

FCC Part 15E Compliance Test Report

Test Report no.:	FCC15E_RM-937_21.docx	Date of Report:	30-Sep-2013
Number of pages:	117	Customer's Contact person:	Lasse Vaattovaara
Testing laboratory:	TCC Nokia Salo Laboratory P.O.Box(86) Joensuunkatu 7H / Kiila 1B FIN-24101 SALO, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 45220	Customer:	Nokia Corporation P.O.Box(86) Joensuunkatu 7 FIN-24101 SALO, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 45220
FCC listing no.:	533467		
IC recognition no.:	661V-1		
Tested devices/ accessories:	Phone RM-937 / AC-Charger AC-60E / Headset WH-208 / CA-190CD		
FCC ID:	PYAC	IC:	-
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:			

Sami Lehtonen, Specialist, EMC

1. Summary for FCC Part 15E Compliance Test Report

Date of receipt	19-Jul-2013
Testing completed	31-Jul-2013
The customer's contact person	Lasse Vaattovaara
Test Plan referred to	T:\Projects\RM-940\TestPlan\RS_Testplan_RM-940.xlsm
Notes	-
Document name	T:\Projects\RM-937\EMC\FCC15E_RM-937_21.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-940	004402473425498	2102	-	1028.0301.1326	17563
AC-Charger	AC-60E	409049315461030285300675677	CE	-	-	17584
Data Cable	CA-190CD	-	CE	-	-	17585
Headset	WH-208	2131731	CE	-	-	17586
Phone	RM-940	004402473425951	2100	-	1028.0301.1326.10115	17583
Phone	RM-940	004402473425571	2100	-	1028.0305.1328.22293	17579
AC-Charger	AC-60E	409049315461030267600675677	-	-	-	17580
Headset	WH-208	2131731	-	-	-	17581
Data Cable	CA-190CD	-	CE	-	-	17608

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	NP
15.407(a)(6)	A9.2	Peak excursion	PASSED
15.407(b)	A9.2	Spurious radiated emissions	NP
15.407(b)(6)	A9.2	AC powerline conducted emissions	PASSED
-	A9.2	26dB(bandwidth)	PASSED
15.407(a)	A9.2	Power spectral density	PASSED

PASSED

The EUT complies with the essential requirements in the standard.

FAILED

The EUT does not comply with the essential requirements in the standard.

NP

The test was not performed by the TCC Nokia Laboratory.

The test results of PYAB are re-used for certification of the PYARM-937. The table above indicates the results, which will be re-used.

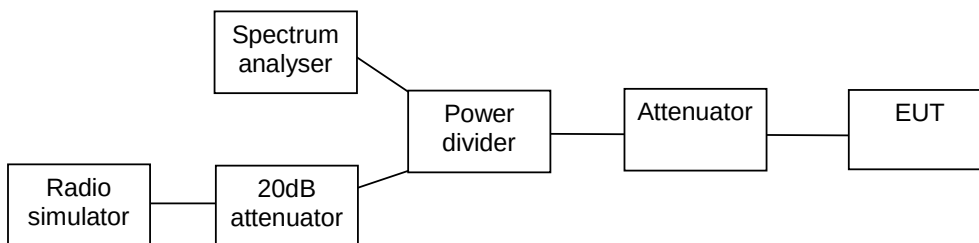
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2. Maximum conducted output power (FCC §15.407 (a), RSS-210 A9.2)

EUT with DUT number	RM-940, DUT 17563
Accessories with DUT numbers	AC-60E, DUT 17584; CA-190CD, DUT 17585; WH-208, DUT 17586
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 44 / 101
Date of measurements	16-Jul-2013
Measured by	Tomi Lipponen

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, all modes

Channel / fC [MHz]	Mode	Modulation	Data rate	Level [dBm]
36 / 5180	802.11a	BPSK	6 Mbps	11.44
36 / 5180	802.11a	BPSK	9 Mbps	11.02
36 / 5180	802.11a	QPSK	12 Mbps	11.06
36 / 5180	802.11a	QPSK	18 Mbps	11.56
36 / 5180	802.11a	16QAM	24 Mbps	11.36
36 / 5180	802.11a	16QAM	36 Mbps	11.1
36 / 5180	802.11a	64QAM	48 Mbps	10.15
36 / 5180	802.11a	64QAM	54 Mbps	10.18
36 / 5180	802.11n	BPSK	6.5 / 7.25 Mbps	11.07
36 / 5180	802.11n	QPSK	13.0 / 14.4 Mbps	11.34
36 / 5180	802.11n	QPSK	19.5 / 21.7 Mbps	11.17
36 / 5180	802.11n	16QAM	26.0 / 28.9 Mbps	10.38
36 / 5180	802.11n	16QAM	39.0 / 43.3 Mbps	10.37
36 / 5180	802.11n	64QAM	52.0 / 57.8 Mbps	9.39
36 / 5180	802.11n	64QAM	58.5 / 65.0 Mbps	8.1
36 / 5180	802.11n	64QAM	65.0 / 72.2 Mbps	8.1
36 / 5180	802.11ac	256QAM	78.0 / 86.7 Mbps	5.84
36+40 / 5190	802.11n	BPSK	13.5 / 15.0 Mbps	9.81
36+40 / 5190	802.11n	QPSK	27.0 / 30.0 Mbps	9.86
36+40 / 5190	802.11n	QPSK	40.5 / 45.0 Mbps	8.92
36+40 / 5190	802.11n	16QAM	54.0 / 60.0 Mbps	9.08
36+40 / 5190	802.11n	16QAM	81.0 / 90.0 Mbps	8.1
36+40 / 5190	802.11n	64QAM	108.0 / 120.0 Mbps	8.09
36+40 / 5190	802.11n	64QAM	121.5 / 135.0 Mbps	7.09
36+40 / 5190	802.11n	64QAM	135.0 / 150.0 Mbps	6.09
36+40 / 5190	802.11ac	256QAM	162.0 / 180.0 Mbps	4.92
36+40 / 5190	802.11ac	256QAM	180.0 / 200.0 Mbps	4.97
36-48 / 5210	802.11ac	BPSK	29.3 / 32.5 Mbps	7.84
36-48 / 5210	802.11ac	QPSK	58.5 / 65.0 Mbps	7.84
36-48 / 5210	802.11ac	QPSK	87.8 / 97.5 Mbps	7.92
36-48 / 5210	802.11ac	16QAM	117.0 / 130.0 Mbps	6.69
36-48 / 5210	802.11ac	16QAM	175.5 / 195.0 Mbps	6.61
36-48 / 5210	802.11ac	64QAM	234.0 / 260.0 Mbps	5.49
36-48 / 5210	802.11ac	64QAM	263.3 / 292.5 Mbps	4.41
36-48 / 5210	802.11ac	64QAM	292.5 / 325.0 Mbps	4.53
36-48 / 5210	802.11ac	256QAM	351.0 / 390.0 Mbps	3.74
36-48 / 5210	802.11ac	256QAM	390.0 / 433.3 Mbps	3.52

2.4. Power results summary, selected modes

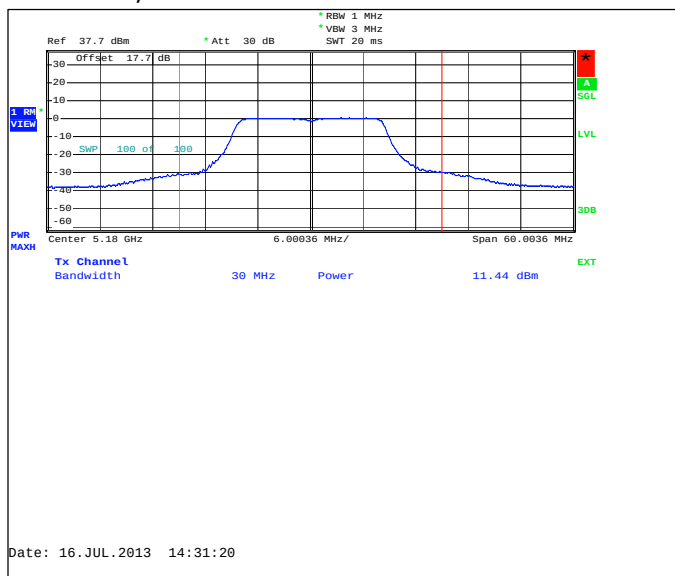
40 / 5200	802.11a	BPSK	6 Mbps	12.09
48 / 5240	802.11a	BPSK	6 Mbps	12.12
52 / 5260	802.11a	BPSK	6 Mbps	11.97
60 / 5300	802.11a	BPSK	6 Mbps	11.92
64 / 5320	802.11a	BPSK	6 Mbps	11.82
100 / 5500	802.11a	BPSK	6 Mbps	11.46
116 / 5580	802.11a	BPSK	6 Mbps	11.35
140 / 5700	802.11a	BPSK	6 Mbps	11.08
40 / 5200	802.11a	QPSK	18 Mbps	11.61
48 / 5240	802.11a	QPSK	18 Mbps	11.63
52 / 5260	802.11a	QPSK	18 Mbps	11.47
60 / 5300	802.11a	QPSK	18 Mbps	11.15
64 / 5320	802.11a	QPSK	18 Mbps	11.21
100 / 5500	802.11a	QPSK	18 Mbps	10.96
116 / 5580	802.11a	QPSK	18 Mbps	10.81
140 / 5700	802.11a	QPSK	18 Mbps	10.65
44+48 / 5230	802.11n	BPSK	13.5 / 15.0 Mbps	9.99
52+56 / 5270	802.11n	BPSK	13.5 / 15.0 Mbps	9.77
60+64 / 5310	802.11n	BPSK	13.5 / 15.0 Mbps	9.83
100+104 / 5510	802.11n	BPSK	13.5 / 15.0 Mbps	9.56
108+112 / 5550	802.11n	BPSK	13.5 / 15.0 Mbps	9.09
132+136 / 5670	802.11n	BPSK	13.5 / 15.0 Mbps	9.03
44+48 / 5230	802.11n	QPSK	27.0 / 30.0 Mbps	10.02
52+56 / 5270	802.11n	QPSK	27.0 / 30.0 Mbps	9.68
60+64 / 5310	802.11n	QPSK	27.0 / 30.0 Mbps	9.73
100+104 / 5510	802.11n	QPSK	27.0 / 30.0 Mbps	9.46
108+112 / 5550	802.11n	QPSK	27.0 / 30.0 Mbps	8.98
132+136 / 5670	802.11n	QPSK	27.0 / 30.0 Mbps	8.94
52-64 / 5290	802.11ac	BPSK	29.3 / 32.5 Mbps	8.96
100-112 / 5530	802.11ac	BPSK	29.3 / 32.5 Mbps	8.46
52-64 / 5290	802.11ac	QPSK	87.8 / 97.5 Mbps	8.72
100-112 / 5530	802.11ac	QPSK	87.8 / 97.5 Mbps	8.69

2.5. 5 GHz RLAN Test results

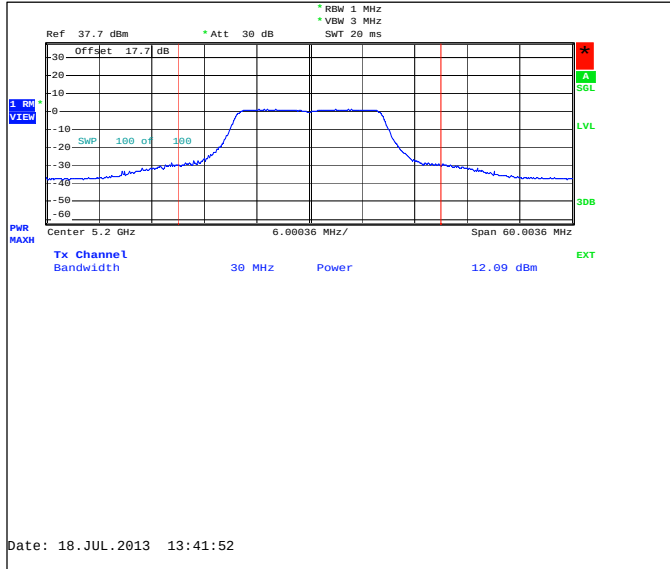
2.5.1 802.11a mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.44	13.932	PASSED
40 / 5200	12.09	16.181	PASSED
48 / 5240	12.12	16.293	PASSED
52 / 5260	11.97	15.74	PASSED
60 / 5300	11.92	15.56	PASSED
64 / 5320	11.82	15.205	PASSED
100 / 5500	11.46	13.996	PASSED
116 / 5580	11.35	13.646	PASSED
140 / 5700	11.08	12.823	PASSED

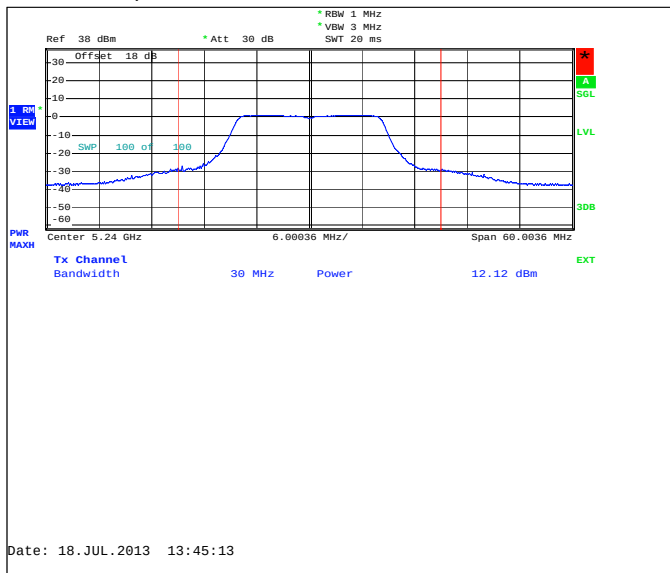
Channel 36 / 5180MHz



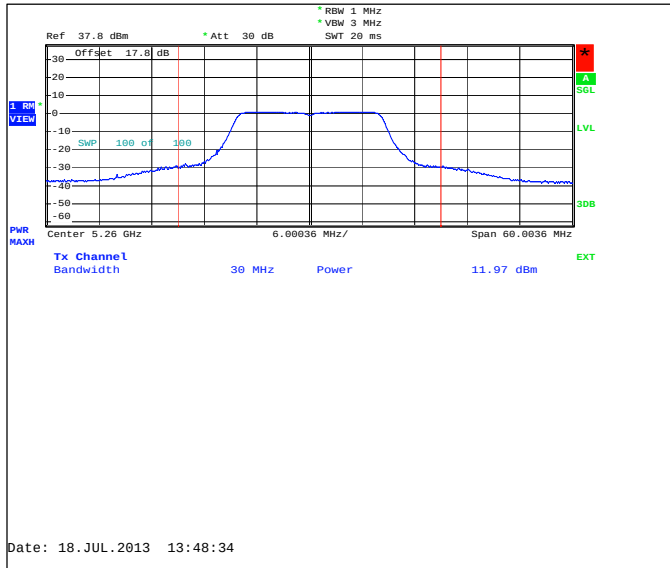
Channel 40 / 5200MHz



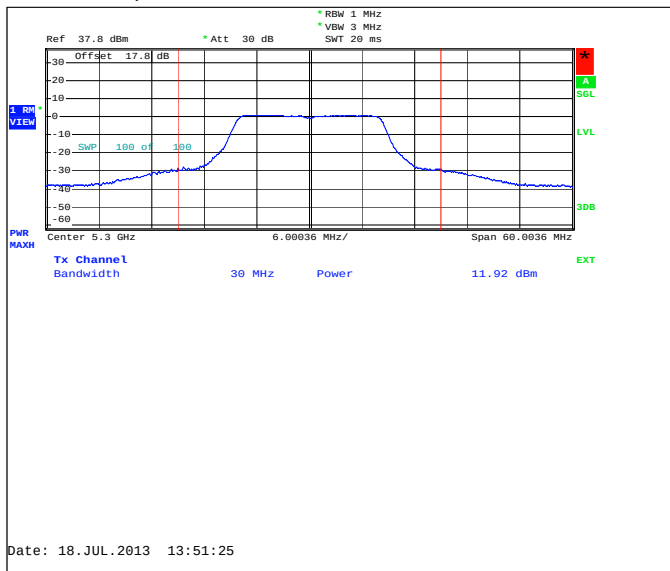
Channel 48 / 5240MHz



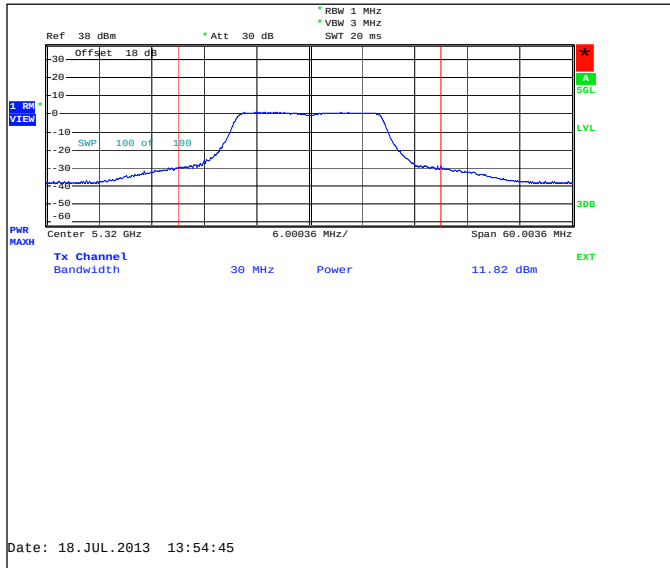
Channel 52 / 5260MHz



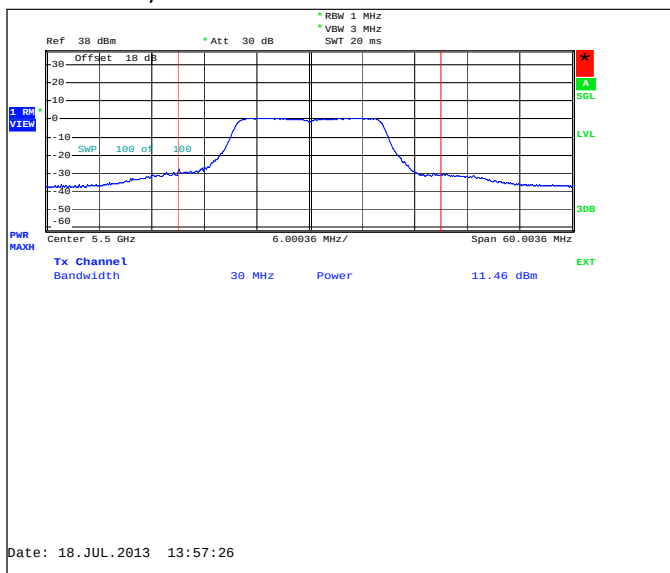
Channel 60 / 5300MHz



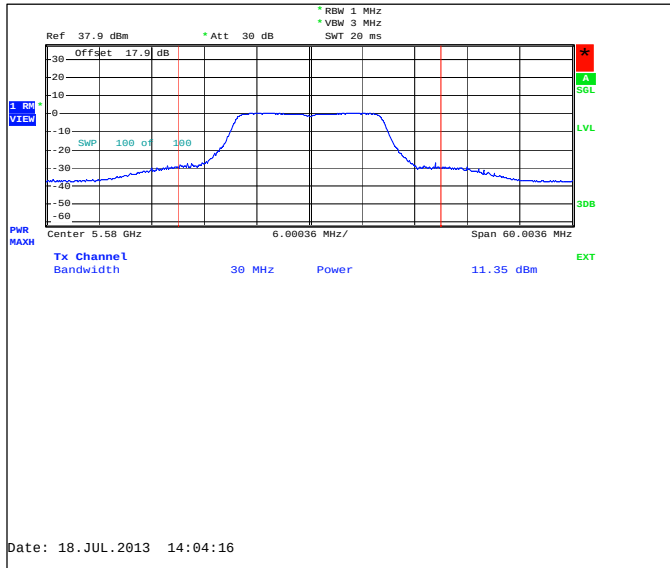
Channel 64 / 5320MHz



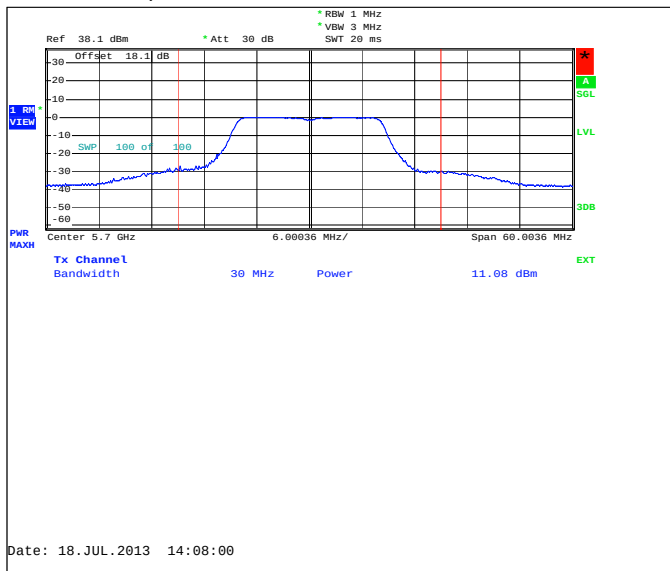
Channel 100 / 5500MHz



Channel 116 / 5580MHz



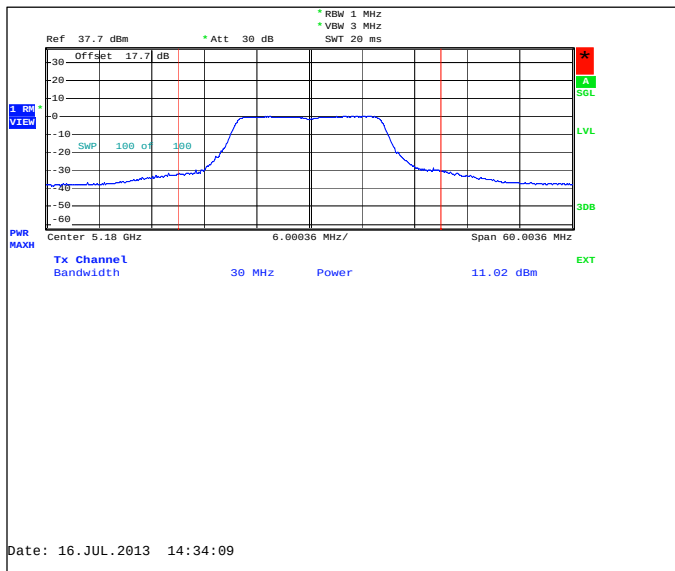
Channel 140 / 5700MHz



2.5.2 802.11a mode, BPSK modulation, 9 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.02	12.647	PASSED

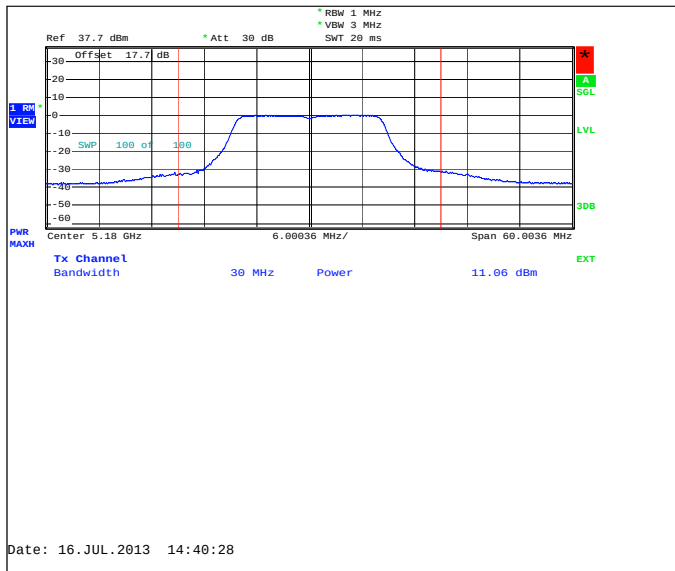
Channel 36 / 5180MHz



2.5.3 802.11a mode, QPSK modulation, 12 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.06	12.764	PASSED

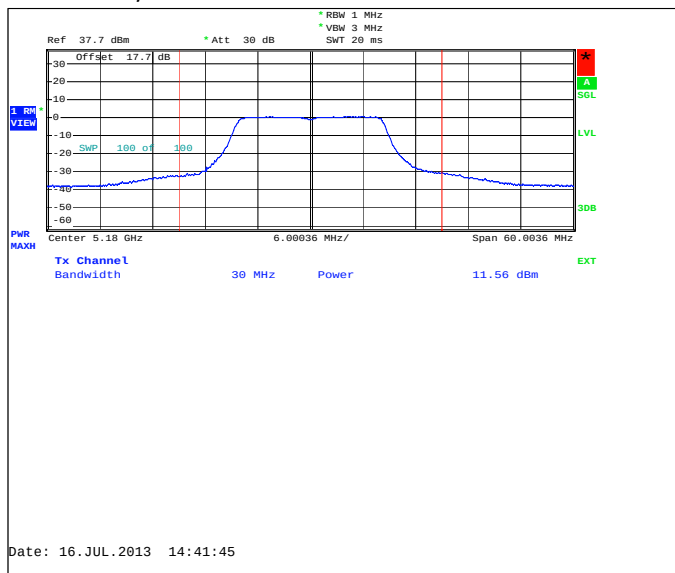
Channel 36 / 5180MHz



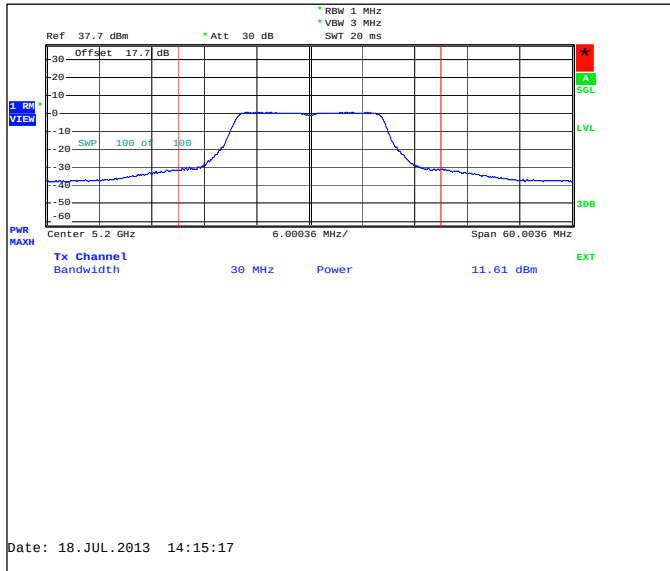
2.5.4 802.11a mode, QPSK modulation, 18 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.56	14.322	PASSED
40 / 5200	11.61	14.488	PASSED
48 / 5240	11.63	14.555	PASSED
52 / 5260	11.47	14.028	PASSED
60 / 5300	11.15	13.032	PASSED
64 / 5320	11.21	13.213	PASSED
100 / 5500	10.96	12.474	PASSED
116 / 5580	10.81	12.05	PASSED
140 / 5700	10.65	11.614	PASSED

Channel 36 / 5180MHz



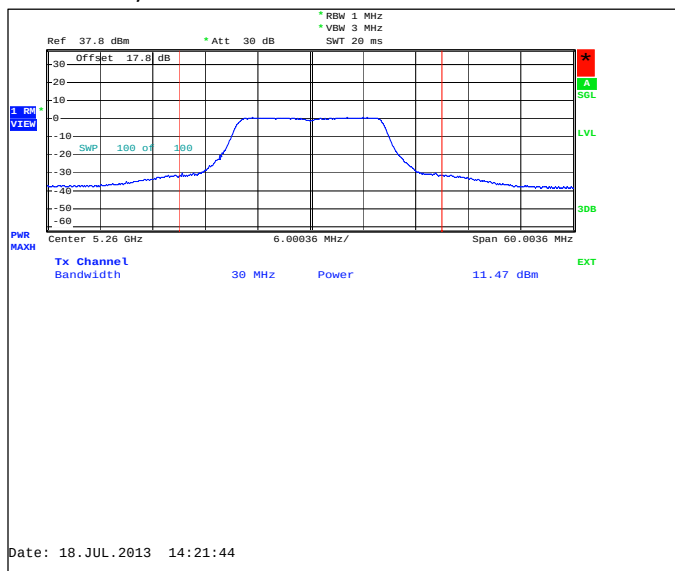
Channel 40 / 5200MHz



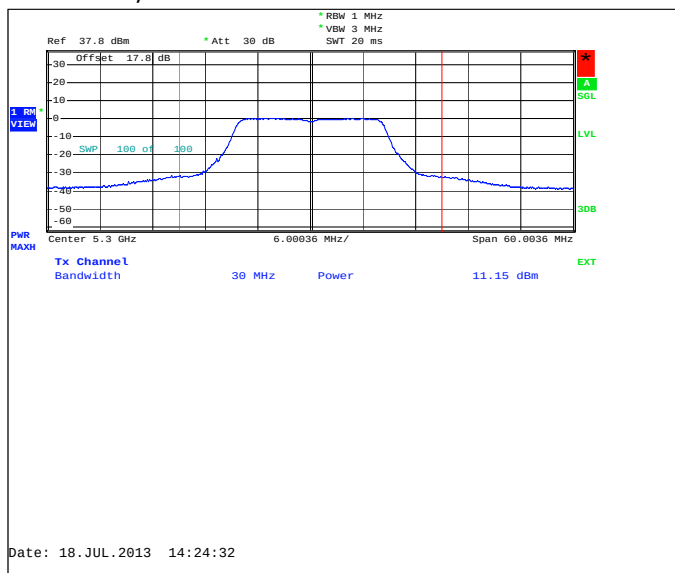
Channel 48 / 5240MHz



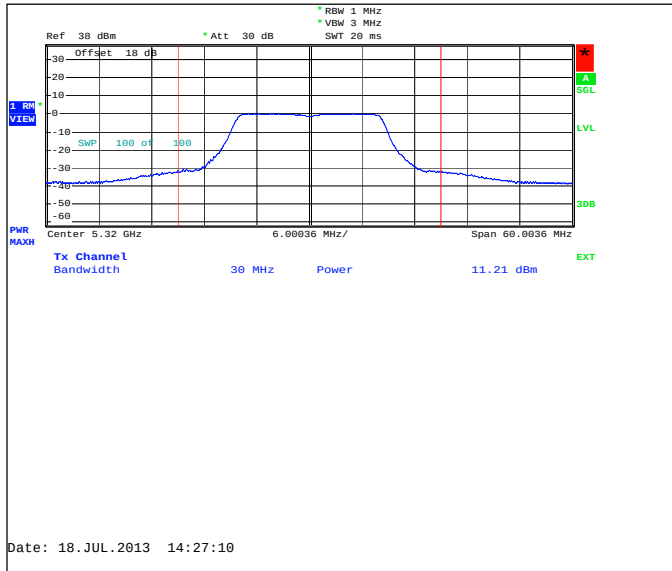
Channel 52 / 5260MHz



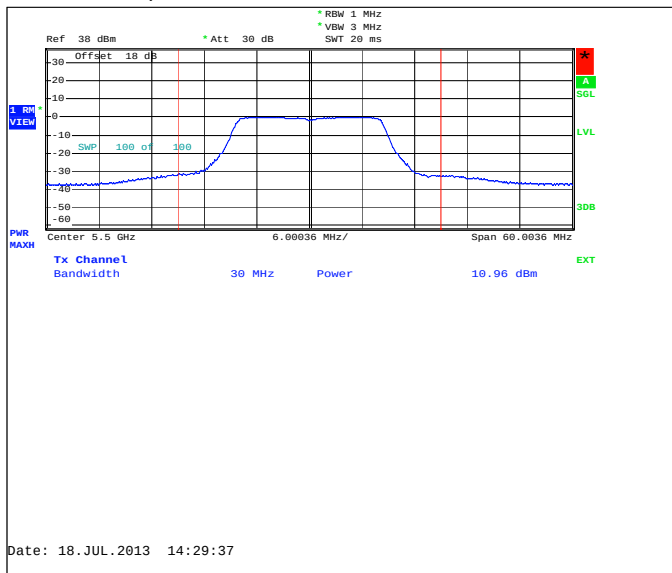
Channel 60 / 5300MHz



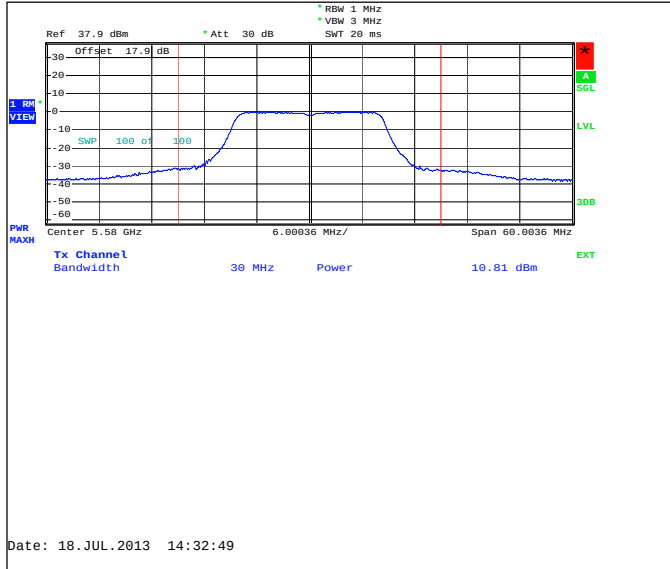
Channel 64 / 5320MHz



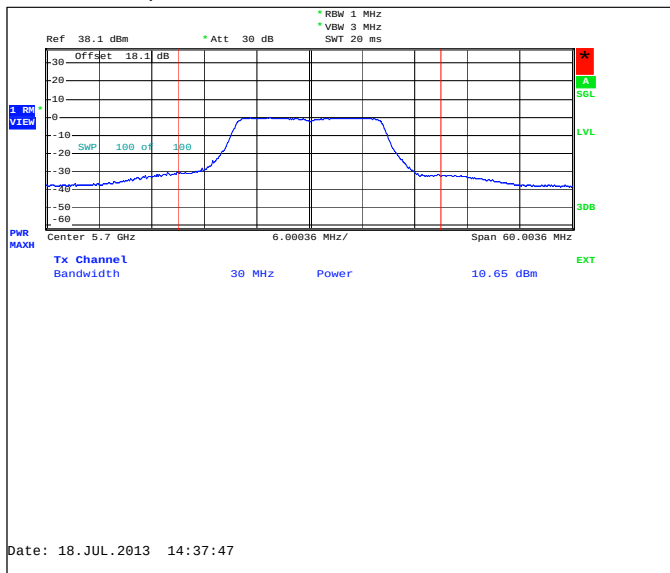
Channel 100 / 5500MHz



Channel 116 / 5580MHz



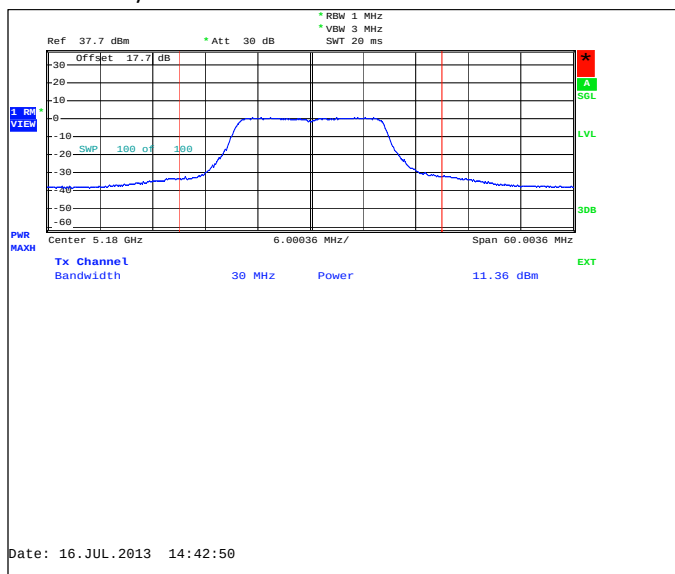
Channel 140 / 5700MHz



2.5.5 802.11a mode, 16QAM modulation, 24 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.36	13.677	PASSED

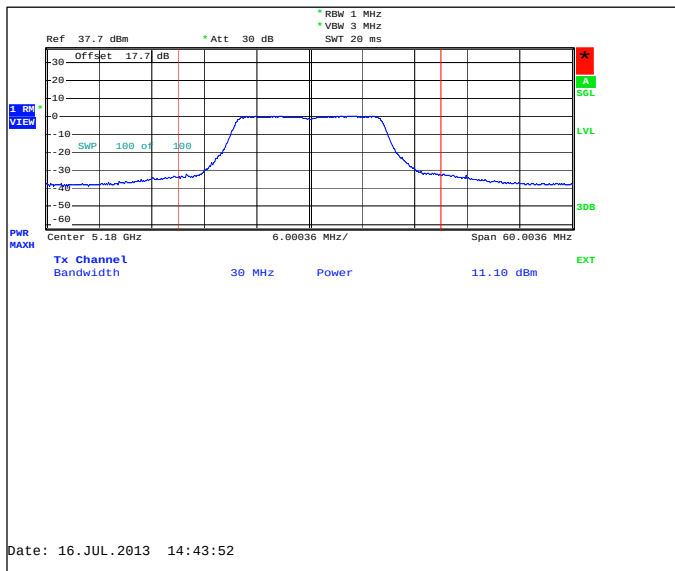
Channel 36 / 5180MHz



2.5.6 802.11a mode, 16QAM modulation, 36 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.1	12.882	PASSED

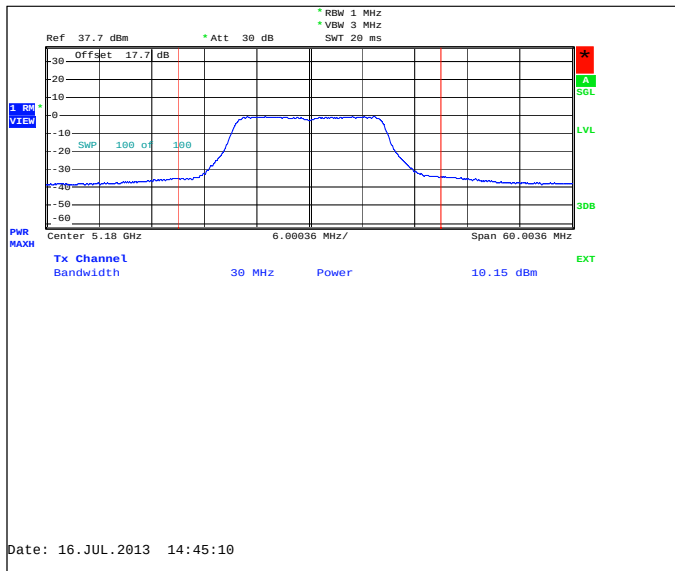
Channel 36 / 5180MHz



2.5.7 802.11a mode, 64QAM modulation, 48 Mbps data rate

Channel / f_c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	10.15	10.351	PASSED

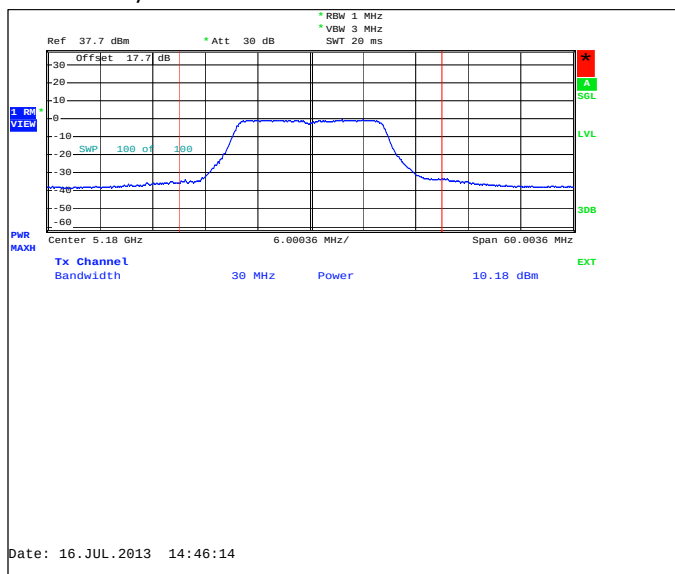
Channel 36 / 5180MHz



2.5.8 802.11a mode, 64QAM modulation, 54 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	10.18	10.423	PASSED

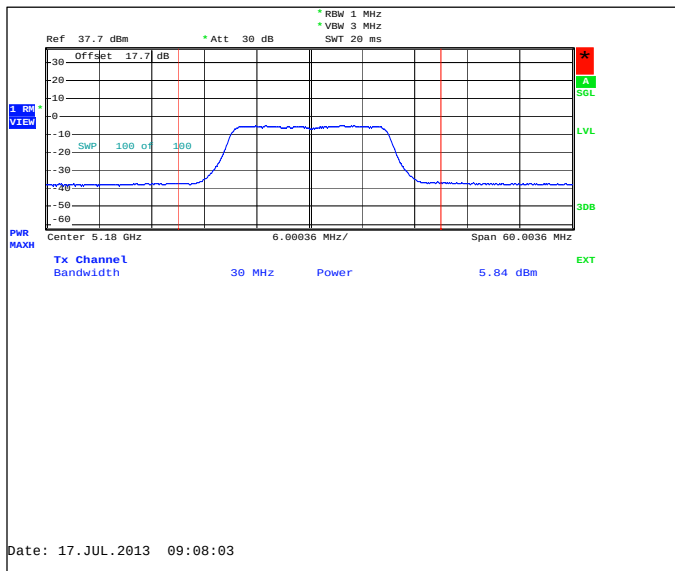
Channel 36 / 5180MHz



2.5.9 802.11ac mode, 256QAM modulation, 78.0 / 86.7 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	5.84	3.837	PASSED

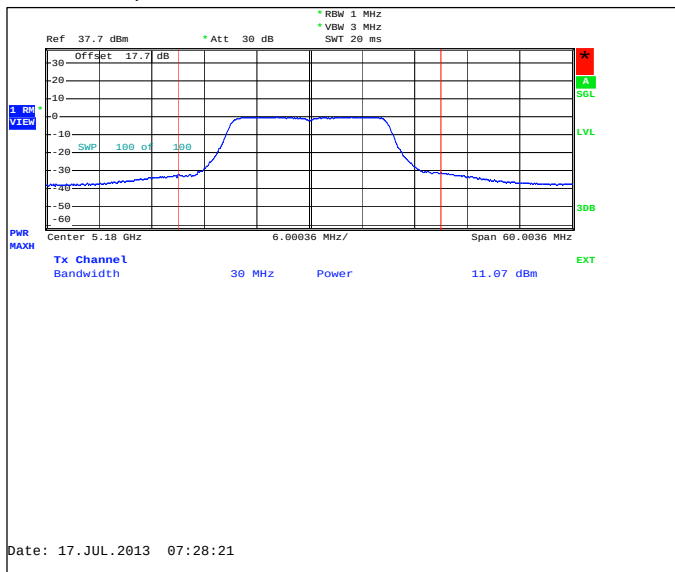
Channel 36 / 5180MHz



2.5.10 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.07	12.794	PASSED

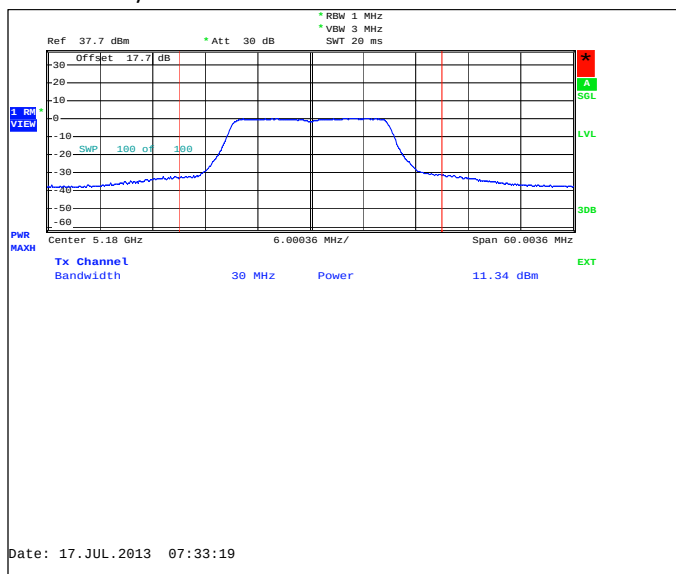
Channel 36 / 5180MHz



2.5.11 802.11n mode, QPSK modulation, 13.0 / 14.4 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.34	13.614	PASSED

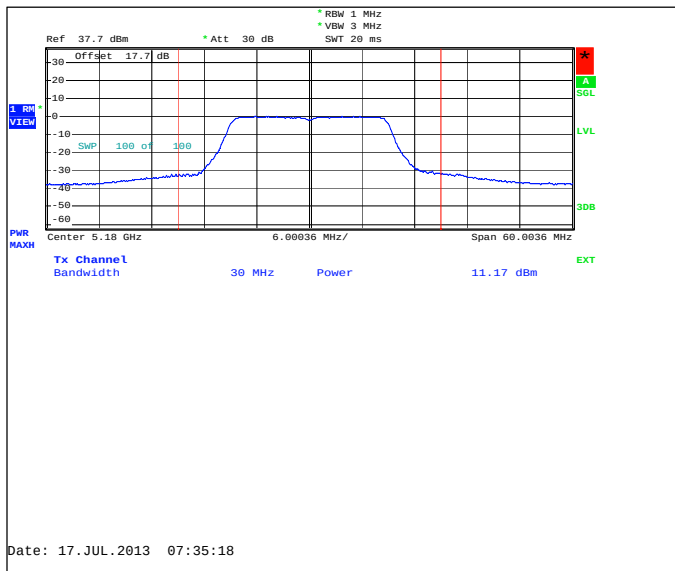
Channel 36 / 5180MHz



2.5.12 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	11.17	13.092	PASSED

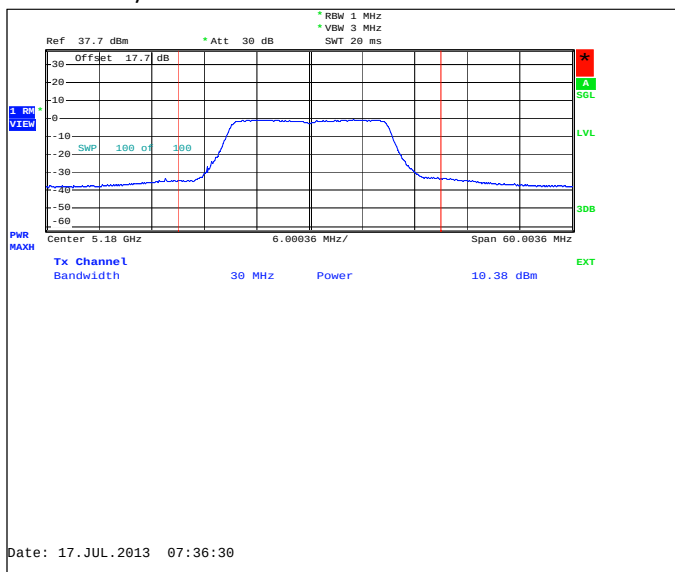
Channel 36 / 5180MHz



2.5.13 802.11n mode, 16QAM modulation, 26.0 / 28.9 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	10.38	10.914	PASSED

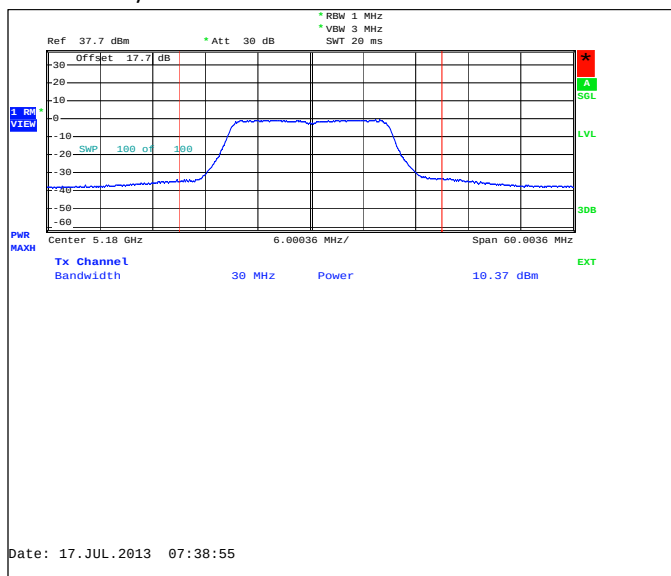
Channel 36 / 5180MHz



2.5.14 802.11n mode, 16QAM modulation, 39.0 / 43.3 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	10.37	10.889	PASSED

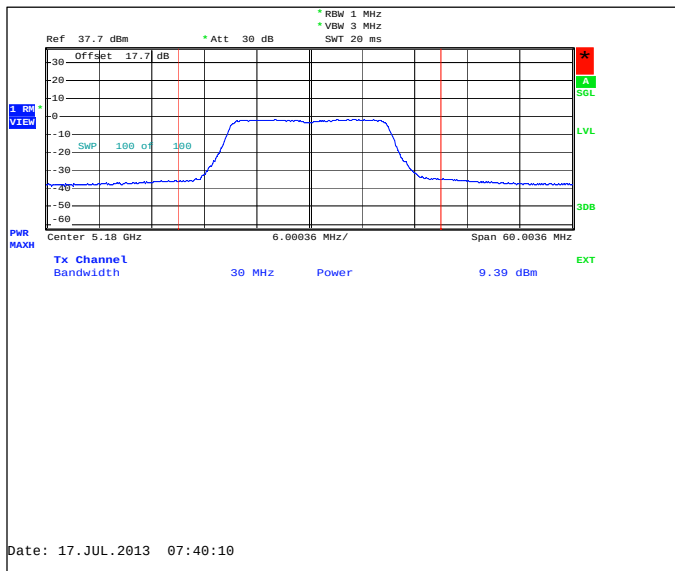
Channel 36 / 5180MHz



2.5.15 802.11n mode, 64QAM modulation, 52.0 / 57.8 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	9.39	8.69	PASSED

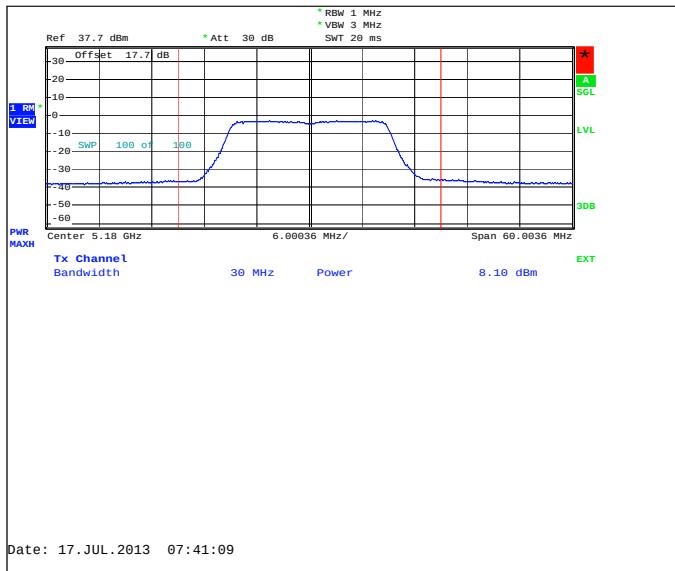
Channel 36 / 5180MHz



2.5.16 802.11n mode, 64QAM modulation, 58.5 / 65.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	8.1	6.457	PASSED

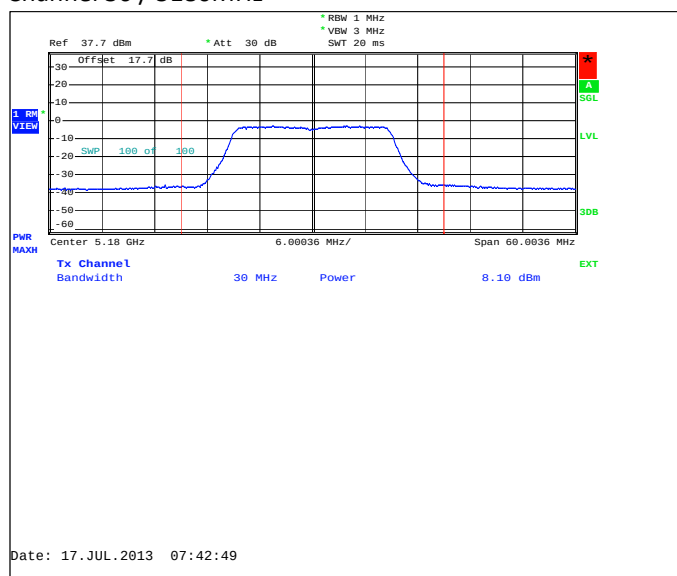
Channel 36 / 5180MHz



2.5.17 802.11n mode, 64QAM modulation, 65.0 / 72.2 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36 / 5180	8.1	6.457	PASSED

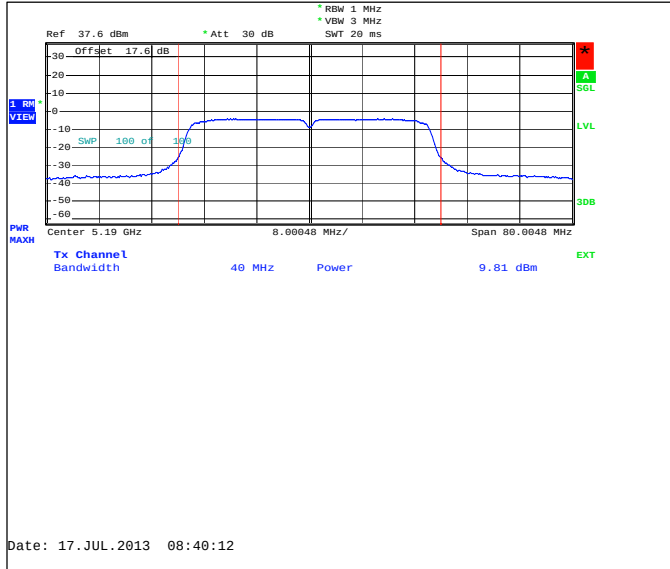
Channel 36 / 5180MHz



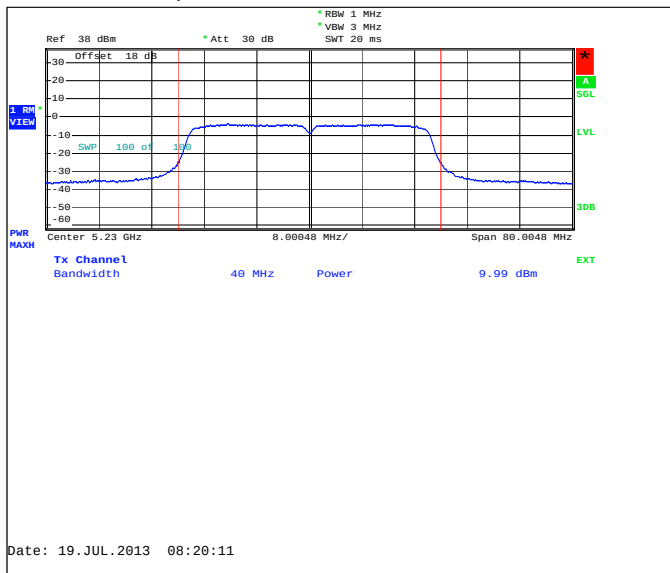
2.5.18 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	9.81	9.572	PASSED
44+48 / 5230	9.99	9.977	PASSED
52+56 / 5270	9.77	9.484	PASSED
60+64 / 5310	9.83	9.616	PASSED
100+104 / 5510	9.56	9.036	PASSED
108+112 / 5550	9.09	8.11	PASSED
132+136 / 5670	9.03	7.998	PASSED

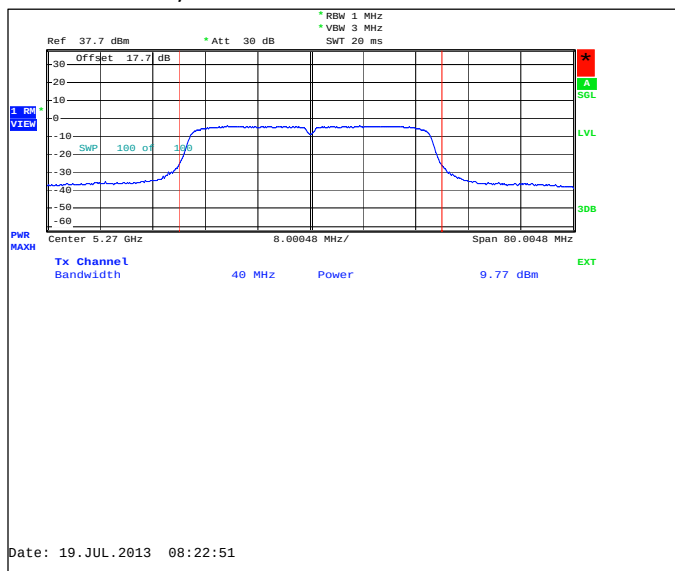
Channel 36+40 / 5190MHz



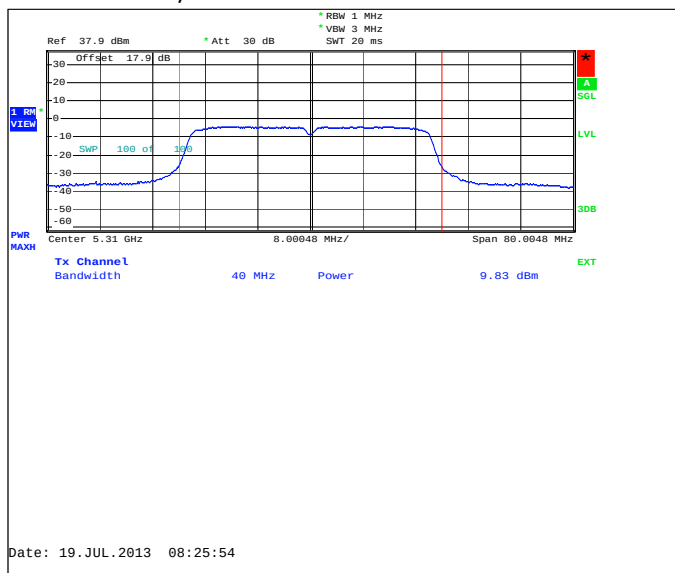
Channel 44+48 / 5230MHz



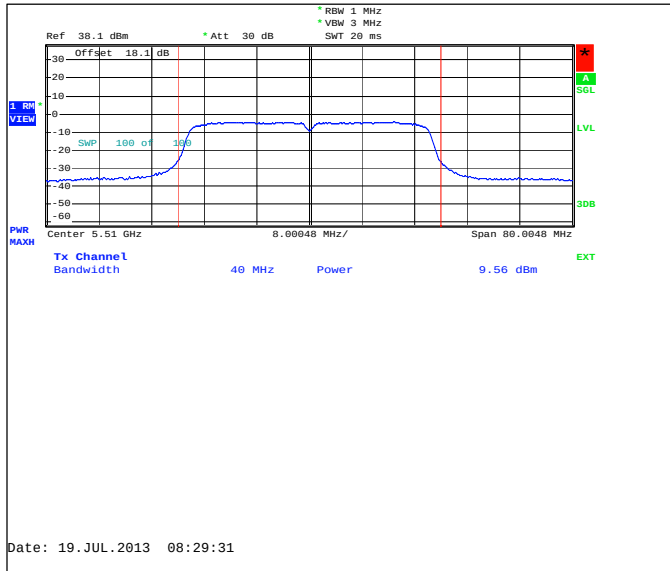
Channel 52+56 / 5270MHz



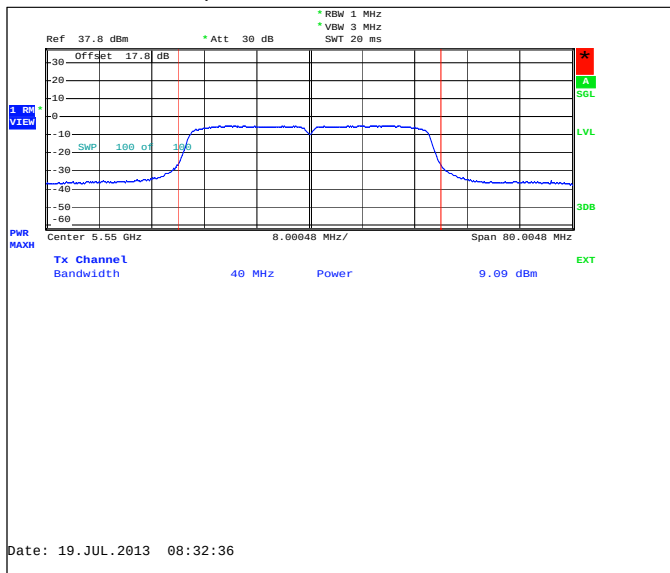
Channel 60+64 / 5310MHz



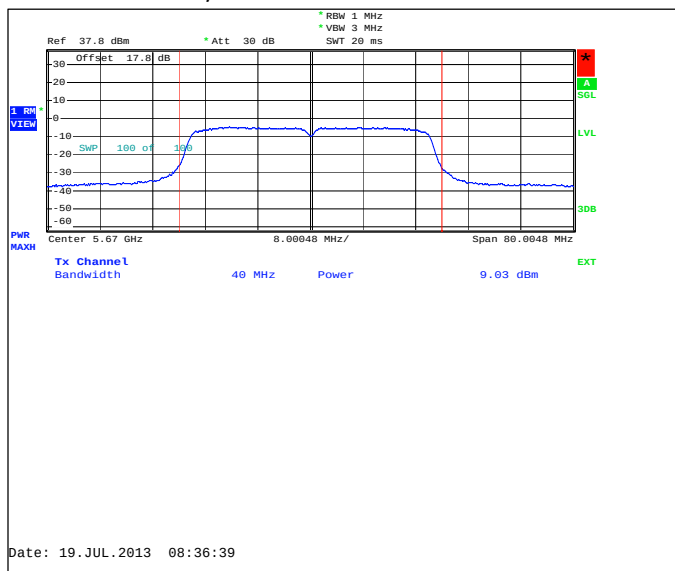
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



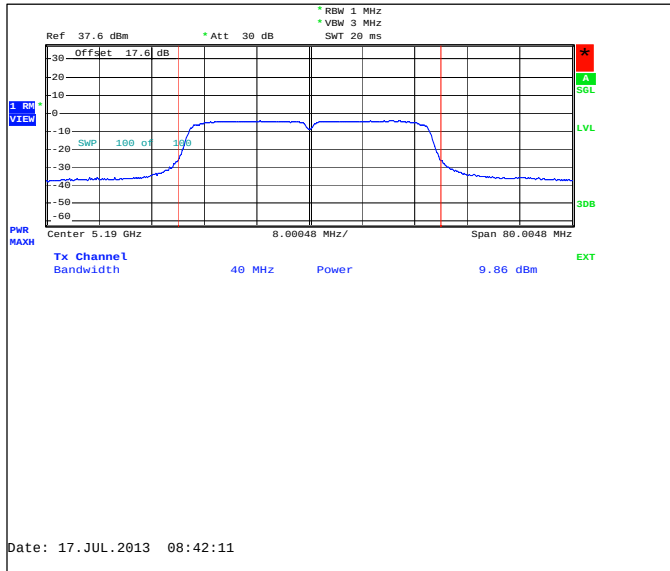
Channel 132+136 / 5670MHz



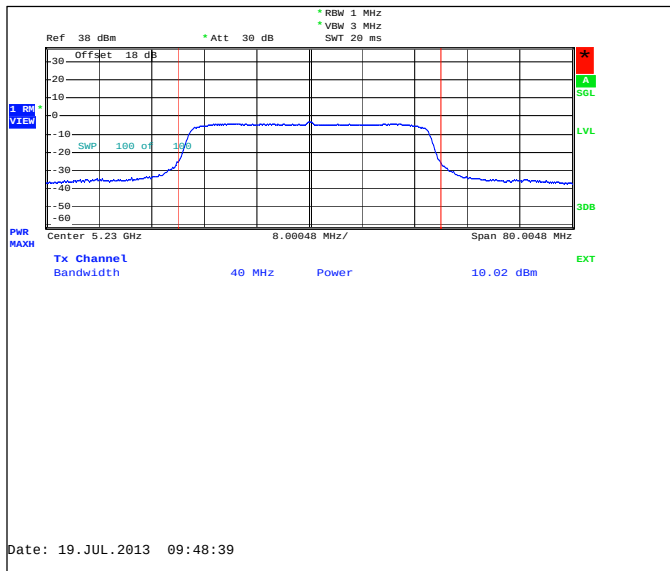
2.5.19 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	9.86	9.683	PASSED
44+48 / 5230	10.02	10.046	PASSED
52+56 / 5270	9.68	9.29	PASSED
60+64 / 5310	9.73	9.397	PASSED
100+104 / 5510	9.46	8.831	PASSED
108+112 / 5550	8.98	7.907	PASSED
132+136 / 5670	8.94	7.834	PASSED

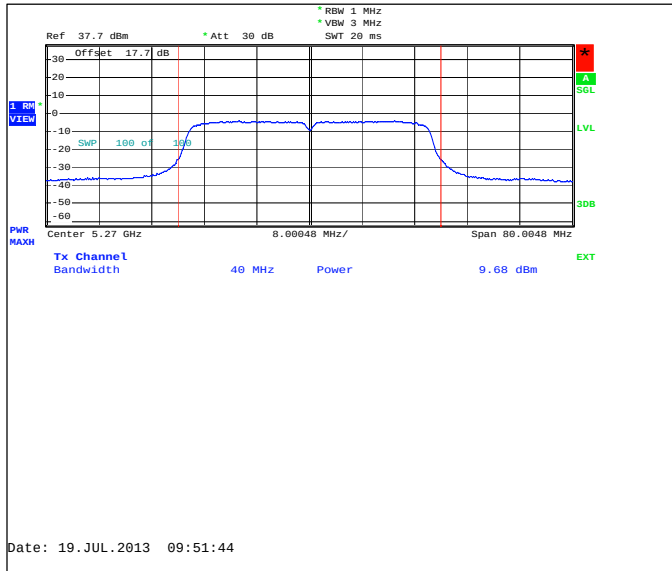
Channel 36+40 / 5190MHz



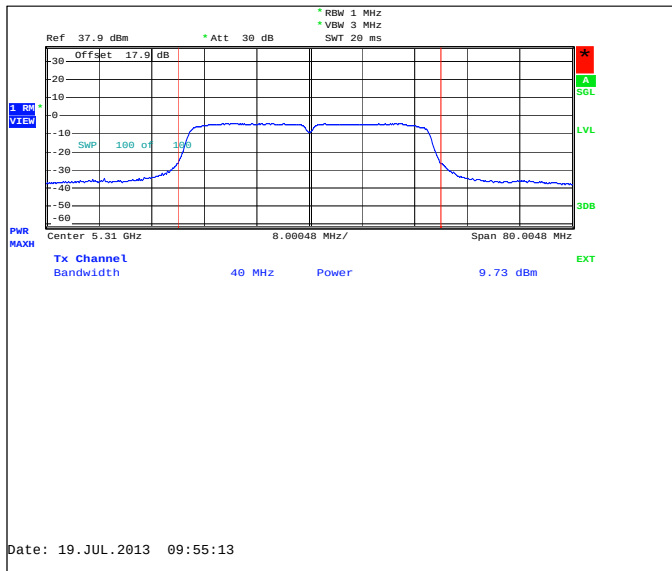
Channel 44+48 / 5230MHz



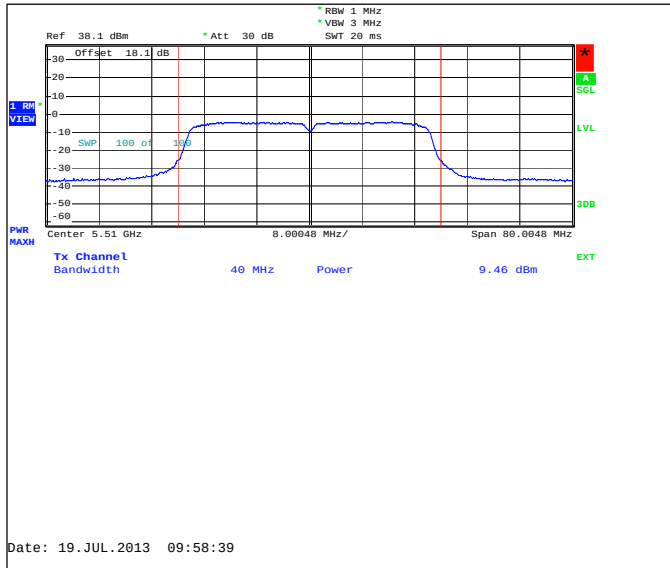
Channel 52+56 / 5270MHz



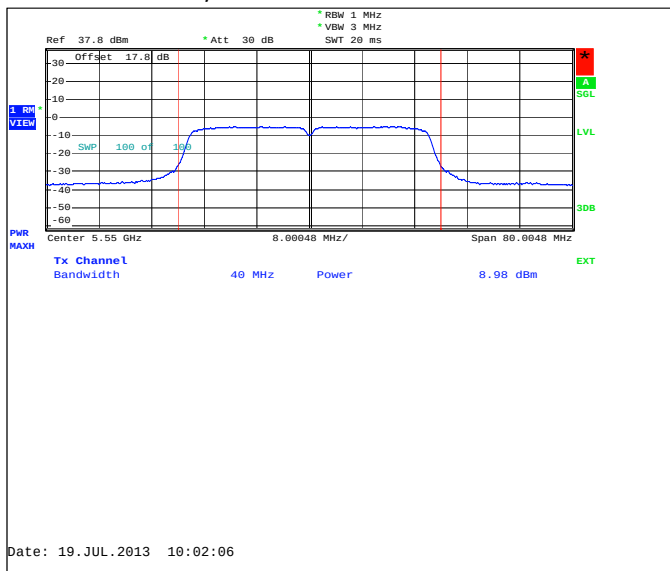
Channel 60+64 / 5310MHz



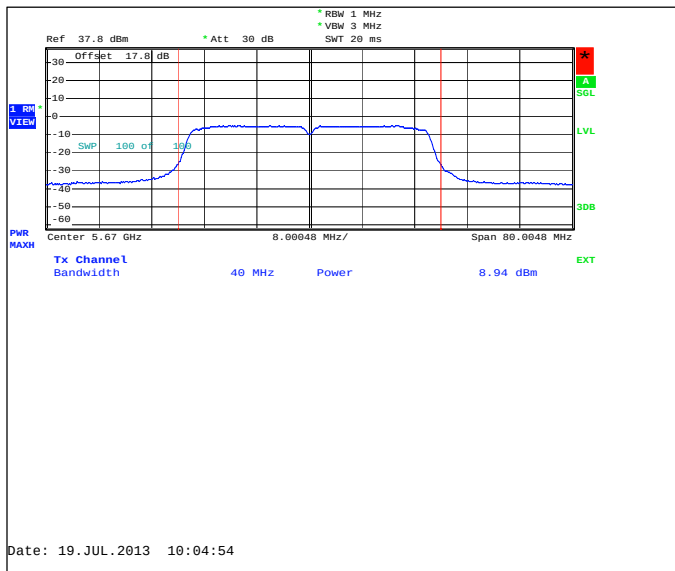
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



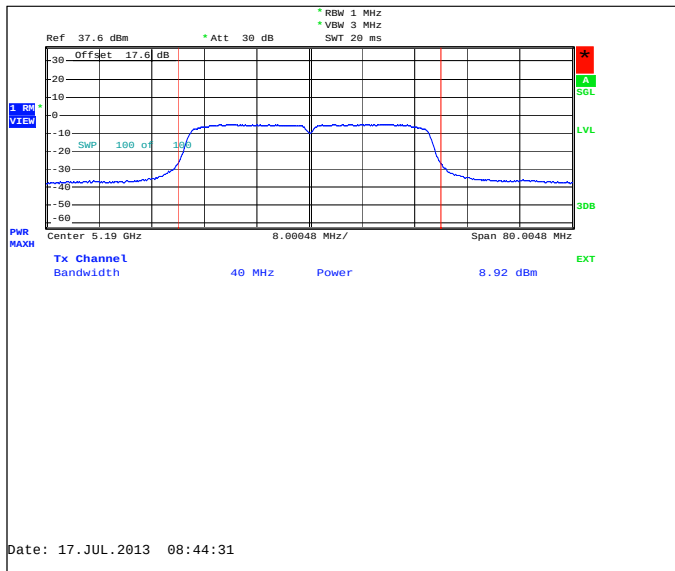
Channel 132+136 / 5670MHz



2.5.20 802.11n mode, QPSK modulation, 40.5 / 45.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	8.92	7.798	PASSED

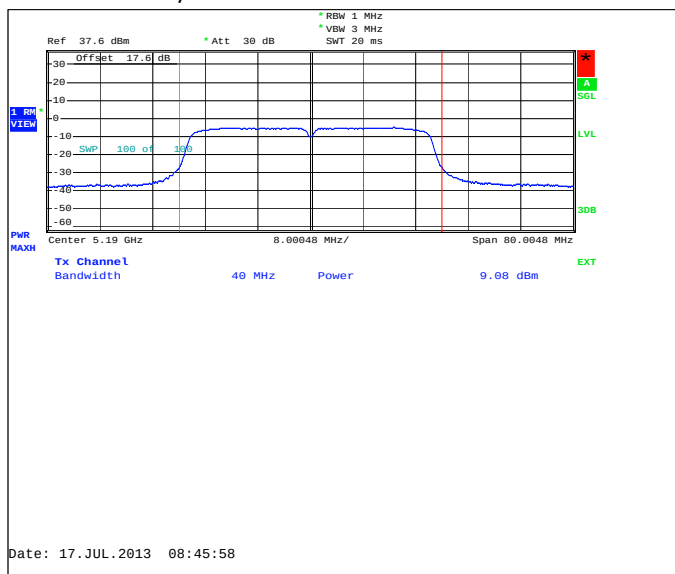
Channel 36+40 / 5190MHz



2.5.21 802.11n mode, 16QAM modulation, 54.0 / 60.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	9.08	8.091	PASSED

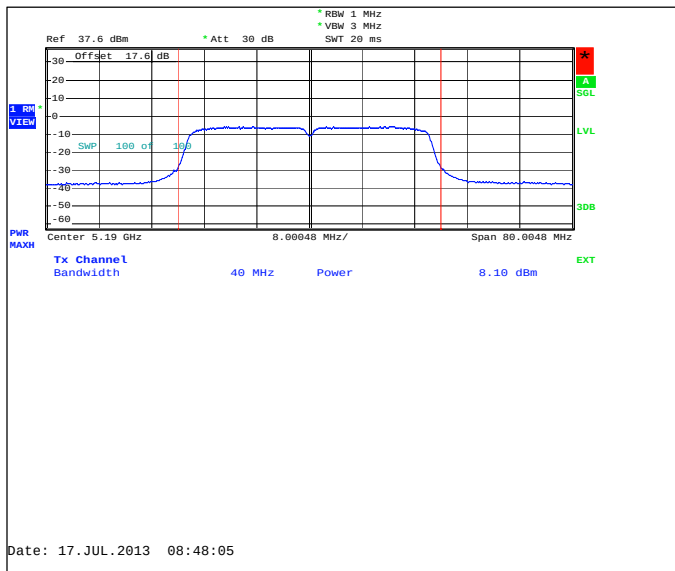
Channel 36+40 / 5190MHz



2.5.22 802.11n mode, 16QAM modulation, 81.0 / 90.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	8.1	6.457	PASSED

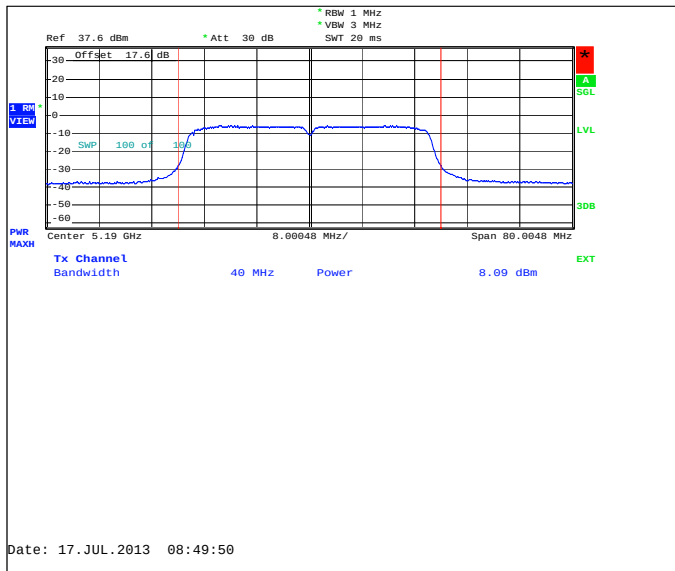
Channel 36+40 / 5190MHz



2.5.23 802.11n mode, 64QAM modulation, 108.0 / 120.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	8.09	6.442	PASSED

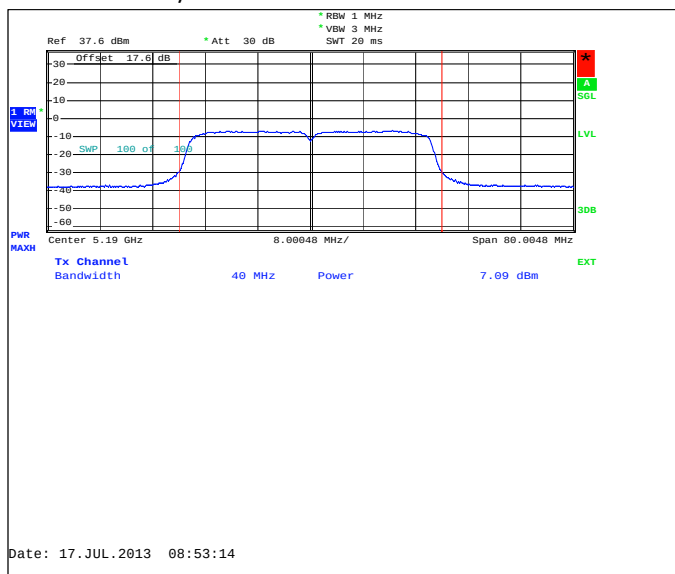
Channel 36+40 / 5190MHz



2.5.24 802.11n mode, 64QAM modulation, 121.5 / 135.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	7.09	5.117	PASSED

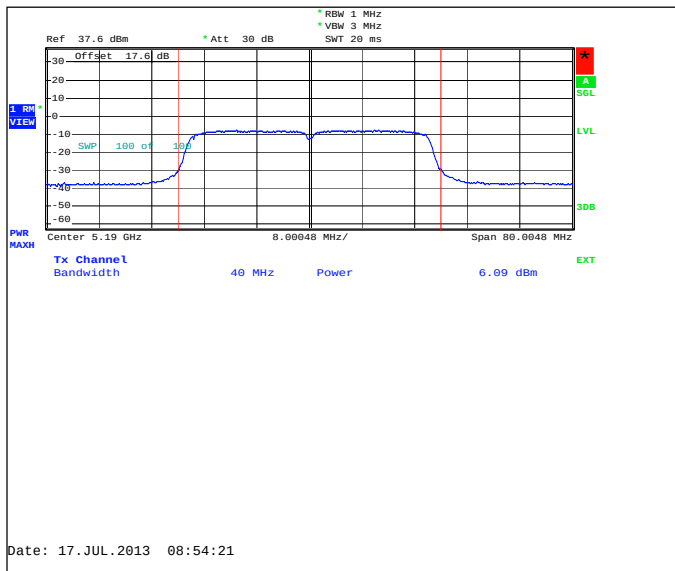
Channel 36+40 / 5190MHz



2.5.25 802.11n mode, 64QAM modulation, 135.0 / 150.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	6.09	4.064	PASSED

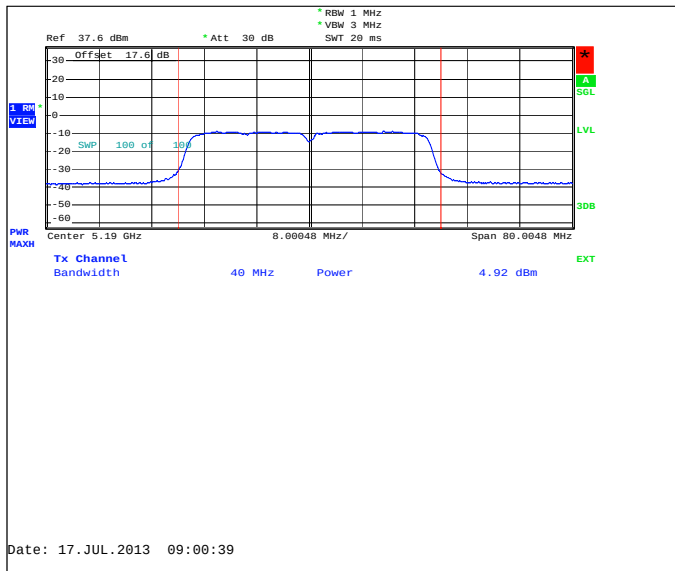
Channel 36+40 / 5190MHz



2.5.26 802.11ac mode, 256QAM modulation, 162.0 / 180.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	4.92	3.105	PASSED

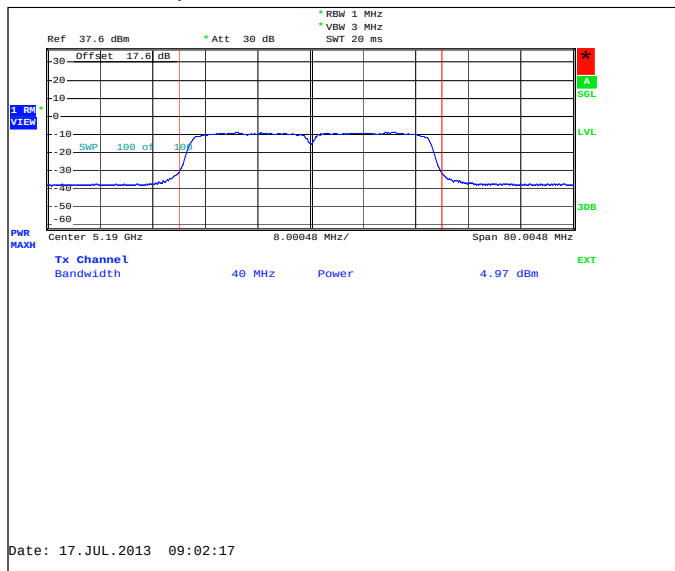
Channel 36+40 / 5190MHz



2.5.27 802.11ac mode, 256QAM modulation, 180.0 / 200.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36+40 / 5190	4.97	3.141	PASSED

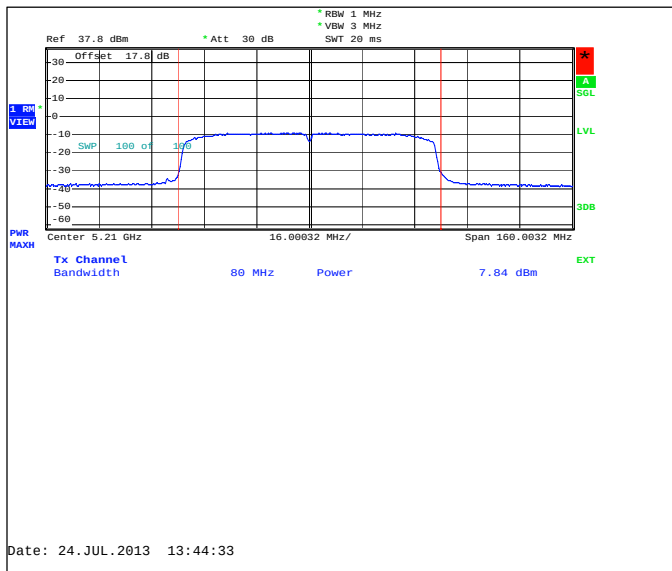
Channel 36+40 / 5190MHz



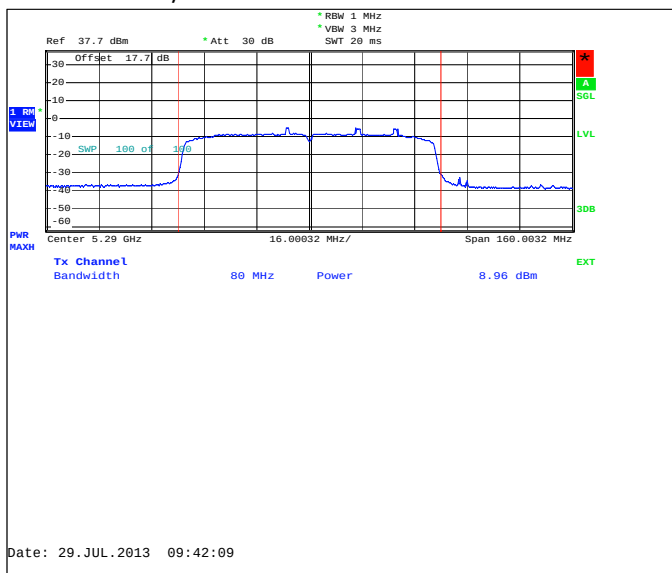
2.5.28 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	7.84	6.081	PASSED
52-64 / 5290	8.96	7.87	PASSED
100-112 / 5530	8.46	7.015	PASSED

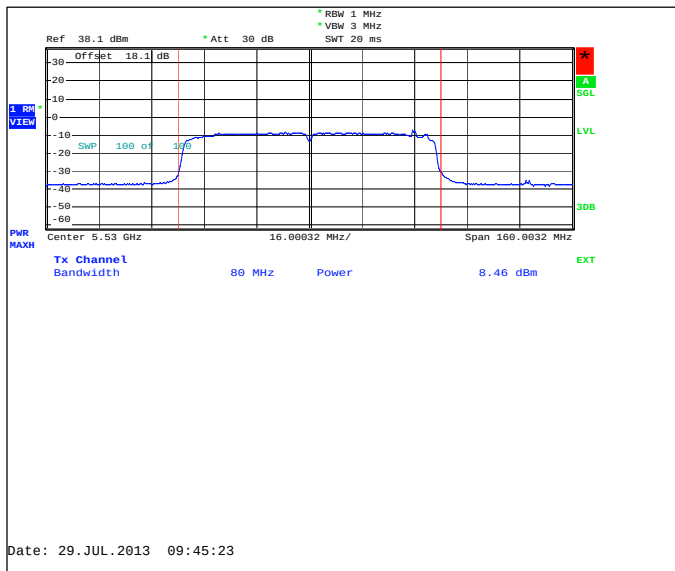
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



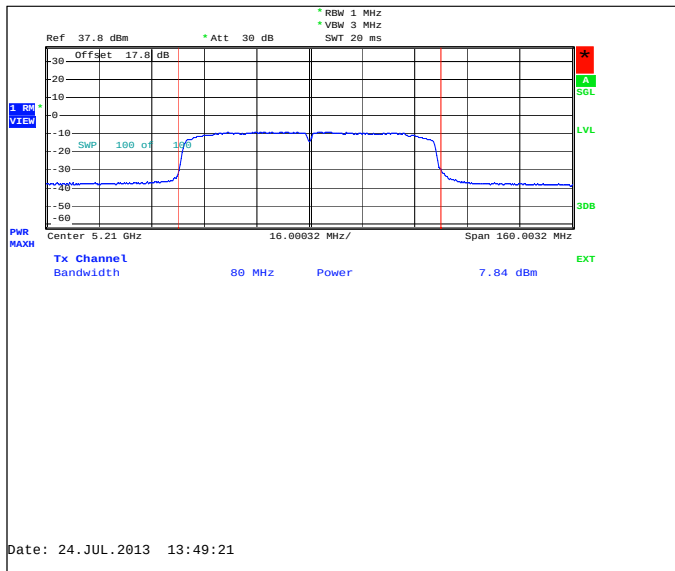
Channel 100-112 / 5530MHz



2.5.29 802.11ac mode, QPSK modulation, 58.5 / 65.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	7.84	6.081	PASSED

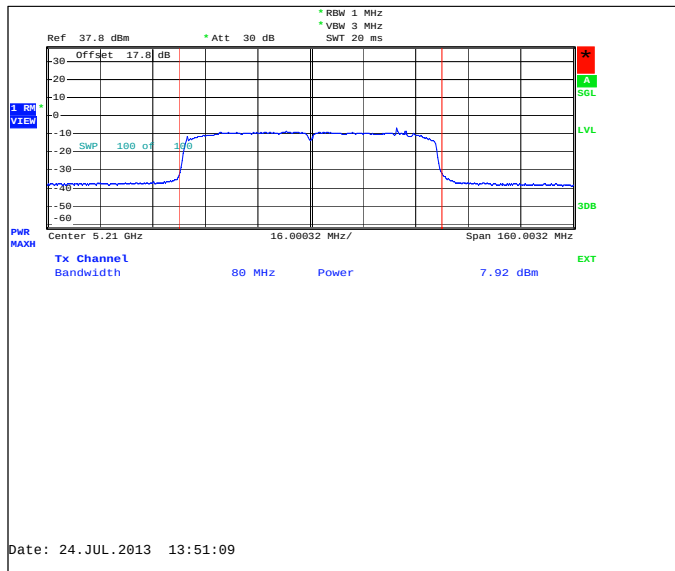
Channel 36-48 / 5210MHz



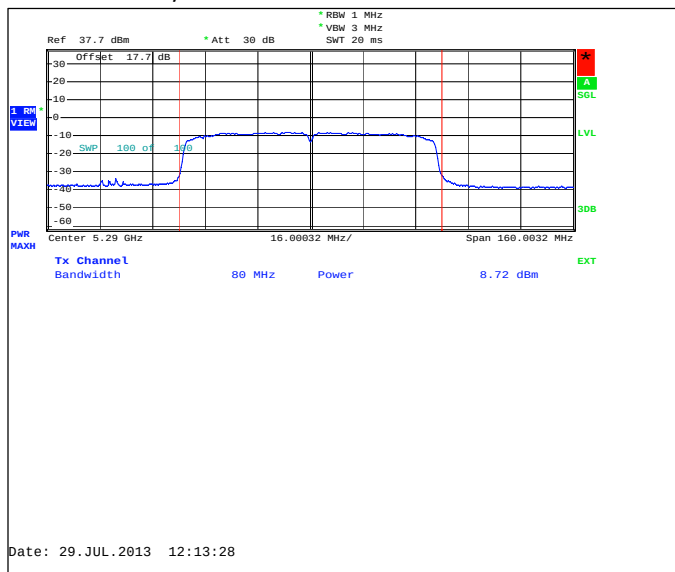
2.5.30 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	7.92	6.194	PASSED
52-64 / 5290	8.72	7.447	PASSED
100-112 / 5530	8.69	7.396	PASSED

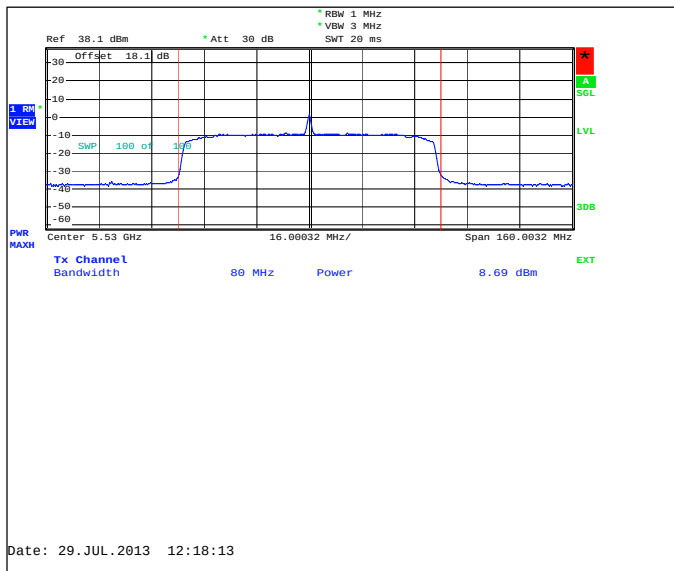
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



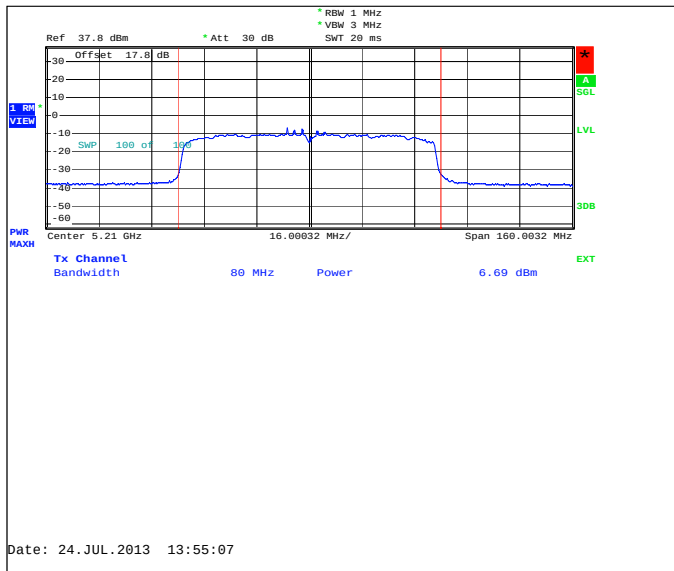
Channel 100-112 / 5530MHz



2.5.31 802.11ac mode, 16QAM modulation, 117.0 / 130.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	6.69	4.667	PASSED

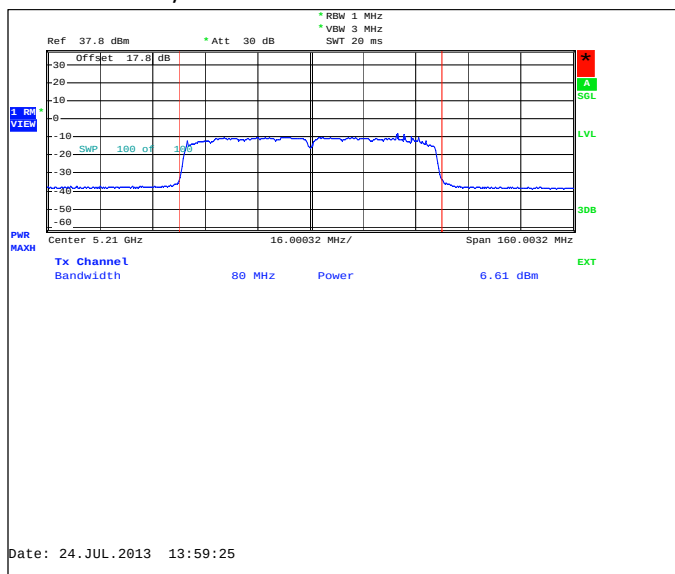
Channel 36-48 / 5210MHz



2.5.32 802.11ac mode, 16QAM modulation, 175.5 / 195.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	6.61	4.581	PASSED

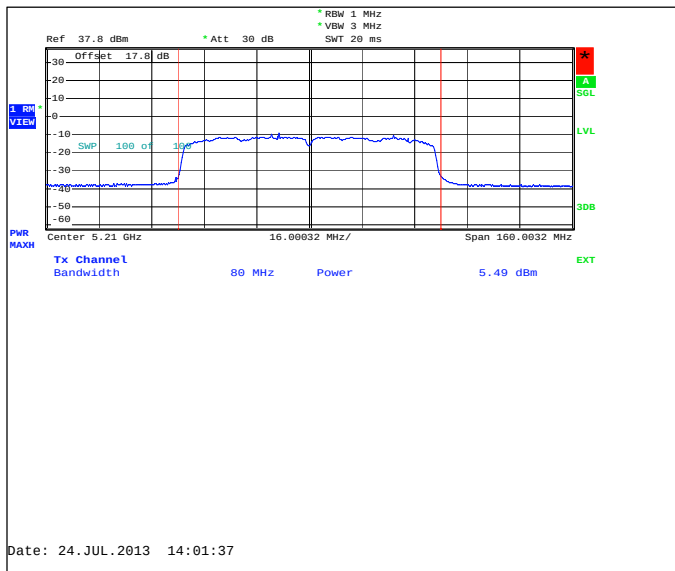
Channel 36-48 / 5210MHz



2.5.33 802.11ac mode, 64QAM modulation, 234.0 / 260.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	5.49	3.54	PASSED

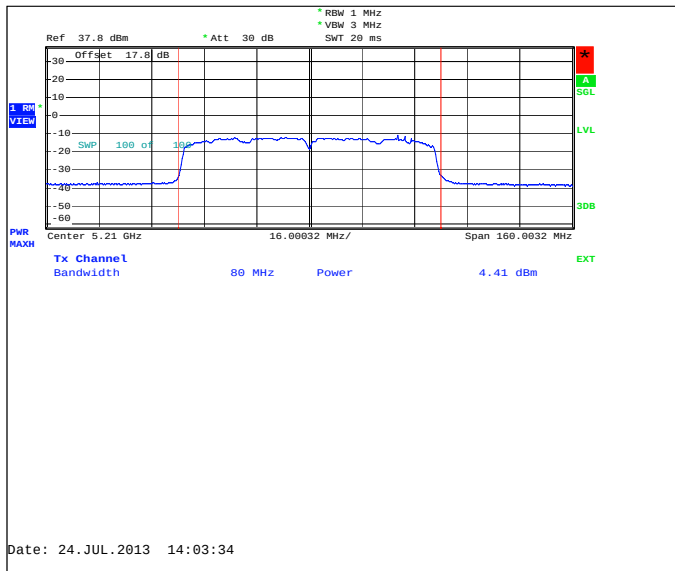
Channel 36-48 / 5210MHz



2.5.34 802.11ac mode, 64QAM modulation, 263.3 / 292.5 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	4.41	2.761	PASSED

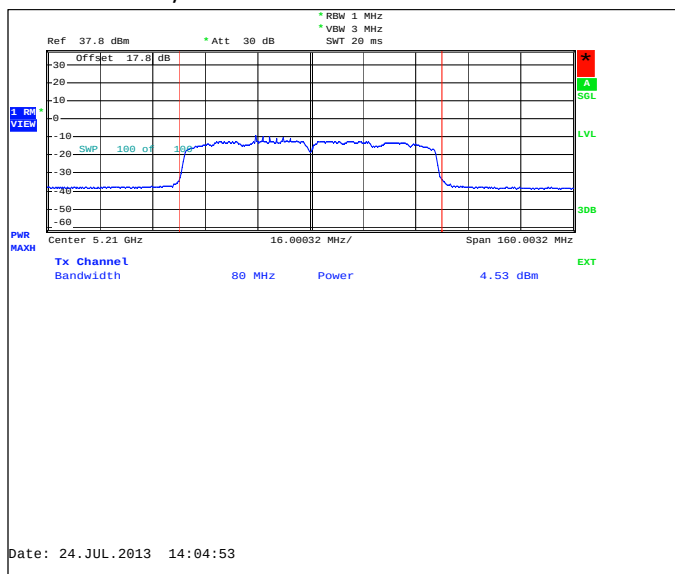
Channel 36-48 / 5210MHz



2.5.35 802.11ac mode, 64QAM modulation, 292.5 / 325.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	4.53	2.838	PASSED

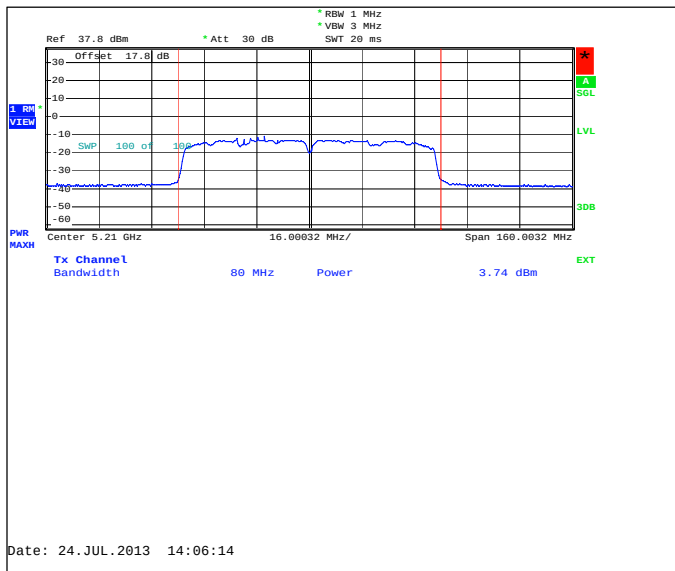
Channel 36-48 / 5210MHz



2.5.36 802.11ac mode, 256QAM modulation, 351.0 / 390.0 Mbps data rate

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	3.74	2.366	PASSED

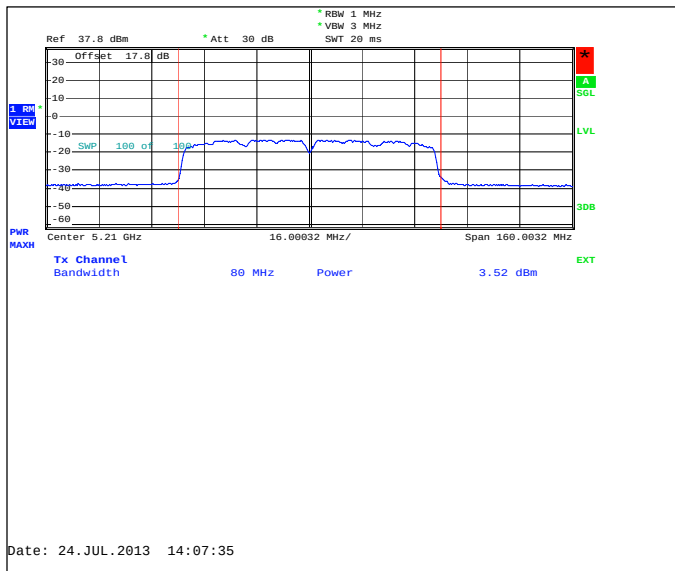
Channel 36-48 / 5210MHz



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

Channel / f _c [MHz]	P [dBm]	P [mW]	Result
36-48 / 5210	3.52	2.249	PASSED

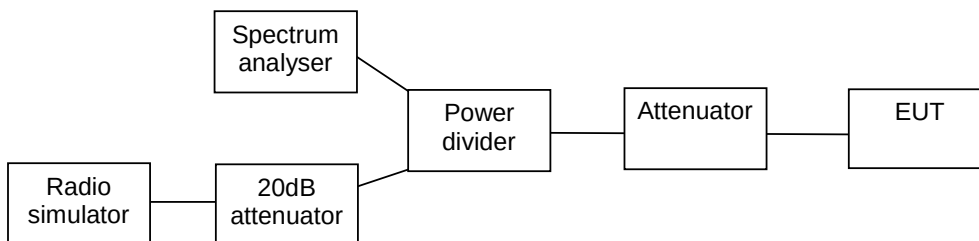
Channel 36-48 / 5210MHz



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

EUT with DUT number	RM-940, DUT 17563
Accessories with DUT numbers	AC-60E, DUT 17584; CA-190CD, DUT 17585; WH-208, DUT 17586
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 44 / 101
Date of measurements	18-Jul-2013
Measured by	Tomi Lipponen

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

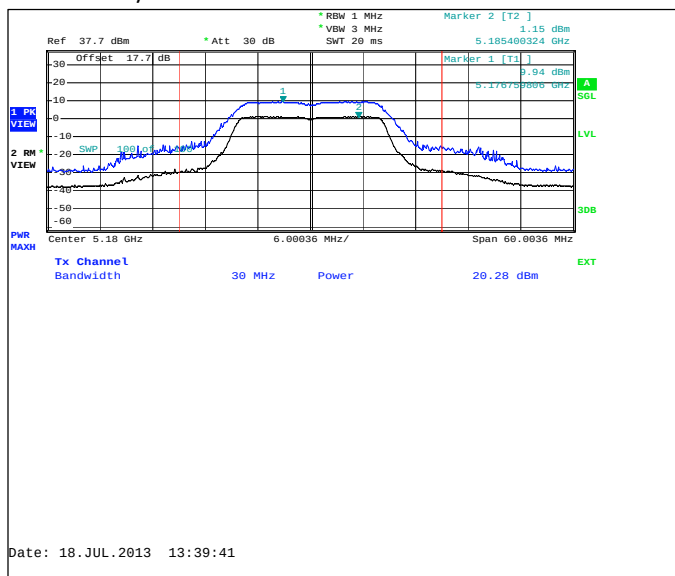
Limit [dB]
≤ 13

3.3. 5 GHz RLAN Test results

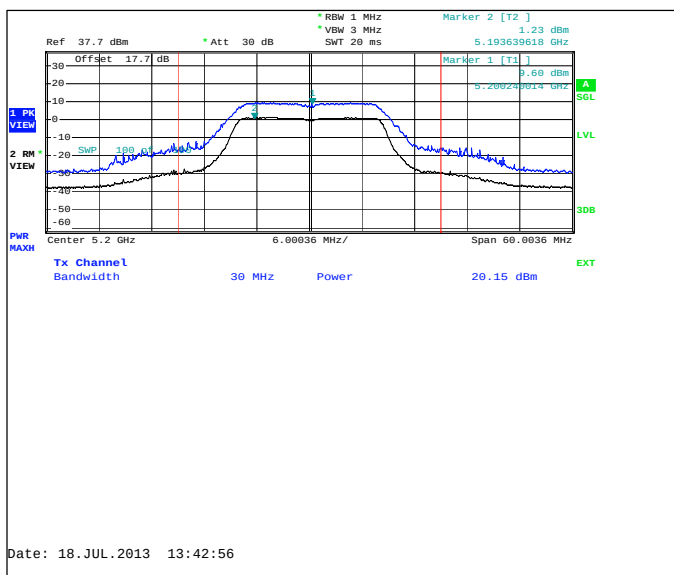
3.3.1 802.11a mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36 / 5180	8.79	PASSED
40 / 5200	8.38	PASSED
48 / 5240	8.07	PASSED
52 / 5260	9.07	PASSED
60 / 5300	8.14	PASSED
64 / 5320	8.23	PASSED
100 / 5500	9.21	PASSED
116 / 5580	9.01	PASSED
140 / 5700	9.1	PASSED

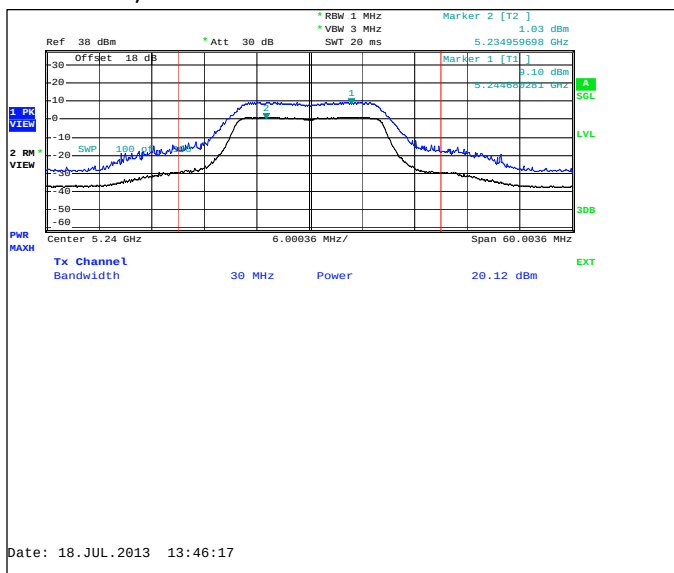
Channel 36 / 5180MHz



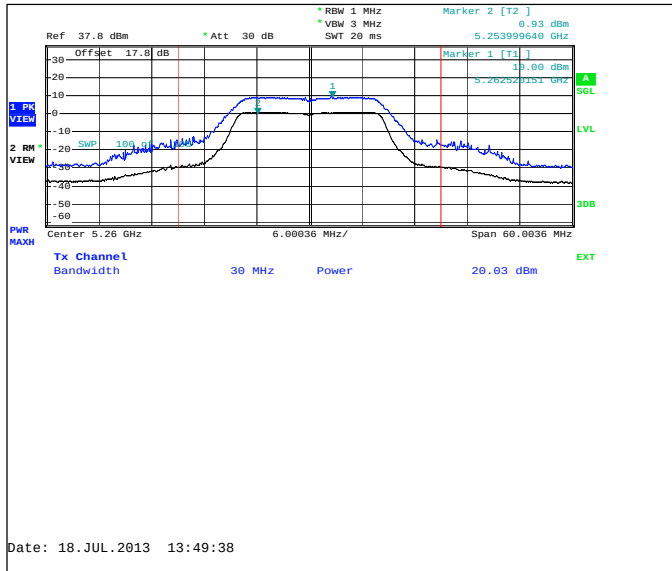
Channel 40 / 5200MHz



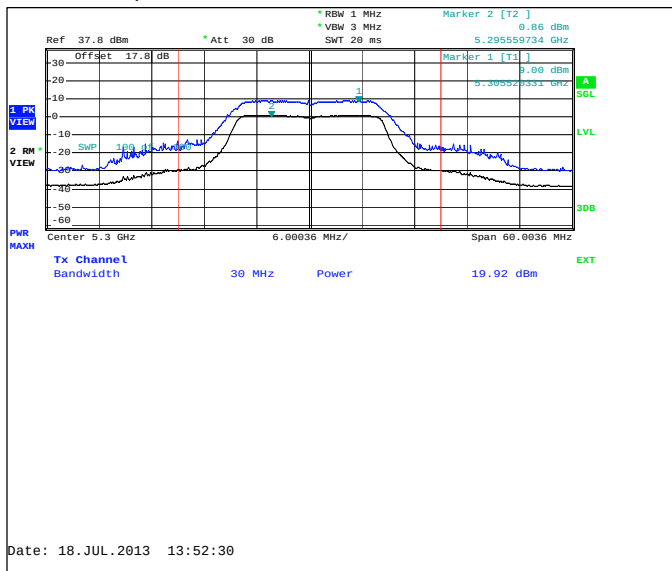
Channel 48 / 5240MHz



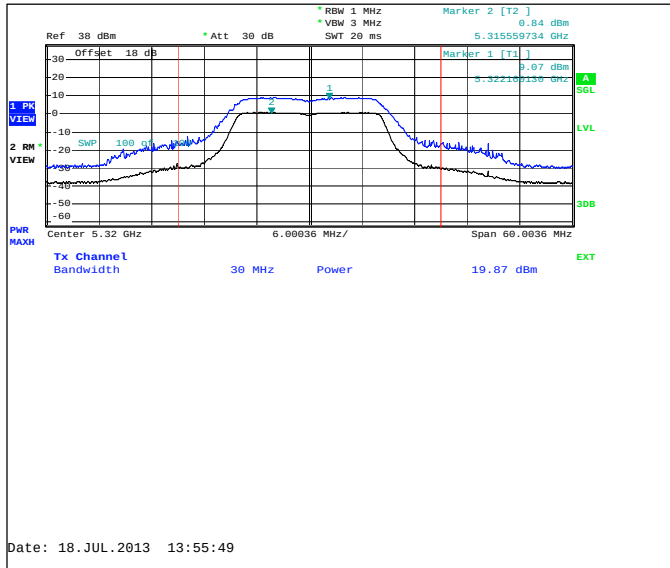
Channel 52 / 5260MHz



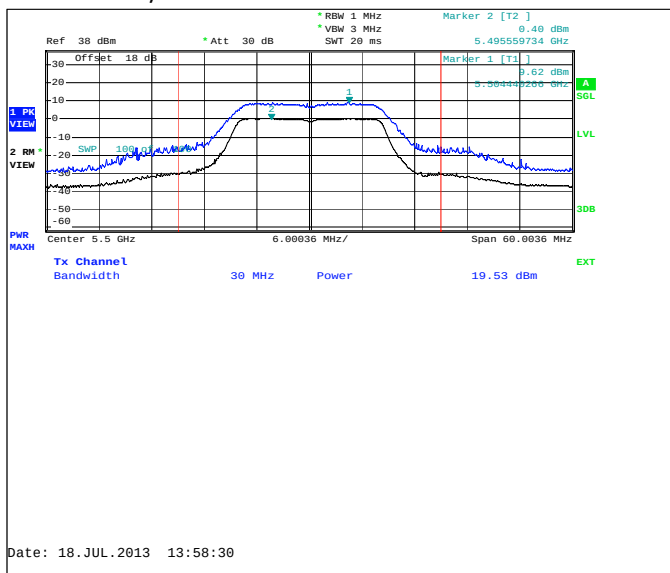
Channel 60 / 5300MHz



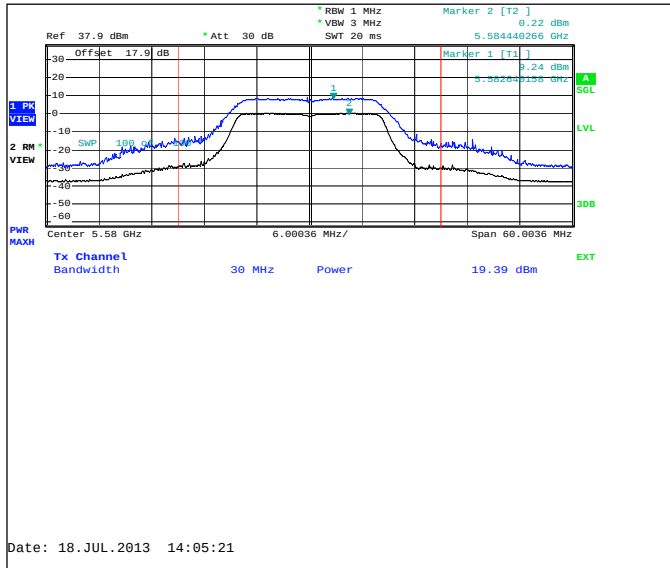
Channel 64 / 5320MHz



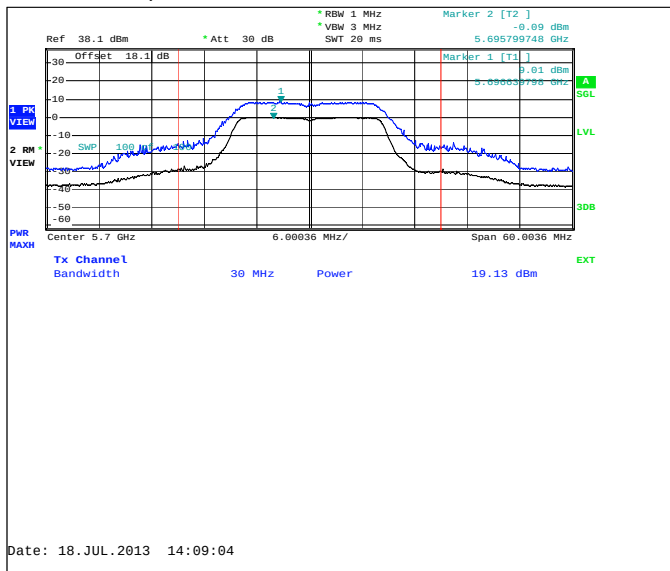
Channel 100 / 5500MHz



Channel 116 / 5580MHz



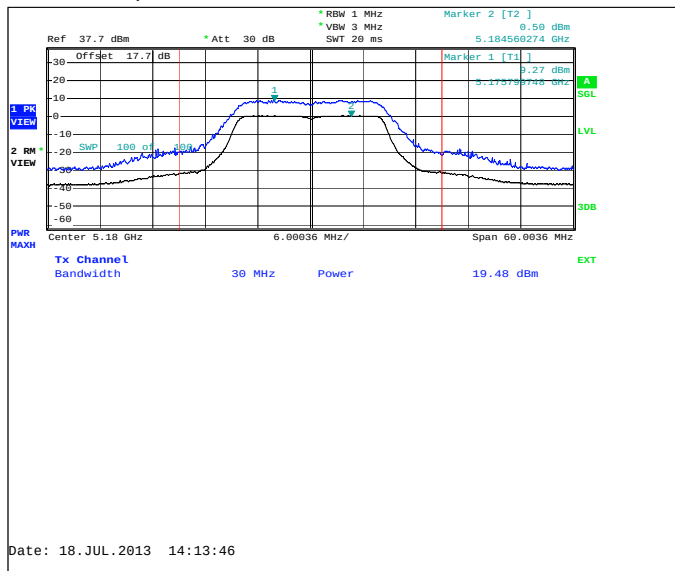
Channel 140 / 5700MHz



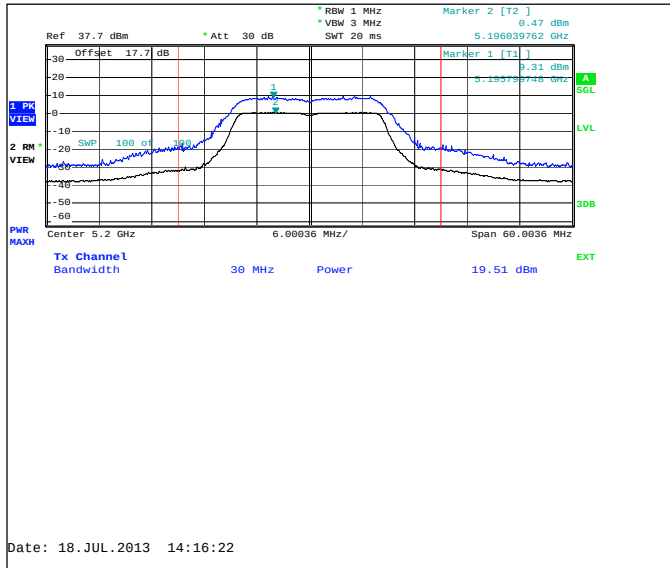
3.3.2 802.11a mode, QPSK modulation, 18 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36 / 5180	8.76	PASSED
40 / 5200	8.84	PASSED
48 / 5240	8.77	PASSED
52 / 5260	8.86	PASSED
60 / 5300	8.9	PASSED
64 / 5320	8.78	PASSED
100 / 5500	8.91	PASSED
116 / 5580	8.52	PASSED
140 / 5700	8.84	PASSED

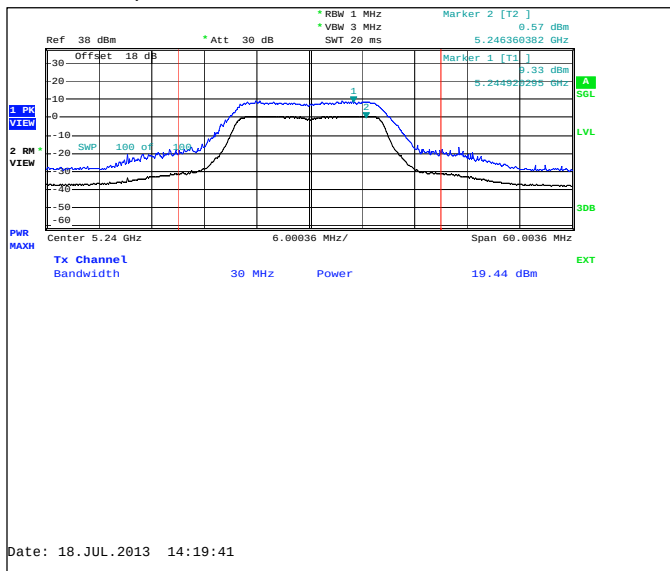
Channel 36 / 5180MHz



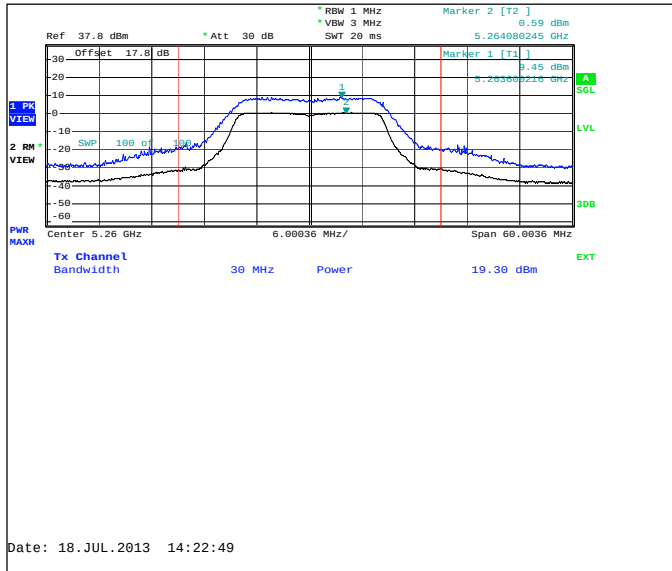
Channel 40 / 5200MHz



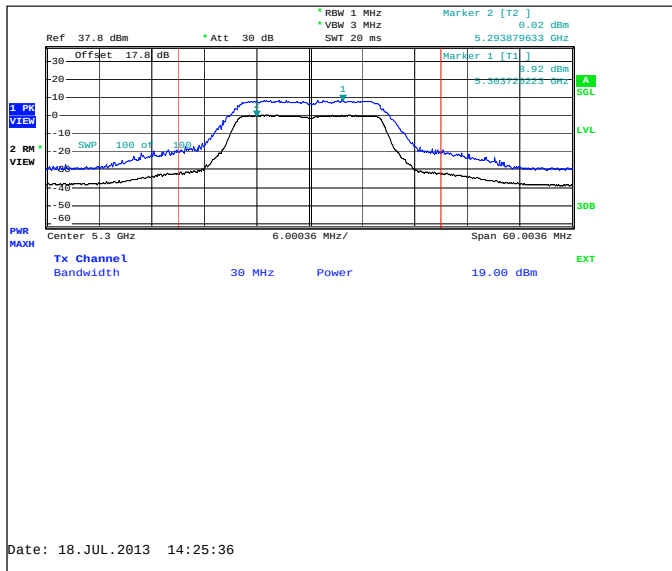
Channel 48 / 5240MHz



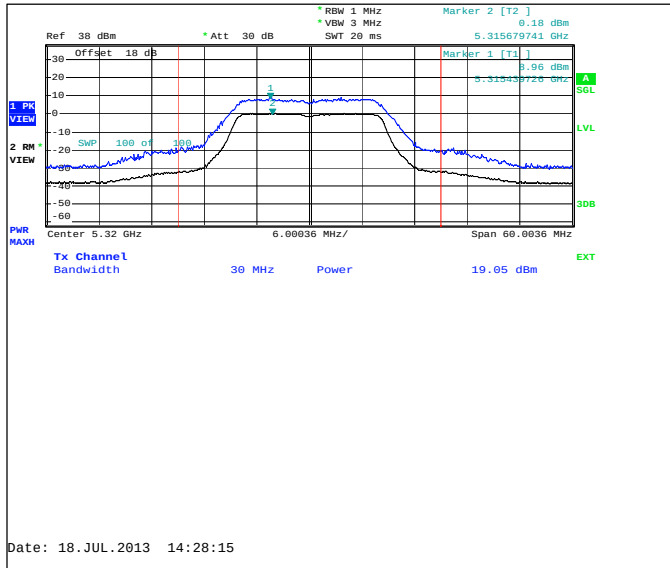
Channel 52 / 5260MHz



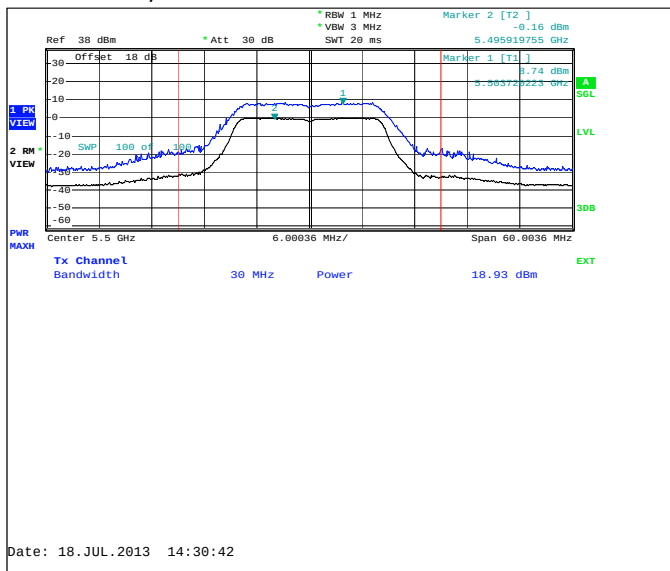
Channel 60 / 5300MHz



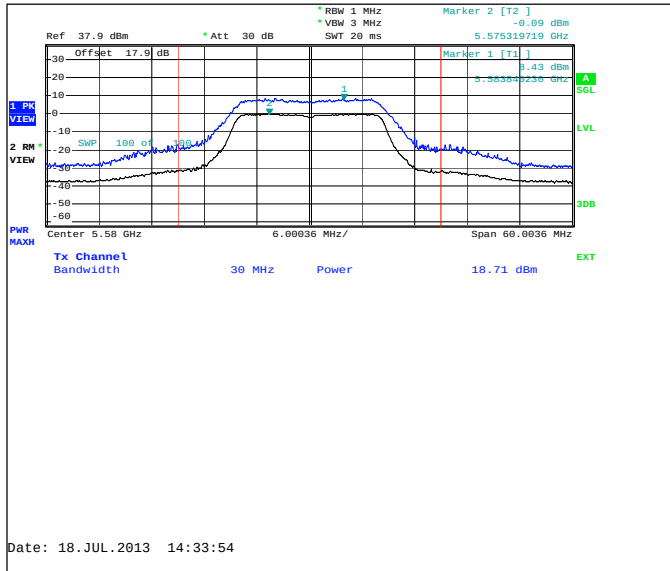
Channel 64 / 5320MHz



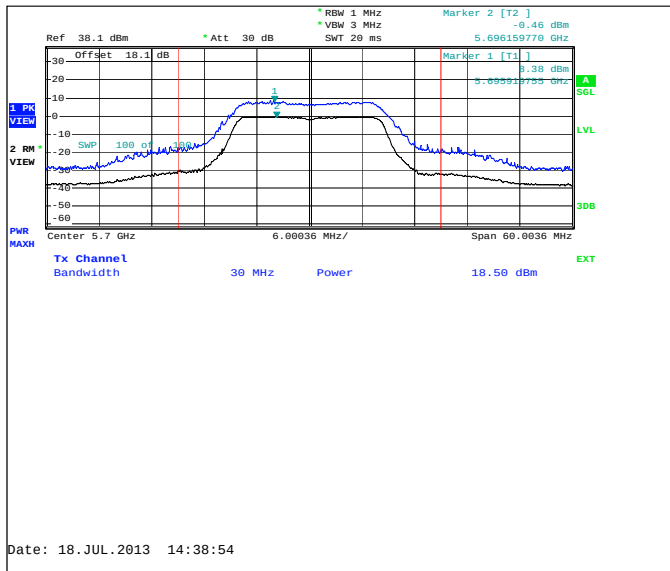
Channel 100 / 5500MHz



Channel 116 / 5580MHz



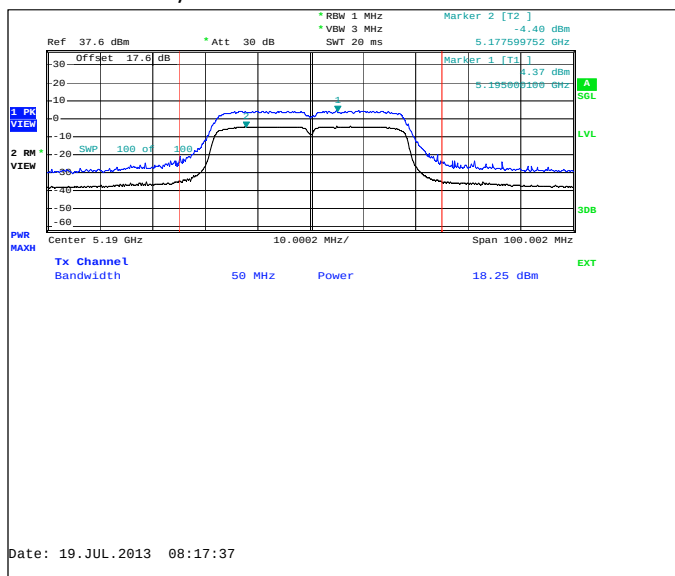
Channel 140 / 5700MHz



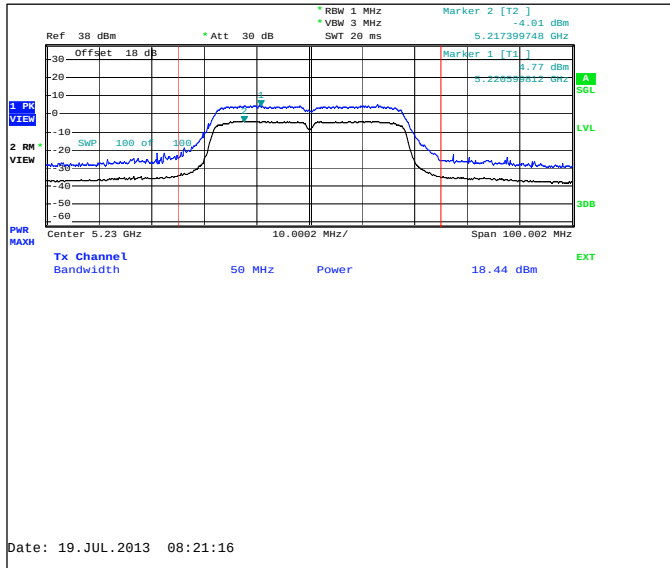
3.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36+40 / 5190	8.77	PASSED
44+48 / 5230	8.78	PASSED
52+56 / 5270	9.21	PASSED
60+64 / 5310	8.67	PASSED
100+104 / 5510	8.62	PASSED
108+112 / 5550	9.03	PASSED
132+136 / 5670	8.76	PASSED

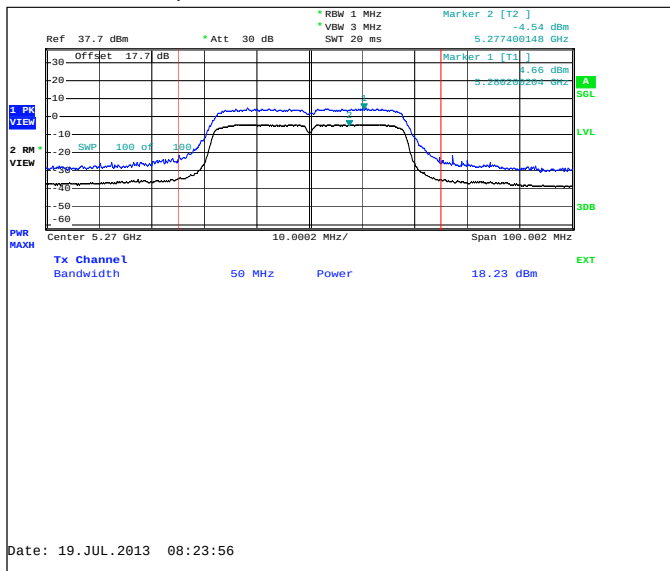
Channel 36+40 / 5190MHz



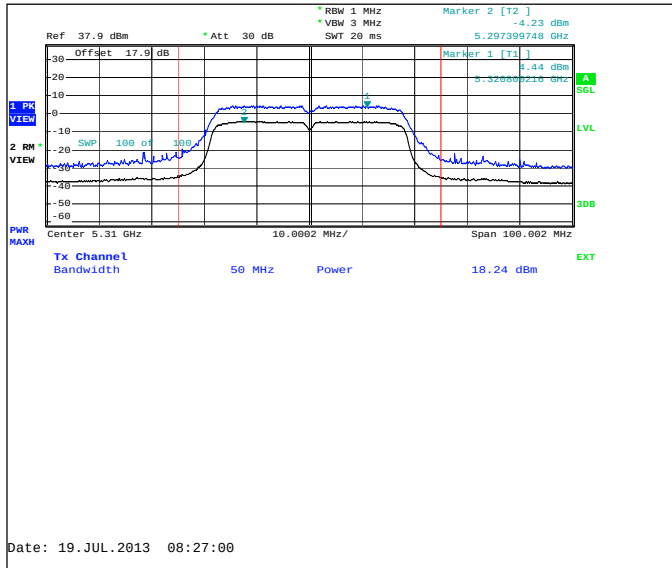
Channel 44+48 / 5230MHz



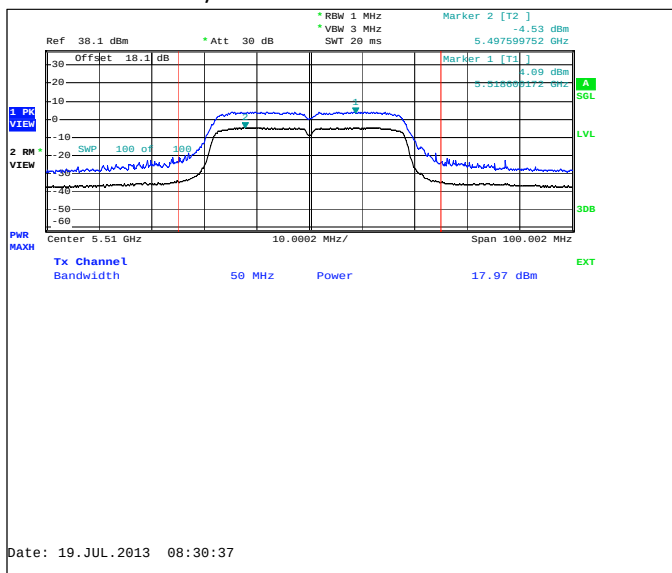
Channel 52+56 / 5270MHz



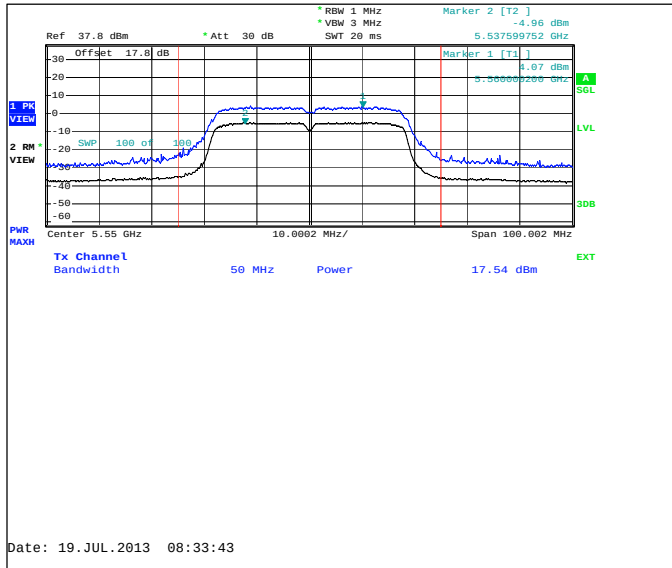
Channel 60+64 / 5310MHz



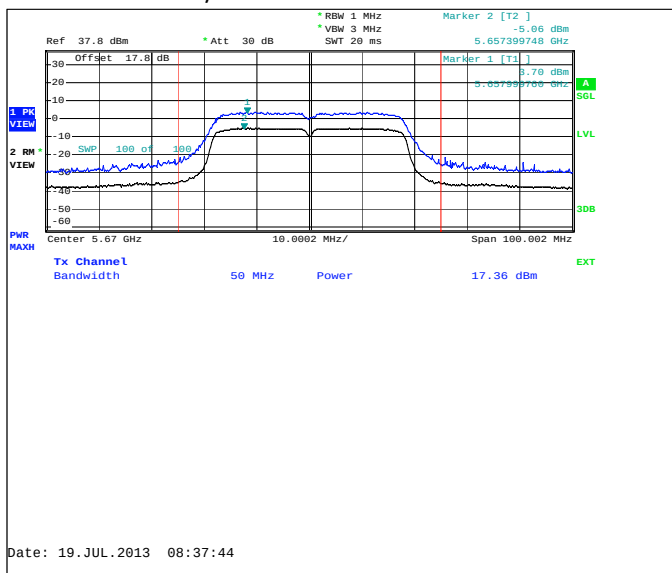
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



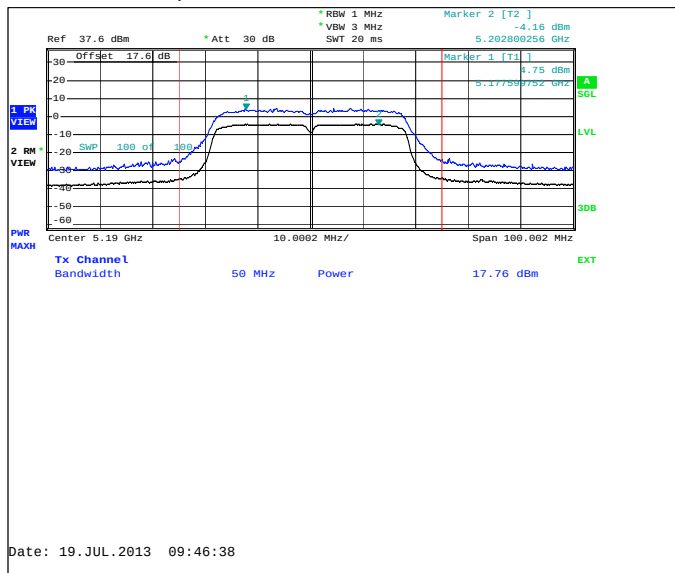
Channel 132+136 / 5670MHz



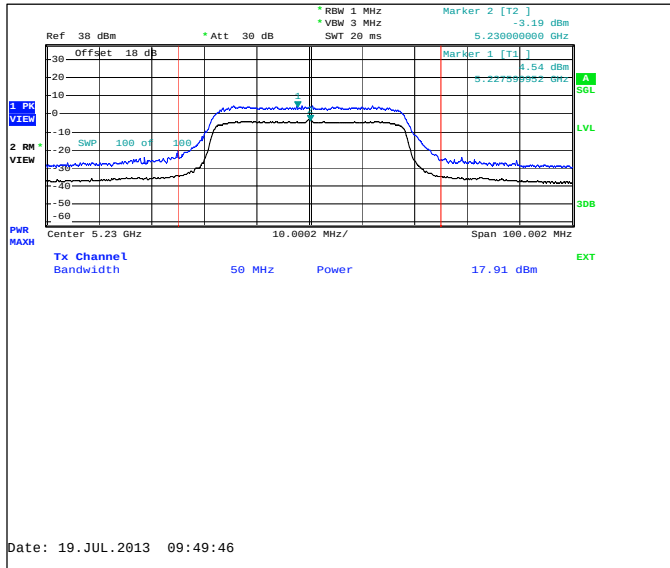
3.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36+40 / 5190	8.91	PASSED
44+48 / 5230	7.74	PASSED
52+56 / 5270	8.85	PASSED
60+64 / 5310	9.79	PASSED
100+104 / 5510	8.52	PASSED
108+112 / 5550	8.68	PASSED
132+136 / 5670	8.86	PASSED

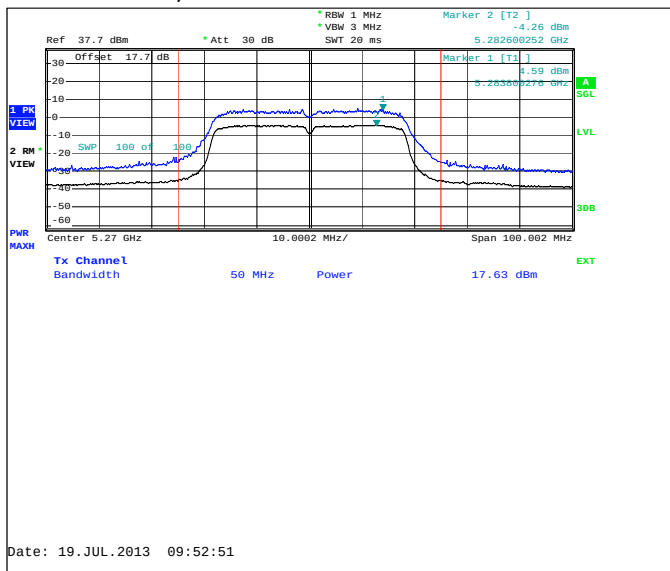
Channel 36+40 / 5190MHz



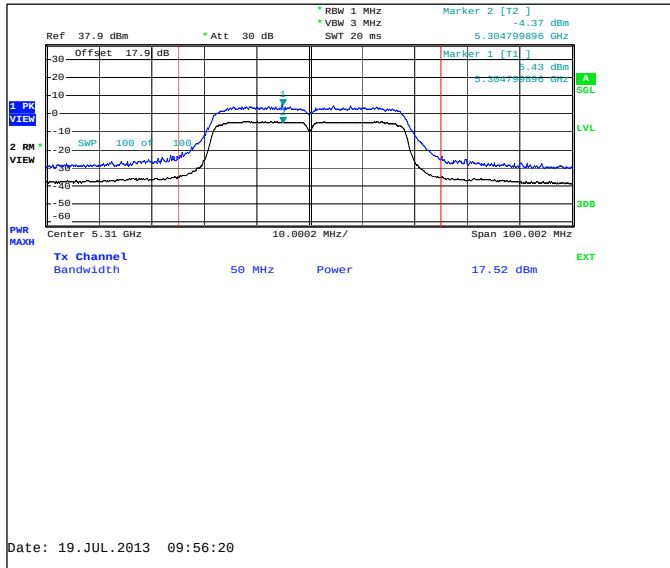
Channel 44+48 / 5230MHz



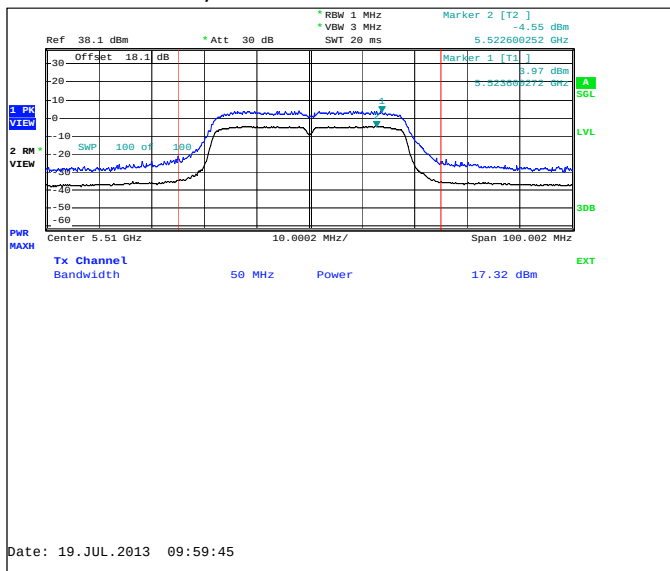
Channel 52+56 / 5270MHz



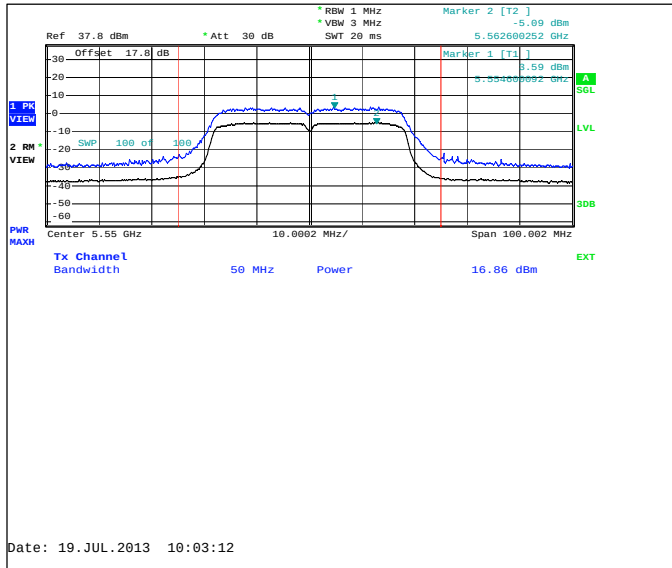
Channel 60+64 / 5310MHz



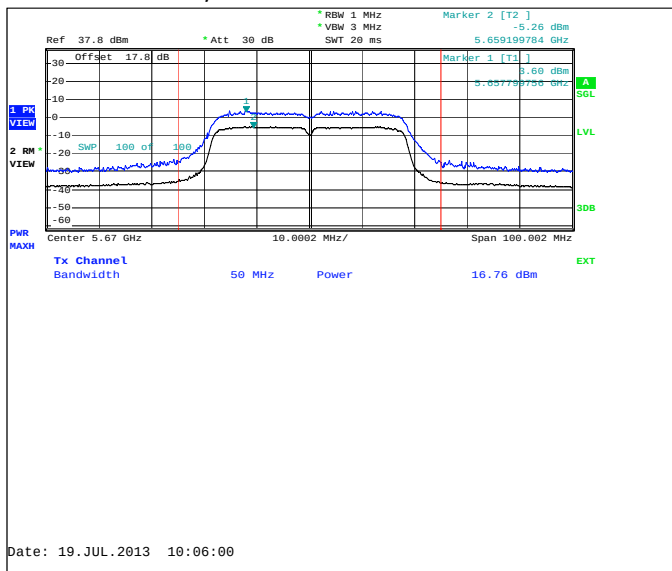
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



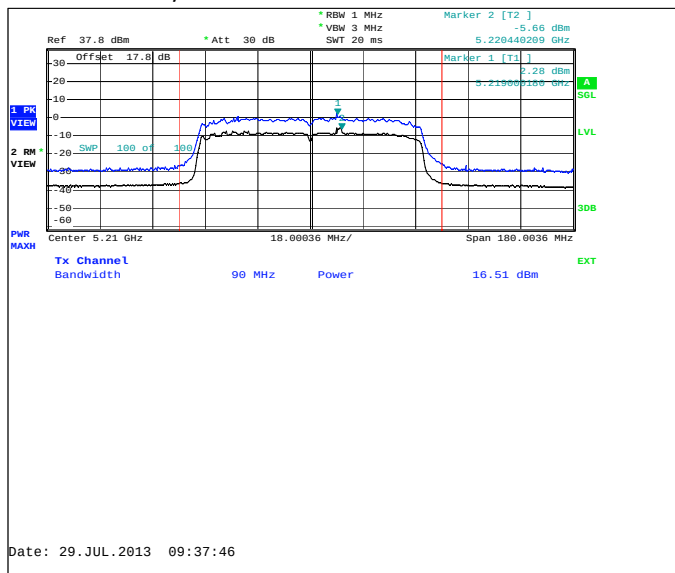
Channel 132+136 / 5670MHz



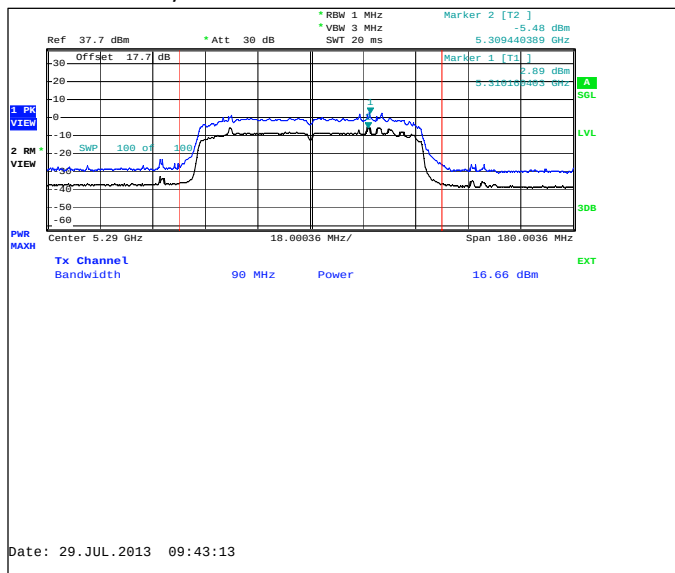
3.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f _c [MHz]	Peak excursion [dB]	Result
36-48 / 5210	7.94	PASSED
52-64 / 5290	8.37	PASSED
100-112 / 5530	8.14	PASSED

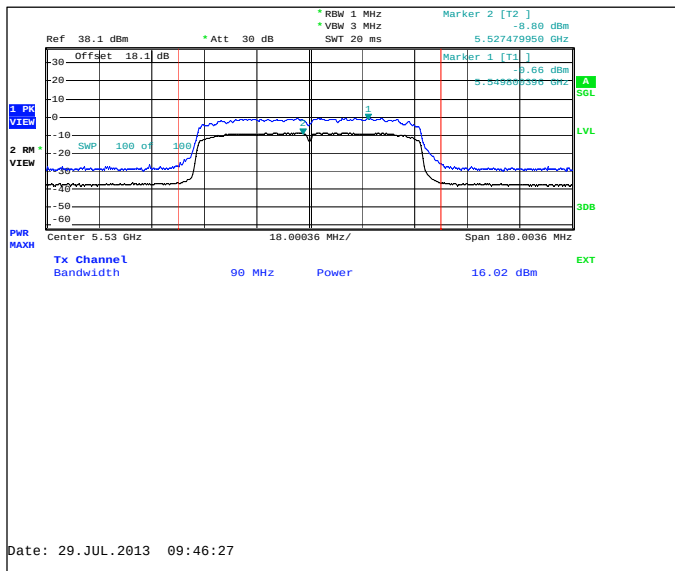
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



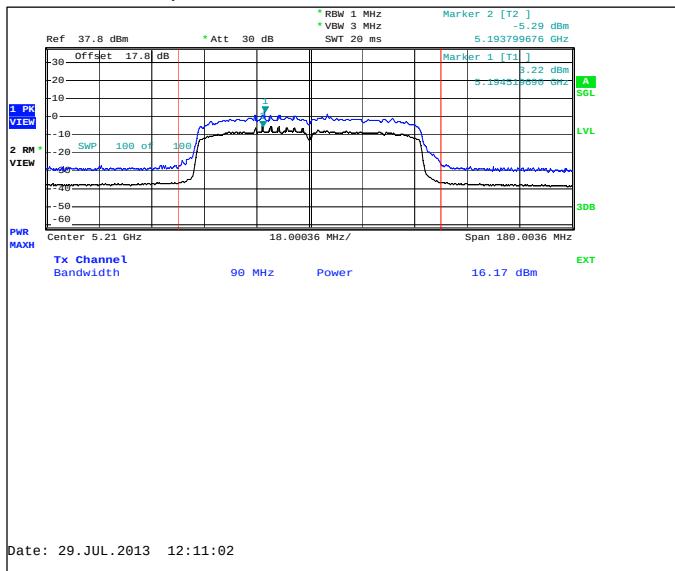
Channel 100-112 / 5530MHz



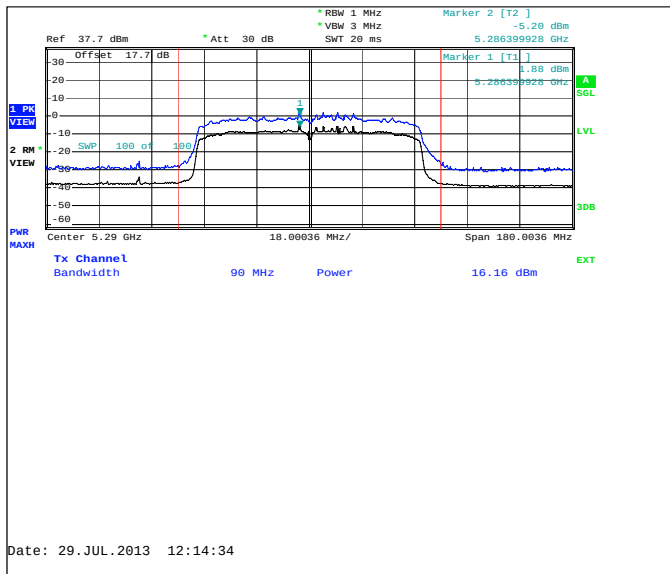
3.3.6 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate

Channel / f_c [MHz]	Peak excursion [dB]	Result
36-48 / 5210	8.51	PASSED
52-64 / 5290	7.09	PASSED
100-112 / 5530	2.22	PASSED

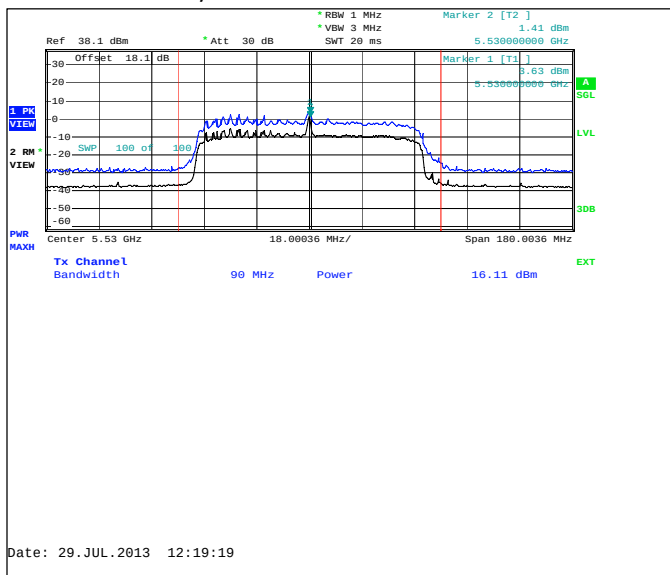
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



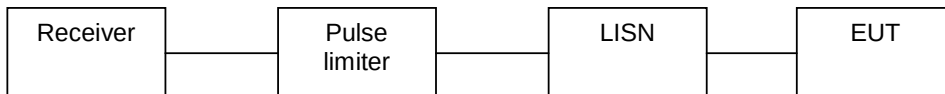
Channel 100-112 / 5530MHz



4. AC powerline conducted emissions (FCC §15.407 (b) (6), RSS-210 A9.2)

EUT with DUT number	RM-940, DUT 17583
Accessories with DUT numbers	AC-60E, DUT 17584; CA-190CD, DUT 17585; WH-208, DUT 17586
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 44 / 101
Date of measurements	22-Jul-2013
Measured by	Tomi Lipponen

4.1. Test Setup



4.2. Test method and limit

FCC15E_RM-940_03.docx The EUT is placed on a wooden table 80 cm above the reference groundplane.

The EUT is connected via LISN to a test power supply.

The measurement results are obtained as described below:

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

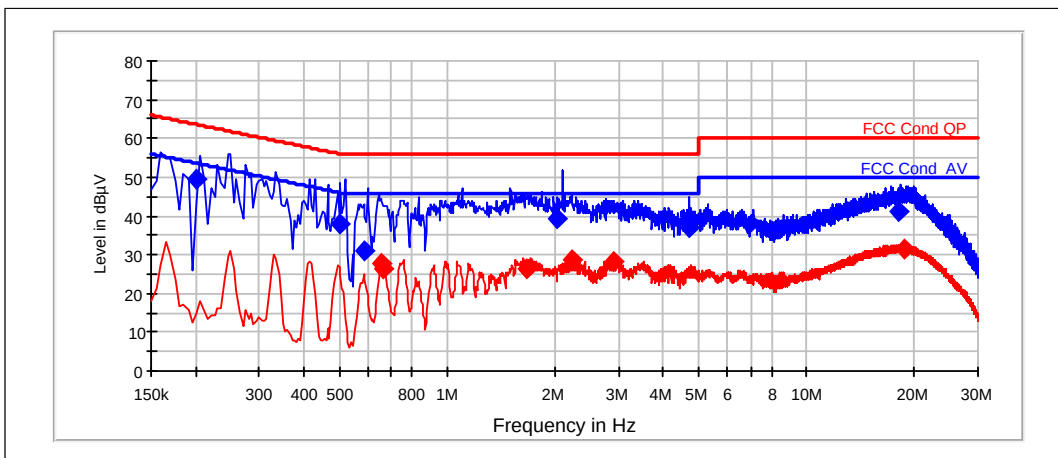
Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

CISPR 22 Class B limits

Frequency range [MHz]	Quasi peak limit [dBμV]	Average limit [dBμV]
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

4.3. 5 GHz RLAN Test results

4.3.1 802.11a mode, BPSK modulation, 6 Mbps data rate



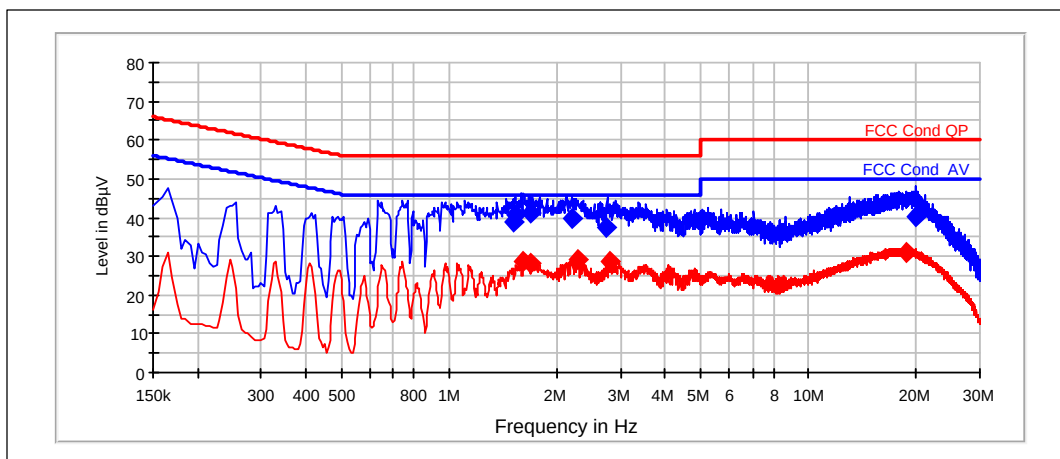
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.2	49.41	L1	PASSED
0.5	38.11	N	PASSED
0.59	31.17	L1	PASSED
2.025	39.47	N	PASSED
4.71	36.92	N	PASSED
18.135	41.38	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.655	27.72	N	PASSED
0.665	26.42	N	PASSED
1.675	26.48	N	PASSED
2.235	28.55	N	PASSED
2.89	28.19	N	PASSED
18.63	31.32	N	PASSED

4.3.2 802.11a mode, QPSK modulation, 18 Mbps data rate



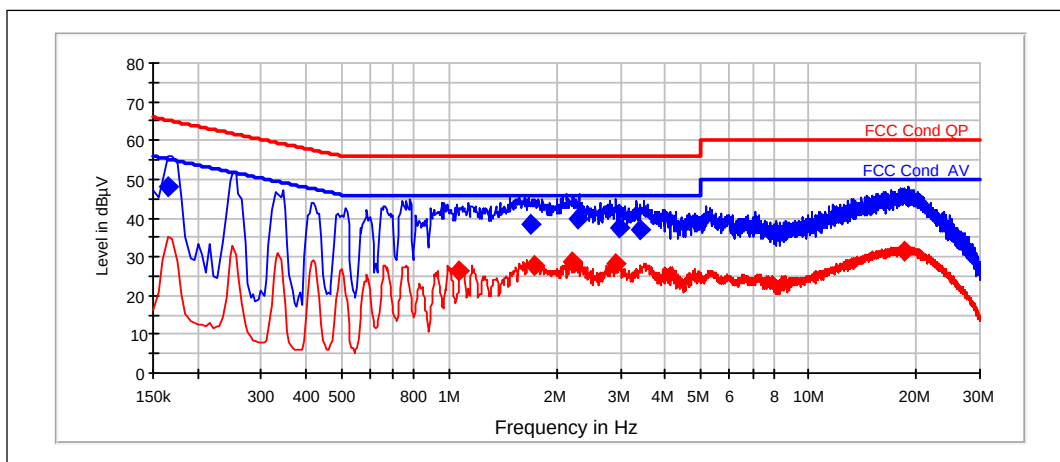
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
1.505	38.82	N	PASSED
1.525	40.63	N	PASSED
1.695	41.07	N	PASSED
2.19	39.69	N	PASSED
2.725	37.49	N	PASSED
19.78	40.32	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
1.61	28.54	N	PASSED
1.695	28.21	N	PASSED
2.27	29.02	N	PASSED
2.8	28.45	N	PASSED
18.625	30.87	N	PASSED

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



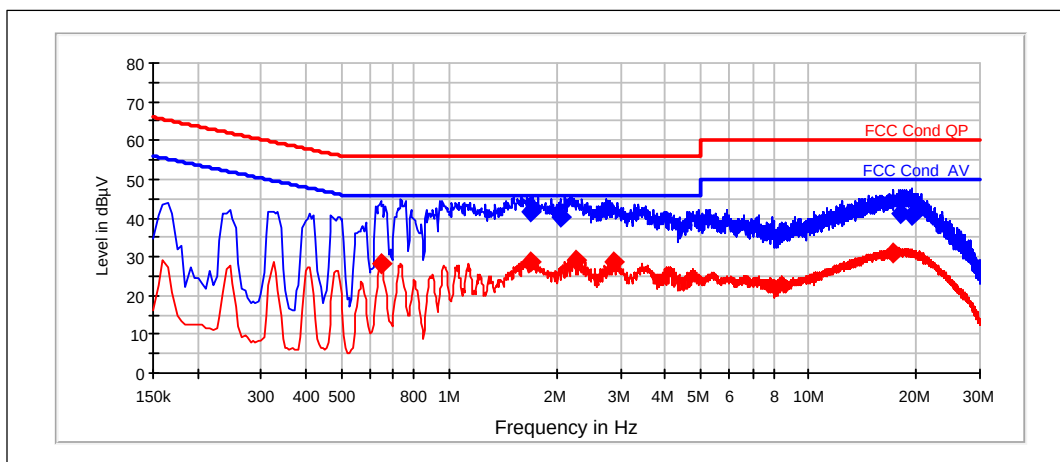
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.165	48.09	L1	PASSED
1.69	38.2	N	PASSED
2.285	39.83	N	PASSED
2.965	37.3	N	PASSED
3.395	36.85	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
1.07	26.43	N	PASSED
1.725	27.95	N	PASSED
2.205	28.75	N	PASSED
2.895	28.17	N	PASSED
18.46	31.45	N	PASSED

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



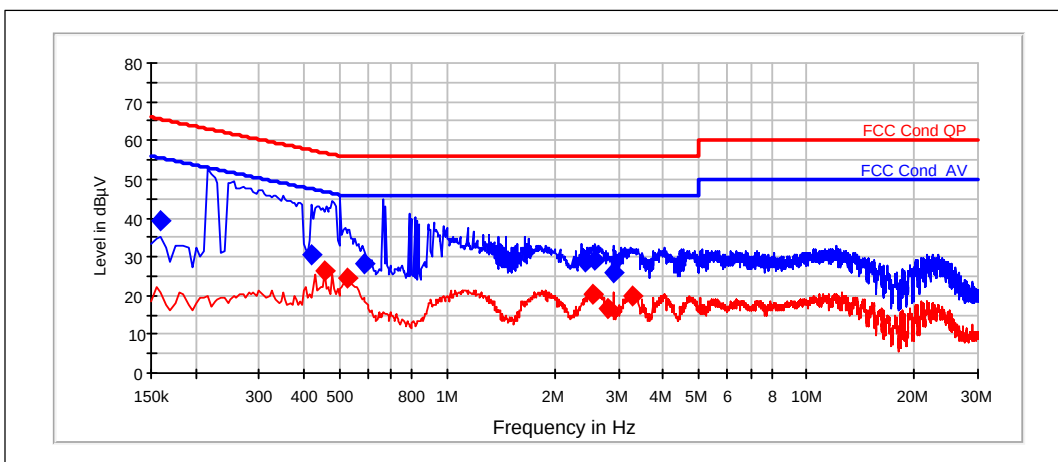
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
1.68	41.65	N	PASSED
2.035	40.42	N	PASSED
18.07	41.35	N	PASSED
19.495	40.91	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.645	28.35	N	PASSED
1.68	28.85	N	PASSED
2.265	29.32	N	PASSED
2.87	28.73	N	PASSED
17.255	31.15	N	PASSED

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



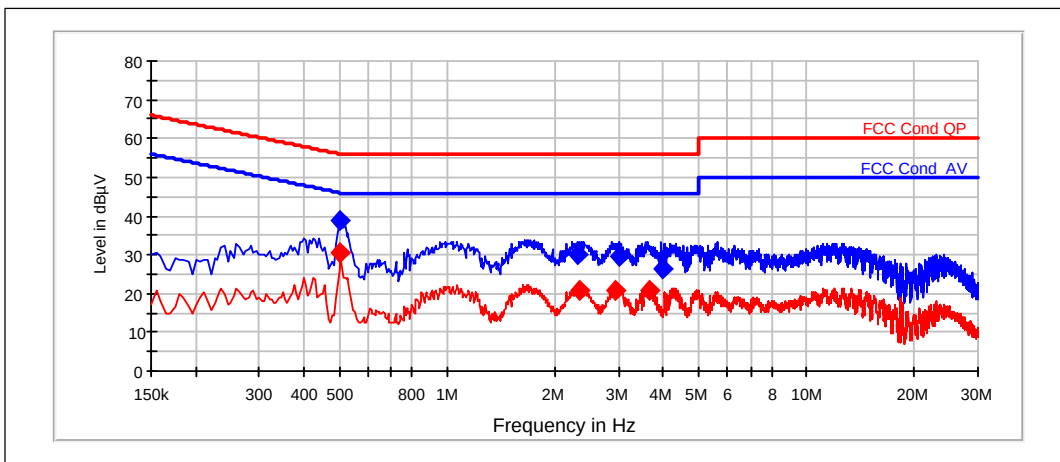
QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.16	39.37	L1	PASSED
0.42	30.34	N	PASSED
0.585	28.24	N	PASSED
2.425	28.45	N	PASSED
2.565	29.19	N	PASSED
2.895	26.04	N	PASSED

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.455	26.2	N	PASSED
0.53	24.51	N	PASSED
2.55	20.22	N	PASSED
2.815	16.82	N	PASSED
3.285	20.01	N	PASSED

4.3.6 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate



QuasiPeak (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.505	38.94	N	PASSED
2.315	30.23	N	PASSED
3	29.78	N	PASSED
3.99	26.29	N	PASSED

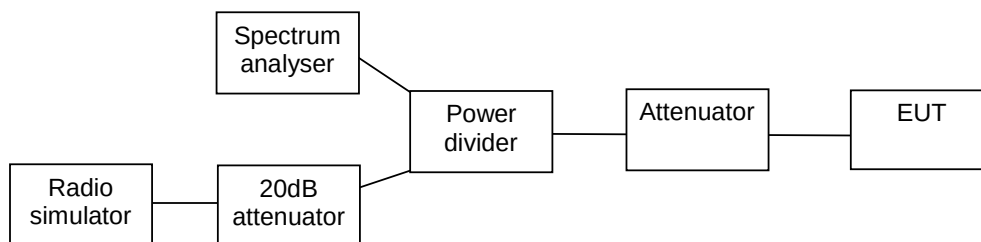
Average (RBW: 9 kHz)

Frequency [MHz]	U [dBμV]	Line	Result
0.505	30.57	N	PASSED
2.335	20.82	N	PASSED
2.95	20.74	N	PASSED
3.635	20.92	N	PASSED

5. 26 dB bandwidth

EUT with DUT number	RM-940, DUT 17563
Accessories with DUT numbers	AC-60E, DUT 17584; CA-190CD, DUT 17585; WH-208, DUT 17586
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 44 / 101
Date of measurements	18-Jul-2013
Measured by	Tomi Lipponen

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 26 dB bandwidth measurements

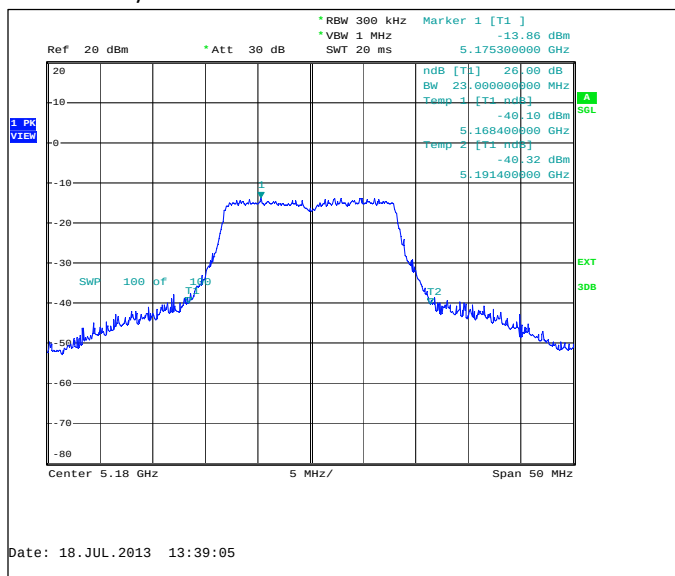
Limit [kHz]
No limit

5.3. 5 GHz RLAN Test results

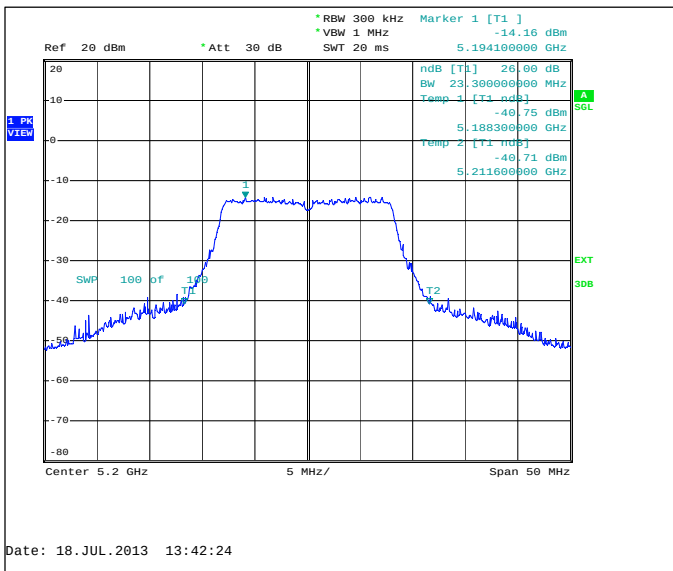
5.3.1 802.11a mode, BPSK modulation, 6 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36 / 5180	23000	PASSED
40 / 5200	23300	PASSED
48 / 5240	23300	PASSED
52 / 5260	23400	PASSED
60 / 5300	23000	PASSED
64 / 5320	23300	PASSED
100 / 5500	23100	PASSED
116 / 5580	23700	PASSED
140 / 5700	23300	PASSED

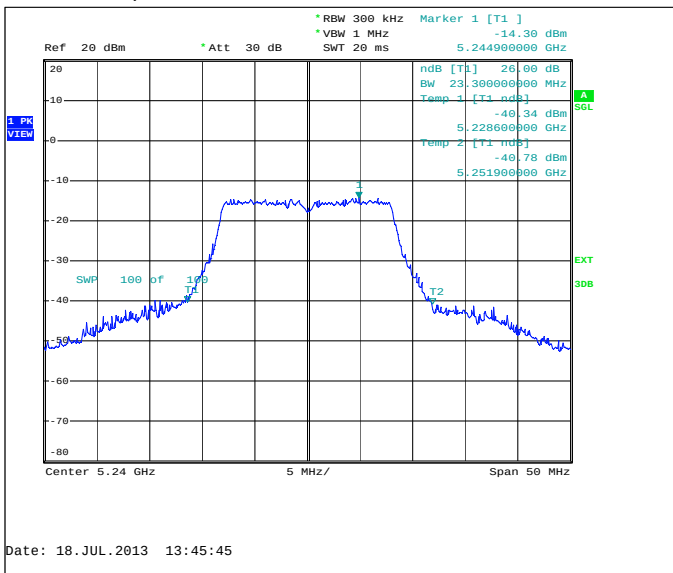
Channel 36 / 5180MHz



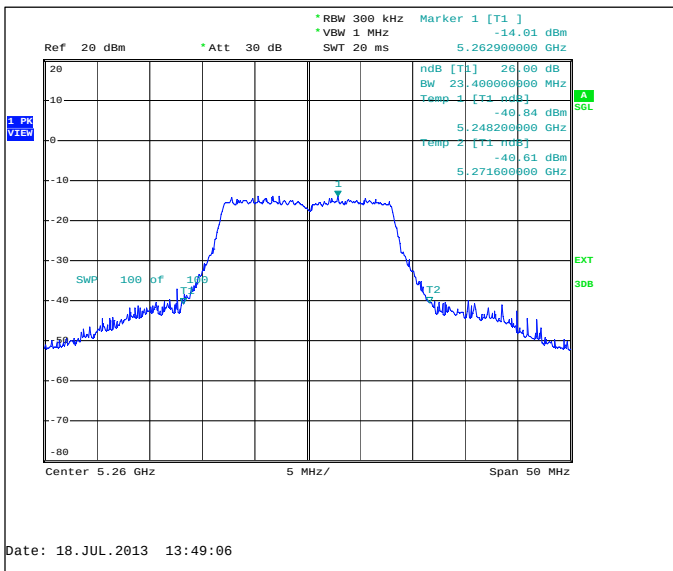
Channel 40 / 5200MHz



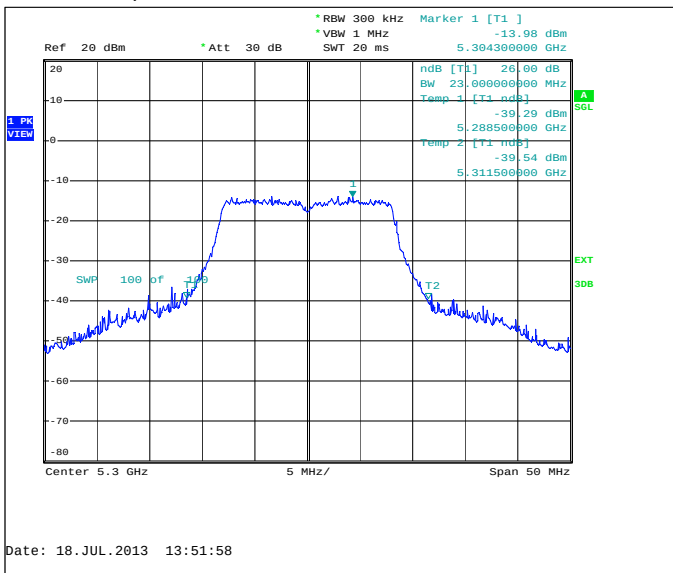
Channel 48 / 5240MHz



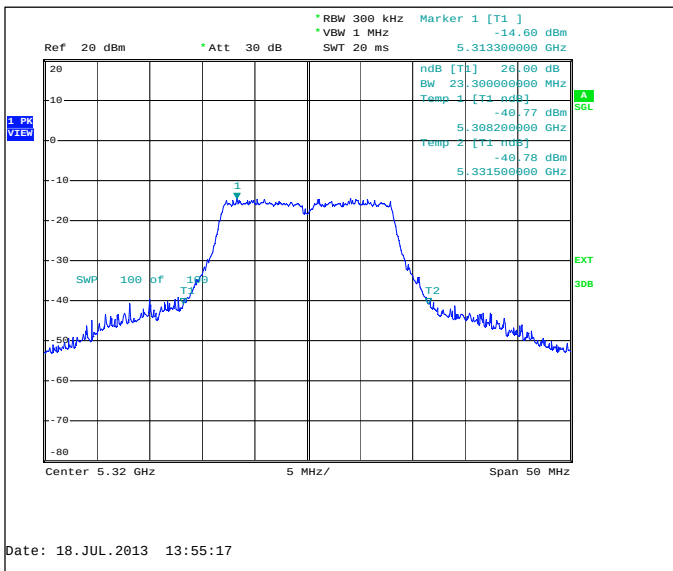
Channel 52 / 5260MHz



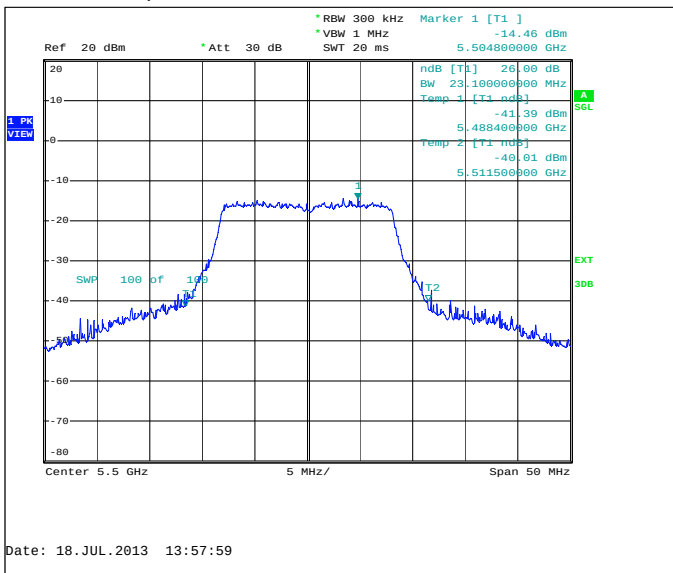
Channel 60 / 5300MHz



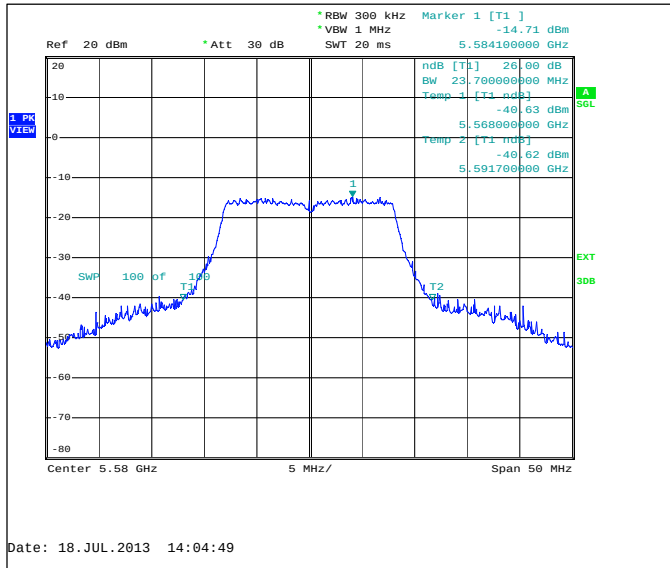
Channel 64 / 5320MHz



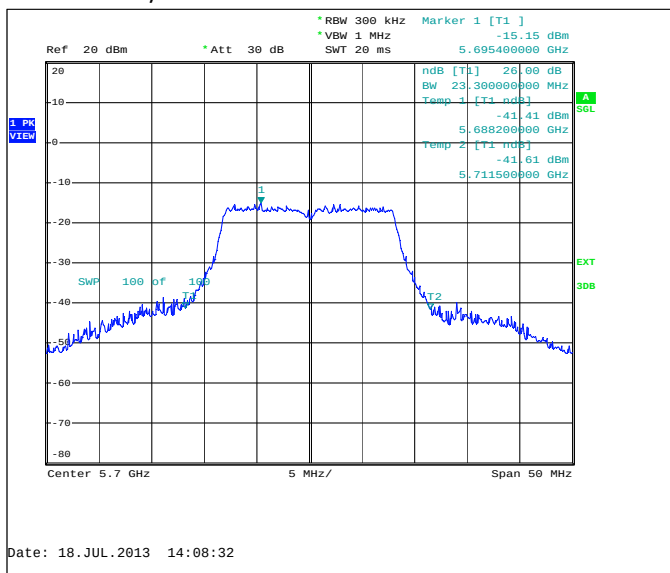
Channel 100 / 5500MHz



Channel 116 / 5580MHz



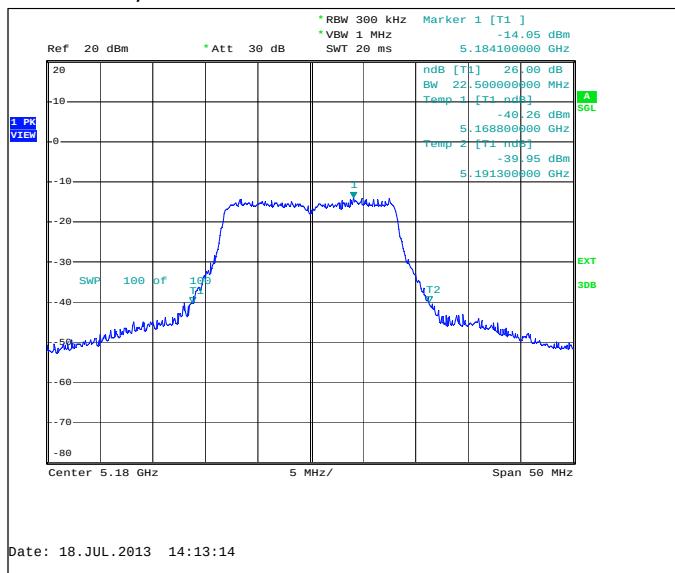
Channel 140 / 5700MHz



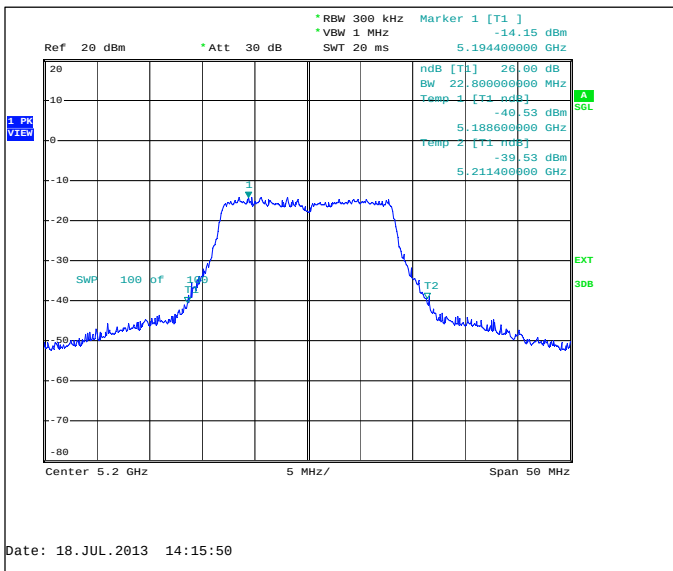
5.3.2 802.11a mode, QPSK modulation, 18 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36 / 5180	22500	PASSED
40 / 5200	22800	PASSED
48 / 5240	22600	PASSED
52 / 5260	22400	PASSED
60 / 5300	22700	PASSED
64 / 5320	22600	PASSED
100 / 5500	22300	PASSED
116 / 5580	22500	PASSED
140 / 5700	22500	PASSED

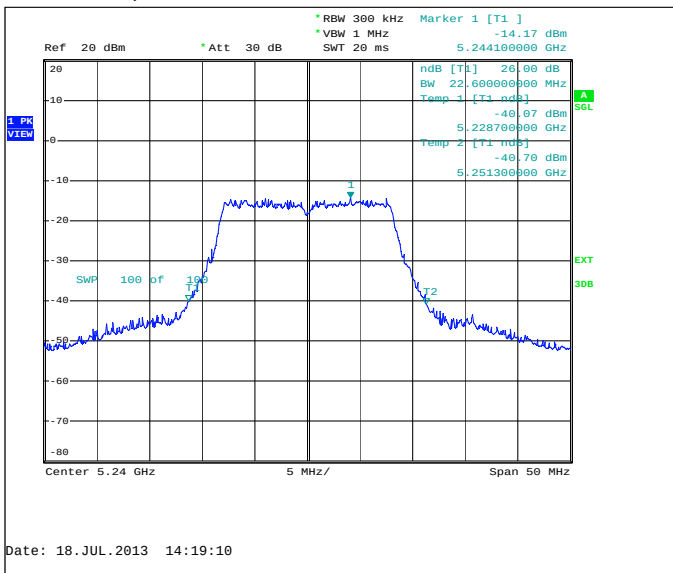
Channel 36 / 5180MHz



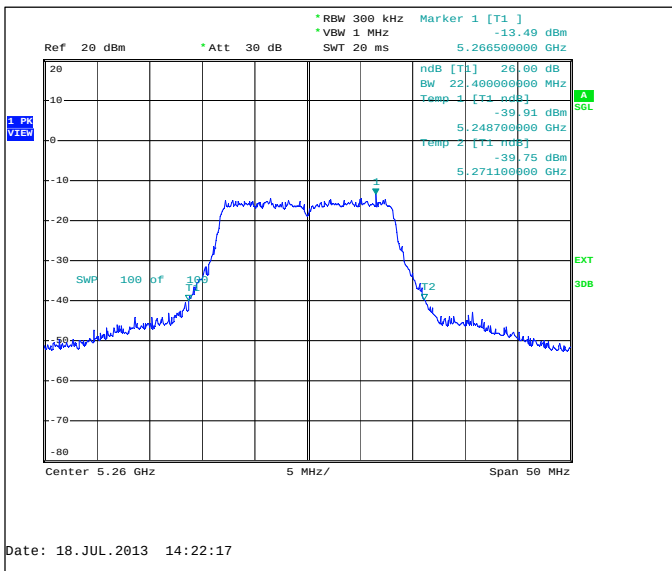
Channel 40 / 5200MHz



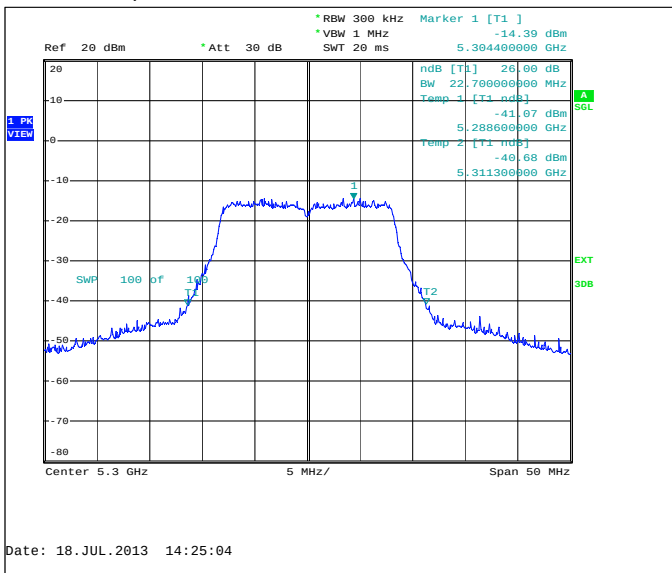
Channel 48 / 5240MHz



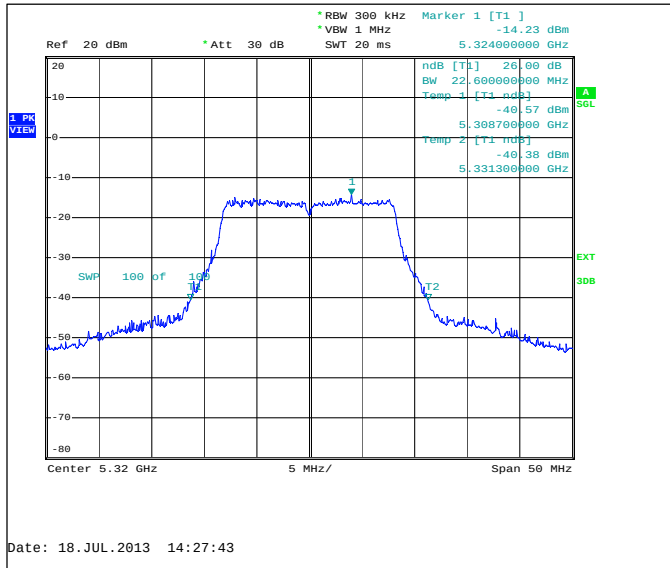
Channel 52 / 5260MHz



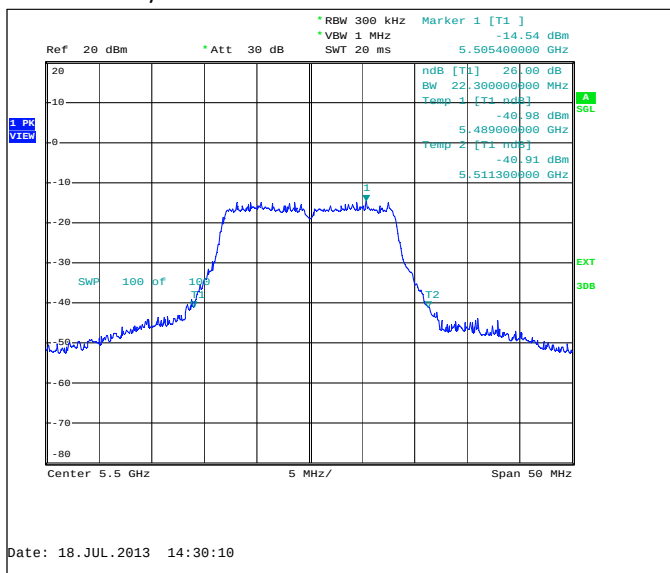
Channel 60 / 5300MHz



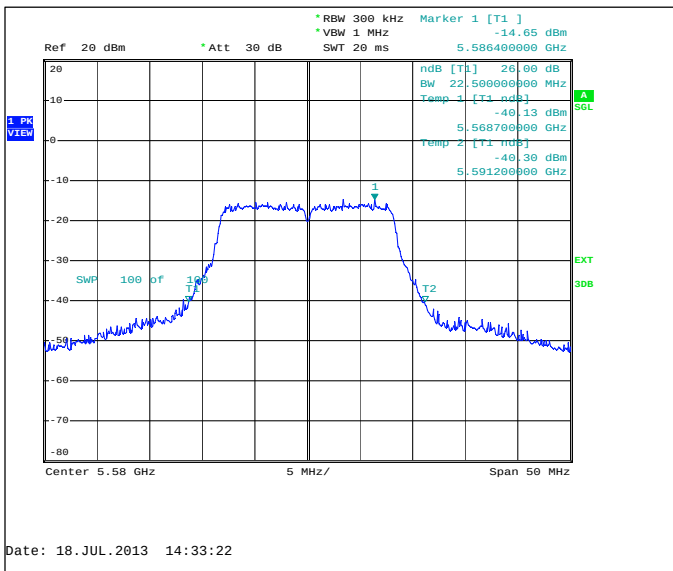
Channel 64 / 5320MHz



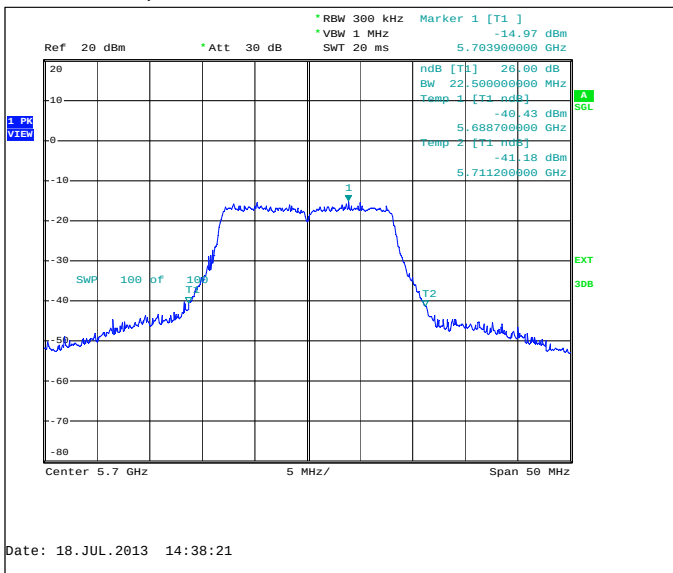
Channel 100 / 5500MHz



Channel 116 / 5580MHz



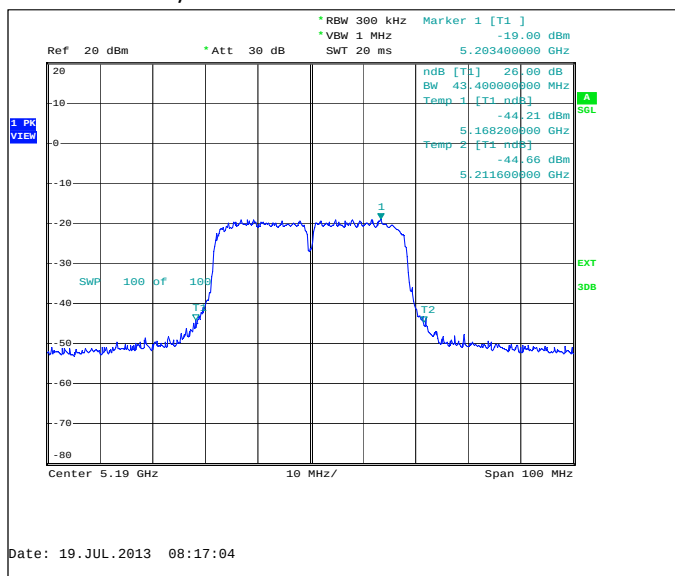
Channel 140 / 5700MHz



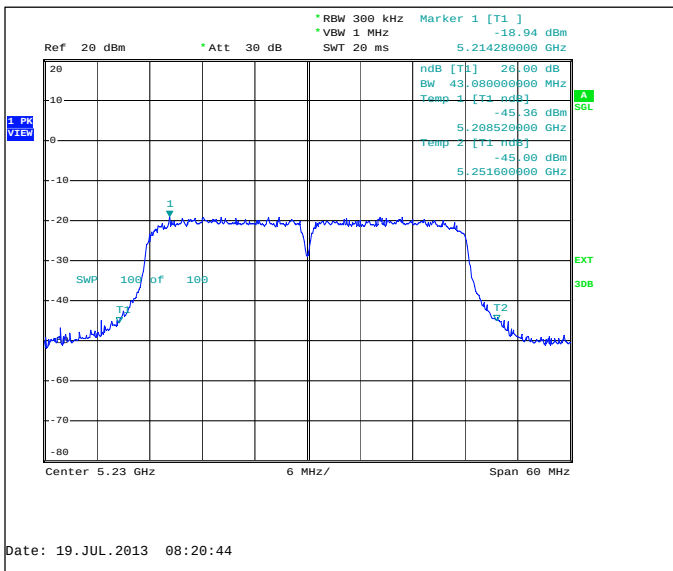
5.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36+40 / 5190	43400	PASSED
44+48 / 5230	43080	PASSED
52+56 / 5270	43320	PASSED
60+64 / 5310	42240	PASSED
100+104 / 5510	43440	PASSED
108+112 / 5550	44040	PASSED
132+136 / 5670	42360	PASSED

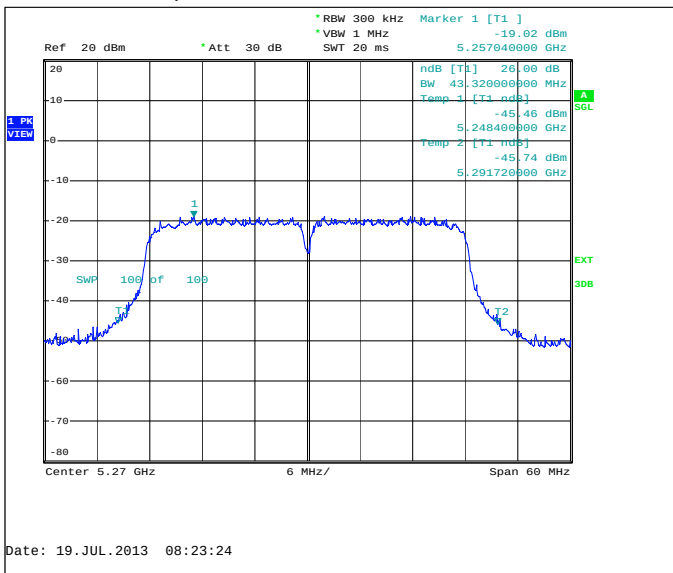
Channel 36+40 / 5190MHz



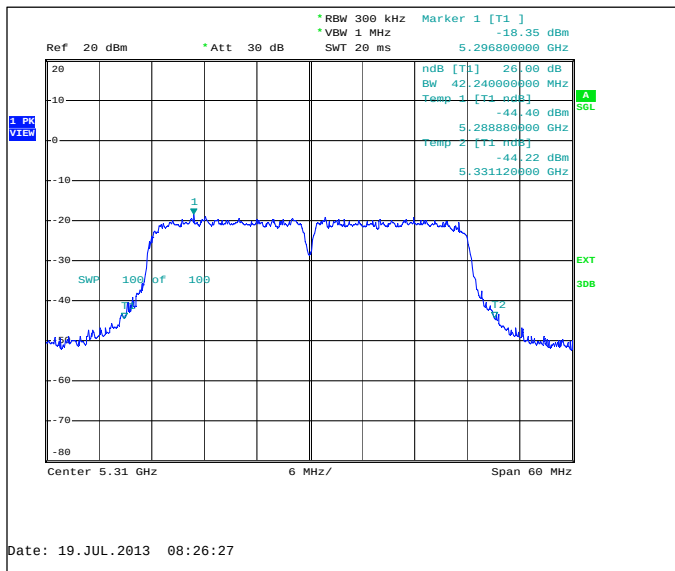
Channel 44+48 / 5230MHz



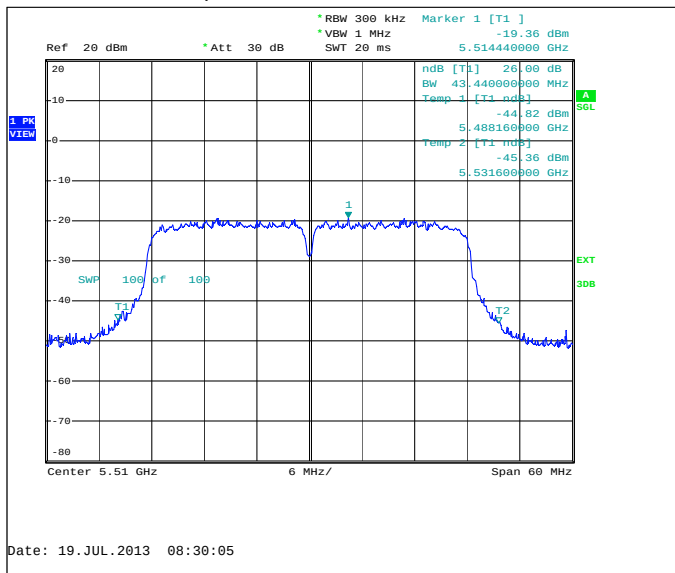
Channel 52+56 / 5270MHz



Channel 60+64 / 5310MHz



Channel 100+104 / 5510MHz



* RBW 300 kHz Marker 1 [T1]
 * VBW 1 MHz -19.10 dBm
 * Att 30 dB
 SWT 20 ms 5.60050000 GHz

Ref 20 dBm
 * Att 30 dB

1 PK VIEW

dB [T1] 26.00 dB
 BW 42.36000000 MHz
 Temp 1 [T1 nB]
 -45.16 dBm
 5.64880000 GHz
 Temp 2 [T1 nB]
 -45.79 dBm
 5.69124000 GHz

EXT 3dB

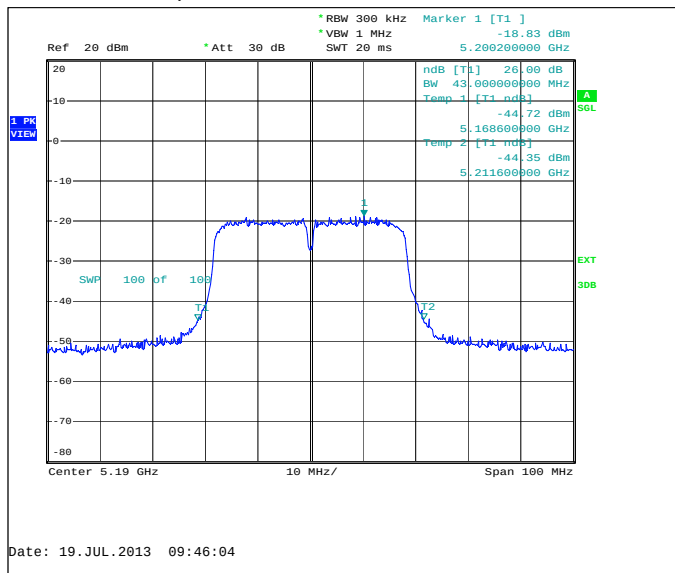
Center 5.67 GHz 6 MHz/ Span 60 MHz

Date: 19.JUL.2013 08:37:12

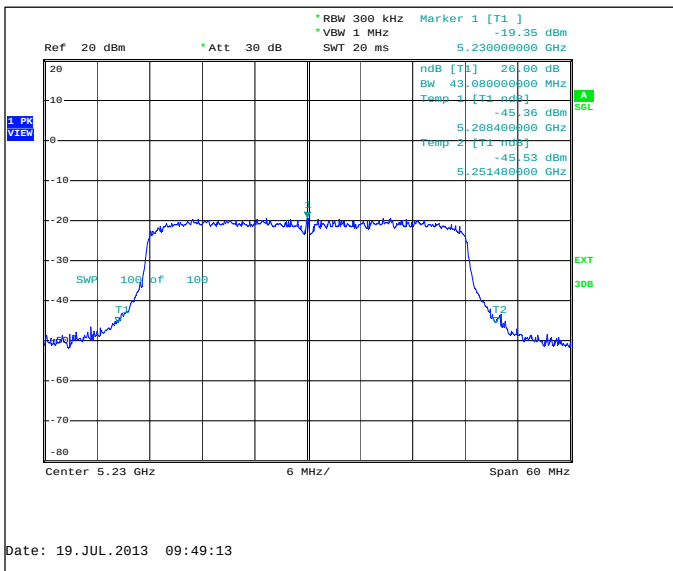
5.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36+40 / 5190	43000	PASSED
44+48 / 5230	43080	PASSED
52+56 / 5270	42840	PASSED
60+64 / 5310	43680	PASSED
100+104 / 5510	43320	PASSED
108+112 / 5550	43560	PASSED
132+136 / 5670	43440	PASSED

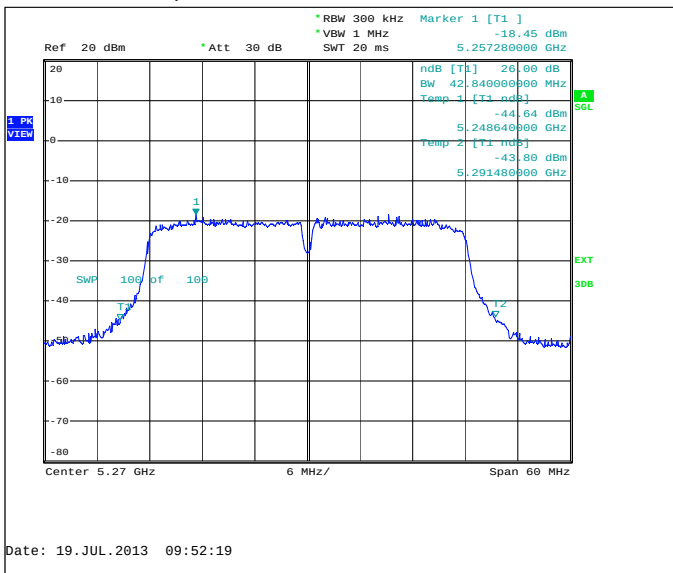
Channel 36+40 / 5190MHz



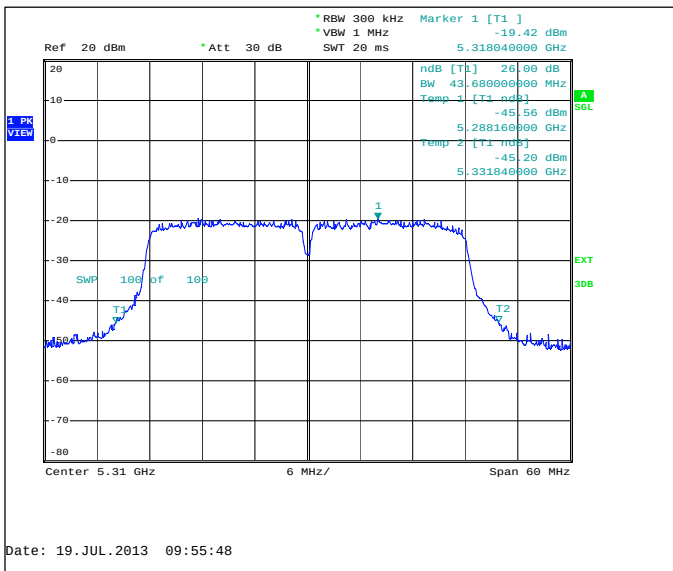
Channel 44+48 / 5230MHz



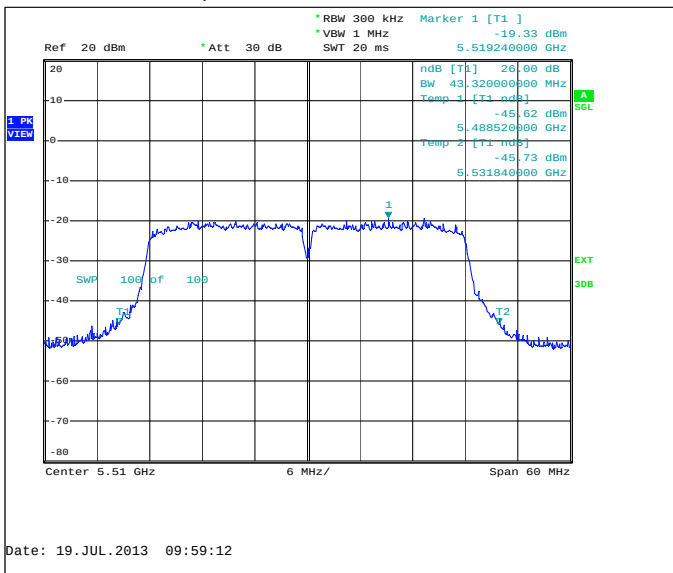
Channel 52+56 / 5270MHz



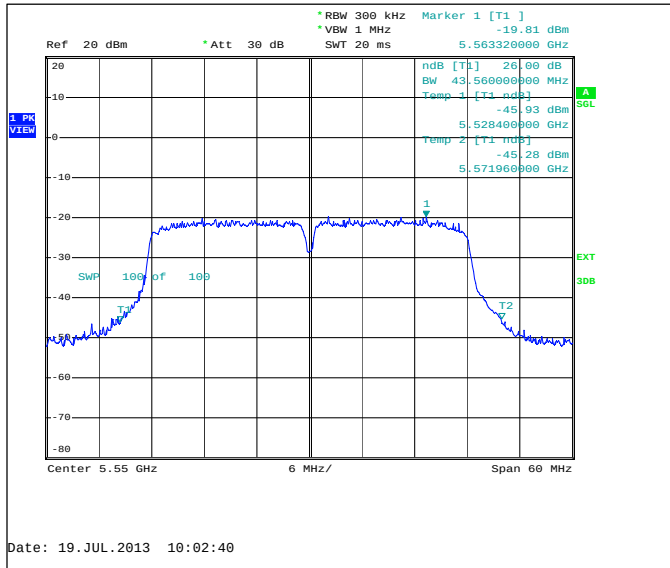
Channel 60+64 / 5310MHz



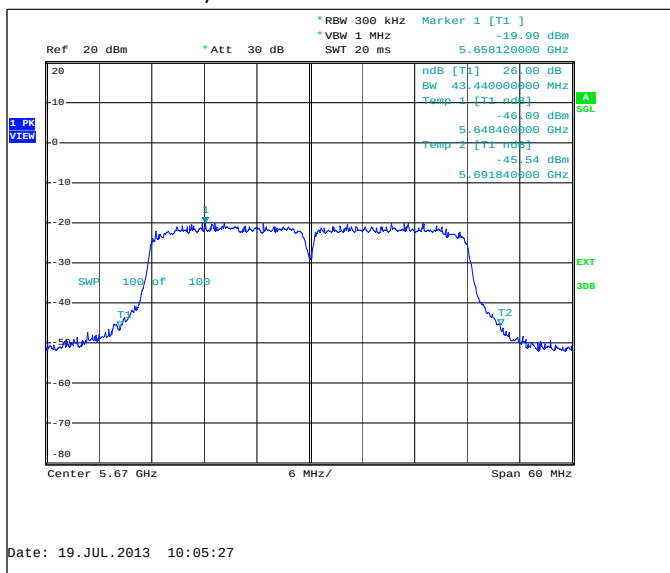
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



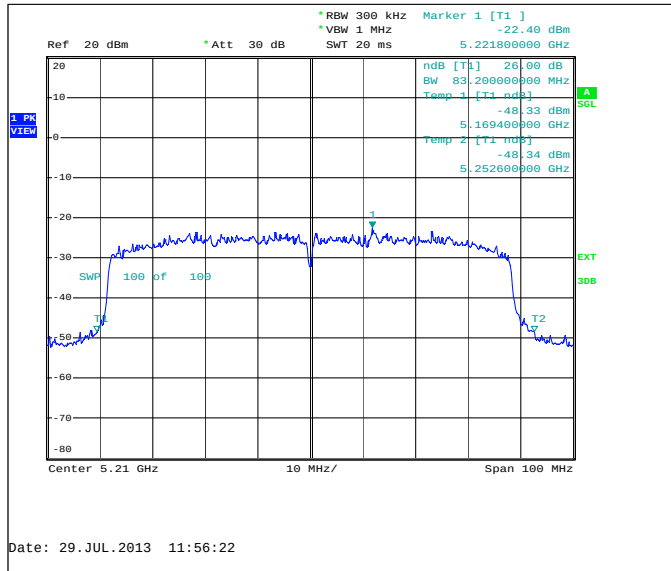
Channel 132+136 / 5670MHz



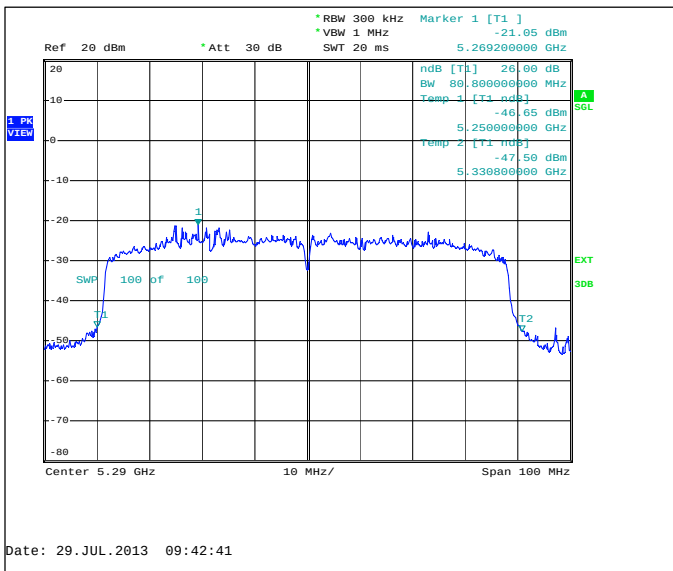
5.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36-48 / 5210	83200	PASSED
52-64 / 5290	80800	PASSED
100-112 / 5530	83400	PASSED

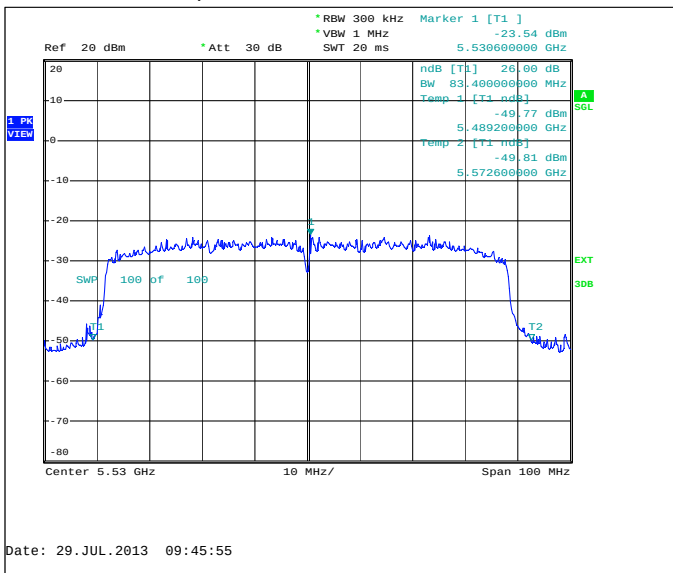
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



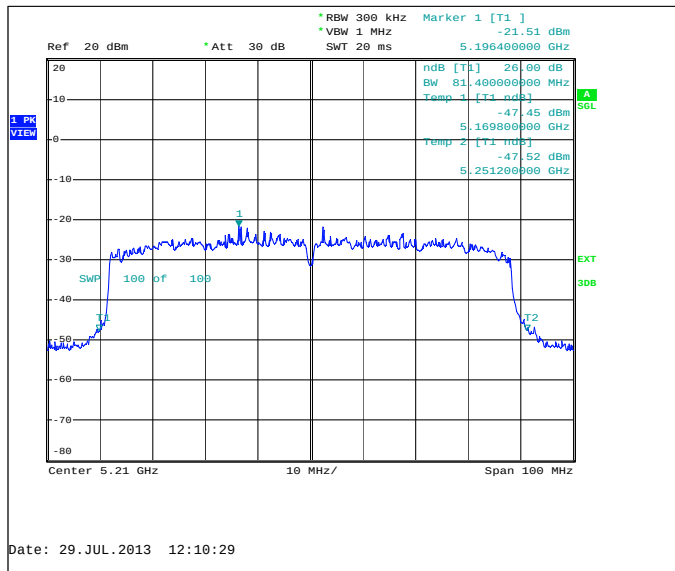
Channel 100-112 / 5530MHz



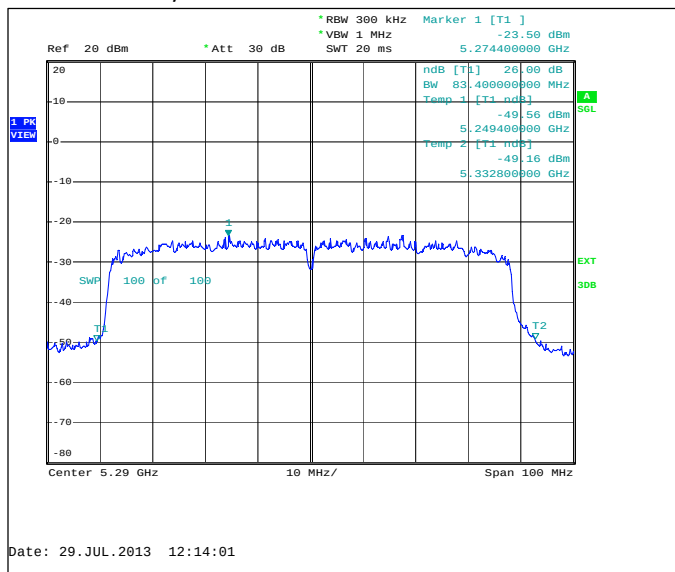
5.3.6 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate

Channel / f _c [MHz]	26 dB bandwidth [kHz]	Result
36-48 / 5210	81400	PASSED
52-64 / 5290	83400	PASSED
100-112 / 5530	78000	PASSED

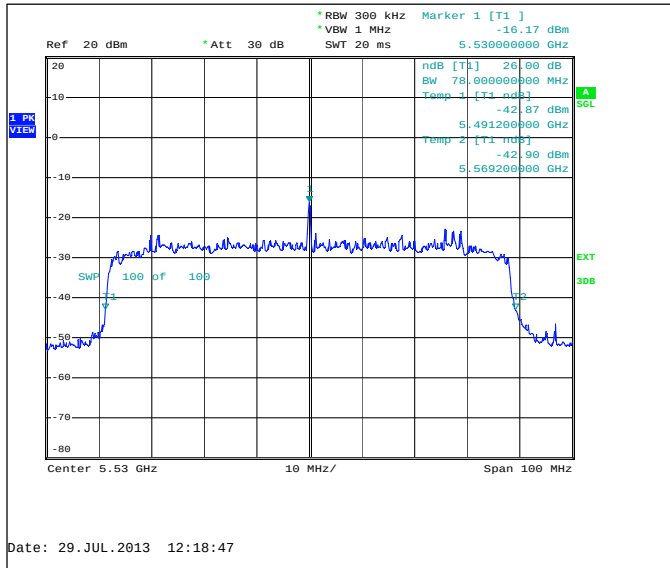
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



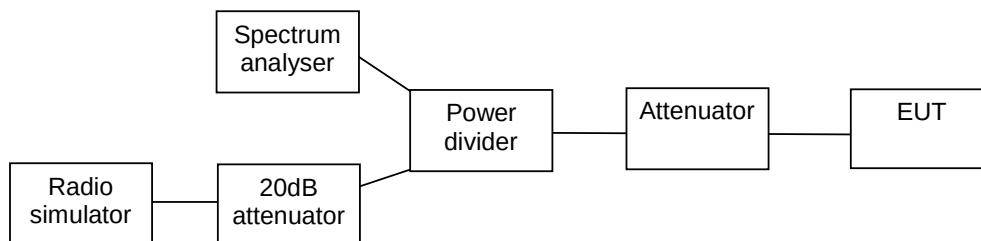
Channel 100-112 / 5530MHz



6. Peak power spectral density (FCC §15.407(a), RSS-210 A9.2)

EUT with DUT number	RM-940, DUT 17563
Accessories with DUT numbers	AC-60E, DUT 17584; CA-190CD, DUT 17585; WH-208, DUT 17586
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	22 / 44 / 101
Date of measurements	18-Jul-2013
Measured by	Tomi Lipponen

6.1. Test Setup



6.2. 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

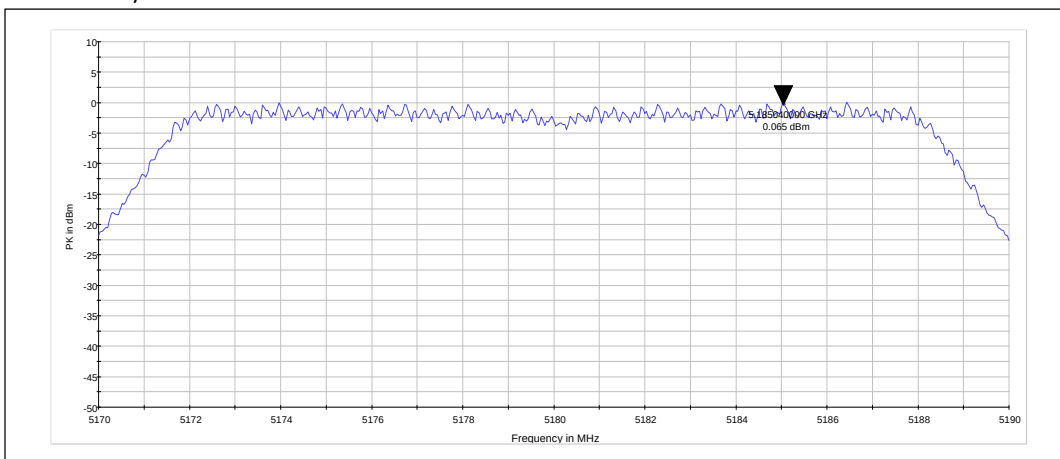
6.3. 5 GHz RLAN Test results

6.3.1 802.11a mode, BPSK modulation, 6 Mbps data rate

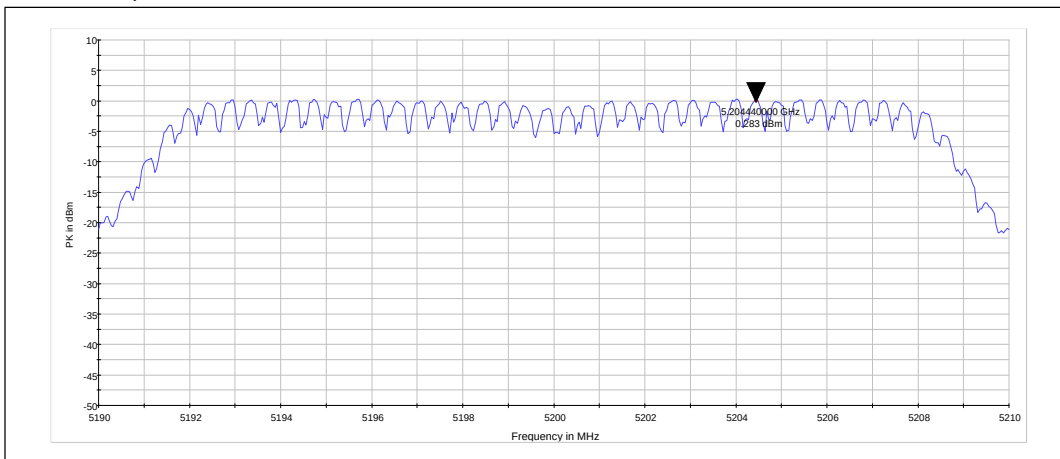
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f _c [MHz]	P [dBm]	Result
36 / 5180	0.06	PASSED
40 / 5200	0.28	PASSED
48 / 5240	-0.22	PASSED
52 / 5260	-0.13	PASSED
60 / 5300	-0.18	PASSED
64 / 5320	-0.75	PASSED
100 / 5500	-0.97	PASSED
116 / 5580	-0.98	PASSED
140 / 5700	-0.85	PASSED

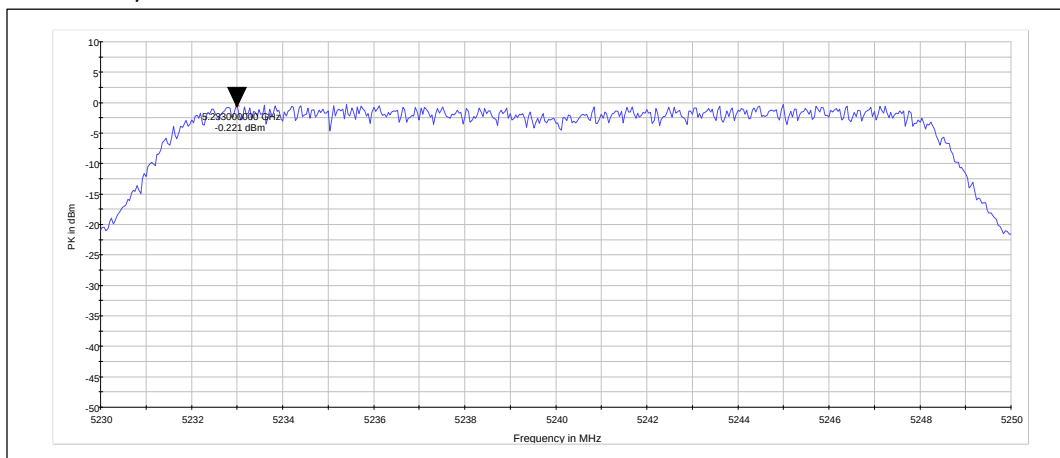
Channel 36 / 5180MHz



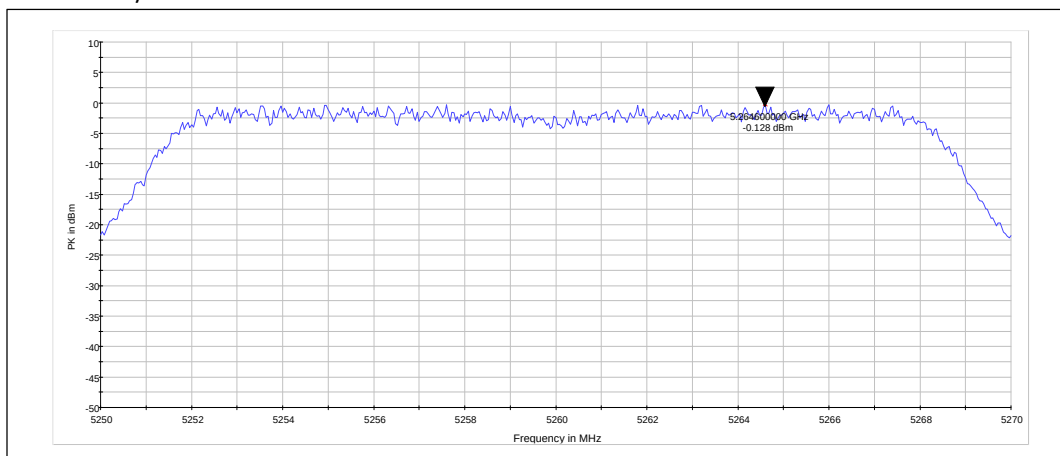
Channel 40 / 5200MHz



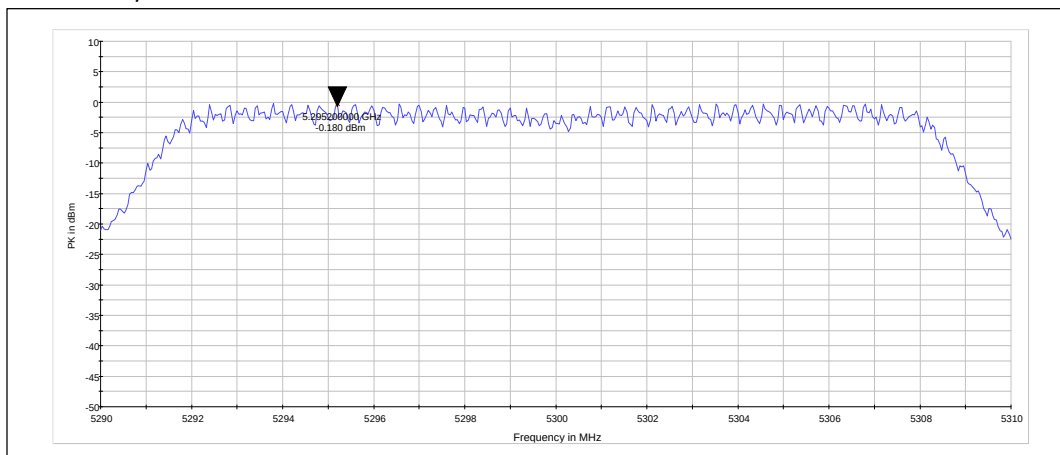
Channel 48 / 5240MHz



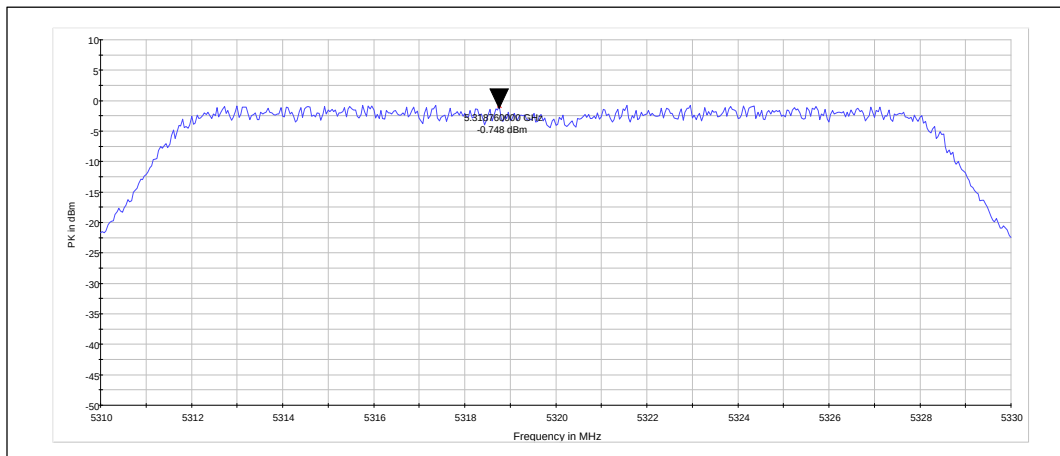
Channel 52 / 5260MHz



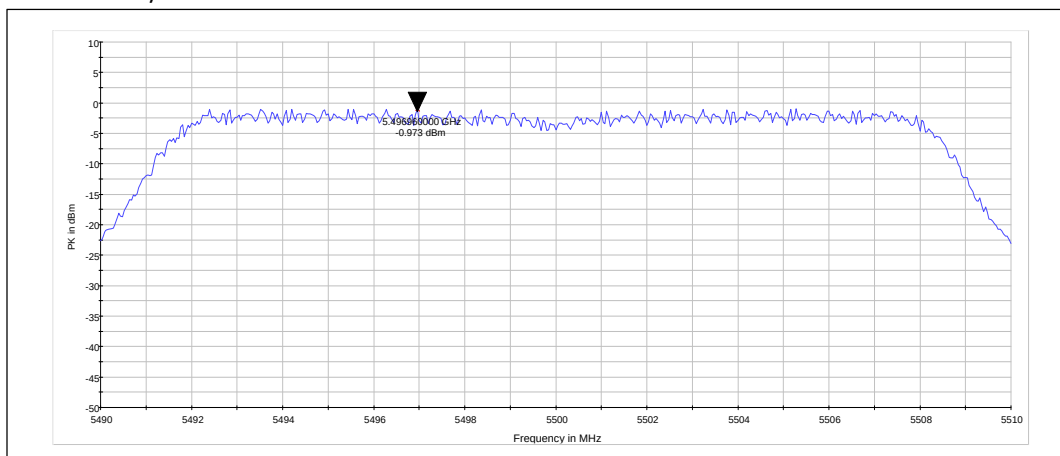
Channel 60 / 5300MHz



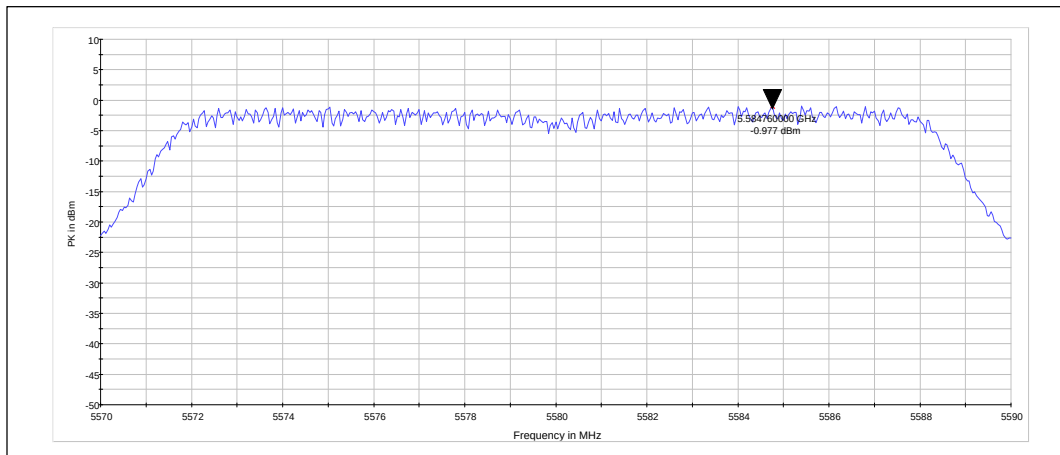
Channel 64 / 5320MHz



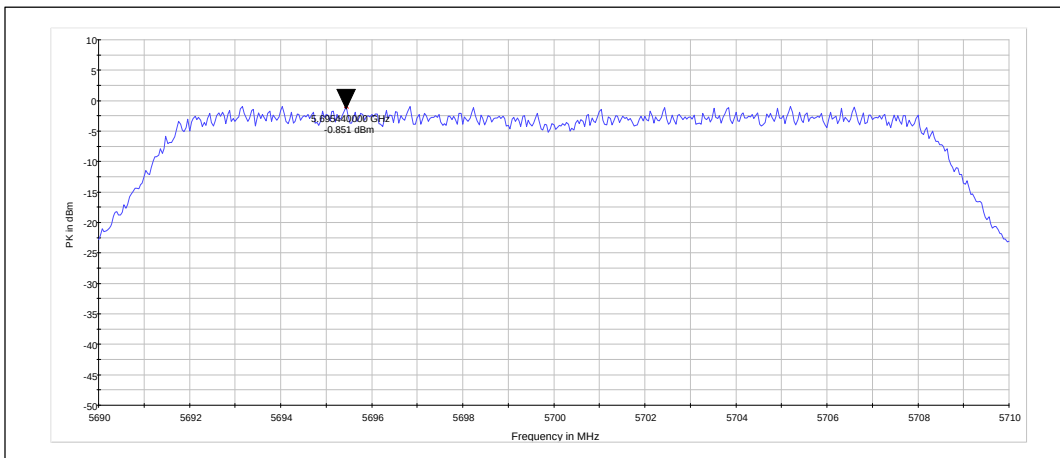
Channel 100 / 5500MHz



Channel 116 / 5580MHz



Channel 140 / 5700MHz

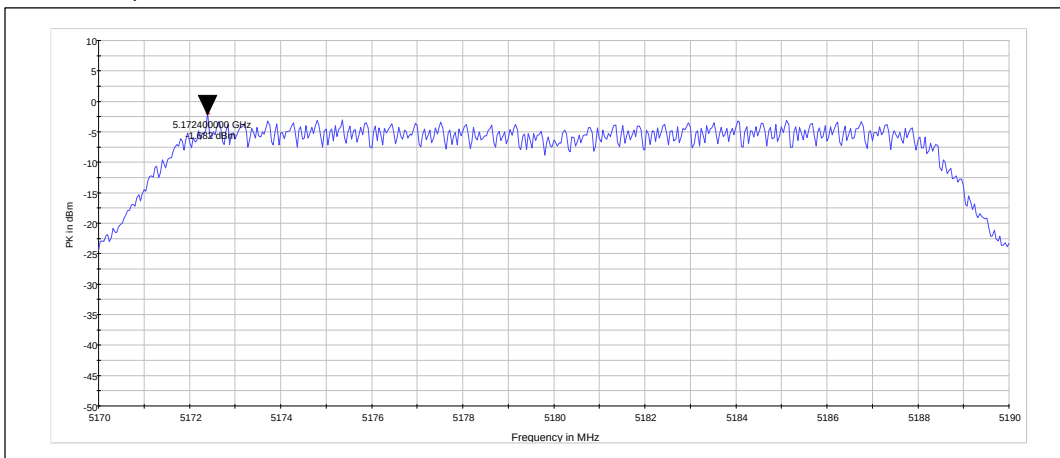


6.3.2 802.11a mode, QPSK modulation, 18 Mbps data rate

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

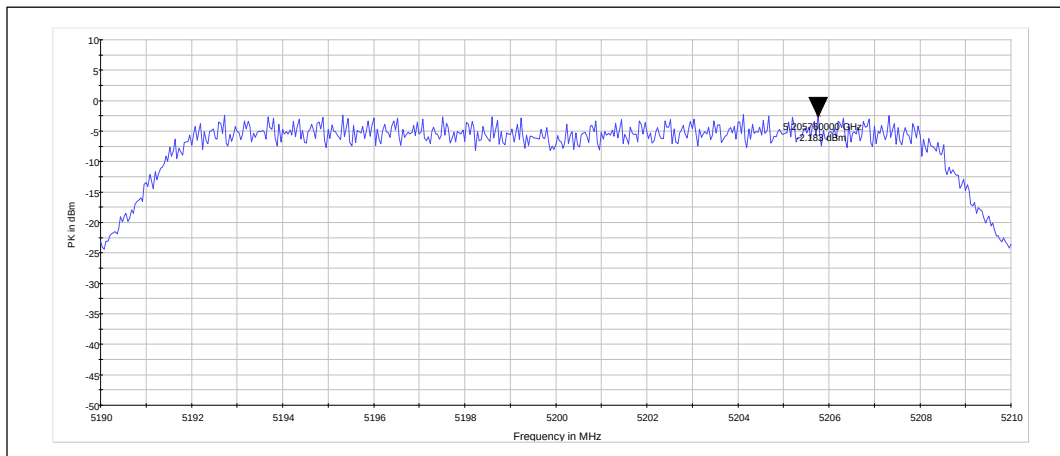
Channel / f_c [MHz]	P [dBm]	Result
36 / 5180	-1.68	PASSED
40 / 5200	-2.18	PASSED
48 / 5240	-1.28	PASSED
52 / 5260	-1.68	PASSED
60 / 5300	-2.47	PASSED
64 / 5320	-3.02	PASSED
100 / 5500	-2.49	PASSED
116 / 5580	-2.71	PASSED
140 / 5700	-2.31	PASSED

Channel 36 / 5180MHz

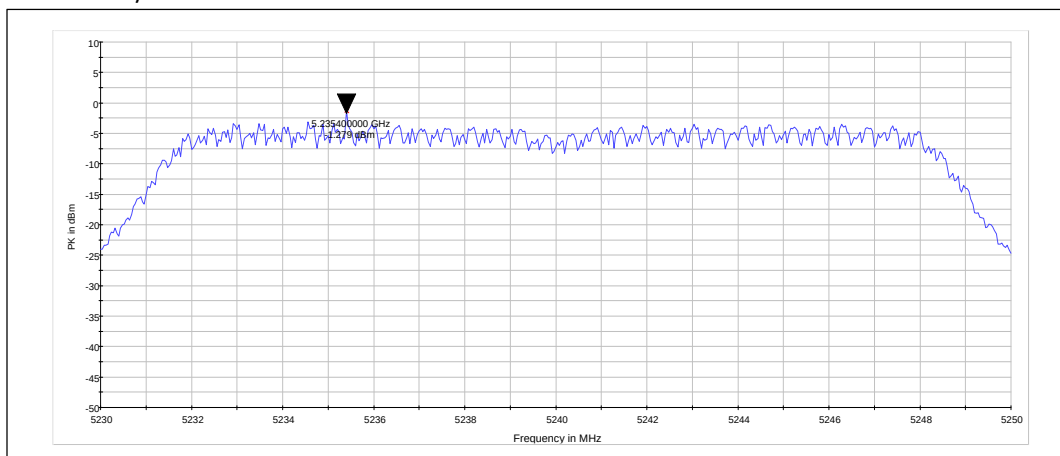


Channel

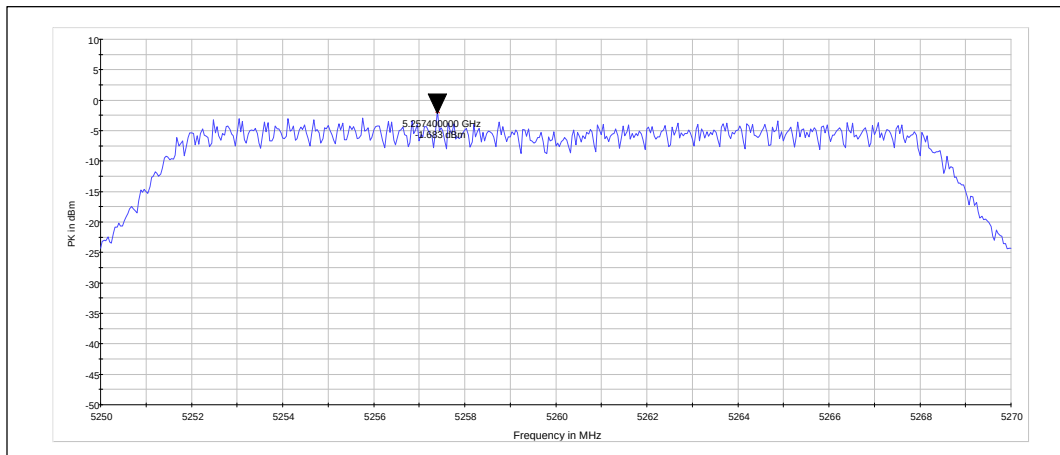
40 / 5200MHz



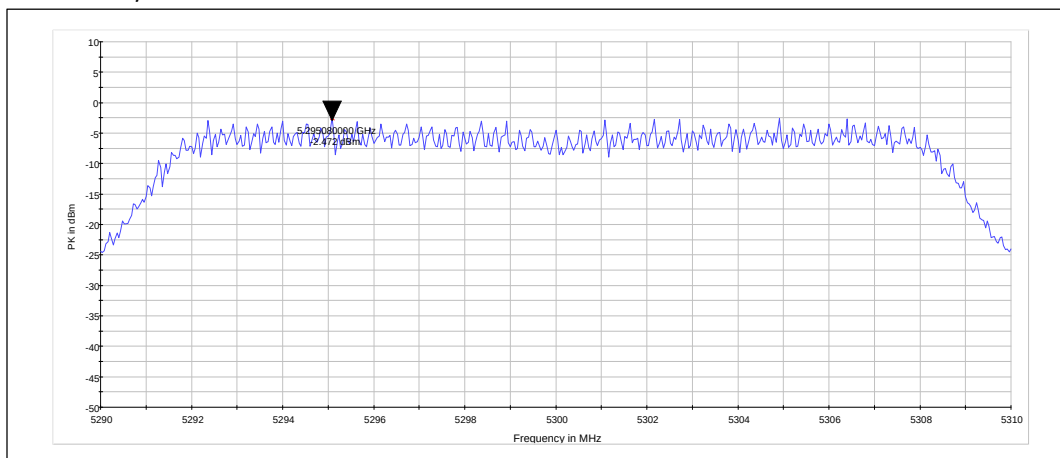
Channel 48 / 5240MHz



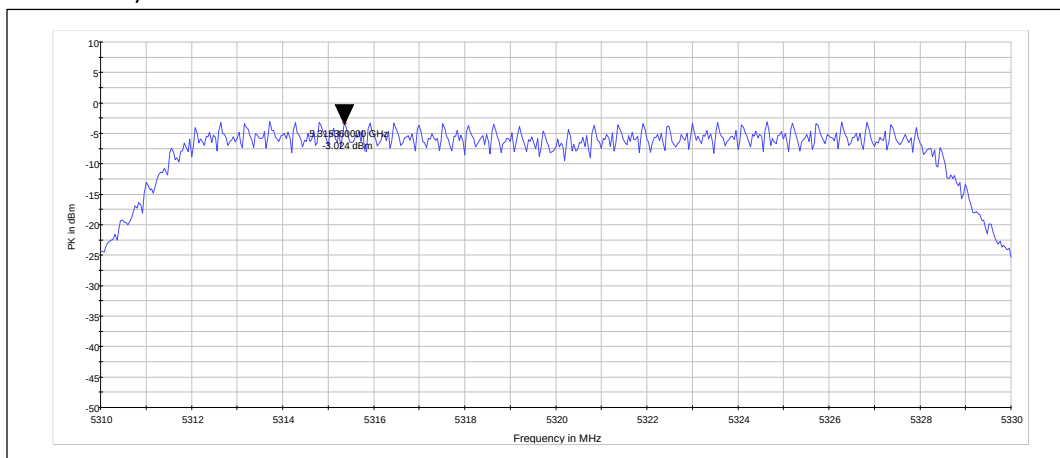
Channel 52 / 5260MHz



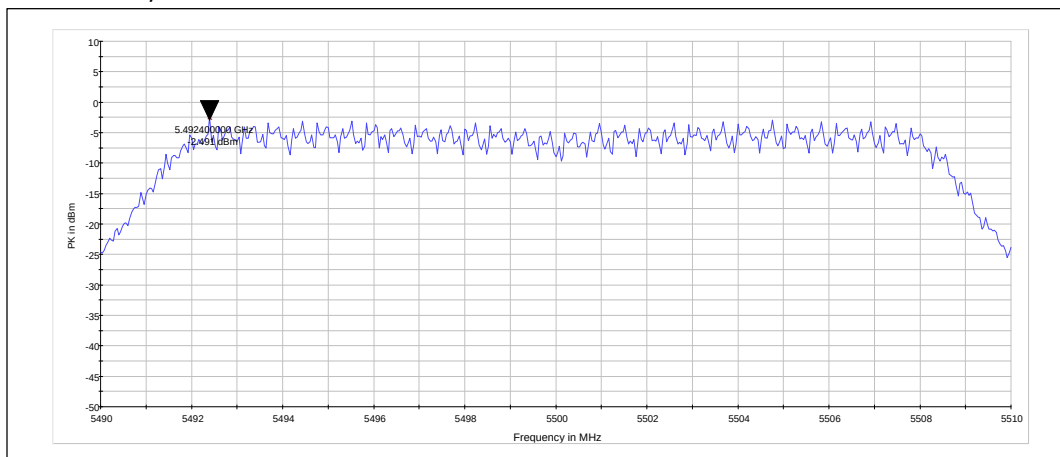
Channel 60 / 5300MHz



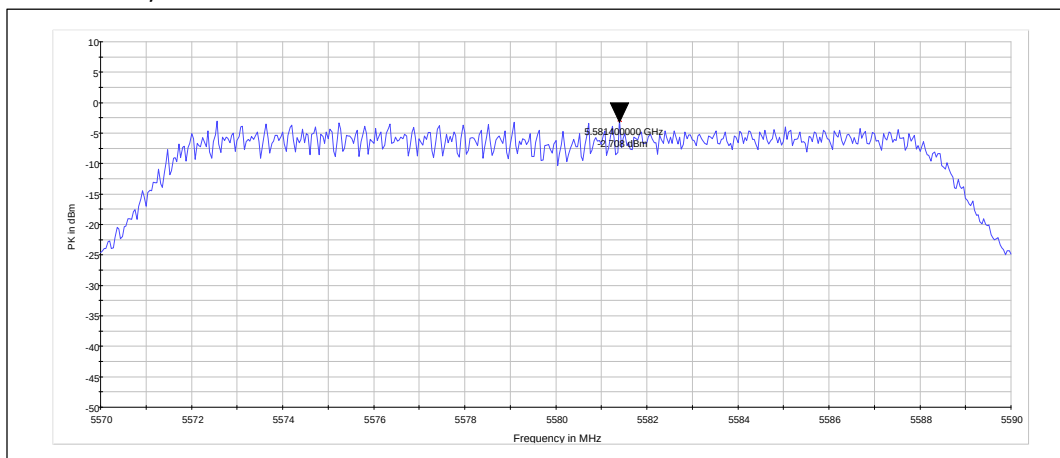
Channel 64 / 5320MHz



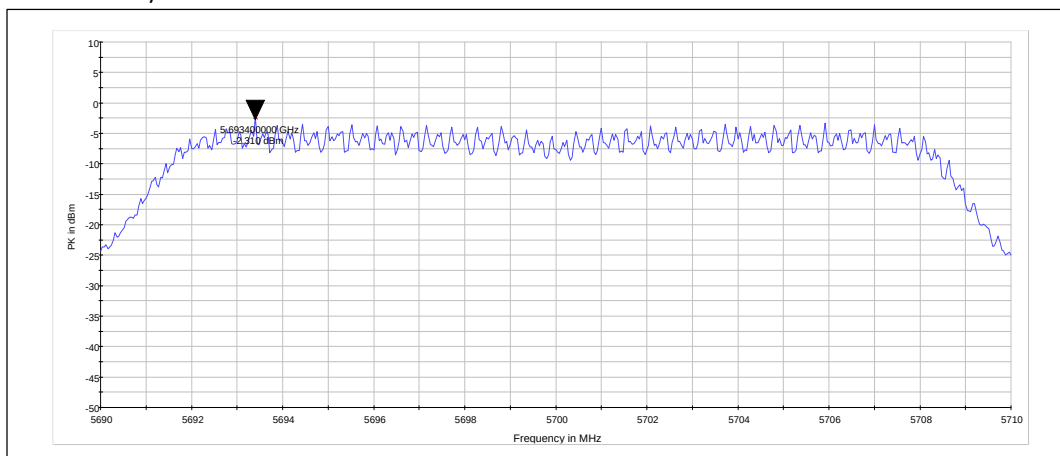
Channel 100 / 5500MHz



Channel 116 / 5580MHz



Channel 140 / 5700MHz

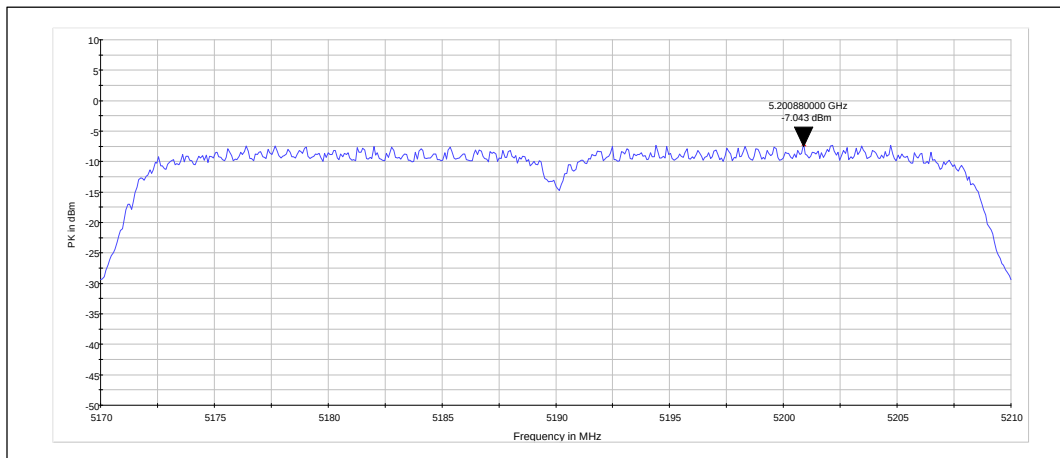


6.3.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

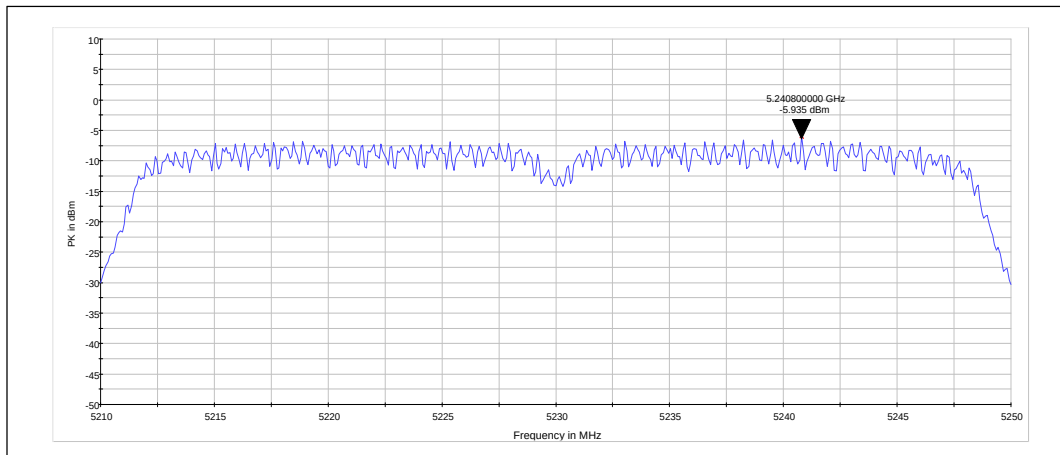
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f_c [MHz]	P [dBm]	Result
36+40 / 5190	-7.04	PASSED
44+48 / 5230	-5.94	PASSED
52+56 / 5270	-6.72	PASSED
60+64 / 5310	-6.45	PASSED
100+104 / 5510	-7.63	PASSED
108+112 / 5550	-7.56	PASSED
132+136 / 5670	-6.97	PASSED

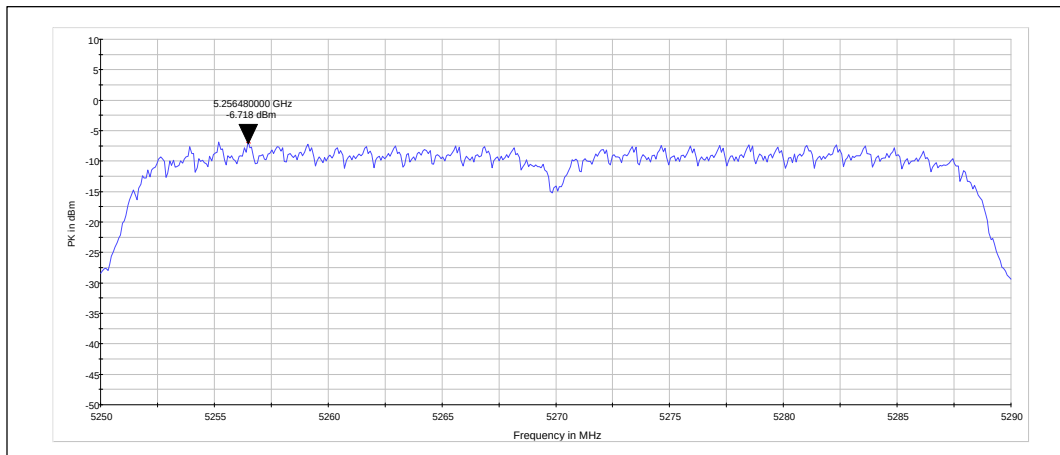
Channel 36+40 / 5190MHz



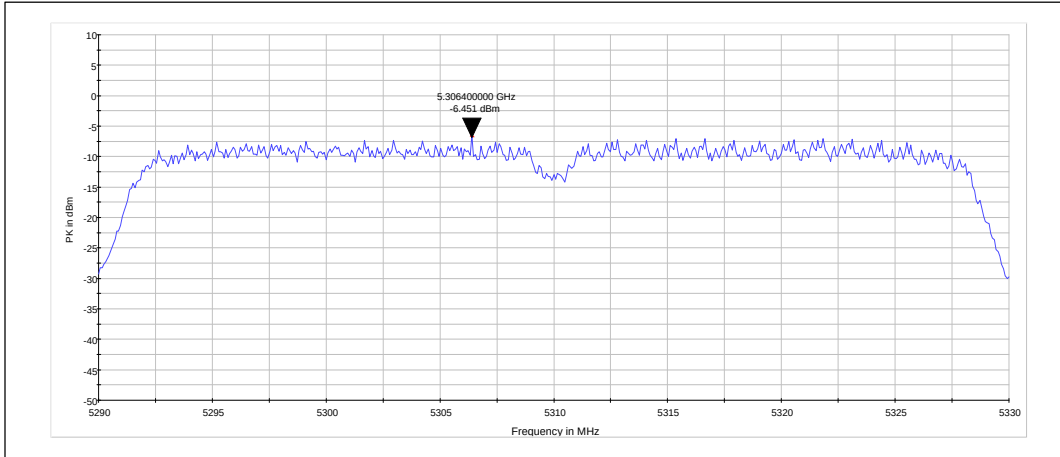
Channel 44+48 / 5230MHz



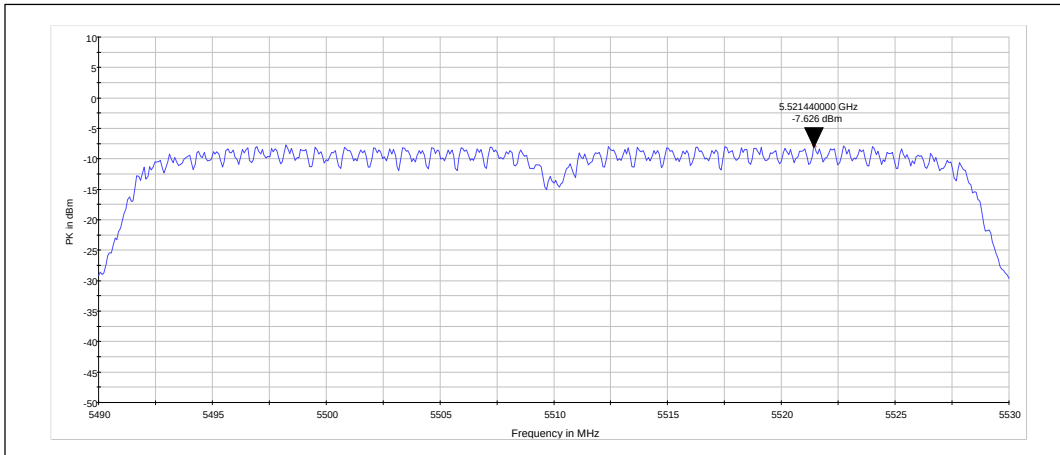
Channel 52+56 / 5270MHz



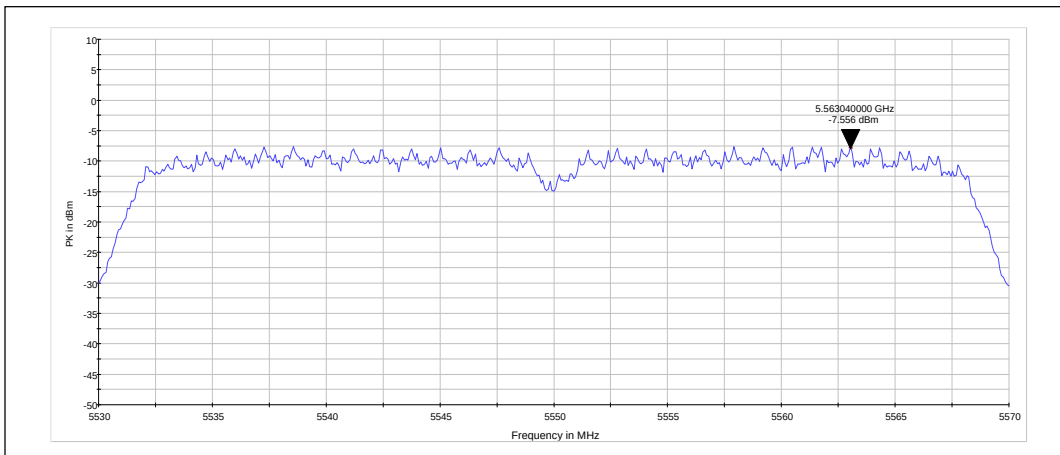
Channel 60+64 / 5310MHz



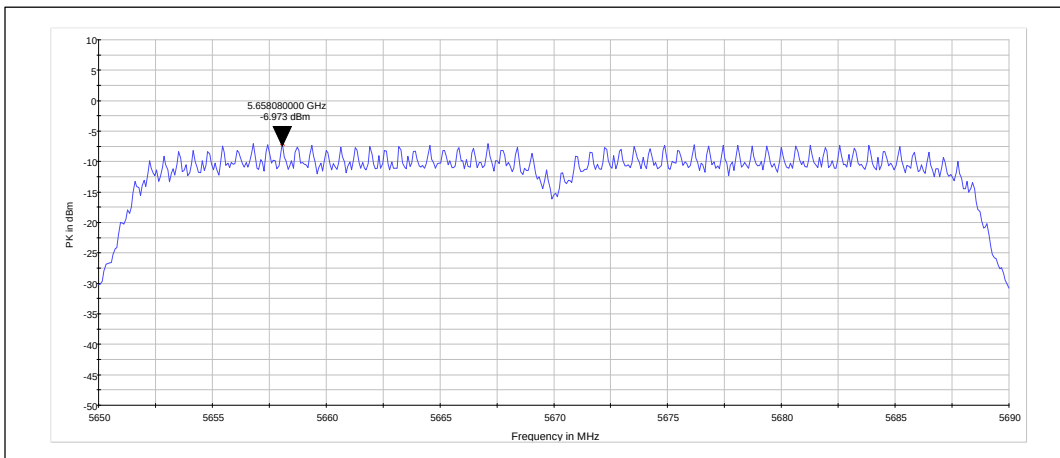
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz

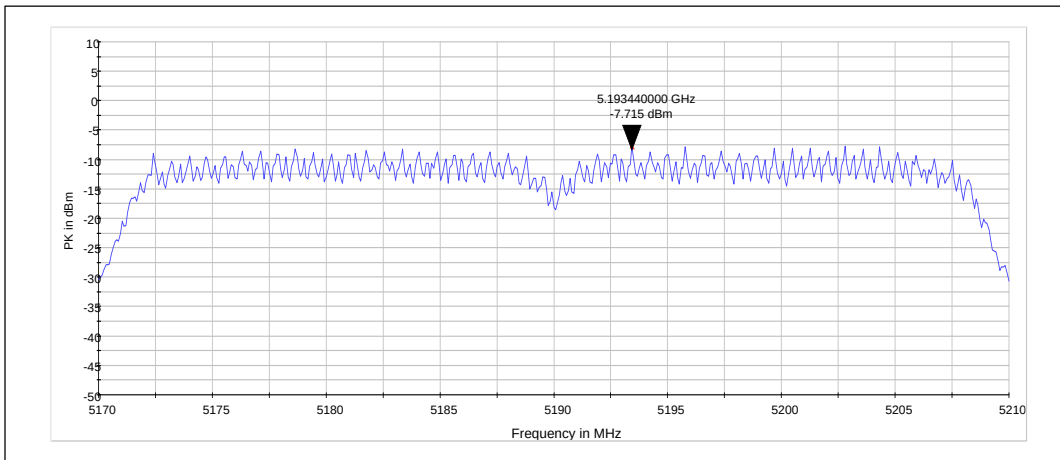


6.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

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

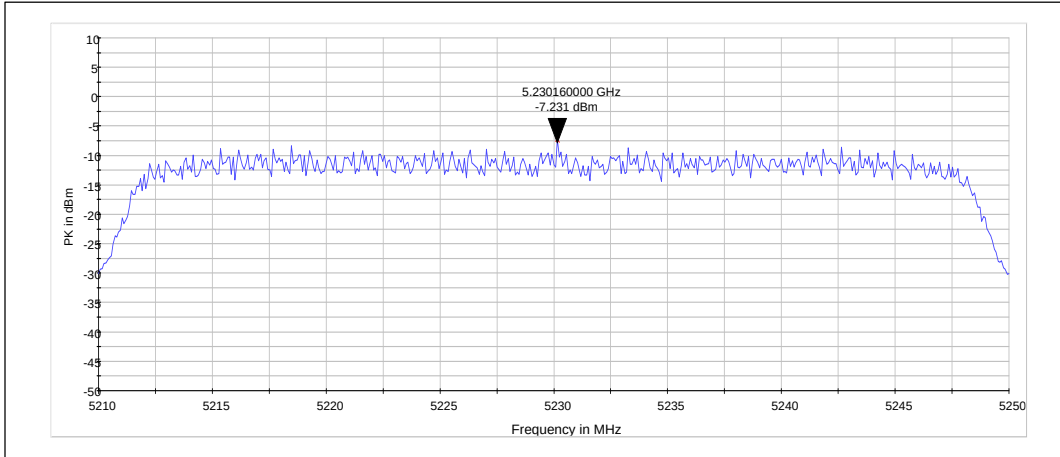
Channel / f_c [MHz]	P [dBm]	Result
36+40 / 5190	-7.71	PASSED
44+48 / 5230	-7.23	PASSED
52+56 / 5270	-8.33	PASSED
60+64 / 5310	-8.48	PASSED
100+104 / 5510	-8.67	PASSED
108+112 / 5550	-8.79	PASSED
132+136 / 5670	-9.25	PASSED

Channel 36+40 / 5190MHz

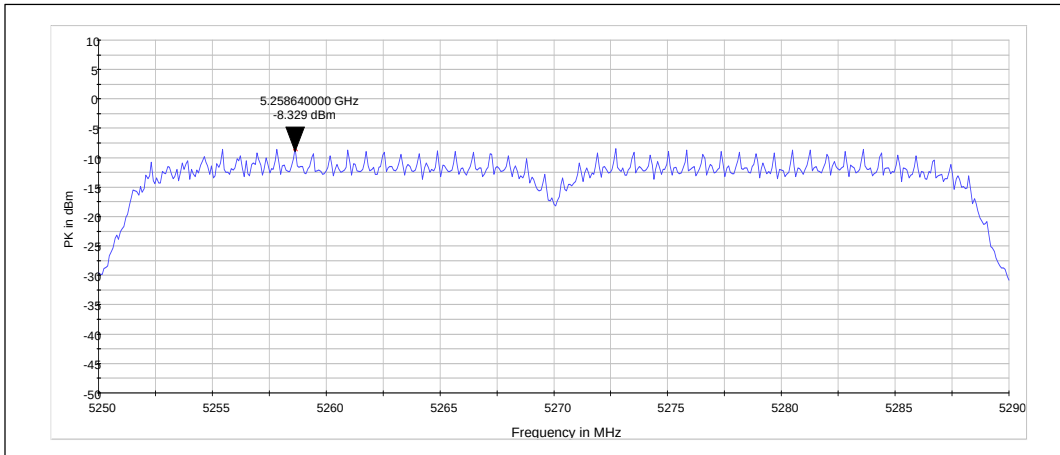


Channel

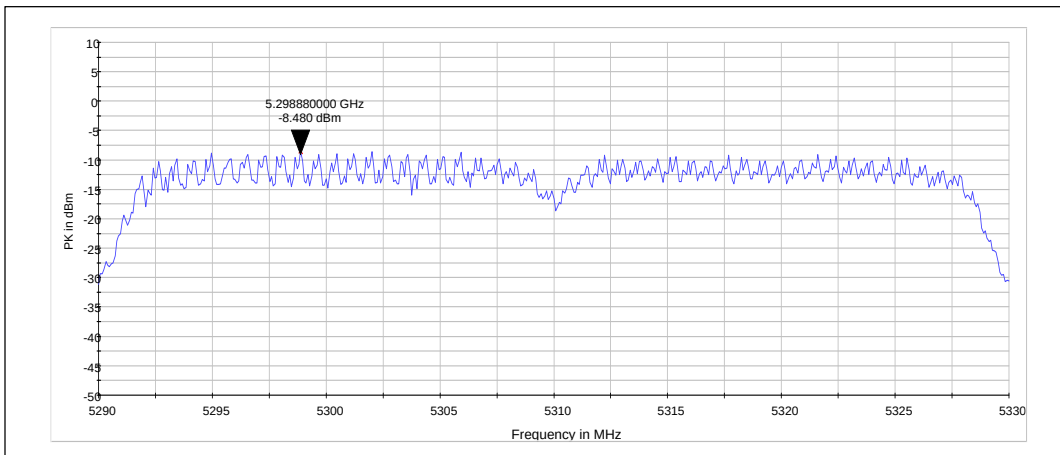
44+48 / 5230MHz



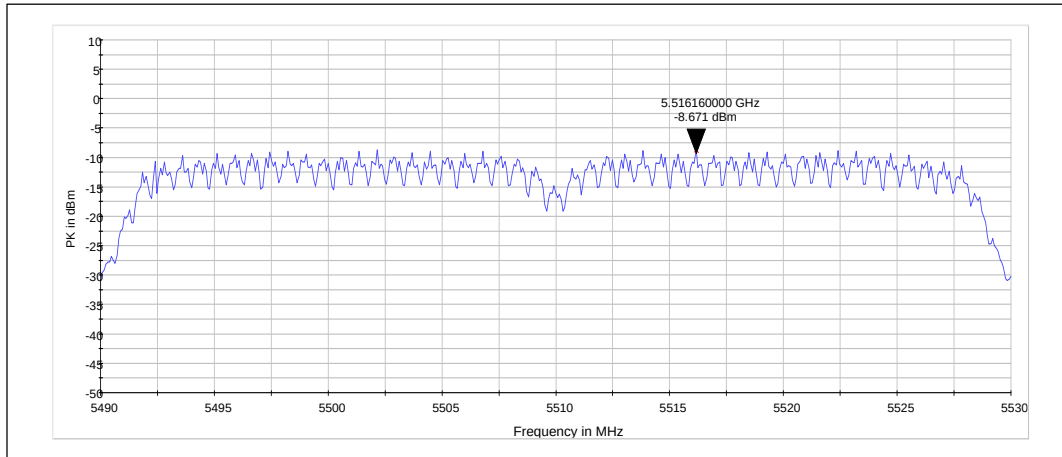
Channel 52+56 / 5270MHz



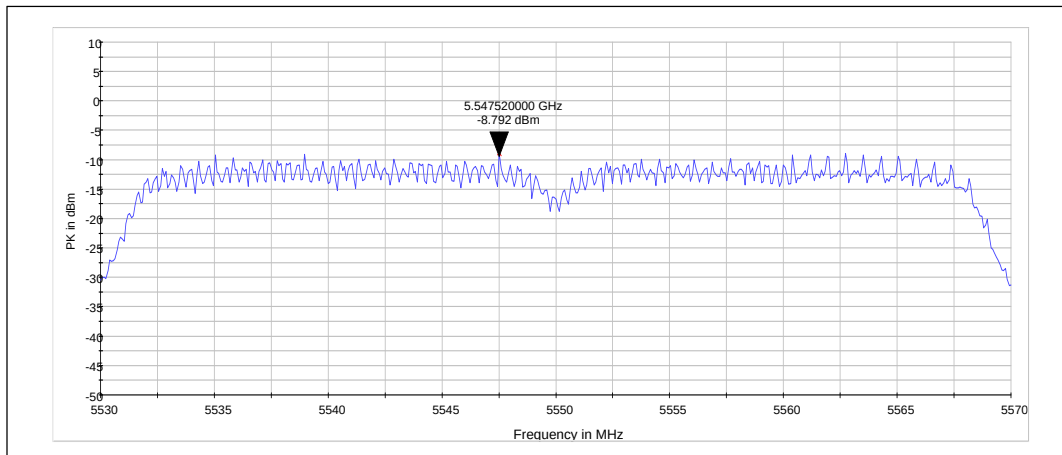
Channel 60+64 / 5310MHz



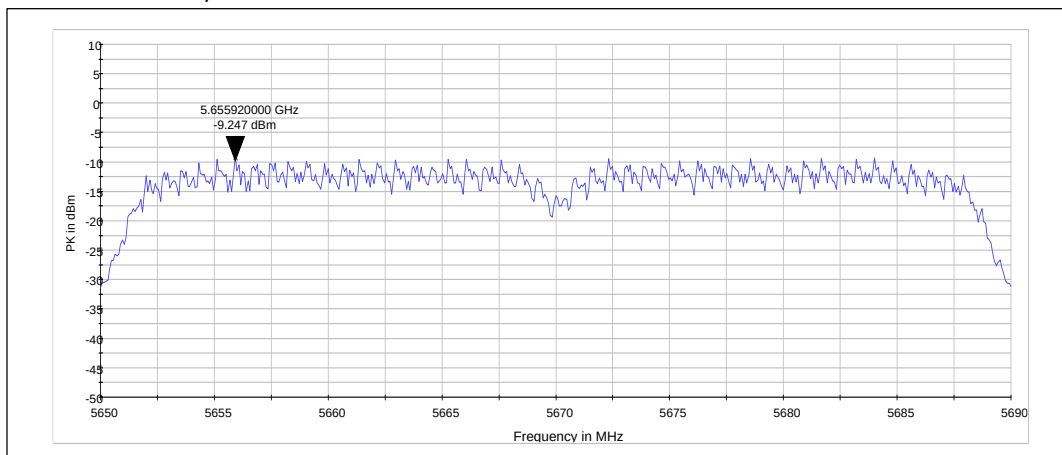
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz

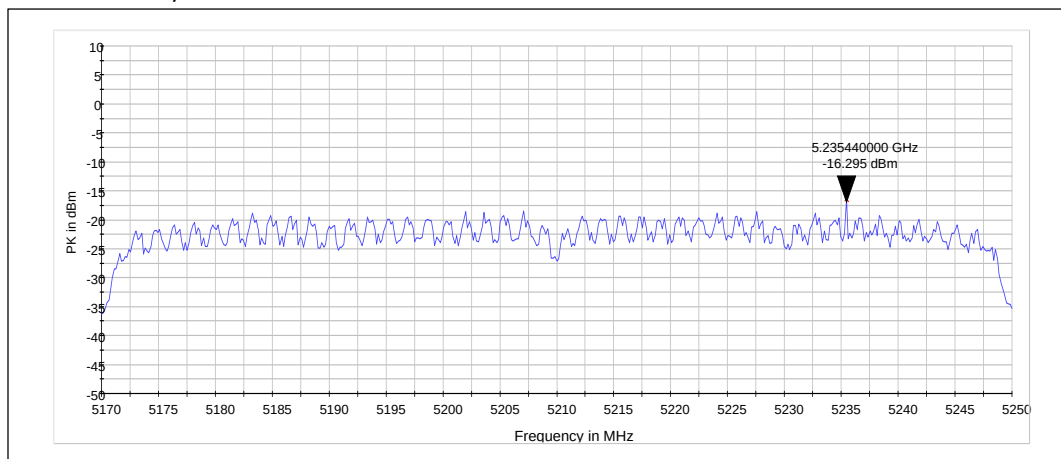


6.3.5 802.11ac mode, BPSK modulation, 29.3 / 32.5 Mbps data rate

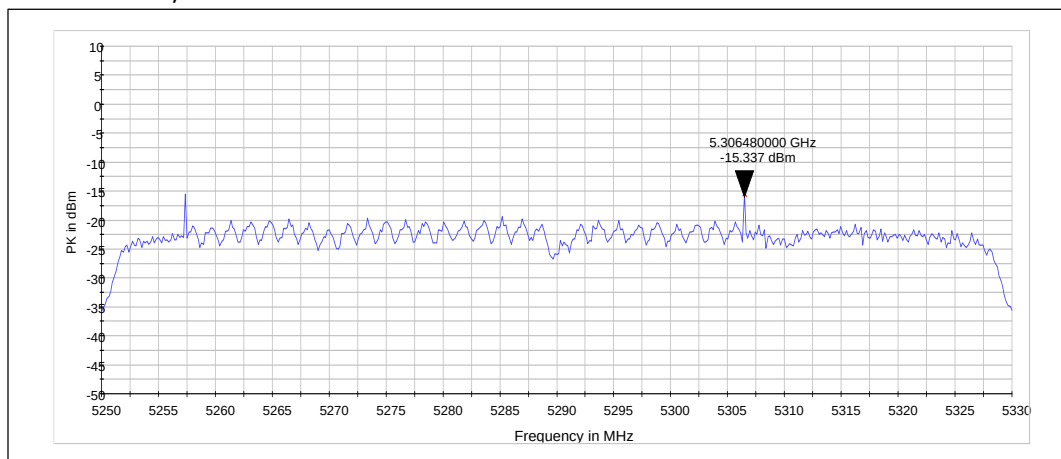
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

Channel / f _c [MHz]	P [dBm]	Result
36-48 / 5210	-16.29	PASSED
52-64 / 5290	-15.34	PASSED
100-112 / 5530	-18.39	PASSED

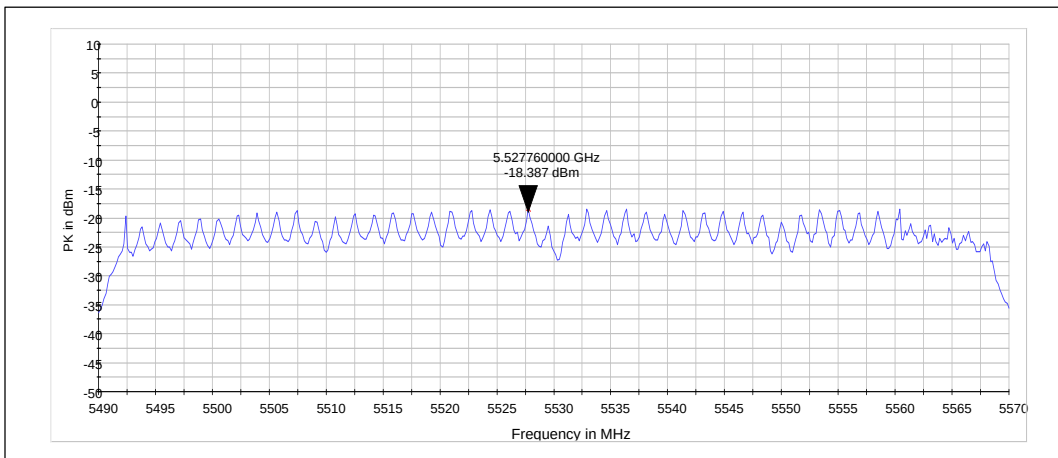
Channel 36-48 / 5210MHz



Channel 52-64 / 5290MHz



Channel 100-112 / 5530MHz

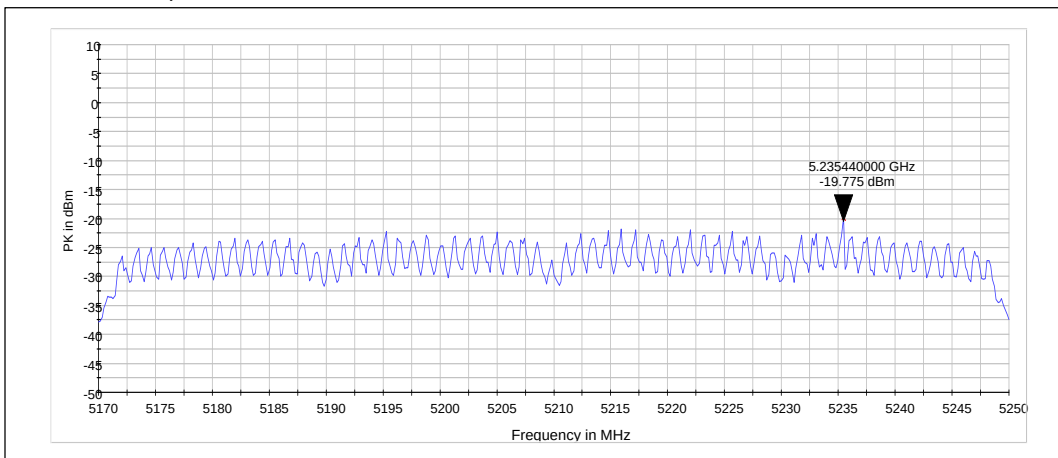


6.3.6 802.11ac mode, QPSK modulation, 87.8 / 97.5 Mbps data rate

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

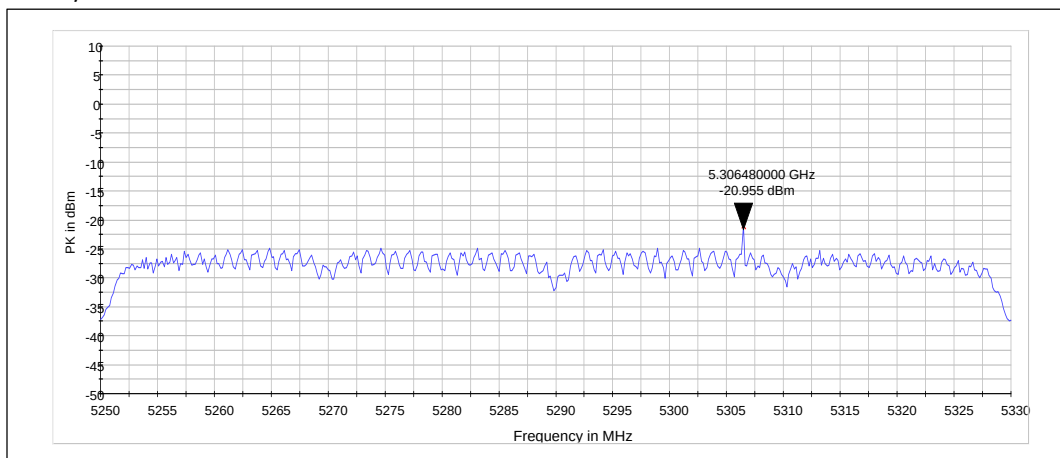
Channel / f_c [MHz]	P [dBm]	Result
36-48 / 5210	-19.78	PASSED
52-64 / 5290	-20.95	PASSED
100-112 / 5530	-20.57	PASSED

Channel 36-48 / 5210MHz

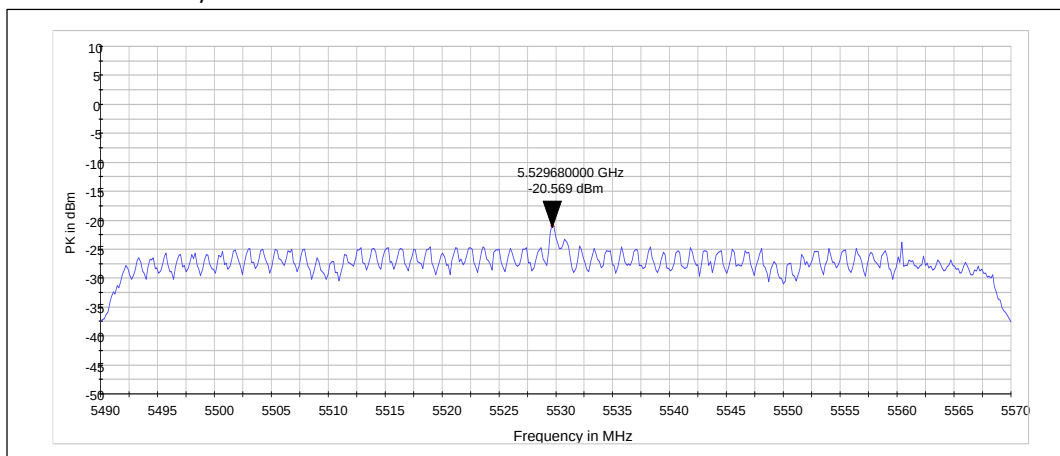


Channel

52-64 / 5290MHz



Channel 100-112 / 5530MHz



7. Test Equipment

7.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
1759	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
1916	Communication Tester	CMTA84	R&S	15B
1992	Signal Generator	83630B	Agilent	15C, 15B
1999	Receiver	ESIB26	R&S	22/24/27, 15C, 15B
2039	Power Supply	PL330QMD	Thurlby	15C, 15B
2059	V-network	ESH3-Z6	R&S	-
2097	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
2156	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2180	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2206	Signal Generator	SMX	R&S	15C, 15B
2347	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2352	Spectrum Analyzer	FSP-30	R&S	22/24/27, 15C
2359	Temperature Test Chamber	VT4002	Vötsch	22/24/27
2388	Bluetooth Tester	CBT	R&S	15B
2389	Signal Generator	SMJ 100A	R&S	15B
2390	Directional Coupler	DC2600	AR	-
6009	GPS Antenna	SA-700	Chronos	15C
6010	GPS Network amplifier	NLA20FPDC	GPS Networking, Inc	15C
6011	GPS signal Splitter	LDCBS1x4	GPS Networking, Inc	15C
6012	CDN	CDN USB/c	Teseq	-
6015	Receiver	ESI	R&S	22/24, 15C, 15B
6036	Data Logger	175-H2	Testo	22/24/27, 15C, 15B
6038	Data Logger	Testo 580	Testo	22/24/27, 15C, 15B
6039	USB Interface	5541765	Testo	22/24/27, 15C, 15B
6044	V-network	ESH3-Z6	R&S	-
6045	Power splitter	11667B	Agilent	22/24/27, 15C
6046	Attenuator 10dB	8493C	Agilent	22/24/27, 15C
6047	Attenuator 20dB	8493C	Agilent	22/24/27, 15C
6094	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
6096	EMC Analyzer	E7405A	HP	-
6098	Signal Generator	8648C	Agilent	-
6103	Bluetooth tester	CBT	R&S	15B
6113	Signal Generator	SMF100A	R&S	22/24/27, 15C 15B
6120	Thermal Chamber	WT 20/40	Weiss	22/24/27, 15C 15B
6121	Power Splitter	HP11667B	Agilent	22/24/27, 15C 15B
6122	Power Splitter	HP11667B	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
10479	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B

7.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
1917	Communication Tester	CMTA84	R&S	15B
1984	Antenna	BBHA 9120 D	Schwarzbeck	22/24/27, 15C, 15B
2009	Signal Generator	SMP 22	R&S	22/24/27, 15C, 15B
2027	CDN	M2 (modified) DC1	MEB	22/24/27, 15C, 15B
2028	CDN	M3 (modified) DC2	MEB	22/24/27, 15C, 15B
2029	Power Supply	PL330	Thurlby	22/24/27, 15C
2043	Band Reject Filter	WRCA824/849-0,2-6SS	Wainwright	22
2135	CDN	CDN 801-M3	Lüthi	22/24/27, 15C, 15B
2140	Antenna	EMCO93110B	EMCO	22/24/27, 15C
2142	Antenna	3146	EMCO	22/24/27, 15C
2156	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2176	CDN	CDN 801-M3	Lüthi	22/24/27, 15C, 15B
2180	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2347	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
2353	Receiver	ESIB26	R&S	22/24/27, 15C, 15B
2357	Band Reject Filter	WRCG2400/2483-2390/2493-35/10SS	Wainwright	15C
2361	Anechoic Chamber	3 m Semi / Full Anechoic Chamber	Euroshield	22/24/27, 15C, 15B
2364	Band Reject Filter	WRCG1877/1883 - 1870/1890-40/6SS	Wainwright	24
2384	Band Reject Filter	WRCG832/838-825/845-40/5SS	Wainwright	22
2388	Bluetooth Tester	CBT	R&S	15B
2389	Signal Generator	SMJ 100A	R&S	15B
2391	Band Reject Filter	WRCG1729.4/1735.4-1722.4/1742.4-40/6SS	Wainwright	27
6009	GPS Antenna	SA-700	Chronos	15C
6010	GPS Network amplifier	NLA20FPDC	GPS Networking, Inc	15C
6011	GPS signal Splitter	LDCBS1x4	GPS Networking, Inc	15C
6014	Substitute Calibration Cable	Sucoflex 104PB	Suhner	-
6017	Antenna	SBA 9113	Schwarzbeck	22 / 24 / 27
6037	Data Logger	175-H2	Testo	22/24/27, 15C, 15B
6038	Data Logger	Testo 580	Testo	22/24/27, 15C, 15B
6039	USB Interface	5541765	Testo	22/24/27, 15C, 15B
6087	Antenna	BBHA 9120D	Scharzbeck	22/24/27, 15C
6088	Antenna	VUBA 9117	Scharzbeck	22/24/27, 15C
6089	Antenna	HFH2-Z2	R&S	15C, 15B
6094	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
6103	Bluetooth tester	CBT	R&S	15B
6113	Signal Generator	SMF100A	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
6130	Notch Filter	WRCD1880-1.1.25/50-10SS	Wainwright	22/24/27
6131	Notch Filter	WRCT902.4-0.4/40-8SS	Wainwright	-
6135	Notch Filter	WRCJV2531/2539-2523/2547-60/12SS	Wainwright	22/24/27
10479	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	RF immunity / Emission Software	EMC32	R&S	22/24/27, 15C, 15B