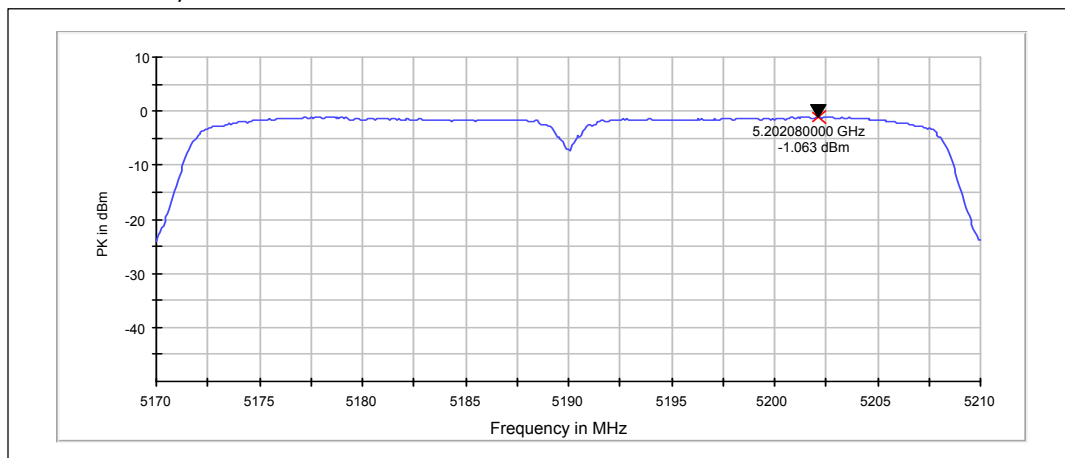


5.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

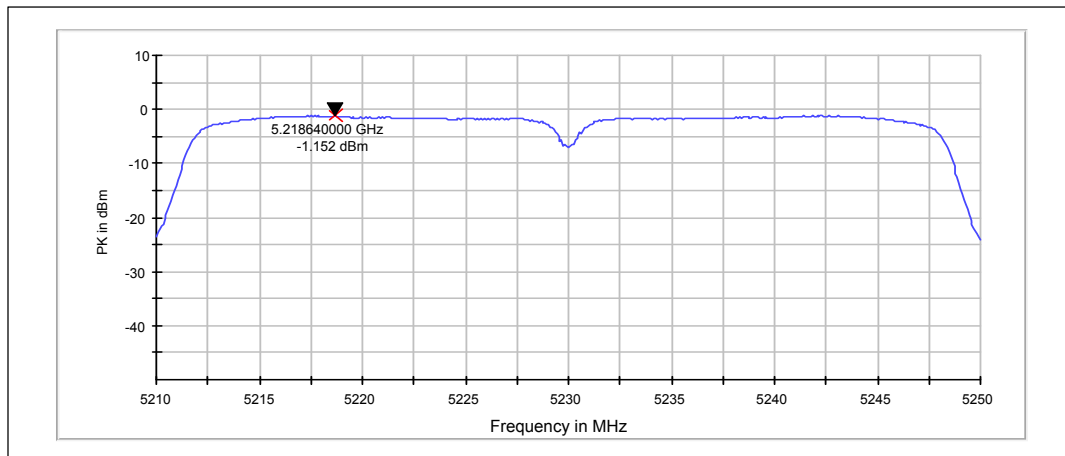
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f_c [MHz]	P [dBm]	Result
36+40 / 5190	-1.06	PASSED
44+48 / 5230	-1.15	PASSED
52+56 / 5270	-0.99	PASSED
60+64 / 5310	-0.99	PASSED
100+104 / 5510	-0.57	PASSED
108+112 / 5550	-0.6	PASSED
132+136 / 5670	-0.39	PASSED

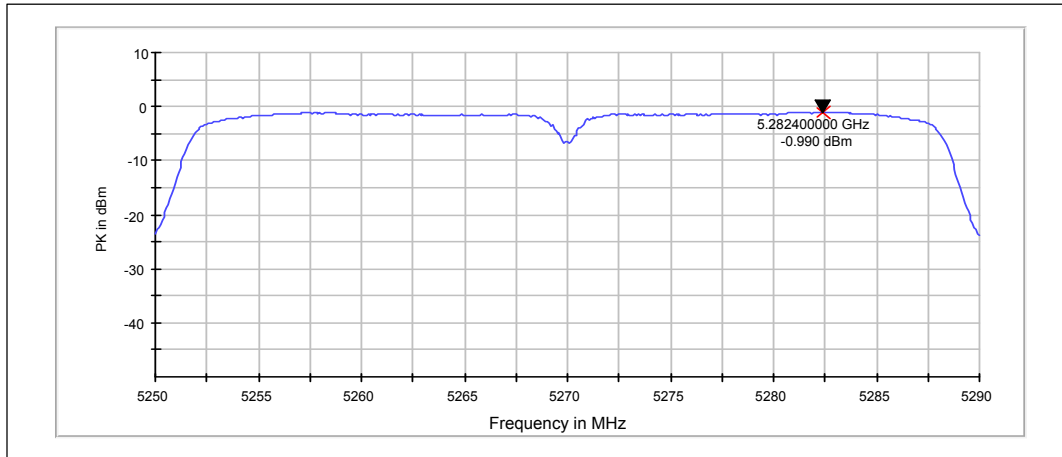
Channel 36+40 / 5190MHz



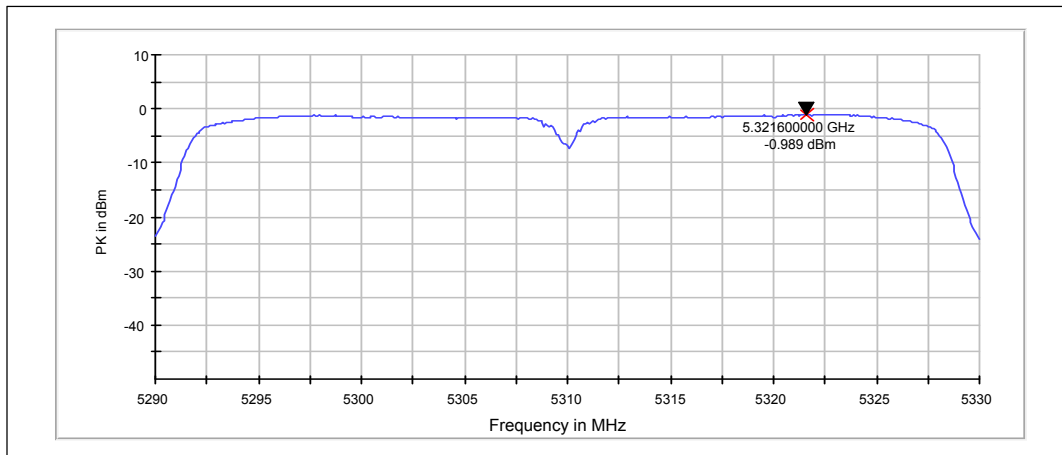
Channel 44+48 / 5230MHz



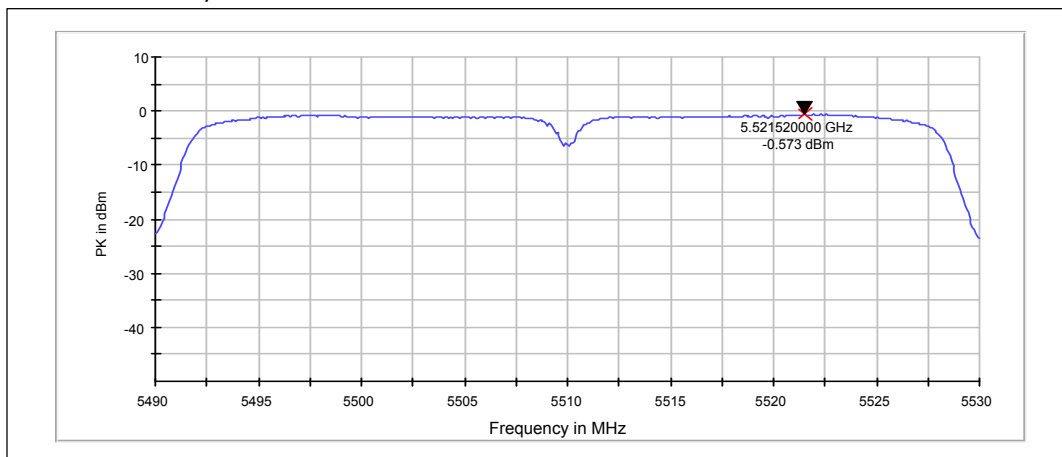
Channel 52+56 / 5270MHz



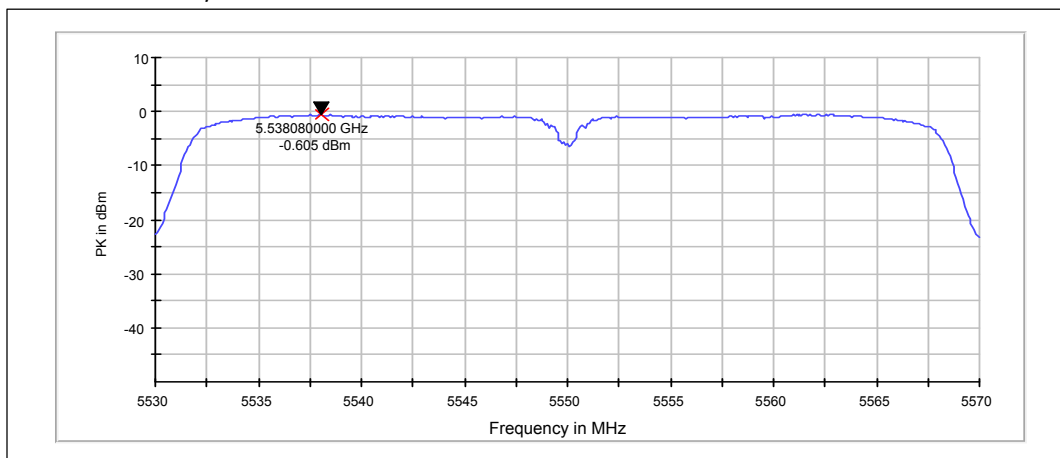
Channel 60+64 / 5310MHz



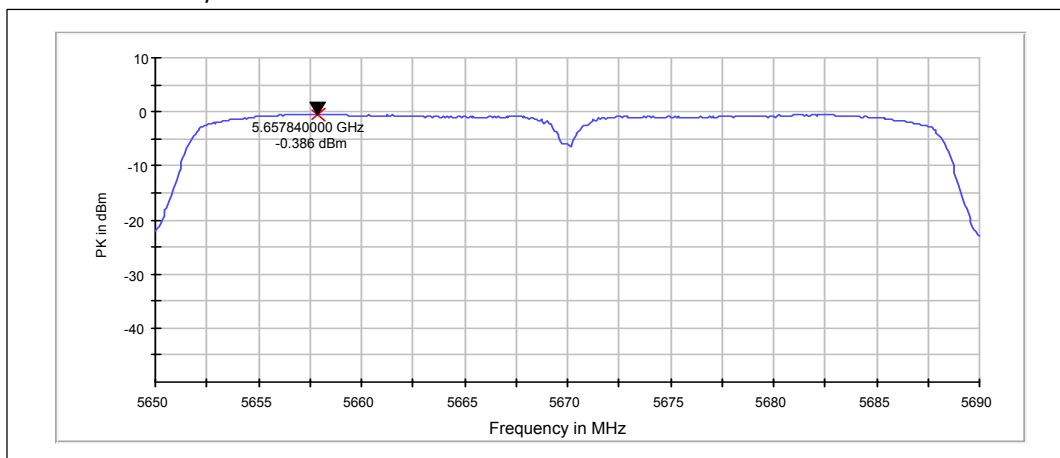
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz

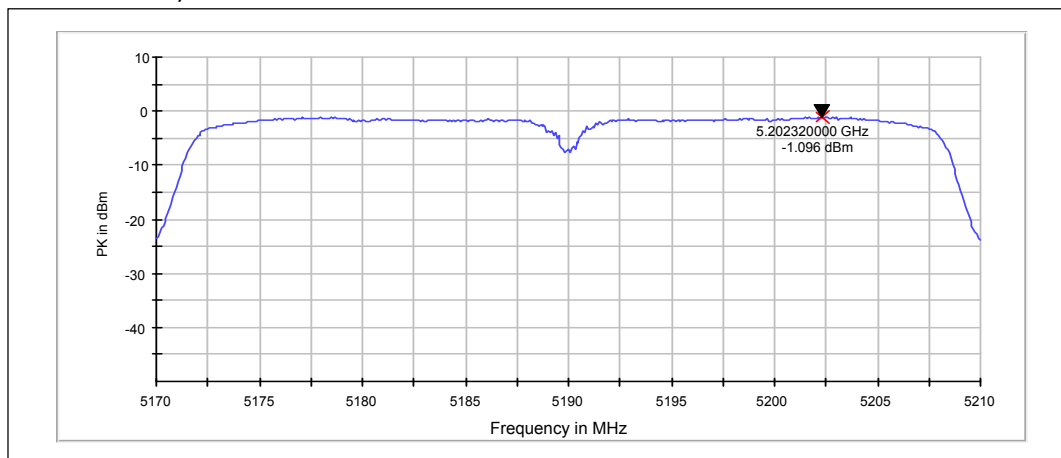


5.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

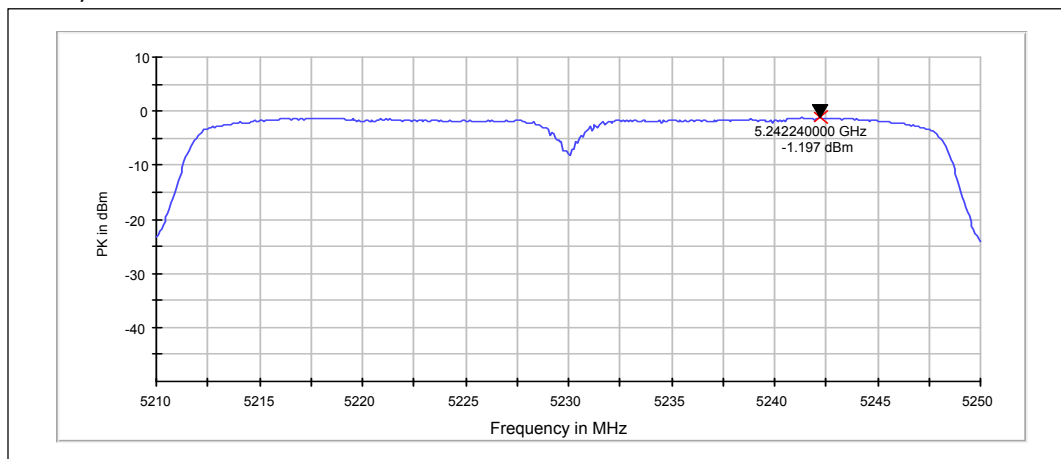
Channel / f_c [MHz]	P [dBm]	Result
36+40 / 5190	-1.1	PASSED
44+48 / 5230	-1.2	PASSED
52+56 / 5270	-1.26	PASSED
60+64 / 5310	-1.05	PASSED
100+104 / 5510	-0.69	PASSED
108+112 / 5550	-0.66	PASSED
132+136 / 5670	-0.61	PASSED

Channel 36+40 / 5190MHz

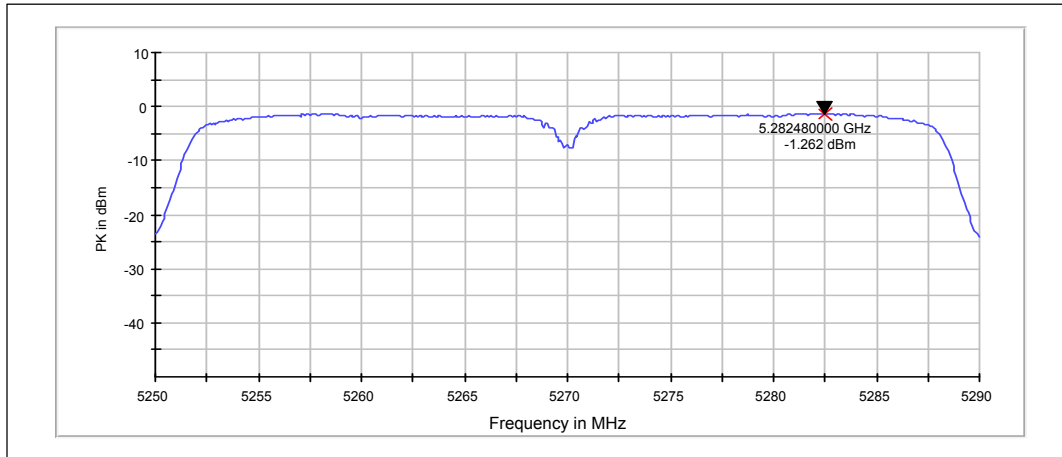


Channel

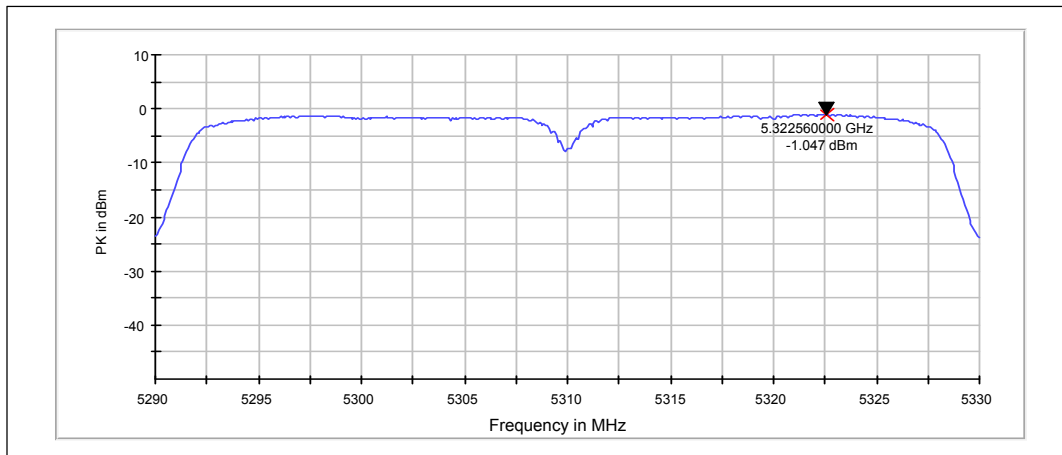
44+48 / 5230MHz



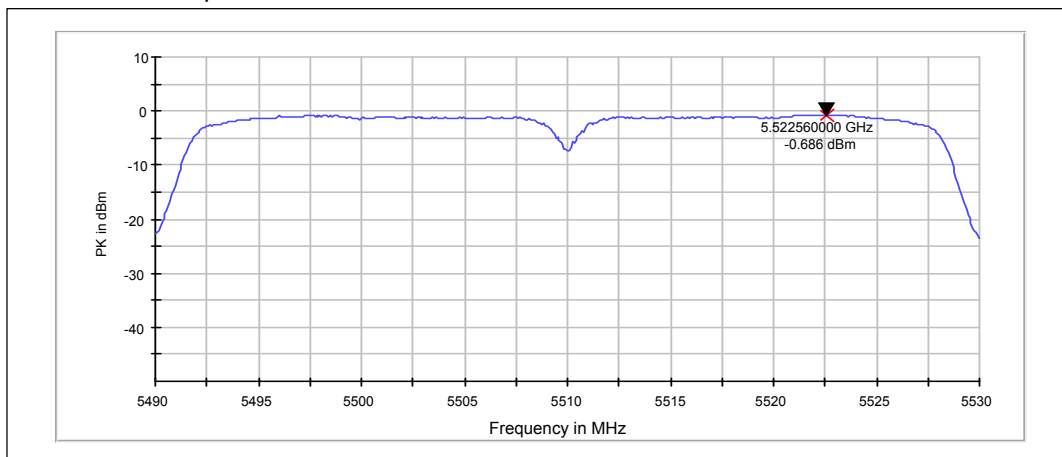
Channel 52+56 / 5270MHz



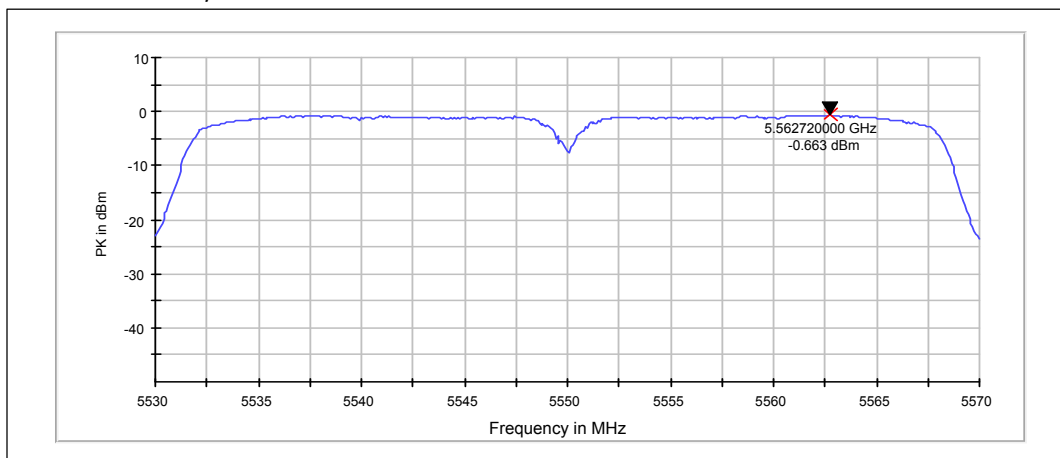
Channel 60+64 / 5310MHz



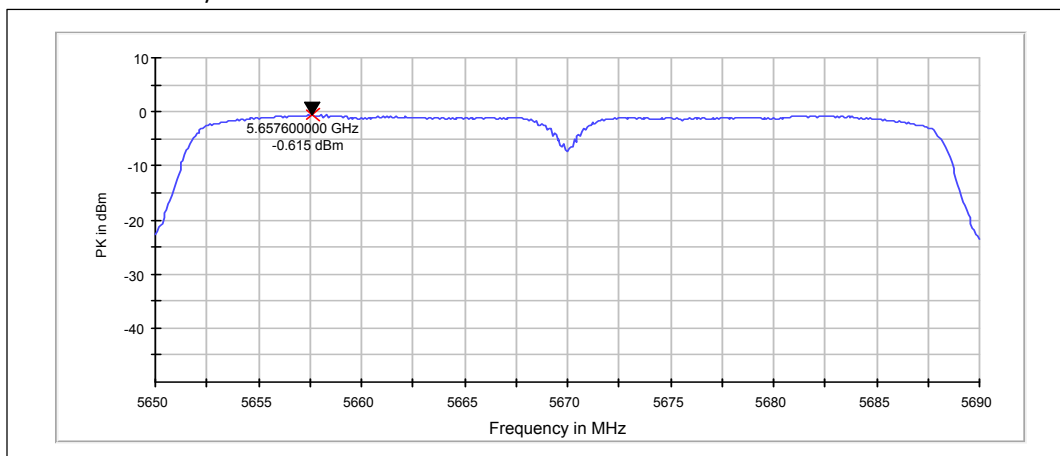
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz

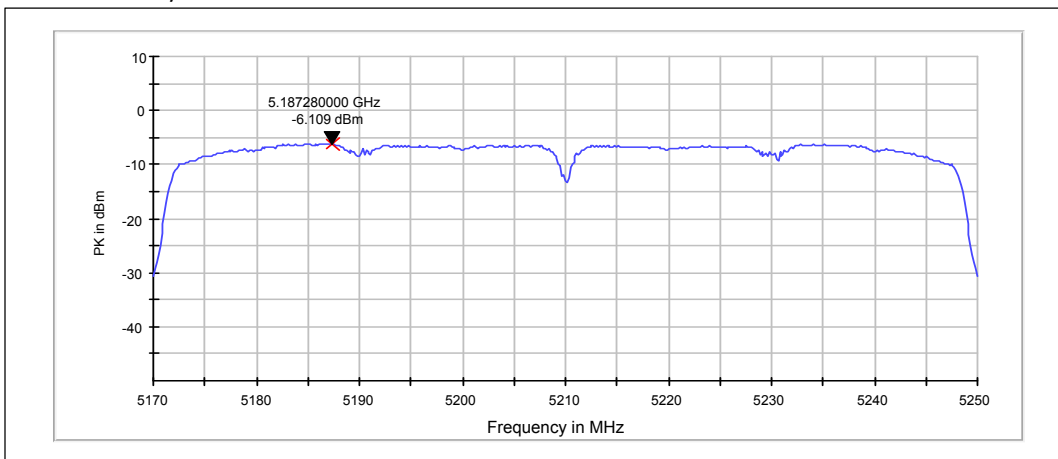


5.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

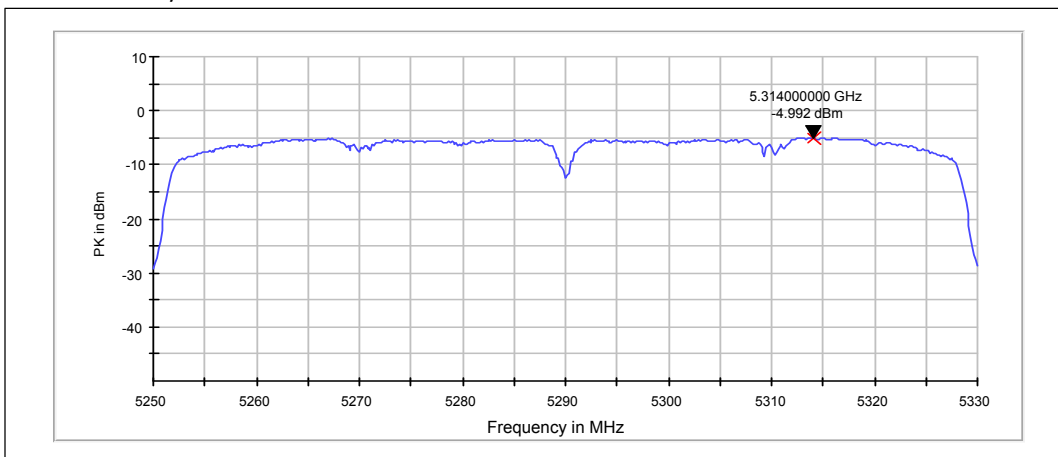
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f_c [MHz]	P [dBm]	Result
36-48 / 5210	-6.11	PASSED
52-64 / 5290	-4.99	PASSED
100-112 / 5530	-5.42	PASSED

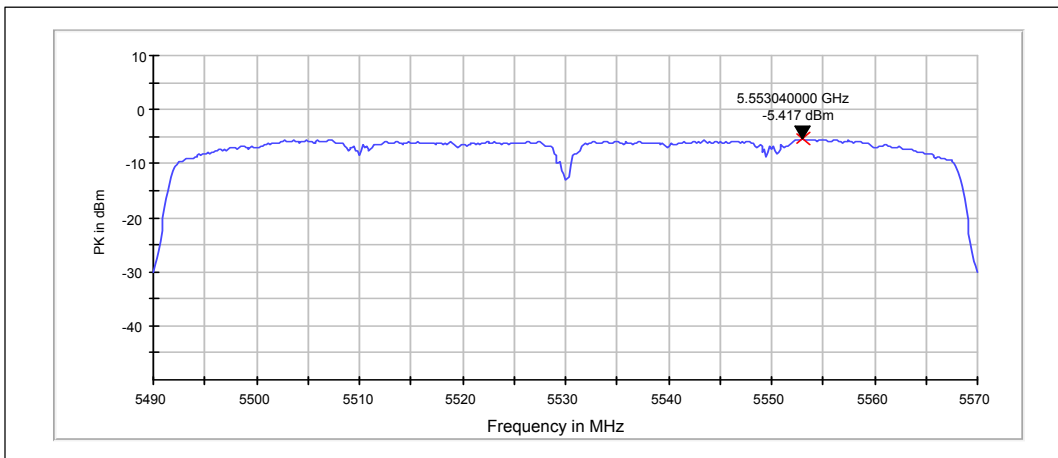
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



Channel 100-112 / 5530MHz

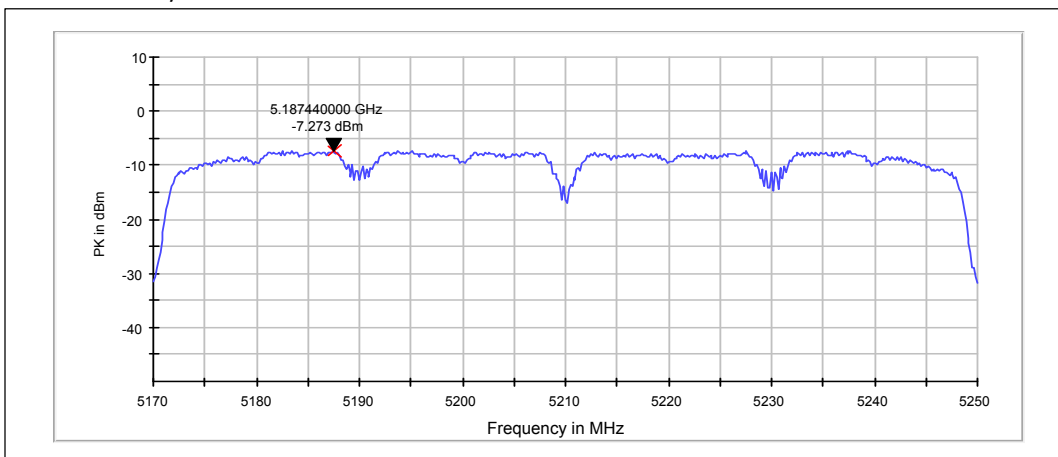


5.3.6 802.11ac mode, 16QAM modulation, 117.0 / 130.0 Mbps data rate

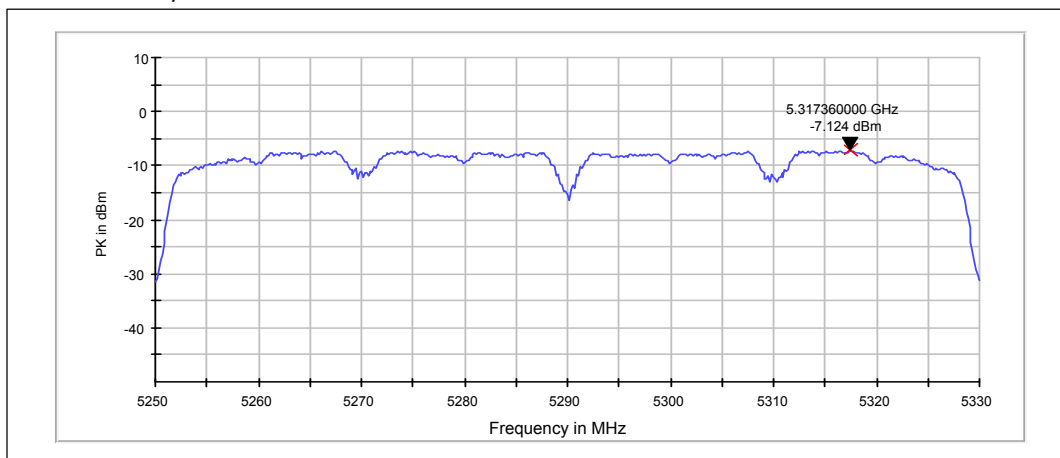
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f_c [MHz]	P [dBm]	Result
36-48 / 5210	-7.27	PASSED
52-64 / 5290	-7.12	PASSED
100-112 / 5530	-6.76	PASSED

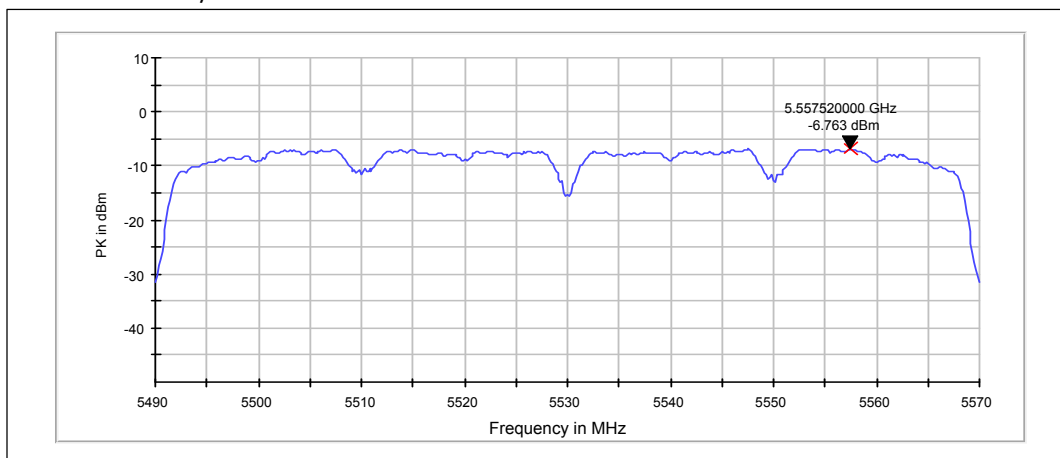
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



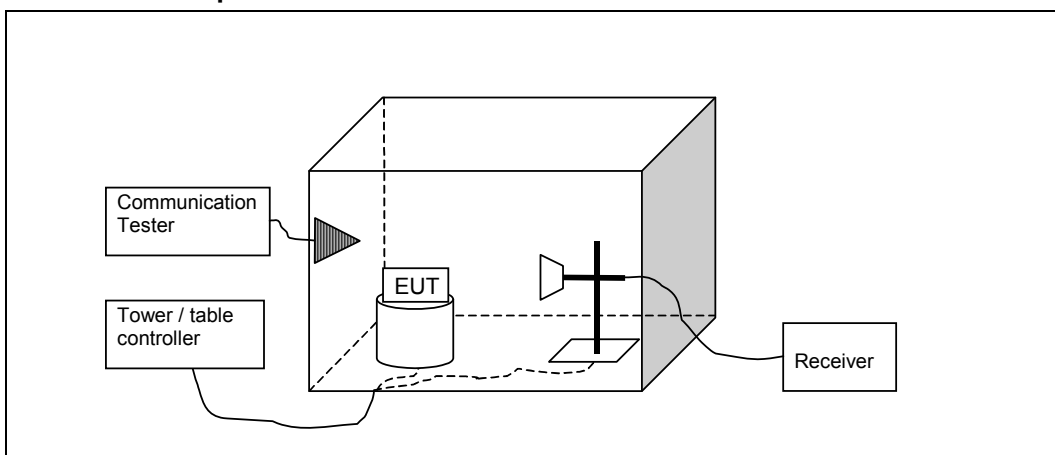
Channel 100-112 / 5530MHz



6. Radiated emissions (FCC 15.407(a), RSS-210 GRLAN)

EUT with DUT number	RM-1045, DUT 18216
Accessories with DUT numbers	AC-60E, DUT 18217 ; WH-208, DUT 18218 ; CA-190CD, DUT 18219
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 42 / 101.4
Date of measurements	28-Apr-2014
Measured by	Sami Lehtonen

6.1.1 Test setup



6.2. Test method and limit

The measurement is made the following way:

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:

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

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)
There are 2 sets of limit lines. Part 15.209 limits apply below 1 GHz and on restricted bands above 1GHz. The other limits are described in the table below.

Frequency range [MHz]	Limit [dBm / MHz]
5150 - 5250	1 GHz – 5.15 GHz, 5.35 GHz – 40 GHz: -27
5250 - 5350	1 GHz – 5.25 GHz, 5.35 GHz – 40 GHz: -27
5470 - 5725	1 GHz – 5.47 GHz, 5.725 GHz – 40 GHz: -27
5725 - 5825	1 GHz – 5.715 GHz, 5.835 GHz – 40 GHz: -27 5.715 GHz – 5.725 GHz, 5.825 GHz – 5.835 GHz: -17

6.3. 5 GHz RLAN test results

6.3.1 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 36 / 5180MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10361.3	55.33	584.117	44.03	11.3	68	12.9	PASSED
15544.5	49.91	312.968	40.81	9.1	74	24.07	PASSED
20722	53.81	490.343	39.61	14.2	74	20.17	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
10361.3	40.89	110.79	29.59	11.3	---	---	PASSED
15544.5	36.74	68.707	27.64	9.1	54	17.26	PASSED
20722	41.16	114.288	26.96	14.2	54	12.84	PASSED

Channel 40 / 5200MHz

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
41.313	26.88	22.08	37.68	-10.8	40	13.12	PASSED
43.017	27.1	22.646	39.1	-12	40	12.9	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
5229.8	59.6	954.993	56.5	3.1	68	8.63	PASSED
10401.3	52.71	432.016	41.01	11.7	68	15.52	PASSED
15602	49.61	302.343	40.41	9.2	74	24.37	PASSED
20799.7	55.15	572.137	40.95	14.2	74	18.83	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
5229.8	40.88	110.662	37.78	3.1	---	---	PASSED
10401.3	39.52	94.624	27.82	11.7	---	---	PASSED
15602	36.72	68.549	27.52	9.2	54	17.28	PASSED
20799.7	41.61	120.365	27.41	14.2	54	12.39	PASSED

Channel 48 / 5240MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
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10480.6	55.32	583.445	43.12	12.2	68	12.91	PASSED
15716	49.53	299.571	40.13	9.4	74	24.45	PASSED
20968.4	53.96	498.884	39.96	14	74	20.02	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
10480.6	41.97	125.458	29.77	12.2	---	---	PASSED
15716	36.68	68.234	27.28	9.4	54	17.32	PASSED
20968.4	41.21	114.948	27.21	14	54	12.79	PASSED

Channel 52 / 5260MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10519.5	54.75	546.387	42.45	12.3	68	13.48	PASSED
15776.4	49.63	303.04	40.23	9.4	74	24.35	PASSED
21045.9	54.89	555.265	40.79	14.1	74	19.09	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
10519.5	41.61	120.365	29.31	12.3	---	---	PASSED
15776.4	36.72	68.549	27.32	9.4	54	17.28	PASSED
21045.9	41.28	115.878	27.18	14.1	54	12.72	PASSED

Channel 60 / 5300MHz

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
41.679	28.28	25.942	39.38	-11.1	40	11.72	PASSED
41.997	28.7	27.227	40	-11.3	40	11.3	PASSED
42.393	27.52	23.768	39.12	-11.6	40	12.48	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10599.5	53.1	451.856	41.7	11.4	68	15.13	PASSED
15898.5	49.08	284.446	39.88	9.2	74	24.9	PASSED
21199.4	54.17	511.093	39.97	14.2	74	19.81	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10599.5	40.14	101.625	28.74	11.4	---	---	PASSED
15898.5	36.18	64.417	26.98	9.2	54	17.82	PASSED
21199.4	41.01	112.331	26.81	14.2	54	12.99	PASSED

Channel 64 / 5320MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10641.2	57.26	729.458	45.86	11.4	74	16.72	PASSED
15963.4	50.04	317.687	41.04	9	74	23.94	PASSED
21284.9	54.37	522.998	39.87	14.5	74	19.61	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10641.2	42.81	138.197	31.41	11.4	54	11.19	PASSED
15963.4	36.33	65.539	27.33	9	54	17.67	PASSED
21284.9	41.38	117.22	26.88	14.5	54	12.62	PASSED

Channel 100 / 5500MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10999.8	54.43	526.623	42.73	11.7	74	19.55	PASSED
16500.6	48.01	251.478	39.01	9	68	20.22	PASSED
22007.9	54.03	502.921	40.23	13.8	68	14.2	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
10999.8	42.44	132.434	30.74	11.7	54	11.56	PASSED
16500.6	35.23	57.743	26.23	9	---	---	PASSED
22007.9	40.97	111.815	27.17	13.8	---	---	PASSED

Channel 116 / 5580MHz

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
42.183	27.56	23.878	38.96	-11.4	40	12.44	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11162	52.56	424.62	41.26	11.3	74	21.42	PASSED
16741.2	49.06	283.792	40.16	8.9	68	19.17	PASSED
22320.1	53.55	475.883	39.85	13.7	74	20.43	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
11162	39.55	94.951	28.25	11.3	54	14.45	PASSED
16741.2	35.91	62.445	27.01	8.9	---	---	PASSED

22320.1	40.71	108.518	27.01	13.7	54	13.29	PASSED
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Channel 140 / 5700MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11403.9	61.49	1187.135	49.79	11.7	74	12.49	PASSED
17106.4	47.45	235.776	38.65	8.8	68	20.78	PASSED
22808.6	54.42	526.017	40.92	13.5	74	19.56	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
11403.9	46.47	210.62	34.77	11.7	54	7.53	PASSED
17106.4	34.88	55.463	26.08	8.8	---	---	PASSED
22808.6	41.45	118.168	27.95	13.5	54	12.55	PASSED

6.3.2 802.11n, QPSK modulation, 13.0 / 14.4 Mbps data rate.

Channel 36 / 5180MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10358.7	54.52	532.108	43.22	11.3	68	13.71	PASSED
15546	50.28	326.588	41.18	9.1	74	23.7	PASSED
20717.9	54.47	529.054	40.27	14.2	74	19.51	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
10358.7	39.88	98.628	28.58	11.3	---	---	PASSED
15546	37.18	72.277	28.08	9.1	54	16.82	PASSED
20717.9	41.21	114.948	27.01	14.2	54	12.79	PASSED

Channel 40 / 5200MHz

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
39.466	25.12	18.03	34.72	-9.6	40	14.88	PASSED
42.903	26.76	21.777	38.66	-11.9	40	13.24	PASSED
43.497	27.2	22.909	39.5	-12.3	40	12.8	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10399.7	53.22	458.142	41.52	11.7	68	15.01	PASSED
15598.4	49.21	288.735	40.01	9.2	74	24.77	PASSED
20802	54.5	530.884	40.3	14.2	74	19.48	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
10399.7	40.08	100.925	28.38	11.7	---	---	PASSED
15598.4	36.72	68.549	27.52	9.2	54	17.28	PASSED
20802	41.55	119.536	27.35	14.2	54	12.45	PASSED

Channel 48 / 5240MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10484.2	56.27	650.879	43.97	12.3	68	11.96	PASSED
15718.8	49.53	299.571	40.13	9.4	74	24.45	PASSED
20969.4	55.35	585.464	41.45	13.9	74	18.63	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
10484.2	41.18	114.551	28.88	12.3	---	---	PASSED
15718.8	36.59	67.531	27.19	9.4	54	17.41	PASSED
20969.4	41.18	114.551	27.28	13.9	54	12.82	PASSED

Channel 52 / 5260MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10521.2	55.19	574.778	42.99	12.2	68	13.04	PASSED
15778.8	51.39	371.108	41.99	9.4	74	22.59	PASSED
21038	54.47	529.054	40.37	14.1	74	19.51	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
10521.2	41.13	113.894	28.93	12.2	---	---	PASSED
15778.8	37.44	74.473	28.04	9.4	54	16.56	PASSED
21038	41.21	114.948	27.11	14.1	54	12.79	PASSED

Channel 60 / 5300MHz

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
38.026	24.77	17.318	33.47	-8.7	40	15.23	PASSED
41.907	28.34	26.122	39.54	-11.2	40	11.66	PASSED
42.093	28.11	25.439	39.51	-11.4	40	11.89	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10598.8	53.58	477.529	42.18	11.4	68	14.65	PASSED
15900.2	49.5	298.538	40.3	9.2	74	24.48	PASSED
21200	54.03	502.921	39.83	14.2	74	19.95	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10598.8	39.97	99.655	28.57	11.4	---	---	PASSED
15900.2	36.18	64.417	26.98	9.2	54	17.82	PASSED
21200	41.06	112.98	26.86	14.2	54	12.94	PASSED

Channel 64 / 5320MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10641.3	57	707.946	45.6	11.4	74	16.98	PASSED
15957.1	49.05	283.465	40.05	9	74	24.93	PASSED
21275.4	54.57	535.18	39.97	14.6	74	19.41	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10641.3	42.31	130.467	30.91	11.4	54	11.69	PASSED
15957.1	35.99	63.023	26.99	9	54	18.01	PASSED
21275.4	41.44	118.032	26.84	14.6	54	12.56	PASSED

Channel 100 / 5500MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10999.4	54.8	549.541	43.1	11.7	74	19.18	PASSED
16503.4	49.05	283.465	40.05	9	68	19.18	PASSED
22003.6	54.6	537.032	40.8	13.8	68	13.63	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
10999.4	41.64	120.781	29.94	11.7	54	12.36	PASSED
16503.4	35.67	60.744	26.67	9	---	---	PASSED
22003.6	41	112.202	27.2	13.8	---	---	PASSED

Channel 140 / 5700MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11401.3	61.19	1146.833	49.49	11.7	74	12.79	PASSED
17109.4	47.59	239.607	38.79	8.8	68	20.64	PASSED
22807.1	54.55	533.949	41.05	13.5	74	19.43	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
11401.3	45.99	199.297	34.29	11.7	54	8.01	PASSED
17109.4	34.82	55.081	26.02	8.8	---	---	PASSED
22807.1	41.43	117.896	27.93	13.5	54	12.57	PASSED

6.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 36+40 / 5190MHz

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
41.636	27.51	23.741	38.61	-11.1	40	12.49	PASSED
42.673	27.5	23.714	39.2	-11.7	40	12.5	PASSED
42.889	27.28	23.121	39.18	-11.9	40	12.72	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10378.6	51.83	390.391	40.43	11.4	68	16.4	PASSED
15572.4	49.5	298.538	40.4	9.1	74	24.48	PASSED
20758.9	54.96	559.758	40.76	14.2	74	19.02	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
10378.6	38.8	87.096	27.4	11.4	---	---	PASSED
15572.4	36.62	67.764	27.52	9.1	54	17.38	PASSED
20758.9	41.54	119.399	27.34	14.2	54	12.46	PASSED

Channel 44+48 / 5230MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10478.6	52.74	433.511	40.54	12.2	68	15.49	PASSED
15552.3	49.96	314.775	40.76	9.2	74	24.02	PASSED
20672	54.83	551.442	40.23	14.6	74	19.15	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
10478.6	39.6	95.499	27.4	12.2	---	---	PASSED
15552.3	36.76	68.865	27.56	9.2	54	17.24	PASSED
20672	41.33	116.547	26.73	14.6	54	12.67	PASSED

Channel 52+56 / 5270MHz

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
41.776	27.8	24.547	39	-11.2	40	12.2	PASSED
42.823	27.74	24.378	39.54	-11.8	40	12.26	PASSED
43.039	27.76	24.434	39.76	-12	40	12.24	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
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10540.7	53.55	475.883	41.65	11.9	68	14.68	PASSED
15811.9	49.98	315.5	40.58	9.4	74	24	PASSED
21083.4	54.29	518.203	40.19	14.1	74	19.69	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
10540.7	40.03	100.346	28.13	11.9	---	---	PASSED
15811.9	36.37	65.842	26.97	9.4	54	17.63	PASSED
21083.4	41.27	115.744	27.17	14.1	54	12.73	PASSED

Channel 60+64 / 5310MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10600	53.1	451.856	41.7	11.4	74	20.88	PASSED
15935	48.91	278.933	39.91	9	74	25.07	PASSED
21243.9	54.22	514.044	39.92	14.3	74	19.76	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
10600	40.02	100.231	28.62	11.4	54	13.98	PASSED
15935	35.9	62.373	26.9	9	54	18.1	PASSED
21243.9	41.01	112.331	26.71	14.3	54	12.99	PASSED

Channel 100+104 / 5510MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11019.9	53.97	499.459	42.27	11.7	74	20.01	PASSED
16545.4	48.6	269.153	39.5	9.1	68	19.63	PASSED
22024	54.14	509.331	40.44	13.7	74	19.84	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
11019.9	41.29	116.011	29.59	11.7	54	12.71	PASSED
16545.4	35.03	56.429	25.93	9.1	---	---	PASSED
22024	40.92	111.173	27.22	13.7	54	13.08	PASSED

Channel 108+112 / 5550MHz

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
41.486	26.99	22.361	37.99	-11	40	13.01	PASSED
42.433	26.93	22.208	38.53	-11.6	40	13.07	PASSED
42.529	27.75	24.406	39.35	-11.6	40	12.25	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11102.2	53.49	472.607	41.89	11.6	74	20.49	PASSED
16653.6	48.93	279.576	39.83	9.1	68	19.3	PASSED
22199	54.32	519.996	40.42	13.9	74	19.66	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
11102.2	39.59	95.389	27.99	11.6	54	14.41	PASSED
16653.6	35.86	62.087	26.76	9.1	---	---	PASSED
22199	41.42	117.761	27.52	13.9	54	12.58	PASSED

Channel 132+136 / 5670MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11341.7	52.53	423.156	41.33	11.2	74	21.45	PASSED
16991.7	47.73	243.501	39.23	8.5	68	20.5	PASSED
22666.9	54.41	525.412	40.41	14	74	19.57	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
11341.7	39.42	93.541	28.22	11.2	54	14.58	PASSED
16991.7	34.94	55.847	26.44	8.5	---	---	PASSED
22666.9	41.27	115.744	27.27	14	54	12.73	PASSED

6.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 36+40 / 5190MHz

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
38.642	25.65	19.165	34.75	-9.1	40	14.35	PASSED
41.576	28.13	25.498	39.13	-11	40	11.87	PASSED
42.493	28.66	27.102	40.26	-11.6	40	11.34	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10380.1	52.99	446.17	41.59	11.4	68	15.24	PASSED
15569.5	50.25	325.462	41.15	9.1	74	23.73	PASSED
20761	54.46	528.445	40.26	14.2	74	19.52	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
10380.1	40.29	103.395	28.89	11.4	---	---	PASSED
15569.5	36.61	67.686	27.51	9.1	54	17.39	PASSED
20761	41.52	119.124	27.32	14.2	54	12.48	PASSED

Channel 52+56 / 5270MHz

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	27.07	22.568	30.57	-3.5	40	12.93	PASSED
41.036	27.12	22.699	37.82	-10.7	40	12.88	PASSED
43.033	27.32	23.227	39.32	-12	40	12.68	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10536.9	52.5	421.697	40.5	12	68	15.73	PASSED
15810.9	50.1	319.89	40.7	9.4	74	23.88	PASSED
21076.1	54.31	519.398	40.11	14.2	74	19.67	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
10536.9	39.84	98.175	27.84	12	---	---	PASSED
15810.9	36.37	65.842	26.97	9.4	54	17.63	PASSED
21076.1	41.29	116.011	27.09	14.2	54	12.71	PASSED

Channel 100+104 / 5510MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11021	53.76	487.528	42.06	11.7	74	20.22	PASSED
16512.6	48.09	253.805	38.99	9.1	68	20.14	PASSED
22049.2	54.42	526.017	40.62	13.8	74	19.56	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
11021	40.01	100.115	28.31	11.7	54	13.99	PASSED
16512.6	35.21	57.61	26.11	9.1	---	---	PASSED
22049.2	41.43	117.896	27.63	13.8	54	12.57	PASSED

Channel 108+112 / 5550MHz

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
41.396	27.09	22.62	37.99	-10.9	40	12.91	PASSED
42.463	29.25	29.007	40.85	-11.6	40	10.75	PASSED
42.637	29.11	28.543	40.81	-11.7	40	10.89	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11101.1	52.65	429.042	41.05	11.6	74	21.33	PASSED
16652	49.47	297.509	40.37	9.1	68	18.76	PASSED
22197.2	54.56	534.564	40.66	13.9	74	19.42	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11101.1	39.69	96.494	28.09	11.6	54	14.31	PASSED
16652	35.93	62.589	26.83	9.1	---	---	PASSED
22197.2	41.45	118.168	27.55	13.9	54	12.55	PASSED

Channel 132+136 / 5670MHz

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11356.4	53.67	482.503	42.37	11.3	74	20.31	PASSED
16992.4	47.97	250.323	39.47	8.5	68	20.26	PASSED
22678.3	54.33	520.595	40.43	13.9	74	19.65	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
11356.4	39.69	96.494	28.39	11.3	54	14.31	PASSED
16992.4	34.93	55.783	26.43	8.5	---	---	PASSED
22678.3	41.34	116.681	27.44	13.9	54	12.66	PASSED

6.3.5 802.11ac, BPSK modulation, 29.3 / 32.5 Mbps data rate.

Channel 36-48 / 5210MHz

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
42.399	26.5	21.135	38.1	-11.6	40	13.5	PASSED
42.51	27.53	23.796	39.13	-11.6	40	12.47	PASSED
42.783	27.17	22.83	38.97	-11.8	40	12.83	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10417.8	52.28	411.15	40.68	11.6	68	15.95	PASSED
15625.5	49.79	308.674	40.39	9.4	74	24.19	PASSED
20832.6	55.26	579.429	40.96	14.3	74	18.72	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
10417.8	39.27	91.939	27.67	11.6	---	---	PASSED
15625.5	36.77	68.945	27.37	9.4	54	17.23	PASSED
20832.6	41.78	122.744	27.48	14.3	54	12.22	PASSED

Channel 52-64 / 5290MHz

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
30.21	25.33	18.471	28.93	-3.6	40	14.67	PASSED
41.493	26.86	22.029	37.86	-11	40	13.14	PASSED
42.339	26.84	21.979	38.34	-11.5	40	13.16	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10587.1	52.65	429.042	41.25	11.4	68	15.58	PASSED
15862.3	49.78	308.319	40.38	9.4	74	24.2	PASSED
21155.7	54.66	540.754	40.56	14.1	74	19.32	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
10587.1	39.44	93.756	28.04	11.4	---	---	PASSED
15862.3	36.26	65.013	26.86	9.4	54	17.74	PASSED
21155.7	41.07	113.11	26.97	14.1	54	12.93	PASSED

Channel 100-112 / 5530MHz

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
30.03	26.33	20.725	29.83	-3.5	40	13.67	PASSED
42.009	28.95	28.022	40.25	-11.3	40	11.05	PASSED

42.393	28.51	26.638	40.11	-11.6	40	11.49	PASSED
--------	-------	--------	-------	-------	----	-------	--------

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

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Limit [dB μ V/m]	Margin	Results
11061	52.61	427.071	40.91	11.7	74	21.37	PASSED
16593.9	48.59	268.844	39.49	9.1	68	19.64	PASSED
22120.1	54.55	533.949	40.95	13.6	74	19.43	PASSED

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

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Limit [dB μ V/m]	Margin	Results
11061	39.62	95.719	27.92	11.7	54	14.38	PASSED
16593.9	35.25	57.876	26.15	9.1	---	---	PASSED
22120.1	41.3	116.145	27.7	13.6	54	12.7	PASSED

6.3.6 802.11ac, 16QAM modulation, 117.0 / 130.0 Mbps data rate.

Channel 36-48 / 5210MHz

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
30.69	25.07	17.927	28.97	-3.9	40	14.93	PASSED
30.81	24.89	17.559	28.89	-4	40	15.11	PASSED
41.883	26.67	21.553	37.87	-11.2	40	13.33	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10417	52.66	429.536	41.06	11.6	68	15.57	PASSED
15625.8	49.92	313.329	40.52	9.4	74	24.06	PASSED
20834	55.51	596.348	41.21	14.3	74	18.47	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
10417	39.19	91.096	27.59	11.6	---	---	PASSED
15625.8	36.78	69.024	27.38	9.4	54	17.22	PASSED
20834	41.77	122.603	27.47	14.3	54	12.23	PASSED

Channel 52-64 / 5290MHz

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
30.66	25.54	18.923	29.44	-3.9	40	14.46	PASSED
30.69	25.52	18.88	29.42	-3.9	40	14.48	PASSED
42.633	26.14	20.277	37.84	-11.7	40	13.86	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
10587.1	52.53	423.156	41.13	11.4	68	15.7	PASSED
15863.6	49.53	299.571	40.13	9.4	74	24.45	PASSED
21154.7	55.4	588.844	41.3	14.1	74	18.58	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
10587.1	39.4	93.325	28	11.4	---	---	PASSED
15863.6	36.27	65.088	26.87	9.4	54	17.73	PASSED
21154.7	41.09	113.37	26.99	14.1	54	12.91	PASSED

Channel 100-112 / 5530MHz

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
30.18	26.05	20.068	29.65	-3.6	40	13.95	PASSED
41.583	26.67	21.553	37.67	-11	40	13.33	PASSED
42.549	27.18	22.856	38.88	-11.7	40	12.82	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11056.7	52.73	433.012	41.03	11.7	74	21.25	PASSED
16589.8	48.27	259.119	39.17	9.1	68	19.96	PASSED
22115.1	54.04	503.501	40.44	13.6	74	19.94	PASSED

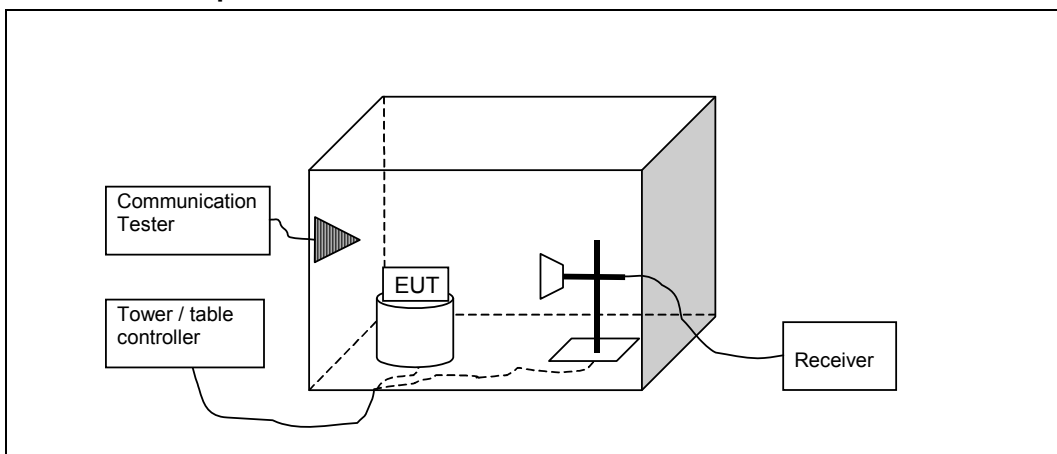
Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Limit [dBμV/m]	Margin	Results
11056.7	39.61	95.609	27.91	11.7	54	14.39	PASSED
16589.8	35.27	58.01	26.17	9.1	---	---	PASSED
22115.1	41.28	115.878	27.68	13.6	54	12.72	PASSED

7. Band edge compliance of RF emissions (FCC 15.407(b), RSS-210 A9.2)

EUT with DUT number	RM-1045, DUT 18216
Accessories with DUT numbers	AC-60E, DUT 18217 ; WH-208, DUT 18218 ; CA-190CD, DUT 18219
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 42 / 101.4
Date of measurements	28-Apr-2014
Measured by	Sami Lehtonen

7.1.1 Test setup



7.2. Test method and limit

The measurement is made according to KDB 789033 and IC standard RSS-210.
The measurement results are obtained as described below:

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

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$).

The limits in the table below are listed for the 100 MHz span around the band edges.

$$P [\text{W}] = (10^{\text{power (P [dBm] / 10)}) / 1000.$$

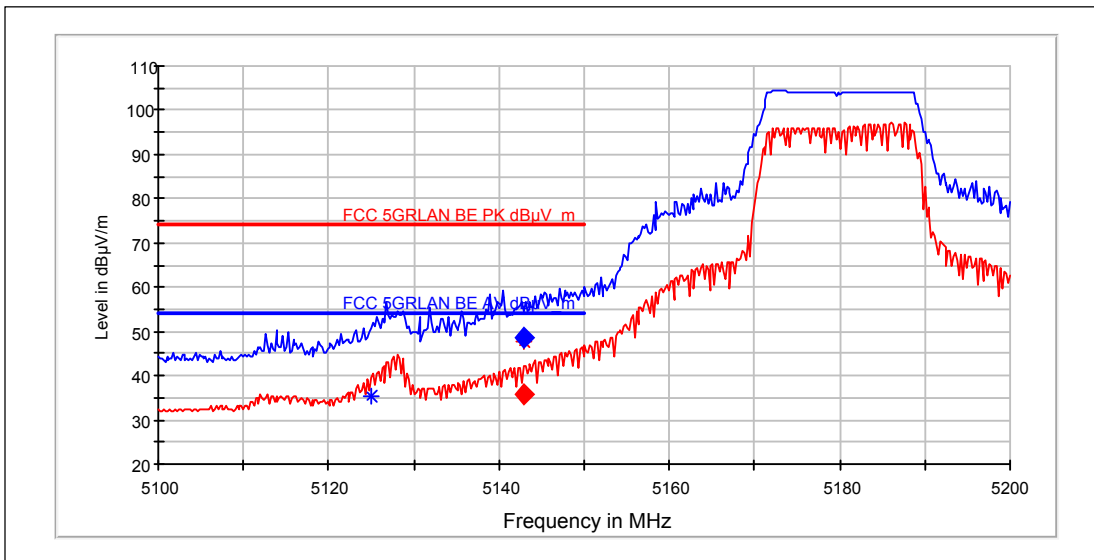
$$E [\text{dB}\mu\text{V/m}] = 20 * \text{LOG} ((\text{square root (30 * P [W])} / 3 \text{ m}) * 1000000)$$

Frequency range [MHz]	Limit [dBm / MHz]	Limit dBuV/m @ 3m
5150 - 5250	$\leq 5.150 \text{ GHz}$ and ≥ 5.350 : 54 dBuV/m (avg), 74 dBuV/m (pk)	68.23
5250 - 5350	$\leq 5.150 \text{ GHz}$ and $\geq 5.350 \text{ GHz}$: 54 dBuV/m (avg), 74 dBuV/m (pk)	68.23
5470 - 5725	$\leq 5.460 \text{ GHz}$: 54 dBuV/m (avg), 74 dBuV/m (pk) 5.460 – 5.470 GHz: -27 dBm/MHz (pk)	68.23
5725 - 5825	5.825 – 5.835 GHz: -17 dBm/MHz (pk) $\geq 5.835 \text{ GHz}$: -27 dBm/MHz (pk)	68.23 78.23

7.3. 5 GHz RLAN test results

7.3.1 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 36 / 5180MHz



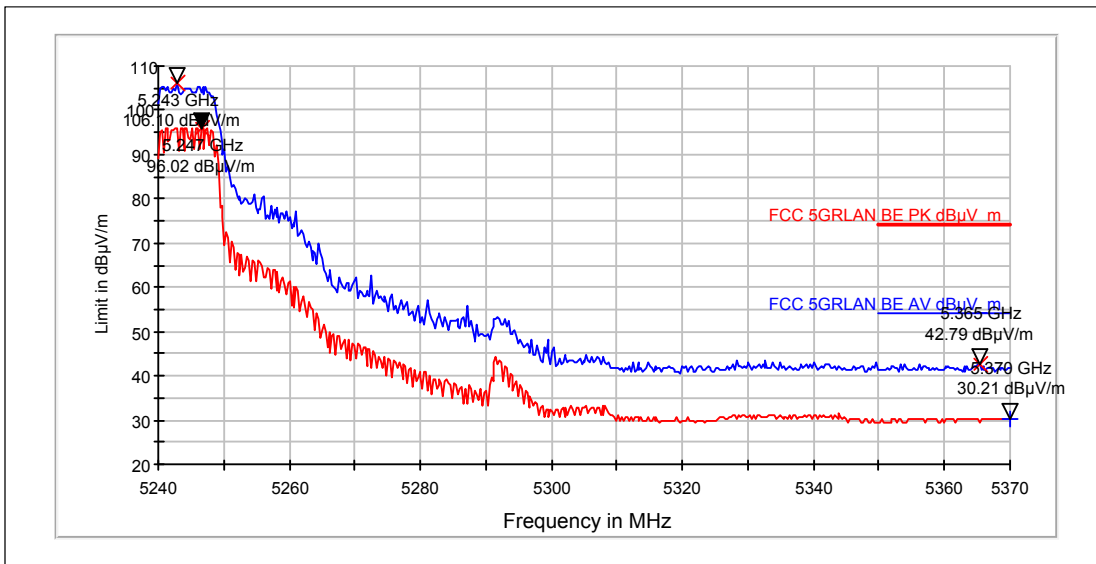
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5142.886	48.48	74	25.52	170	H	-8	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5142.886	35.74	54	18.26	170	H	-8	0	PASSED

Channel 48 / 5240MHz



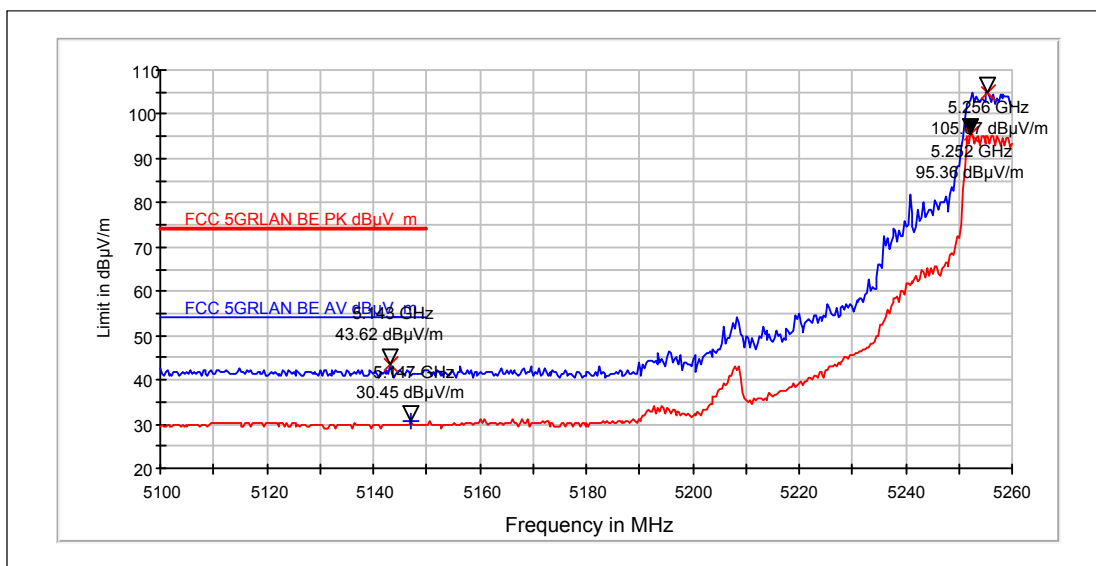
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	PK2 [dBμV/m]	Results
5365	42.79	137.816	39.32	3.47	5242.866	106.098	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	AV2 [dBμV/m]	Results
5370	30.21	32.397	26.71	3.5	5246.513	96.017	PASSED

Channel 52 / 5260MHz



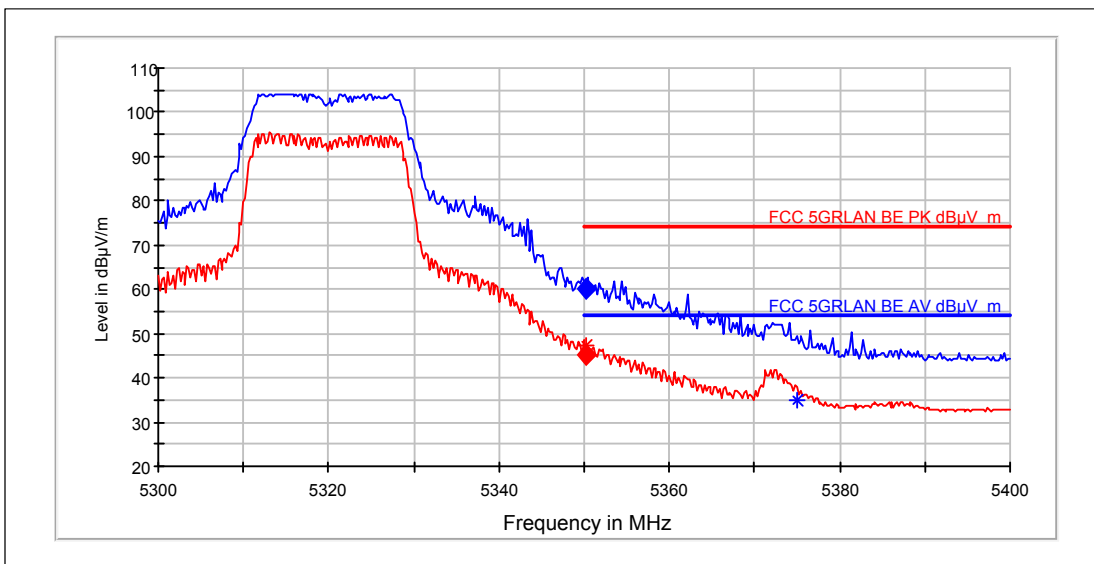
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	PK2 [dBμV/m]	Results
5143	43.63	151.792	39.92	3.71	5255.511	105.065	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	AV2 [dBμV/m]	Results
5147	30.45	33.316	26.71	3.74	5252.305	95.356	PASSED

Channel 64 / 5320MHz



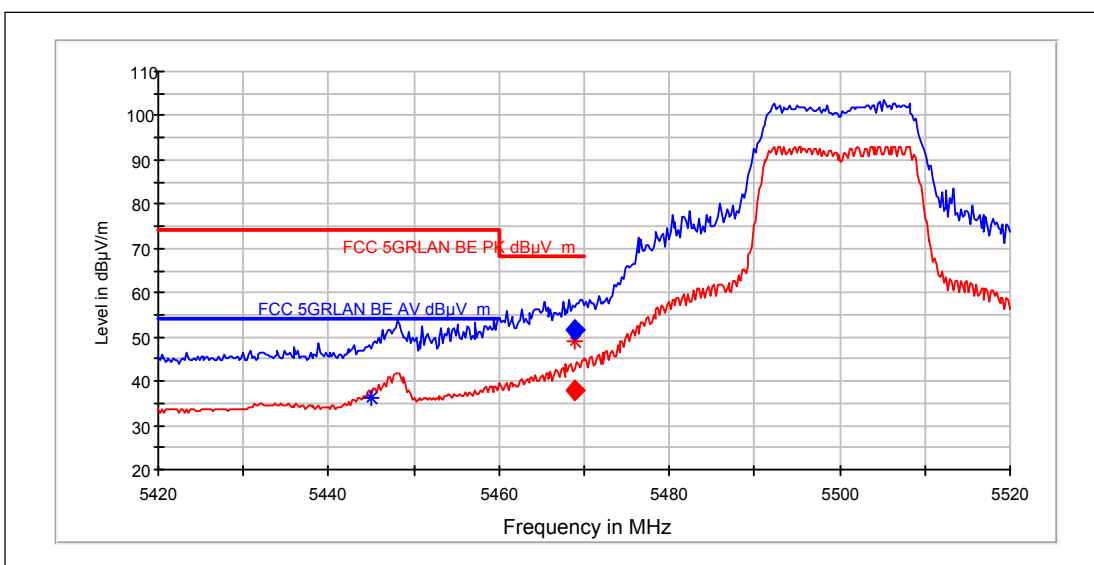
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.301	60.3	74	13.7	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.301	44.96	54	9.04	170	V	22	0	PASSED

Channel 100 / 5500MHz



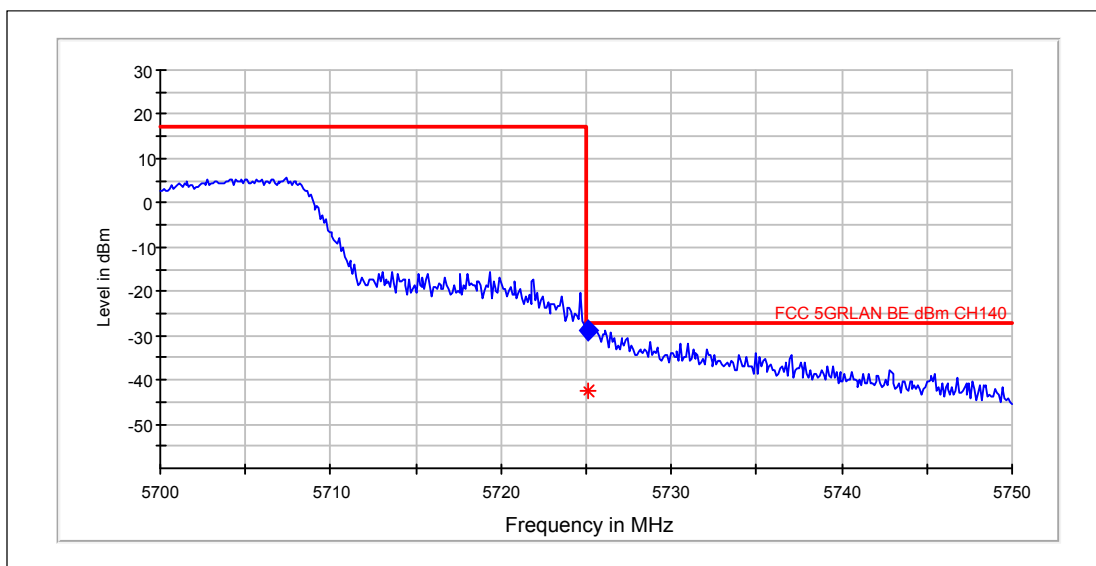
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.798	51.73	68.2	16.47	170	H	-3	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.798	37.87	---	---	170	H	-3	0	PASSED

Channel 140 / 5700MHz

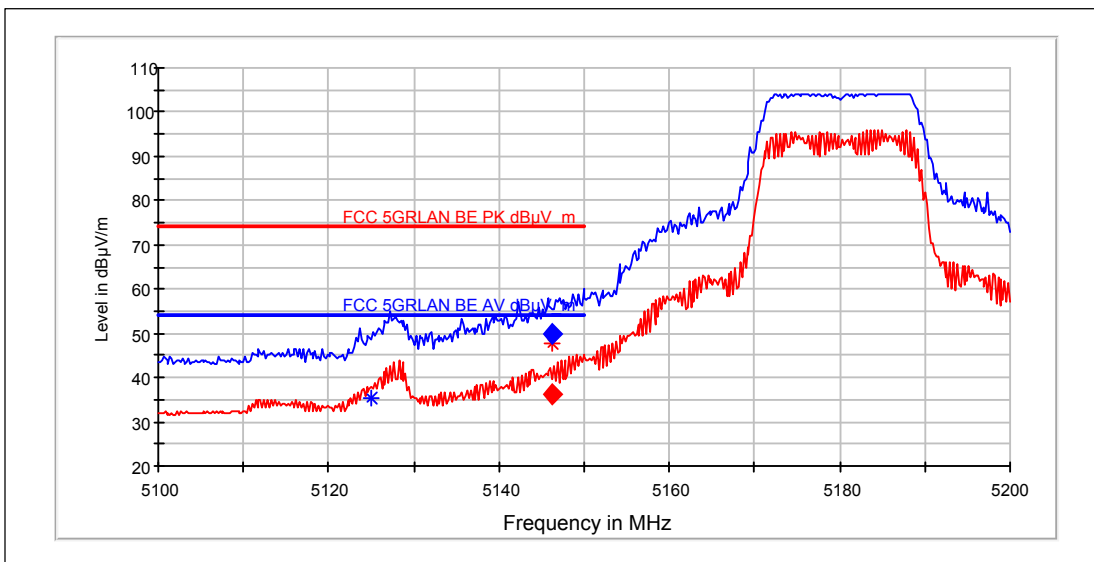


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5725.154	-28.83	-27	1.83	170	V	15	0	PASSED

7.3.2 802.11n, QPSK modulation, 13.0 / 14.4 Mbps data rate.

Channel 36 / 5180MHz



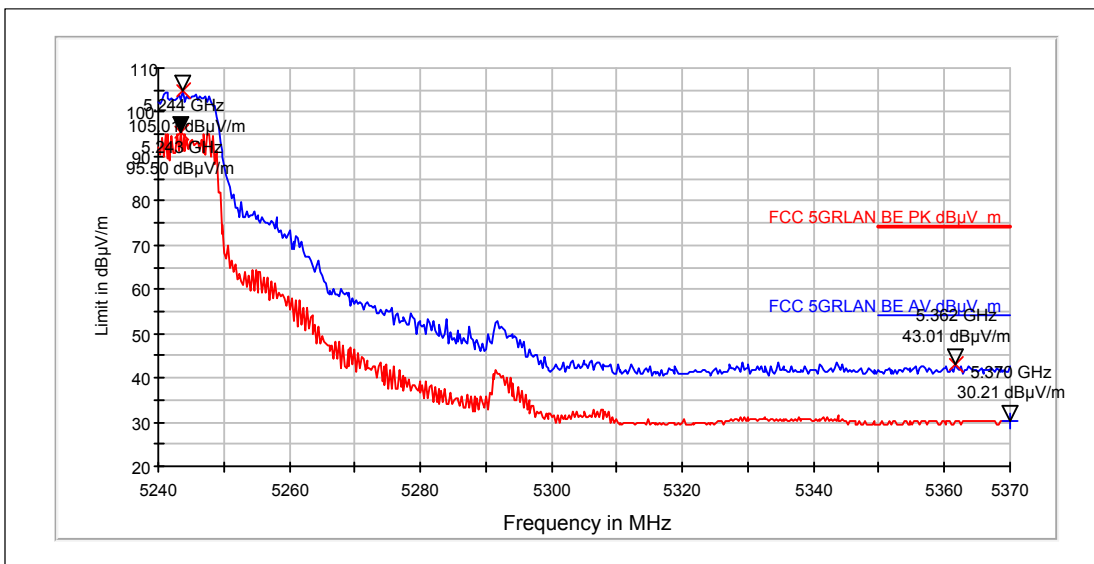
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5146.293	49.75	74	24.25	170	H	2	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5146.293	36.13	54	17.87	170	H	2	0	PASSED

Channel 48 / 5240MHz



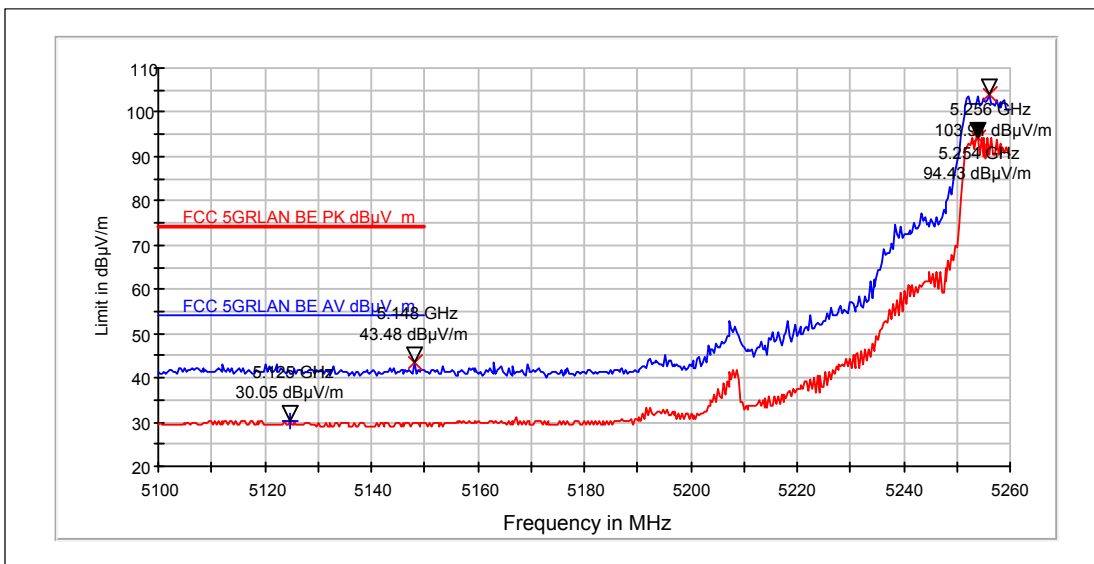
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	PK2 [dBμV/m]	Results
5362	43.01	141.368	39.56	3.45	5243.647	105.005	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	AV2 [dBμV/m]	Results
5370	30.21	32.397	26.71	3.5	5243.387	95.498	PASSED

Channel 52 / 5260MHz



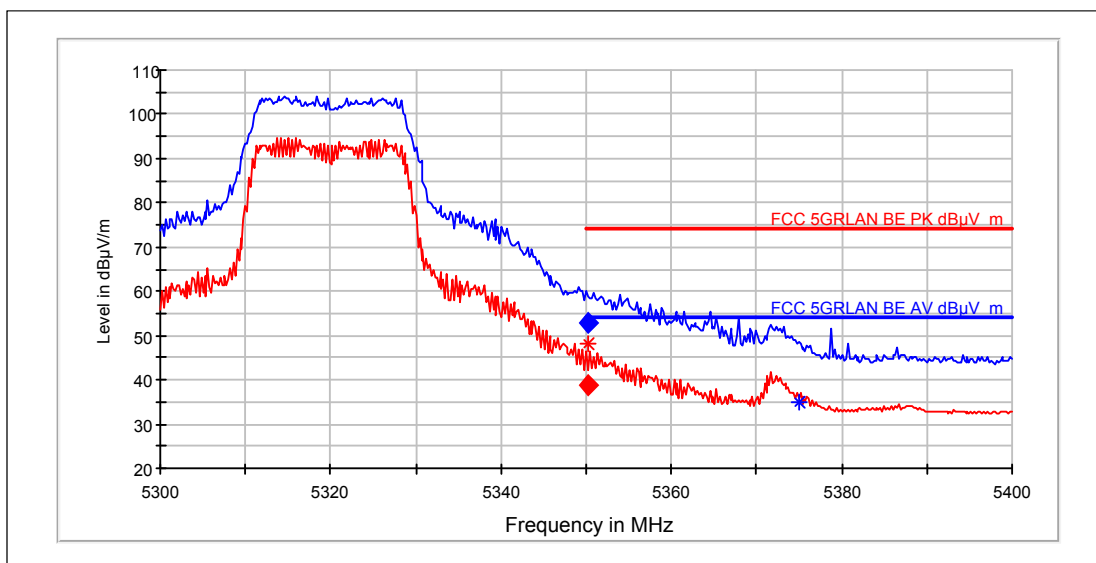
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	PK2 [dBμV/m]	Results
5148	43.48	149.262	39.73	3.75	5256.152	103.907	PASSED

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

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Frequency2 [MHz]	AV2 [dBμV/m]	Results
5125	30.05	31.794	26.02	4.03	5253.908	94.43	PASSED

Channel 64 / 5320MHz



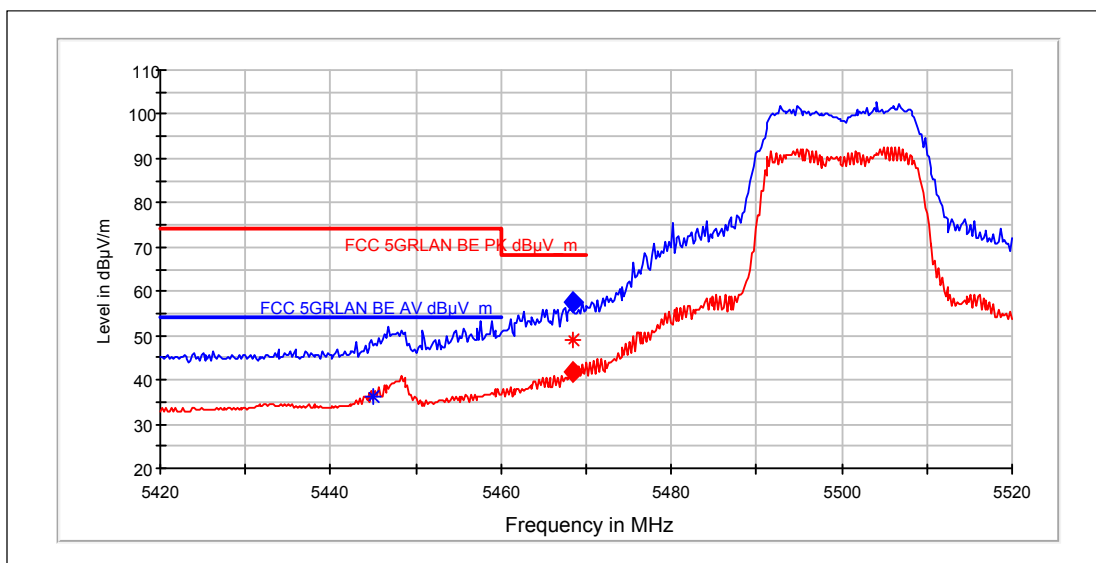
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.2	52.68	74	21.32	170	H	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.2	38.7	54	15.3	170	H	22	0	PASSED

Channel 100 / 5500MHz



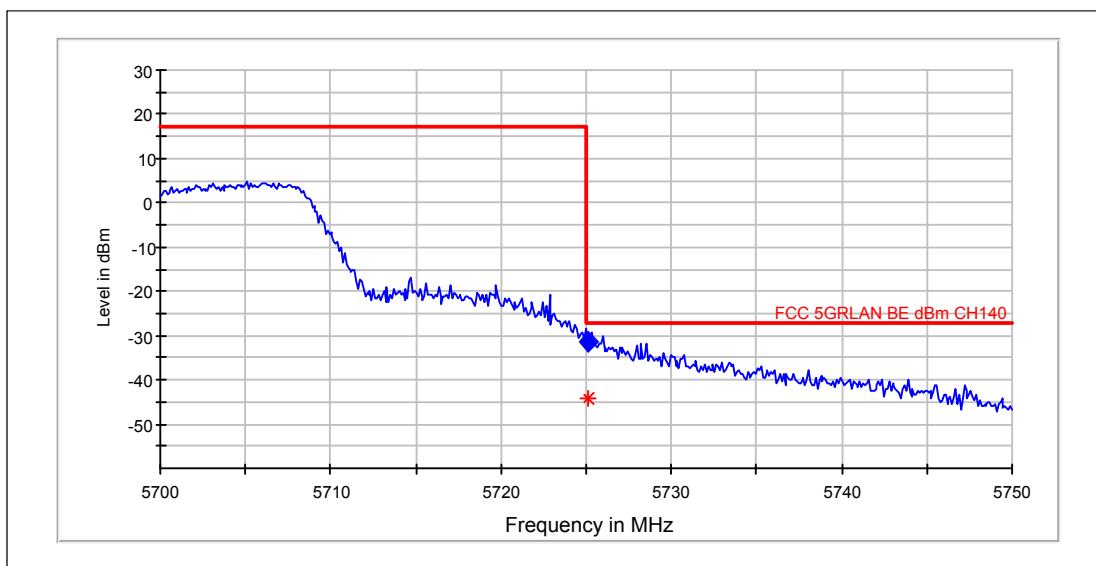
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.497	57.44	68.2	10.76	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.497	41.68	---	---	170	V	22	0	PASSED

Channel 140 / 5700MHz

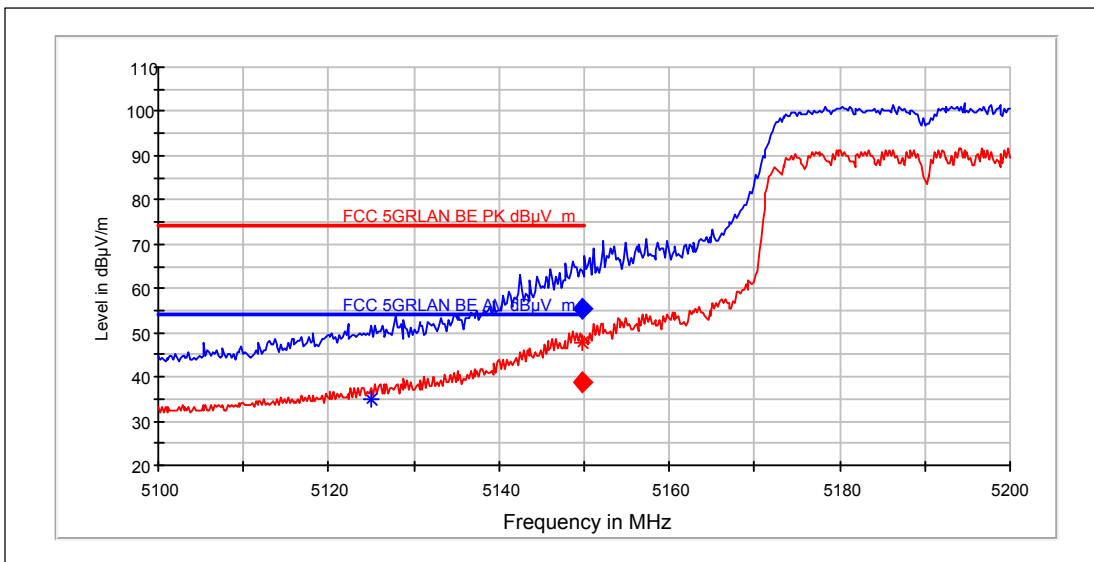


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5725.154	-31.6	-27	4.6	170	V	15	0	PASSED

7.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 36+40 / 5190MHz



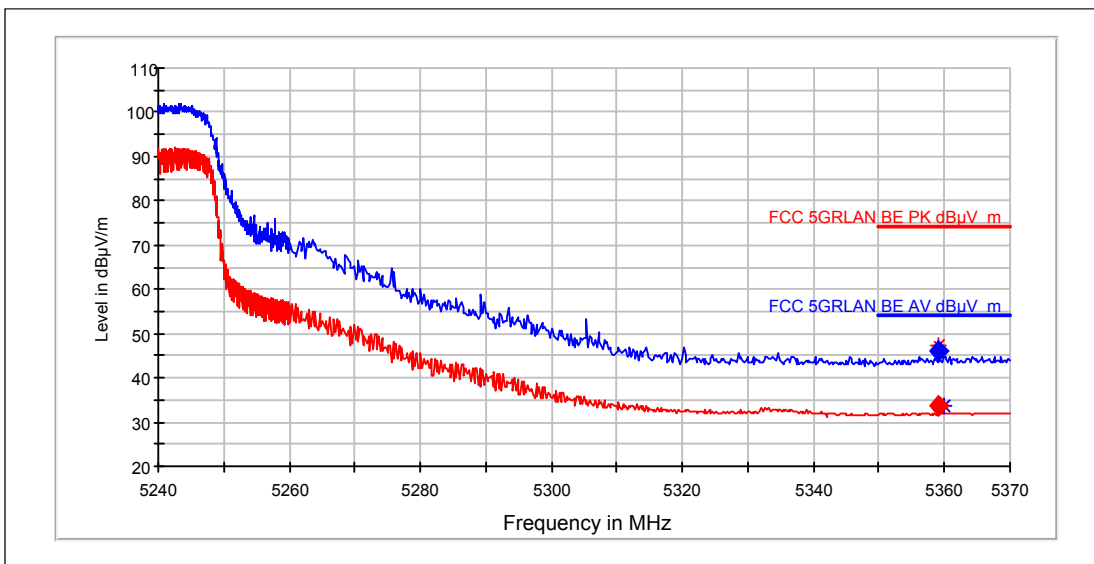
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5149.8	55.43	74	18.57	170	H	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5149.8	38.83	54	15.17	170	H	22	0	PASSED

Channel 44+48 / 5230MHz



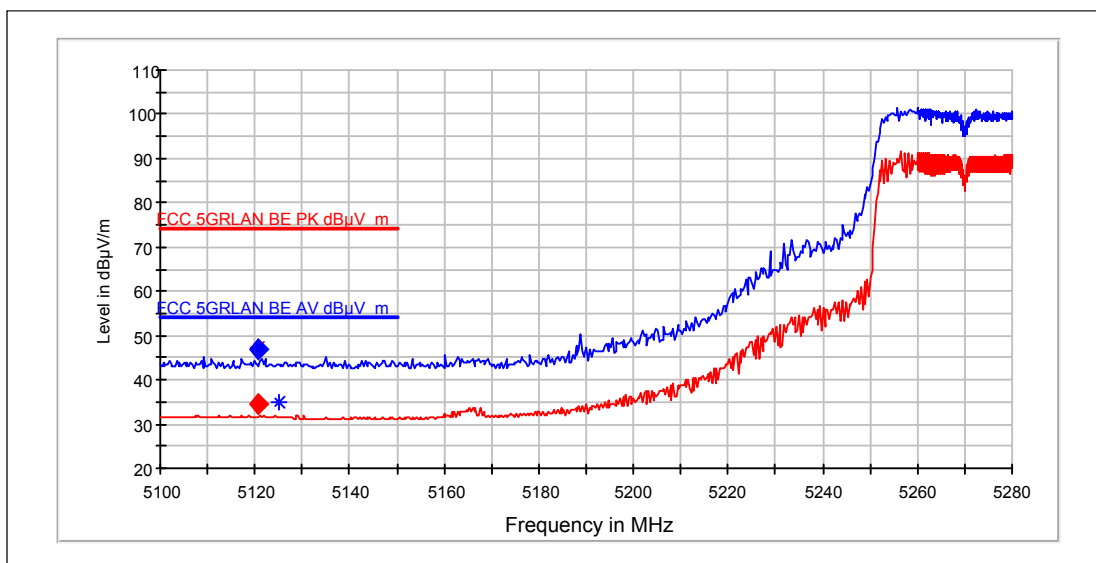
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5359.138	45.93	74	28.07	170	V	-15	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5359.138	33.44	54	20.56	170	V	-15	0	PASSED

Channel 52+56 / 5270MHz



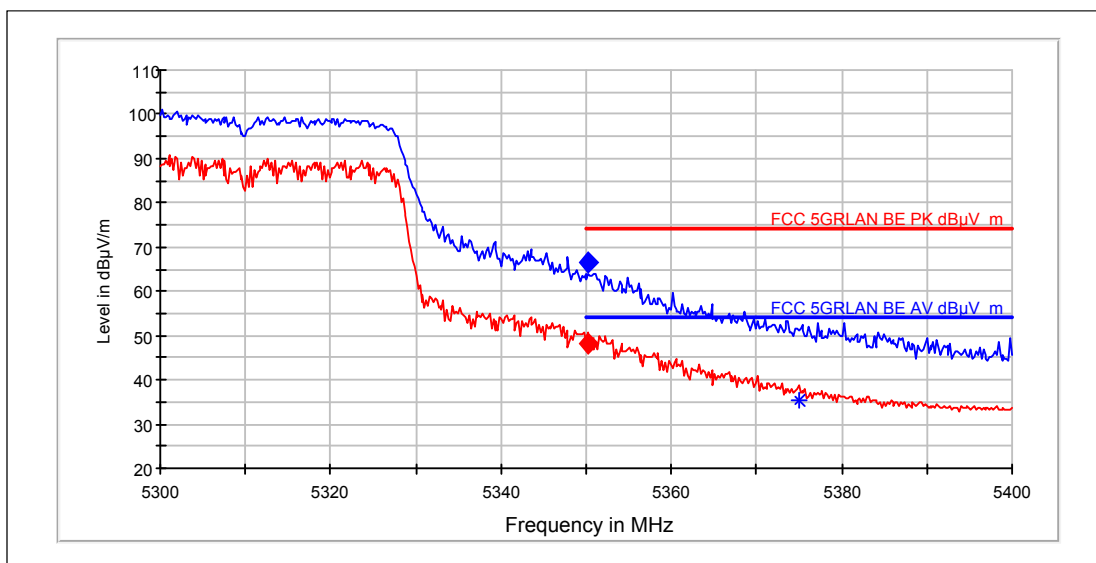
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5120.716	46.94	74	27.06	170	H	3	0	PASSED

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

Frequency [MHz]	Average [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5120.716	34.48	54	19.52	170	H	3	0	PASSED

Channel 60+64 / 5310MHz



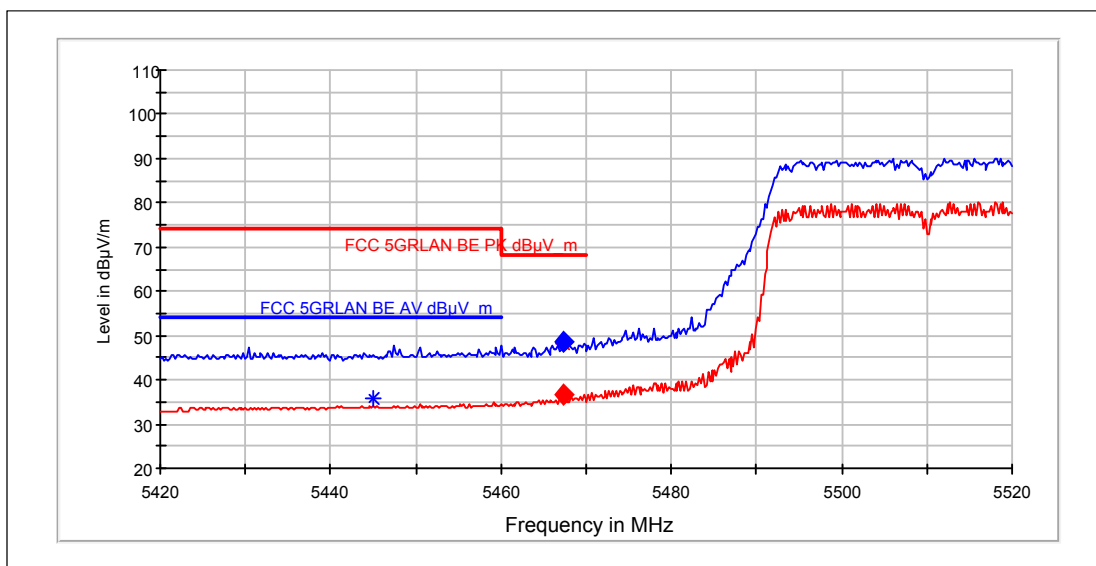
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.2	66.67	74	7.33	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5350.2	48.07	54	5.93	170	V	22	0	PASSED

Channel 100+104 / 5510MHz



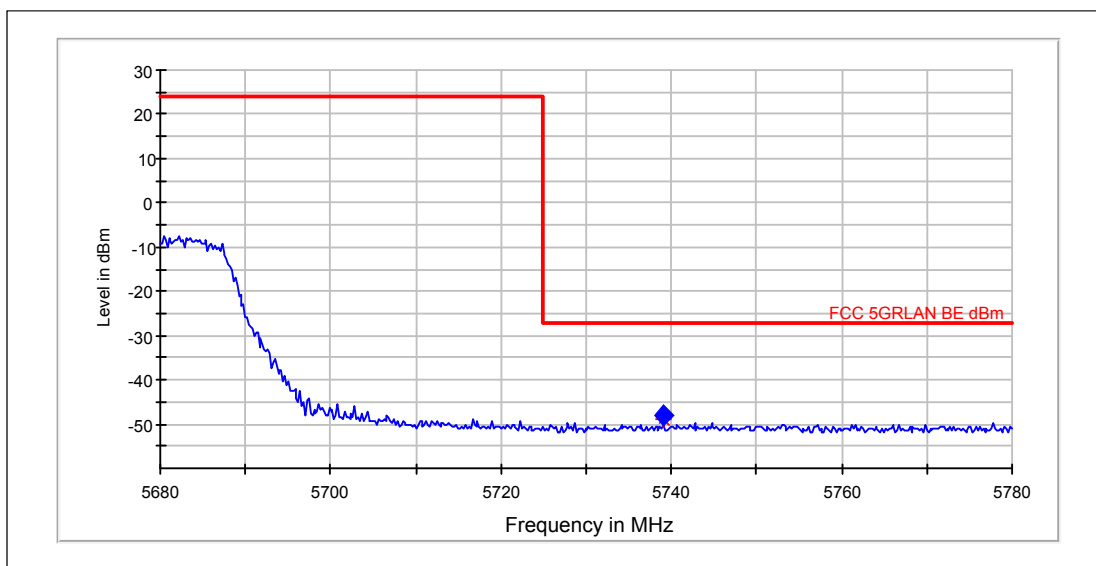
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5467.295	48.78	68.2	19.42	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5467.295	36.57	---	---	170	V	22	0	PASSED

Channel 132+136 / 5670MHz

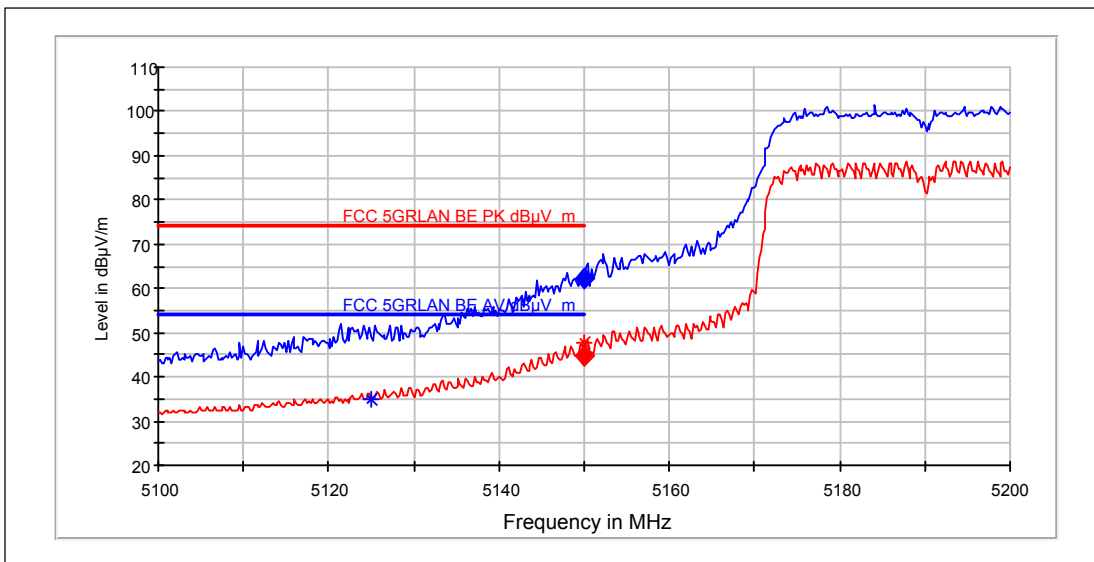


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5739.132	-48.1	-27	21.1	170	H	22	0	PASSED

7.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 36+40 / 5190MHz



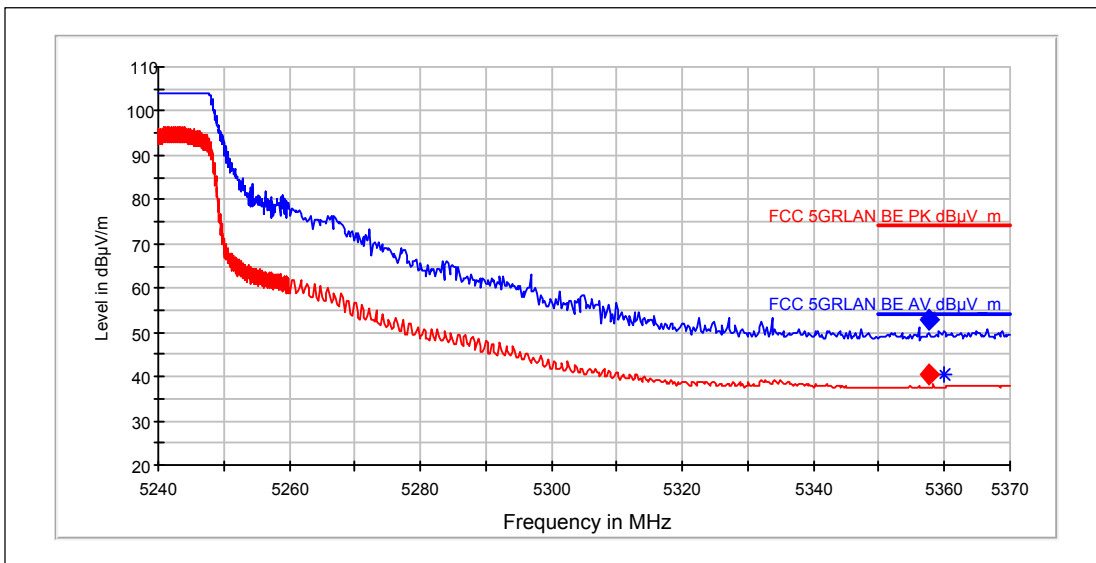
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5149.9	62.33	74	11.67	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5149.9	44.72	54	9.28	170	V	22	0	PASSED

Channel 44+48 / 5230MHz



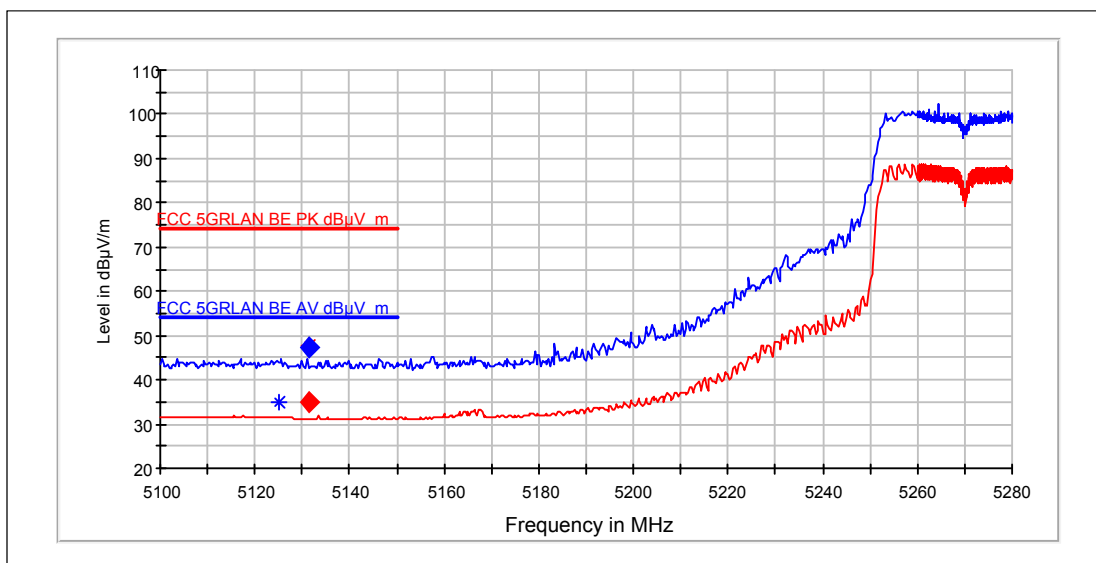
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5357.655	52.77	74	21.23	170	V	12	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5357.655	40.53	54	13.47	170	V	12	0	PASSED

Channel 52+56 / 5270MHz



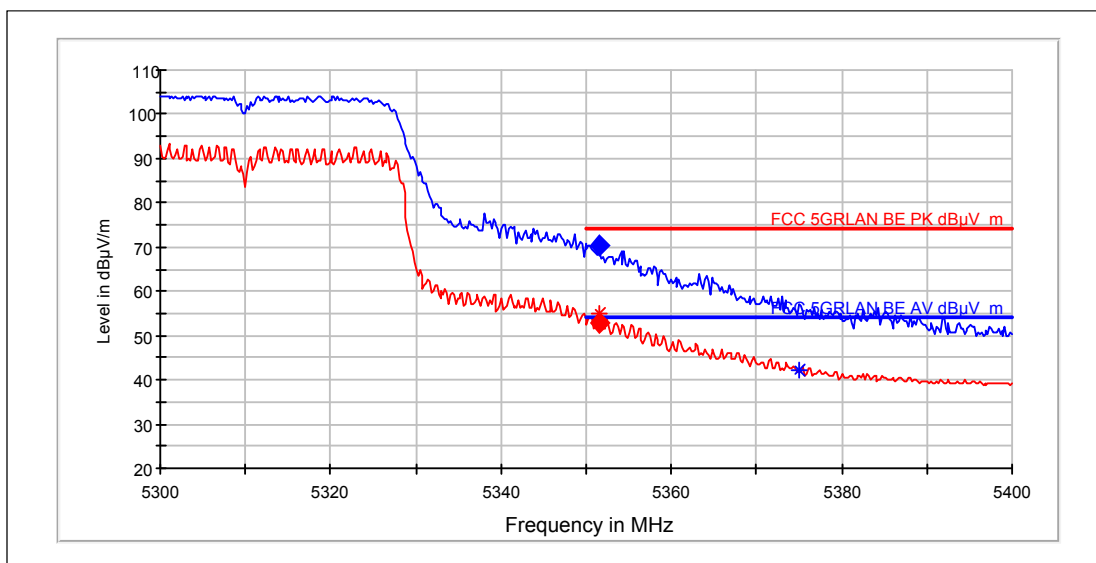
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5131.638	47.27	74	26.73	170	V	7	0	PASSED

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

Frequency [MHz]	Average [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5131.638	34.73	54	19.27	170	V	7	0	PASSED

Channel 60+64 / 5310MHz



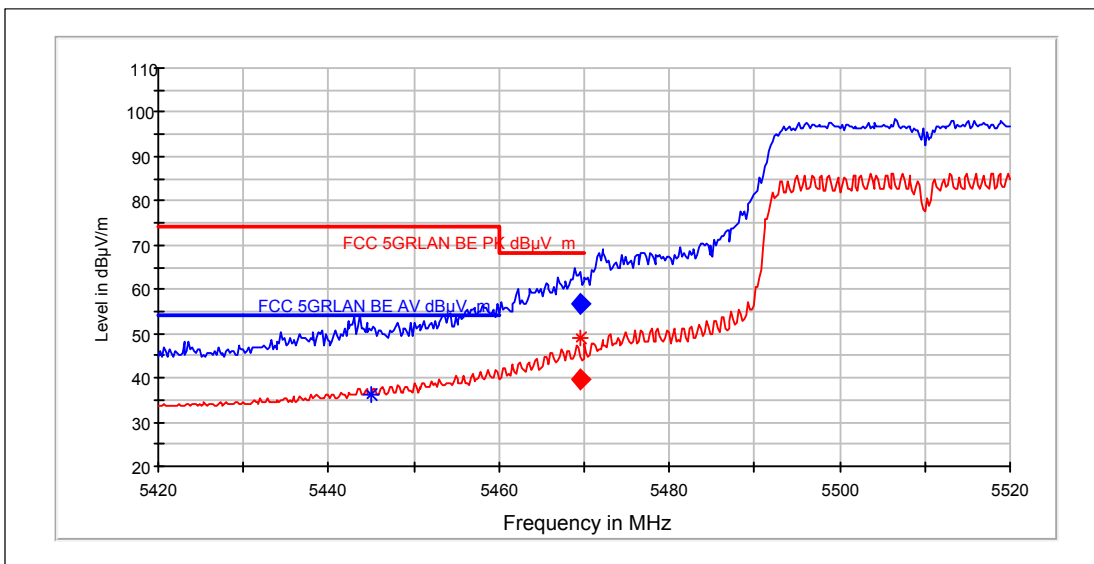
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5351.503	70.34	74	3.66	170	V	14	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5351.503	53.02	54	0.98	170	V	14	0	PASSED

Channel 100+104 / 5510MHz



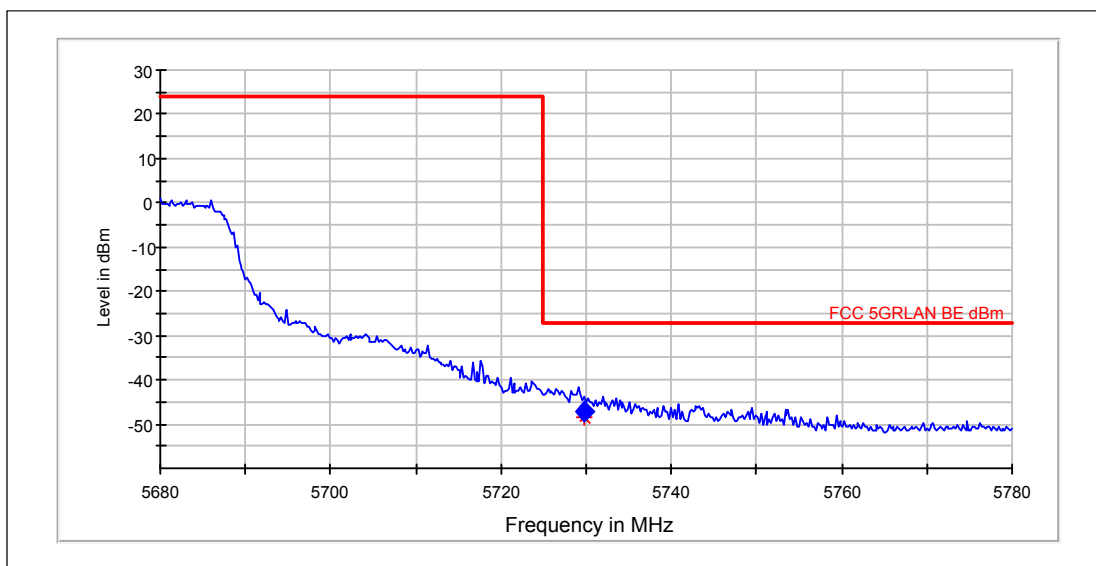
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5469.599	56.48	68.2	11.72	170	H	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5469.599	39.51	---	---	170	H	22	0	PASSED

Channel 132+136 / 5670MHz

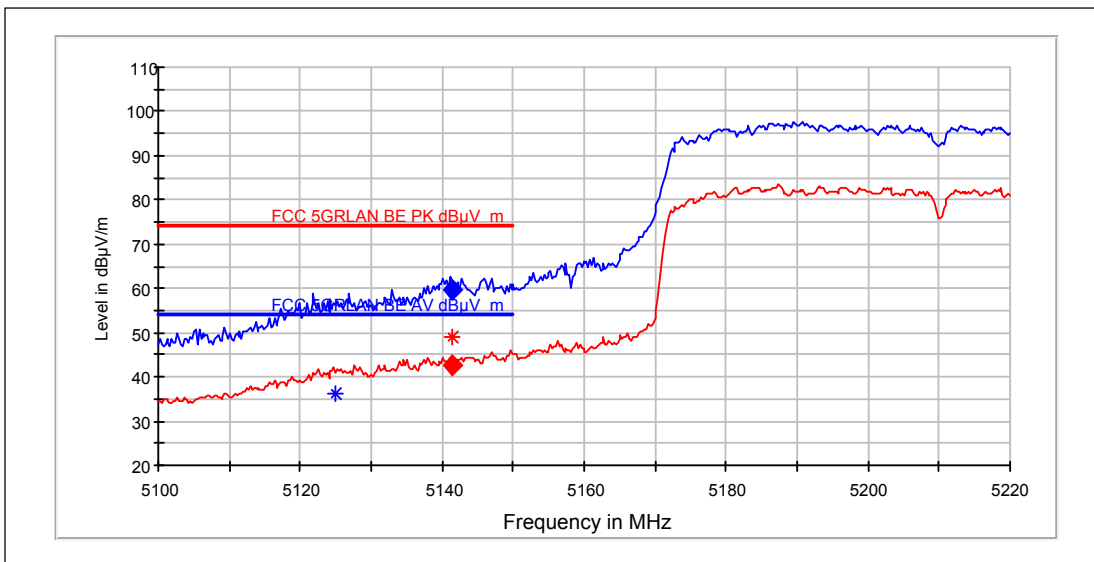


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5729.814	-47.35	-27	20.35	170	H	-4	0	PASSED

7.3.5 802.11ac, BPSK modulation, 29.3 / 32.5 Mbps data rate.

Channel 36-48 / 5210MHz



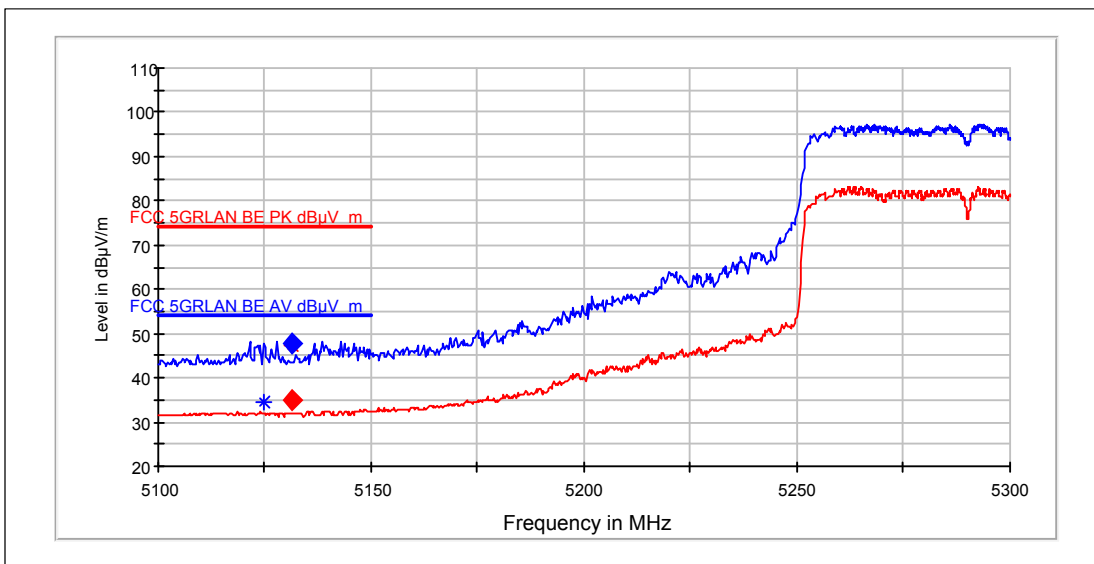
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5141.383	59.77	74	14.23	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5141.383	42.45	54	11.55	170	V	22	0	PASSED

Channel 52-64 / 5290MHz



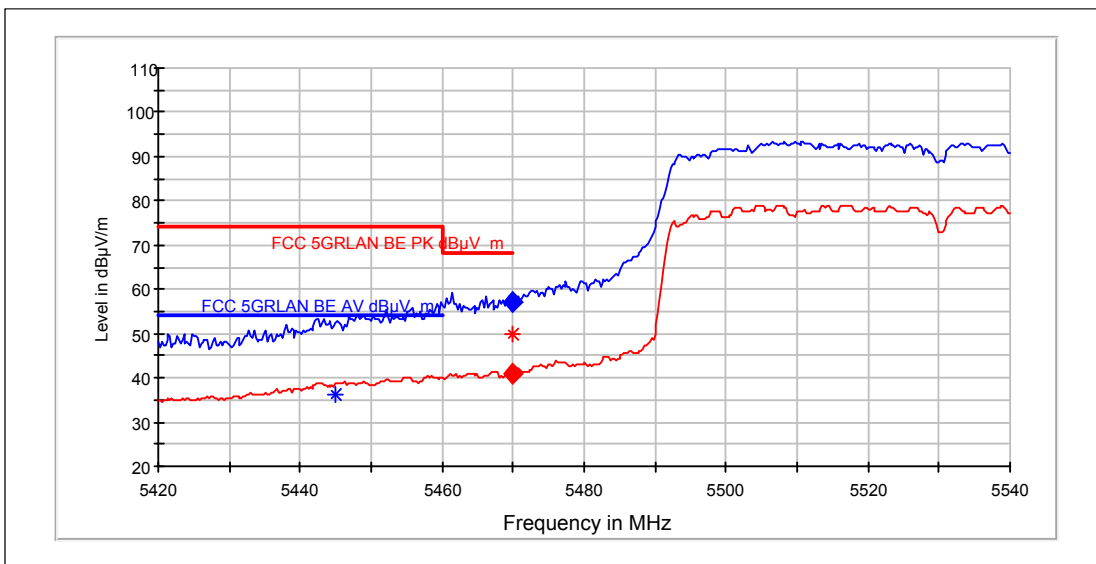
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5131.488	47.66	74	26.34	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5131.488	34.73	54	19.27	170	V	22	0	PASSED

Channel 100-112 / 5530MHz



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

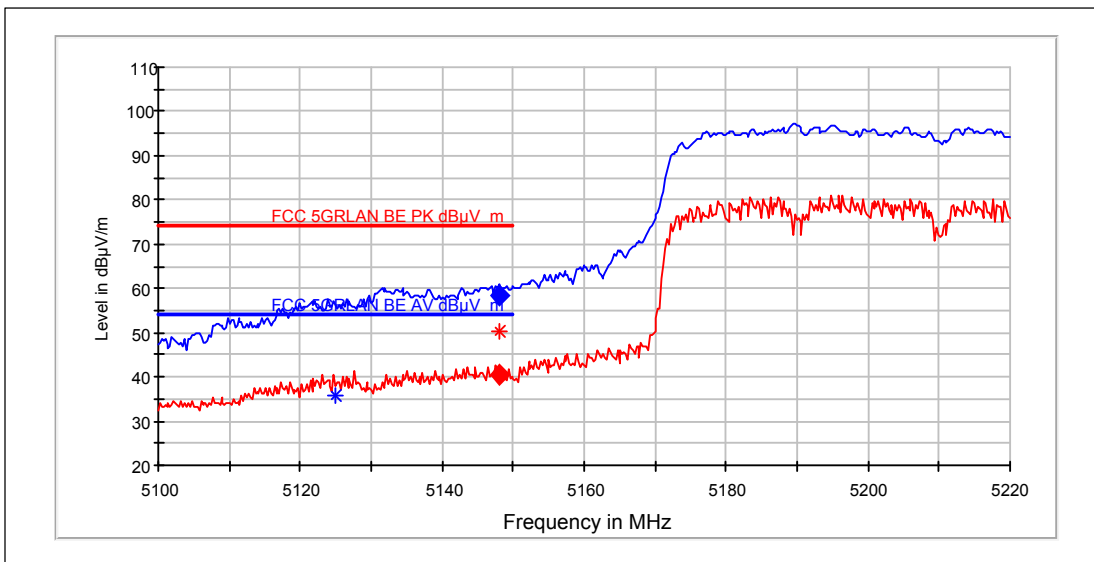
Frequency [MHz]	MaxPeak [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5470	57.23	68.2	10.97	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5470	41.1	---	---	170	V	22	0	PASSED

7.3.6 802.11ac, 16QAM modulation, 117.0 / 130.0 Mbps data rate.

Channel 36-48 / 5210MHz



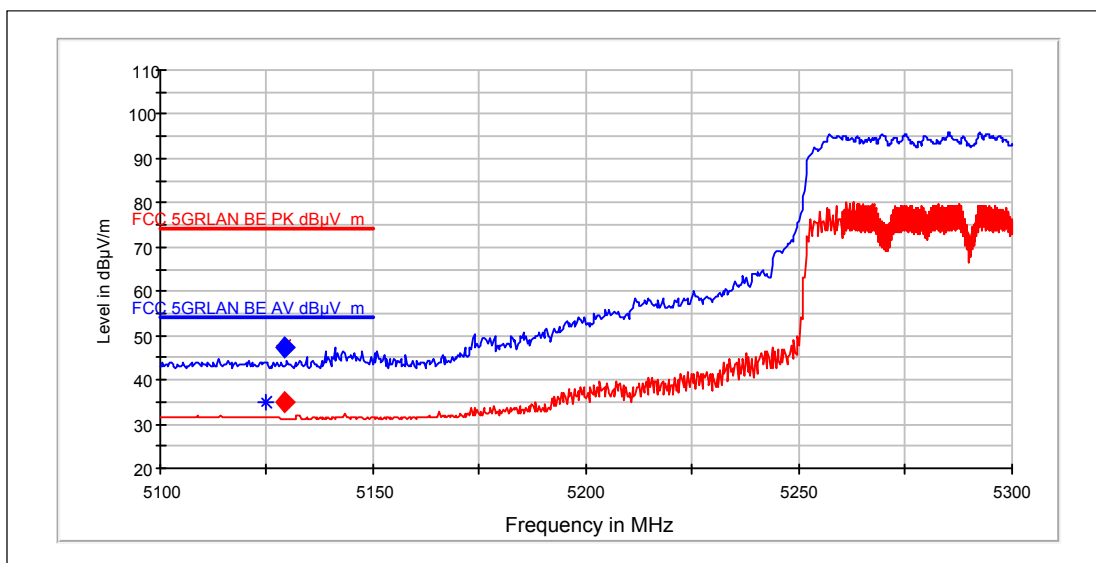
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5147.996	58.45	74	15.55	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5147.996	40.65	54	13.35	170	V	22	0	PASSED

Channel 52-64 / 5290MHz



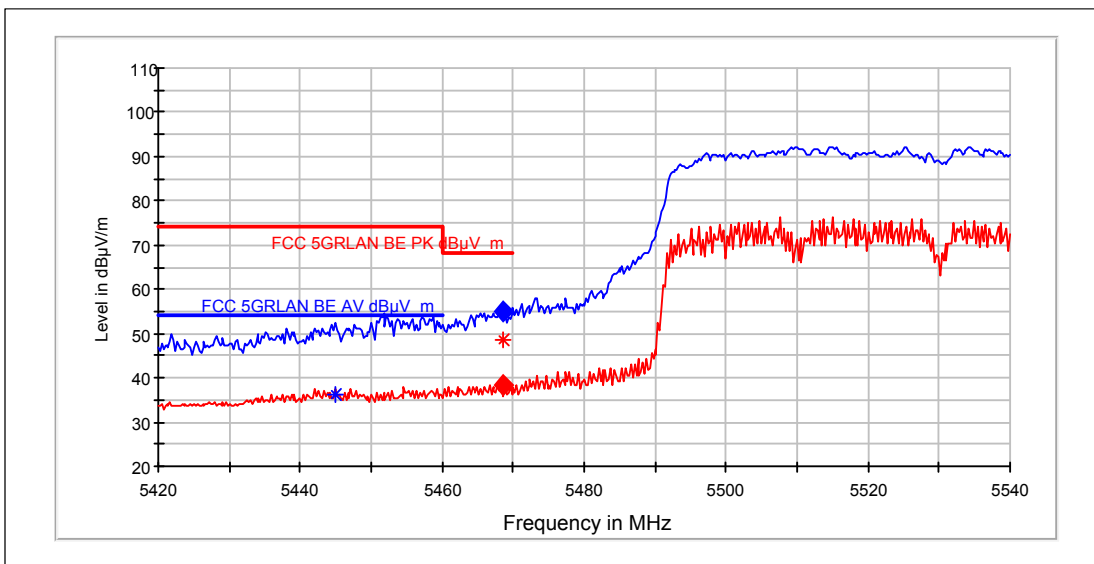
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5129.284	47.34	74	26.66	170	V	-1	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5129.284	34.8	54	19.2	170	V	-1	0	PASSED

Channel 100-112 / 5530MHz



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

Frequency [MHz]	MaxPeak [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.697	54.98	68.2	13.22	170	V	22	0	PASSED

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

Frequency [MHz]	Average [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Elevation [deg]	Results
5468.697	38.16	---	---	170	V	22	0	PASSED

8. Test Equipment

8.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
6039	USB Interface	5541765	Testo	22/24/27, 15C, 15B
6044	V-network	ESH3-Z6	R&S	-
2059	V-network	ESH3-Z6	R&S	-
1759	LISN 50 µH	ESH3-Z5	R&S	22/24/27, 15C, 15B
2097	Pulse Limiter	ESH3-Z2	R&S	22/24/27, 15C, 15B
1999	Receiver	ESIB26	R&S	22/24/27, 15C, 15B
2180	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2390	Directional Coupler	DC2600	AR	-
-	RF immunity / Emission Software	EMC32	R&S	22/24/27, 15C, 15B
2060	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
1759	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
2039	Power Supply	PL330QMD	Thurlby	15C, 15B
6036	Data Logger	175-H2	Testo	22/24/27, 15C, 15B
2359	Temperature Test Chamber	VT4002	Vötsch	22/24/27
2352	Spectrum Analyzer	FSP-30	R&S	22/24/27, 15C
6109	Communication Tester	CMU200	R&S	22/24/27, 15C
6246	Power Supply	66332A	HP	22/24/27, 15C
1992	Signal Generator	83630B	Agilent	15C, 15B
6098	Signal Generator	8648C	Agilent	-
6046	Attenuator 10dB	8493C	Agilent	22/24/27, 15C
6047	Attenuator 20dB	8493C	Agilent	22/24/27, 15C
6045	Power splitter	11667B	Agilent	22/24/27, 15C
6247	Communication Tester	CBT	R&S	22/24/27, 15C 15B
6052	Communication Tester	CMU200	R&S	22/24/27, 15C 15B
6248	Power Supply	6632B	-	22/24/27, 15C 15B
6106	Spectrum Analyzer	FSP-30	R&S	22/24/27, 15C 15B
6113	Signal Generator	SMF100A	R&S	22/24/27, 15C 15B
6202	Temperature Test Chamber	VT4002	Vötsch	22/24/27, 15C 15B
6122	Power Splitter	11667B	Agilent	22/24/27, 15C 15B
6134	Attenuator 10dB	BW-S10-2W263+	Mini-Circuits	22/24/27, 15C
6136	Attenuator 20dB	BW-S20-2W263+	Mini-Circuits	22/24/27, 15C
6103	Bluetooth tester	CBT	R&S	22/24/27, 15C 15B
6250	Power Supply	6651A	Agilent	22/24/27, 15C 15B
6108	Communication Tester	CMU200	R&S	22/24/27, 15C 15B
6105	Spectrum Analyzer	FSV-30	R&S	22/24/27, 15C 15B
6251	Temperature Test Chamber	VT4002	Vötsch	22/24/27, 15C 15B
6243	Power Splitter	1167B	Agilent	22/24/27, 15C 15B
6245	Attenuator 10dB	BW-S10-2W263+	Mini-Circuits	22/24/27, 15C 15B
6244	Attenuator 20dB	BW-S20-2W263+	Mini-Circuits	22/24/27, 15C 15B

8.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
2388	Bluetooth Tester	CBT	R&S	15B
10479	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
2347	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2009	Signal Generator	SMP 22	R&S	22/24/27, 15C, 15B
2348	Controller	G-1000DXC	Yaesu	22/24/27, 15C, 15B
2349	Computer Controller	g-1000DXC	Yaesu	22/24/27, 15C, 15B
2116	Controller	EMCO 2090	ETS	22/24/27, 15C, 15B
2109	Power Supply	PL330QMD	Thurlby	22/24/27, 15C, 15B
2353	Receiver	ESIB26	R&S	22/24/27, 15C, 15B
6115	Open switch and control unit	OSP 130	R&S	22/24/27, 15C 15B
6116	Open switch and control unit	OSP 150	R&S	22/24/27, 15C 15B

Eq. No	Equipment	Type	Manufacturer	Used in
6117	Open switch and control unit	OSP 150	R&S	22/24/27, 15C, 15B
6131	Notch Filter	WRCT902.4-0.4/40-8SS	Wainwright	22/24/27, 15C, 15B
6130	Notch Filter	WRCD1880-1.1.25/50-10SS	Wainwright	22/24/27
6159	Band Reject Filter	WRCD1747.8-0.4/40-5SS	Wainwright	22/24/27, 15C, 15B
6158	Band Reject Filter	WRCT836.6-0.4/40-8SS	Wainwright	22/24/27, 15C, 15B
6197	Band Reject Filter	WRCJV2531/2539-2523/2547-60/12SS	Wainwright	22/24/27, 15C, 15B
2231	Band Reject Filter	WRCG1947/1953-1940/1960-40/6SS	Wainwright	22/24/27, 15C, 15B
2391	Band Reject Filter	WRCG1729.4/1735.4-1722.4/1742.4-40/6SS	Wainwright	27
2386	Band Reject Filter	WRCG1764.4/1770.4-1760.4/1774.4-40/6SS	Wainwright	22/24/27, 15C, 15B
2385	Band Reject Filter	WRCG1744.4/1750.4-1740.4/1754.4-40/6SS	Wainwright	22/24/27, 15C, 15B
2357	Band Reject Filter	WRCG2400/2483-2390/2493-35/10SS	Wainwright	15C
2188	Preamplifier	AFS4-00100300-20-23P-6	Miteq	22/24/27, 15C, 15B
6195	High Pass Filter	-	Wainwright	22/24/27, 15C, 15B
2364	Band Reject Filter	WRCG1877/1883 - 1870/1890-40/6SS	Wainwright	24
2361	Anechoic Chamber	3 m Semi / Full Anechoic Chamber	Euroshield	22/24/27, 15C, 15B
6212	Antenna Array system	-	TCC	22/24/27, 15C, 15B
-	RF immunity / Emission Software	EMC32	R&S	22/24/27, 15C, 15B
6089	Antenna	HFH2-Z2	R&S	15C, 15B
2027	CDN	M2 (modified) DC1	MEB	22/24/27, 15C, 15B
2028	CDN	M3 (modified) DC2	MEB	22/24/27, 15C, 15B
2176	CDN	CDN 801-M3	Lüthi	22/24/27, 15C, 15B
2135	CDN	CDN 801-M3	Lüthi	22/24/27, 15C, 15B
2029	Power Supply	PL330	Thurlby	22/24/27, 15C
6038	Data Logger	Testo 580	Testo	22/24/27, 15C, 15B
6037	Data Logger	175-H2	Testo	22/24/27, 15C, 15B
6039	USB Interface	5541765	Testo	22/24/27, 15C, 15B