FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart E

Applicant	:	Partner Tech Corp.
Address	:	10FL, 233-2, Baoqiao Road, Xindian, New Taipei City, Taiwan
Equipment	:	Enterprise Tablet
Model No.	:	EM-70
Trade Name	:	PARTNER
FCC ID	:	NDPEM-70

- 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.

Laboratory Accreditation

TAF Testing Laboratory 1439

NVLAP LAB CODE: 200954-0

CONTENTS

History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description
TEFE1406213	Oct. 03, 2014	Original.

CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations Part 15 Subpart E

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Model No.	:	EM-70
FCC ID	:	NDPEM-70

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart E (2011), and KDB789033.**
The sample was received on Sep. 22, 2014 and the testing was carried out on Oct. 02, 2014 at ***Cerpass Technology Corp.***

Approved by:

Hill Chen
EMC/RF B.U. Assistant Manager

Tested by:

Aiden Lu
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

Item	Specification
CPU	Freescale i.MX 6 1G Dual Lite
OS	Android 4.2.x or above , need CTS, GMS
Memory	DDR 1G (up to 2G), NAND flash 8GB (eMMC/8G/KE4CN3K6A/FBGA169)
Display	Type: High Brightness TFT Color LCD 天馬, Capacitive multi touch SILEAD GSL1688 Size: 7";Resolution: 1024 x 600;Brightness 350nits
Back Camera	5.0 Mega Pixels, Flash Light, Auto Focus, MIPI interface (**Sensor Type** OV5640)
I/O Interface	1 x SIM (Internal);1 x Micro SD;1 x DC Jack;1 x Earphone Jack 1 x Micro USB Female type, OTG & Charging function 1 x Power button;2 x Volume button;1 x Internal Host USB for MSR 1 x Internal RS232 for 1D & 2D barcode scanner
NFC	**NFC Controller/NXP PN544 C3**
SENSOR	3-Axis Gyroscope/MPU-3050 Acceleration sensor/KXTI9-1001 Compass Sensor/AMI306/SMD LGA10 Vibrator
Storage	Support MicroSD card (SDHC) with Eject function, Max. 32GB
LED	1 x Red/Green LED for Power & System
Weight	630g (approx.) with battery
Others	1 x Audio speaker
Dimension	219.4(L) x 41.3(W) x 22.3(H) mm
Battery	Li-polymer, 3.7V, 6000mAh
Sealing	IP54
Drop Specification	1.2M (w/o MSR/Scanner)
Temperature	Operation Temperature 0 to 40 degrees ℃ Storage Temperature -20 to 60 degrees ℃
Humidity	Operation Temperature 5% to 95% Storage Temperature 5% to 95%
EMC & Safety	CE/FCC/VCCI/BSMI/NCC
Accessory	Power adapter Rating: AC Input: 100-240V~, 0.5A, 50-60Hz DC Output: 5.0V, 3.0A MAX. USB-Cable

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	---	---

Note: Channels remarked * are selected to perform test.

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, " USI BCM FCC CE REG Tool 1.4.10r8" under WIN 7 was executed to transmit and receive data via WLAN.

d. The following test modes were performed for test:

- 802.11a/an, HT20: CH 36: 5180MHz, CH 44: 5220MHz, CH 48: 5240MHz

* Power output of data rate:

Avg.:

802.11a Band 1		802.11an HT20 Band 1	
Data Rate (Mbps)	Power Output (dBm)	Data Rate (Mbps)	Power Output (dBm)
54	11.78	65/7	11.03
24	12.45	58.5/6	11.15
12	12.78	52/5	11.34
6	13.10	39/4	11.56
---	---	26/3	11.88
---	---	19.5/2	12.05
---	---	13/1	12.25
---	---	6.5/0	12.47

Peak.:

802.11a Band 1		802.11an HT20 Band 1	
Data Rate (Mbps)	Power Output (dBm)	Data Rate (Mbps)	Power Output (dBm)
54	19.88	65/7	19.58
24	19.93	58.5/6	19.61
12	20.03	52/5	19.65
6	20.11	39/4	19.7
---	---	26/3	19.75
---	---	19.5/2	19.82
---	---	13/1	19.88
---	---	6.5/0	19.95

2.4. Description of Test System

Device	Manufacturer	Model No.	Description
Notebook	SONY	PCG-71218P	Power Cable, Unshielding, 1.8m

Used cable

Cable	Quantity	Description
USB	1	Shielding, 0.9m

2.5. General Information of Test

Test Site :	Cerpass Technology Corporation Test Laboratory No.10, Lane 2, Lianfu Street, Luzhu Township, Taoyuan County 33848, Taiwan(R.O.C.)
Test Site Location :	2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location :	No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1079, TW1061, 488071, 390316, 228391, 641184
IC Registration Number :	4934B-1, 4934D-1, 4934E-1, 4934E-2
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 :	Conducted Emission Test: from 150 kHz to 30 MHz Radiated Emission Test: from 30 MHz to 6,000 MHz
Test Distance :	The test distance of radiated emission below 1GHz from antenna to EUT is 10 M. The test distance of radiated emission above 1GHz from antenna to EUT is 3 M.

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

WIFI/ Bluetooth
Antenna Type: PIFA Antenna
Antenna Gain: 3.03 dBi@ 2.4GHz,
0.88dBi @5.15GHz
5.74dBi @5.8GHz

NFC
Antenna Type: PCB Antenna

4. Test of Conducted Emission

4.1. Test Limit

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 C63.4-2009 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.

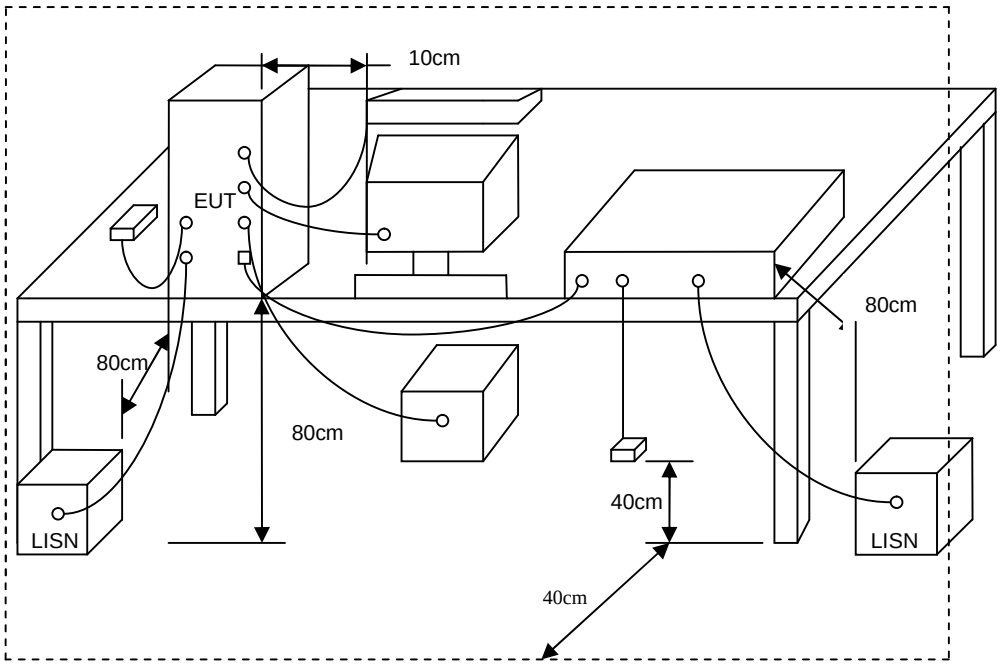
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

4.2. 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.

4.3. Typical Test Setup

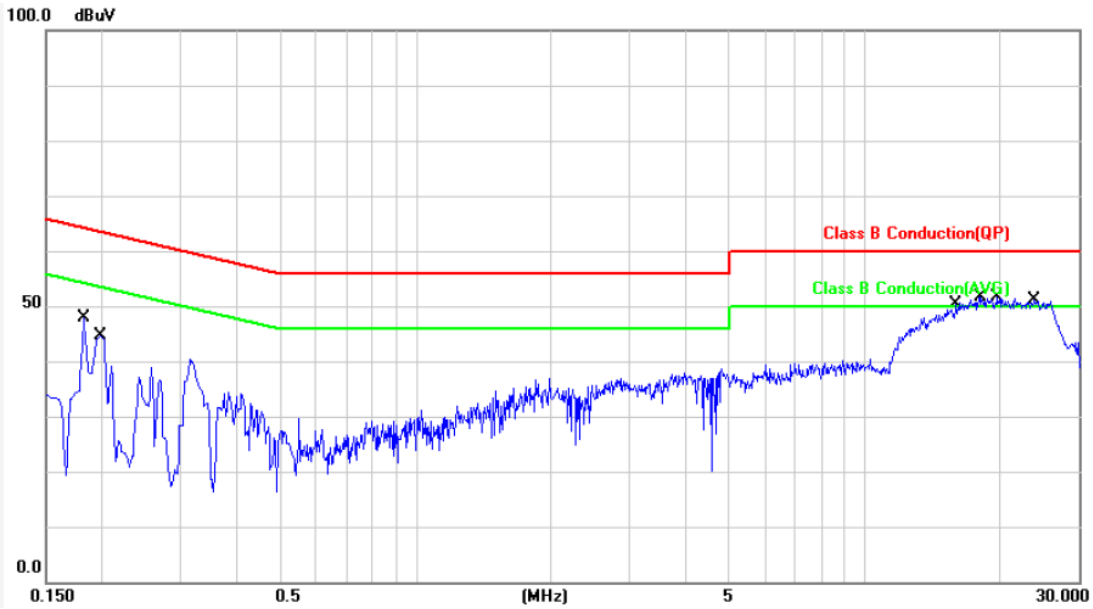


4.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Receiver	R&S	ESCI	101423	2014/06/05	2015/06/04
LISN	Schwarzbeck	NSLK 8127	8127-740	2014/08/14	2015/08/13
LISN	Schwarzbeck	NSLK 8127	8127-516	2014/03/10	2015/03/09
Pulse Limiter	R&S	ESH3-Z2	101933	2014/08/12	2015/08/11
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

4.5. Test Result and Data

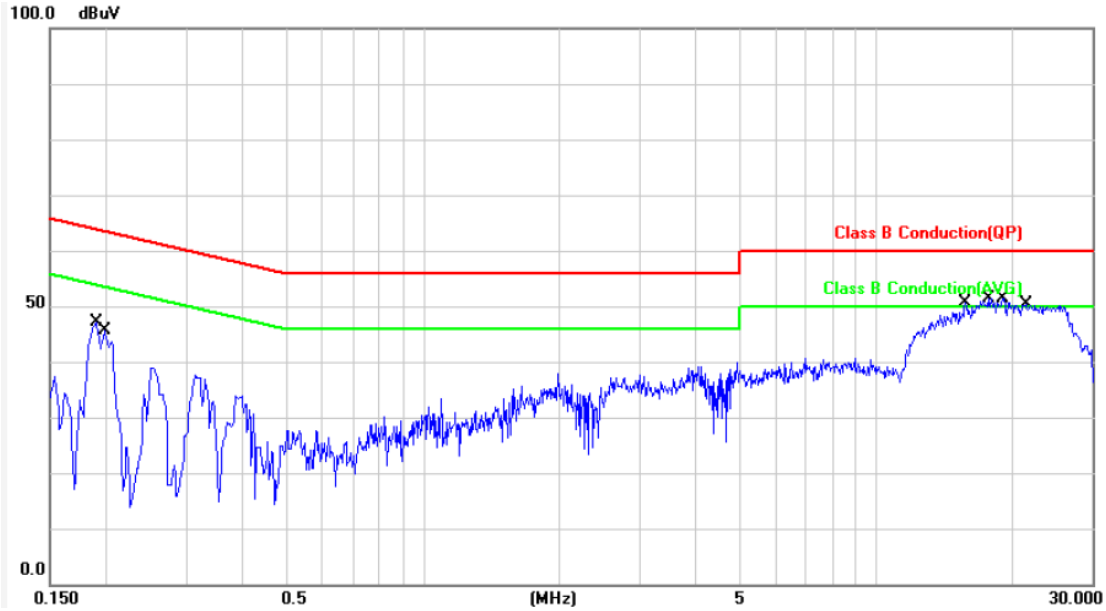
Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode	:	802.11a, CH36	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1819	9.92	35.72	45.64	64.39	-18.75	QP	P
2	0.1819	9.92	18.12	28.04	54.39	-26.35	AVG	P
3	0.1986	9.92	35.16	45.08	63.66	-18.58	QP	P
4	0.1986	9.92	20.31	30.23	53.66	-23.43	AVG	P
5	16.0540	10.40	36.20	46.60	60.00	-13.40	QP	P
6	16.0540	10.40	25.39	35.79	50.00	-14.21	AVG	P
7	18.1660	10.44	36.00	46.44	60.00	-13.56	QP	P
8	18.1660	10.44	26.98	37.42	50.00	-12.58	AVG	P
9	19.8260	10.48	37.36	47.84	60.00	-12.16	QP	P
10	19.8260	10.48	25.69	36.17	50.00	-13.83	AVG	P
11	24.0140	10.52	35.20	45.72	60.00	-14.28	QP	P
12	24.0140	10.52	26.80	37.32	50.00	-12.68	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

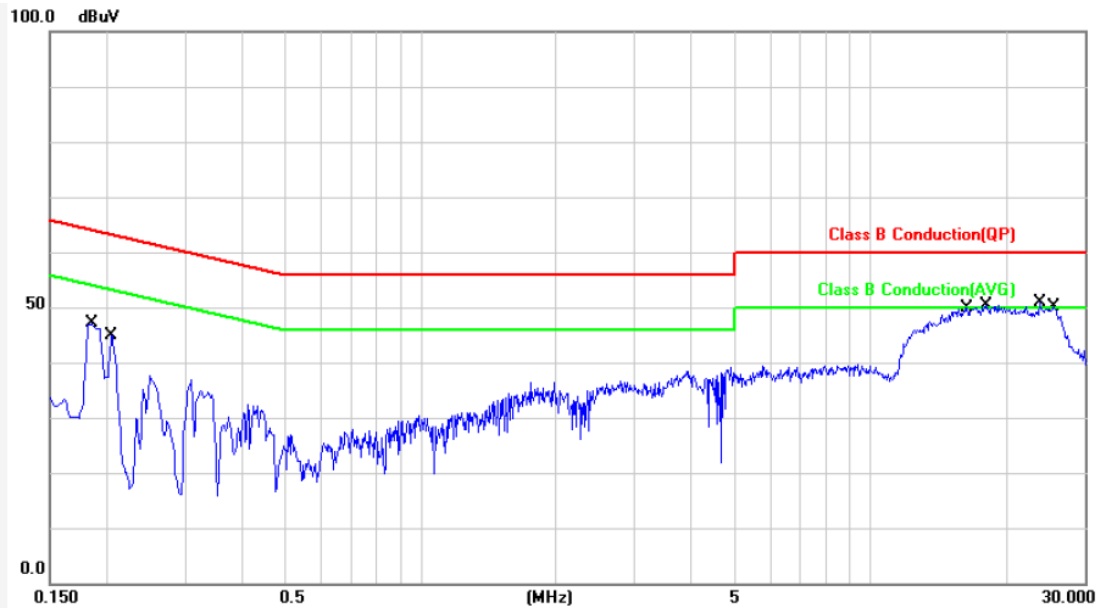
Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode	:	802.11a, CH36	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1900	9.91	34.81	44.72	64.03	-19.31	QP	P
2	0.1900	9.91	21.79	31.70	54.03	-22.33	AVG	P
3	0.1980	9.91	33.80	43.71	63.69	-19.98	QP	P
4	0.1980	9.91	19.99	29.90	53.69	-23.79	AVG	P
5	15.7820	10.37	35.16	45.53	60.00	-14.47	QP	P
6	15.7820	10.37	24.83	35.20	50.00	-14.80	AVG	P
7	17.7020	10.41	35.40	45.81	60.00	-14.19	QP	P
8	17.7020	10.41	26.85	37.26	50.00	-12.74	AVG	P
9	19.0740	10.43	35.16	45.59	60.00	-14.41	QP	P
10	19.0740	10.43	26.50	36.93	50.00	-13.07	AVG	P
11	21.4100	10.47	36.48	46.95	60.00	-13.05	QP	P
12	21.4100	10.47	27.47	37.94	50.00	-12.06	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

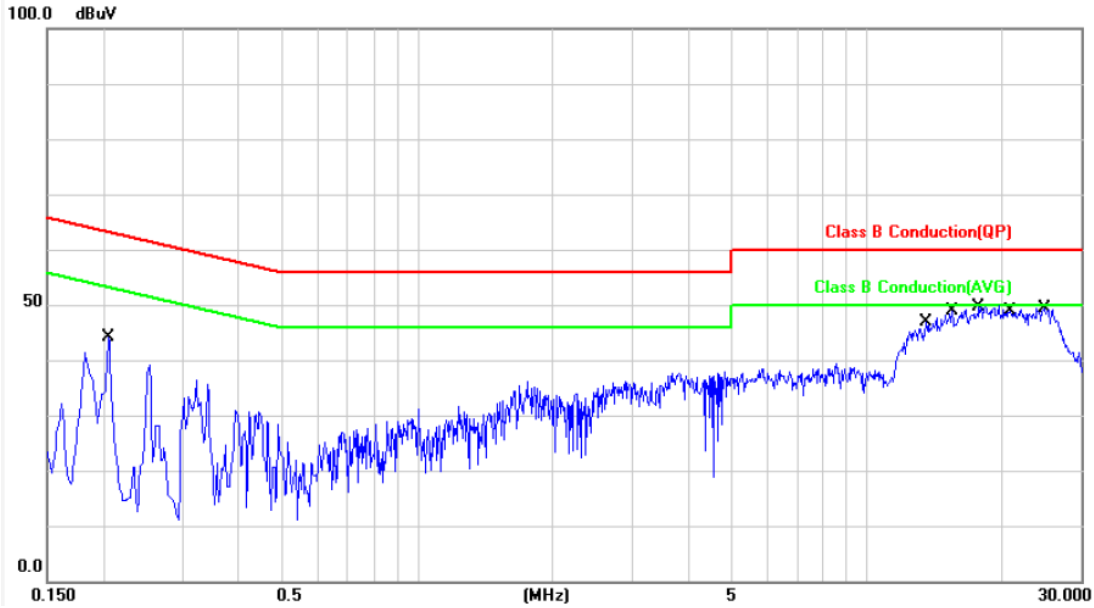
Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode	:	802.11an, CH36	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1860	9.92	34.63	44.55	64.21	-19.66	QP	P
2	0.1860	9.92	20.33	30.25	54.21	-23.96	AVG	P
3	0.2060	9.92	31.25	41.17	63.36	-22.19	QP	P
4	0.2060	9.92	12.67	22.59	53.36	-30.77	AVG	P
5	16.2698	10.40	35.26	45.66	60.00	-14.34	QP	P
6	16.2698	10.40	26.90	37.30	50.00	-12.70	AVG	P
7	18.0699	10.44	36.61	47.05	60.00	-12.95	QP	P
8	18.0699	10.44	24.76	35.20	50.00	-14.80	AVG	P
9	23.8740	10.52	35.03	45.55	60.00	-14.45	QP	P
10	23.8740	10.52	26.42	36.94	50.00	-13.06	AVG	P
11	25.6980	10.52	35.64	46.16	60.00	-13.84	QP	P
12	25.6980	10.52	28.22	38.74	50.00	-11.26	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode	:	802.11an, CH36	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2060	9.91	31.13	41.04	63.36	-22.32	QP	P
2	0.2060	9.91	12.63	22.54	53.36	-30.82	AVG	P
3	13.6020	10.33	33.79	44.12	60.00	-15.88	QP	P
4	13.6020	10.33	21.79	32.12	50.00	-17.88	AVG	P
5	15.5420	10.36	35.62	45.98	60.00	-14.02	QP	P
6	15.5420	10.36	24.65	35.01	50.00	-14.99	AVG	P
7	17.8420	10.41	35.95	46.36	60.00	-13.64	QP	P
8	17.8420	10.41	26.31	36.72	50.00	-13.28	AVG	P
9	20.9220	10.46	35.44	45.90	60.00	-14.10	QP	P
10	20.9220	10.46	26.68	37.14	50.00	-12.86	AVG	P
11	24.8260	10.51	35.69	46.20	60.00	-13.80	QP	P
12	24.8260	10.51	25.15	35.66	50.00	-14.34	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN or ISN or PLC or Current Probe) Factor + Cable Loss + Attenuator

5. Test of Radiated Emission

5.1. Test Limit

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

5.2. 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.

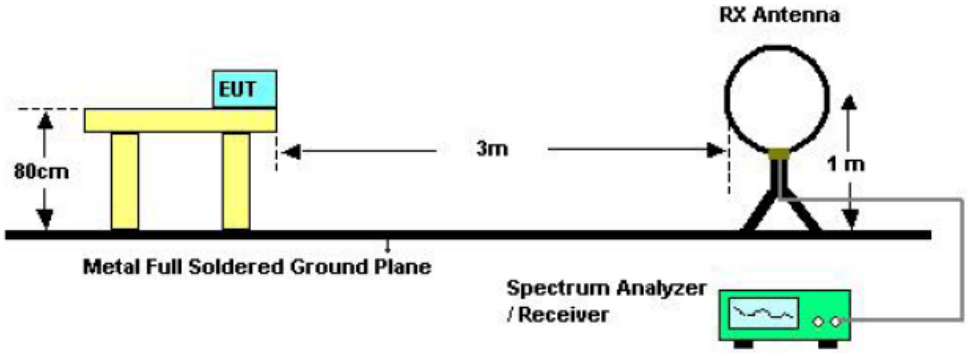
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.

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.

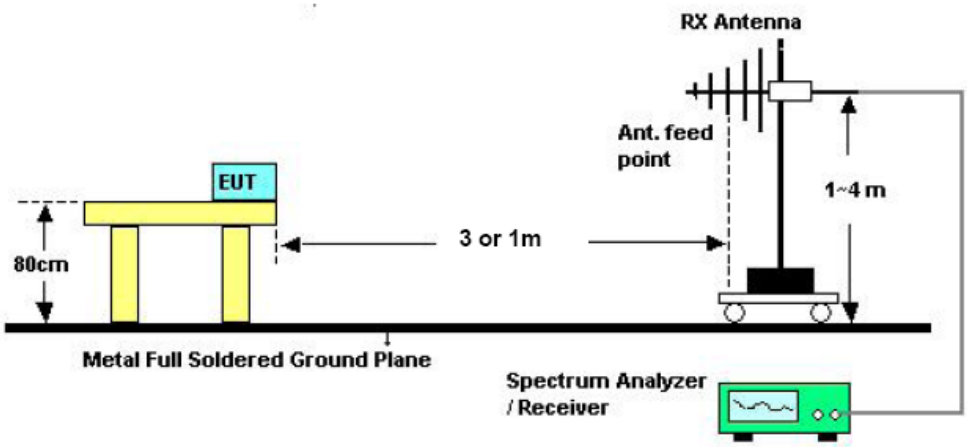
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured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

5.3. Typical Test Setup

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].

5.4. Measurement Equipment

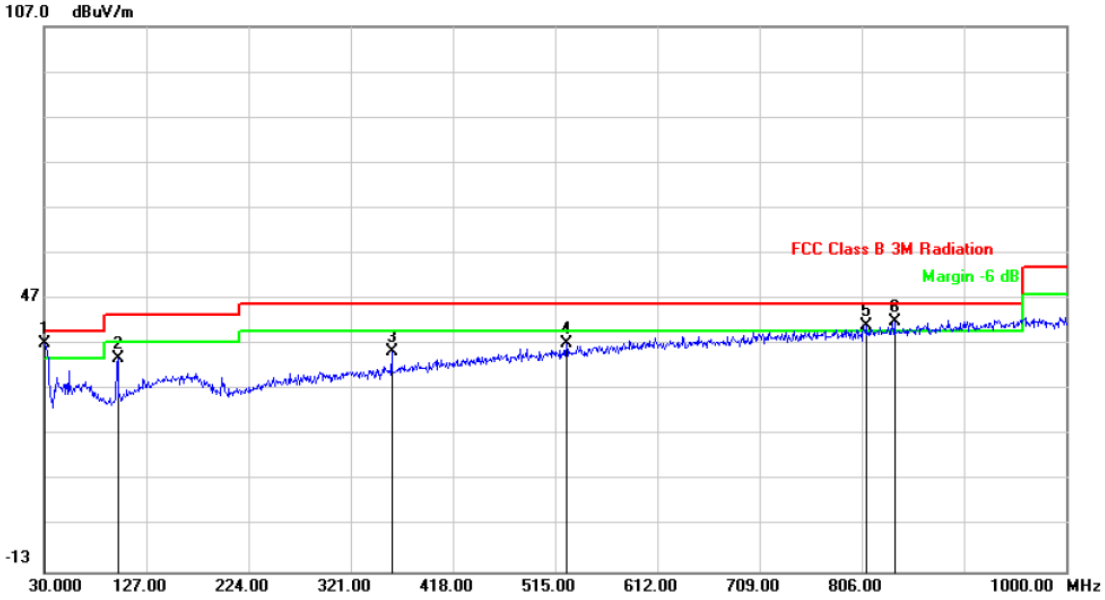
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2014/04/09	2015/04/08
Bilog Antenna	Schwarzbeck	VULB 9168	275	2014/09/18	2015/09/17
Amplifier	QuieTek	AP/0100A	CHM0906075	2014/09/17	2015/09/16
SPECTRUM ANALYZER	R&S	FSP40	100219	2014/09/03	2015/09/02
HORN ANTENNA	EMCO	3115	31601	2014/07/09	2015/07/08
PREAMPLIFIER	AGILENT	8449B	3008A01954	2014/03/28	2015/03/27
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

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

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

5.6. Test Result and Data (30MHz ~ 1GHz)

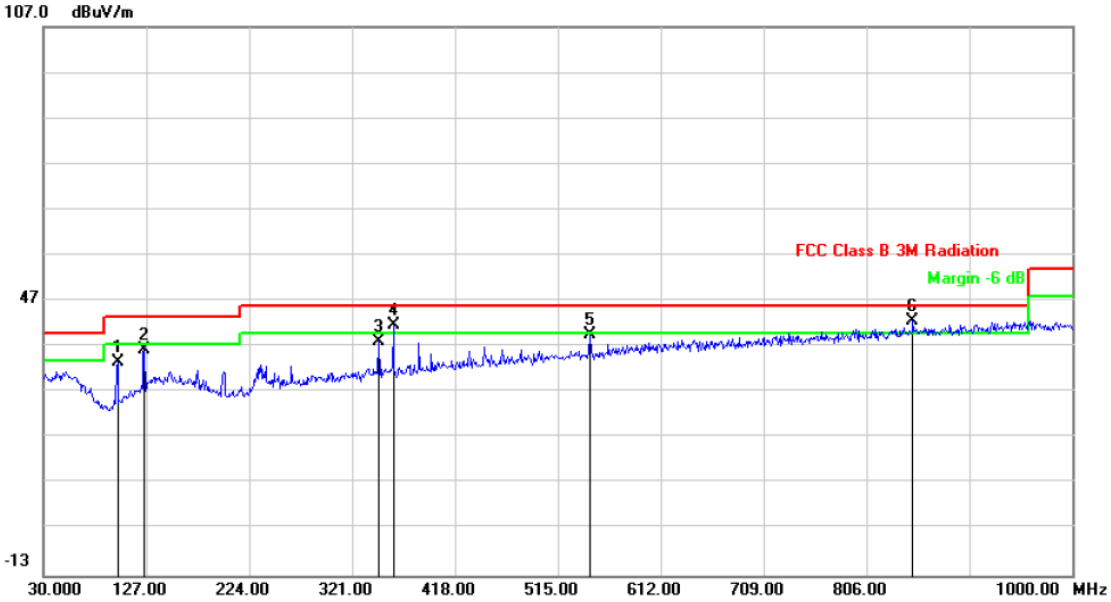
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH36	Temperature	:	24 °C
Test Date	:	Sep. 23, 2014	Humidity	:	54 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9700	-8.90	46.17	37.27	40.00	-2.73	peak	108	172
2	99.8400	-13.09	47.04	33.95	43.50	-9.55	peak	108	172
3	359.8000	-5.88	41.40	35.52	46.00	-10.48	peak	108	172
4	525.6700	-2.08	39.21	37.13	46.00	-8.87	peak	108	172
5	809.8800	2.41	38.86	41.27	46.00	-4.73	peak	108	172
6	837.0400	2.78	39.19	41.97	46.00	-4.03	peak	108	172

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

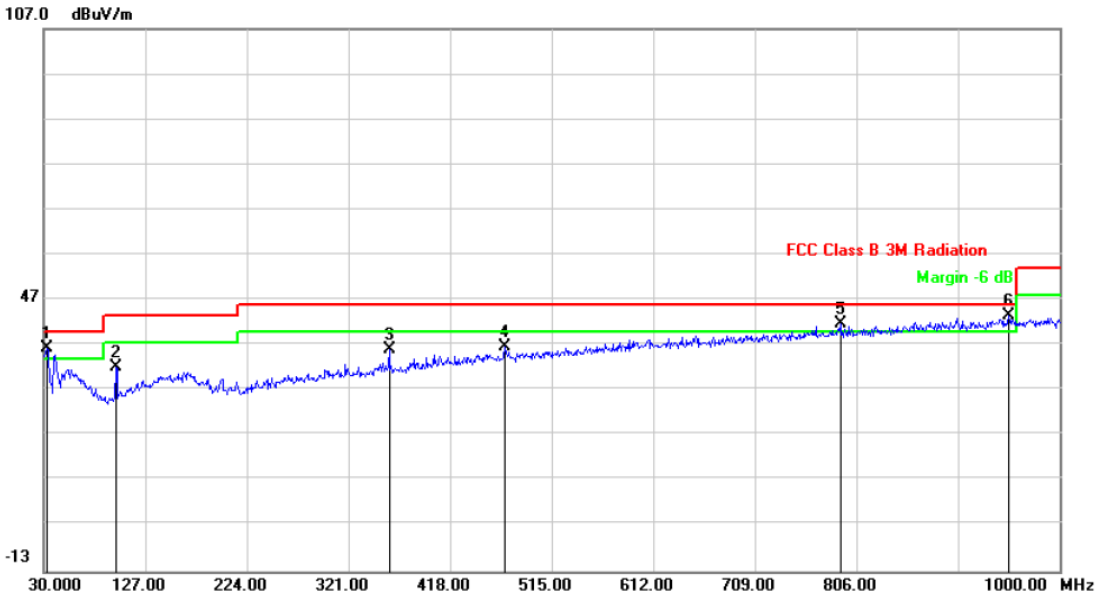
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH36	Temperature	:	24 °C
Test Date	:	Sep. 23, 2014	Humidity	:	54 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	99.8400	-13.09	46.83	33.74	43.50	-9.76	peak	101	178
2	125.0600	-10.19	46.68	36.49	43.50	-7.01	peak	101	178
3	346.2200	-6.26	44.40	38.14	46.00	-7.86	peak	101	178
4	359.8000	-5.88	47.62	41.74	46.00	-4.26	peak	101	178
5	545.0700	-1.73	41.36	39.63	46.00	-6.37	peak	101	178
6	849.6500	2.96	39.66	42.62	46.00	-3.38	peak	101	178

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

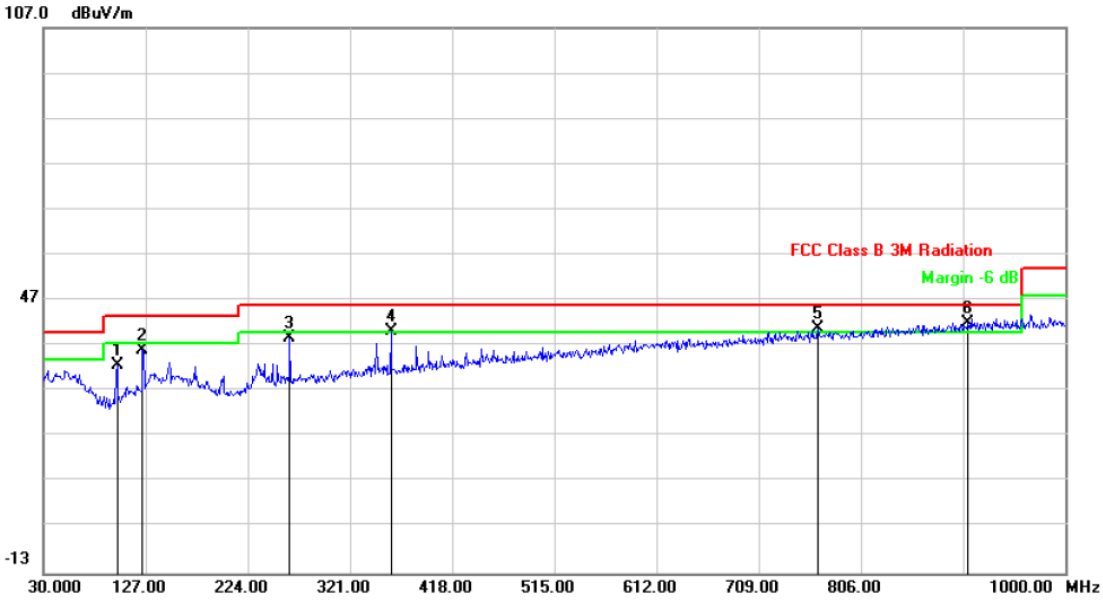
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	24 °C
Test Date	:	Sep. 23, 2014	Humidity	:	54 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	32.9100	-8.79	45.22	36.43	40.00	-3.57	peak	102	175
2	98.8700	-13.22	45.25	32.03	43.50	-11.47	peak	102	175
3	359.8000	-5.88	41.91	36.03	46.00	-9.97	peak	102	175
4	470.3800	-3.06	39.81	36.75	46.00	-9.25	peak	102	175
5	790.4800	2.17	39.70	41.87	46.00	-4.13	peak	102	175
6	951.5000	4.43	39.17	43.60	46.00	-2.40	peak	102	175

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

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	24 °C
Test Date	:	Sep. 23, 2014	Humidity	:	54 %
Memo	:		Atmospheric Pressure	:	1010 hpa

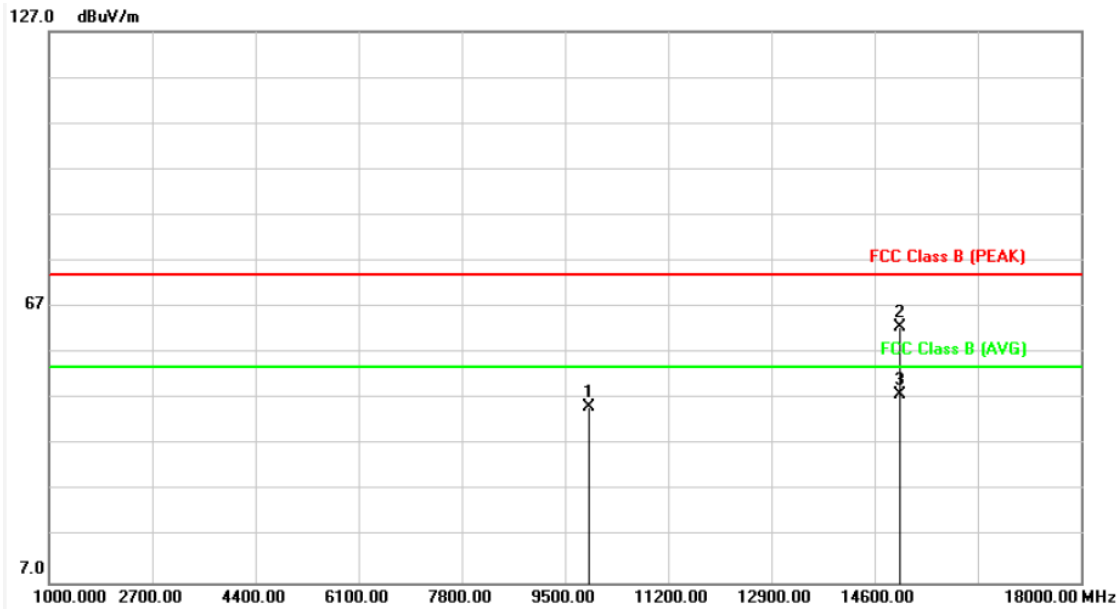


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	99.8400	-13.09	45.82	32.73	43.50	-10.77	peak	104	179
2	124.0900	-10.29	46.32	36.03	43.50	-7.47	peak	104	179
3	263.7700	-8.79	47.48	38.69	46.00	-7.31	peak	104	179
4	359.8000	-5.88	46.16	40.28	46.00	-5.72	peak	104	179
5	765.2600	1.91	38.93	40.84	46.00	-5.16	peak	104	179
6	907.8500	3.79	38.22	42.01	46.00	-3.99	peak	104	179

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

5.7. Test Result and Data (Above 1GHz)

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH36	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa

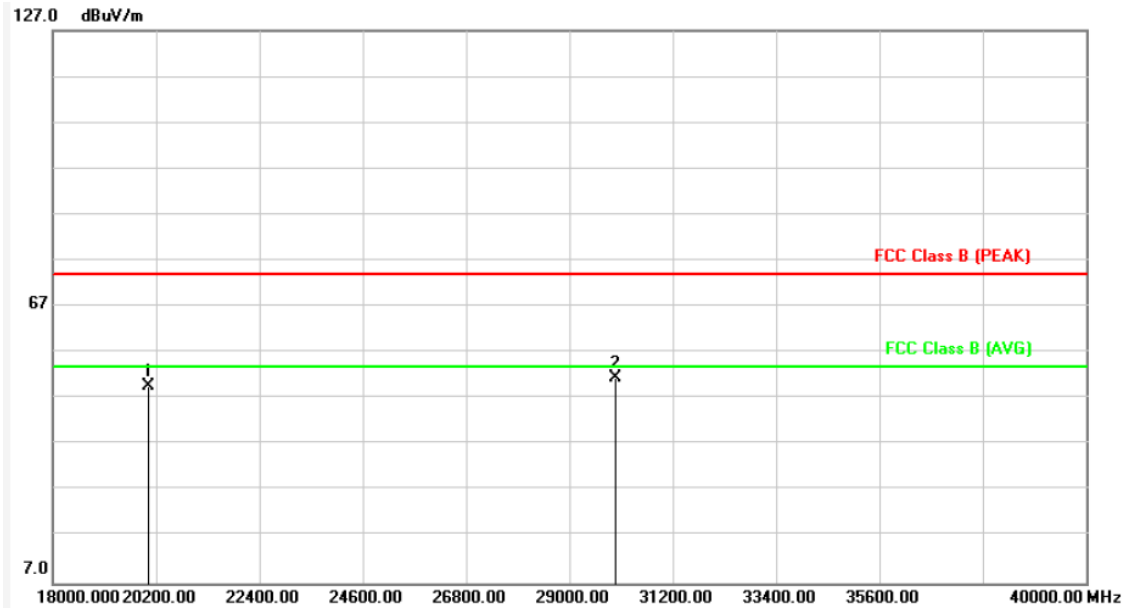


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	9891.000	16.19	29.20	45.39	74.00	-28.61	peak	100	0	P
2	15008.000	24.02	38.52	62.54	74.00	-11.46	peak	100	182	P
3	15008.000	24.02	24.00	48.02	54.00	-5.98	AVG	100	182	P

Note: Level = Reading + Factor

Margin = Level – Limit

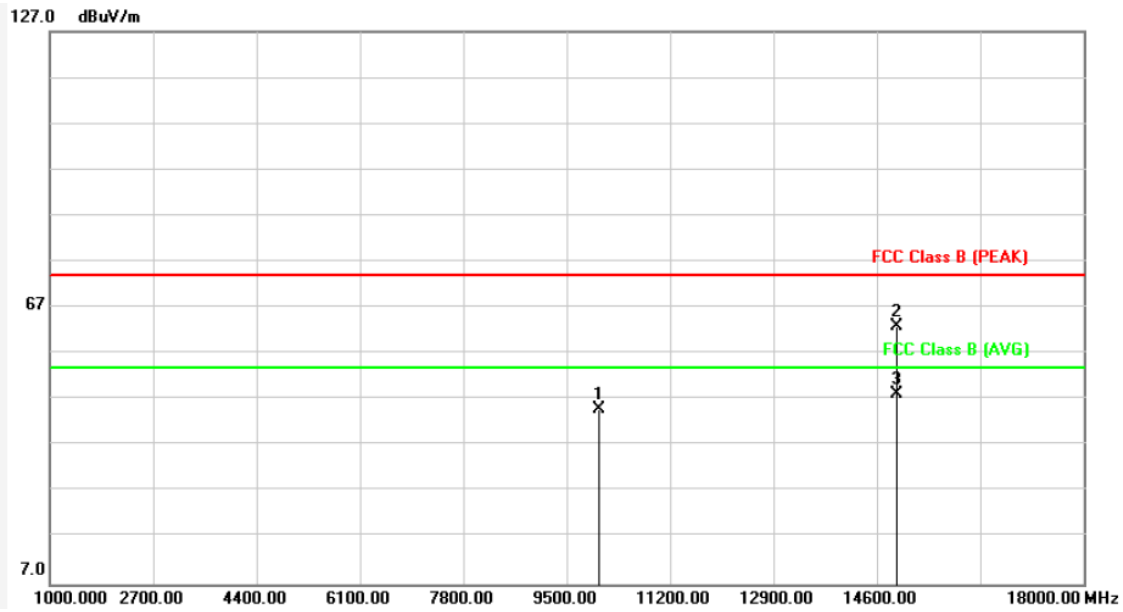
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH36	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20046.000	2.47	47.27	49.74	74.00	-24.26	peak	100	0	P
2	29990.000	2.04	49.47	51.51	74.00	-22.49	peak	100	0	P

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

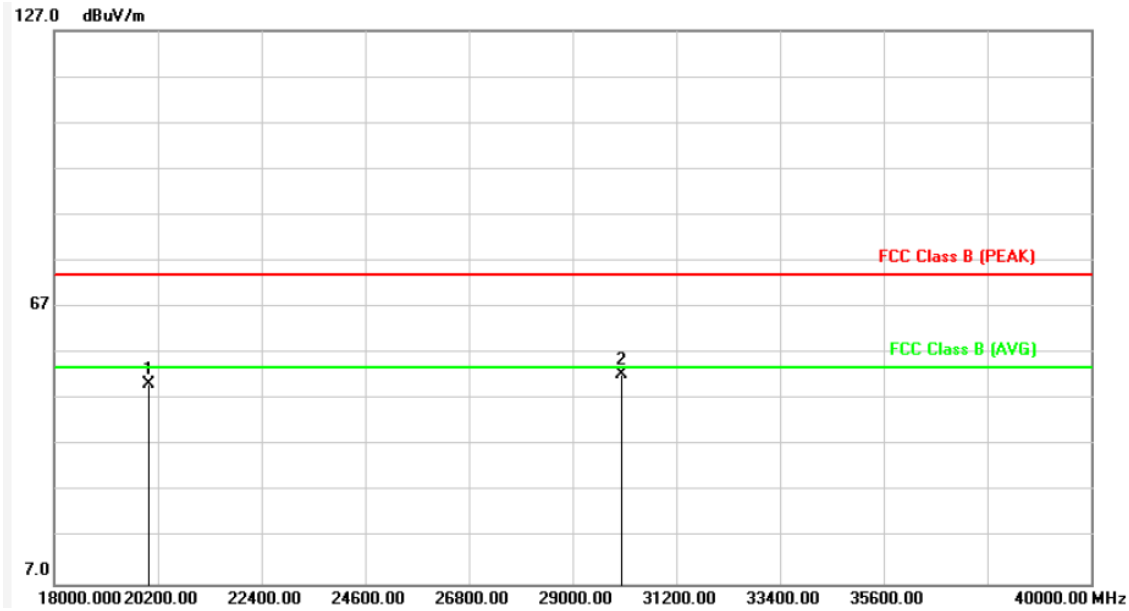
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH36	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10027.000	16.36	28.67	45.03	74.00	-28.97	peak	100	0	P
2	14923.000	24.28	38.60	62.88	74.00	-11.12	peak	100	188	P
3	14923.000	24.28	23.87	48.15	54.00	-5.85	AVG	100	188	P

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

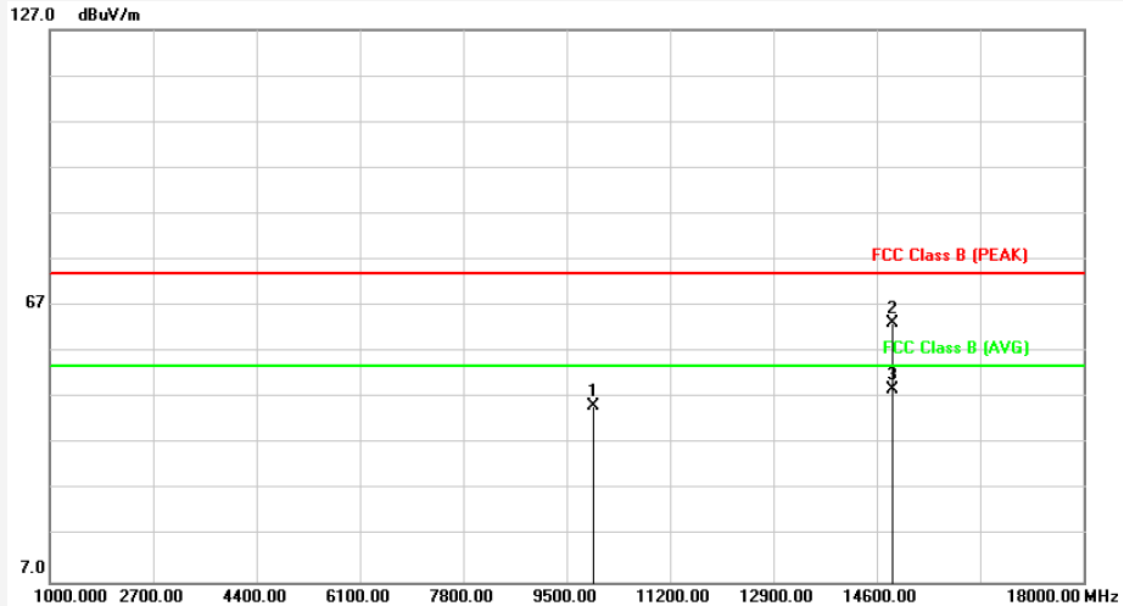
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH36	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20002.000	2.51	47.77	50.28	74.00	-23.72	peak	100	0	P
2	30034.000	1.99	50.52	52.51	74.00	-21.49	peak	100	0	P

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

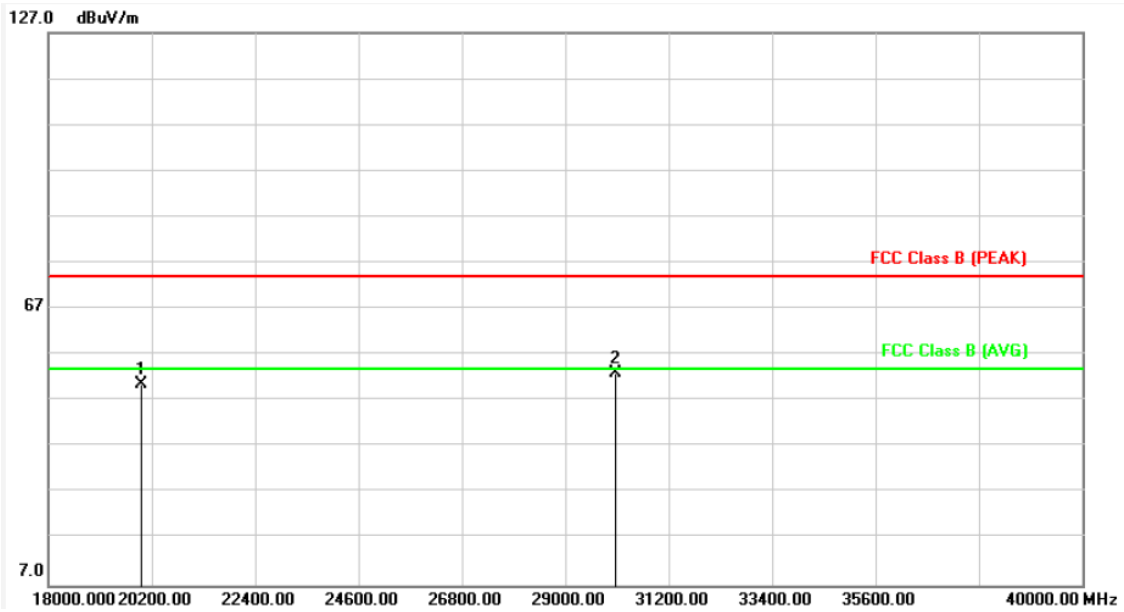
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH44	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	9942.000	16.25	28.87	45.12	74.00	-28.88	peak	100	0	P
2	14855.000	24.49	38.66	63.15	74.00	-10.85	peak	100	185	P
3	14855.000	24.49	24.27	48.76	54.00	-5.24	AVG	100	185	P

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

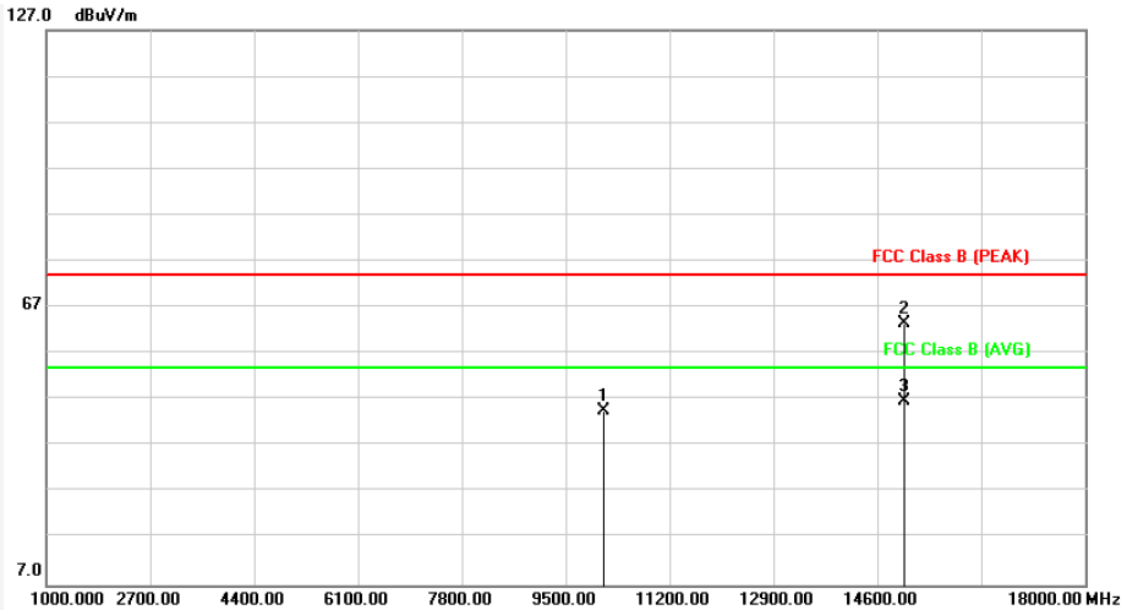
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH44	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	19980.000	2.53	48.05	50.58	74.00	-23.42	peak	100	0	P
2	30078.000	1.96	51.00	52.96	74.00	-21.04	peak	100	0	P

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

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH44	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1010 hpa

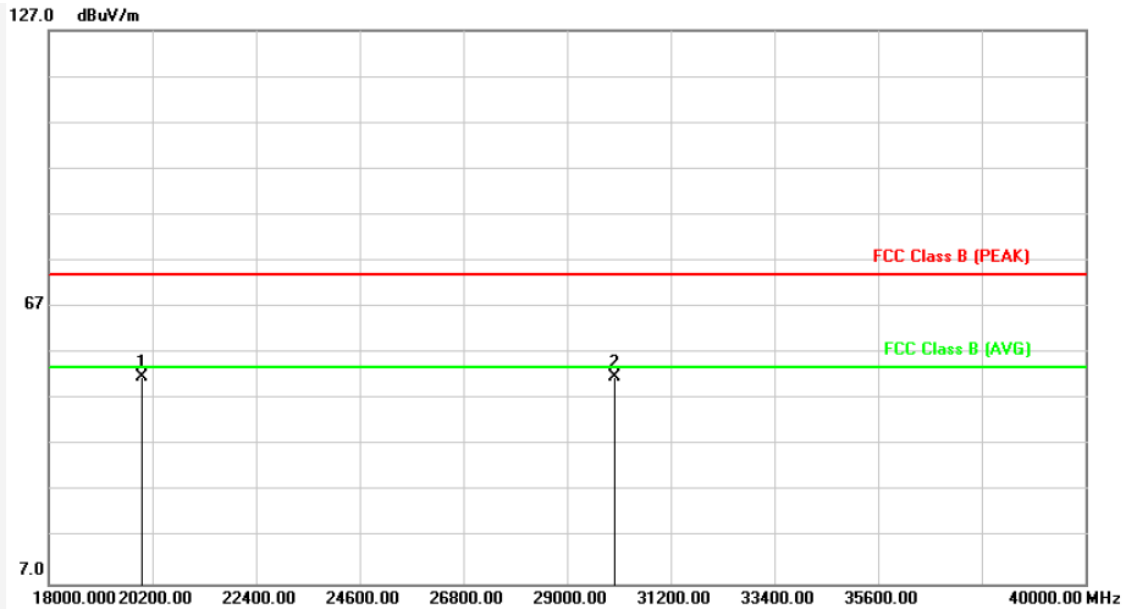


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10129.000	16.53	28.15	44.68	74.00	-29.32	peak	100	0	P
2	15042.000	23.82	39.86	63.68	74.00	-10.32	peak	100	189	P
3	15042.000	23.82	22.79	46.61	54.00	-7.39	AVG	100	189	P

Note: Level = Reading + Factor

Margin = Level - Limit

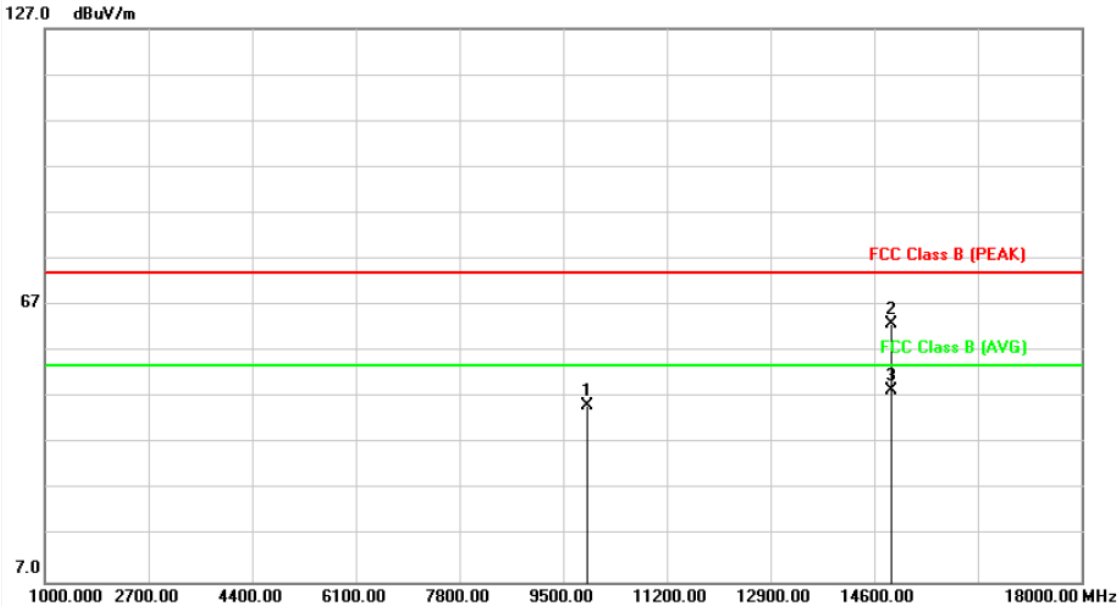
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH44	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	19980.000	2.53	49.46	51.99	74.00	-22.01	peak	100	0	P
2	30012.000	2.02	49.68	51.70	74.00	-22.30	peak	100	0	P

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

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH48	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa

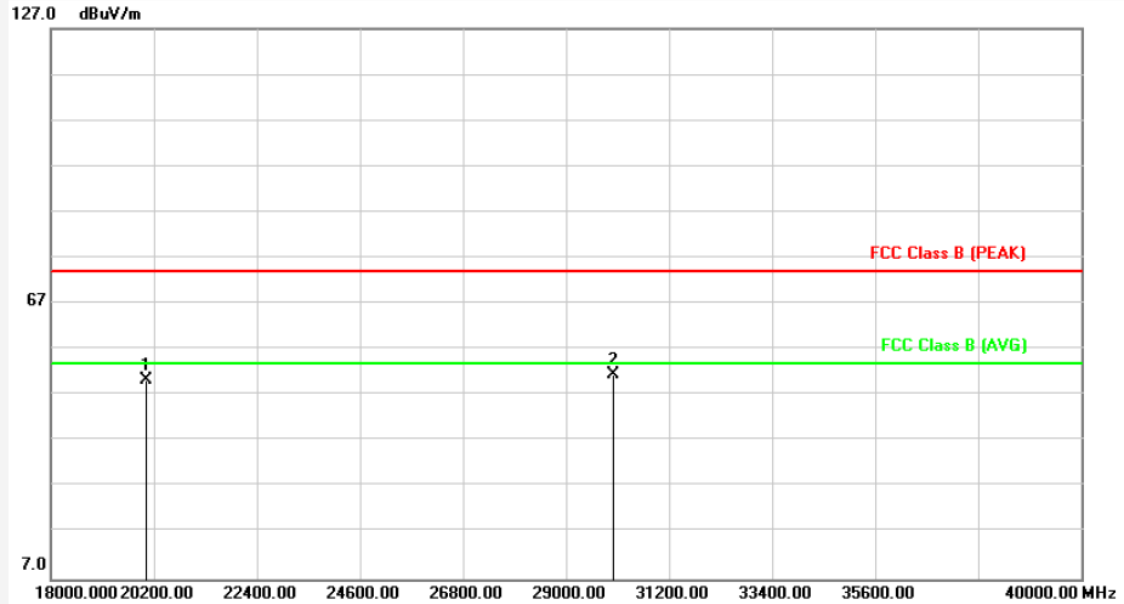


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	9891.000	16.19	28.93	45.12	74.00	-28.88	peak	100	0	P
2	14889.000	24.38	38.72	63.10	74.00	-10.90	peak	100	183	P
3	14889.000	24.38	24.29	48.67	54.00	-5.33	AVG	100	183	P

Note: Level = Reading + Factor

Margin = Level - Limit

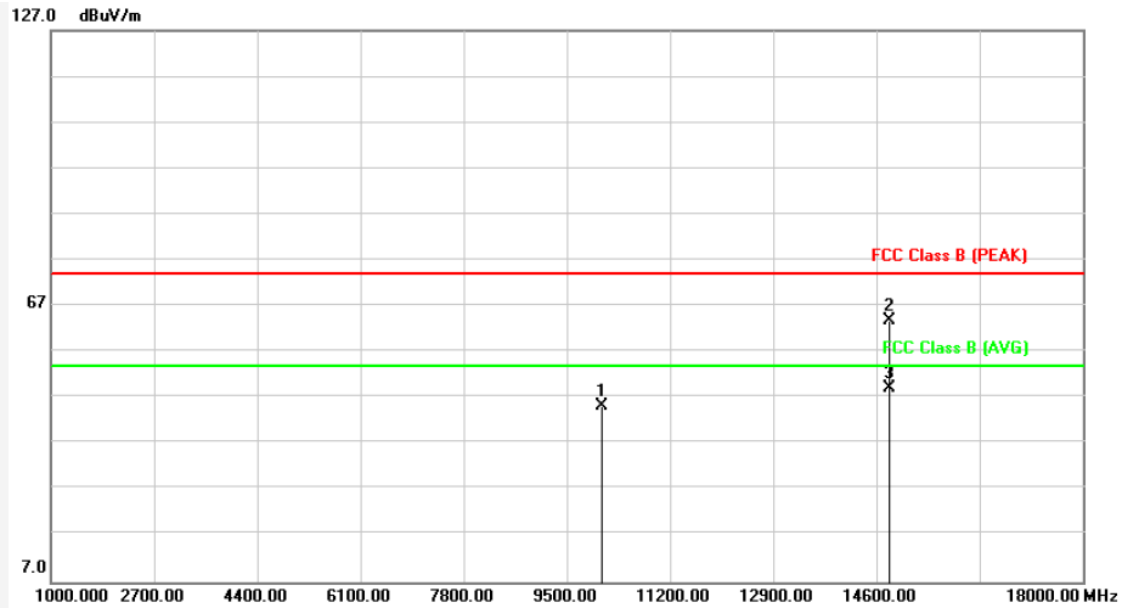
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11a, CH48	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20046.000	2.47	47.91	50.38	74.00	-23.62	peak	100	0	P
2	30012.000	2.02	49.61	51.63	74.00	-22.37	peak	100	0	P

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

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH48	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa

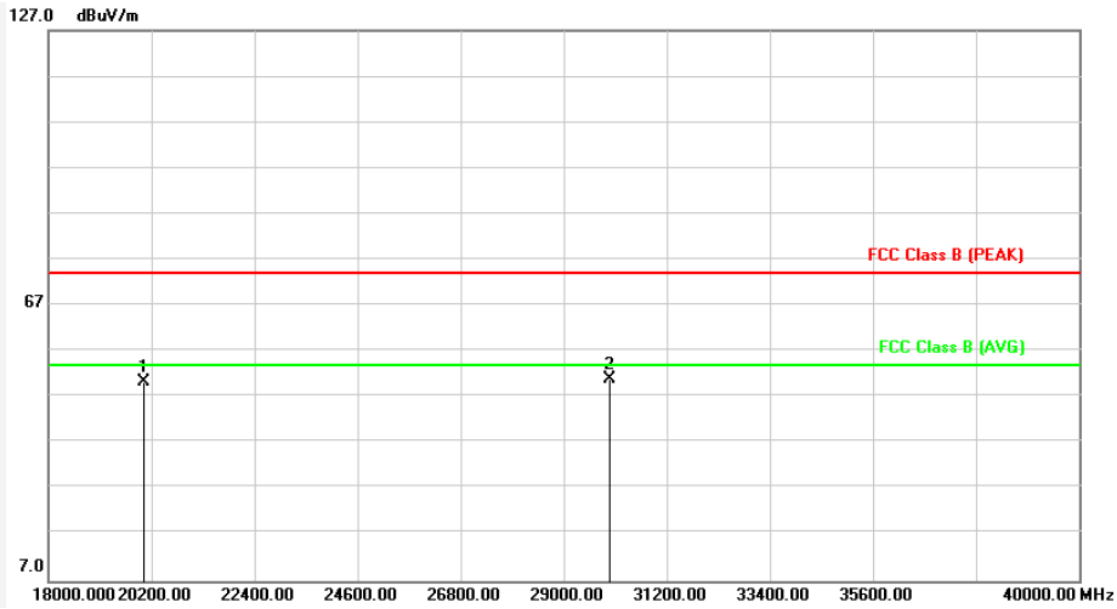


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10078.000	16.45	28.93	45.38	74.00	-28.62	peak	100	0	P
2	14821.000	24.59	39.14	63.73	74.00	-10.27	peak	100	181	P
3	14821.000	24.59	24.62	49.21	54.00	-4.79	AVG	100	181	P

Note: Level = Reading + Factor

Margin = Level - Limit

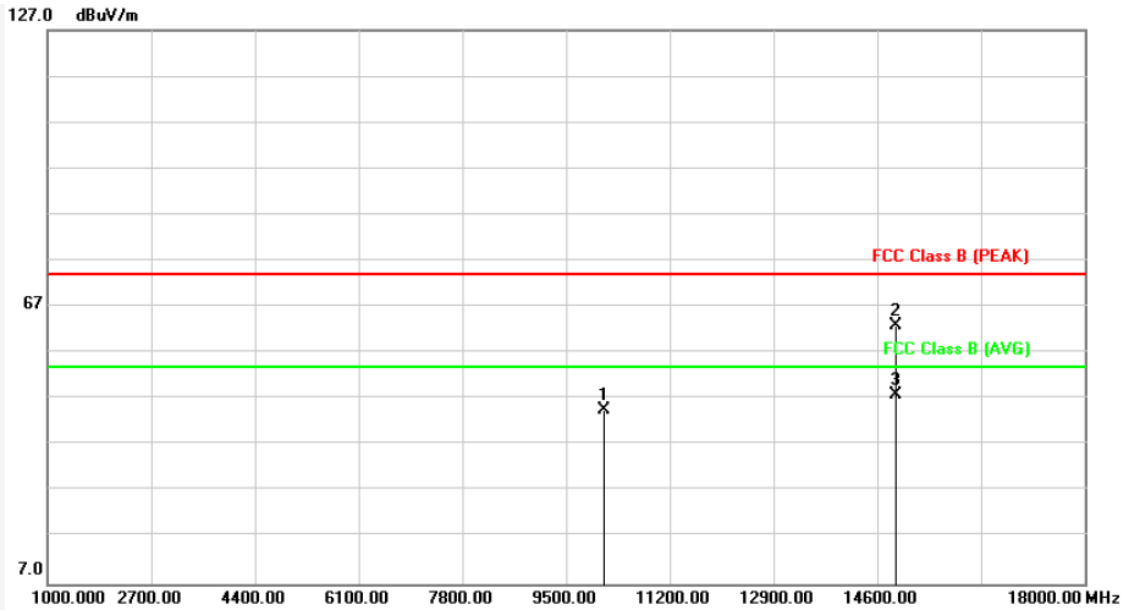
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11a, CH48	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20046.000	2.47	47.88	50.35	74.00	-23.65	peak	100	0	P
2	29990.000	2.04	49.04	51.08	74.00	-22.92	peak	100	0	P

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

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa

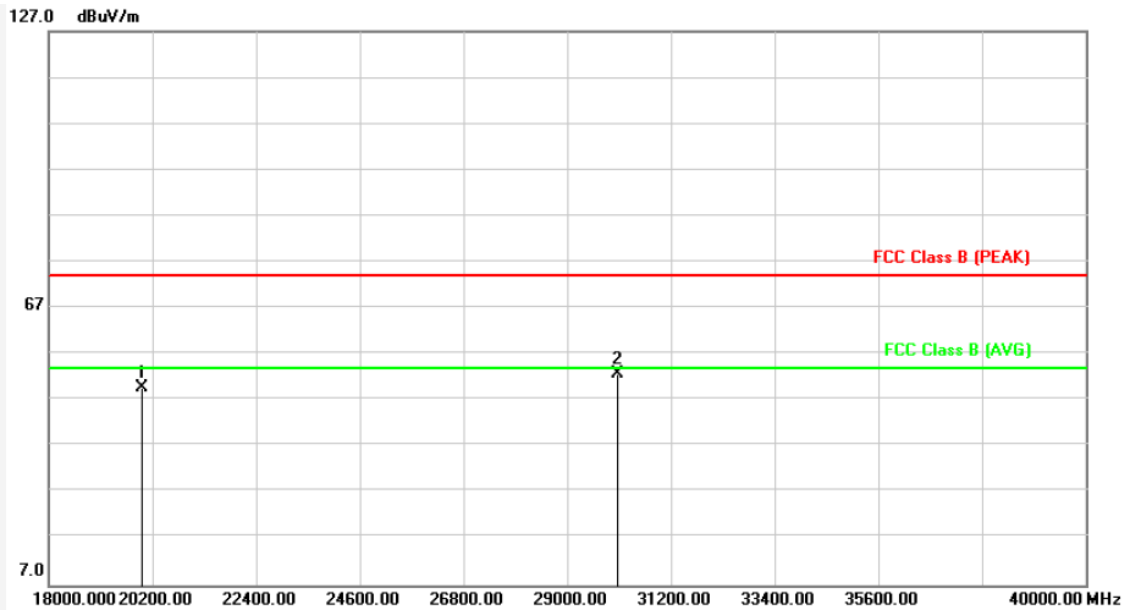


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10112.000	16.50	28.30	44.80	74.00	-29.20	peak	100	0	P
2	14906.000	24.33	38.72	63.05	74.00	-10.95	peak	100	175	P
3	14906.000	24.33	23.59	47.92	54.00	-6.08	AVG	100	175	P

Note: Level = Reading + Factor

Margin = Level - Limit

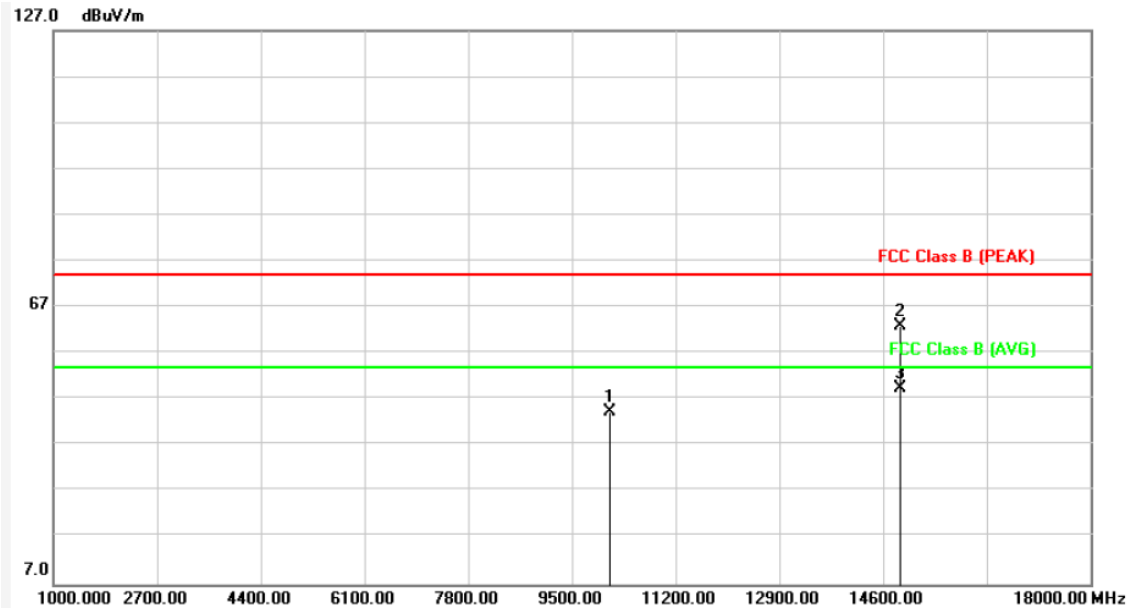
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	19980.000	2.53	47.24	49.77	74.00	-24.23	peak	100	0	P
2	30078.000	1.96	50.88	52.84	74.00	-21.16	peak	100	0	P

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

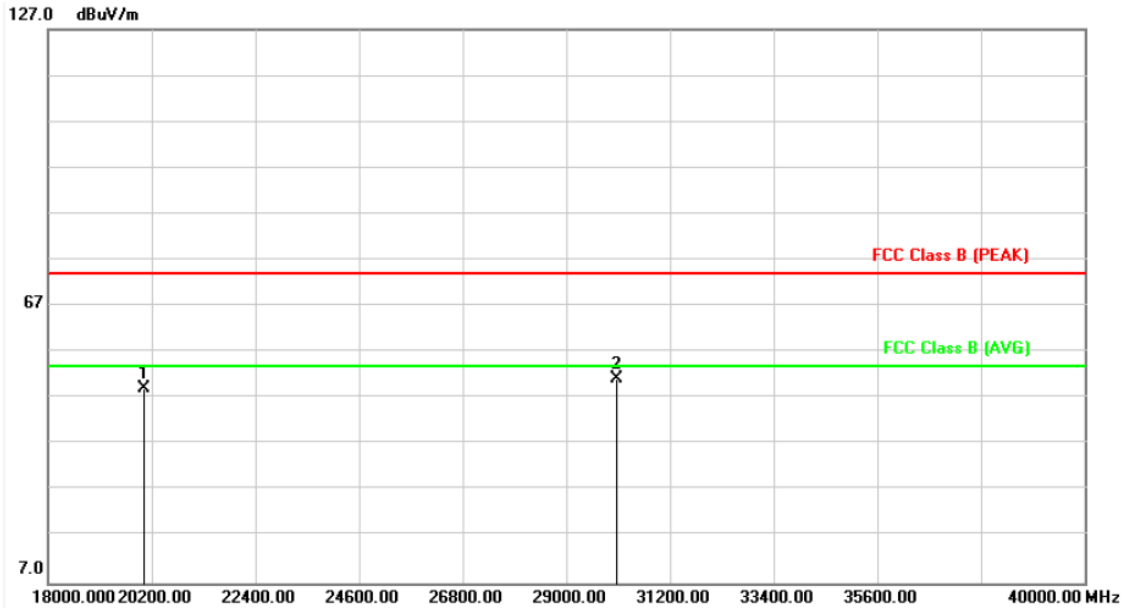
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10112.000	16.50	27.73	44.23	74.00	-29.77	peak	100	0	P
2	14889.000	24.38	38.64	63.02	74.00	-10.98	peak	100	185	P
3	14889.000	24.38	25.05	49.43	54.00	-4.57	AVG	100	185	P

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

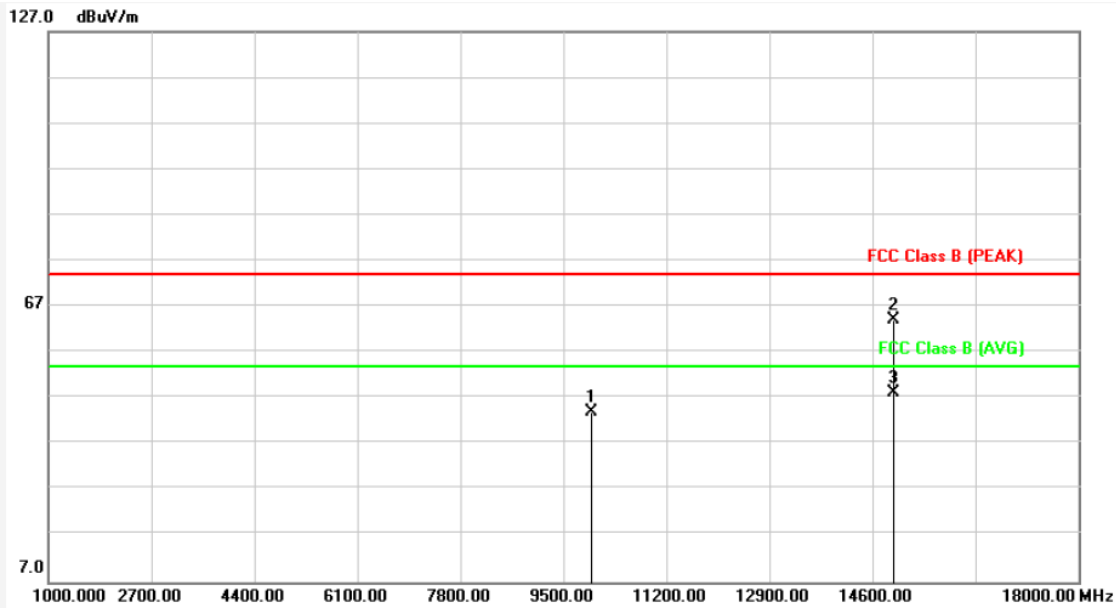
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH36	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20046.000	2.47	46.67	49.14	74.00	-24.86	peak	100	0	P
2	30078.000	1.96	49.41	51.37	74.00	-22.63	peak	100	0	P

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

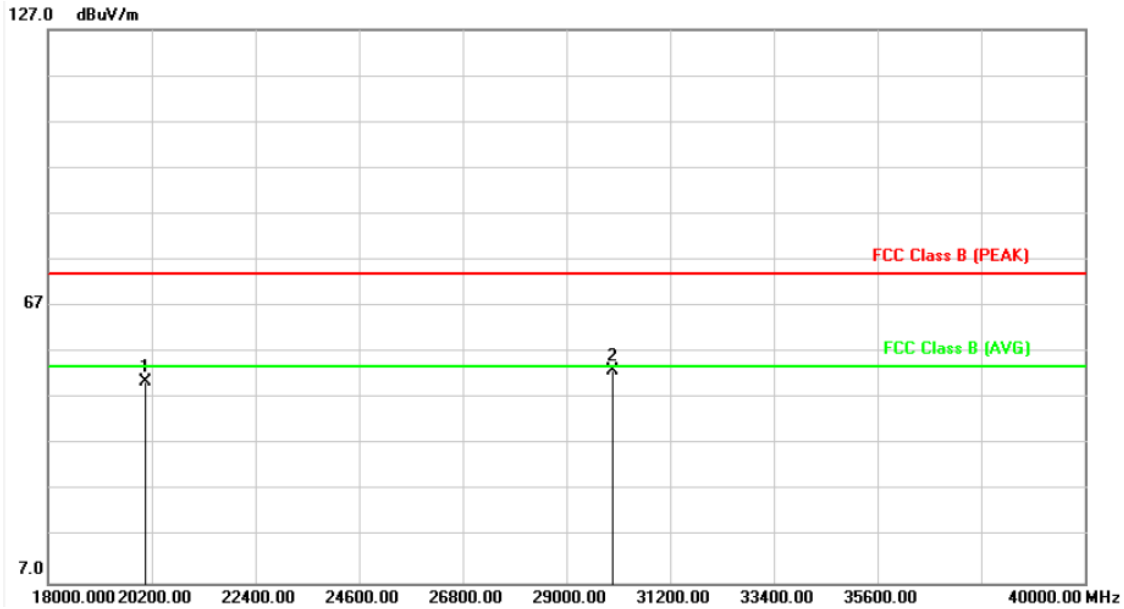
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH44	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	9959.000	16.26	27.89	44.15	74.00	-29.85	peak	100	0	P
2	14957.000	24.18	39.95	64.13	74.00	-9.87	peak	100	178	P
3	14957.000	24.18	24.15	48.33	54.00	-5.67	AVG	100	178	P

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

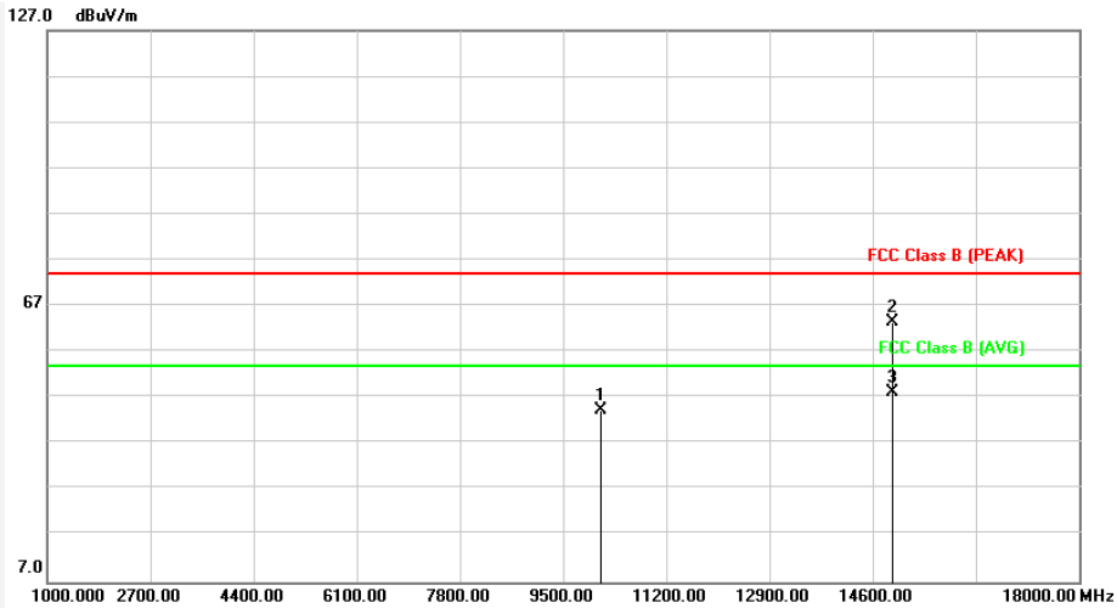
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH44	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20068.000	2.45	48.27	50.72	74.00	-23.28	peak	100	0	P
2	29990.000	2.04	50.89	52.93	74.00	-21.07	peak	100	0	P

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

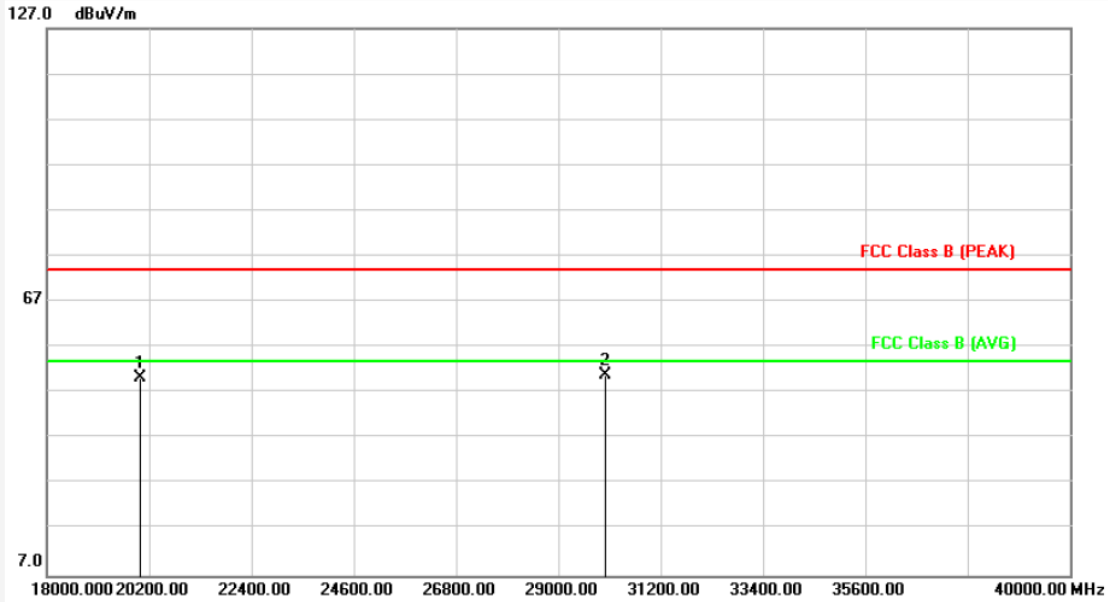
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH44	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10112.000	16.50	27.95	44.45	74.00	-29.55	peak	100	0	P
2	14923.000	24.28	39.25	63.53	74.00	-10.47	peak	100	188	P
3	14923.000	24.28	24.03	48.31	54.00	-5.69	AVG	100	188	P

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

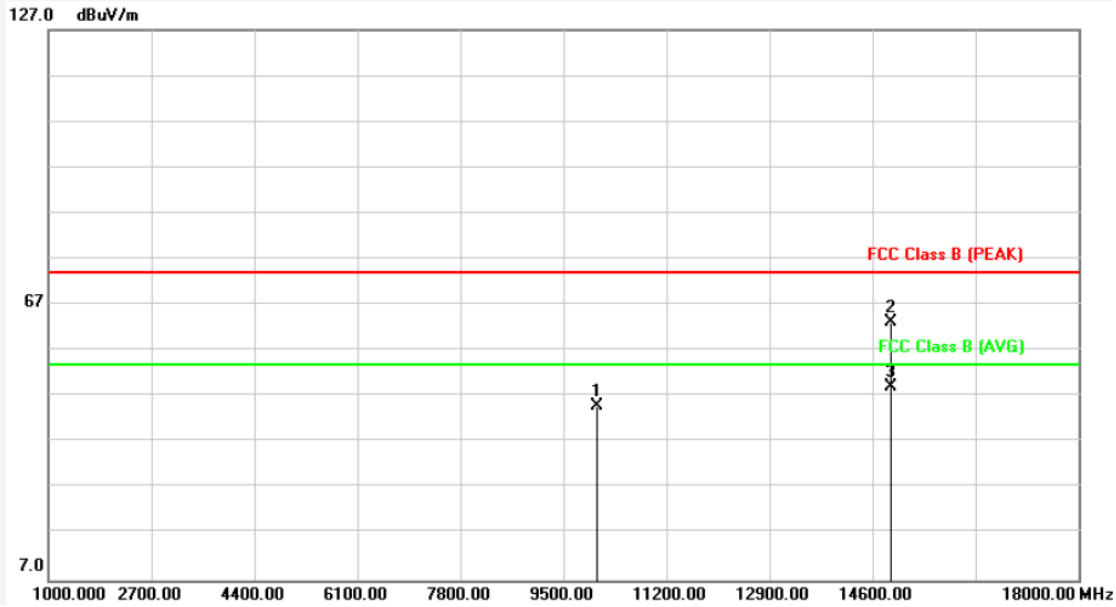
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH44	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20002.000	2.51	47.84	50.35	74.00	-23.65	peak	100	0	P
2	30012.000	2.02	49.00	51.02	74.00	-22.98	peak	100	0	P

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

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH48	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa

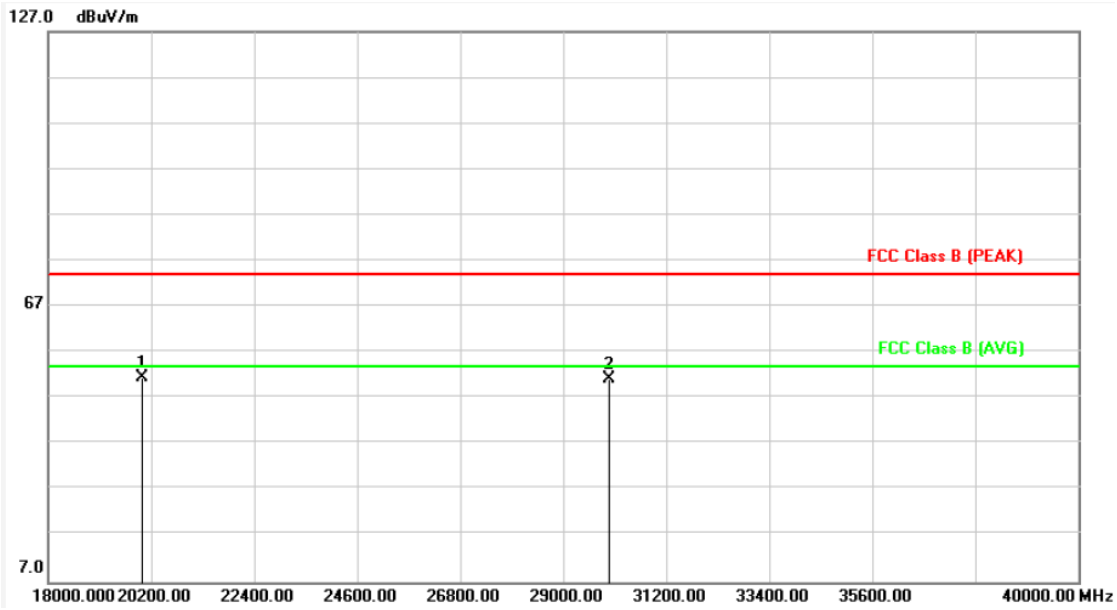


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	10044.000	16.38	28.62	45.00	74.00	-29.00	peak	100	0	P
2	14906.000	24.33	38.94	63.27	74.00	-10.73	peak	100	183	P
3	14906.000	24.33	24.84	49.17	54.00	-4.83	AVG	100	183	P

Note: Level = Reading + Factor

Margin = Level - Limit

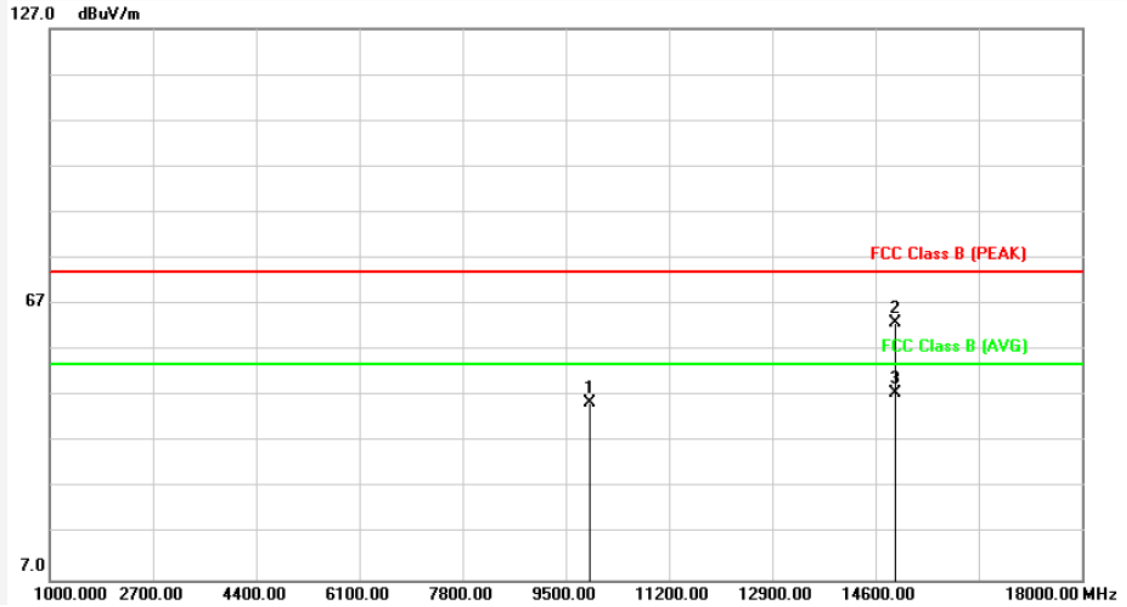
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	802.11an HT20, CH48	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20002.000	2.51	49.17	51.68	74.00	-22.32	peak	100	0	P
2	29990.000	2.04	49.10	51.14	74.00	-22.86	peak	100	0	P

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

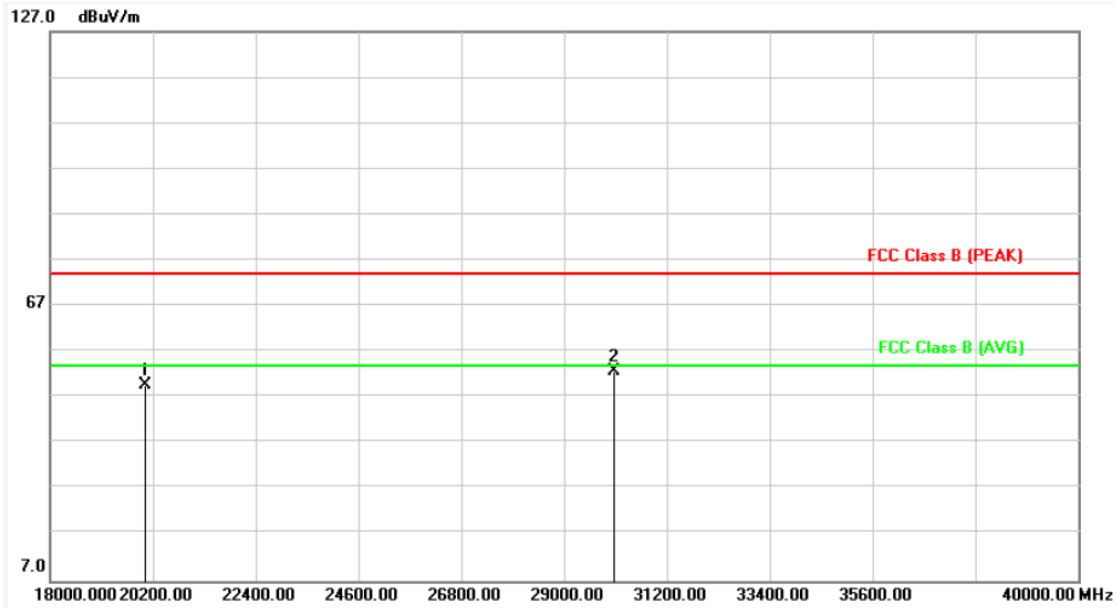
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH48	Temperature	:	25 °C
Test Date	:	Sep. 24, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	9891.000	16.19	29.29	45.48	74.00	-28.52	peak	100	0	P
2	14923.000	24.28	38.63	62.91	74.00	-11.09	peak	100	179	P
3	14923.000	24.28	23.27	47.55	54.00	-6.45	AVG	100	179	P

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

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	802.11an HT20, CH48	Temperature	:	24 °C
Test Date	:	Oct. 02, 2014	Humidity	:	52 %
Memo	:		Atmospheric Pressure	:	1014 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (◦)	P/F
1	20046.000	2.47	47.43	49.90	74.00	-24.10	peak	100	0	P
2	30078.000	1.96	50.74	52.70	74.00	-21.30	peak	100	0	P

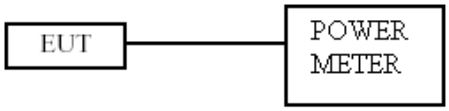
Note: Level = Reading + Factor
Margin = Level - Limit

6. Peak Transmit Power

6.1. Test Procedure

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

6.2. Test Setup Layout



6.3. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
SERIES POWER METER	ANRITSU	ML2495A	1224005	2014/03/27	2015/03/26
POWER SENSOR	ANRITSU	MA2411B	1207295	2014/03/27	2015/03/26

6.4. Test Result and Data

Test Date: Sep. 30, 2014 Temperature: 25℃

Atmospheric pressure: 1056 hPa Humidity: 52%

Modulation Standard: IEEE 802.11a (6Mbps)

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)
36	5180	9.18	8.28	23.0
44	5220	9.16	8.24	23.4
48	5240	9.40	8.71	23.4

Modulation Standard: IEEE 802.11an, HT20 (6.5Mbps)

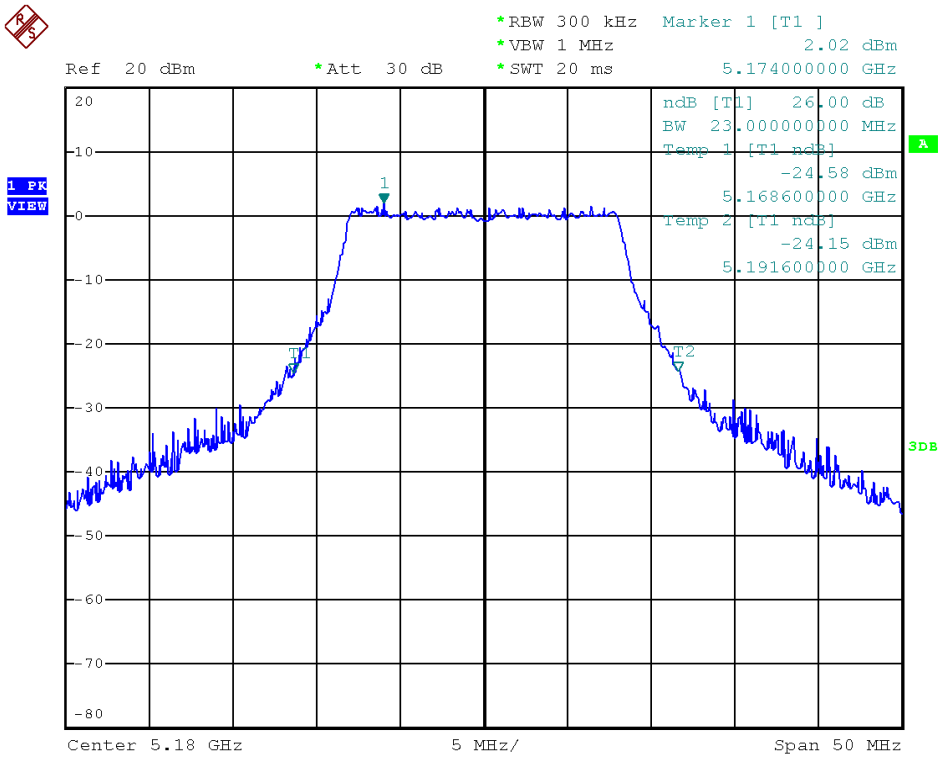
Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)	26dB Occupied Bandwidth (MHz)
36	5180	8.87	7.71	23.4
44	5220	8.81	7.60	23.5
48	5240	9.07	8.07	23.9

Limit:

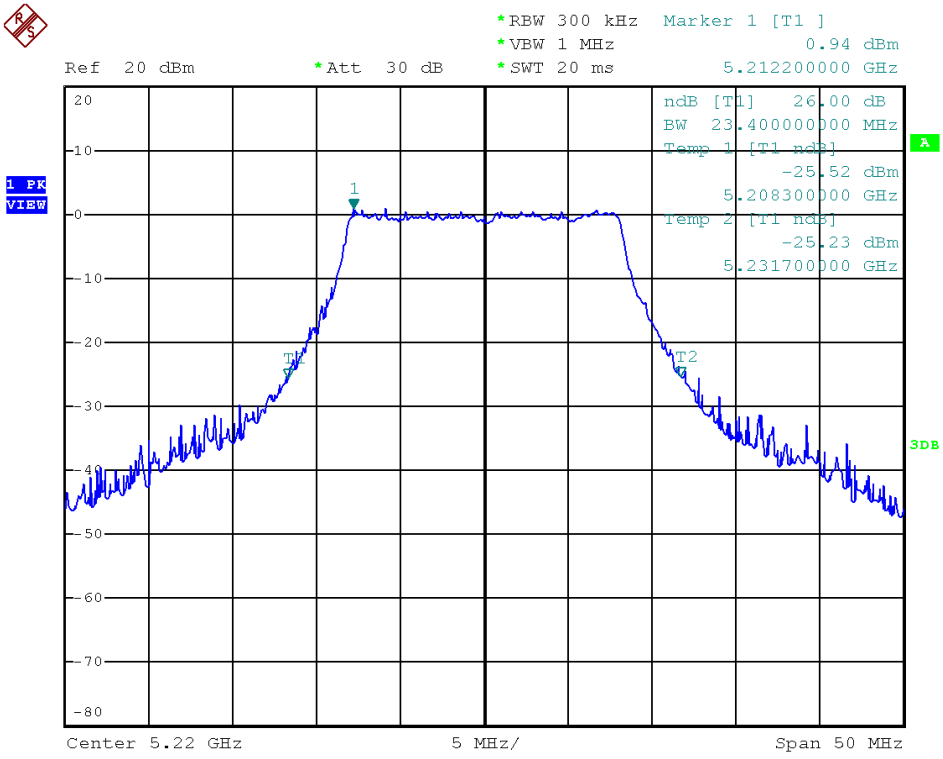
Frequency Band	Limit
5.15 – 5.25 GHz	The lesser of 50mW(17dBm) or 4dBm + 10logB
5.25 – 5.35 GHz	The lesser of 250mW(24dBm) or 11dBm + 10logB
5.47 – 5.725 GHz	The lesser of 250mW(24dBm) or 11dBm + 10logB
5.725 – 5.825 GHz	The lesser of 1W(30dBm) or 17dBm + 10logB
B is the 26dB emission bandwidth in MHz.	

26dB Occupied Bandwidth

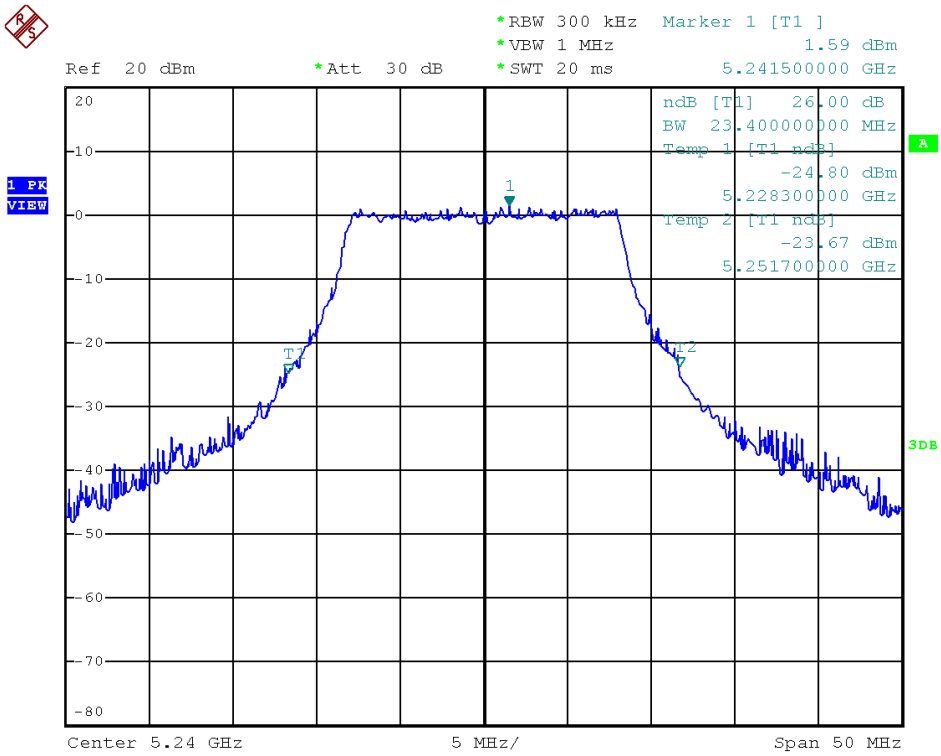
Modulation Standard: 802.11a (6Mbps)
Channel: 36



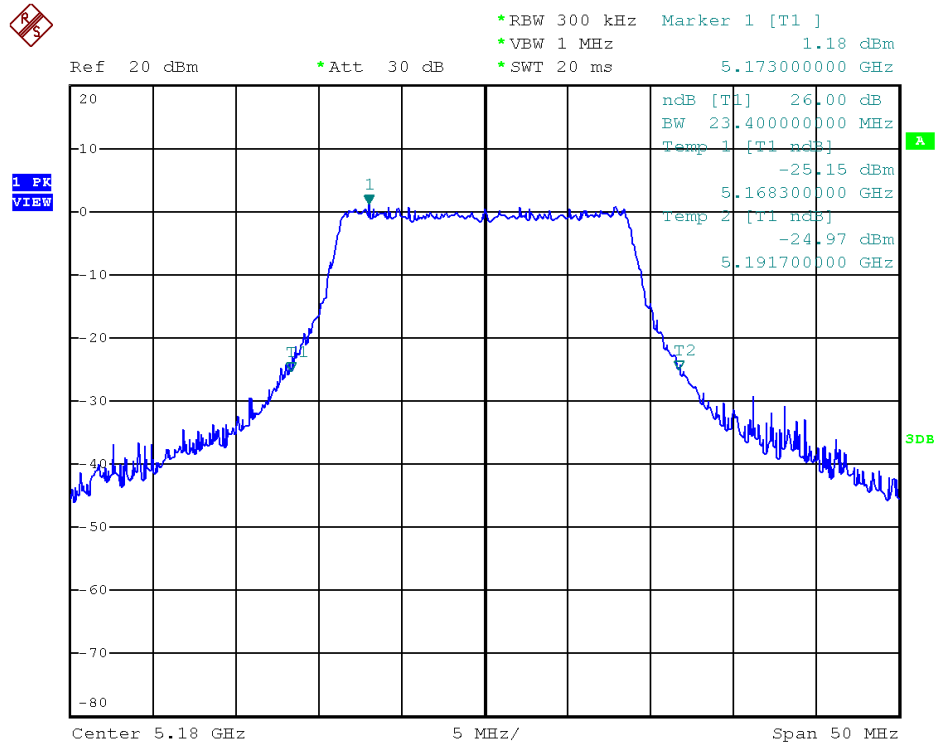
Modulation Standard: 802.11a (6Mbps)
Channel: 44



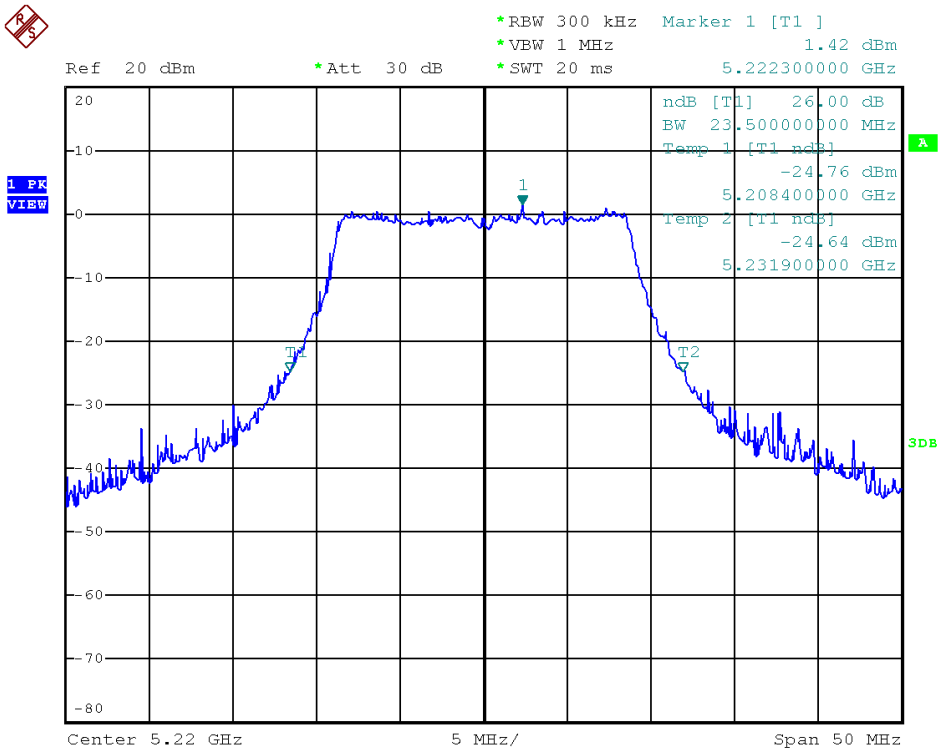
Modulation Standard: 802.11a (6Mbps)
Channel: 48



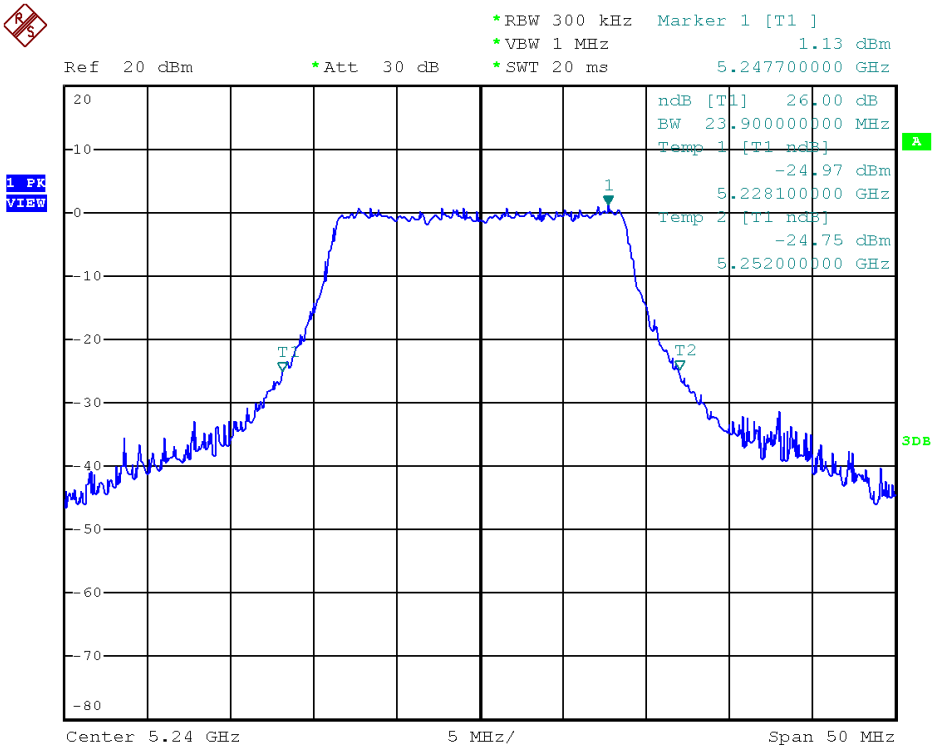
Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 36



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 44



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 48

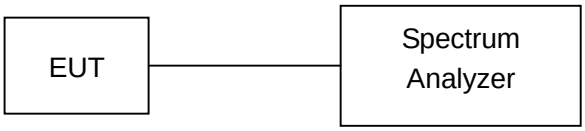


7. Peak Power Excursion

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	100047	2014/03/27	2015/03/26

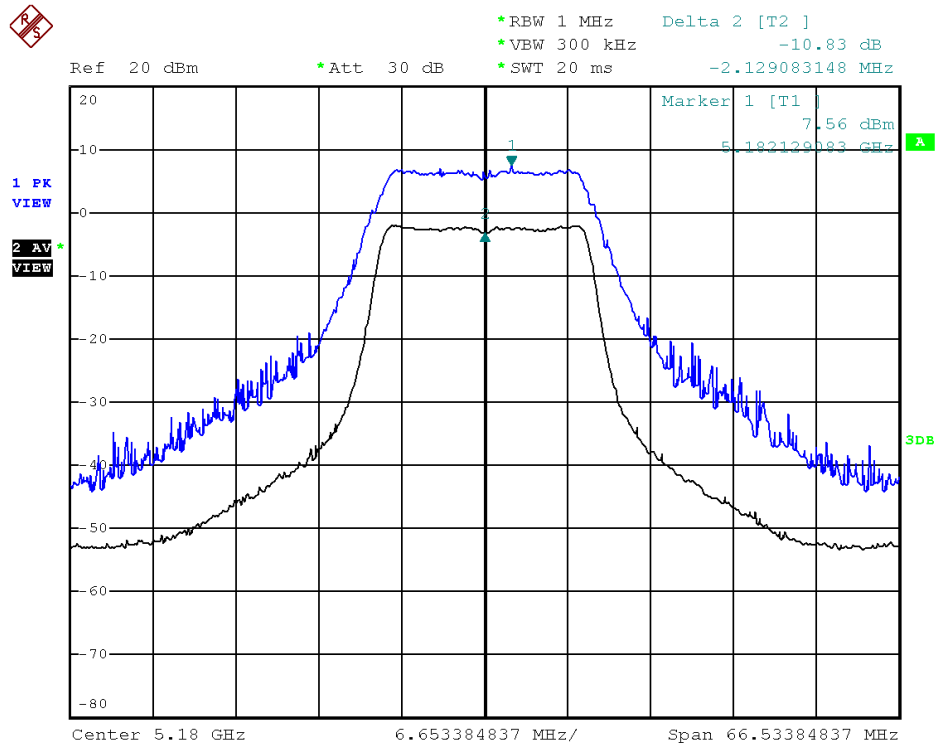
7.4. Test Result and Data

Test Date: Sep. 30, 2014 Temperature: 25℃

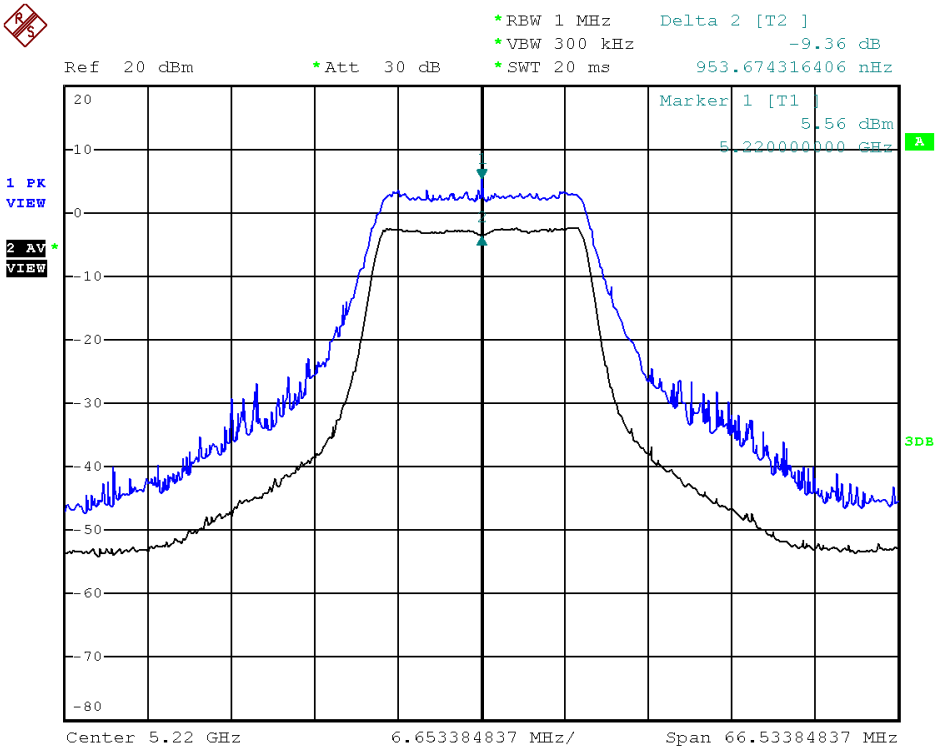
Atmospheric pressure: 1056 hPa Humidity: 52%

Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)	Limit (dB)
802.11a (6Mbps)	36	5180	10.83	13
	44	5220	9.36	13
	48	5240	7.46	13
802.11an HT20 (6.5Mbps)	36	5180	6.87	13
	44	5220	7.61	13
	48	5240	7.67	13

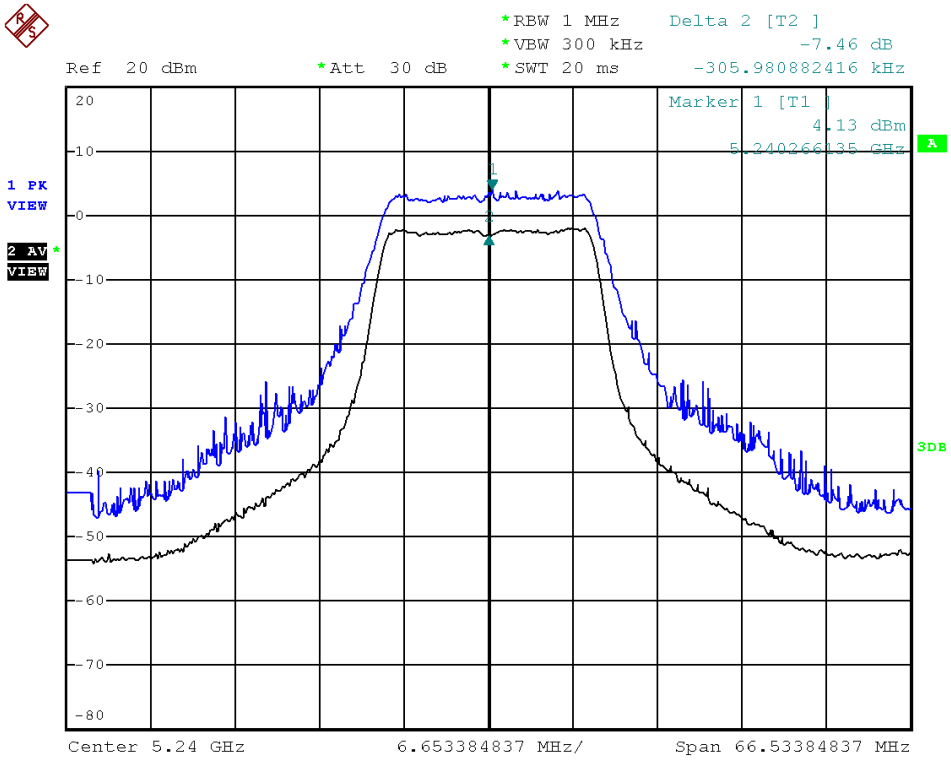
Modulation Standard: 802.11a (6Mbps)
Channel: 36



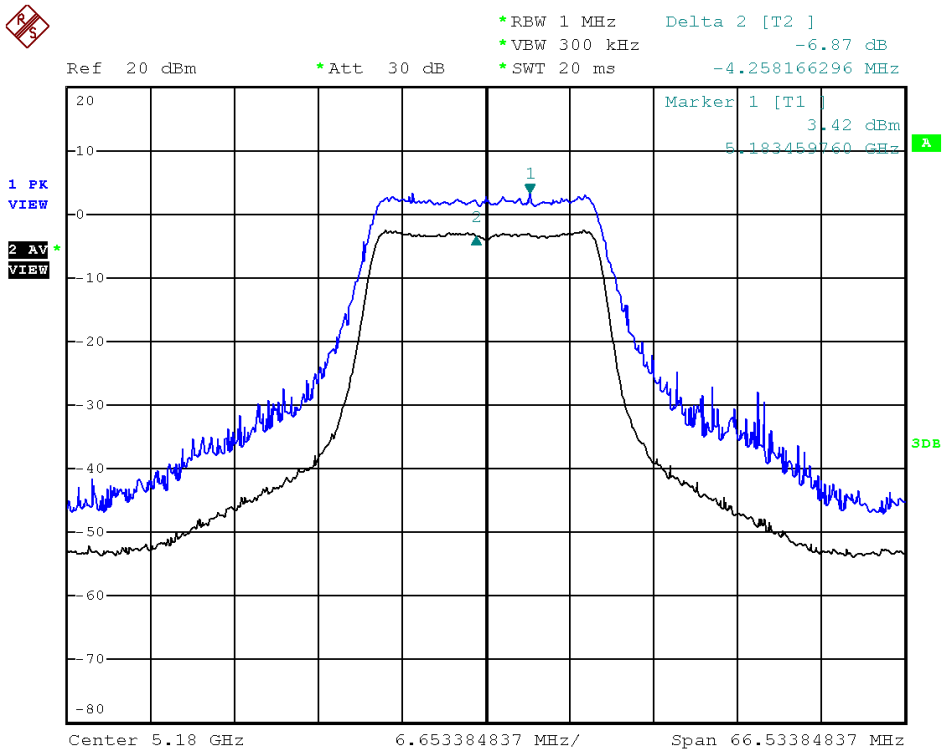
Modulation Standard: 802.11a (6Mbps)
Channel: 44



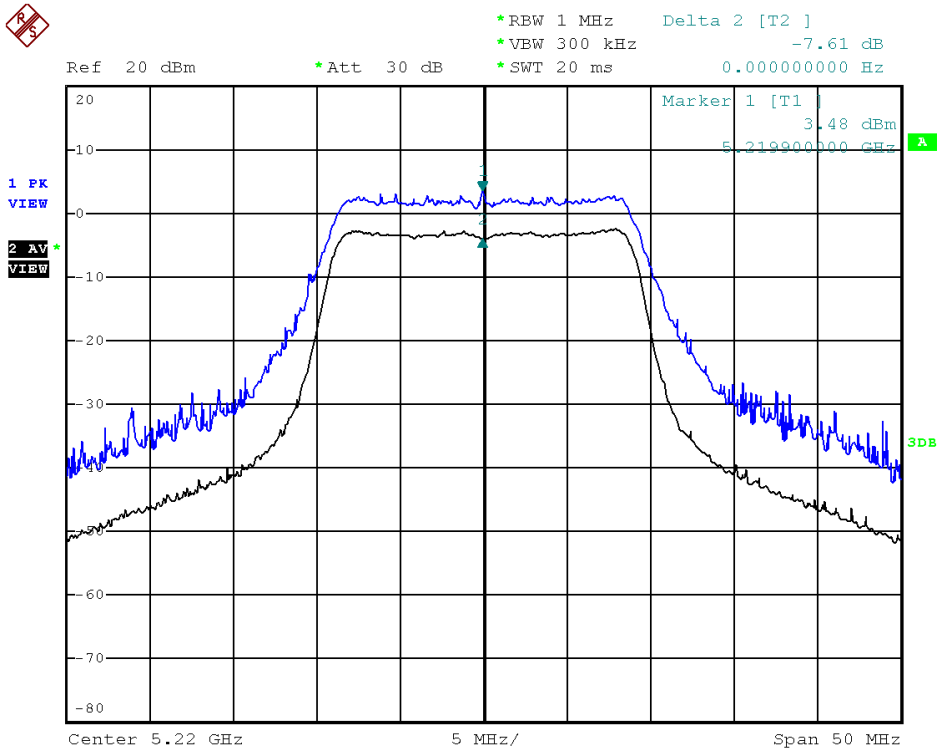
Modulation Standard: 802.11a (6Mbps)
Channel: 48



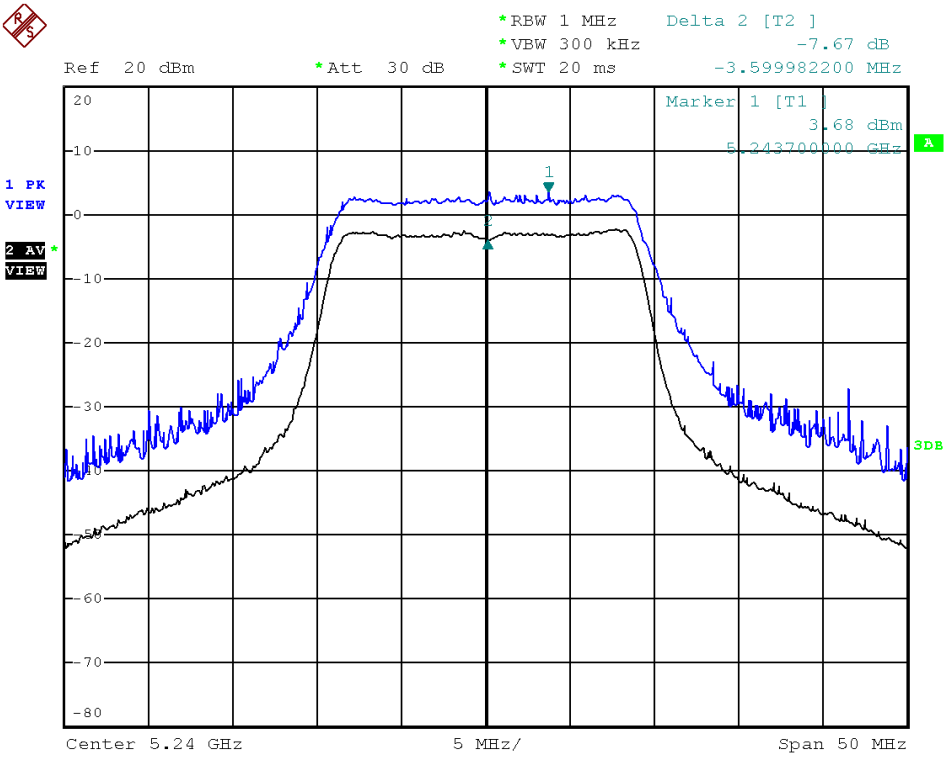
Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 36



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 44



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 48

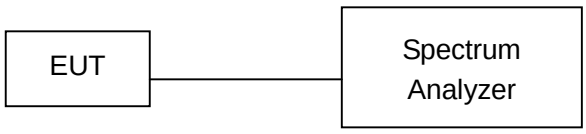


8. Peak Power Spectral Density

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	100047	2014/03/27	2015/03/26

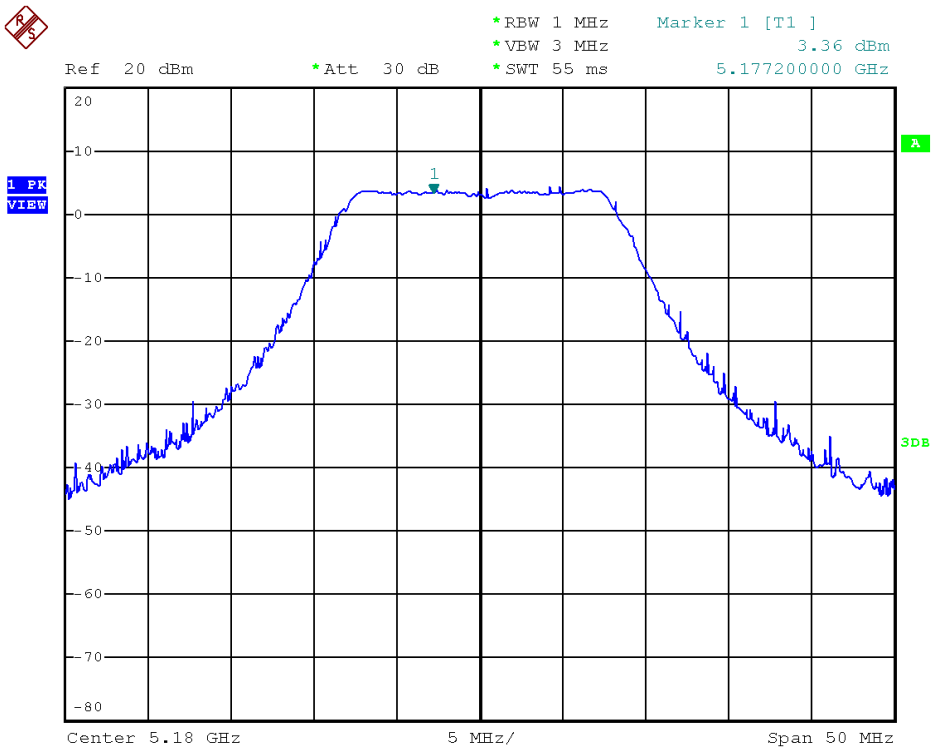
8.4. Test Result and Data

Test Date: Sep. 30, 2014 Temperature: 25℃

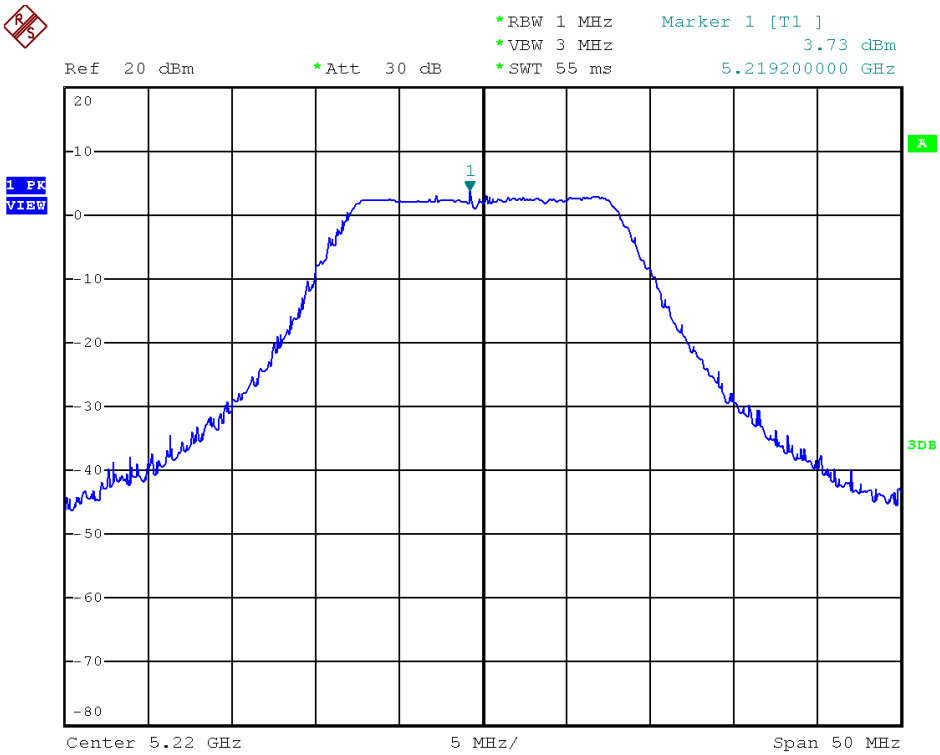
Atmospheric pressure: 1056 hPa Humidity: 52%

Modulation Standard	Channel	Frequency (MHz)	RF Power Level In 1MHz BW (dBm)	Limit (dB)
802.11a (6Mbps)	36	5180	3.36	5.15 – 5.25 GHz: 4
	44	5220	3.73	
	48	5240	3.88	
802.11an HT20 (6.5Mbps)	36	5180	3.00	5.15 – 5.25 GHz: 4
	44	5220	3.27	
	48	5240	3.69	

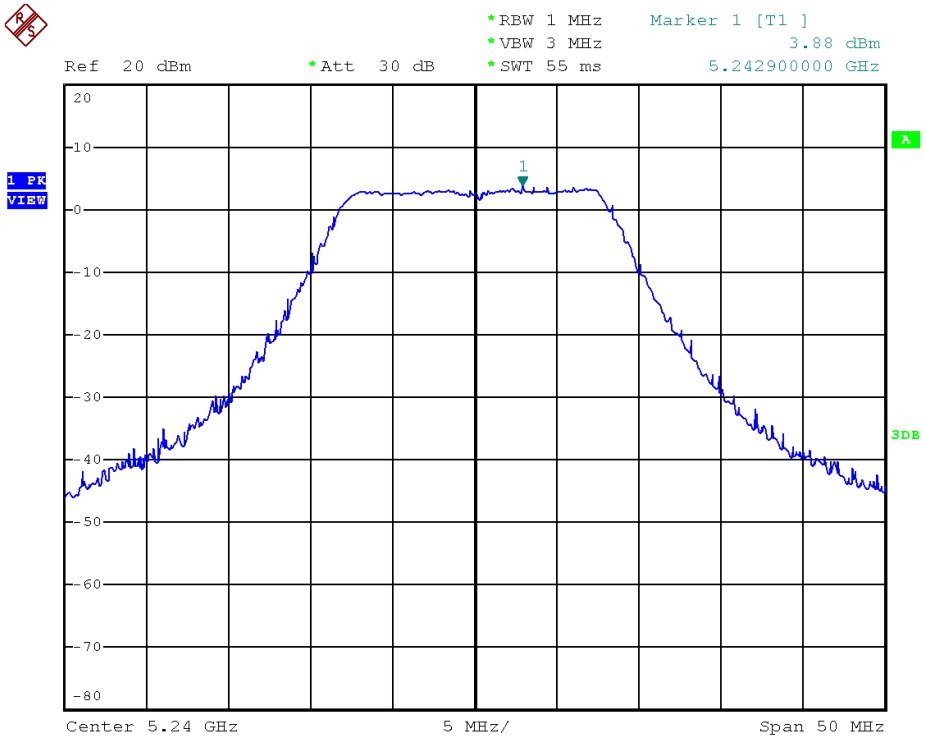
Modulation Standard: 802.11a (6Mbps)
Channel: 36



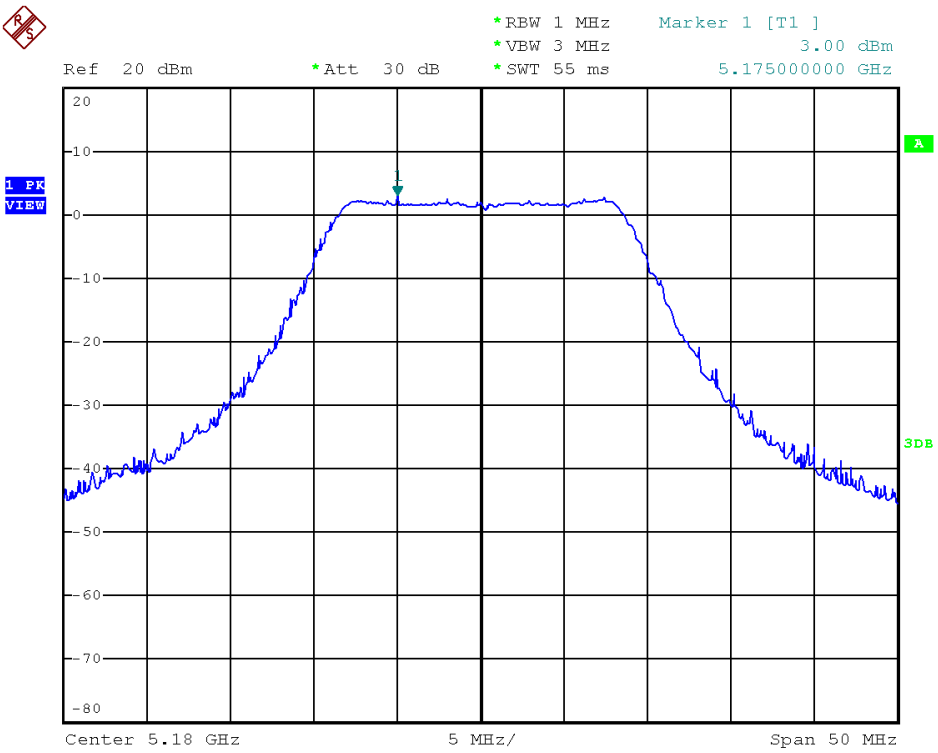
Modulation Standard: 802.11a (6Mbps)
Channel: 44



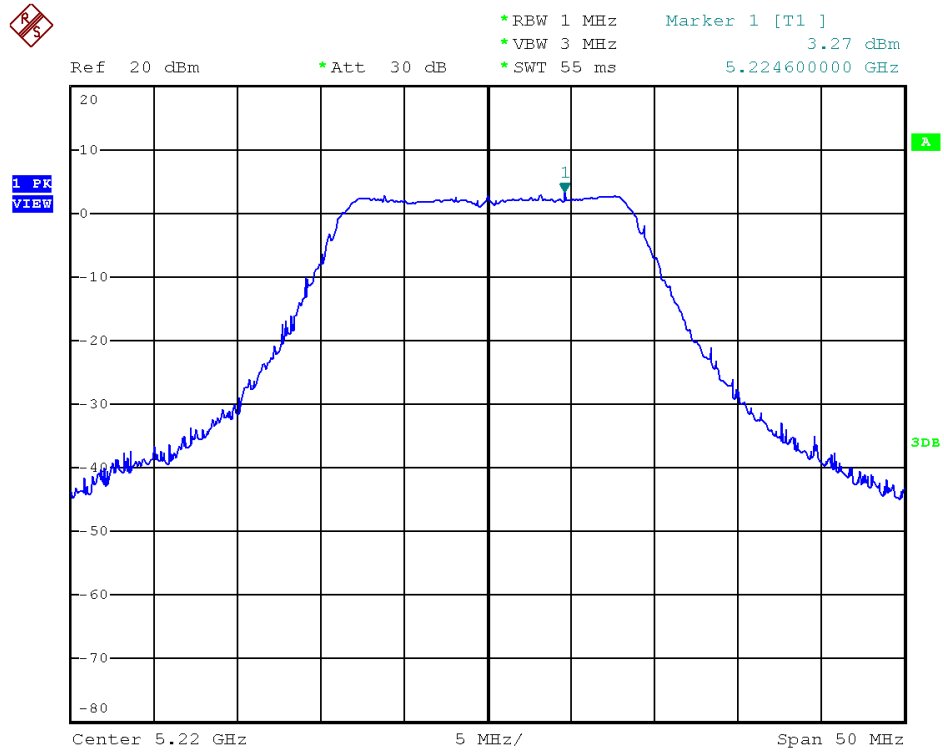
Modulation Standard: 802.11a (6Mbps)
Channel: 48



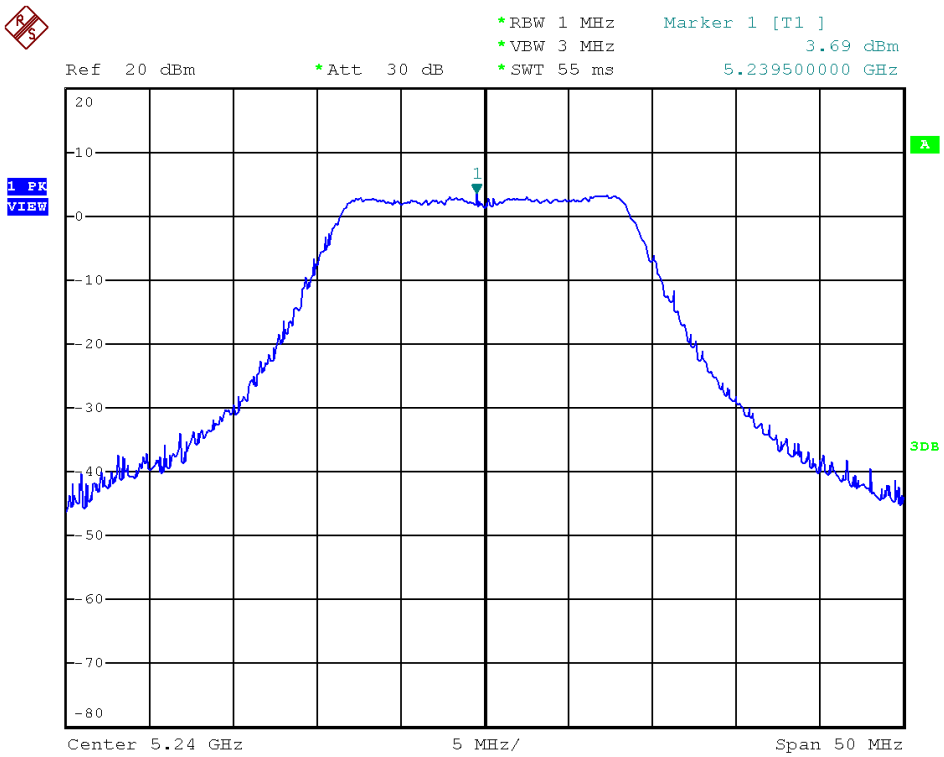
Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 36



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 44



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 48

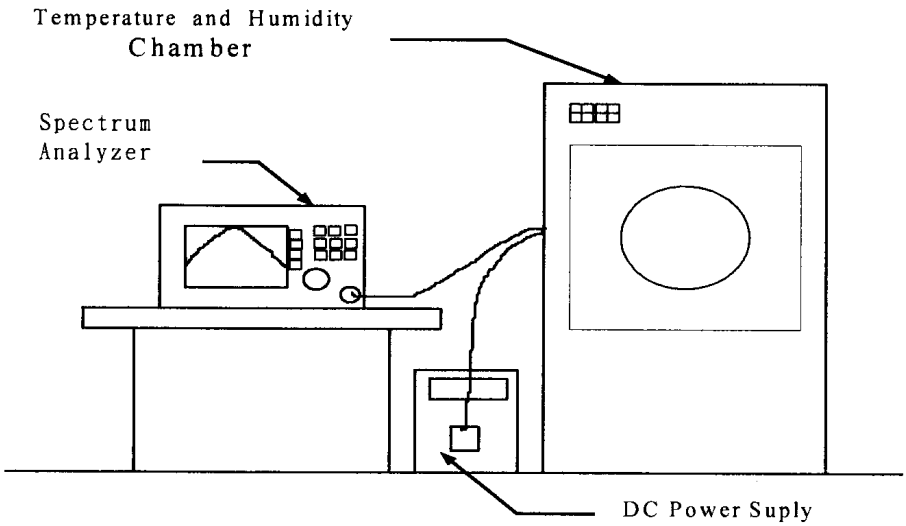


9. Frequency Stability

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	2014/03/27	2015/03/26
TEMPERATURE CHAMBER	TERCHY	MHK-120NK	1010407	2014/04/22	2015/04/21
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: Sep. 30, 2014 Temperature: 25℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Operating Frequency: 5180 MHz

Temp (°C)	Power supply (V)	2 minute		2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
	108	5180.0789	0.001523	5180.0789	0.001523	5179.9808	-0.000371	5179.9802	-0.000382
	120	5179.9998	-0.000004	5179.9998	-0.000004	5179.9850	-0.000290	5179.9826	-0.000336
50	132	5179.9931	-0.000133	5179.9931	-0.000133	5179.9902	-0.000189	5179.9882	-0.000228
	108	5179.9899	-0.000195	5179.9899	-0.000195	5179.9878	-0.000236	5179.9884	-0.000224
	120	5179.9921	-0.000153	5179.9921	-0.000153	5179.9886	-0.000220	5179.9884	-0.000224
40	132	5179.9898	-0.000197	5179.9898	-0.000197	5179.9884	-0.000224	5179.9888	-0.000216
	108	5179.9484	-0.000996	5179.9484	-0.000996	5179.9482	-0.001000	5179.9484	-0.000996
	120	5179.9490	-0.000985	5179.9490	-0.000985	5179.9495	-0.000975	5179.9484	-0.000996
30	132	5179.9484	-0.000996	5179.9484	-0.000996	5179.9488	-0.000988	5179.9494	-0.000977
	108	5179.9384	-0.001189	5179.9384	-0.001189	5179.9392	-0.001174	5179.9388	-0.001181
	120	5179.9392	-0.001174	5179.9392	-0.001174	5179.9386	-0.001185	5179.9394	-0.001170
20	132	5179.9388	-0.001181	5179.9388	-0.001181	5179.9388	-0.001181	5179.9396	-0.001166
	108	5179.9502	-0.000961	5179.9502	-0.000961	5179.9492	-0.000981	5179.9502	-0.000961
	120	5179.9500	-0.000965	5179.9500	-0.000965	5179.9496	-0.000973	5179.9490	-0.000985
10	132	5179.9498	-0.000969	5179.9498	-0.000969	5179.9490	-0.000985	5179.9494	-0.000977
	108	5179.9776	-0.000432	5179.9776	-0.000432	5179.9760	-0.000463	5179.9734	-0.000514
	120	5179.9706	-0.000568	5179.9706	-0.000568	5179.9706	-0.000568	5179.9690	-0.000598
0	132	5179.9674	-0.000629	5179.9674	-0.000629	5179.9672	-0.000633	5179.9664	-0.000649
	108	5179.9778	-0.000429	5179.9778	-0.000429	5179.9774	-0.000436	5179.9776	-0.000432
	120	5179.9780	-0.000425	5179.9780	-0.000425	5179.9780	-0.000425	5179.9774	-0.000436
-10	132	5179.9790	-0.000405	5179.9790	-0.000405	5179.9792	-0.000402	5179.9806	-0.000375
	108	5179.9828	-0.000332	5179.9828	-0.000332	5179.9820	-0.000347	5179.9822	-0.000344
	120	5179.9826	-0.000336	5179.9826	-0.000336	5179.9812	-0.000363	5179.9808	-0.000371
-20	132	5179.9838	-0.000313	5179.9838	-0.000313	5179.9240	-0.001467	5179.9838	-0.000313
	108	5179.9848	-0.000293	5179.9848	-0.000293	5179.9890	-0.000212	5179.9853	-0.000284
	120	5179.9844	-0.000301	5179.9844	-0.000301	5179.9844	-0.000301	5179.9842	-0.000305
-30	132	5179.5000	-0.009653	5179.5000	-0.009653	5179.9842	-0.000305	5179.9846	-0.000297

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	100047	2014/03/27	2015/03/26

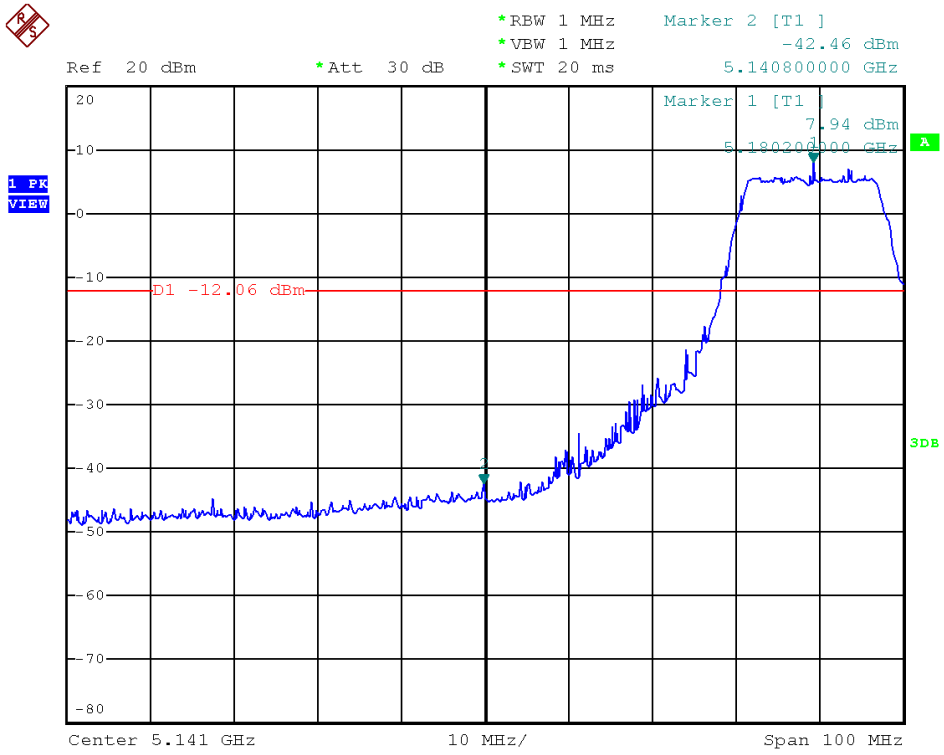
10.3. Test Result and Data

Test Date: Sep. 22, 2014 Temperature: 25℃

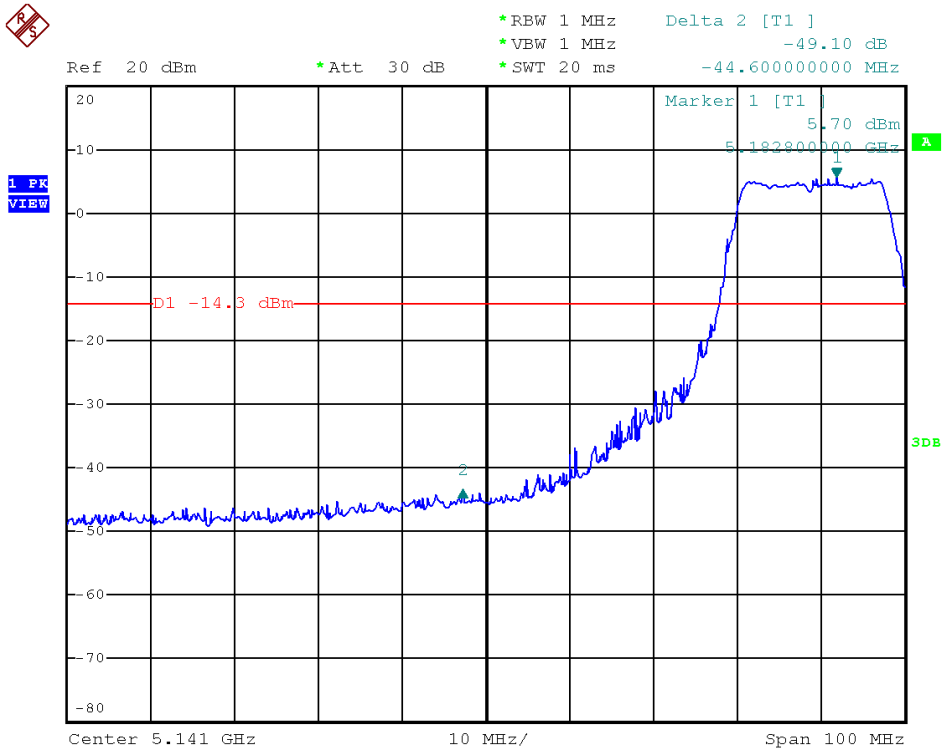
Atmospheric pressure: 1020 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	maximum value in frequency (MHz)	maximum value (dBm)
802.11a (6Mbps)	36	5180	5140.8000	-42.46
802.11an HT20 (6.5Mbps)	36	5180	5182.8000	-49.10

Modulation Standard: 802.11a (6Mbps)
Channel: 36



Modulation Standard: 802.11an, HT20 (6.5Mbps)
Channel: 36



10.4. Restrict Band Emission Measurement Data

Test Date: Sep. 23, 2014 Temperature: 25℃

Atmospheric pressure: 1020 hPa Humidity: 65%

Modulation Standard: IEEE 802.11a (6Mbps)

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			
5159.5	V	60.82	8.29	69.11	Peak	74	54	-4.89	168	1.00
5159.5	V	42.59	8.29	50.88	Ave	74	54	-3.12	168	1.00
5158.6	H	56.42	8.29	64.71	Peak	74	54	-9.29	173	1.04
5158.6	H	42.01	8.29	50.30	Ave	74	54	-3.70	173	1.04
Channel 48										Fundamental Frequency: 5240 MHz
5260.130	V	60.15	8.53	68.68	Peak	74	54	-5.32	166	1.03
5260.130	V	42.25	8.53	50.78	Ave	74	54	-3.22	166	1.03
5261.340	H	57.68	8.55	66.23	Peak	74	54	-7.77	175	1.05
5261.340	H	42.40	8.55	50.95	Ave	74	54	-3.05	175	1.05

Modulation Standard: IEEE 802.11an, HT20 (6Mbps)

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			
5159.200	V	59.93	8.29	68.22	Ave	74	54	-5.78	177	1.03
5159.200	V	42.63	8.29	50.92	Peak	74	54	-3.08	177	1.03
5160.100	H	59.91	8.29	68.20	Ave	74	54	-5.80	164	1.07
5160.100	H	42.42	8.29	50.71	Ave	74	54	-3.29	164	1.07
Channel 48										Fundamental Frequency: 5240 MHz
5259.360	V	58.94	8.53	67.47	Peak	74	54	-6.53	165	1.06
5259.360	V	42.04	8.53	50.57	Ave	74	54	-3.43	165	1.06
5255.290	H	59.42	8.53	67.95	Peak	74	54	-6.05	173	1.03
5255.290	H	42.48	8.53	50.81	Ave	74	54	-3.19	173	1.03

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.