FCC TEST REPORT

According to

FCC Rules and Regulations

Part 15 Subpart E

Applicant	:	MaxMedia Technology Limited
Address	:	5F., No. 113, Jian 2nd Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
Equipment	:	WLAN 11n Dual Band Dongle
Model No.	:	WL-6210-V3
Trade Name	:	MaxMedia
FCC ID	:	Z7ZMAXMEDIAWIFI2

- The test result refers exclusively to the test presented test model / sample.,
- The test result does not include DFS test for 5250 ~ 5350 MHz.
- Without written approval of **Cerpass Technology Corp.,** the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

CONTENTS

History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description
TEFE1202096	Jul. 19, 2012	Original.

CERTIFICATE OF COMPLIANCE

According to

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Part 15 Subpart E

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Equipment	:	WLAN 11n Dual Band Dongle
Model No.	:	WL-6210-V3
FCC ID	:	Z7ZMAXMEDIAWIFI2

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4(2009)** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart E (2010) , and KDB789033.**

The test was carried out on Jul. 10, 2012 at Cerpass Technology Corp.

Approved by:

Hill Chen
EMC/RF B.U. Assistant Manager

Tested by:

Tom Tai
Engineer

1. Report of Measurements and Examinations

1.1. List of Measurements and Examinations

For Frequency 5.15GHz ~ 5.25GHZ

Applied Standard : FCC Part 15, Subpart E (Section 15.407)		
FCC Rule	. Description of Test	Result
15.407(b)(5)	. Conducted Emission	Pass
15.407(b/1/2/3)(b)(5)	. Radiated Emission	Pass
15.407(a/1/2/3)	. Peak Transmit Power	Pass
15.407(a)(6)	. Peak Power Excursion	Pass
15.407(a/1/2/3)	. Peak Power Spectral Density	Pass
15.407(g)	. Frequency Stability	Pass

2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Standard	802.11a/b/g/n
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120,180,240,270 and maximum of 300Mbps
Modulation Method	BPSK/ QPSK/ 16-QAM/ 64-QAM/ DBPSK/ DQPSK/ CCK
Frequency Band	2.4GHz and 5GHz ISM Band
Spread Spectrum	IEEE 802.11b: CCK (Complementary Code Keying) IEEE 802.11g/n:OFDM (Orthogonal Frequency Division Multiplexing)
RF Output Power	< 13dBm@11n/11a < 17dBm@11b < 15dBm@11g
Operation Mode	Ad hoc, Infrastructure, Soft AP
Receiver Sensitivity	11Mbps -80dBm@8%,54Mbps -70dBm@10%,300Mbps -64dBm@10%
Operation Range	Indoor up to 100 meters, Outdoor up to 280 meters
LED	Power
OS Support	Windows XP /Vista /7, Linux
Security	64 bit/128 bit WEP, TKIP, AES, WPA, WPA2 WPS button for easy and secure establishment of a wireless network
Interface	USB 2.0 type A male connector
Power Consumption	Transmit: around 420 mA Receive: around 280 mA
Operating Temperature	0 – 50° C ambient temperature
Storage Temperature	-10 ~ 70°C ambient temperature
Humidity	5 to 90 % maximum (non-condensing)
Size	55 x 19 mm (L x W)

2.2. Carrier Frequency of Channels

802.11a, 802.11an HT20 (5150 ~ 5250MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	48	5240
40	5200	---	---
44	5220	---	---

802.11 an HT40 (5190 ~ 5230MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
38	5190	46	5230

2.3. Test Mode and Test Software

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.

b. The complete test system included Notebook and EUT for RF test.

c. An executive program"REALTEK.Test" under XP was executed to keep transmitting and receiving data via Wireless.

d. The following test modes were performed for test:

- 802.11a/an, HT20: CH 36: 5180MHz, CH 44: 5220MHz, CH 48: 5240MHz
- 802.11an, HT40: CH 38: 5190MHz, CH 46: 5230MHz

* Power output of data rate:

802.11a		802.11an HT20		802.11an HT40	
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)
54	8.43	130/15	9.08	270/15	8.35
48	8.38	117/14	9.03	243/14	8.28
36	8.33	104/13	9.00	216/13	8.27
24	8.34	78/12	8.93	162/12	8.31
18	8.36	52/11	8.92	108/11	8.30
12	8.37	39/10	8.91	81/10	8.29
9	8.36	26/9	8.89	54/9	8.27
6	8.38	13/8	8.87	27/8	8.23
---	---	65/7	9.03	135/7	8.18
---	---	58.5/6	9.02	121.5/6	8.18
---	---	52/5	9.00	108/5	8.15
---	---	39/4	8.89	81/4	8.15
---	---	26/3	8.88	54/3	8.16
---	---	19.5/2	8.80	40.5/2	8.18
---	---	13/1	8.85	27/1	8.16
---	---	6.5/0	8.85	13.5/0	8.19

2.4. Description of Test System

Device	Manufacturer	Model No.	Description
Notebook	IBM	2371	Power Cable, Unshielding 1.8m

2.5. General Information of Test

Test Site:	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS2-SD) :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1061, 488071, 390316
IC Registration Number :	4934B-1, 4934D-1
VCCI Registration Number :	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for radiated disturbance above 1GHz
Frequency Range Investigated:	AC Power Conducted Emission : from 150kHz to 30 MHz Radiated and conducted Emission: from 30 MHz to 40 GHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.
Laboratory Accreditation	TAF Testing Laboratory 1439

2.6. Measurement Uncertainty

Measurement Item	**Uncertainty**
Radiated emission	±4.11dB
Peak Output Power(conducted)	±1.38dB
Peak Output Power(Radiated)	±1.70dB
Power Spectral Density	±1.39dB
Radiated emission(3m)	±4.11dB
Radiated emission(10m)	±3.89dB

3. Antenna Requirements

3.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2. Antenna Construction and Directional Gain

ANT A
Antenna Type: PCB Antenna
Antenna Gain: 4.2 dBi

ANT B
Antenna Type: PCB Antenna
Antenna Gain: 3.6 dBi

Note: If transmit signals are correlated, then Directional gain = 10 log [(10G1 /20 + 10G2 /20 + … + 10GN /20)2 /N] dBi
[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
So, directional antenna gain for N mode = 10 log[$(10^{4.2/20} + 10^{3.6/20})^2$ /2] = 6.91 (dBi)

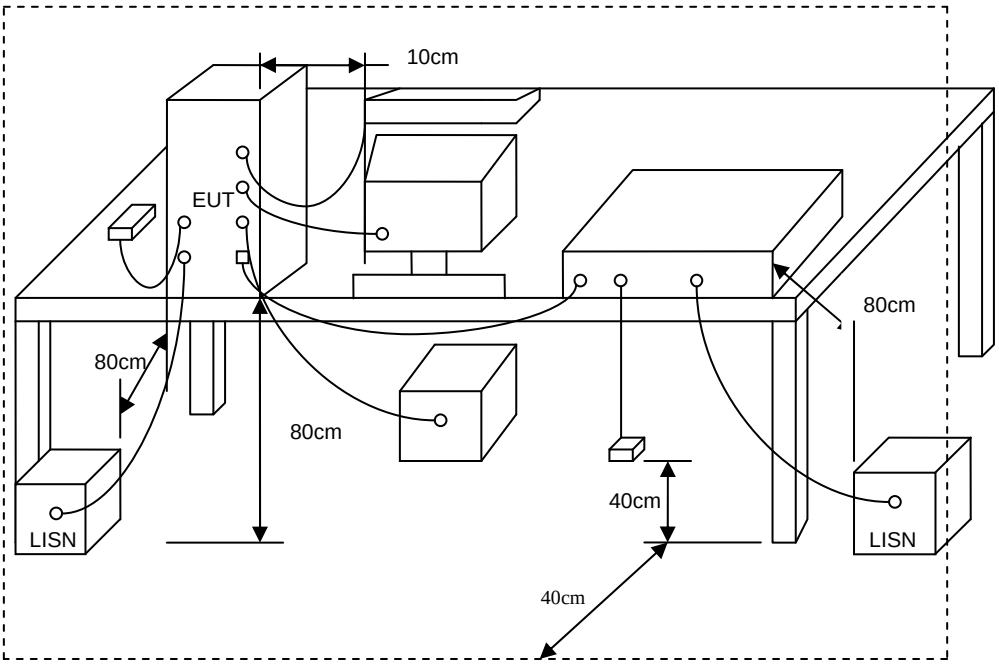
4. Test of Conducted Emission

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 1.3.1. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

4.1. Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

4.2. Typical Test Setup Layout of Conducted Emission



4.3. Conducted Emission Requirement

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

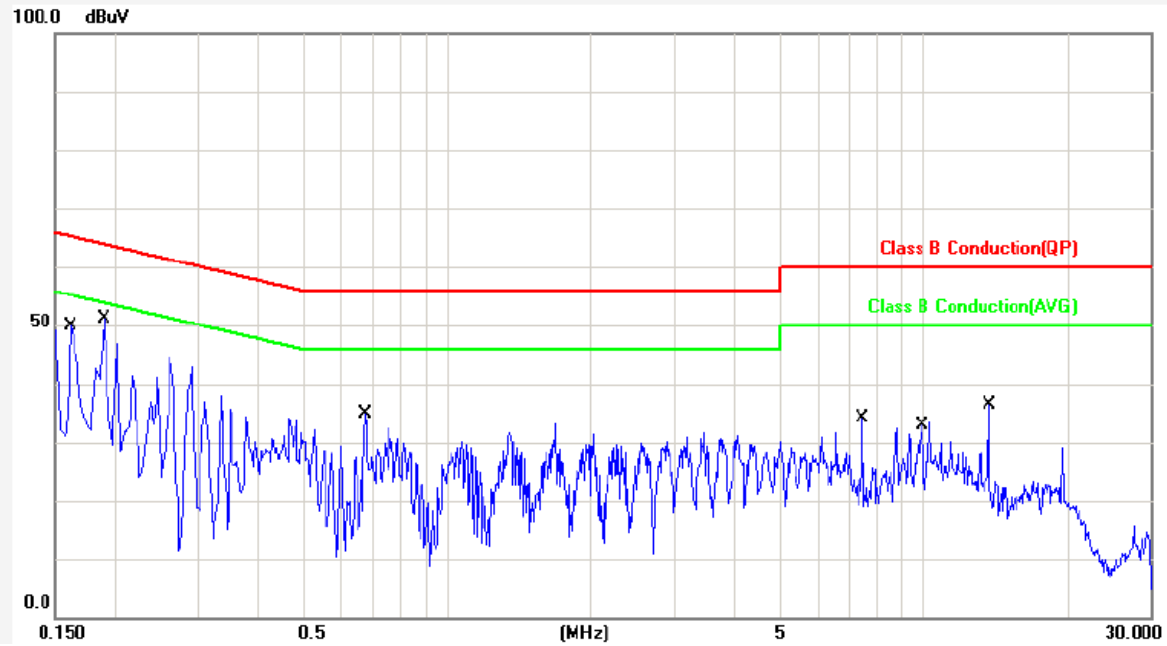
*Decreases with the logarithm of the frequency.

4.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Receiver	R&S	ESCI	100443	2012/01/12	2013/01/11
LISN	Schwarzbeck	NSLK 8127	8127-516	2012/03/08	2013/03/07
LISN	Schwarzbeck	NSLK 8127	8127-568	2011/08/24	2012/08/23

4.5. Test Result and Data

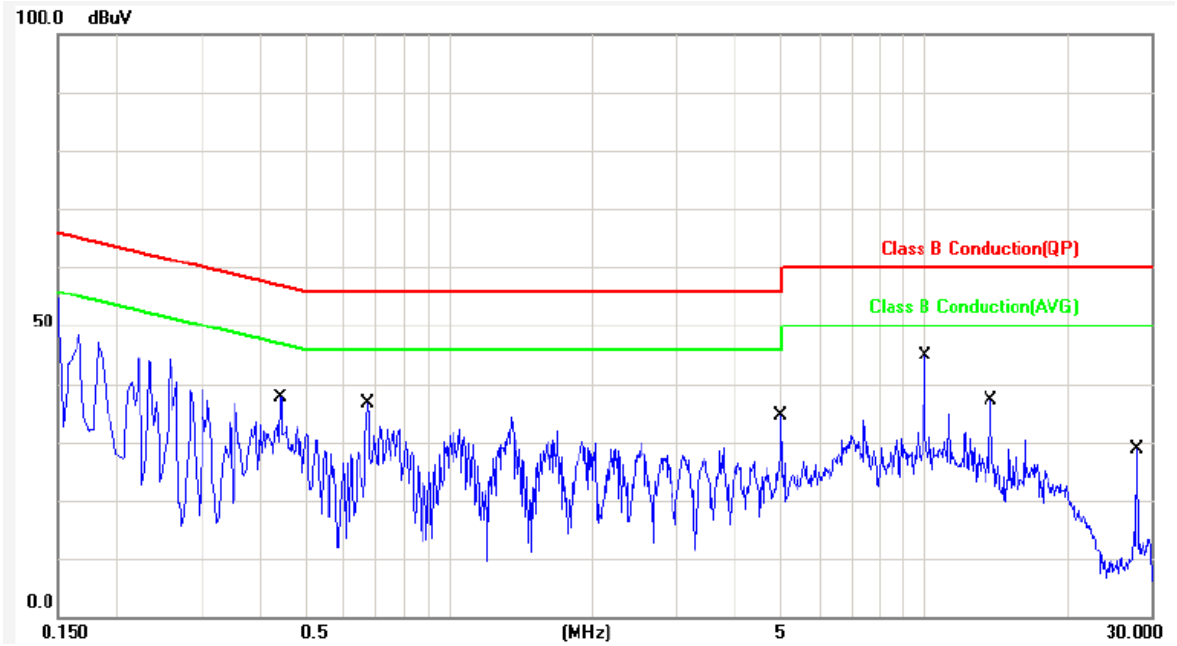
Power	:	From System	Pol/Phase	:	LINE
Test Mode 1	:	802.11a, CH36	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	0.12	46.33	46.45	65.36	-18.91	QP	P
2	0.1620	0.12	36.25	36.37	55.36	-18.99	AVG	P
3	0.1900	0.12	46.46	46.58	64.03	-17.45	QP	P
4	0.1900	0.12	36.85	36.97	54.03	-17.06	AVG	P
5	0.6740	0.15	34.94	35.09	56.00	-20.91	QP	P
6	0.6740	0.15	33.54	33.69	46.00	-12.31	AVG	P
7	7.4820	0.48	30.34	30.82	60.00	-29.18	QP	P
8	7.4820	0.48	15.70	16.18	50.00	-33.82	AVG	P
9	9.9140	0.58	18.11	18.69	60.00	-41.31	QP	P
10	9.9140	0.58	9.81	10.39	50.00	-39.61	AVG	P
11	13.7140	0.74	28.41	29.15	60.00	-30.85	QP	P
12	13.7140	0.74	14.28	15.02	50.00	-34.98	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

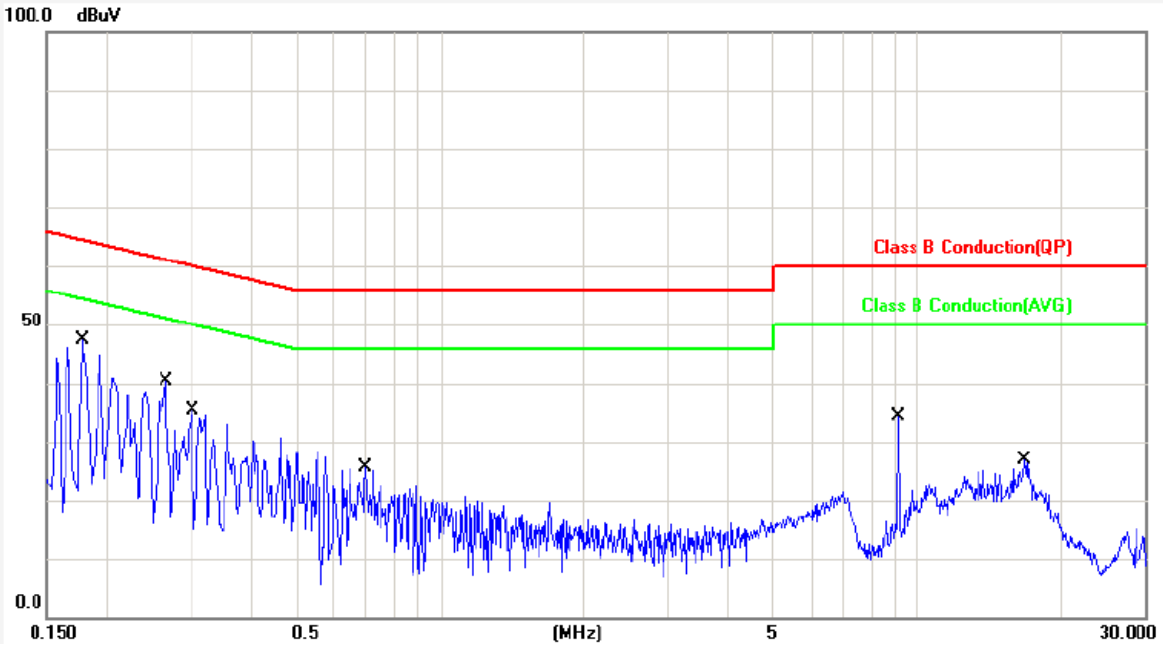
Power	:	From System	Pol/Phase	:	NEUTRAL
Test Mode 1	:	802.11a, CH36	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.4420	0.13	32.43	32.56	57.02	-24.46	QP	P
2	0.4420	0.13	22.35	22.48	47.02	-24.54	AVG	P
3	0.6740	0.15	36.25	36.40	56.00	-19.60	QP	P
4	0.6740	0.15	33.48	33.63	46.00	-12.37	AVG	P
5	5.0020	0.39	28.58	28.97	60.00	-31.03	QP	P
6	5.0020	0.39	23.19	23.58	50.00	-26.42	AVG	P
7	10.0020	0.58	40.22	40.80	60.00	-19.20	QP	P
8	10.0020	0.58	28.74	29.32	50.00	-20.68	AVG	P
9	13.7540	0.74	22.48	23.22	60.00	-36.78	QP	P
10	13.7540	0.74	19.19	19.93	50.00	-30.07	AVG	P
11	27.9580	1.28	9.40	10.68	60.00	-49.32	QP	P
12	27.9580	1.28	4.39	5.67	50.00	-44.33	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

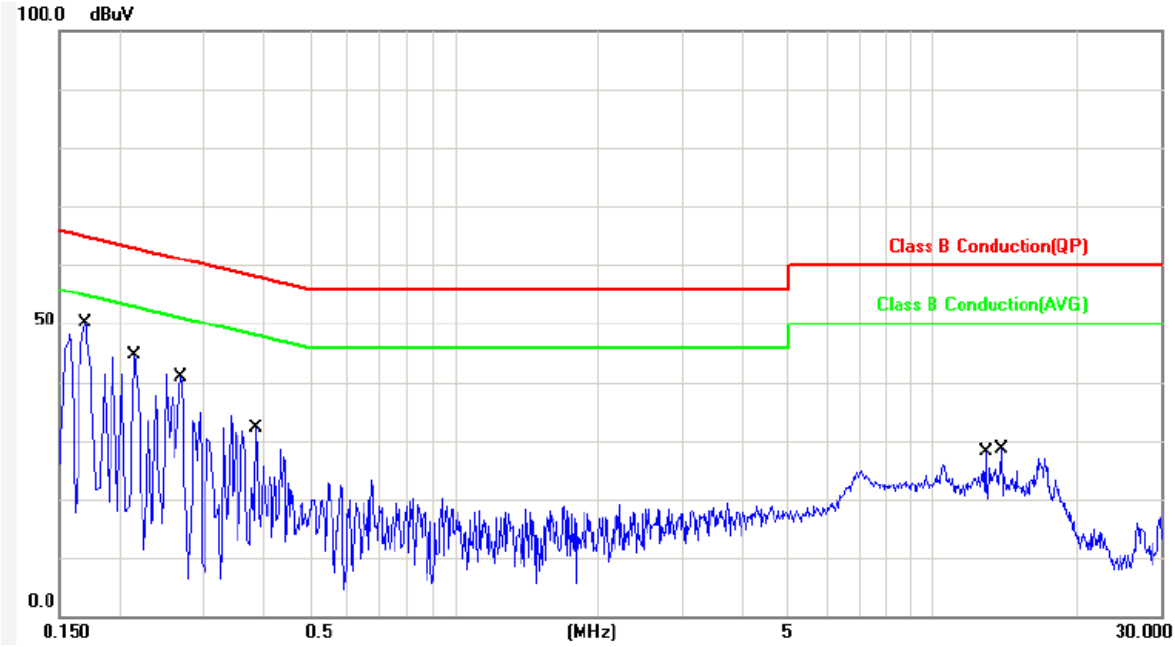
Power	:	From System	Pol/Phase	:	LINE
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1780	0.12	40.78	40.90	64.57	-23.67	QP	P
2	0.1780	0.12	23.65	23.77	54.57	-30.80	AVG	P
3	0.2660	0.12	42.48	42.60	61.24	-18.64	QP	P
4	0.2660	0.12	36.40	36.52	51.24	-14.72	AVG	P
5	0.3020	0.12	28.37	28.49	60.19	-31.70	QP	P
6	0.3020	0.12	15.41	15.53	50.19	-34.66	AVG	P
7	0.6980	0.16	26.53	26.69	56.00	-29.31	QP	P
8	0.6980	0.16	20.41	20.57	46.00	-25.43	AVG	P
9	9.1220	0.55	15.55	16.10	60.00	-43.90	QP	P
10	9.1220	0.55	10.62	11.17	50.00	-38.83	AVG	P
11	16.7860	0.86	21.93	22.79	60.00	-37.21	QP	P
12	16.7860	0.86	15.84	16.70	50.00	-33.30	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

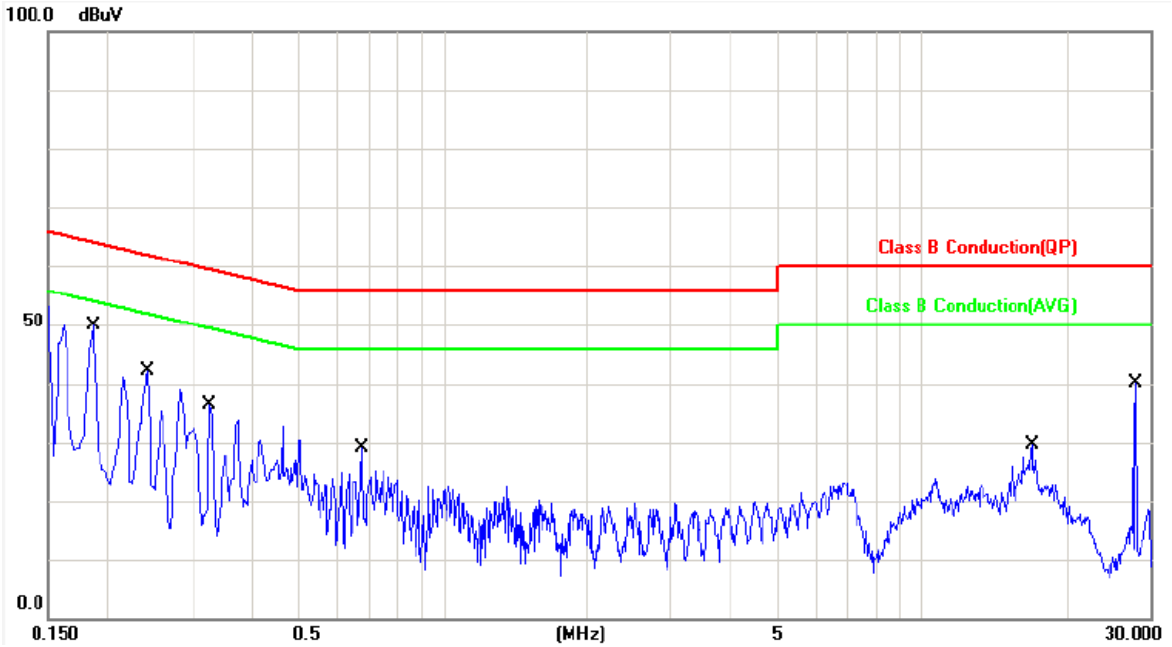
Power	:	From System	Pol/Phase	:	NEUTRAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1700	0.12	48.64	48.76	64.96	-16.20	QP	P
2	0.1700	0.12	32.52	32.64	54.96	-22.32	AVG	P
3	0.2140	0.12	40.42	40.54	63.04	-22.50	QP	P
4	0.2140	0.12	28.36	28.48	53.04	-24.56	AVG	P
5	0.2700	0.12	35.51	35.63	61.12	-25.49	QP	P
6	0.2700	0.12	22.42	22.54	51.12	-28.58	AVG	P
7	0.3860	0.13	26.19	26.32	58.15	-31.83	QP	P
8	0.3860	0.13	19.47	19.60	48.15	-28.55	AVG	P
9	12.8940	0.70	19.58	20.28	60.00	-39.72	QP	P
10	12.8940	0.70	14.87	15.57	50.00	-34.43	AVG	P
11	13.9580	0.74	19.69	20.43	60.00	-39.57	QP	P
12	13.9580	0.74	14.31	15.05	50.00	-34.95	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

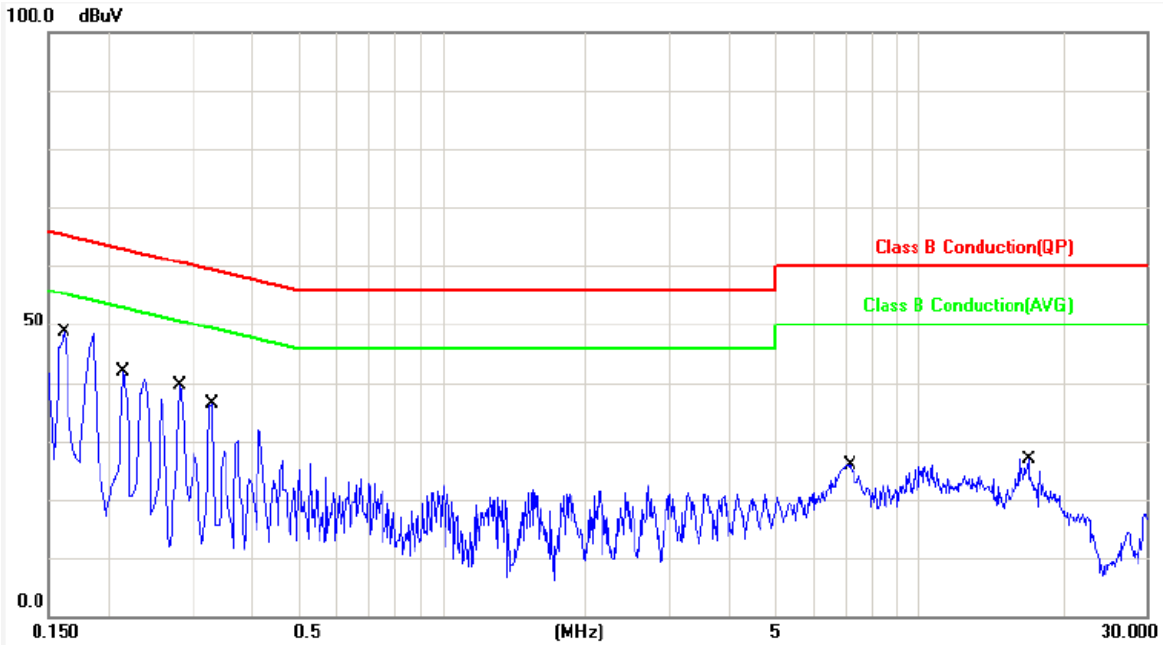
Power	:	From System	Pol/Phase	:	LINE
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1700	0.12	48.64	48.76	64.96	-16.20	QP	P
2	0.1700	0.12	32.52	32.64	54.96	-22.32	AVG	P
3	0.2140	0.12	40.42	40.54	63.04	-22.50	QP	P
4	0.2140	0.12	28.36	28.48	53.04	-24.56	AVG	P
5	0.2700	0.12	35.51	35.63	61.12	-25.49	QP	P
6	0.2700	0.12	22.42	22.54	51.12	-28.58	AVG	P
7	0.3860	0.13	26.19	26.32	58.15	-31.83	QP	P
8	0.3860	0.13	19.47	19.60	48.15	-28.55	AVG	P
9	12.8940	0.70	19.58	20.28	60.00	-39.72	QP	P
10	12.8940	0.70	14.87	15.57	50.00	-34.43	AVG	P
11	13.9580	0.74	19.69	20.43	60.00	-39.57	QP	P
12	13.9580	0.74	14.31	15.05	50.00	-34.95	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

Power	:	From System	Pol/Phase	:	NEUTRAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	26 °C
Test Date	:	Jul. 05, 2012	Humidity	:	60 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	0.12	48.35	48.47	65.36	-16.89	QP	P
2	0.1620	0.12	35.66	35.78	55.36	-19.58	AVG	P
3	0.2140	0.12	40.43	40.55	63.04	-22.49	QP	P
4	0.2140	0.12	25.58	25.70	53.04	-27.34	AVG	P
5	0.2819	0.12	36.40	36.52	60.76	-24.24	QP	P
6	0.2819	0.12	28.34	28.46	50.76	-22.30	AVG	P
7	0.3300	0.12	29.46	29.58	59.45	-29.87	QP	P
8	0.3300	0.12	18.58	18.70	49.45	-30.75	AVG	P
9	7.2100	0.47	24.29	24.76	60.00	-35.24	QP	P
10	7.2100	0.47	22.24	22.71	50.00	-27.29	AVG	P
11	16.9740	0.87	20.36	21.23	60.00	-38.77	QP	P
12	16.9740	0.87	15.38	16.25	50.00	-33.75	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

5. Test of Radiated Emission

For transmitters operating in the 5.15-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.3dBuV/m at 3m). In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

5.1. Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.

b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.

e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.

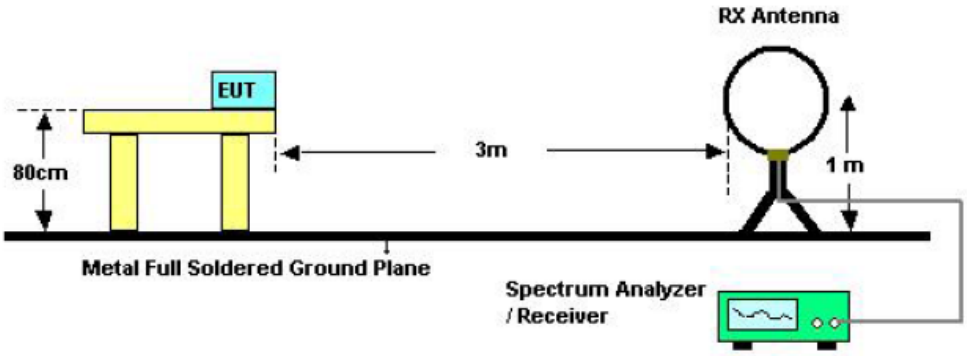
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

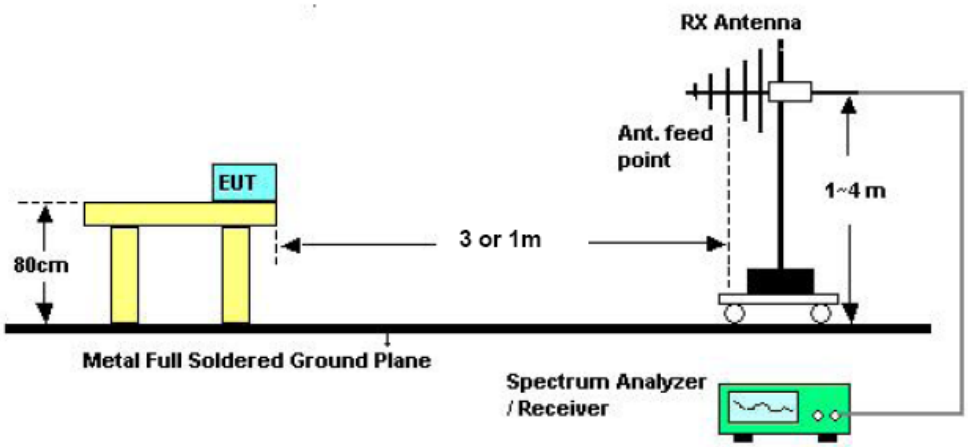
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.2. Typical Test Setup Layout of Radiated Emission

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

5.3. Measurement Equipment

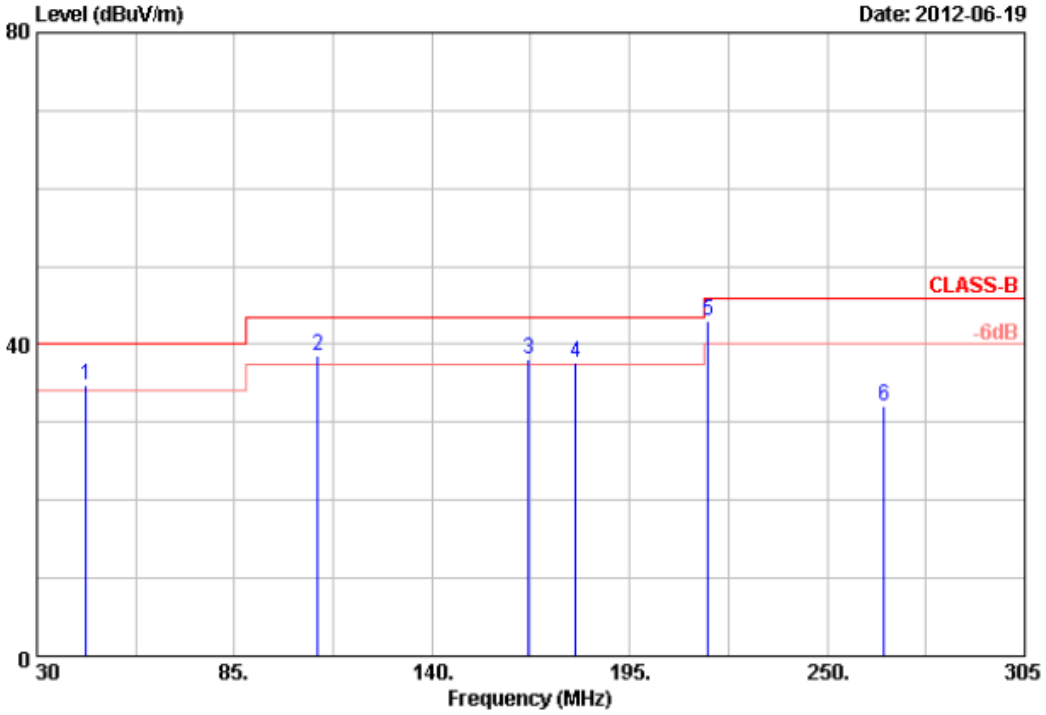
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100821	2012/01/31	2013/01/30
Amplifier	QuieTek	AP/0100A	CHM0906075	2012/01/13	2013/01/12
Signal Generator	HP	8648B	3629U00612	2012/01/11	2013/01/10
Bilog Antenna	Schwarzbeck	VULB 9168	275	2012/03/23	2013/03/22
Spectrum Analyzer	R&S	FSP40	100047	2012/03/01	2013/02/28
Horn Antenna	EMCO	3115	31589	2012/03/01	2013/02/28
Preamplifier	Agilent	8449B	3008A01954	2012/02/29	2013/02/28
Loop Antenna	EMCO	6507	40855	2012/02/29	2013/02/28

5.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

5.5. Test Result of Radiated Emission

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11a, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

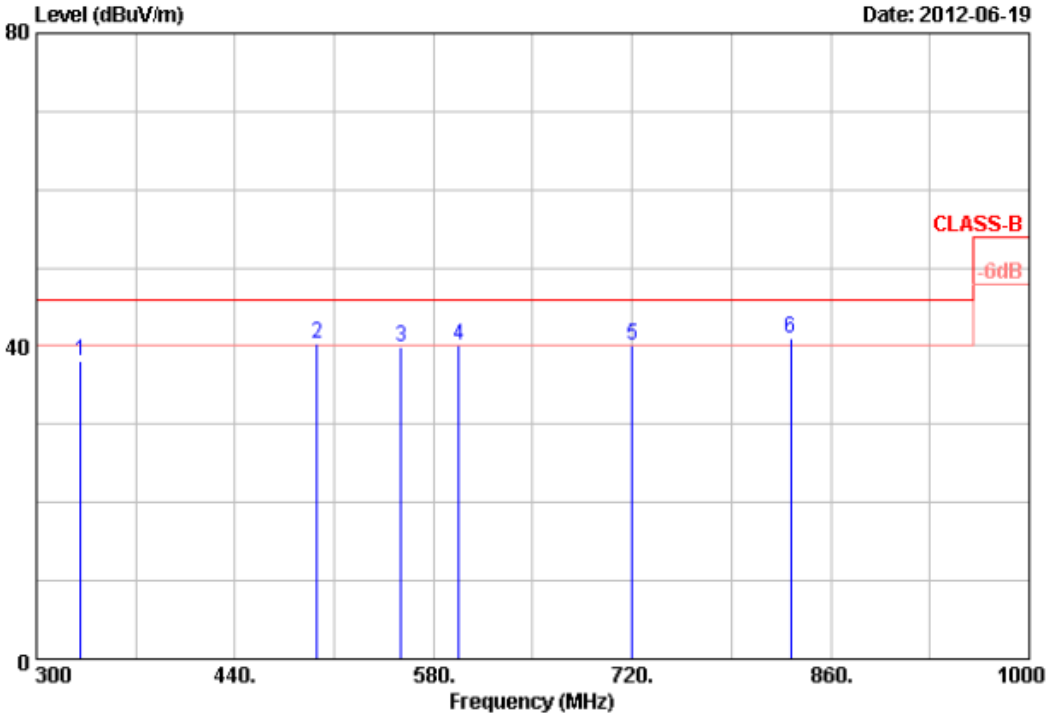


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.72	36.04	-1.22	34.82	40.00	-5.18	Peak	100	360
2	108.25	46.04	-7.41	38.63	43.50	-4.87	Peak	100	360
3	166.84	49.05	-10.99	38.06	43.50	-5.44	Peak	100	360
4	180.00	42.47	-4.87	37.60	43.50	-5.90	Peak	100	360
5	216.94	49.49	-6.51	42.98	46.00	-3.02	Peak	100	360
6	265.78	39.43	-7.38	32.05	46.00	-13.95	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11a, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

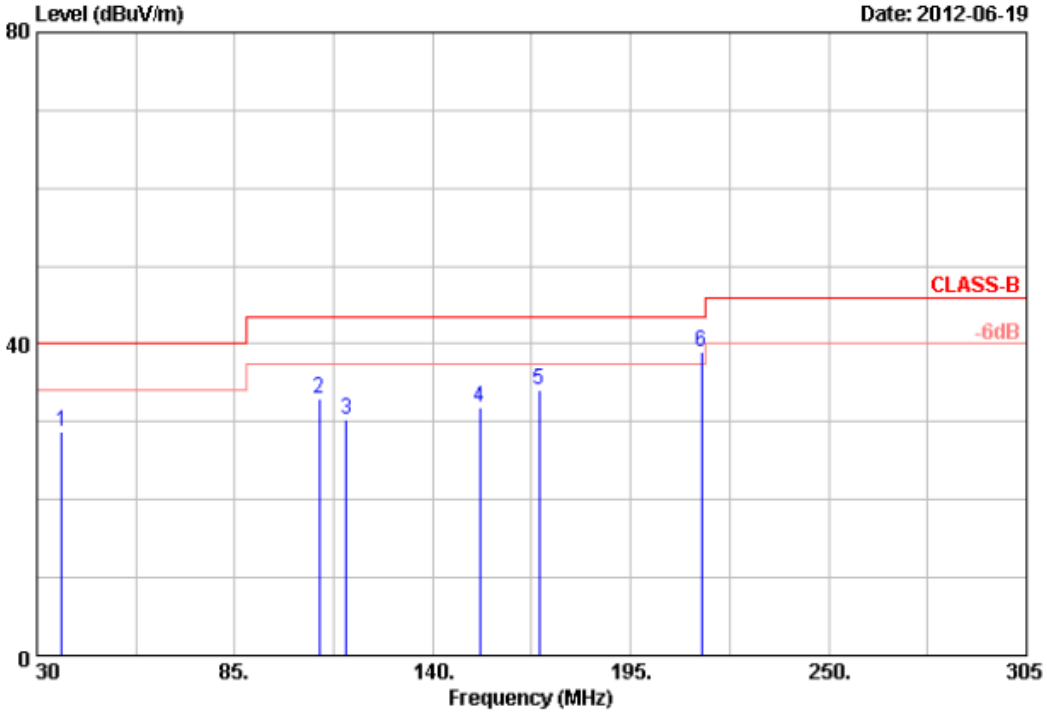


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	331.38	45.81	-7.64	38.17	46.00	-7.83	Peak	100	0
2	498.00	45.14	-4.89	40.25	46.00	-5.75	QP	100	0
3	557.40	32.45	7.41	39.86	46.00	-6.14	QP	100	0
4	597.60	36.73	3.29	40.02	46.00	-5.98	Peak	100	0
5	720.30	33.66	6.38	40.04	46.00	-5.96	Peak	100	0
6	831.79	33.65	7.44	41.09	46.00	-4.91	QP	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11a, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

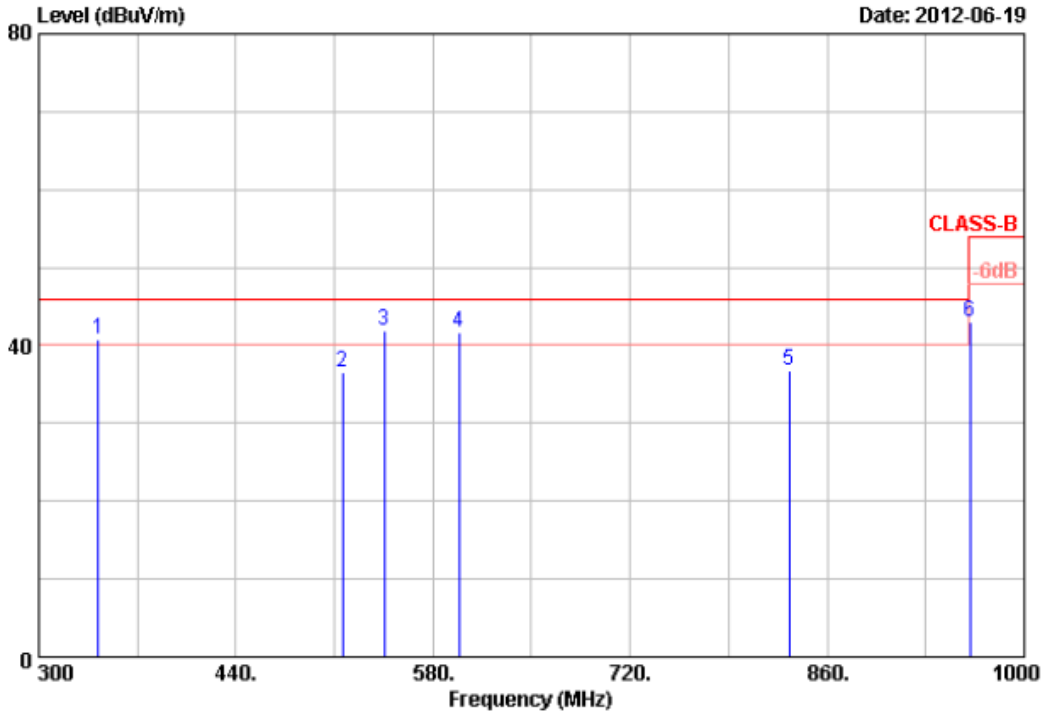


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	36.88	35.59	-6.91	28.68	40.00	-11.32	Peak	100	360
2	108.46	51.95	-18.90	33.05	43.50	-10.45	Peak	100	360
3	116.00	49.15	-18.87	30.28	43.50	-13.22	Peak	100	360
4	153.00	47.15	-15.23	31.92	43.50	-11.58	Peak	100	360
5	169.60	45.40	-11.38	34.02	43.50	-9.48	QP	100	360
6	214.77	55.42	-16.47	38.95	43.50	-4.55	QP	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11a, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

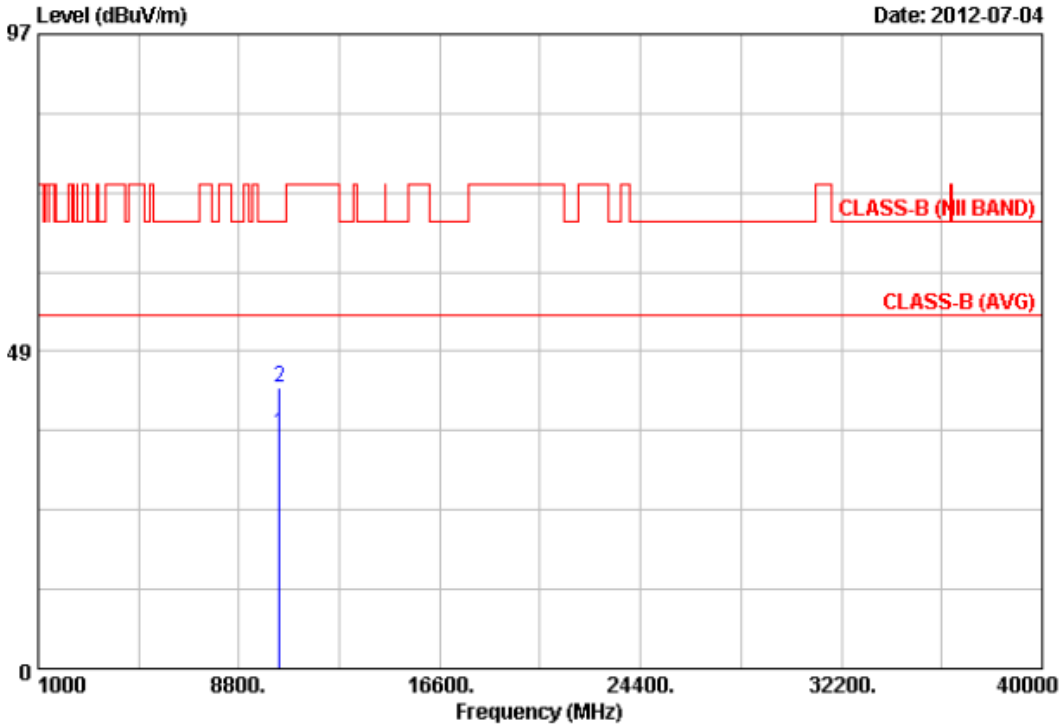


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	342.50	49.68	-8.82	40.86	46.00	-5.14	QP	100	0
2	515.80	34.96	1.48	36.44	46.00	-9.56	QP	100	0
3	545.30	38.88	2.98	41.86	46.00	-4.14	Peak	100	0
4	598.20	39.02	2.66	41.68	46.00	-4.32	Peak	100	0
5	833.30	28.08	8.79	36.87	46.00	-9.13	QP	100	0
6	961.30	35.09	7.99	43.08	54.00	-10.92	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	From System	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11a, CH36	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

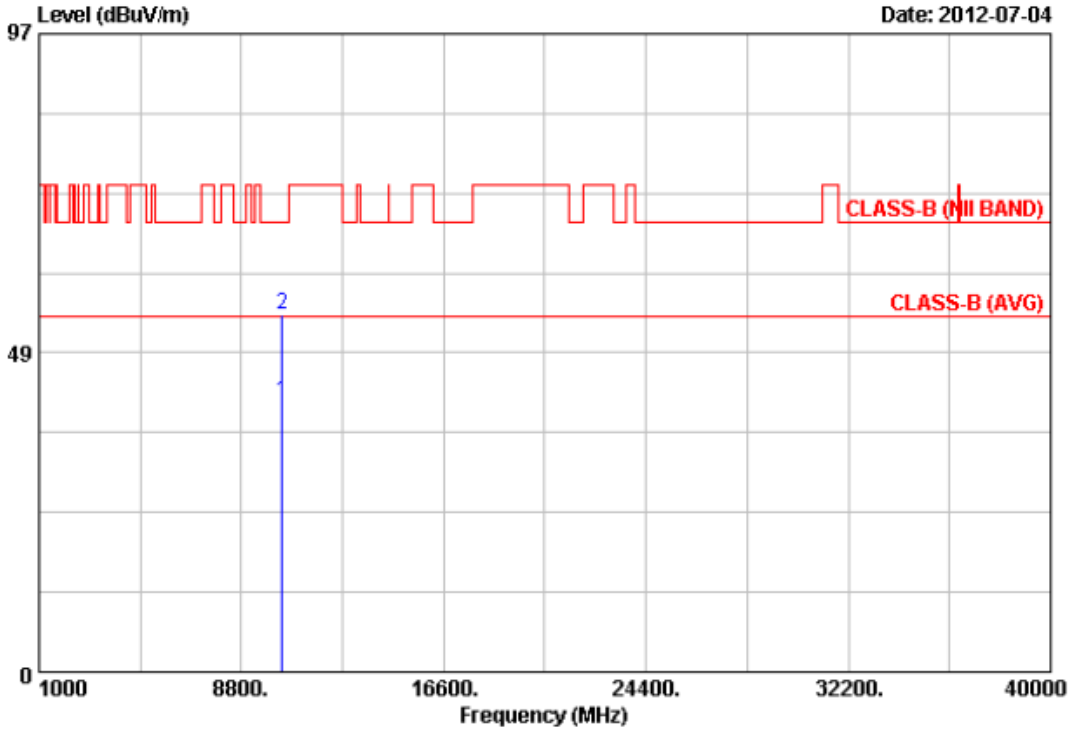


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10360.00	29.18	6.78	35.96	54.00	-18.04	Average	100	360
2	10360.00	36.05	6.78	42.83	68.30	-25.47	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	From System	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11a, CH36	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

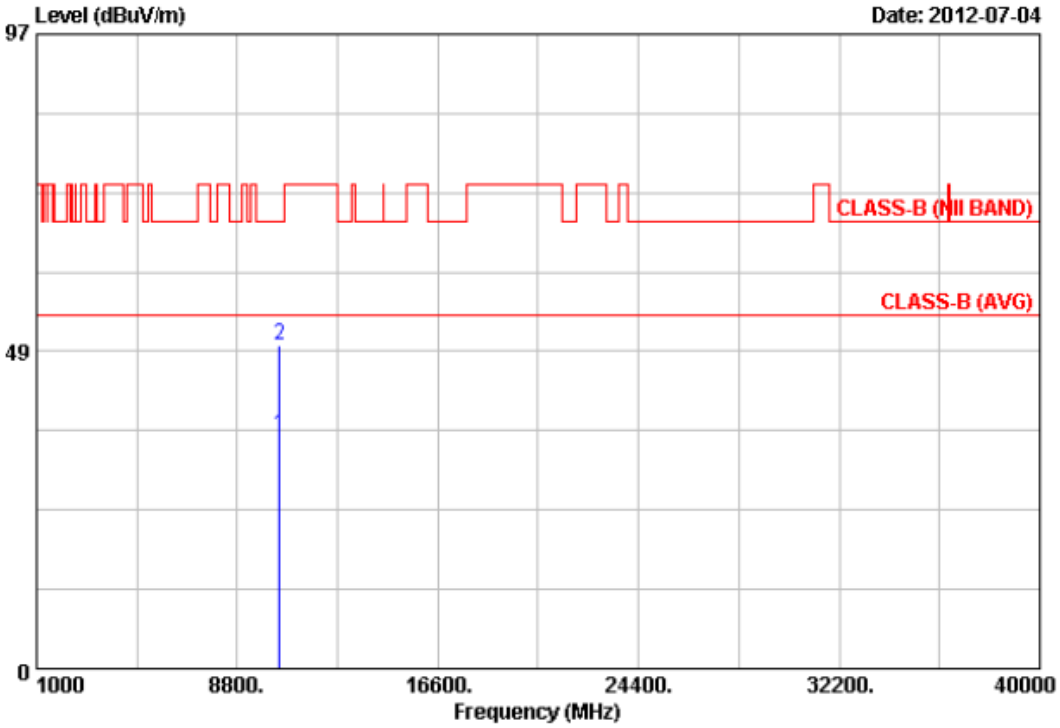


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10360.00	29.02	12.15	41.17	54.00	-12.83	Average	100	0
2	10360.00	42.18	12.15	54.33	68.30	-13.97	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11a, CH44	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

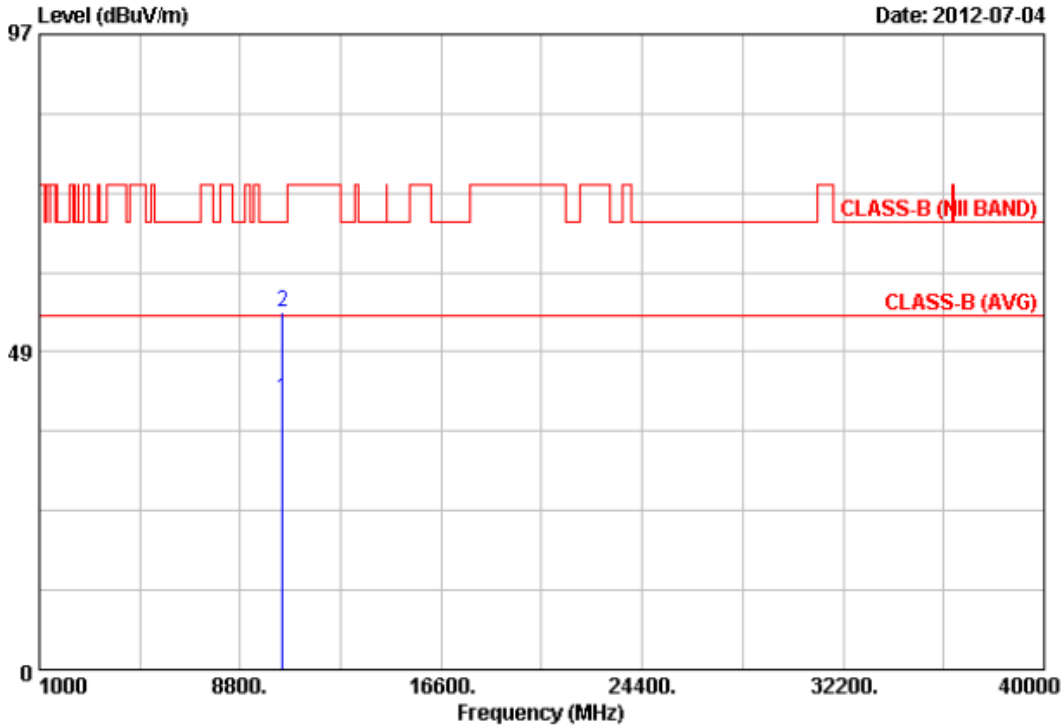


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10440.00	28.98	6.57	35.55	54.00	-18.45	Average	100	0
2	10440.00	42.79	6.57	49.36	68.30	-18.94	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11a, CH44	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

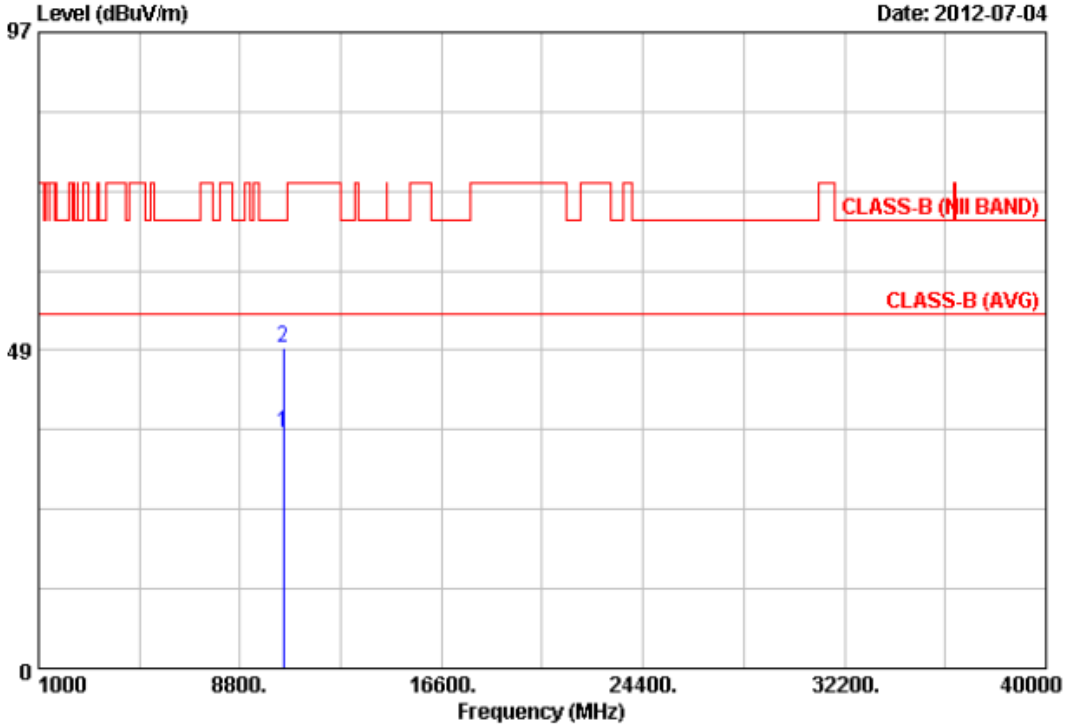


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10440.00	28.93	12.44	41.37	54.00	-12.63	Average	100	0
2	10440.00	42.27	12.44	54.71	68.30	-13.59	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11a, CH48	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

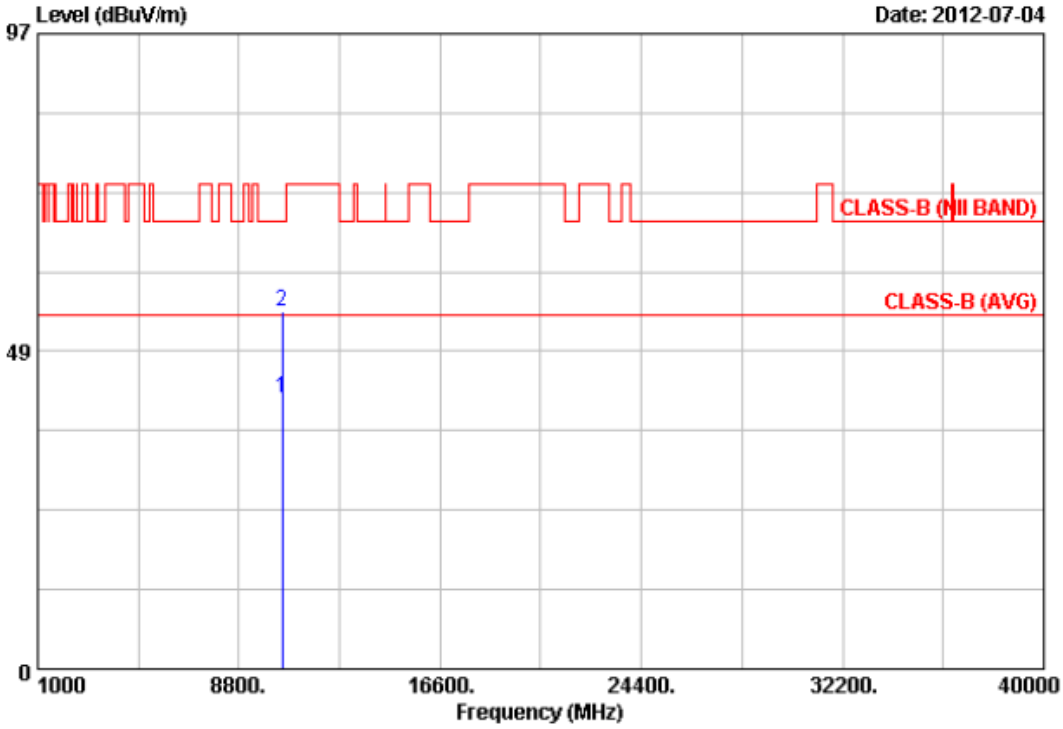


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10480.00	29.32	6.69	36.01	54.00	-17.99	Average	100	0
2	10480.00	42.28	6.69	48.97	68.30	-19.33	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11a, CH48	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

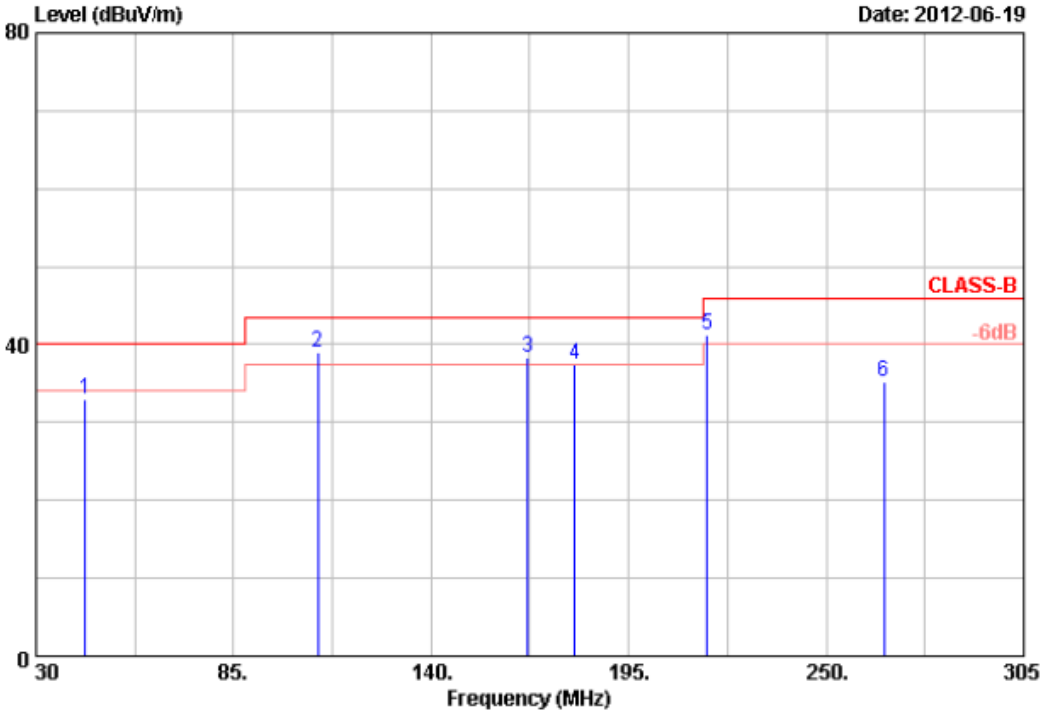


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10480.00	29.13	12.28	41.41	54.00	-12.59	Average	100	360
2	10480.00	42.19	12.28	54.47	68.30	-13.83	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

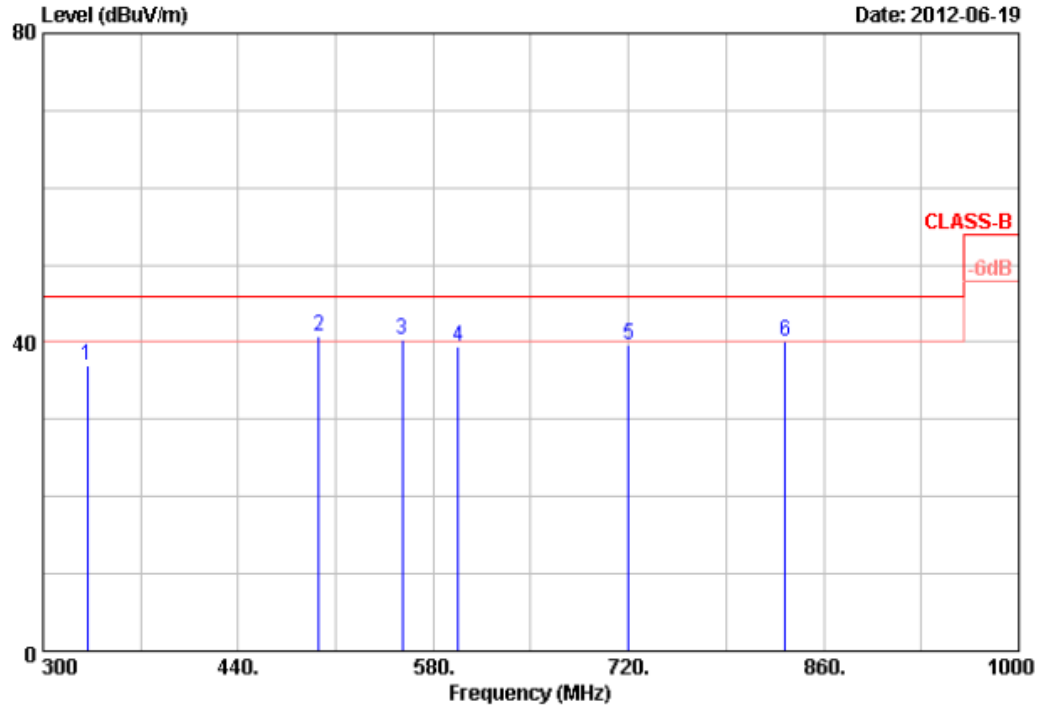


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.72	34.25	-1.22	33.03	40.00	-6.97	Peak	100	360
2	108.35	46.32	-7.39	38.93	43.50	-4.57	Peak	100	360
3	166.88	49.28	-11.02	38.26	43.50	-5.24	Peak	100	360
4	180.10	42.45	-5.05	37.40	43.50	-6.10	Peak	100	360
5	216.83	47.69	-6.53	41.16	46.00	-4.84	Peak	100	360
6	266.00	42.57	-7.42	35.15	46.00	-10.85	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

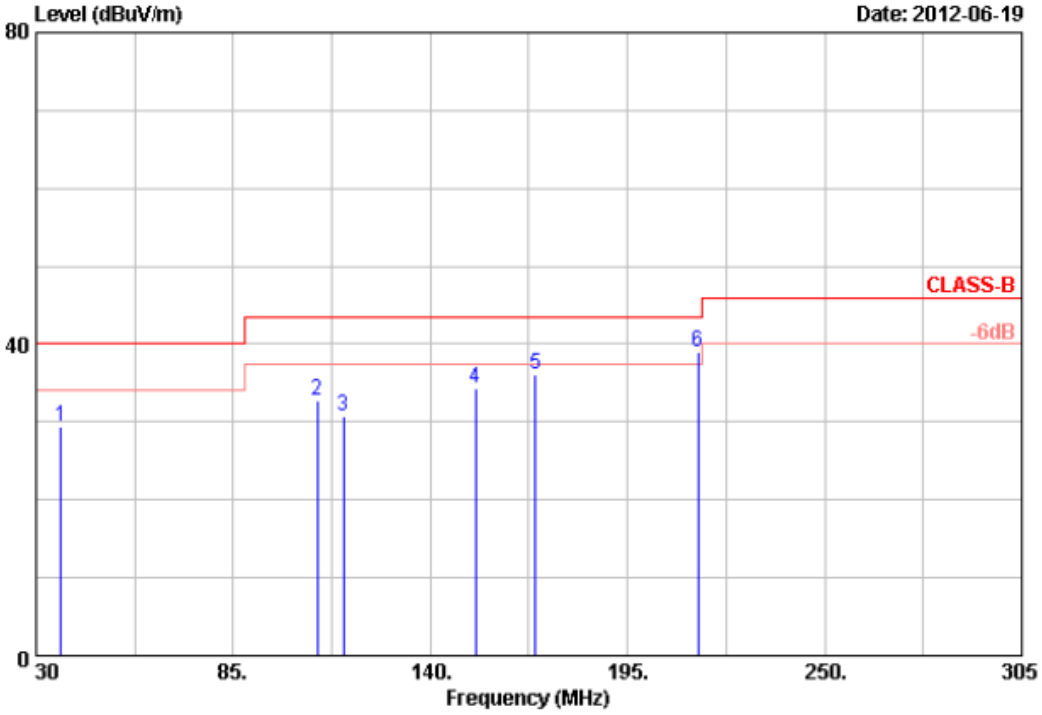


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	331.80	44.55	-7.65	36.90	46.00	-9.10	Peak	100	0
2	497.60	45.60	-4.83	40.77	46.00	-5.23	QP	100	0
3	557.70	32.89	7.37	40.26	46.00	-5.74	QP	100	0
4	597.80	36.31	3.23	39.54	46.00	-6.46	Peak	100	0
5	720.00	33.35	6.41	39.76	46.00	-6.24	Peak	100	0
6	832.40	32.46	7.58	40.04	46.00	-5.96	QP	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

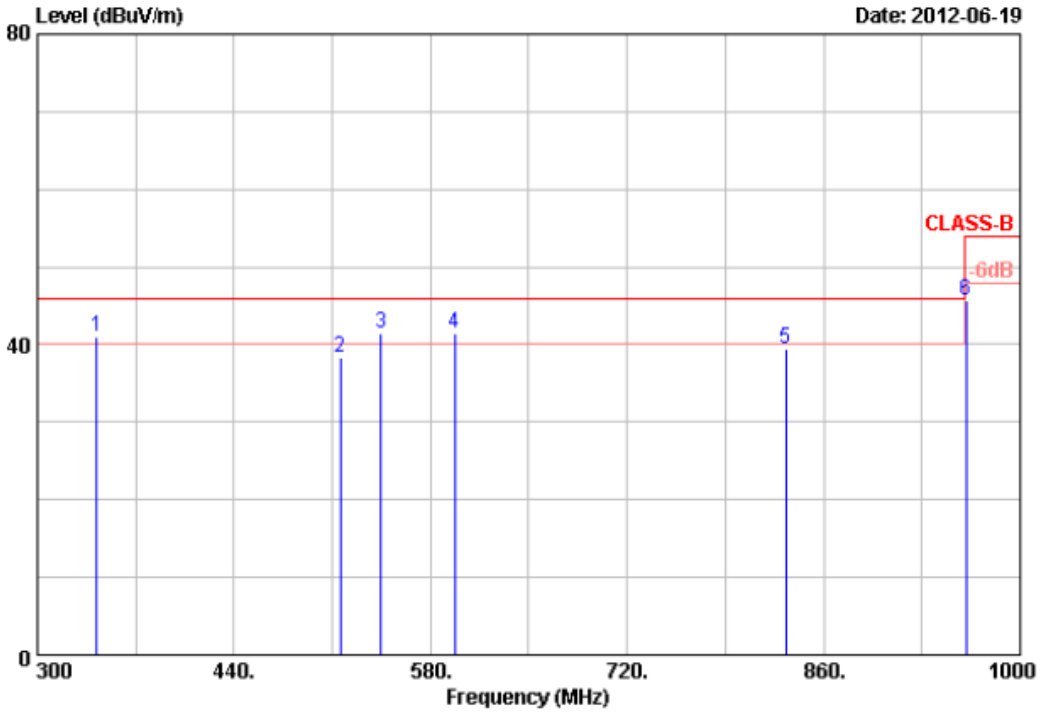


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	36.86	36.35	-6.91	29.44	40.00	-10.56	Peak	100	360
2	108.38	51.55	-18.90	32.65	43.50	-10.85	Peak	100	360
3	115.64	49.57	-18.93	30.64	43.50	-12.86	Peak	100	360
4	152.50	49.56	-15.14	34.42	43.50	-9.08	Peak	100	360
5	169.35	47.75	-11.65	36.10	43.50	-7.40	QP	100	360
6	214.75	55.57	-16.48	39.09	43.50	-4.41	QP	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

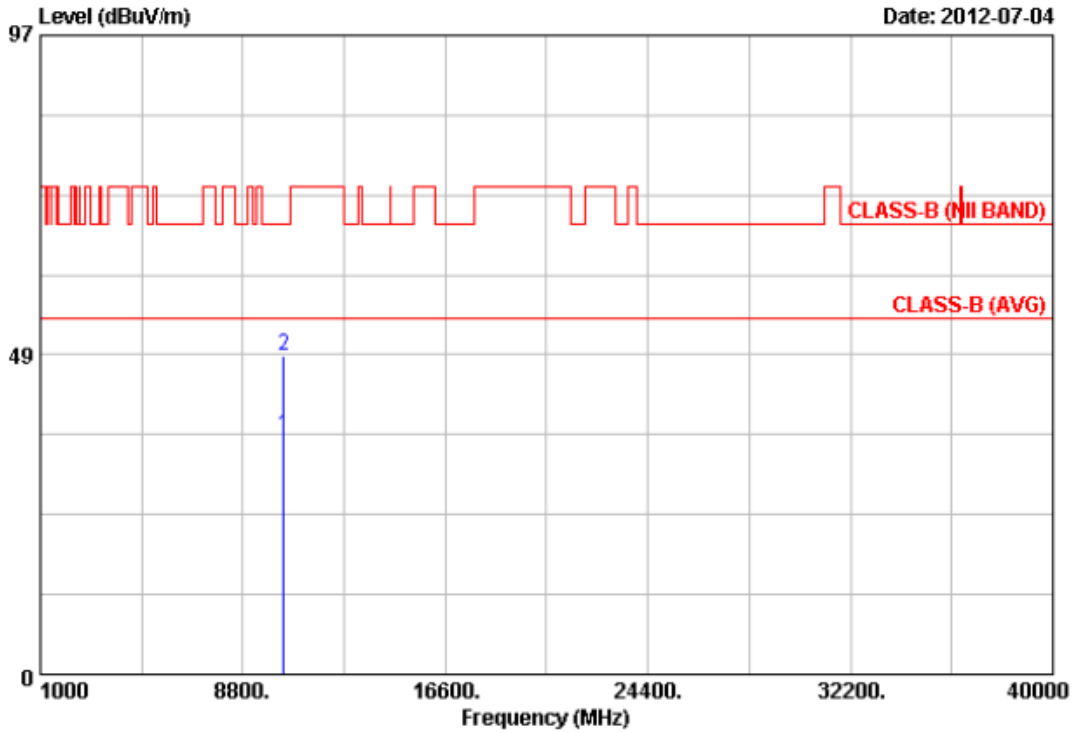


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	342.20	49.86	-8.84	41.02	46.00	-4.98	QP	100	0
2	515.50	36.80	1.49	38.29	46.00	-7.71	QP	100	0
3	544.89	38.59	2.97	41.56	46.00	-4.44	Peak	100	0
4	597.20	38.62	2.92	41.54	46.00	-4.46	Peak	100	0
5	833.30	30.67	8.79	39.46	46.00	-6.54	QP	100	0
6	961.20	37.64	8.00	45.64	54.00	-8.36	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

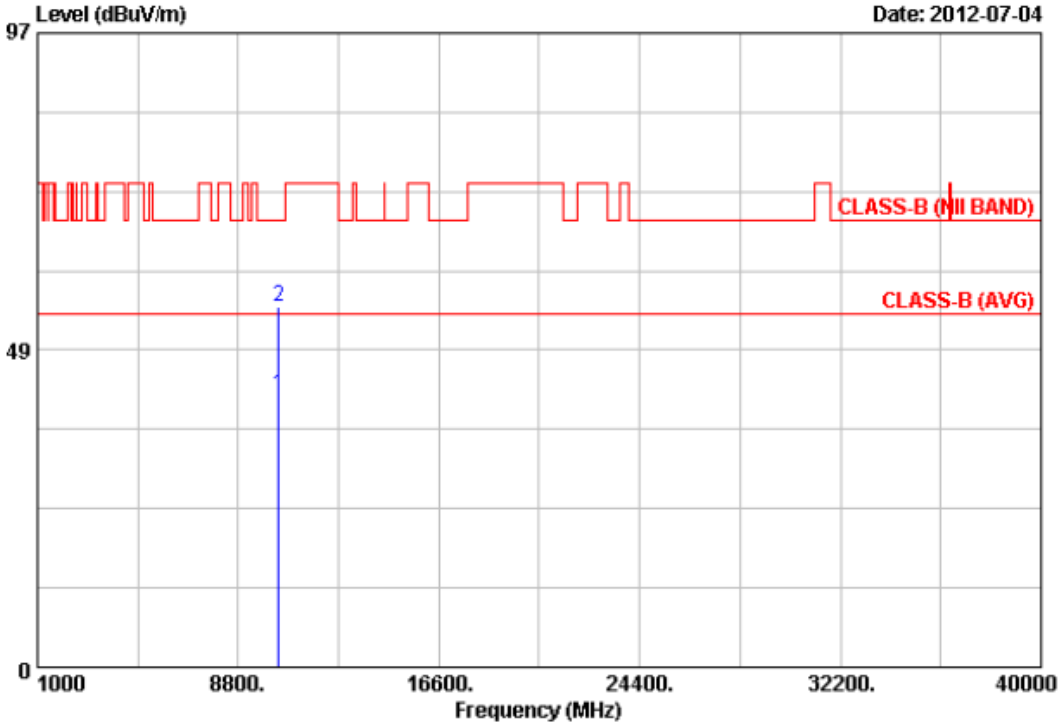


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10360.00	29.42	6.78	36.20	54.00	-17.80	Average	100	0
2	10360.00	41.66	6.78	48.44	68.30	-19.86	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11an HT20, CH36	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

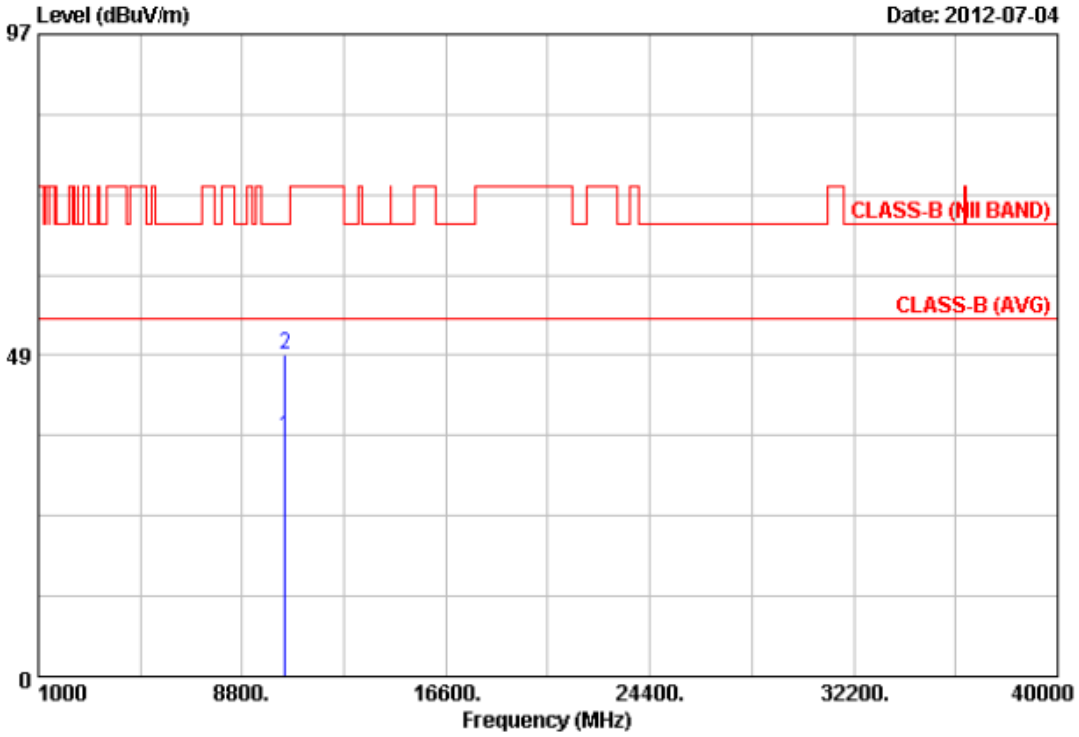


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10360.00	29.59	12.15	41.74	54.00	-12.26	Average	100	360
2	10360.00	42.94	12.15	55.09	68.30	-13.21	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11an HT20, CH44	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

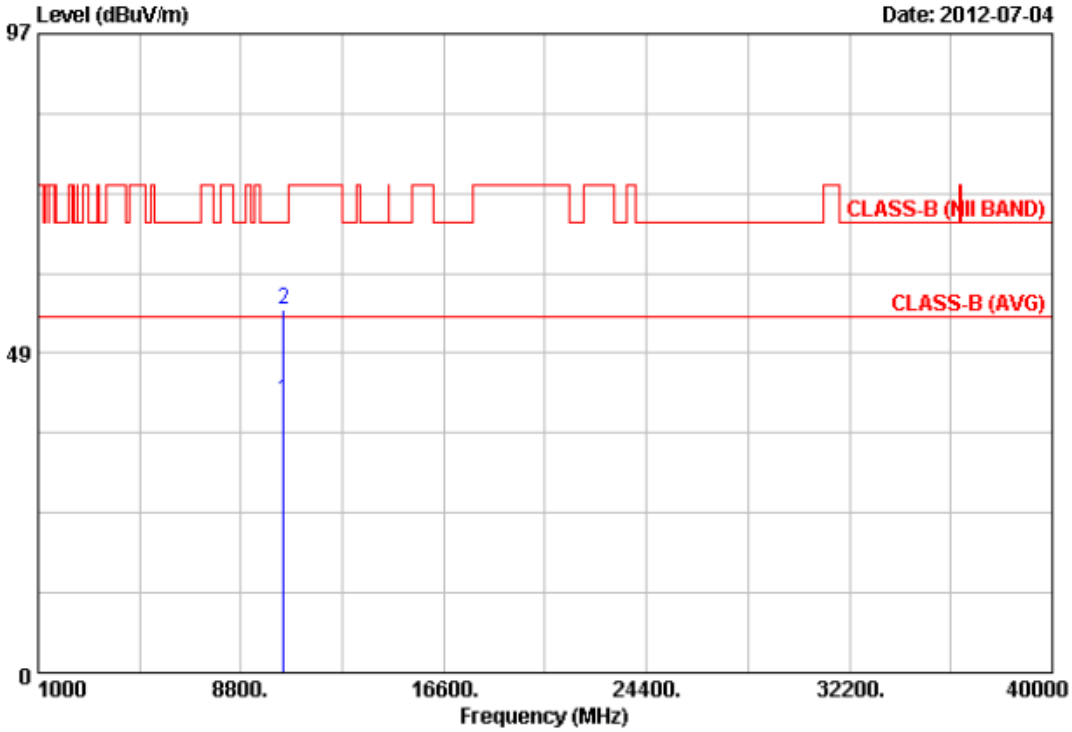


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10440.00	29.64	6.57	36.21	54.00	-17.79	Average	100	360
2	10440.00	42.06	6.57	48.63	68.30	-19.67	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11an HT20, CH44	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

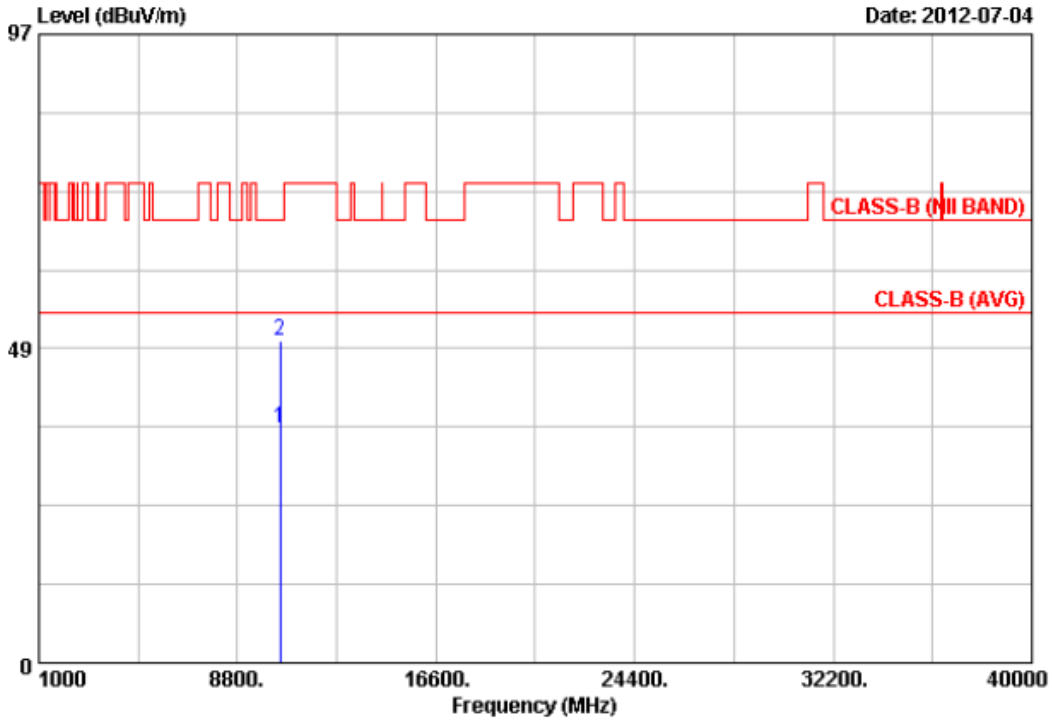


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10440.00	28.86	12.44	41.30	54.00	-12.70	Average	100	0
2	10440.00	42.74	12.44	55.18	68.30	-13.12	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11an HT20, CH48	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

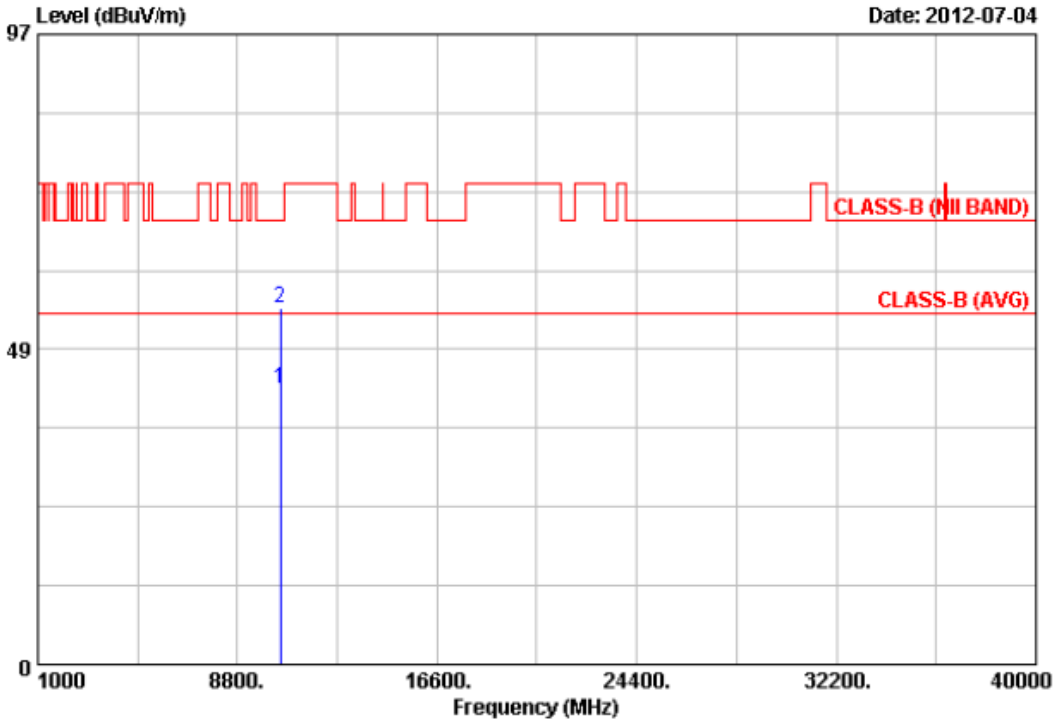


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10480.00	29.56	6.69	36.25	54.00	-17.75	Average	100	360
2	10480.00	43.04	6.69	49.73	68.30	-18.57	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11an HT20, CH48	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

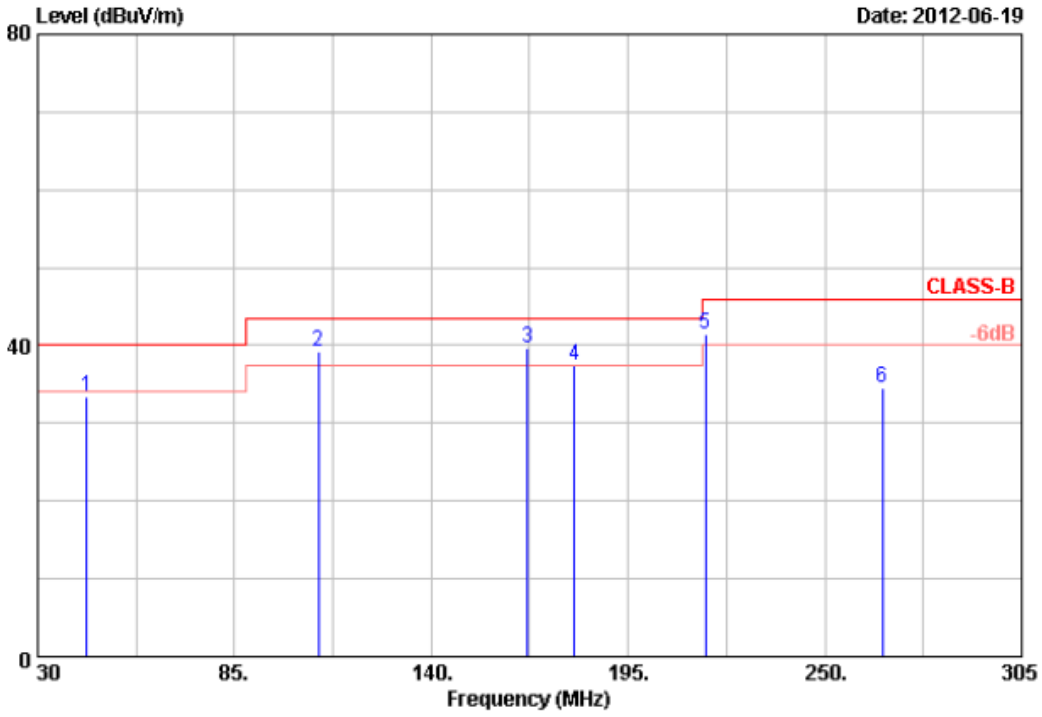


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10480.00	30.07	12.28	42.35	54.00	-11.65	Average	100	0
2	10480.00	42.70	12.28	54.98	68.30	-13.32	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

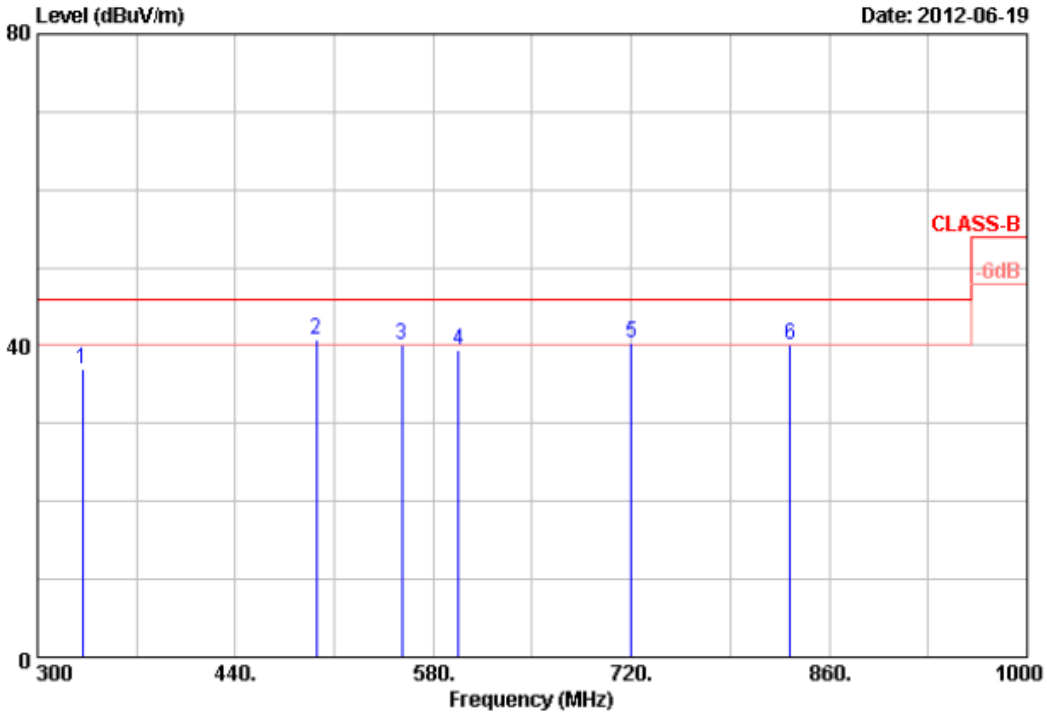


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	43.73	34.66	-1.22	33.44	40.00	-6.56	Peak	100	360
2	108.35	46.66	-7.39	39.27	43.50	-4.23	Peak	100	360
3	167.00	50.70	-11.13	39.57	43.50	-3.93	Peak	100	360
4	180.10	42.56	-5.05	37.51	43.50	-5.99	Peak	100	360
5	216.66	47.91	-6.55	41.36	46.00	-4.64	Peak	100	360
6	266.10	41.91	-7.44	34.47	46.00	-11.53	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

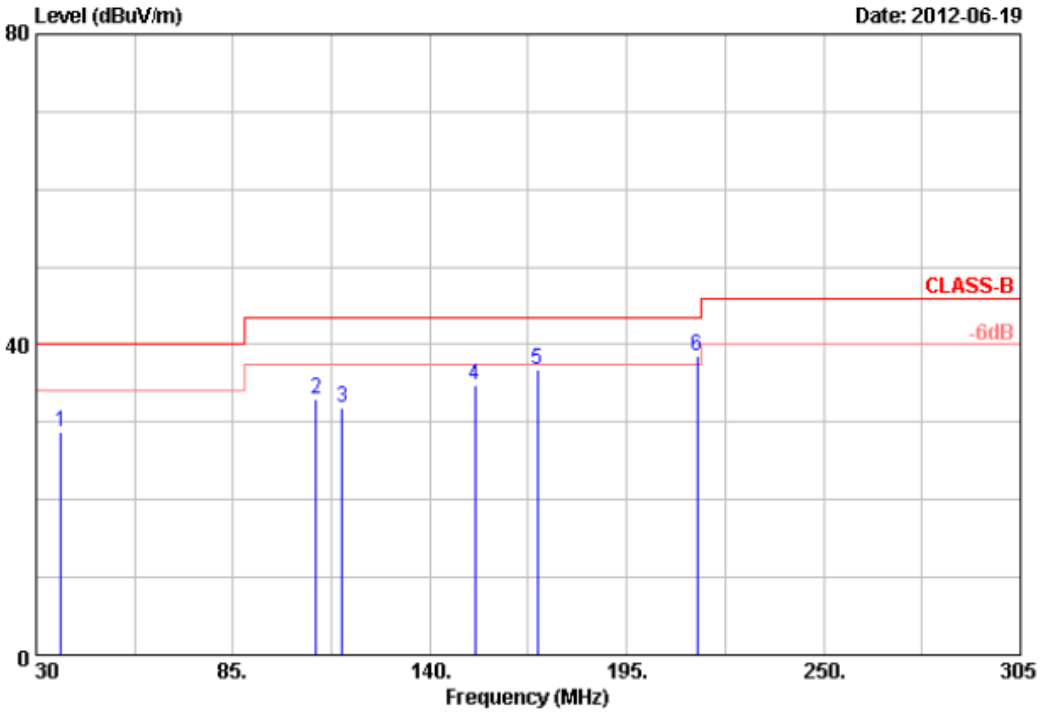


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	332.00	44.67	-7.65	37.02	46.00	-8.98	Peak	100	0
2	497.10	45.62	-4.76	40.86	46.00	-5.14	QP	100	0
3	557.75	32.81	7.36	40.17	46.00	-5.83	QP	100	0
4	597.80	36.12	3.23	39.35	46.00	-6.65	Peak	100	0
5	720.00	33.85	6.41	40.26	46.00	-5.74	Peak	100	0
6	832.20	32.61	7.54	40.15	46.00	-5.85	QP	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

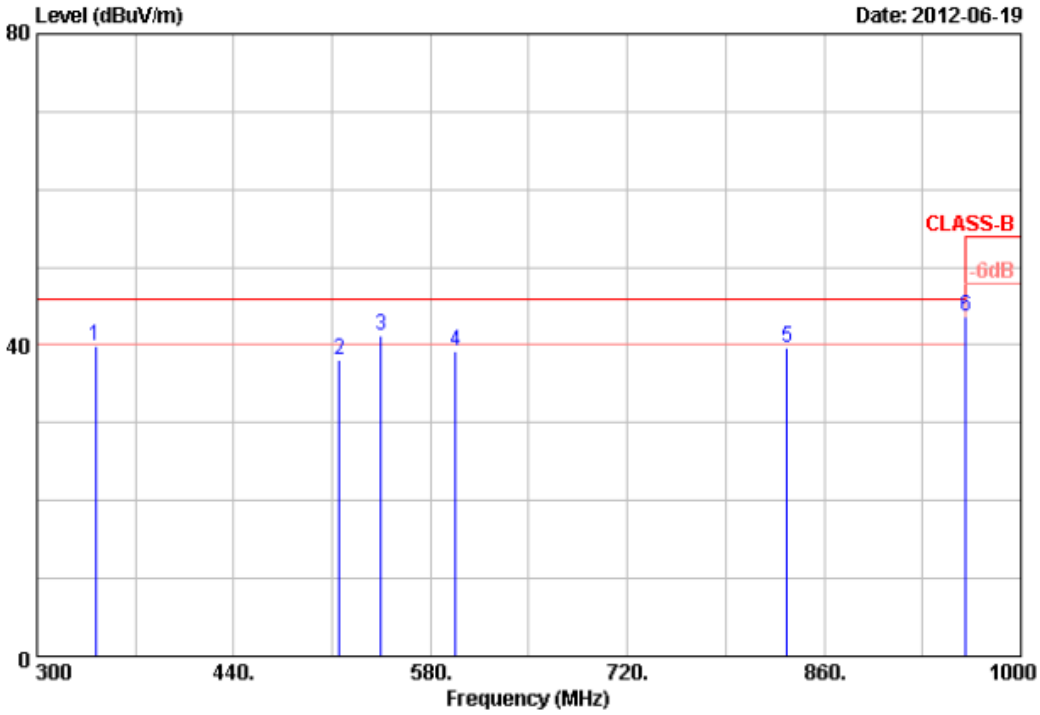


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	36.84	35.65	-6.91	28.74	40.00	-11.26	Peak	100	360
2	108.30	51.88	-18.90	32.98	43.50	-10.52	Peak	100	360
3	115.40	50.94	-18.97	31.97	43.50	-11.53	Peak	100	360
4	152.50	49.90	-15.14	34.76	43.50	-8.74	Peak	100	360
5	170.00	47.64	-10.94	36.70	43.50	-6.80	QP	100	360
6	214.68	55.03	-16.50	38.53	43.50	-4.97	QP	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	24 °C
Memo	:		Humidity	:	62 %

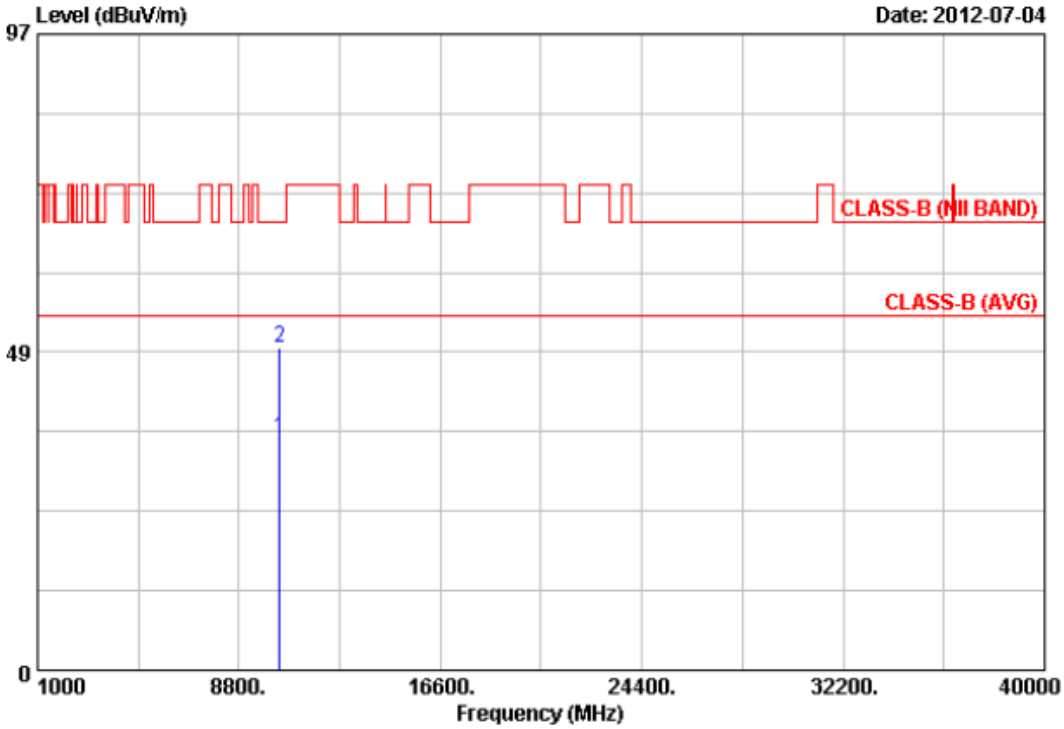


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	341.80	48.68	-8.87	39.81	46.00	-6.19	QP	100	0
2	515.40	36.65	1.49	38.14	46.00	-7.86	QP	100	0
3	544.80	38.19	2.94	41.13	46.00	-4.87	Peak	100	0
4	597.70	36.54	2.79	39.33	46.00	-6.67	Peak	100	0
5	833.60	30.86	8.82	39.68	46.00	-6.32	QP	100	0
6	960.90	35.76	8.00	43.76	54.00	-10.24	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11a/an mode at Band1~4 channel are almost the same below 1GHz,so that the channel 36 or 38(for HT40),channel 149 or 151(for HT40) was chosen as representative in final test.
5. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

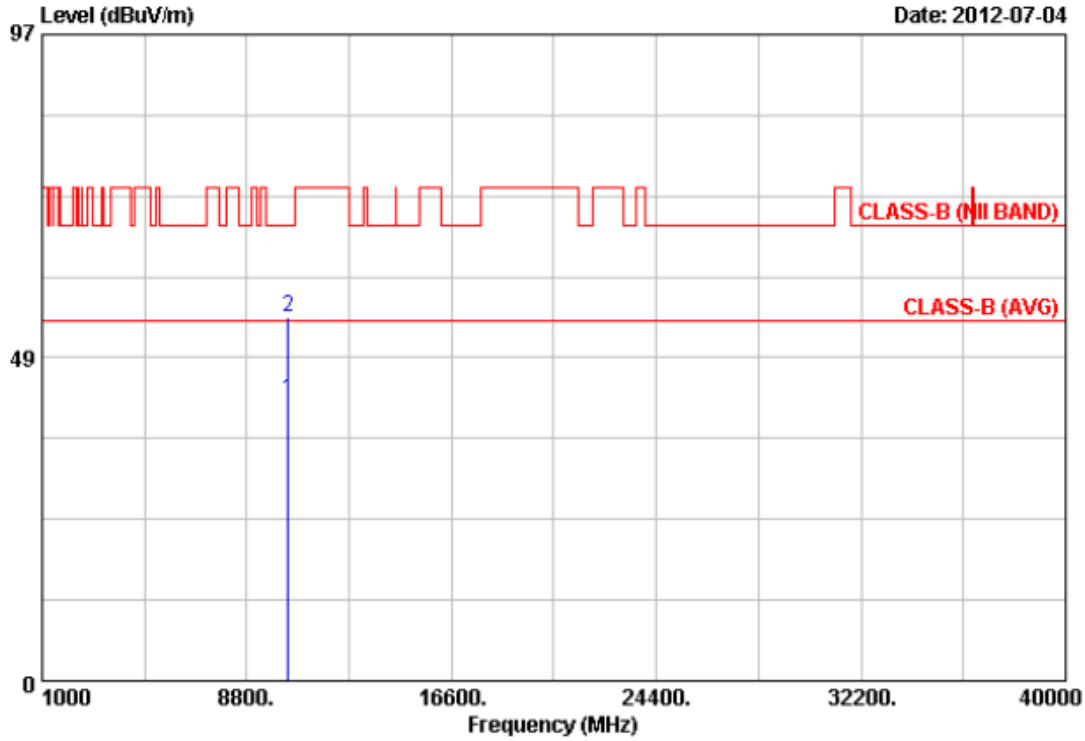


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10380.00	28.86	6.62	35.48	54.00	-18.52	Average	100	360
2	10380.00	42.64	6.62	49.26	68.30	-19.04	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11an HT40, CH38	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

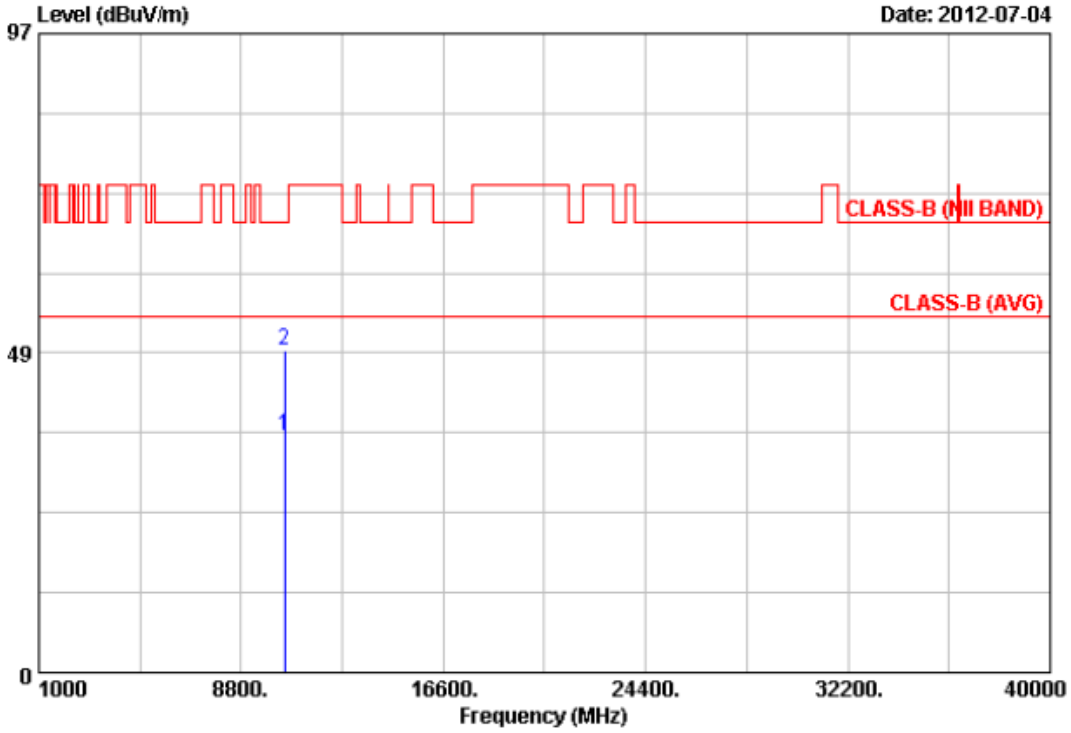


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10380.00	29.65	12.37	42.02	54.00	-11.98	Average	100	0
2	10380.00	42.16	12.37	54.53	68.30	-13.77	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11an HT40, CH46	Temperature	:	25 °C
Memo	:		Humidity	:	67 %

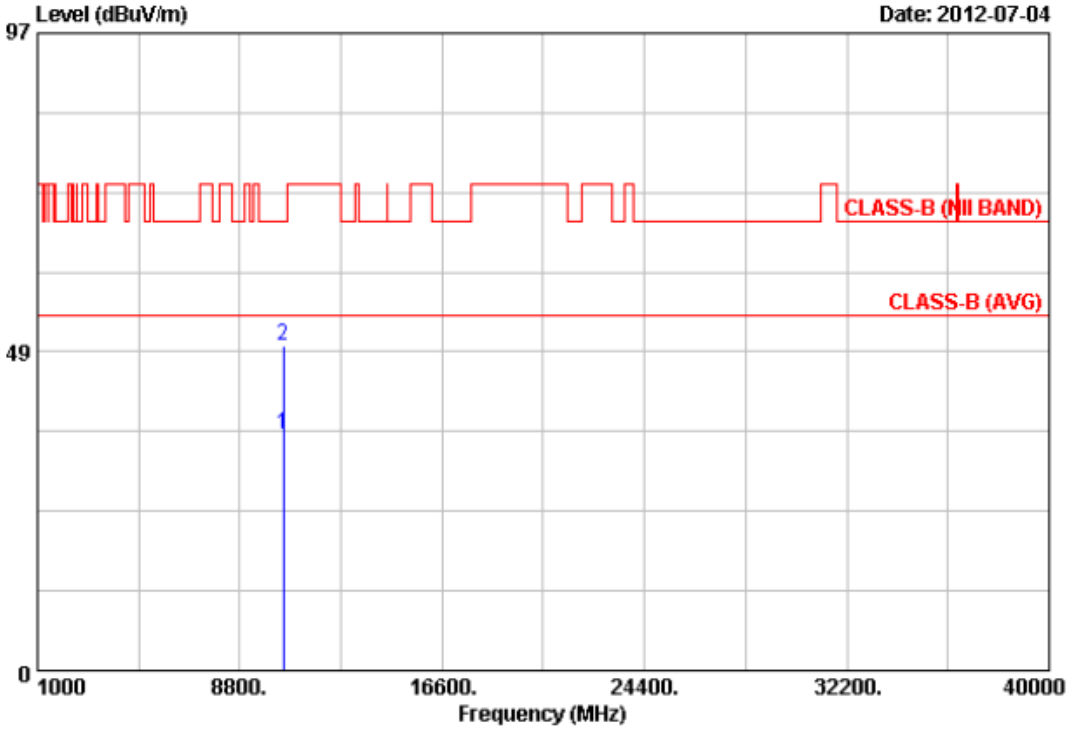


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10460.00	29.37	6.64	36.01	54.00	-17.99	Average	100	360
2	10460.00	42.36	6.64	49.00	68.30	-19.30	Peak	100	360

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	FROM SYSTEM	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11an HT40, CH46	Temperature	:	25 °C
Memo	:		Humidity	:	67 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	10460.00	29.42	6.64	36.06	54.00	-17.94	Average	100	0
2	10460.00	42.79	6.64	49.43	68.30	-18.87	Peak	100	0

Notes:

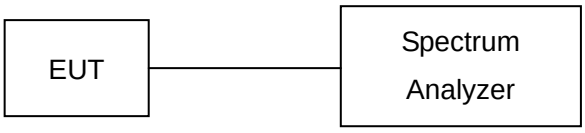
1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

6. Peak Transmit Power

6.1. Test Procedure

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
3. Set detector mode to RMS, trace average 100 traces in power averaging mode.
4. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges.
5. The peak transmit power was measured and recorded.

6.2. Test Setup Layout



6.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

6.4. Test Result and Data

Test Date: Jul. 02, 2012 Temperature: 25℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Modulation Standard: IEEE 802.11a (54Mbps)

Channel	Frequency (MHz)	Peak Power Output (dBm)			Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)	
		ANT A	ANT B	A+B	A+B	ANT A	ANT B
36	5180	5.00	5.05	8.04	6.36	24.5	24.5
44	5220	5.37	5.46	8.43	6.96	24.4	24.4
48	5240	5.44	5.20	8.33	6.81	24.4	24.6

Modulation Standard: IEEE 802.11an, HT20 (130Mbps)

Channel	Frequency (MHz)	Peak Power Output (dBm)			Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)	
		ANT A	ANT B	A+B	A+B	ANT A	ANT B
36	5180	5.28	6.48	8.93	7.82	25.2	25.4
44	5220	5.06	5.93	8.53	7.12	25.3	25.4
48	5240	6.29	5.84	9.08	8.09	25.3	25.4

Modulation Standard: IEEE 802.11an, HT40 (270Mbps)

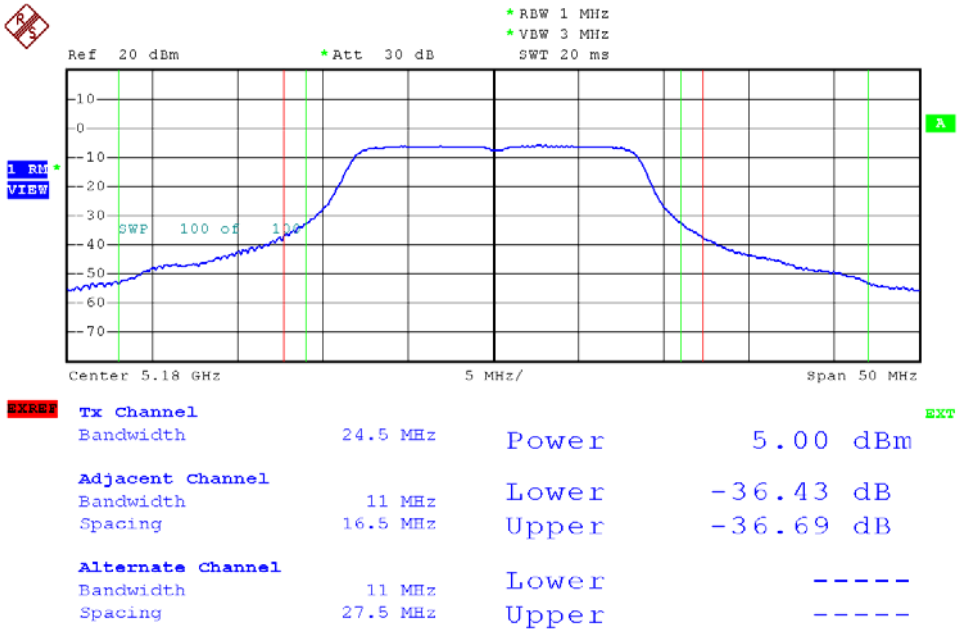
Channel	Frequency (MHz)	Peak Power Output (dBm)			Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)	
		ANT A	ANT B	A+B	A+B	ANT A	ANT B
38	5190	5.51	5.17	8.35	6.84	41.6	42.2
46	5230	5.44	5.17	8.32	6.79	41.8	42.2

Limit:

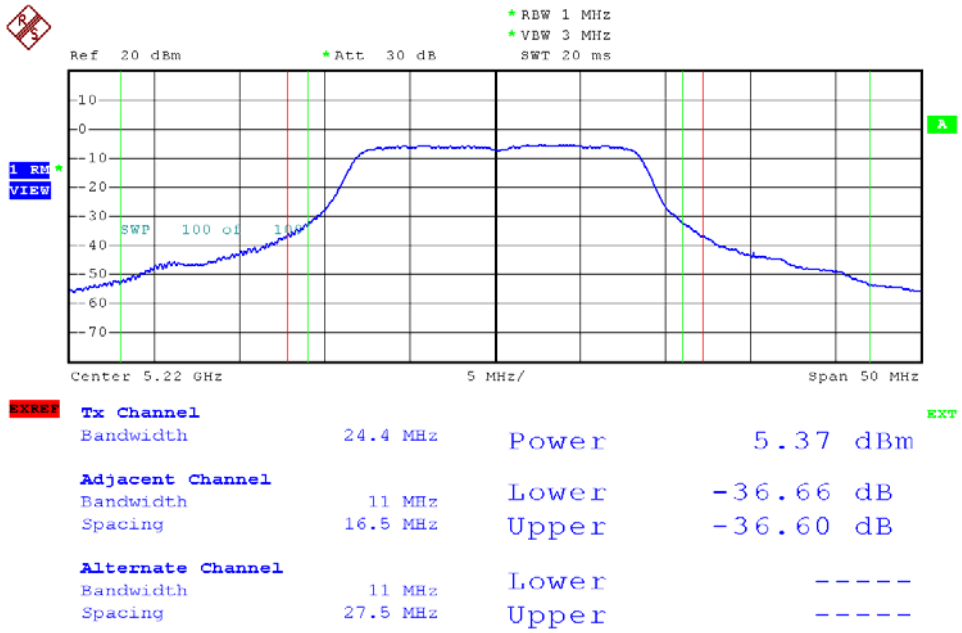
Frequency Band	Limit
5.15 – 5.25 GHz	The lesser of 50mW(17dBm) or 4dBm + 10logB
B is the 26dB emission bandwidth in MHz.	

Peak Transmit Power

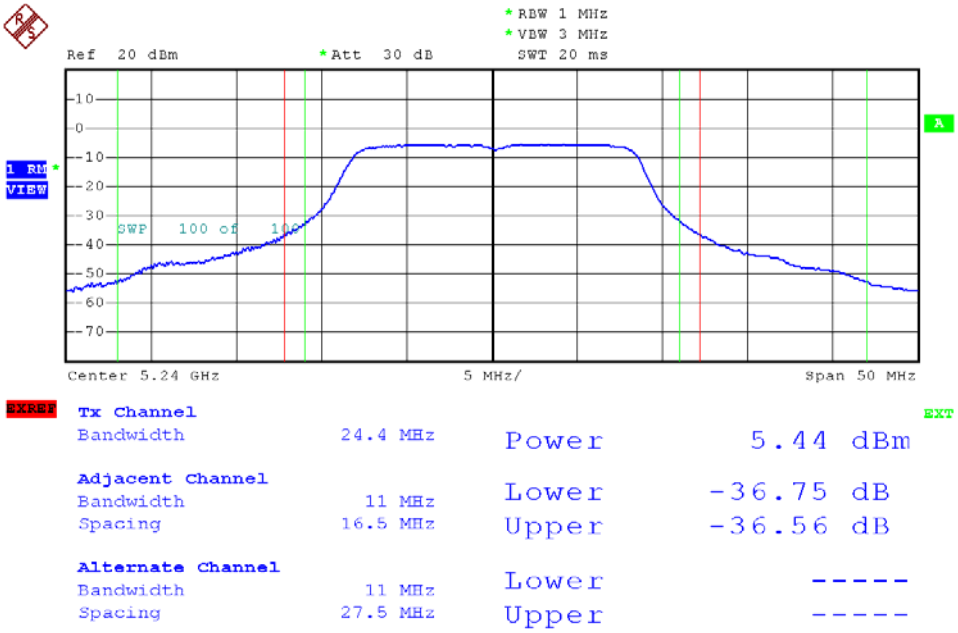
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 36



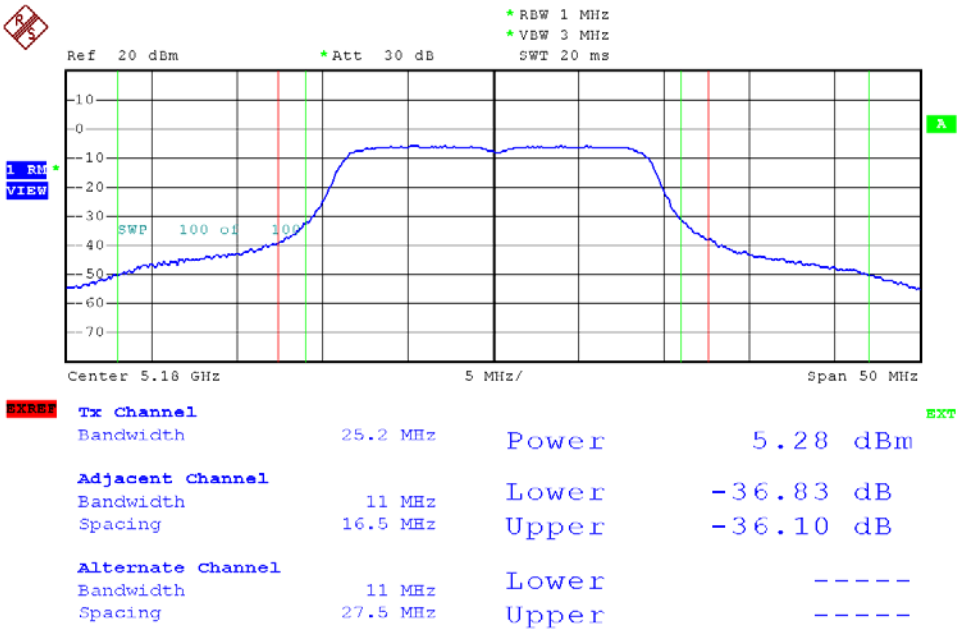
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 44



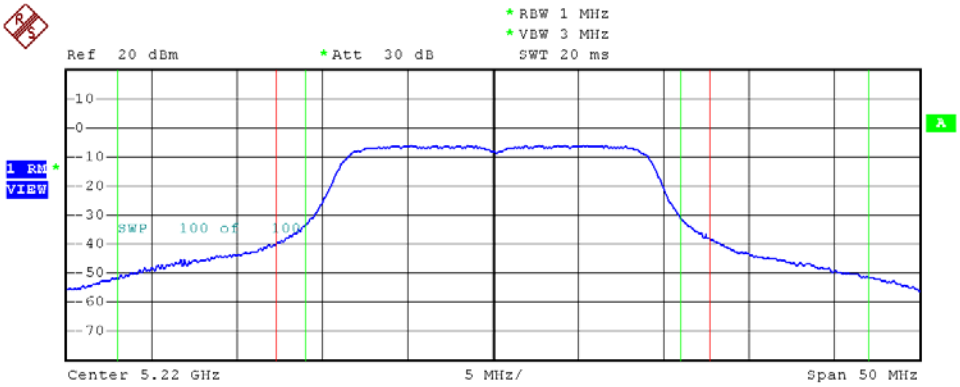
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 48



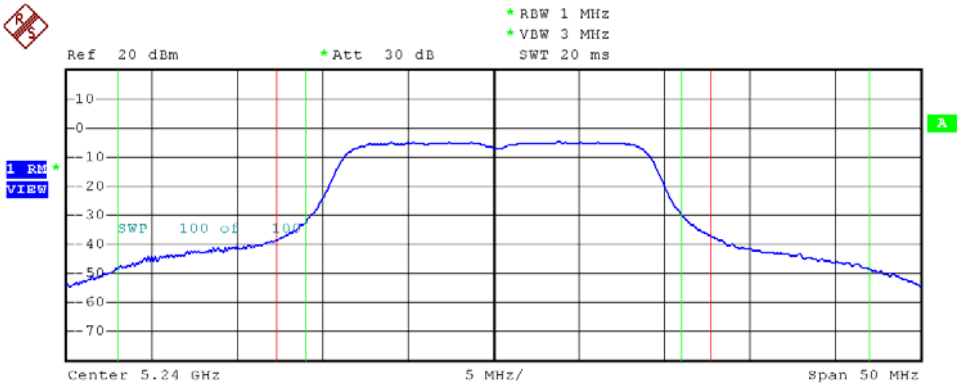
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 36



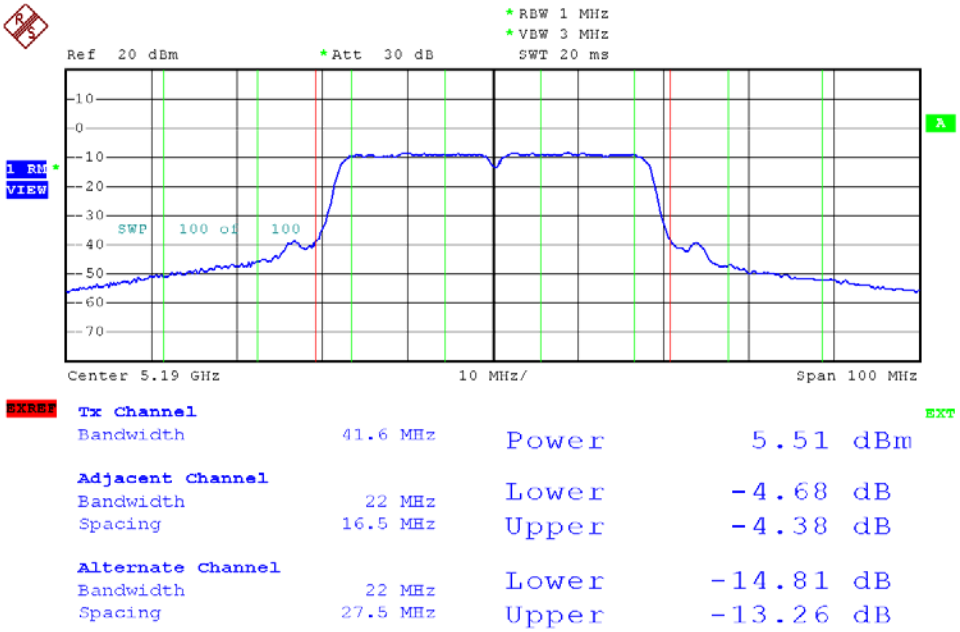
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 44



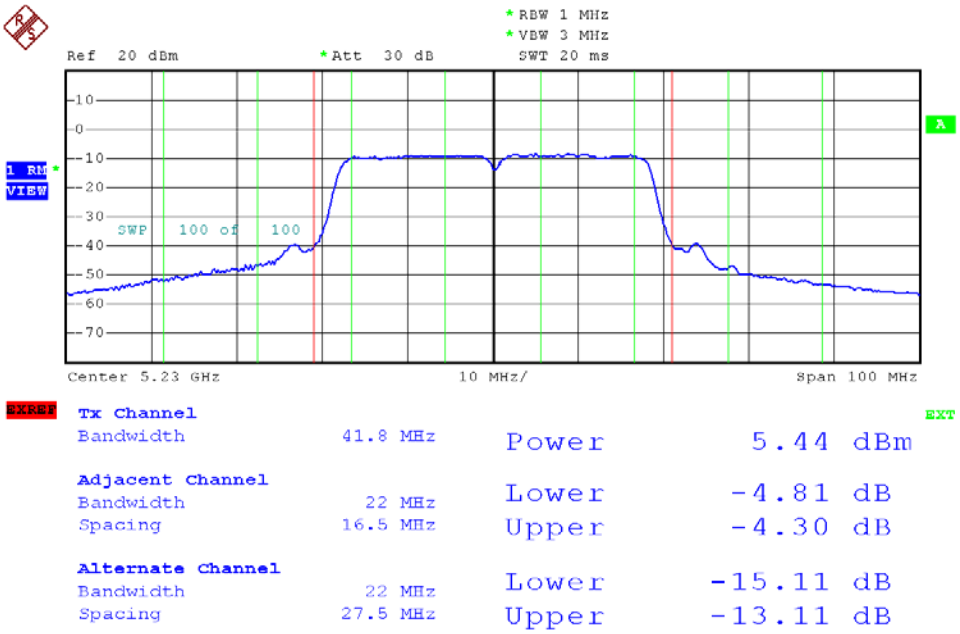
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 48



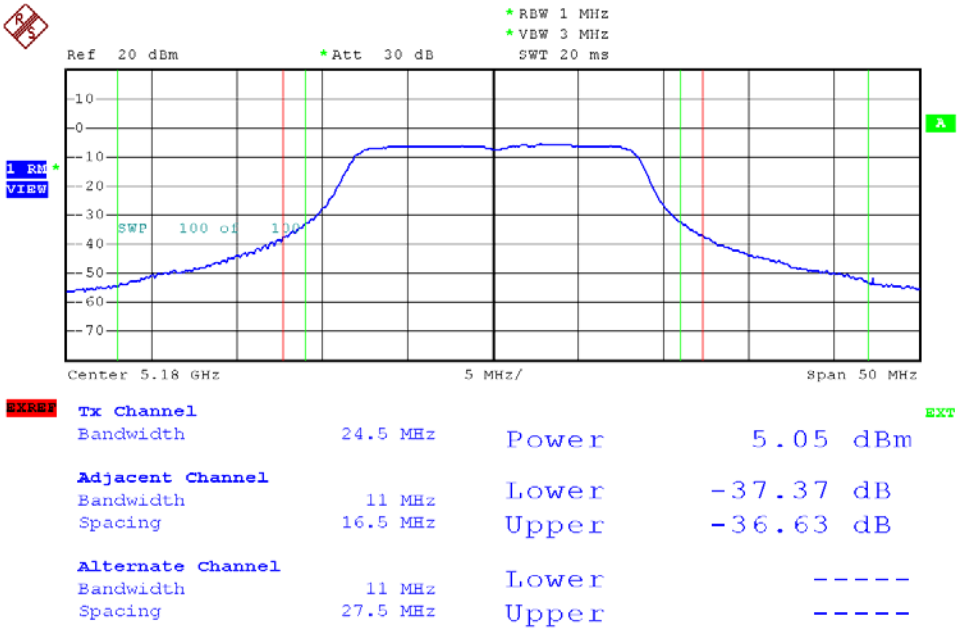
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 38



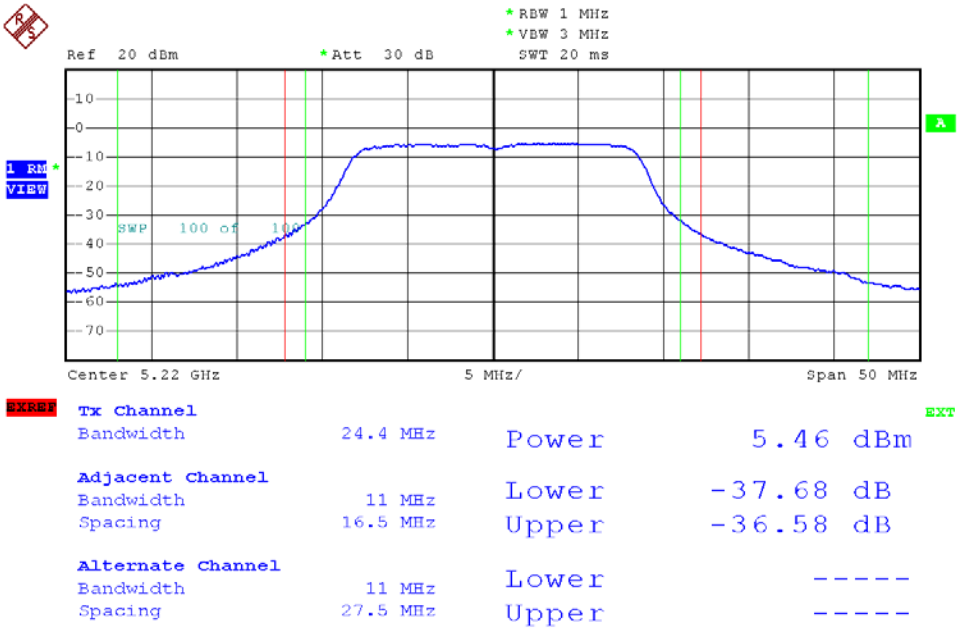
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 46



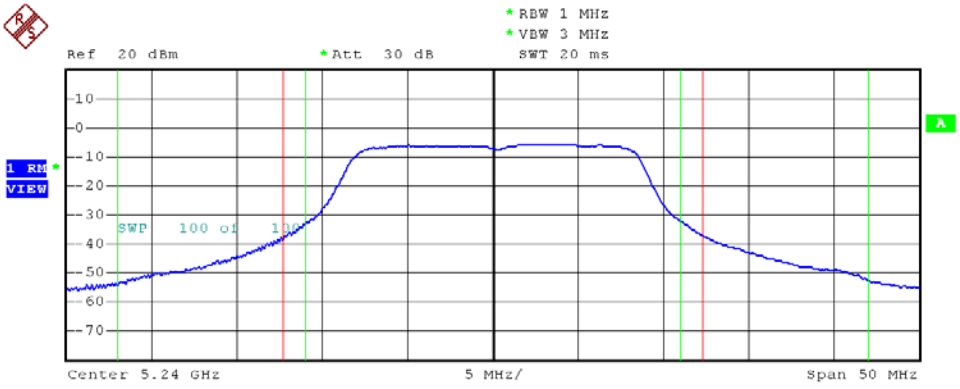
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 36



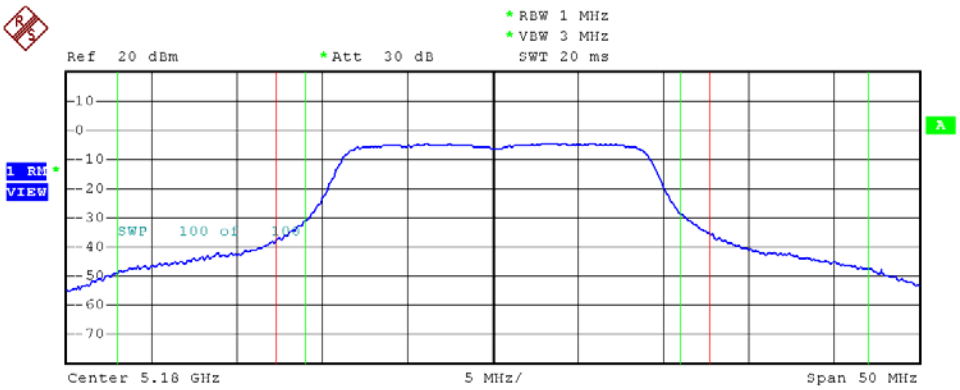
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 44



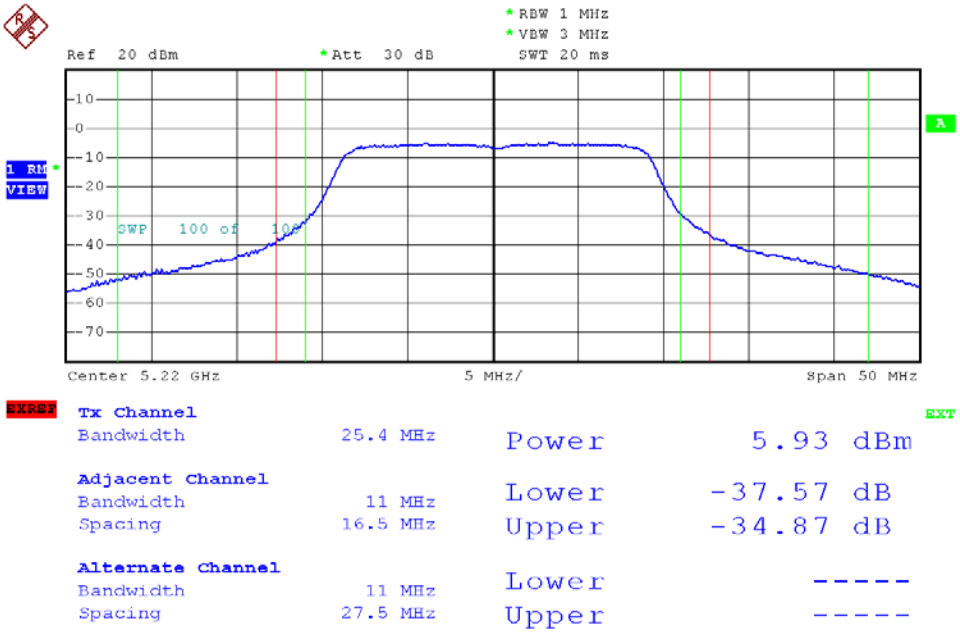
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 48



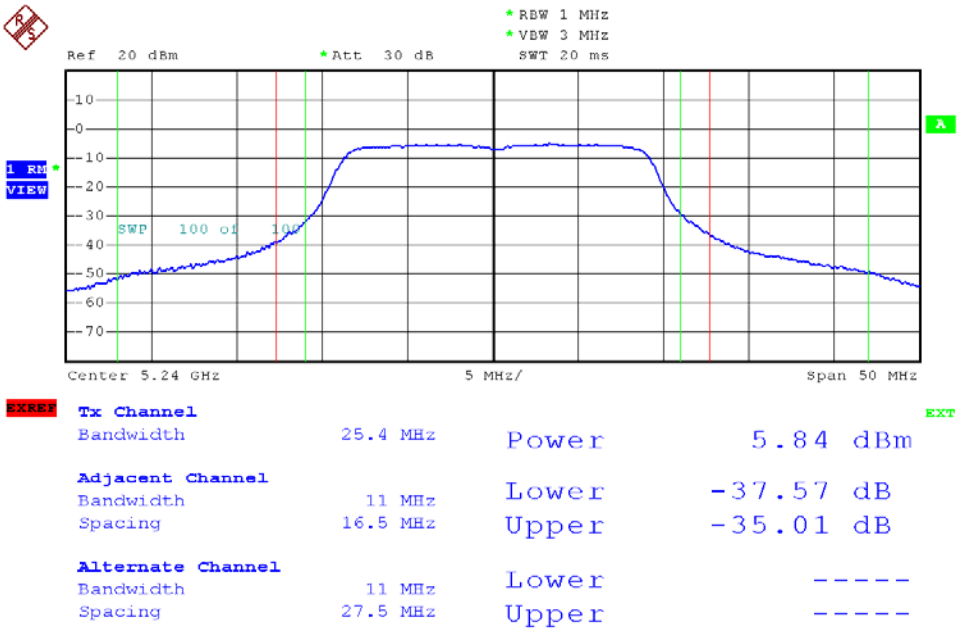
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 36



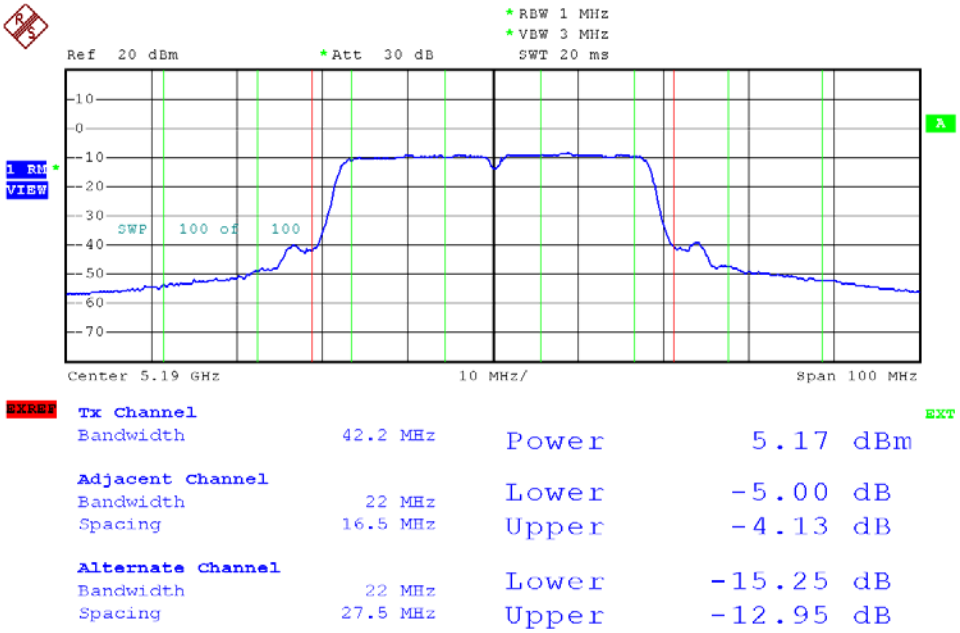
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 44



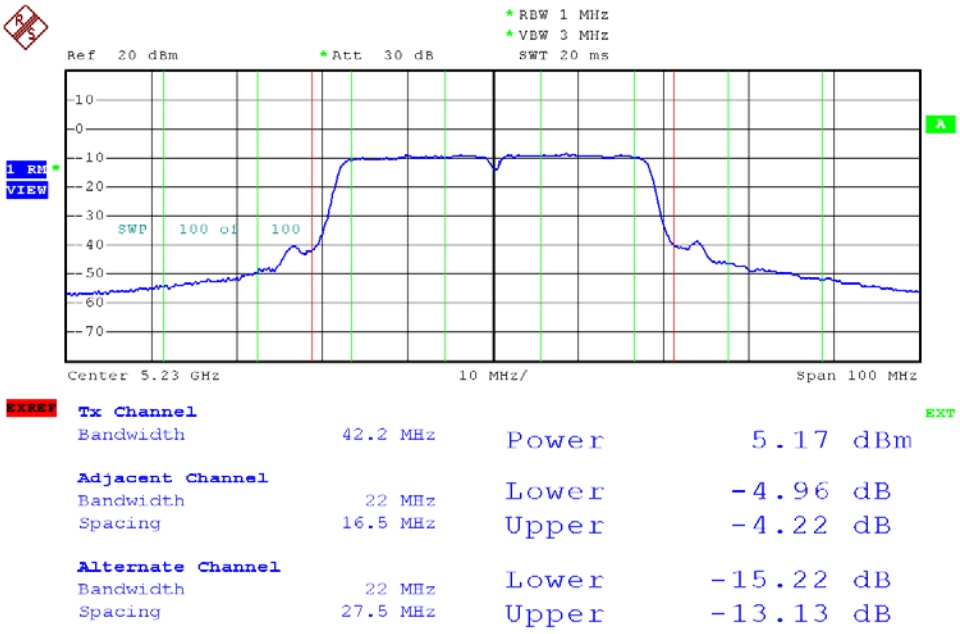
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 48



Modulation Standard: 802.11an HT40 (270Mbps), ANT B
Channel: 38

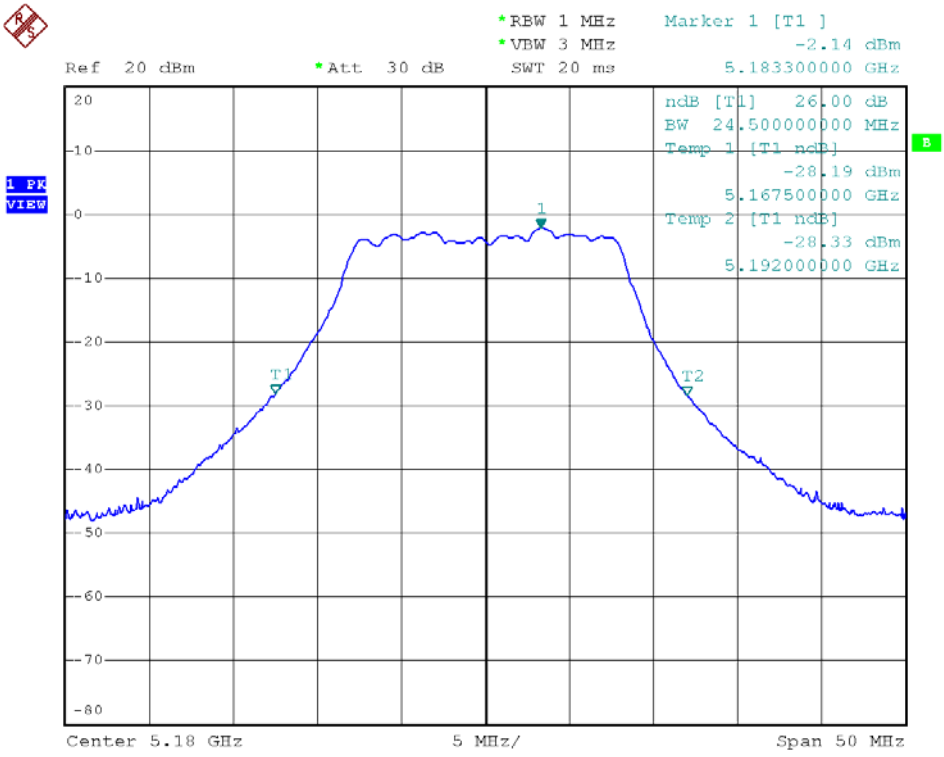


Modulation Standard: 802.11an HT40 (270Mbps), ANT B
Channel: 46

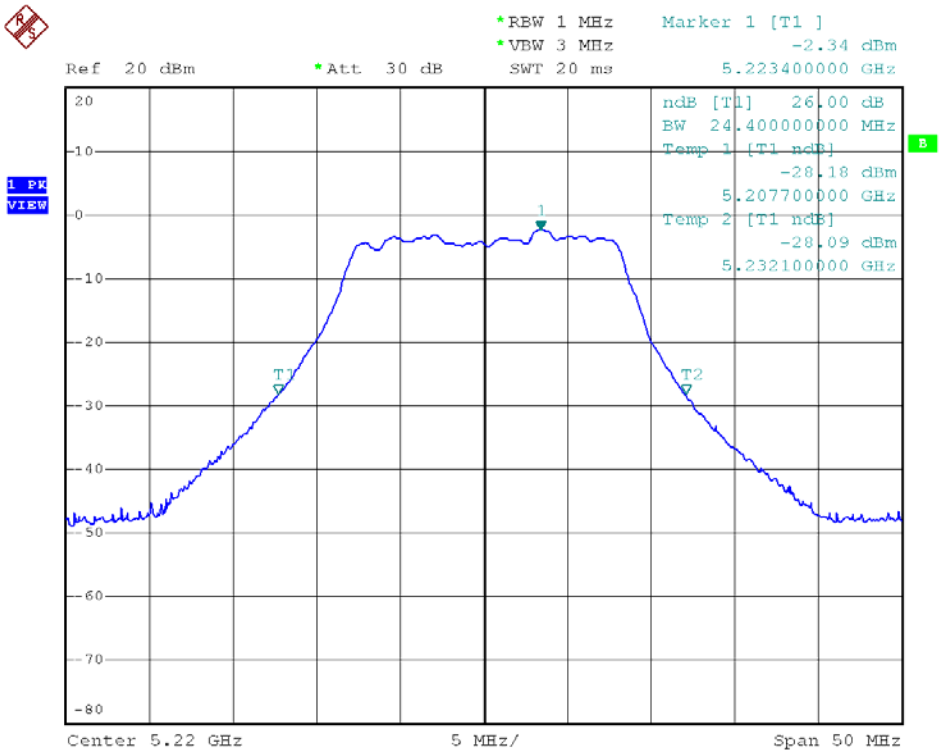


26dB Occupied Bandwidth

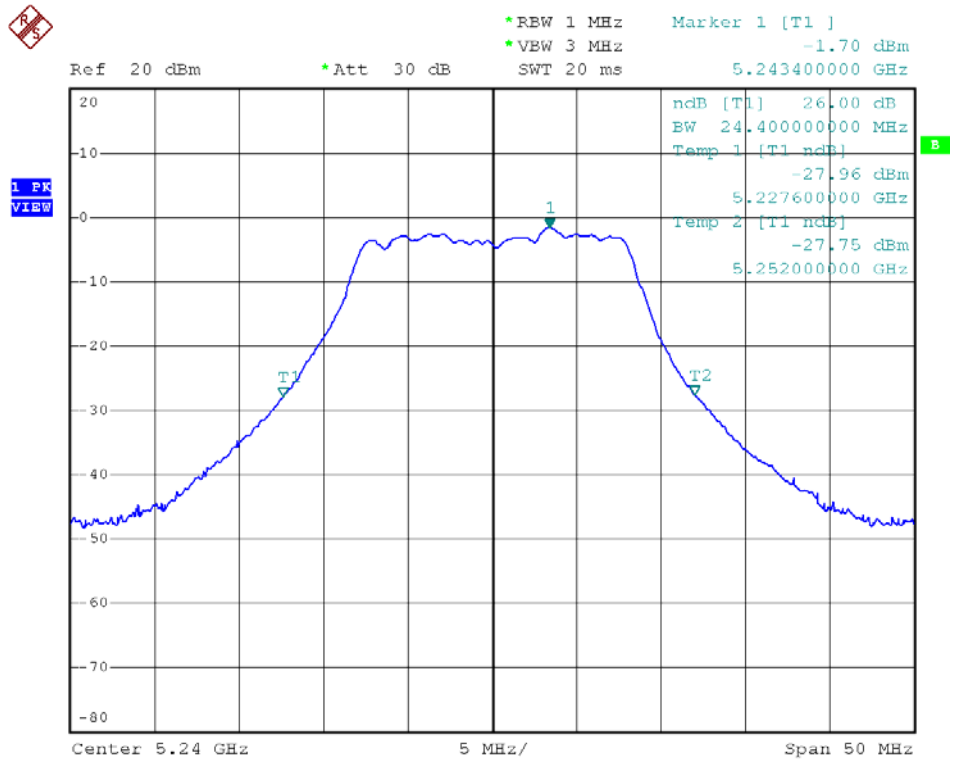
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 36



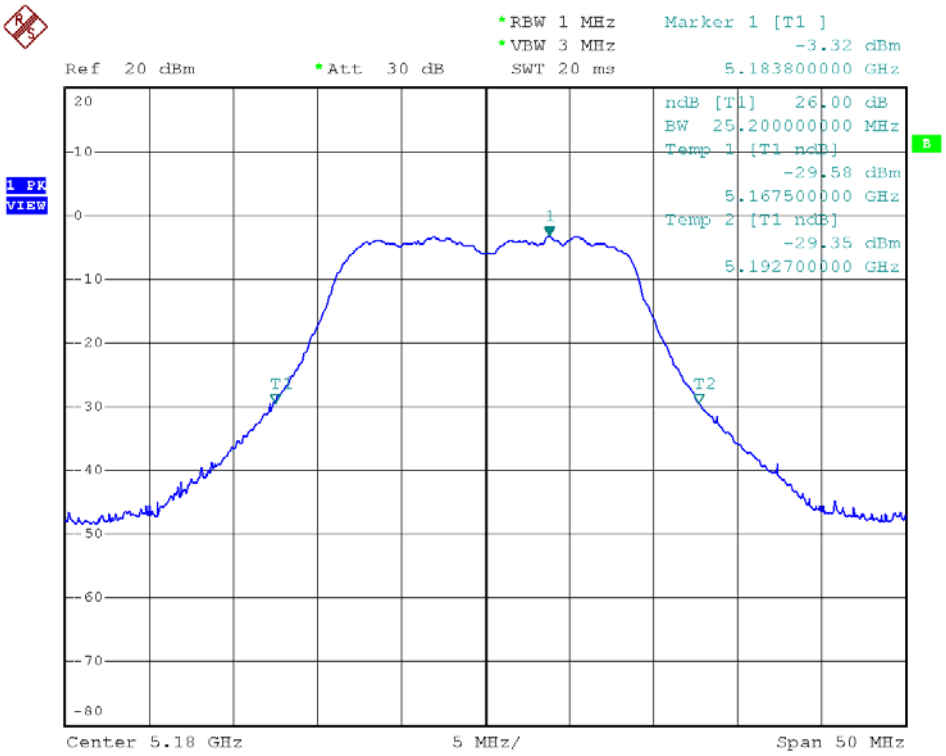
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 44



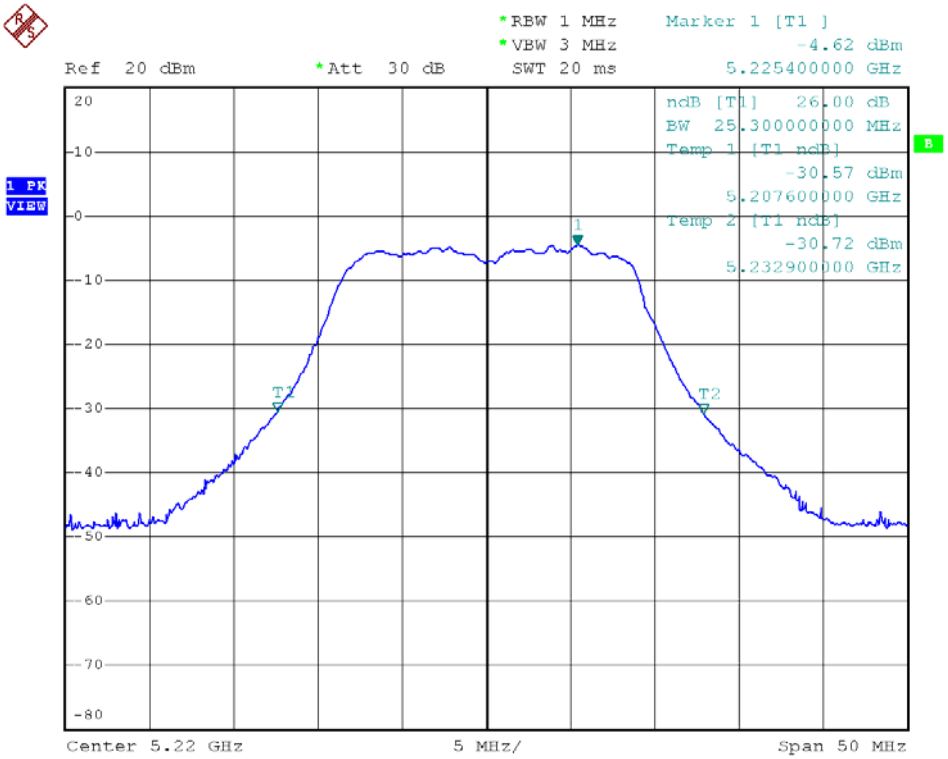
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 48



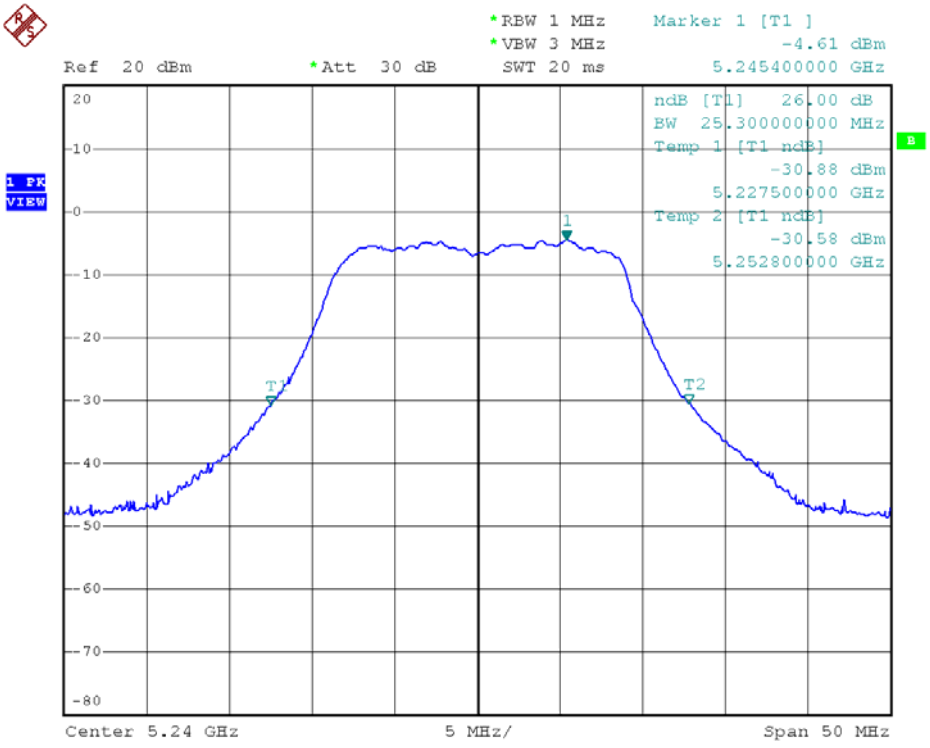
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 36



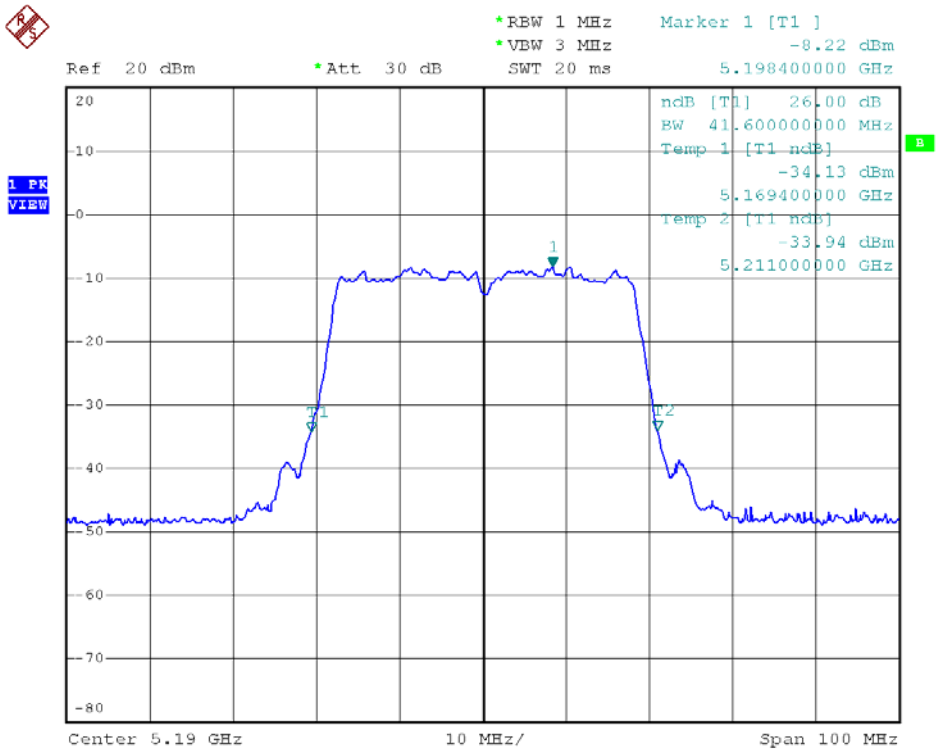
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 44



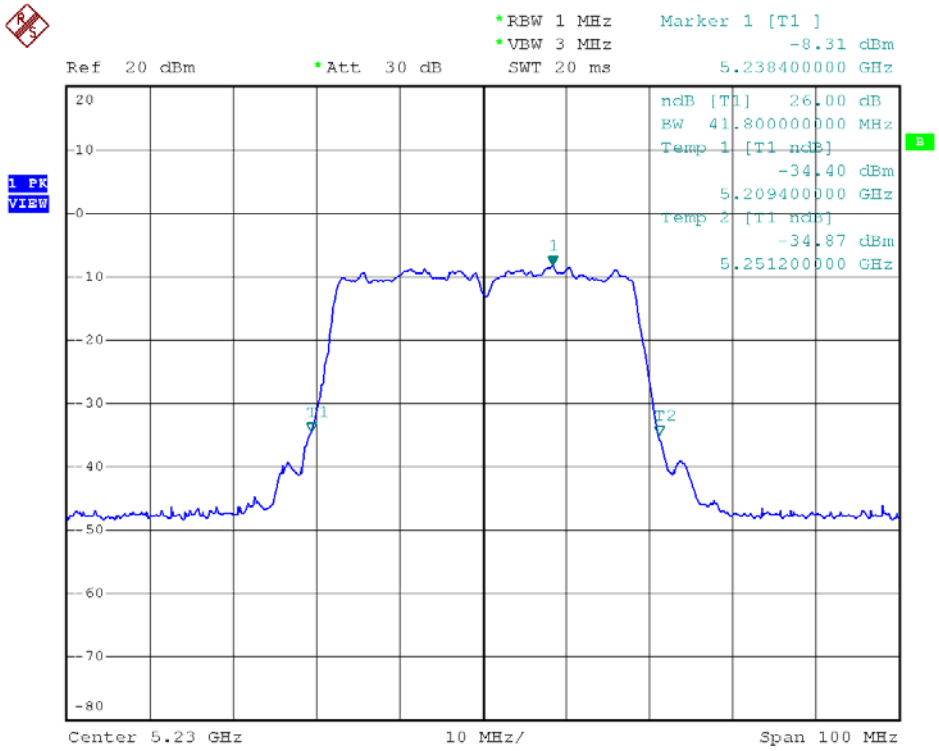
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 48



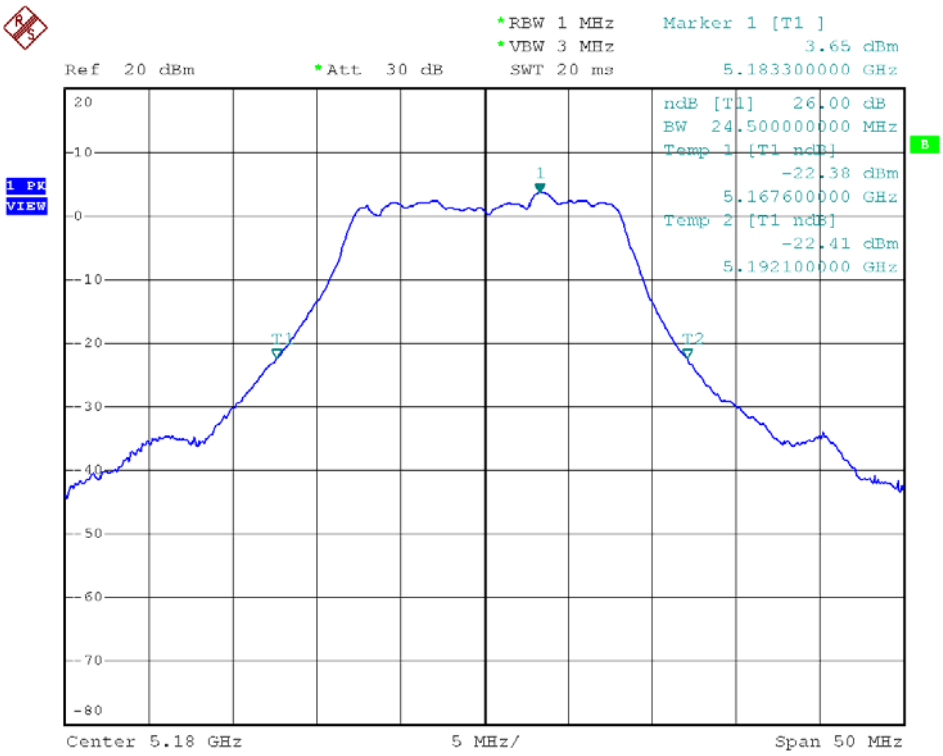
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 38



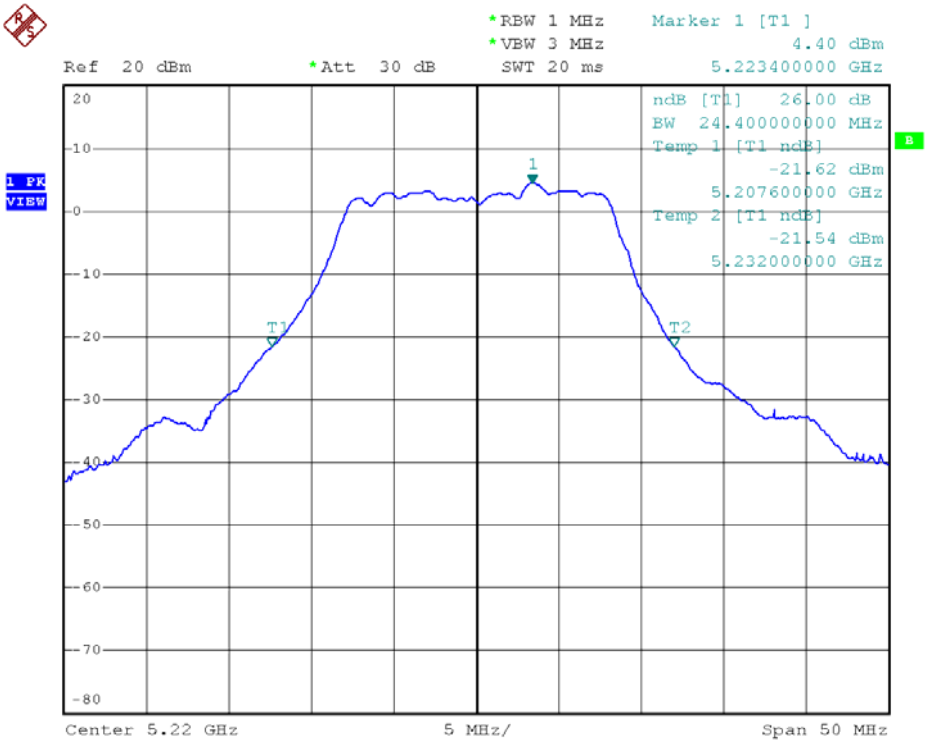
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 46



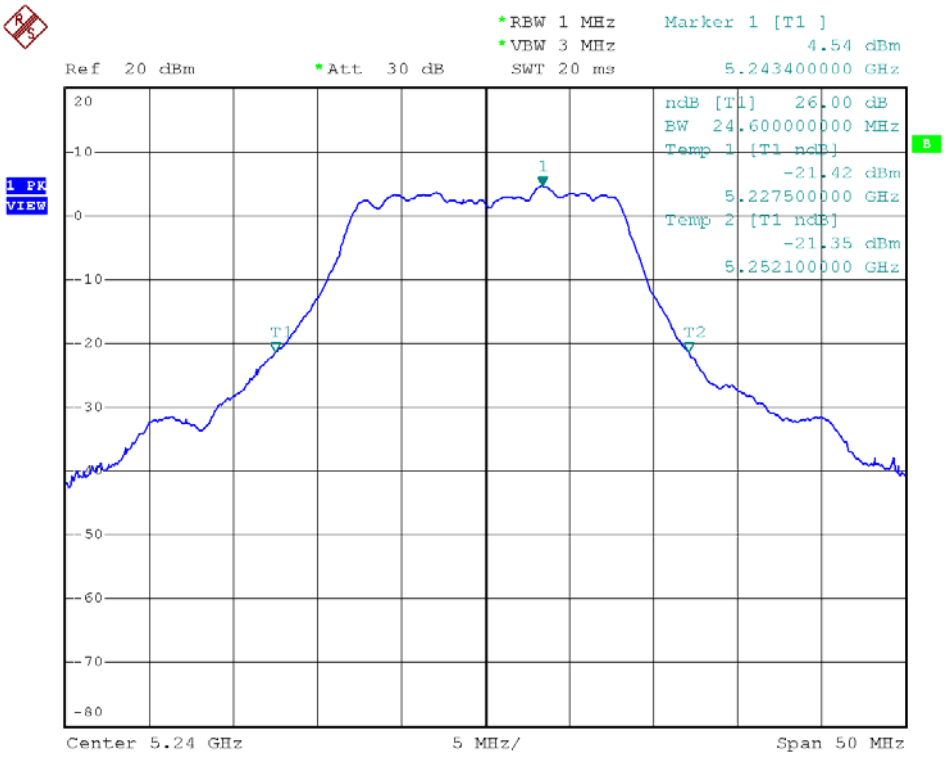
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 36



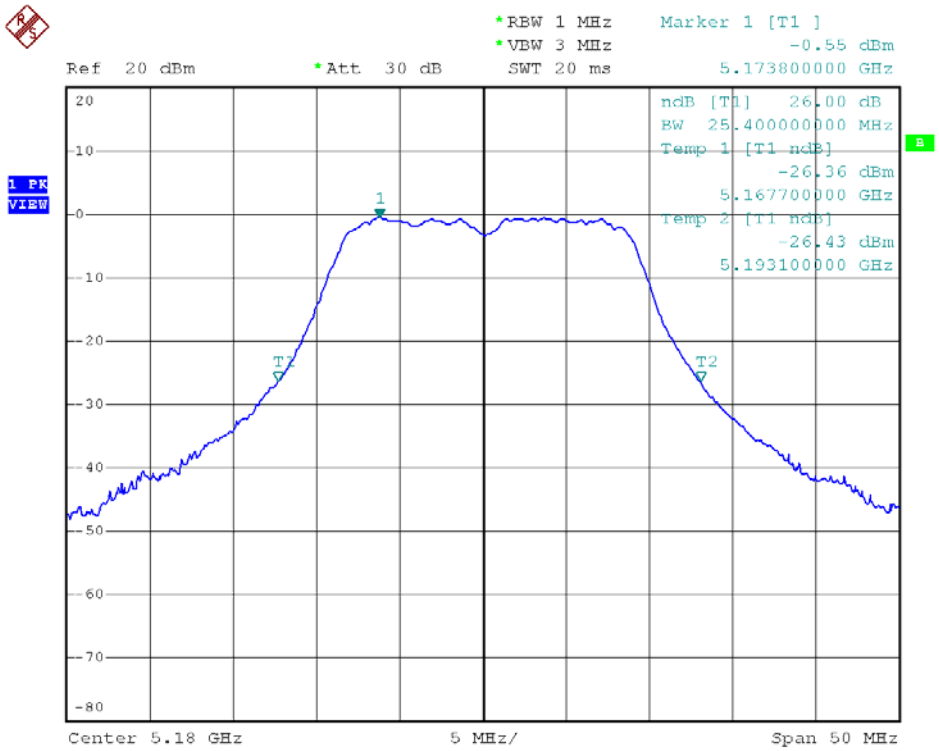
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 44



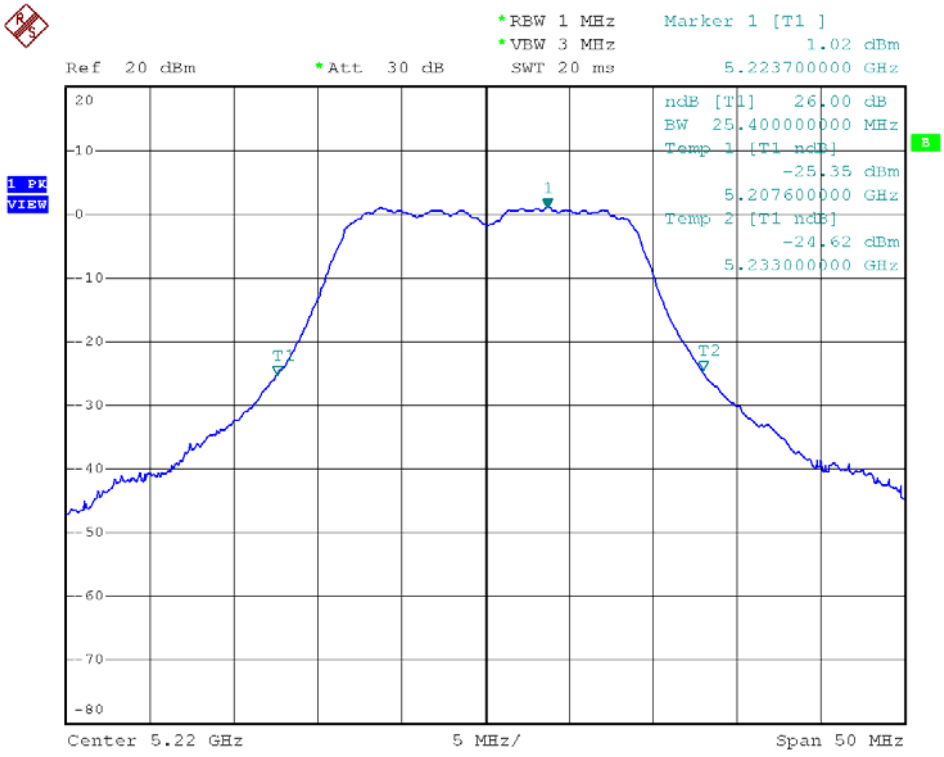
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 48



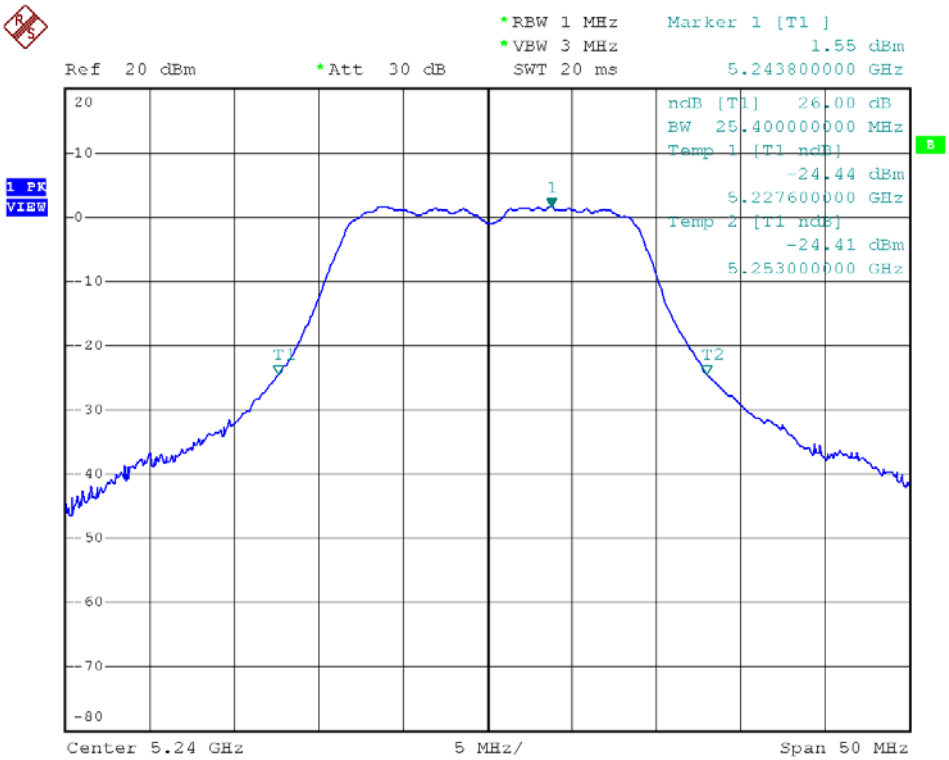
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 36



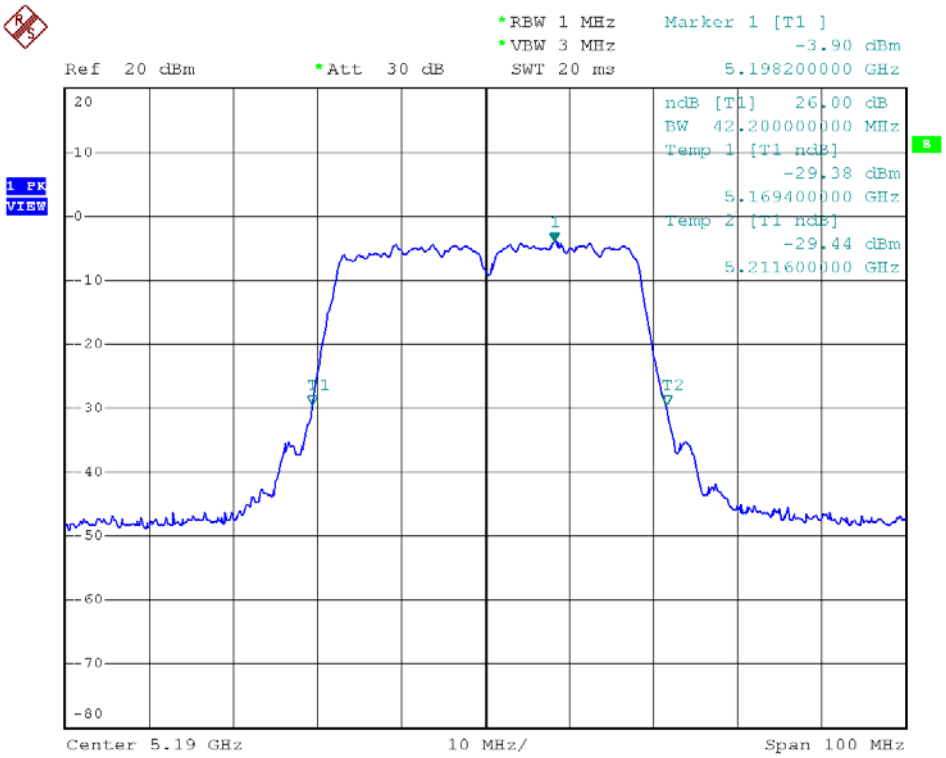
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 44



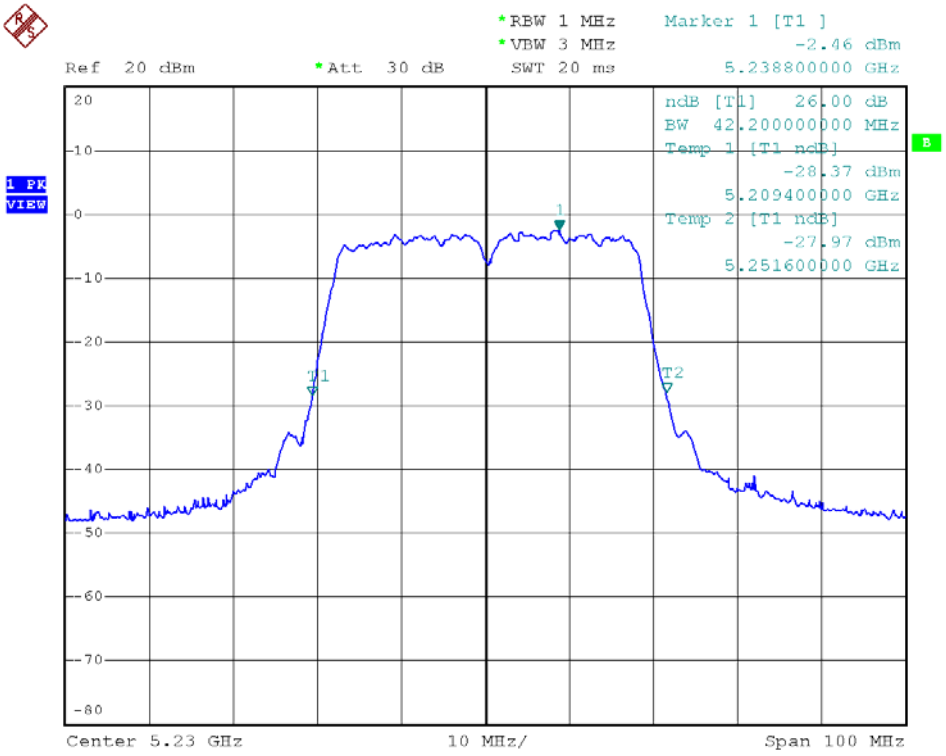
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 48



Modulation Standard: 802.11an HT40 (270Mbps), ANT B
Channel: 38



Modulation Standard: 802.11an HT40 (270Mbps), ANT B
Channel: 46

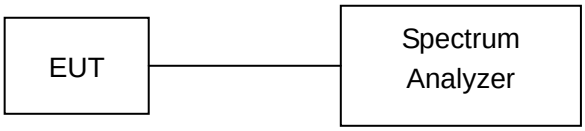


7. Peak Power Excursion

7.1. Test Procedure

1. The transmitter output was connected to the spectrum analyzer
2. Using Peak detector and max-hold function for Trace 1.
3. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz for Trace 1.
4. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz for Trace 2, Set detector mode to RMS, trace average 100 traces in power averaging mode.
5. The largest difference between Trace 1 and Trace 2 in any 1 MHz band on any frequency was recorded.

7.2. Test Setup Layout



7.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

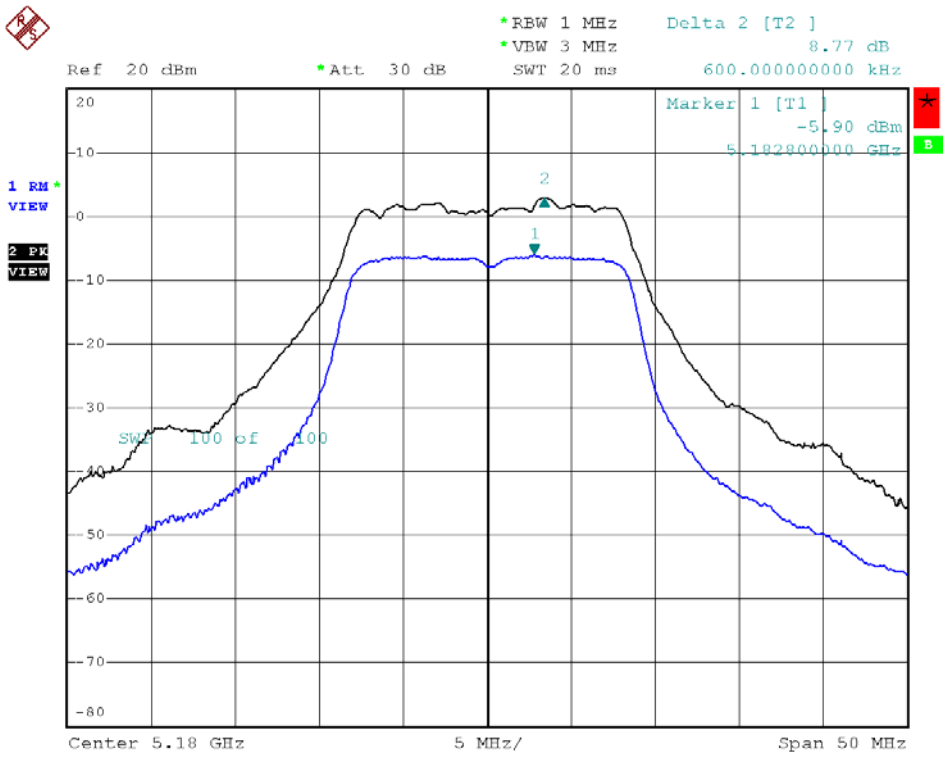
7.4. Test Result and Data

Test Date: Jul. 02, 2012 Temperature: 25℃

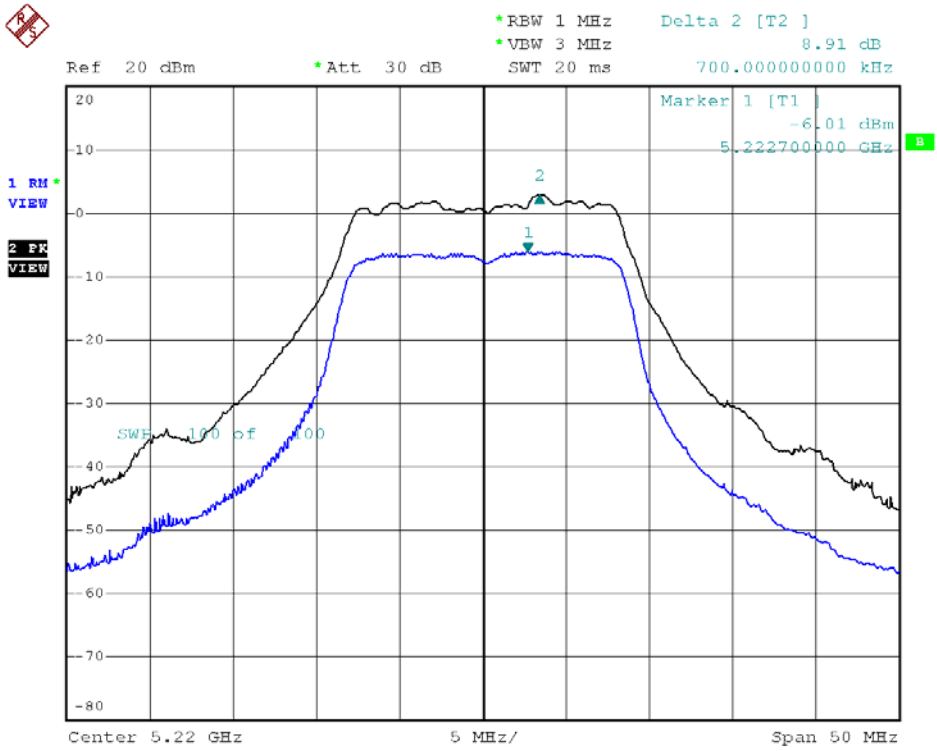
Atmospheric pressure: 1020 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)		Limit (dB)
			ANT R	ANT L	
802.11a (54Mbps)	36	5180	8.77	8.70	13
	44	5220	8.91	8.85	13
	48	5240	9.01	9.23	13
802.11an HT20 (130Mbps)	36	5180	7.36	7.36	13
	44	5220	7.42	6.87	13
	48	5240	7.60	6.97	13
802.11an HT40 (270Mbps)	38	5190	7.84	7.32	13
	46	5230	7.70	6.91	13

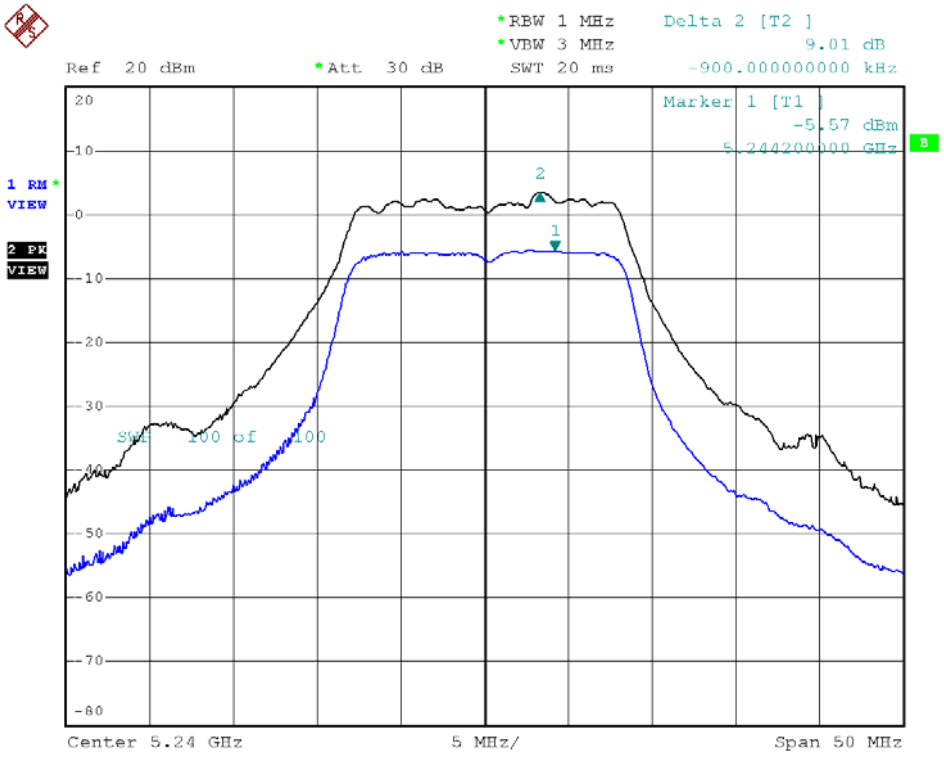
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 36



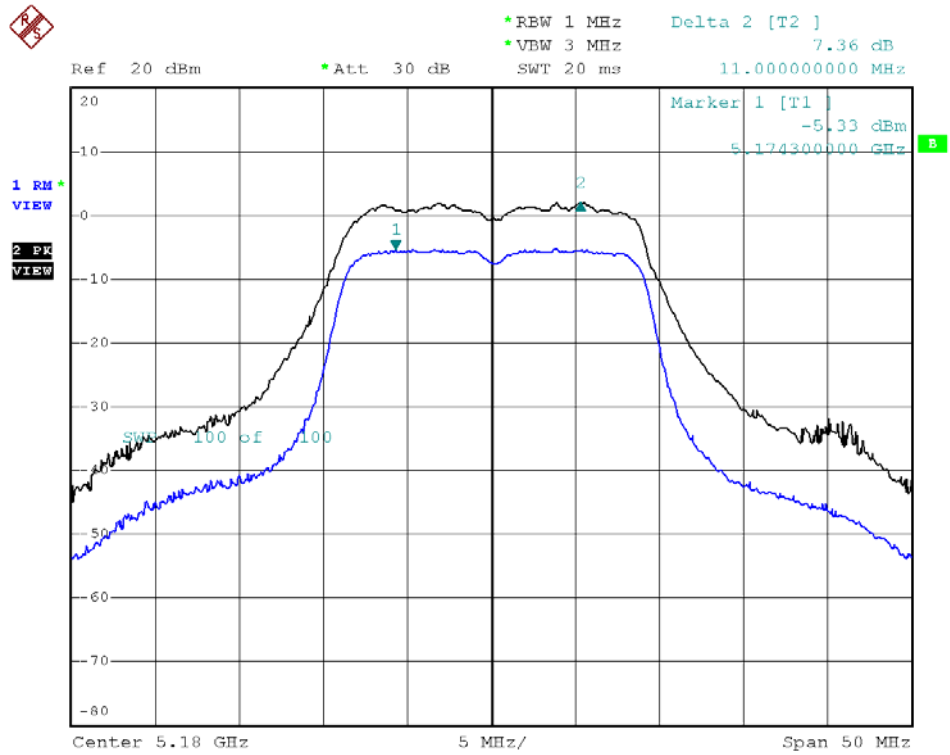
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 44



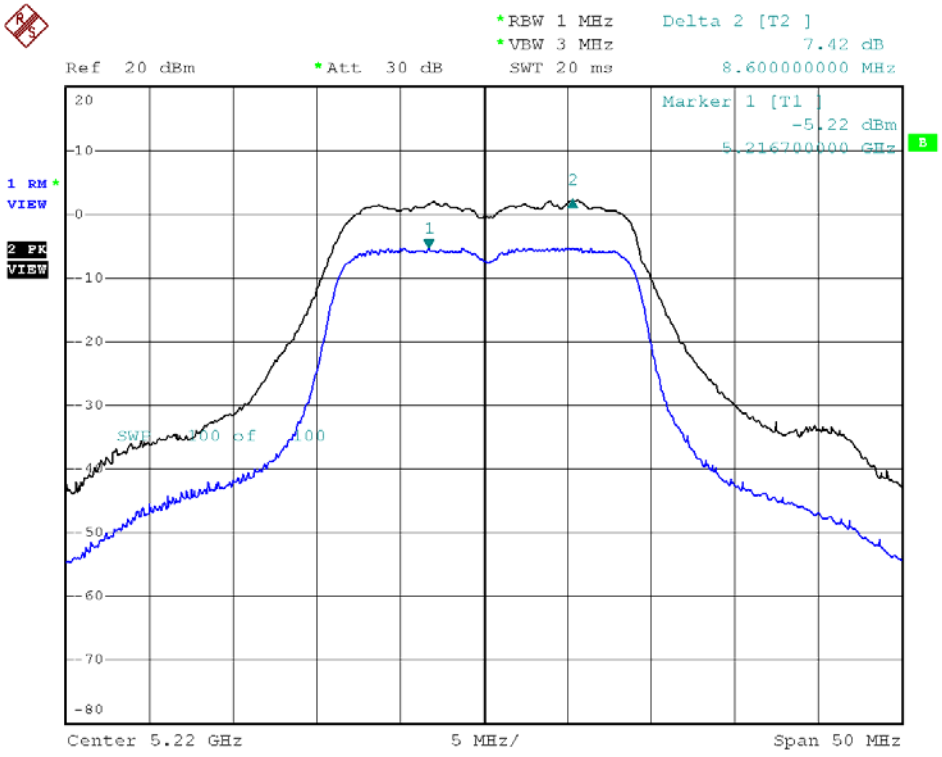
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 48



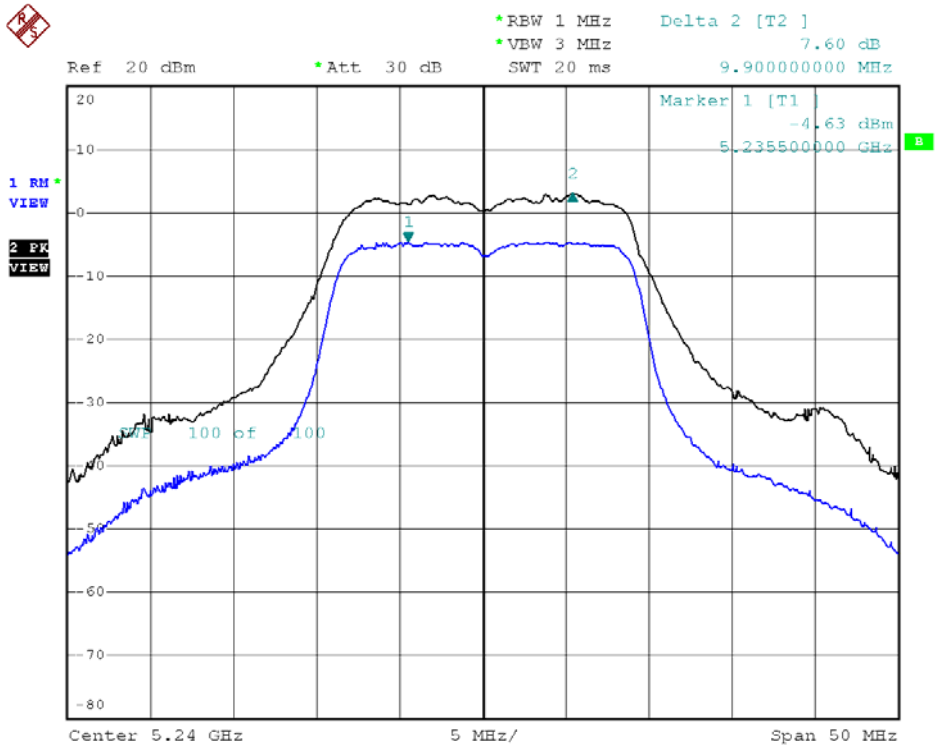
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 36



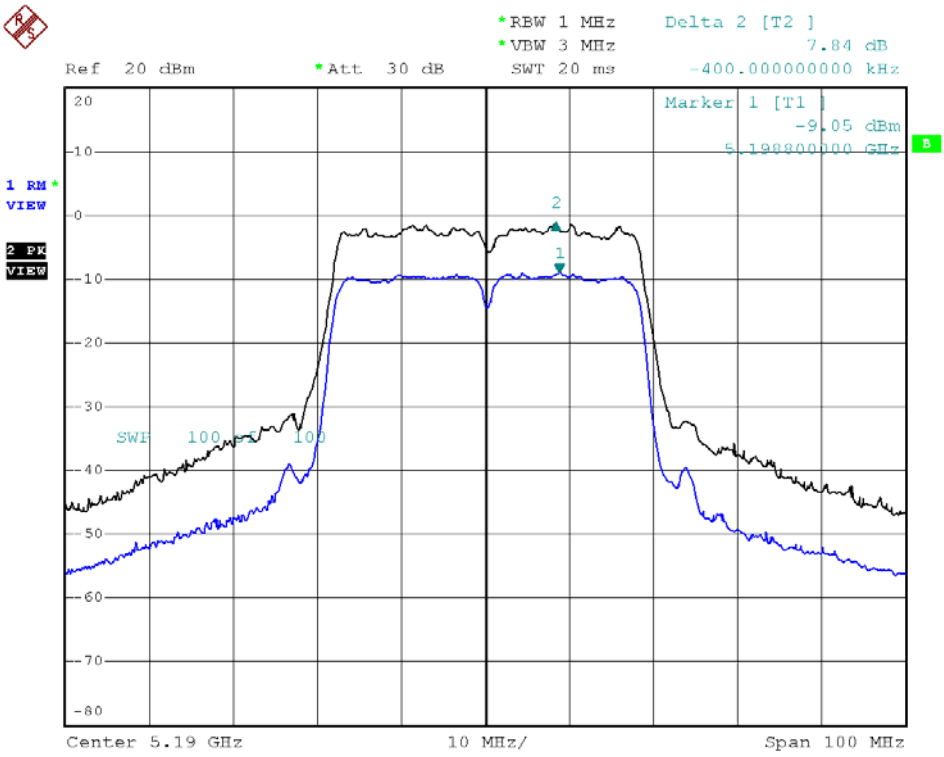
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 44



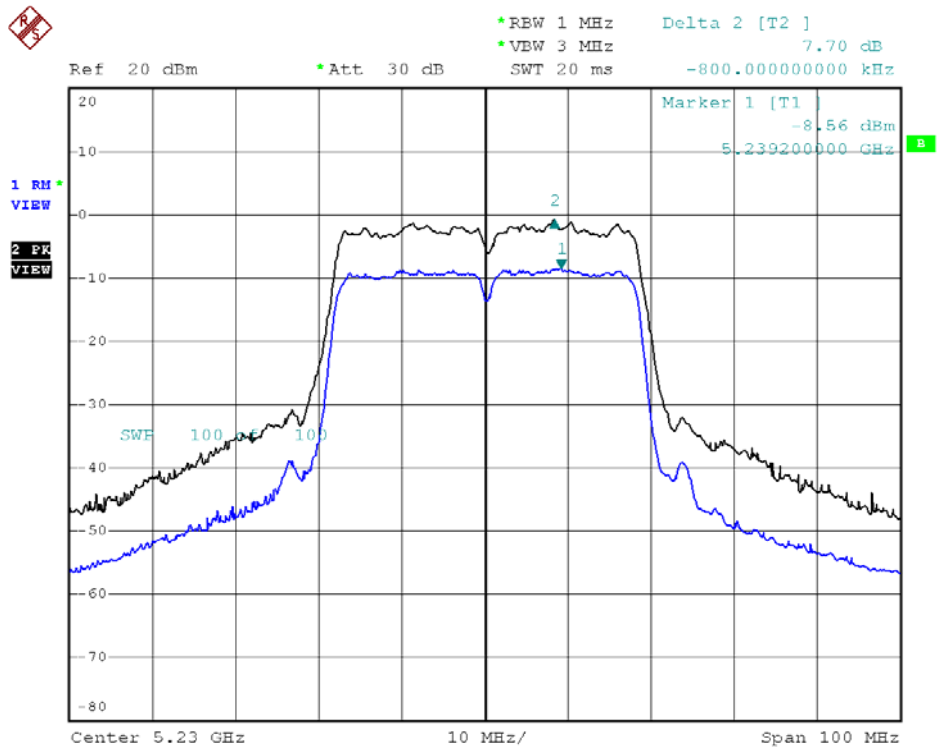
Modulation Standard: 802.11an, HT20 (130Mbps) , ANT A
Channel: 48



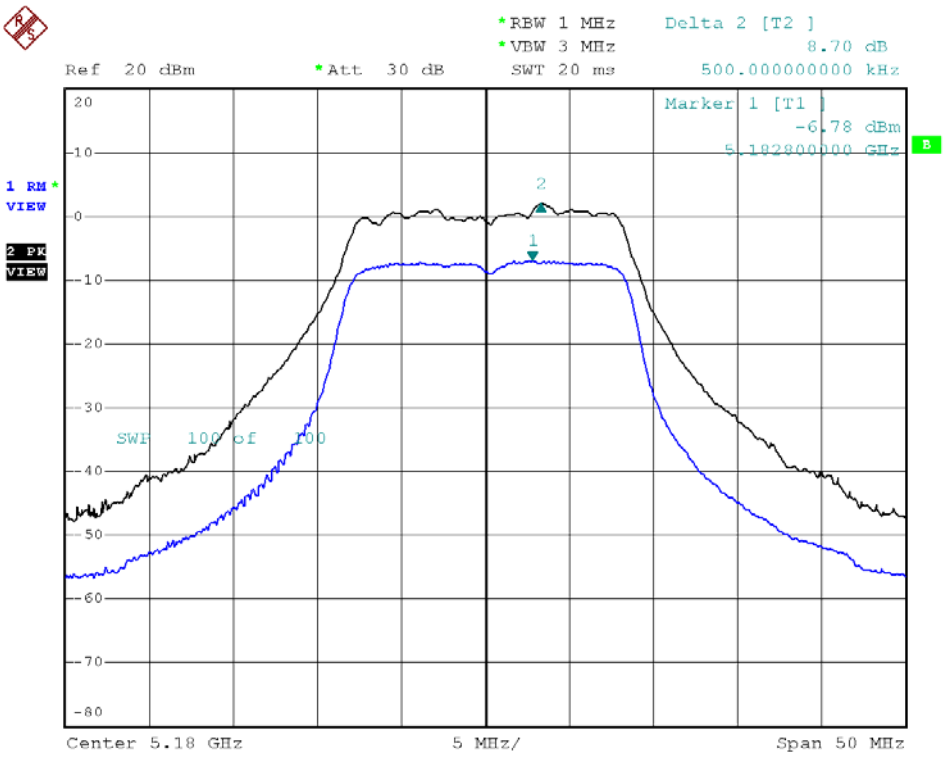
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 38



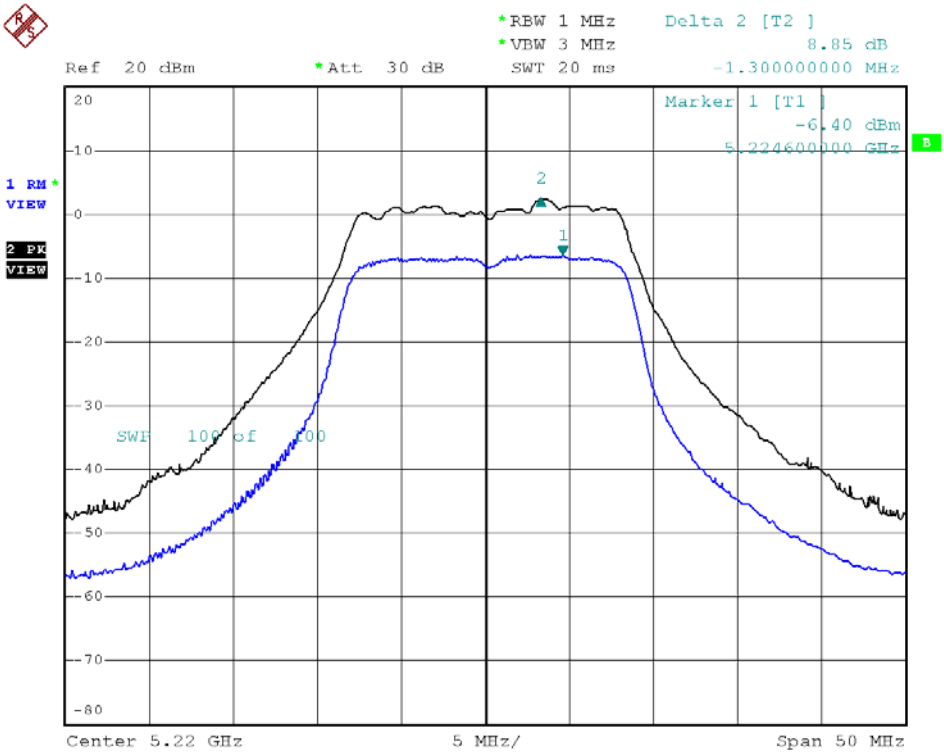
Modulation Standard: 802.11an HT40 (130Mbps), ANT A
Channel: 46



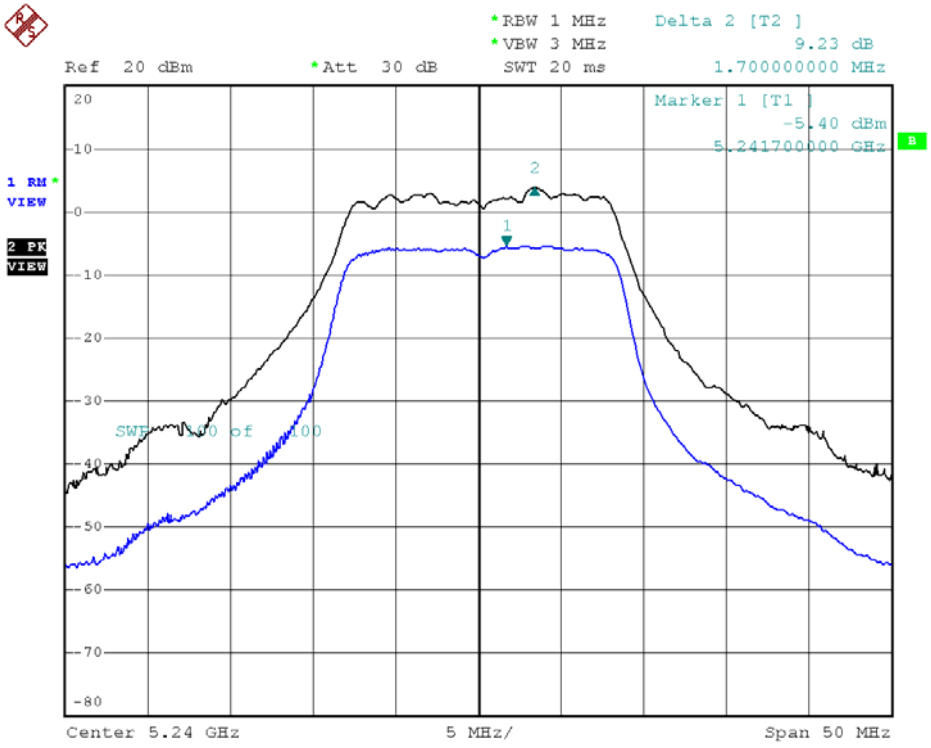
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 36



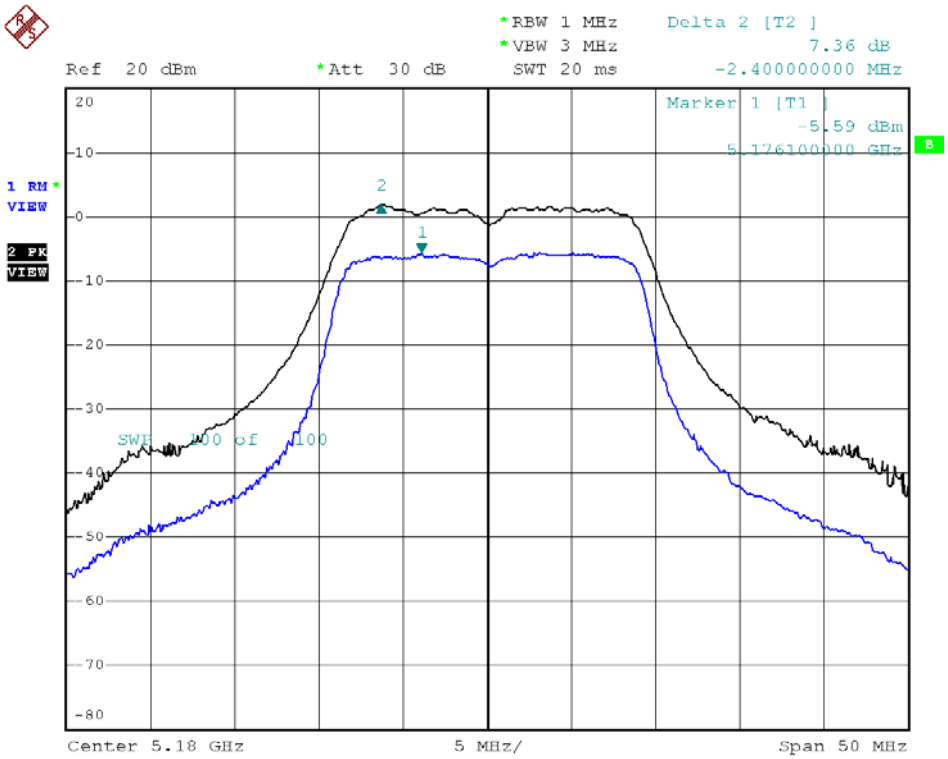
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 44



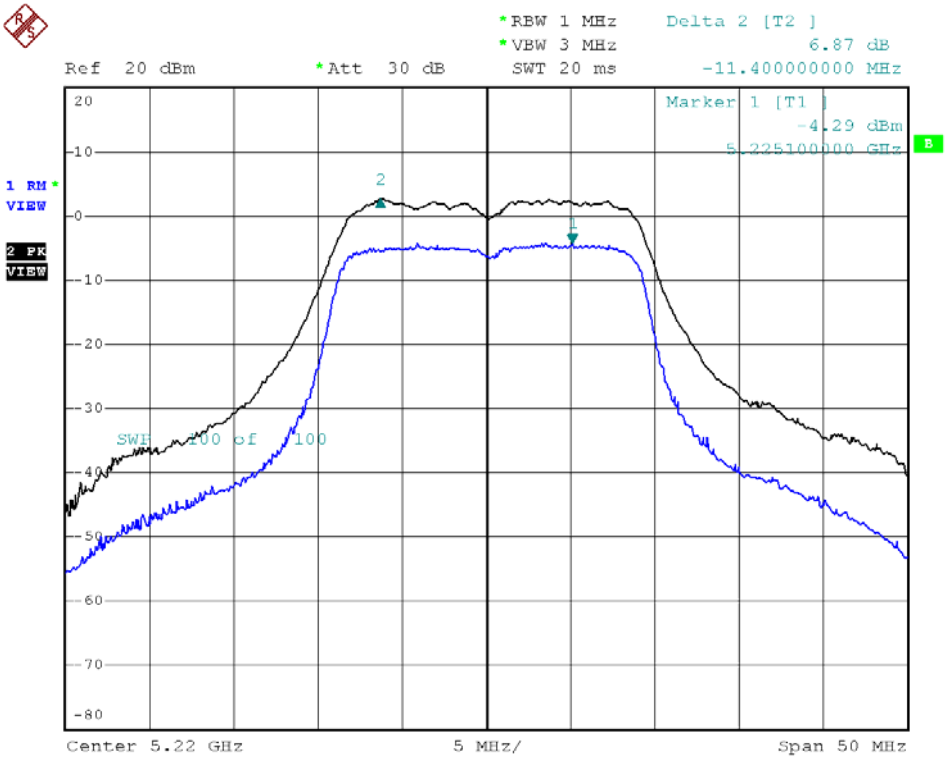
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 48



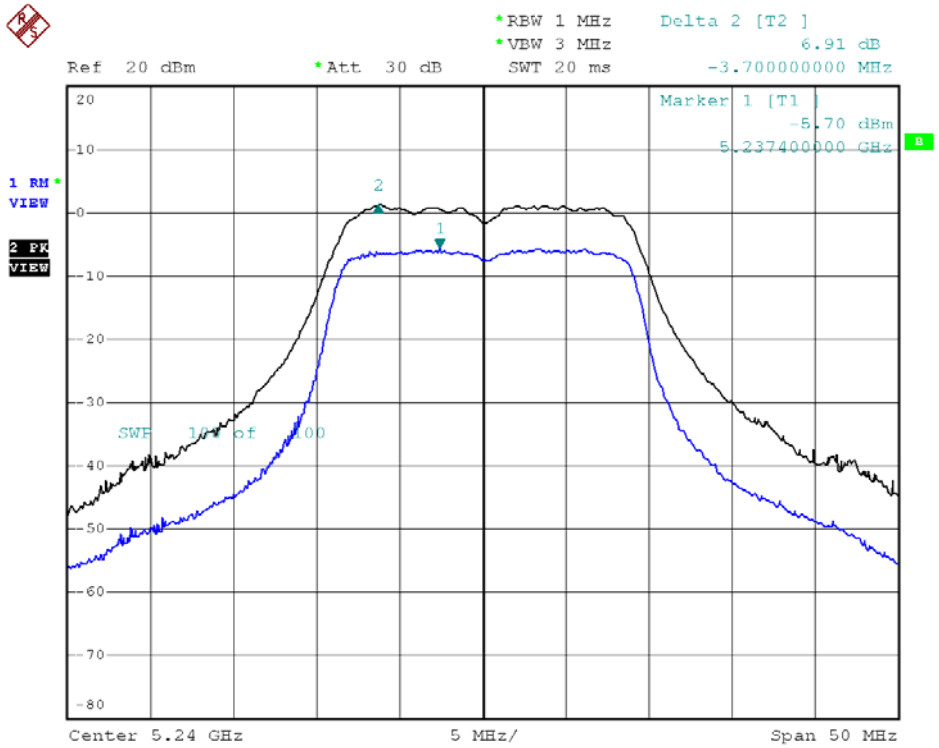
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 36



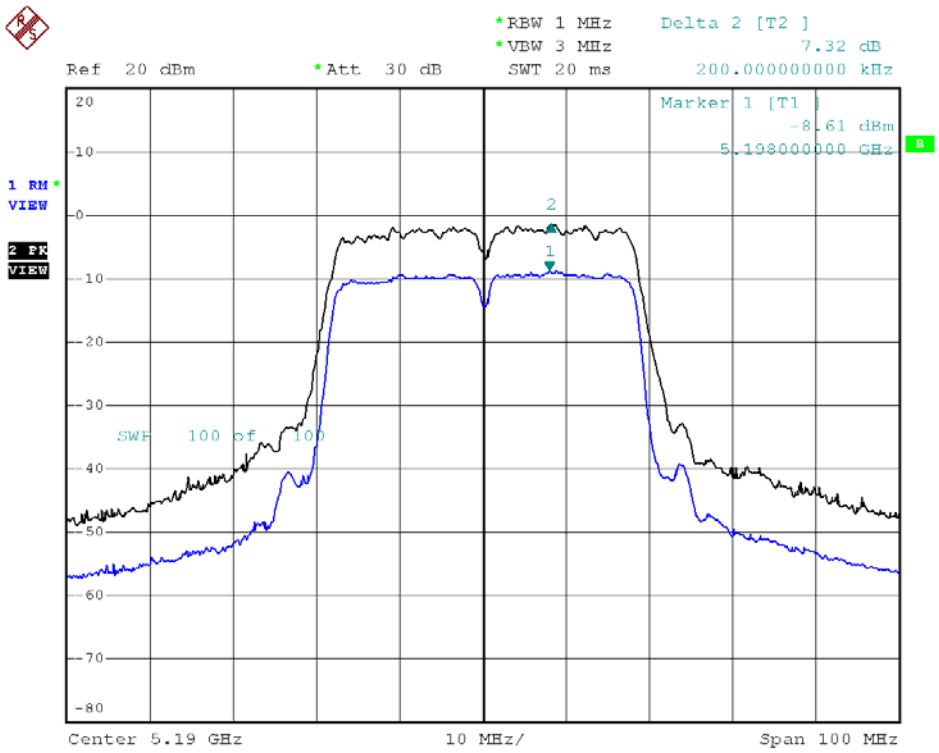
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 44



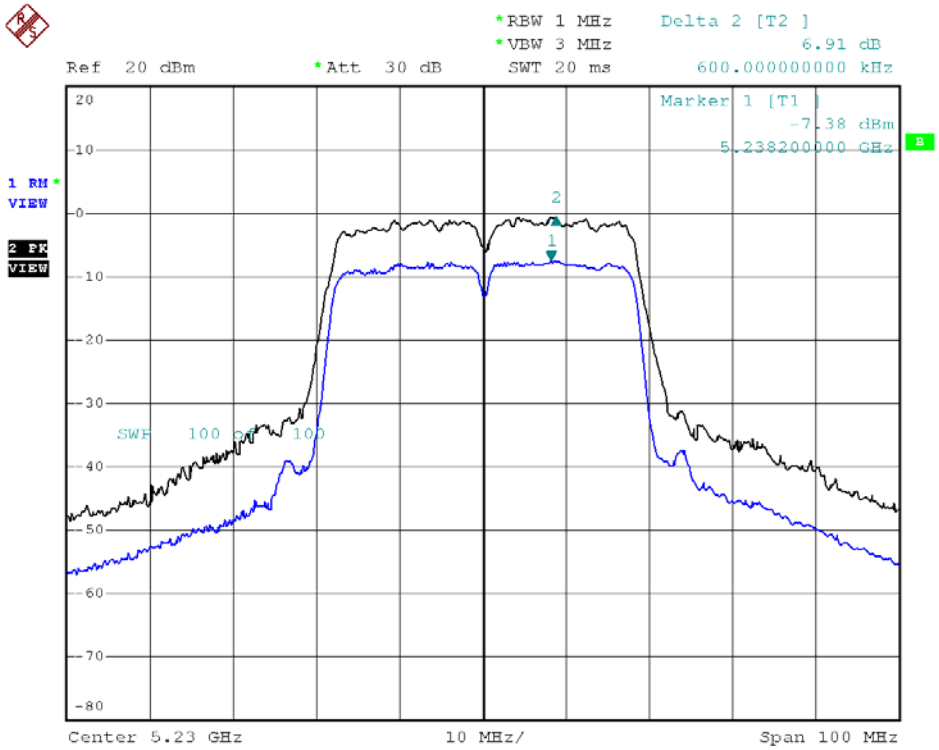
Modulation Standard: 802.11an, HT20 (130Mbps) , ANT B
Channel: 48



Modulation Standard: 802.11an HT40 (270Mbps), ANT B
Channel: 38



Modulation Standard: 802.11an HT40 (130Mbps), ANT B
Channel: 46

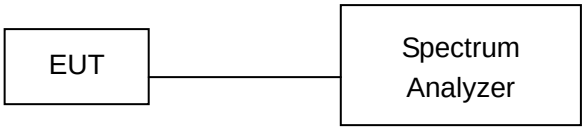


8. Peak Power Spectral Density

8.1. Test Procedure

1. The transmitter output was connected to spectrum analyzer.
2. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz, Set detector mode to RMS, trace average 100 traces in power averaging mode.
3. The Peak Power Spectral Density is the highest level found across the emission in any 1MHz Band

8.2. Test Setup Layout



8.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

8.4. Test Result and Data

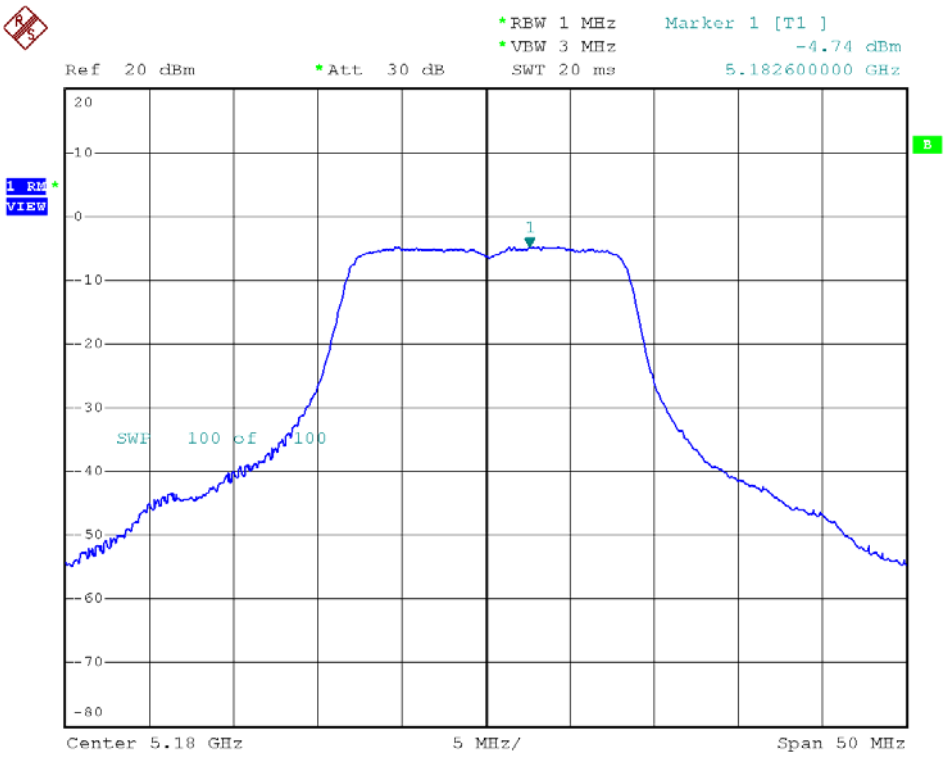
Test Date: Jul. 02, 2012 Temperature: 25℃

Atmospheric pressure: 1020 hPa Humidity: 65%

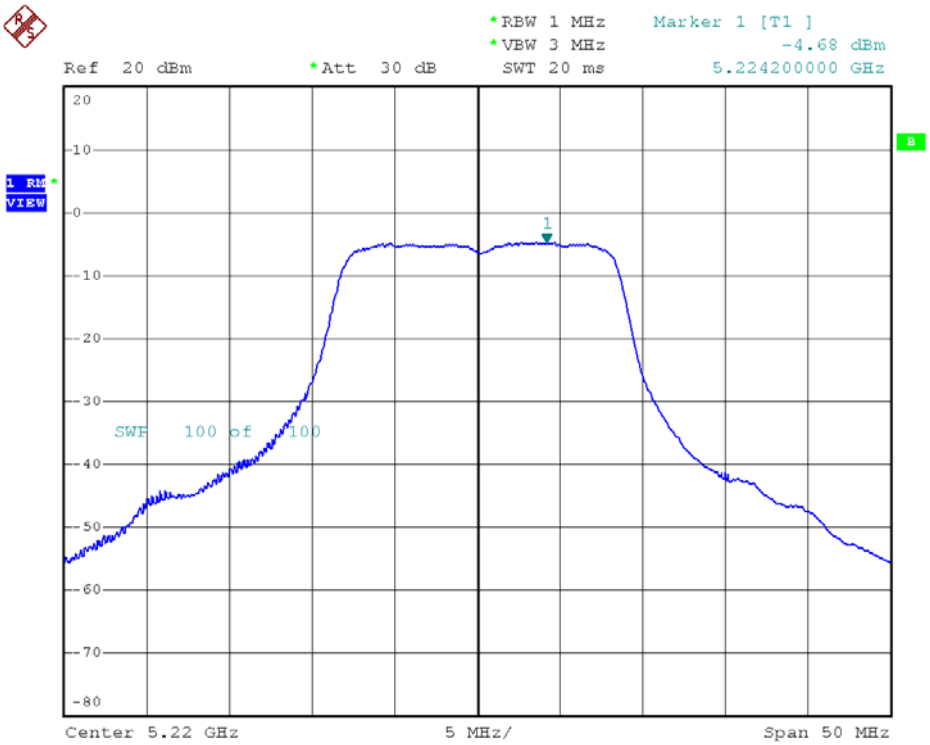
Modulation Standard	Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)		Limit (dB)
			ANT A	ANT B	
802.11a (54Mbps)	36	5180	-4.74	-6.93	3.09
	44	5220	-4.68	-6.36	3.09
	48	5240	-4.48	-7.17	3.09

Modulation Standard	Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)			Limit (dB)
			ANT A	ANT B	A+B	
802.11an HT20 (130Mbps)	36	5180	-4.54	-5.98	-2.19	3.09
	44	5220	-5.10	-6.49	-2.73	3.09
	48	5240	-4.70	-6.14	-2.35	3.09
802.11an HT40 (270Mbps)	38	5190	-8.79	-8.02	-5.38	3.09
	46	5230	-9.50	-8.23	-5.81	3.09

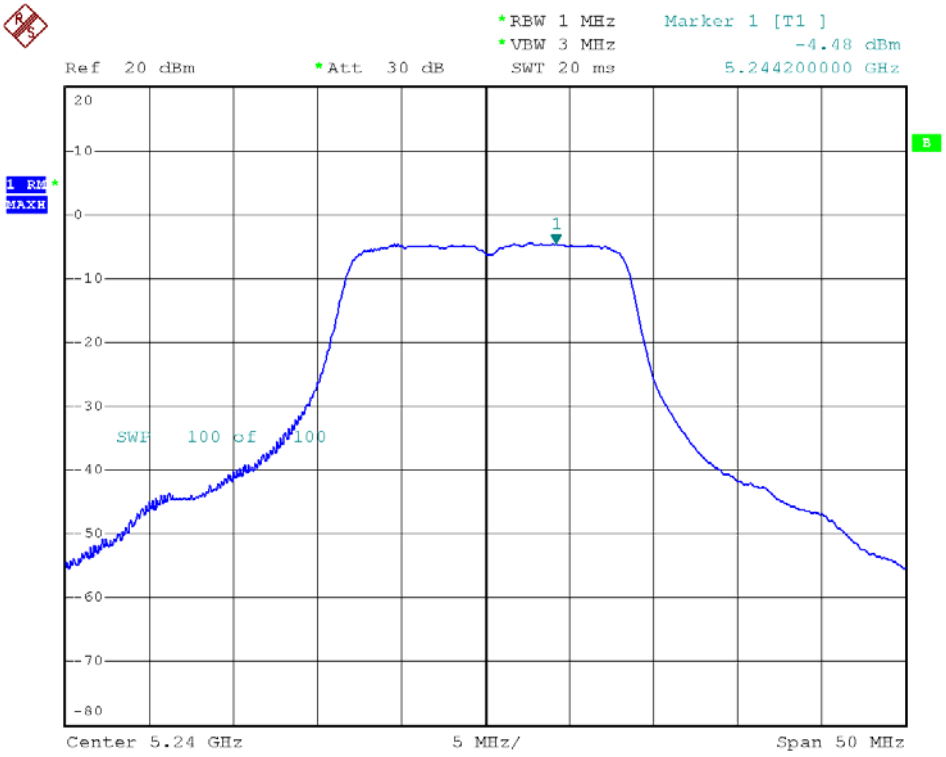
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 36



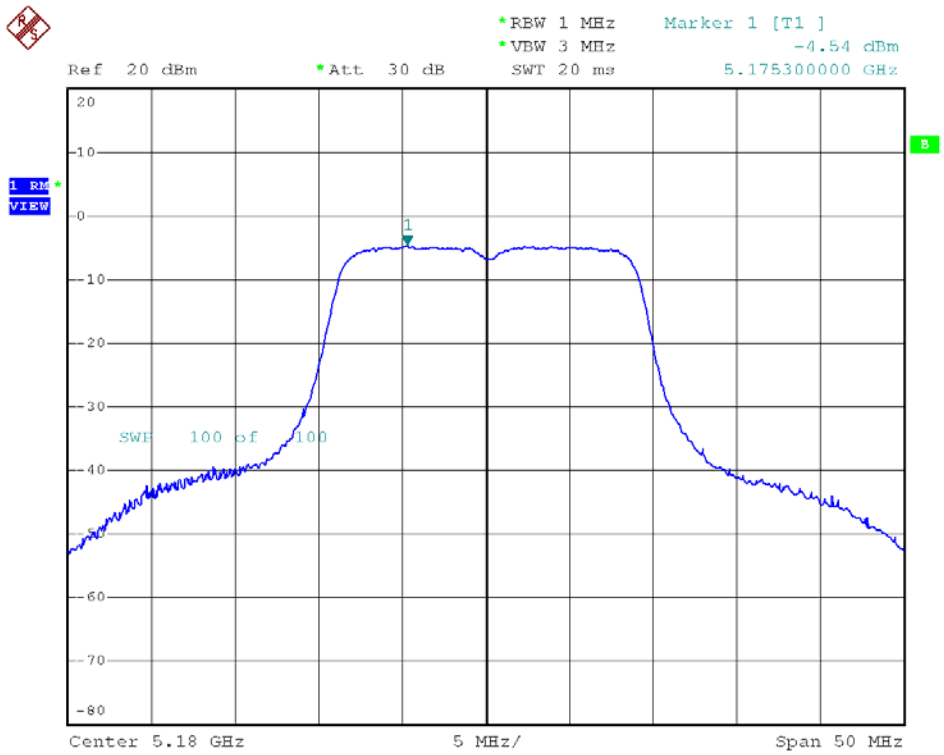
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 44



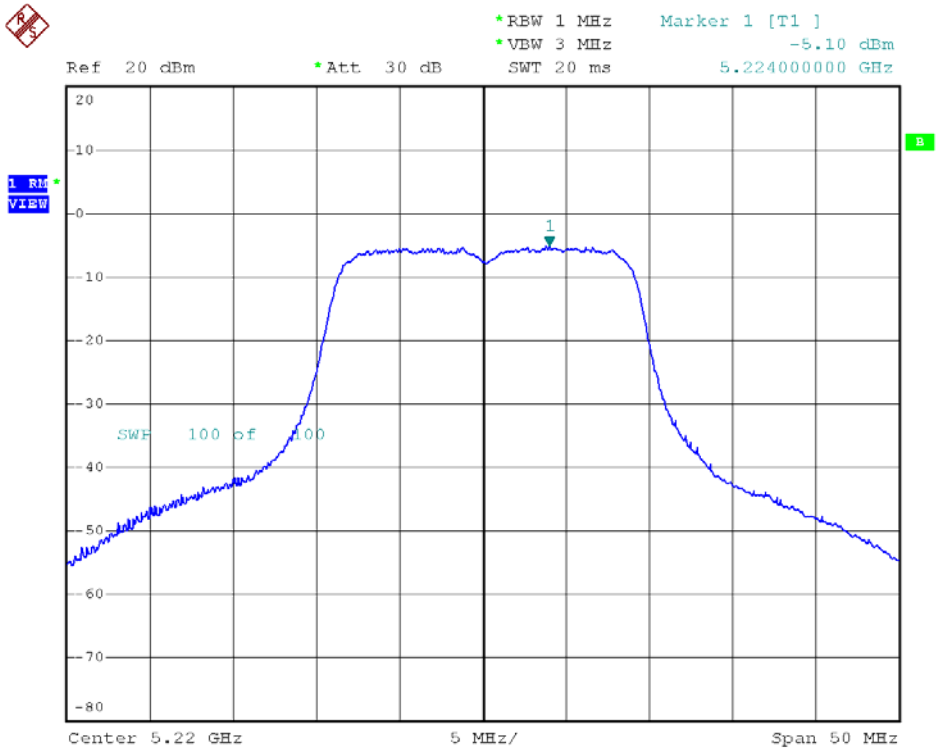
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 48



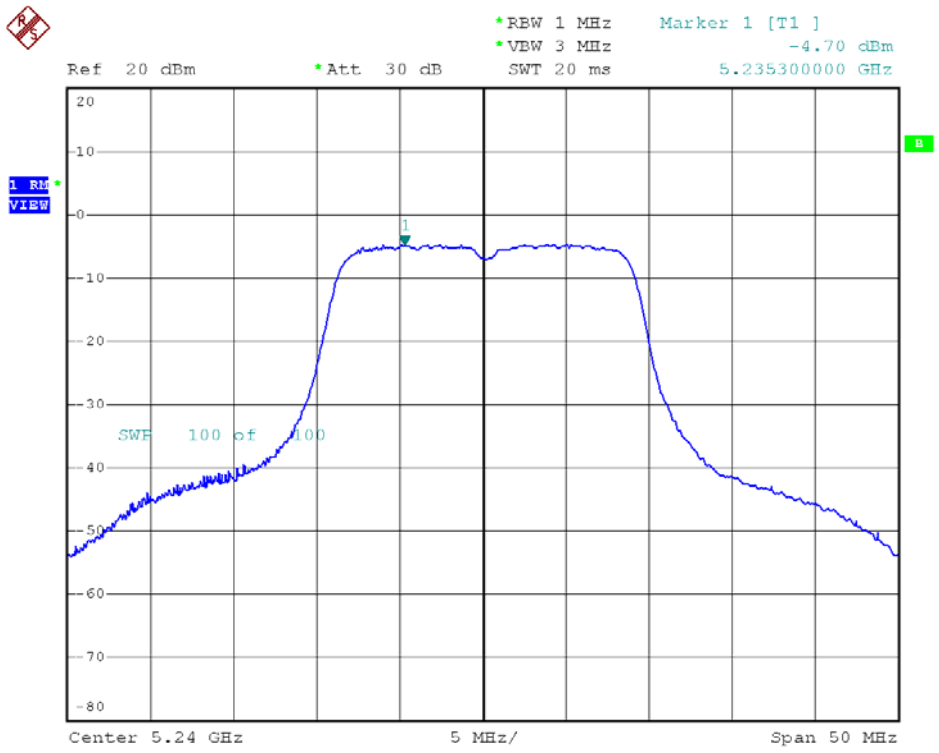
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 36



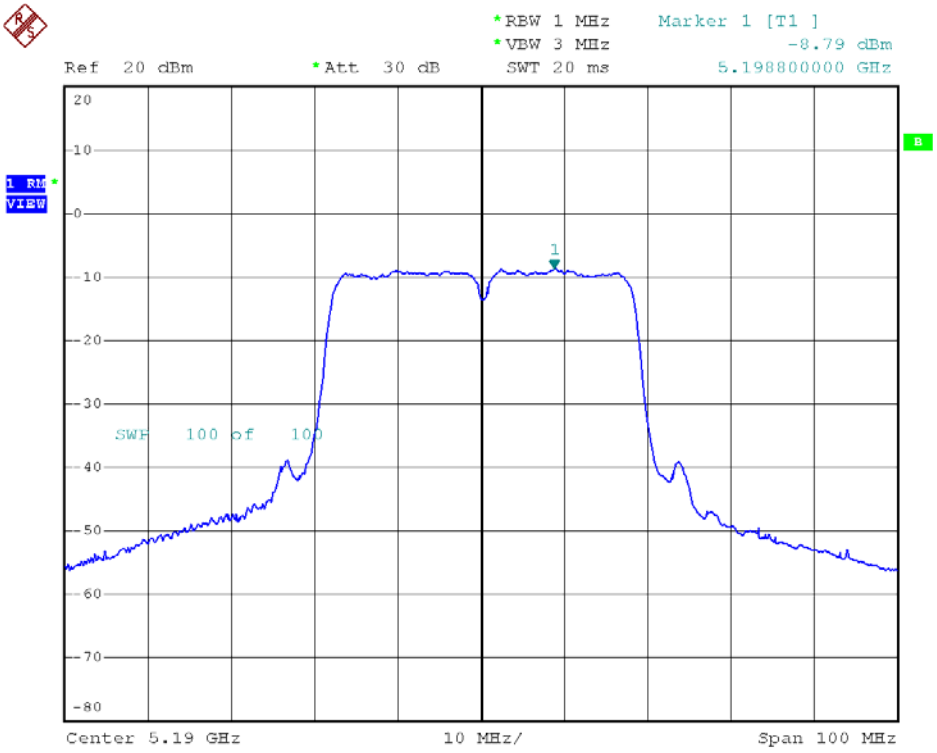
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 44



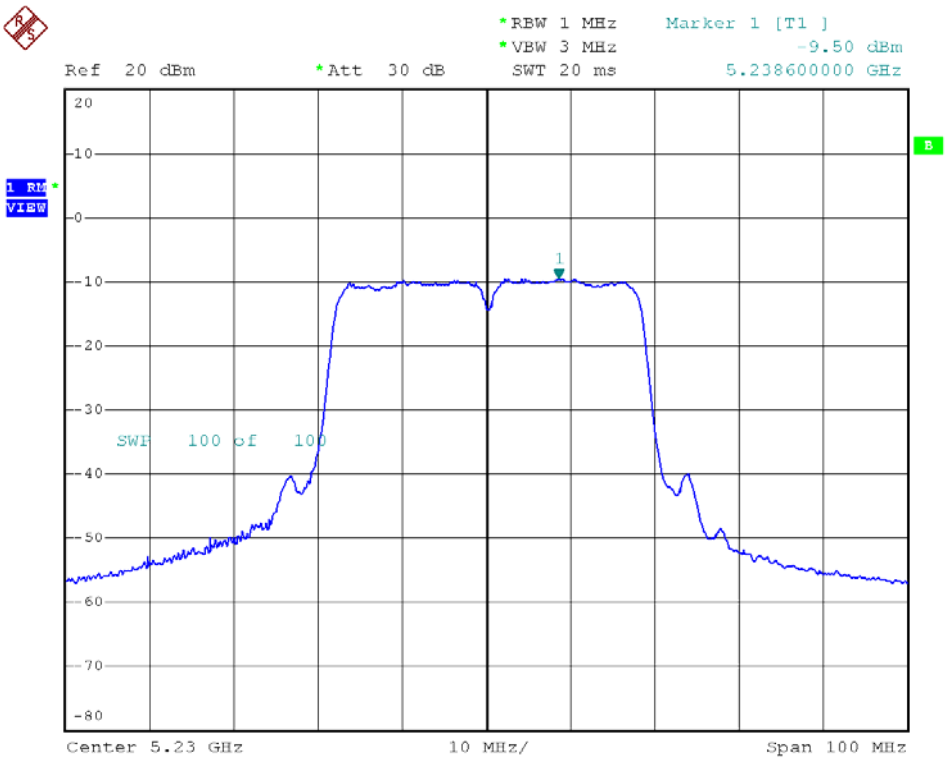
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 48



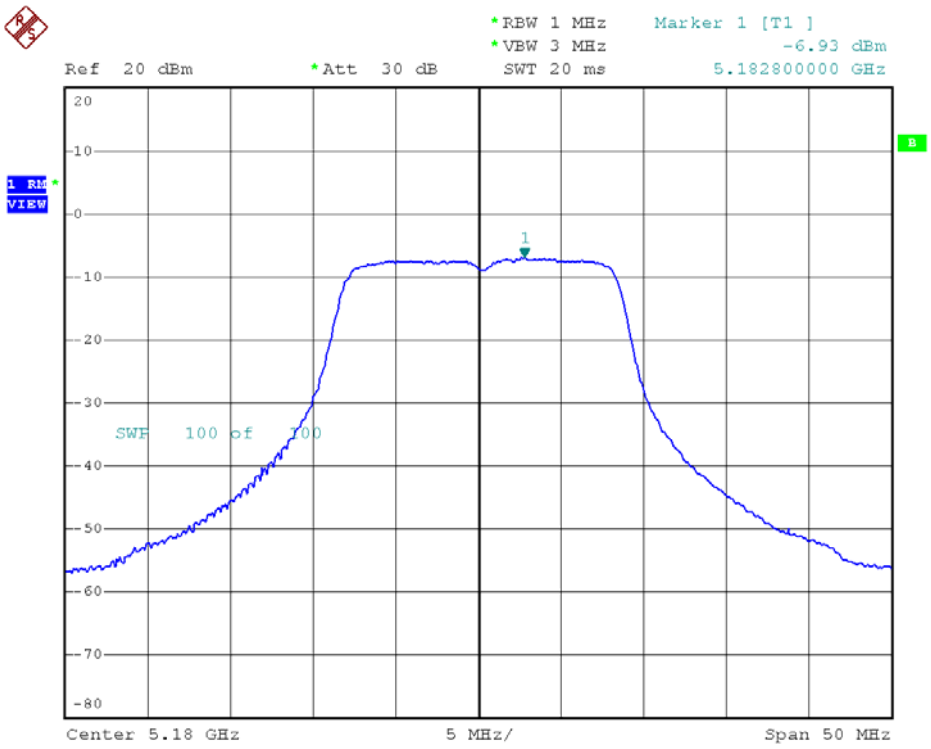
Modulation Standard: 802.11an, HT40 (270Mbps), ANT A
Channel: 38



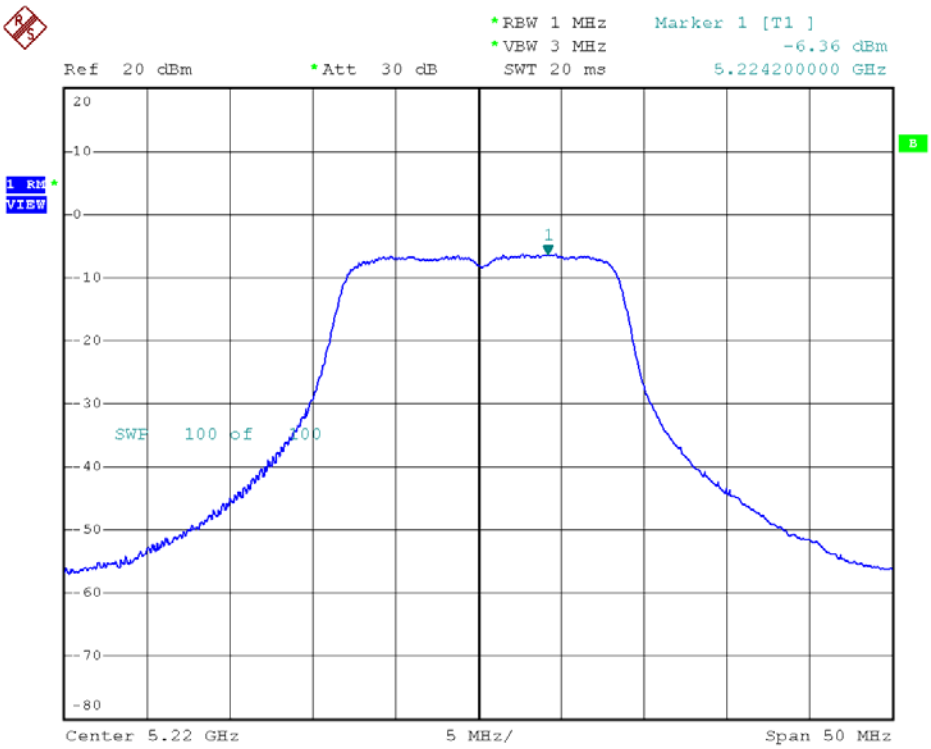
Modulation Standard: 802.11an, HT40 (270Mbps), ANT A
Channel: 46



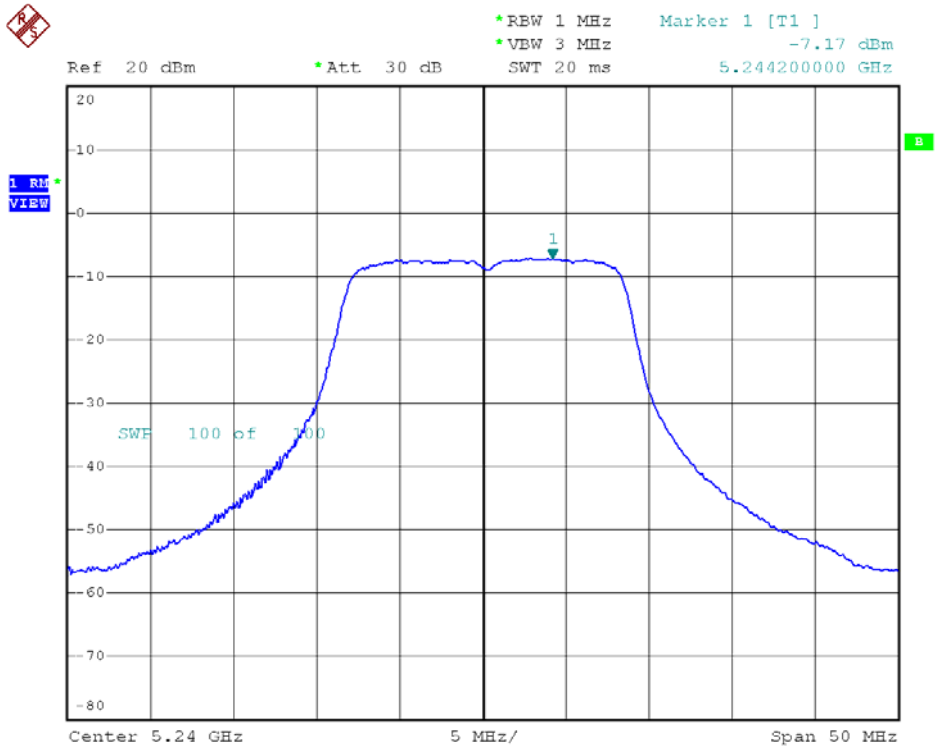
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 36



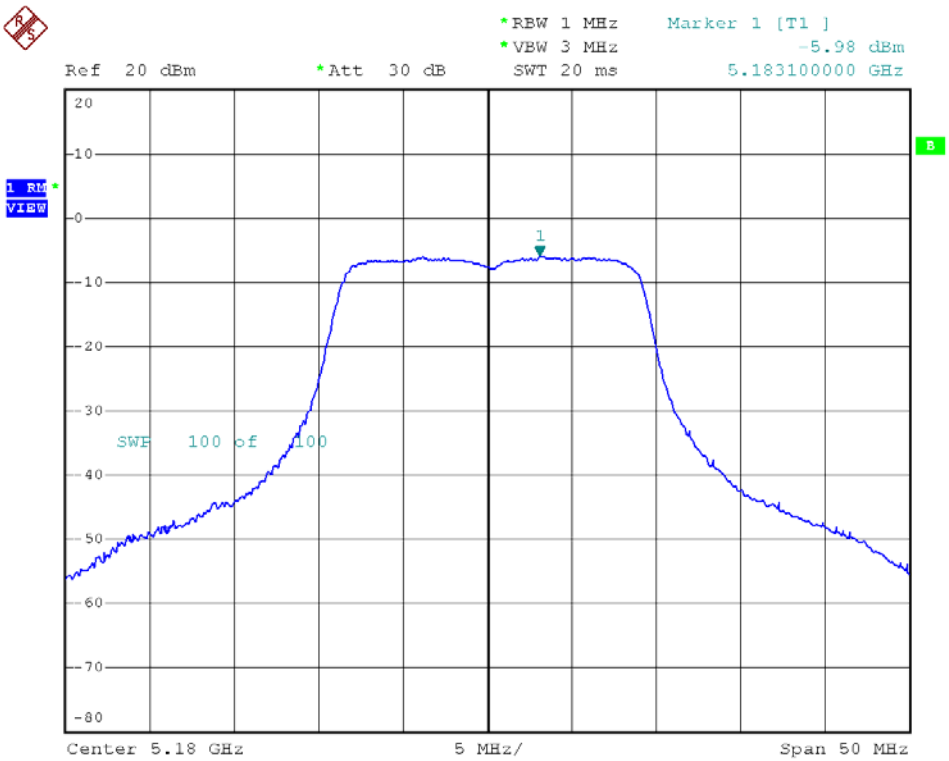
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 44



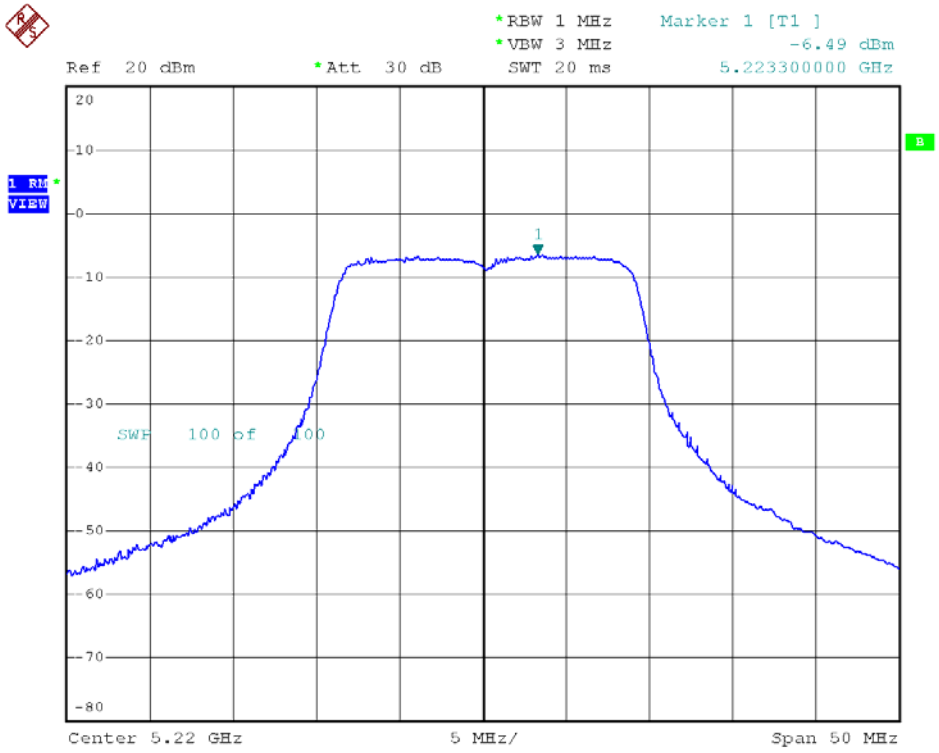
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 48



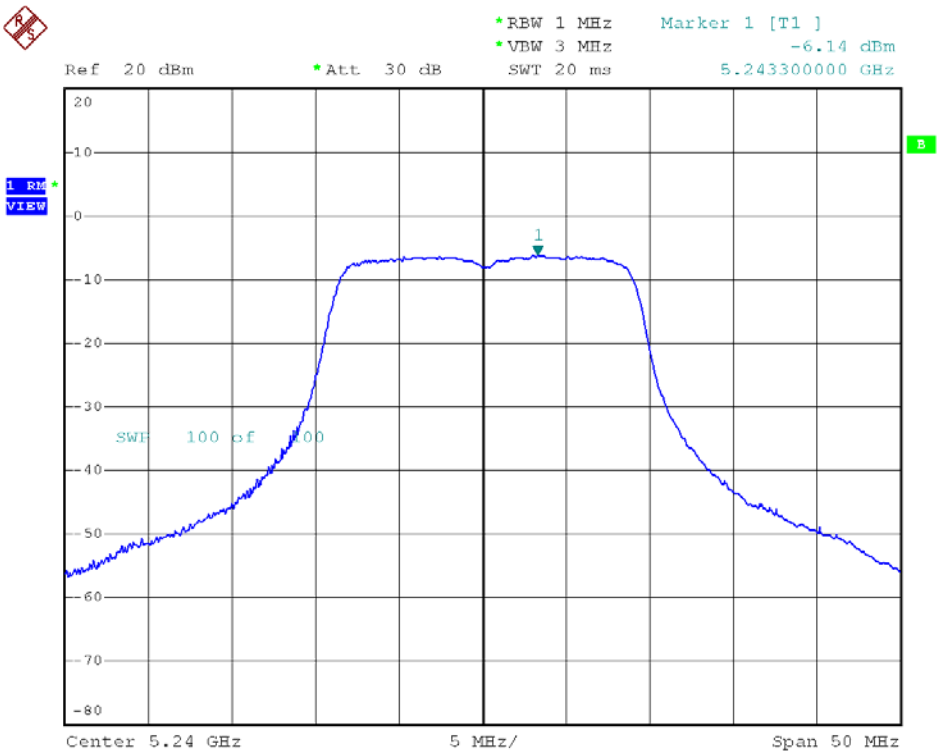
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 36



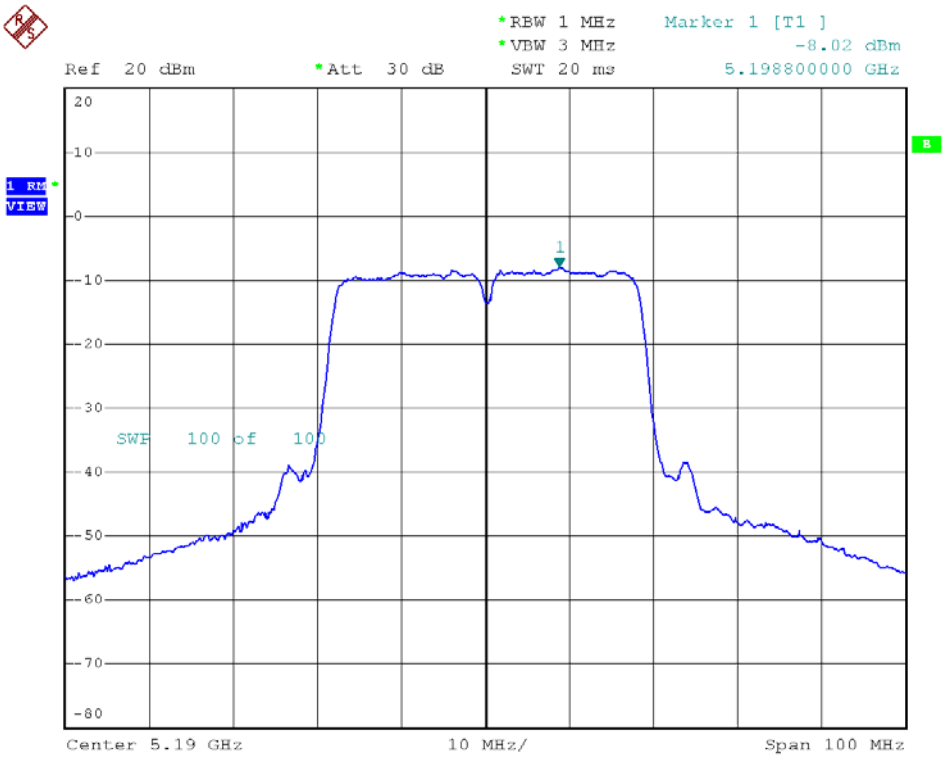
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 44



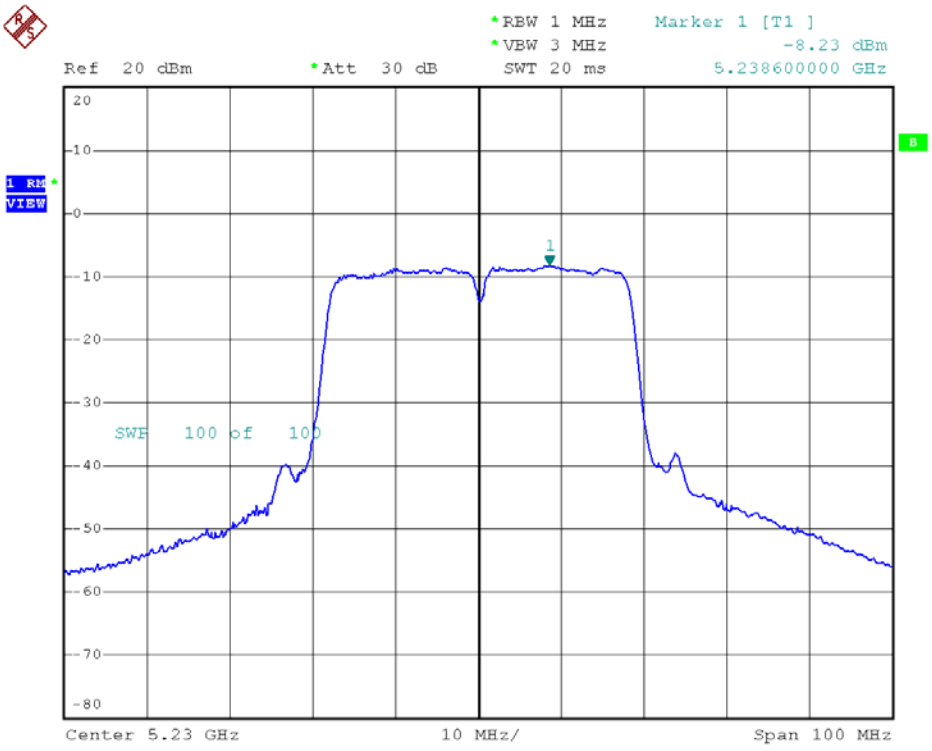
Modulation Standard: 802.11an, HT20 (130Mbps), ANT B
Channel: 48



Modulation Standard: 802.11an, HT40 (270Mbps), ANT B
Channel: 38



Modulation Standard: 802.11an, HT40 (270Mbps), ANT B
Channel: 46

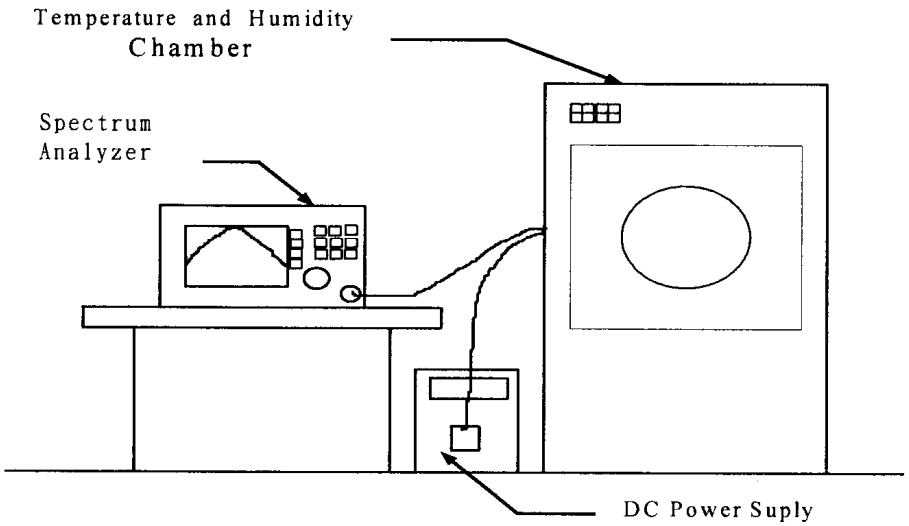


9. Frequency Stability

9.1. Test Procedure

1. The EUT was placed inside the Temperature and Humidity chamber.
2. The transmitter output was connected to spectrum analyzer.
3. Turn the EUT on and couple its output to a spectrum analyzer.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

9.2. Test Setup Layout



9.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2012/03/01	2013/02/28
Temperature Chamber	TMJ-9712	T MACHINE	T-12-040111	2012/01/06	2013/01/05
DC Power Supply	GPD-3030	GM	7020936	N/A	N/A
AC POWER CONVERTER	AFC-11005	APC	F103120008	N/A	N/A

9.4. Test Result and Data

Test Date: Jul. 10, 2012 Temperature: 25℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Operating frequency: 5230 MHz							
Temp (°C)	Power supply (V)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	102	5230.0154	0.000294	5229.9235	-0.001463	5229.9898	-0.000195
	120	5230.0011	0.000021	5229.9446	-0.001059	5229.9635	-0.000698
	138	5229.9964	-0.000069	5229.9537	-0.000885	5229.9747	-0.000484
40	102	5229.9856	-0.000275	5229.9848	-0.000291	5230.0052	0.000099
	120	5229.9742	-0.000493	5230.0209	0.000400	5229.9755	-0.000468
	138	5229.9707	-0.000560	5229.9832	-0.000321	5229.9776	-0.000428
30	102	5230.0222	0.000424	5230.0064	0.000122	5229.9918	-0.000157
	120	5230.0264	0.000505	5230.0052	0.000099	5229.9969	-0.000059
	138	5229.9950	-0.000096	5230.0087	0.000166	5229.9671	-0.000629
20	102	5230.0273	0.000522	5230.0055	0.000105	5229.9933	-0.000128
	120	5230.0100	0.000191	5229.9799	-0.000384	5230.0126	0.000241
	138	5230.0176	0.000337	5230.0136	0.000260	5229.9701	-0.000572
10	102	5229.9975	-0.000048	5230.0114	0.000218	5230.0005	0.000010
	120	5230.0162	0.000310	5229.9739	-0.000499	5230.0063	0.000120
	138	5230.0165	0.000315	5229.9956	-0.000084	5229.9877	-0.000235
0	102	5229.9989	-0.000021	5229.9922	-0.000149	5229.9736	-0.000505
	120	5230.0172	0.000329	5229.9724	-0.000528	5229.9831	-0.000323
	138	5229.9906	-0.000180	5229.9699	-0.000576	5229.9819	-0.000346
-10	102	5229.9673	-0.000625	5229.9669	-0.000633	5230.0188	0.000359
	120	5229.9581	-0.000801	5230.0116	0.000222	5230.0183	0.000350
	138	5229.9799	-0.000384	5229.9931	-0.000132	5229.9904	-0.000184
-20	102	5230.0184	0.000352	5230.0091	0.000174	5230.0186	0.000356
	120	5230.0134	0.000256	5230.0010	0.000019	5230.0258	0.000493
	138	5229.9848	-0.000291	5230.0152	0.000291	5230.0168	0.000321
-30	102	5230.0174	0.000333	5230.0033	0.000063	5230.0017	0.000033
	120	5230.0212	0.000405	5229.9960	-0.000076	5230.0191	0.000365
	138	5230.0146	0.000279	5230.0024	0.000046	5230.0355	0.000679

Limit : ±20ppm

10. Band Edges Measurement

10.1. Test Procedure

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz with convenient frequency span including 100 MHz bandwidth from band edge.
3. The band edges was measured and recorded.

10.2. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

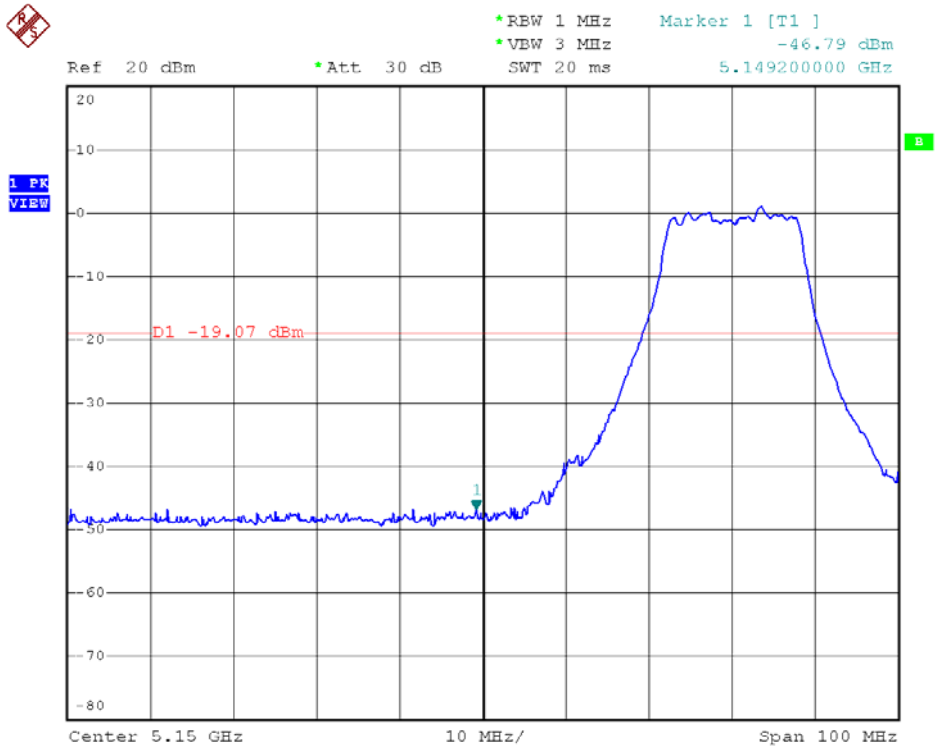
10.3. Test Result and Data

Test Date: Jul. 02, 2012 Temperature: 25℃

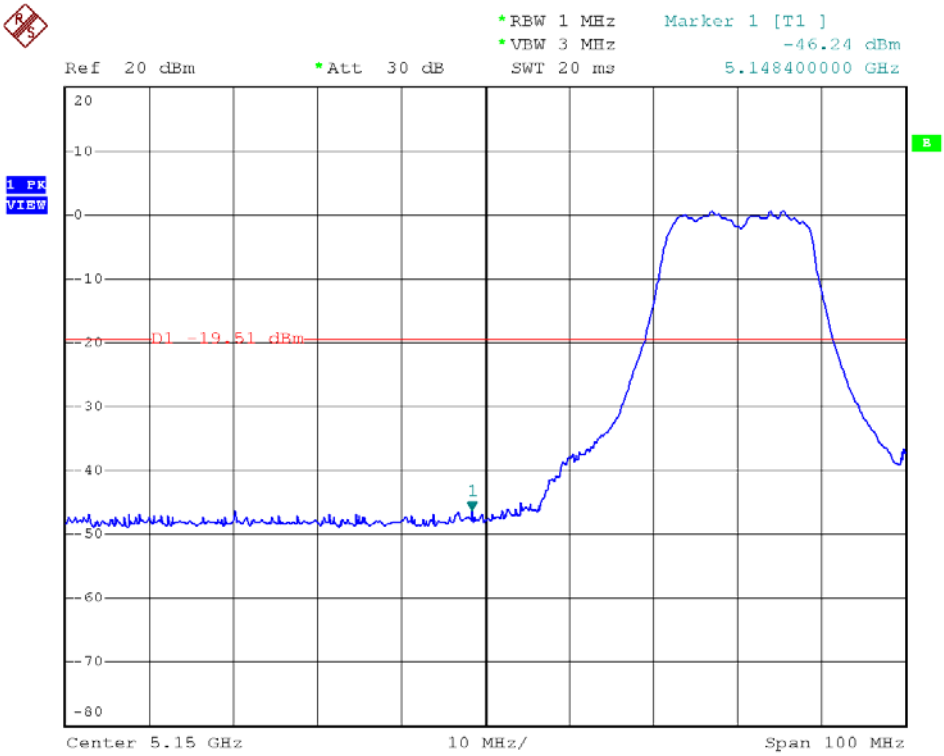
Atmospheric pressure: 1020 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	maximum value in frequency (MHz)		maximum value (dBm)	
			ANT A	ANT B	ANT A	ANT B
802.11a (54Mbps)	36	5180	5149.20	5134.20	-46.79	-45.89
802.11an HT20 (130Mbps)	36	5180	5148.40	5146.00	-46.24	-45.66
802.11an HT40 (270Mbps)	38	5190	5149.60	5148.80	-37.22	-44.43

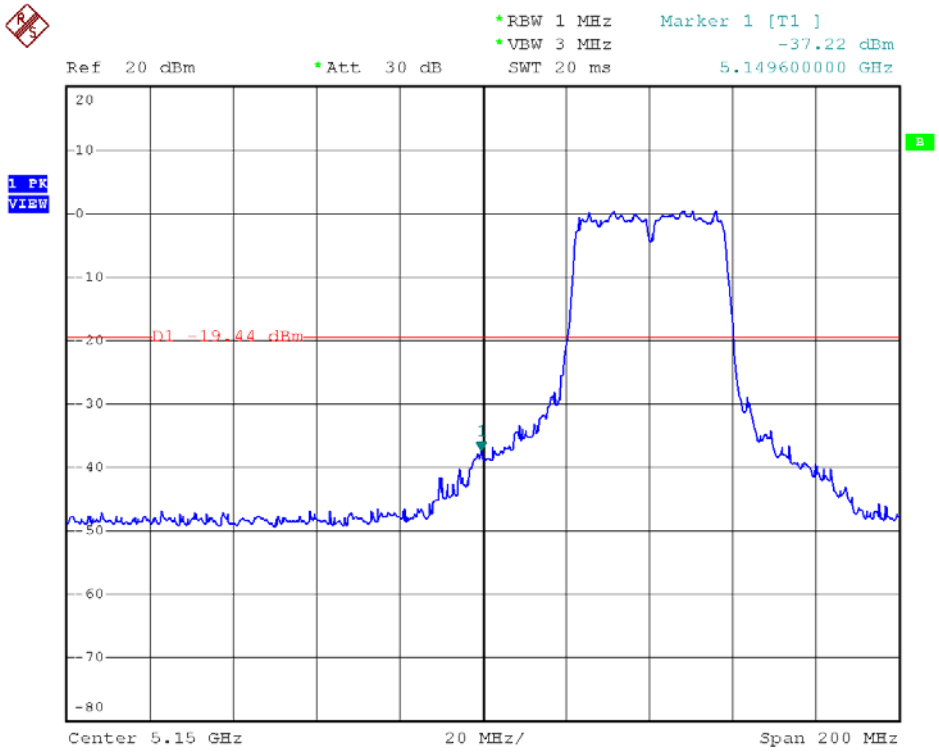
Modulation Standard: 802.11a (54Mbps), ANT A
Channel: 36



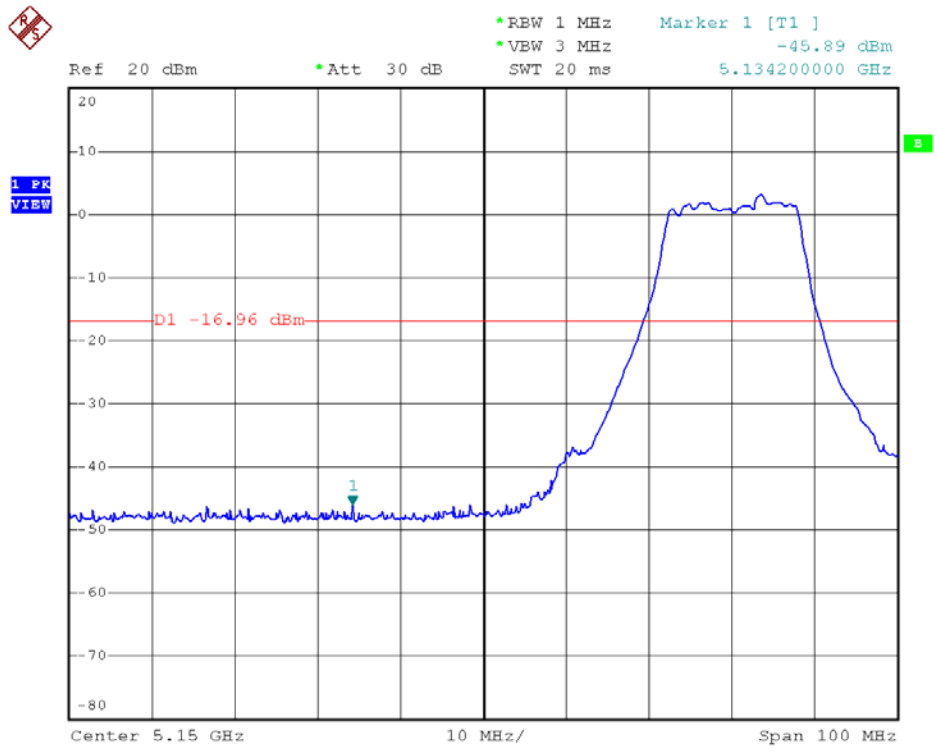
Modulation Standard: 802.11an, HT20 (130Mbps), ANT A
Channel: 36



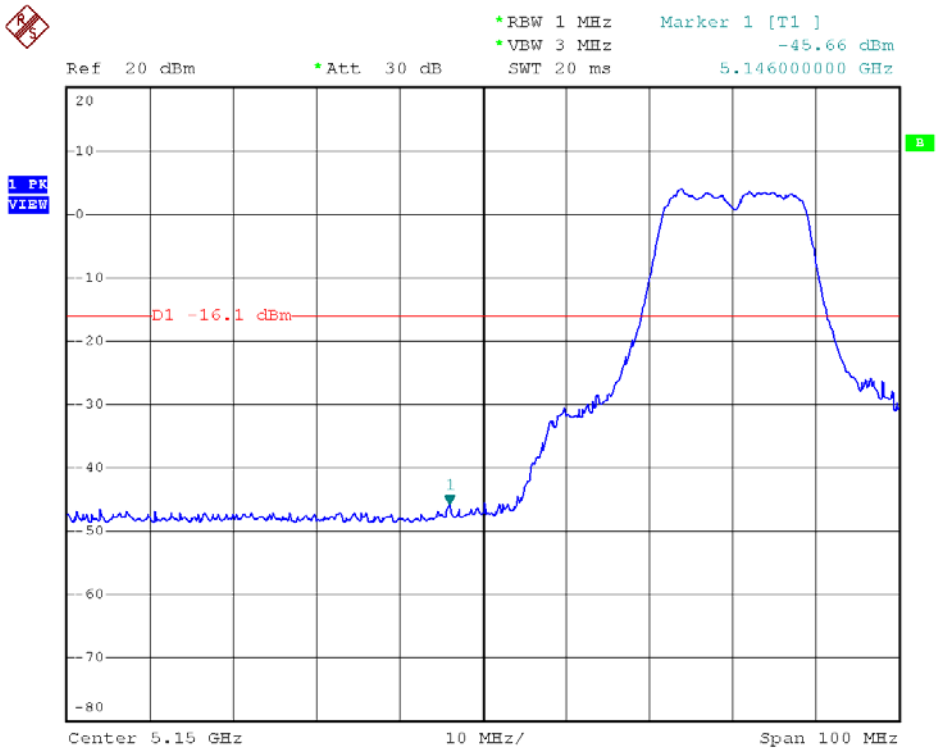
Modulation Standard: 802.11an HT40 (270Mbps), ANT A
Channel: 38



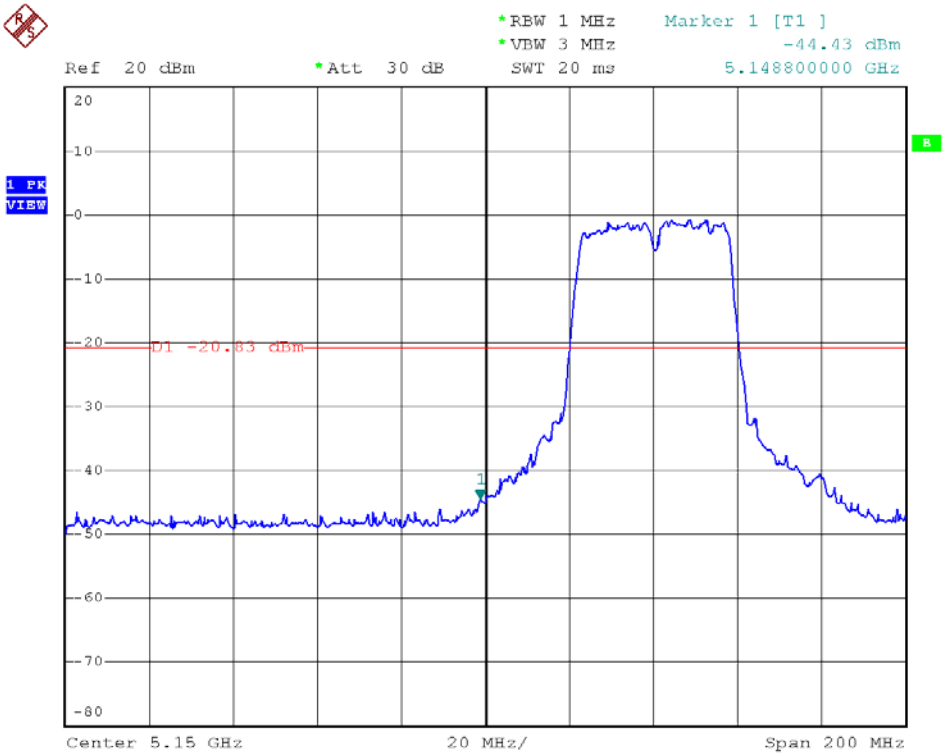
Modulation Standard: 802.11a (54Mbps), ANT B
Channel: 36



Modulation Standard: 802.11an HT20 (130Mbps), ANT B
Channel: 36



Modulation Standard: 802.11an, HT40 (270Mbps), ANT B
Channel: 38



10.4. Restrict Band Emission Measurement Data

Test Date: Jul. 04, 2012 Temperature: 25℃

Atmospheric pressure: 1015 hPa Humidity: 67%

Modulation Standard: IEEE 802.11a (54Mbps)

Channel 36										Fundamental Frequency: 5180 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
5138.00	H	47.48	7.40	54.88	Peak	74	54	-19.12	360	1.01
5136.00	H	35.14	7.39	42.53	Ave	74	54	-11.12	360	1.01
5144.20	V	47.94	7.33	55.27	Peak	74	54	-18.73	360	1.01
5146.00	V	35.38	7.31	42.69	Ave	74	54	-11.31	360	1.01

Modulation Standard: IEEE 802.11an, HT20 (65Mbps)

Channel 36										Fundamental Frequency: 5180 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
5140.80	H	46.53	7.42	53.95	Peak	74	54	-20.05	360	1.01
-----	H	-----	-----	-----	Ave	74	54	-----	-----	-----
5140.00	V	46.99	7.38	54.37	Peak	74	54	-19.63	360	1.01
5140.35	V	35.14	7.37	42.51	Ave	74	54	-11.49	360	1.00

Modulation Standard: IEEE 802.11an, HT40 (130Mbps)

Channel 38										Fundamental Frequency: 5190 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
5143.00	H	47.33	7.44	54.77	Peak	74	54	-19.23	360	1.00
5147.83	H	35.46	7.48	42.94	Ave	74	54	-11.06	360	1.00
5147.00	V	47.04	7.30	54.34	Peak	74	54	-19.66	360	1.00
5149.78	V	35.61	7.26	42.87	Ave	74	54	-11.13	360	1.00

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector sample mode) for Average detection at frequency above 1GHz.

11. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

11.1. Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.