



FCC TEST REPORT

according to

FCC CFR Title 47 Part 15 Subpart E(15.407)

Applicant	:	ZyXEL Communications Corp.
Address	:	No.2, Gongye E. 9th Road, Hsinchu Science Park, Hsinchu, Taiwan
Manufacturer	:	Wuxi MitraStar Technology Co., Ltd.
Address	:	60#-E, Minshan Road, New District Wuxi, Jiangsu, P.R.China.
Equipment	:	Dual-Band Wireless AC/N VDSL2 Combo WAN Gigabit Gateway with USB
Model No.	:	VMG3925-B10A
FCC ID	:	I88VMG3925-B10A

■ The test result refers exclusively to the test presented test model / sample.,

■ Without written approval of **Cerpass Technology (Suzhou) Co.,Ltd.** 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 Rules and Regulations Part 15. The test report has been issued separately.

■ The test report must not be used by the clients to claim product certification approval by **NVLAP** or any agency of the Government.

Laboratory Accreditation:

☐ Cerpass Technology Corporation Test Laboratory

☒ Cerpass Technology(SuZhou) Co., Ltd.





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History of this test report

Report No.	Issue Date	Description
SEDL1412162	2015-07-14	Initial release



CERTIFICATE OF COMPLIANCE

according to

FCC CFR Title 47 Part 15 Subpart E(15.407)

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Equipment	: Dual-Band Wireless AC/N VDSL2 Combo WAN Gigabit Gateway with USB
Model No.	: VMG3925-B10A
FCC ID	: I88VMG3925-B10A

I HEREBY CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.10**. The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart E (15.407)**

The test was carried out on Jul 14, 2015 at ***Cerpass Technology (Suzhou) Co.,Ltd***

Approved by:

Miro Chueh
EMC/RF Manager



1. Test Configuration of Equipment under Test

1.1 Feature of Equipment under Test

Product	VMG3925-B10A
Power adapter	DSA-18PFG-12 FUS 120150
Frequency Range	802.11a/ac(20MHz): 5180~5240MHz, 5745~5825MHz 802.11ac(40MHz): 5190~5230MHz, 5755~5795MHz 802.11ac(80MHz): 5210MHz, 5775MHz
Channel Number	802.11a /ac(20MHz) : 9 802.11ac(40MHz): 4 802.11ac(80MHz): 2
Type of Modulation	802.11a/g/n/ac: OFDM
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps 802.11ac: up to 1299.9 Mbps
Channel Control	Auto
Antenna Delivery	3*Tx + 3*Rx for 5GHz
Antenna Type	PCB
Peak Antenna Gain	Ant 0: 4.6 dBi for 5.150-5.250GHz; 5.1dBi for 5.745-5.850GHz Ant 1: 3.4dBi for 5.150-5.250GHz; 3.5dBi for 5.745-5.850GHz Ant 2: 2.8 dBi for 5.150-5.250GHz; 3.2dBi for 5.745-5.850GHz Directional Gain: 5.45 dBi for 5.150-5.250GHz; 6.63dBi for 5.745-5.850GHz



802.11a/n(20MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	N/A	N/A	N/A	N/A	N/A	N/A

802.11n(40MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	151	5755 MHz	159	5795 MHz

802.11ac(80MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	155	5775MHz	N/A	N/A	N/A	N/A

Power Parameter Value of the test software

Test Mode	Test Channel	Mimo Mode (Ant 0+1+2)
802.11a	5180	80
	5220	84
	5240	84
	5745	63
	5785	84
	5825	84
802.11ac(20MHz)	5180	76
	5220	84
	5240	84
	5745	62
	5785	84
	5825	84
802.11ac(40MHz)	5190	69
	5230	84
	5755	62
	5795	84
802.11ac(80MHz)	5210	66
	5775	84



The test mode of the test software can support.

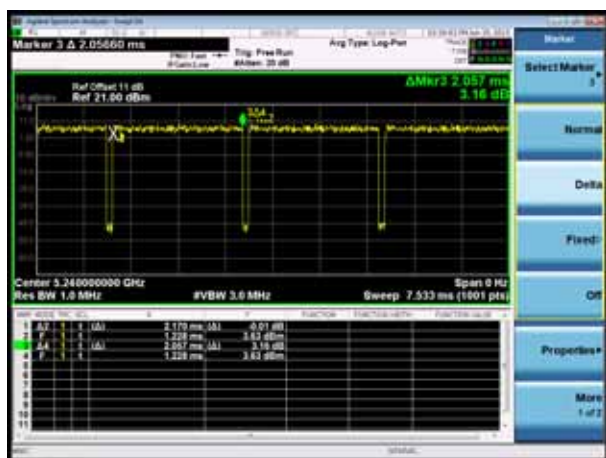
Test Mode	Mimo Mode (Ant 0+1+2)
802.11a	Ant 0/1/2
802.11ac(20MHz)	√
802.11ac(40MHz)	√
802.11ac(80MHz)	√

Duty Cycle

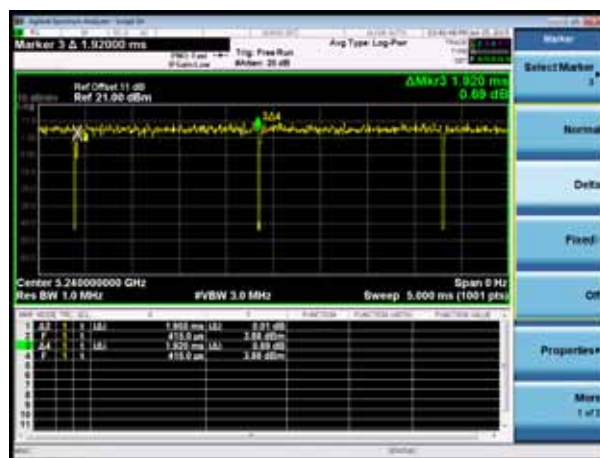
Test Mode	Frequency (MHz)	Duty Cycle
802.11a	5240	95%
802.11ac(20MHz)	5240	98%
802.11ac(40MHz)	5230	94%
802.11ac(80MHz)	5210	92%



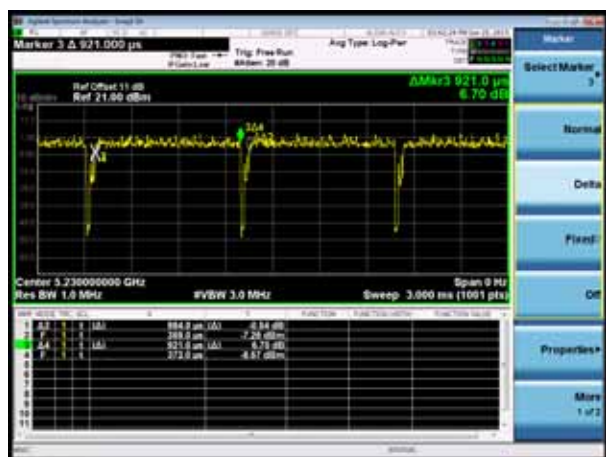
Transmit at channel 48 by 802.11a



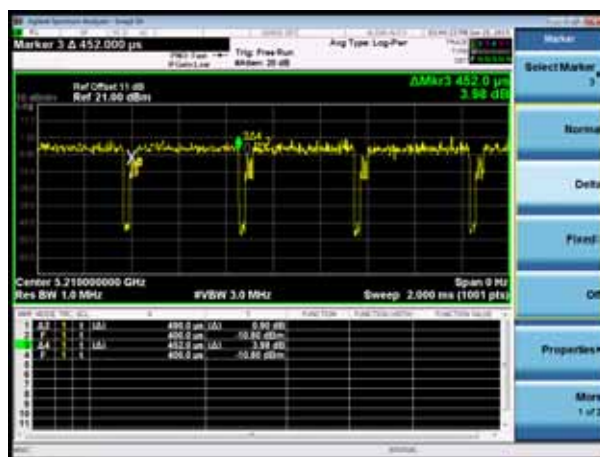
Transmit at channel 48 by 802.11 ac(20MHz)



Transmit at channel 46 by 802.11 ac(40MHz)



Transmit at channel 46 by 802.11 ac(80MHz)





1.2 Test Manner

Test Manner	
a	During testing, the interface cables and equipment positions were varied according to ANSI C63.10
b	Adjust the EUT at the test mode and the test channel. Then test.

Test Mode
Mode 1: Transmit by 802.11 a (Ant 0/1/2)
Mode 2: Transmit by 802.11ac (20MHz) (Ant 0+1+2)
Mode 3: Transmit by 802.11ac (40MHz) (Ant 0+1+2)
Mode 4: Transmit by 802.11ac (80MHz) (Ant 0+1+2)

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.



2. Technical Test

2.1 Summary of Test Result

☒ No deviations from the test standards

☐ Deviations from the test standards as below description:

FCC Part Section(s)	Test Description	Test Result	Reference
15.407(a)	26dB Bandwidth	Pass	Section 7.2
15.407(e)	6dB Bandwidth	Pass	Section 7.3
15.407(a)(1)(ii), (2), (3)	Maximum Conducted Output Power	Pass	Section 7.4
15.407(h)(1)	Transmit Power Control	Pass	Section 7.5
15.407(a)(1)(ii), (2), (3), (5)	Peak Power Spectral Density	Pass	Section 7.6
15.407(g)	Frequency Stability	Pass	Section 7.7
15.407(b)(1), (2), (3), (4)	Undesirable Emissions	Pass	Section 7.8 & 7.9
15.205, 15.209 15.407(b)(5), (6), (7)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Pass	Section 7.8 & 7.9
15.207	AC Conducted Emissions 150kHz - 30MHz	Pass	Section 7.10

2.2 General Information of Test

Test Site	Cerpass Technology (Suzhou) Co.,Ltd
Test Site Location	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China
NVLAP LAB Code	200814-0
FCC Registration Number	916572, 331395
IC Registration Number	7290A-1, 7290A-2
VCCI Registration Number	T-1945 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test below 1GHz G-227 for Radiated emission test above 1GHz



Frequency Range Investigated	Conducted: from 150kHz to 30MHz Radiation: from 30MHz to 25000MHz
Test Distance	The test distance of radiated emission from antenna to EUT is 3 M.

2.3 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	±2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	±4.11 dB
		Horizontal	±4.10 dB
Occupied Bandwidth	---	---	±7500 Hz
Maximum Peak Output Power	---	---	±1.4 dB
Conducted Band Edges	---	---	±2.2 dB
Power Spectral Density	---	---	±2.2 dB



3. Test of Conducted Emission

3.1 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 C63.10-2013 Section 6.2. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 6.2.2. 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)	AVG (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

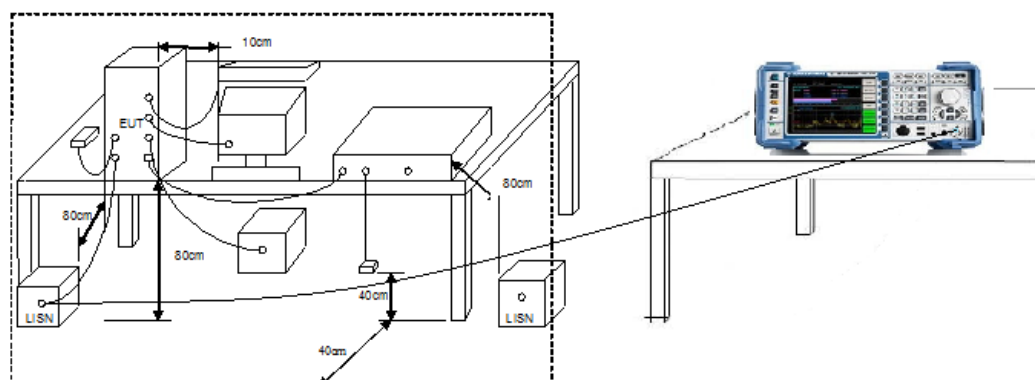
*Decreases with the logarithm of the frequency.

3.2 Test Procedures

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of Oct 2014 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.



3.3 Typical Test Setup



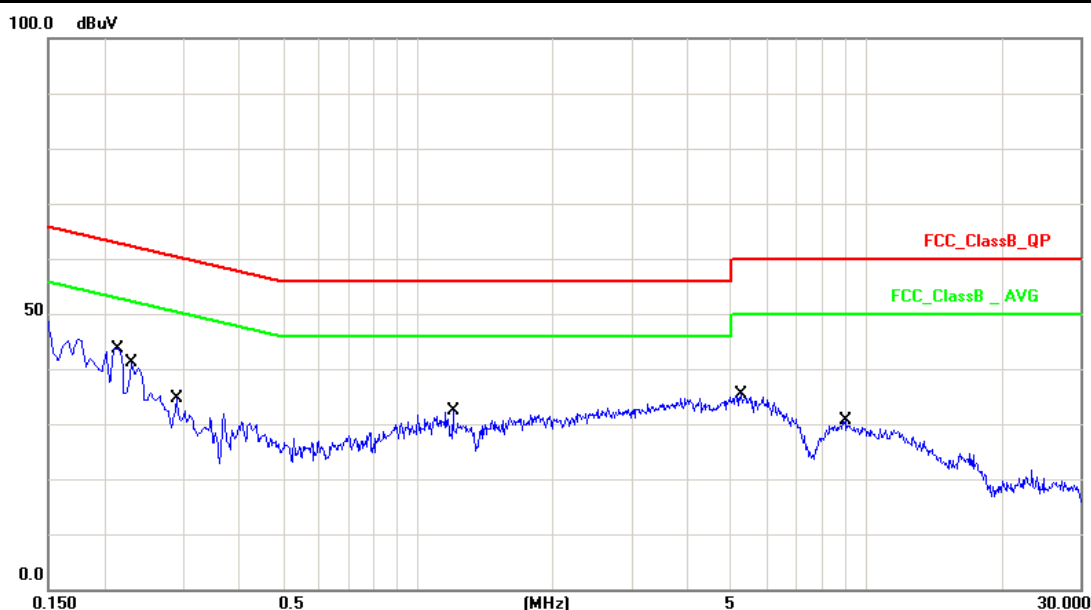
3.4 Measurement Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
Test Receiver	R&S	ESCI	100565	2015.03.24	2016.03.23
AMN	R&S	ESH2-Z5	100182	2014.09.04	2015.09.03
Two-Line V-Network	R&S	ENV216	100325	2014.12.04	2015.12.03
ISN	FCC	FCC-TLISN-T2-02	20379	2015.03.24	2016.03.23
ISN	FCC	FCC-TLISN-T4-02	20380	2015.03.24	2016.03.23
ISN	FCC	FCC-TLISN-T8-02	20381	2015.03.24	2016.03.23
ISN	TESEQ	ISN ST08	30175	2015.03.24	2016.03.23
Current Probe	R&S	EZ-17	100303	2015.04.04	2016.04.03
Passive Voltage Probe	R&S	ESH2-Z3	100026	2015.03.29	2016.03.28
Pulse Limiter	R&S	ESH3-Z2	100529	2015.03.29	2016.03.28
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2015.03.31	2016.03.30



3.5 Test Result and Data

Test Mode :	Mode 1: Normal Operation with wifi on		
AC Power :	AC 120V/60Hz	Phase :	LINE
Temperature :	22°C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/06/15

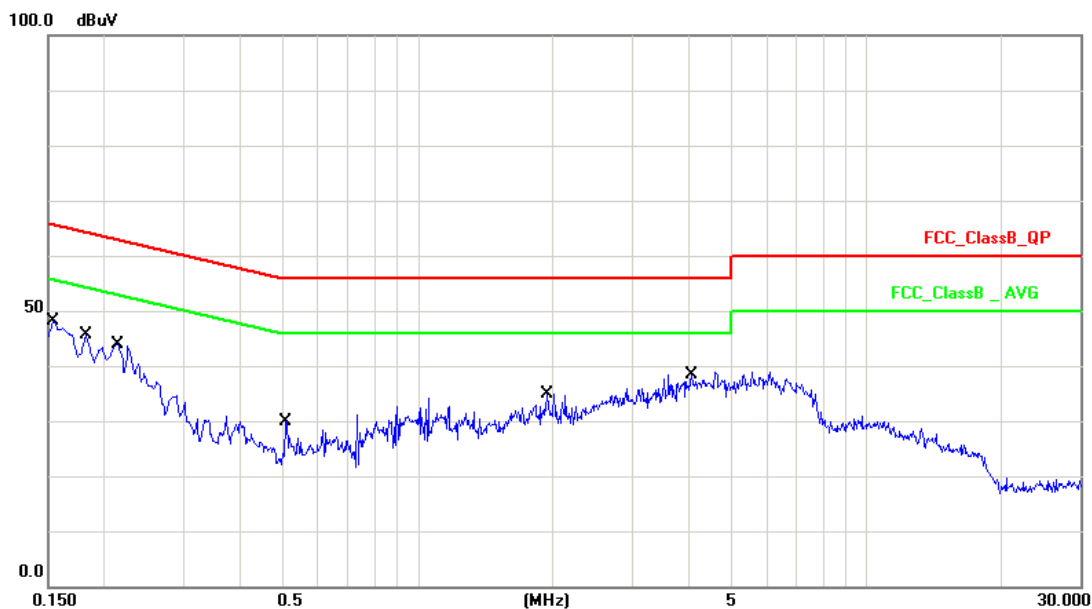


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2140	10.12	28.51	38.63	63.04	-24.41	QP
2	0.2140	10.12	18.68	28.80	53.04	-24.24	AVG
3	0.2300	10.12	27.83	37.95	62.45	-24.50	QP
4	0.2300	10.12	21.12	31.24	52.45	-21.21	AVG
5	0.2900	10.14	20.05	30.19	60.52	-30.33	QP
6	0.2900	10.14	12.85	22.99	50.52	-27.53	AVG
7	1.1980	10.16	14.32	24.48	56.00	-31.52	QP
8	1.1980	10.16	7.89	18.05	46.00	-27.95	AVG
9	5.2500	10.24	20.81	31.05	60.00	-28.95	QP
10	5.2500	10.24	15.56	25.80	50.00	-24.20	AVG
11	8.9780	10.26	15.98	26.24	60.00	-33.76	QP
12	8.9780	10.26	11.14	21.40	50.00	-28.60	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Normal Operation with wifi on		
AC Power :	AC 120V/60Hz	Phase :	NEUTRAL
Temperature :	22°C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/06/15



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1540	10.13	32.64	42.77	65.78	-23.01	QP
2	0.1540	10.13	15.07	25.20	55.78	-30.58	AVG
3	0.1820	10.13	28.75	38.88	64.39	-25.51	QP
4	0.1820	10.13	14.89	25.02	54.39	-29.37	AVG
5	0.2140	10.13	29.78	39.91	63.05	-23.14	QP
6	0.2140	10.13	19.88	30.01	53.05	-23.04	AVG
7	0.5100	10.15	11.30	21.45	56.00	-34.55	QP
8	0.5100	10.15	3.99	14.14	46.00	-31.86	AVG
9	1.9460	10.18	17.35	27.53	56.00	-28.47	QP
10	1.9460	10.18	11.71	21.89	46.00	-24.11	AVG
11	4.0860	10.22	21.79	32.01	56.00	-23.99	QP
12	4.0860	10.22	15.75	25.97	46.00	-20.03	AVG

Note: Measurement Level = Reading Level + Correct Factor



4. Test of Radiated Emission

4.1 Test Limit

4.1.1 Limits of radiated emission

According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/ M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB.

4.1.2 Limits of unwanted emission out of the restricted bands

LIMIT	
Field strength at 3M (dB μ V/ M)	
PK	AV
74	54

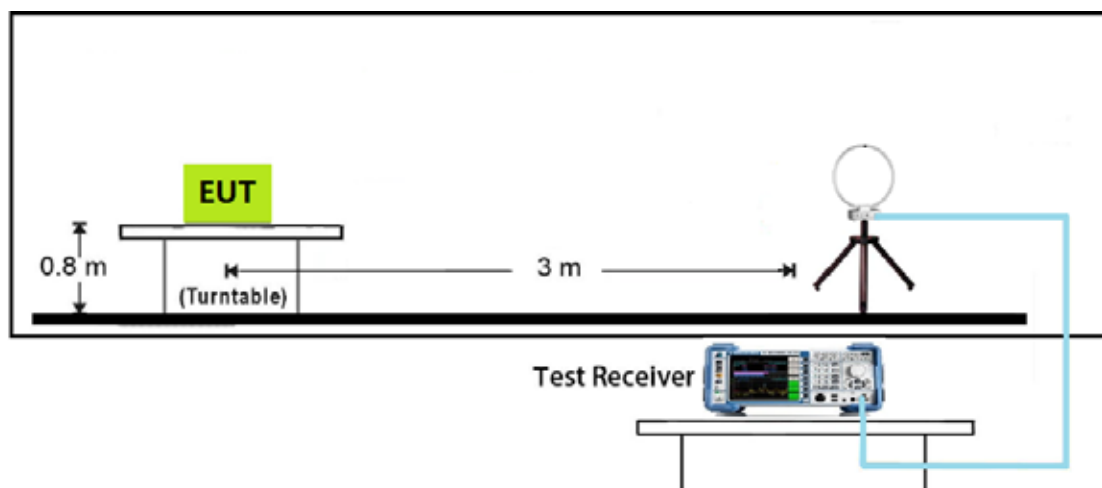


4.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter for frequency below 1GHz and 1.5meter for frequency above 1GHz above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 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.
- 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.

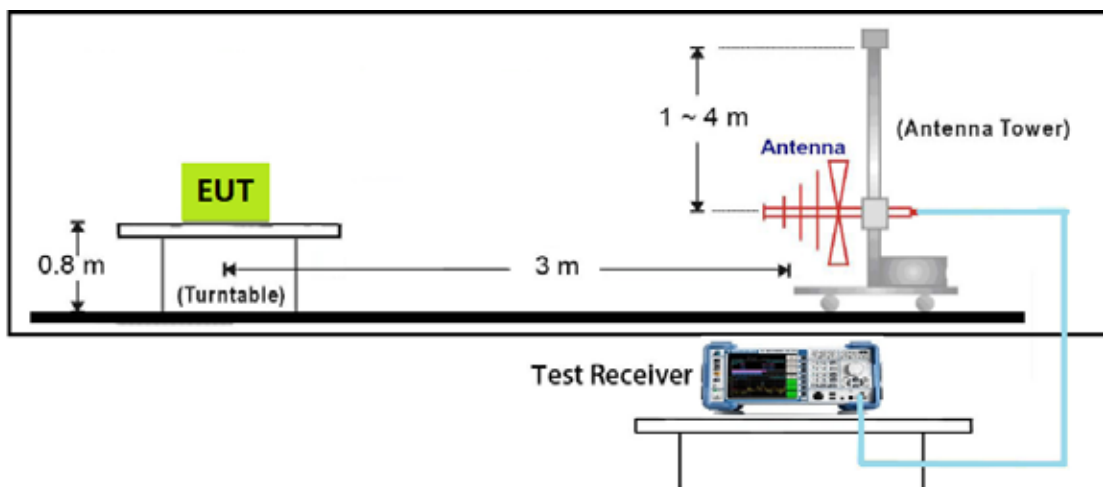
4.3 Typical Test Setup

9kHz~30MHz Test Setup

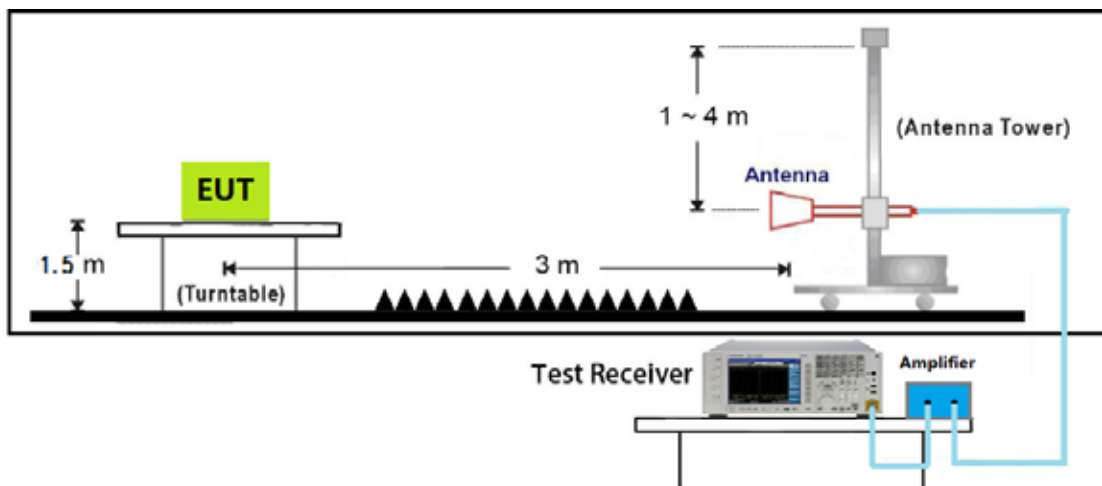




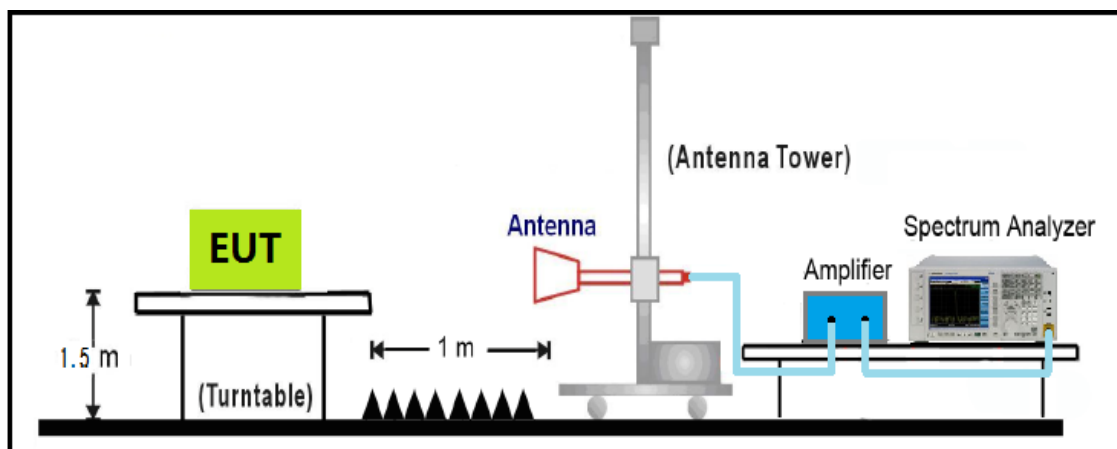
Below 1GHz Test Setup



1GHz~18GHz Test Setup



18GHz~40GHz Test Setup





4.4 Measurement equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Test Receiver	R&S	ESCI	100563	2015.03.10	2016.03.09
H64 Preamplifier	HP	8447F	3113A05582	2015.03.10	2016.03.09
Preamplifier	COM-POWER	PA-840	711885	2015.03.24	2016.03.23
Preamplifier	Agilent	8449B	3008A02342	2015.03.10	2016.03.09
Ultra Broadband Antenna	R&S	HL562	100362	2015.05.03	2016.05.02
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2015.05.03	2016.05.02
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-347	2015.05.03	2016.05.02
Spectrum Analyzer	Agilent	E4407B	MY44211883	2014.09.25	2015.09.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2015.03.10	2016.03.09

**Test Result and Data****Under 1G:**

Engineer :Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Normal Link

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	88.2000	-15.37	47.58	32.21	43.50	-11.29	QP	H
2	143.4900	-7.77	39.55	31.78	43.50	-11.72	QP	H
3	239.5200	-11.74	45.03	33.29	46.00	-12.71	QP	H
4	311.3000	-7.13	40.37	33.24	46.00	-12.76	QP	H
5	335.5500	-6.5	41.06	34.56	46.00	-11.44	QP	H
6	383.0799	-6.81	41.99	35.18	46.00	-10.82	QP	H

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	30.9699	-2.85	31.58	28.73	40.00	-11.27	QP	V
2	71.7099	-14.06	40.36	26.3	40.00	-13.7	QP	V
3	157.0699	-7.53	39.87	32.34	43.50	-11.16	QP	V
4	287.0500	-8.73	43.25	34.52	46.00	-11.48	QP	V
5	383.0799	-6.81	41.88	35.07	46.00	-10.93	QP	V
6	720.6399	1.39	33.62	35.01	46.00	-10.99	QP	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Above 1G:

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 a (Ant 0/1/2) (5180MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10360.00	19.17	31.05	50.22	74.00	-23.78	peak	H
2	15540.00	22.88	24.43	47.31	74.00	-26.69	peak	H
3	10360.00	19.17	30.32	49.49	74.00	-24.51	peak	V
4	15540.00	22.88	27.12	50.00	74.00	-24.00	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 a (Ant 0/1/2) (5220MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10440.00	19.43	28.04	47.47	74.00	-26.53	peak	H
2	15660.00	22.43	26.27	48.70	74.00	-25.30	peak	H
3	10440.00	19.43	27.43	46.86	74.00	-27.14	peak	V
4	15660.00	22.43	28.97	51.40	74.00	-22.60	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 a (Ant 0/1/2) (5240MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10480.00	19.56	25.52	45.08	74.00	-28.92	peak	H
2	15720.00	22.20	24.64	46.84	74.00	-27.16	peak	H
3	10480.00	19.56	28.12	47.68	74.00	-26.32	peak	V
4	15720.00	22.20	28.19	50.39	74.00	-23.61	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 a (Ant 0/1/2) (5745MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11490.000	20.27	25.36	45.63	74.00	-28.37	peak	H
2	17235.000	29.32	17.58	46.90	74.00	-27.10	peak	H
3	11490.000	20.27	24.10	44.37	74.00	-29.63	peak	V
4	17235.000	29.32	15.58	44.90	74.00	-29.10	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11a Ant 0/1/2) (5785MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11570.000	20.11	21.91	42.02	74.00	-31.98	peak	H
2	17355.000	30.04	16.03	46.07	74.00	-27.93	peak	H
3	11570.000	20.11	23.67	43.78	74.00	-30.22	peak	V
4	17355.000	30.04	16.03	46.07	74.00	-27.93	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 a (Ant 0/1/2) (5825MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11650.000	19.95	26.32	46.27	74.00	-27.73	peak	H
2	17475.000	30.76	14.78	45.54	74.00	-28.46	peak	H
3	11650.000	19.95	23.55	43.50	74.00	-30.50	peak	V
4	17475.000	30.76	16.78	47.54	74.00	-26.46	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(20MHz) (Ant 0+1+2) (5180MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10360.00	19.17	25.66	44.83	74.00	-29.17	peak	H
2	15540.00	22.88	28.74	51.62	74.00	-22.38	peak	H
3	10360.00	19.17	29.29	48.46	74.00	-25.54	peak	V
4	15540.00	22.88	24.21	47.09	74.00	-26.91	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(20MHz) (Ant 0+1+2) (5220MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10440.00	19.43	27.42	46.85	74.00	-27.15	peak	H
2	15660.00	22.43	24.57	47.00	74.00	-27.00	peak	H
3	10440.00	19.43	28.96	48.39	74.00	-25.61	peak	V
4	15660.00	22.43	25.06	47.49	74.00	-26.51	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(20MHz) (Ant 0+1+2) (5240MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10480.00	19.56	28.96	48.52	74.00	-25.48	peak	H
2	15720.00	22.20	26.90	49.10	74.00	-24.90	peak	H
3	10480.00	19.56	24.87	44.43	74.00	-29.57	peak	V
4	15720.00	22.20	25.49	47.69	74.00	-26.31	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(20MHz) (Ant 0+1+2) (5745MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11490.000	20.27	21.60	41.87	74.00	-32.13	peak	H
2	17235.000	29.32	14.08	43.40	74.00	-30.60	peak	H
3	11490.000	20.27	25.36	45.63	74.00	-28.37	peak	V
4	17235.000	29.32	15.58	44.90	74.00	-29.10	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(20MHz) (Ant 0+1+2) (5785MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11570.000	20.11	24.67	44.78	74.00	-29.22	peak	H
2	17355.000	30.04	15.03	45.07	74.00	-28.93	peak	H
3	11570.000	20.11	20.91	41.02	74.00	-32.98	peak	V
4	17355.000	30.04	15.03	45.07	74.00	-28.93	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(20MHz) (Ant 0+1+2) (5825MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11650.000	19.95	23.05	43.00	74.00	-31.00	peak	H
2	17475.000	30.76	14.28	45.04	74.00	-28.96	peak	H
3	11650.000	19.95	23.82	43.77	74.00	-30.23	peak	V
4	17475.000	30.76	14.28	45.04	74.00	-28.96	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(40MHz) (Ant 0+1+2) (5190MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10380.00	19.24	27.33	46.57	74.00	-27.43	peak	H
2	15570.00	22.76	25.66	48.42	74.00	-25.58	peak	H
3	10380.00	19.24	29.46	48.70	74.00	-25.30	peak	V
4	15570.00	22.76	26.13	48.89	74.00	-25.11	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(40MHz) (Ant 0+1+2) (5230MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10460.00	19.50	29.48	48.98	74.00	-25.02	peak	H
2	15690.00	22.32	24.28	46.60	74.00	-27.40	peak	H
3	10460.00	19.50	24.82	44.32	74.00	-29.68	peak	V
4	15690.00	22.32	23.16	45.48	74.00	-28.52	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(40MHz) (Ant 0+1+2) (5755MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11510.000	20.23	25.05	45.28	74.00	-28.72	peak	H
2	17265.000	29.50	15.87	45.37	74.00	-28.63	peak	H
3	11510.000	20.23	26.09	46.32	74.00	-27.68	peak	V
4	17235.000	29.32	14.08	43.40	74.00	-30.60	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(40MHz) (Ant 0+1+2) (5795MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11590.000	20.07	23.00	43.07	74.00	-30.93	peak	H
2	17385.000	30.22	14.56	44.78	74.00	-29.22	peak	H
3	11590.000	20.07	26.32	46.39	74.00	-27.61	peak	V
4	17385.000	30.22	17.56	47.78	74.00	-26.22	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11ac(80MHz) (Ant 0+1+2) (5210MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	10420.00	19.37	29.68	49.05	74.00	-24.95	peak	H
2	15630.00	22.54	24.67	47.21	74.00	-26.79	peak	H
3	10420.00	19.37	27.25	46.62	74.00	-27.38	peak	V
4	15630.00	22.54	24.59	47.13	74.00	-26.87	peak	V

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : Transmit by 802.11 ac(80MHz) (Ant 0+1+2) (5795MHz)

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	11550.000	20.15	24.16	44.31	74.00	-29.69	peak	H
2	17325.000	29.86	15.32	45.18	74.00	-28.82	peak	H
3	11550.000	20.15	26.66	46.81	74.00	-27.19	peak	V
4	17325.000	29.86	17.32	47.18	74.00	-26.82	peak	V

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or AVG measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor



Test Result of Radiated Emissions for Co-located

Engineer : Wind	
Site : EMC Lab AC 102	Time : 2015-06-09
Limit : FCC_15_03M_PK	Margin : 6
EUT : VMG3925-B10A	Probe : VERTICAL/ HORIZONTAL
Power : AC 120V/60Hz	Note : 2.4G + 5G Transmit

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	AntPol. H/V
1	1493.000	-4.81	43.11	38.30	74.00	-35.70	peak	H
2	2020.000	-2.63	41.49	38.86	74.00	-35.14	peak	H
3	2462.000	-1.15	41.19	40.04	74.00	-33.96	peak	H
4	1493.000	-4.81	43.76	38.95	74.00	-35.05	peak	V
5	2122.000	-2.29	40.98	38.69	74.00	-35.31	peak	V
6	2479.000	-1.10	41.09	39.99	74.00	-34.01	peak	V



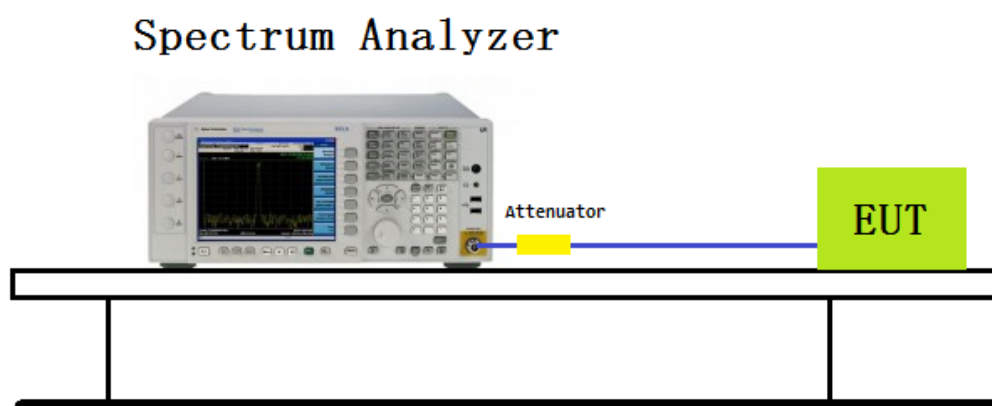
5. Occupied Bandwidth

5.1 Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	Agilent	N9010A	MY53400169	2014.11.03	2016.11.03
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-003	20155.03.31	2016.03.30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

5.2 Test Setup



5.3 Test Limit

N/A



5.4 Test Procedure

The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

Emission Bandwidth

- Use a RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

99% Occupied Bandwidth

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.
- Set RBW = 1 % to 5 % of the OBW.
- Set VBW $\geq 3 \cdot$ RBW.
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99 % power bandwidth function of the instrument (if available).
- If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



5.5 Test Result and Data

Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11a (Ant 0)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.81	16752	Pass
44	5220	20.73	16719	Pass
48	5240	20.80	16721	Pass
149	5745	20.92	16689	Pass

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

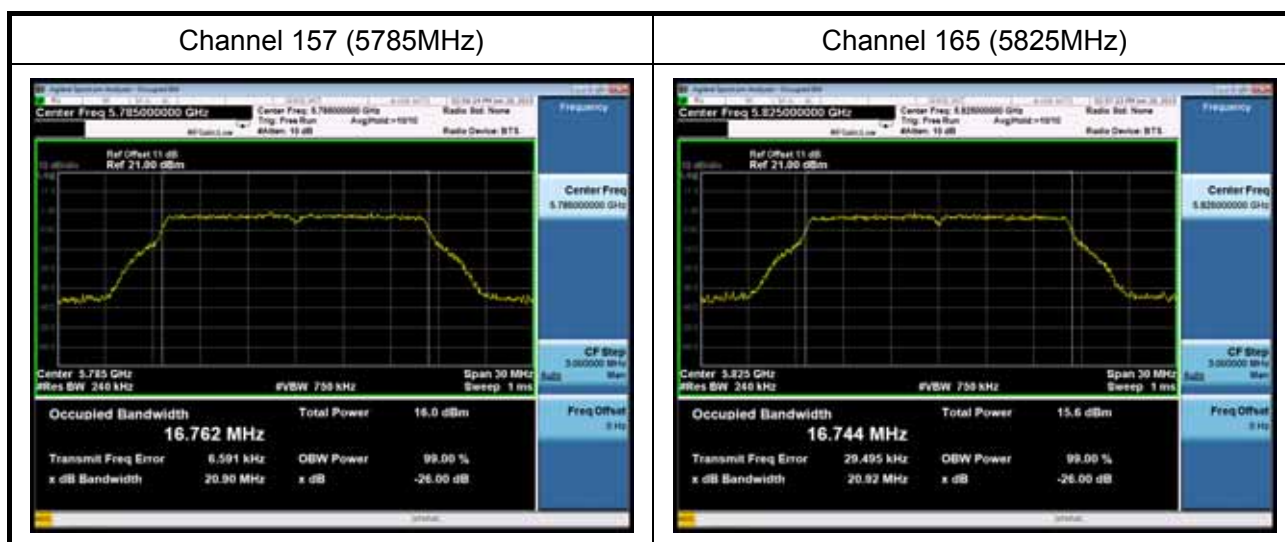


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	20.90	16762	Pass
165	5825	20.92	16744	Pass





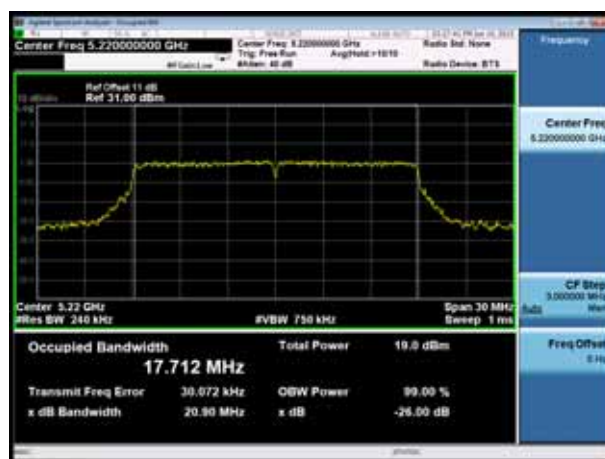
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(20MHz) (Ant 0/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.44	17708	Pass
44	5220	20.90	17712	Pass
48	5240	20.48	17722	Pass
149	5745	20.54	17732	Pass

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

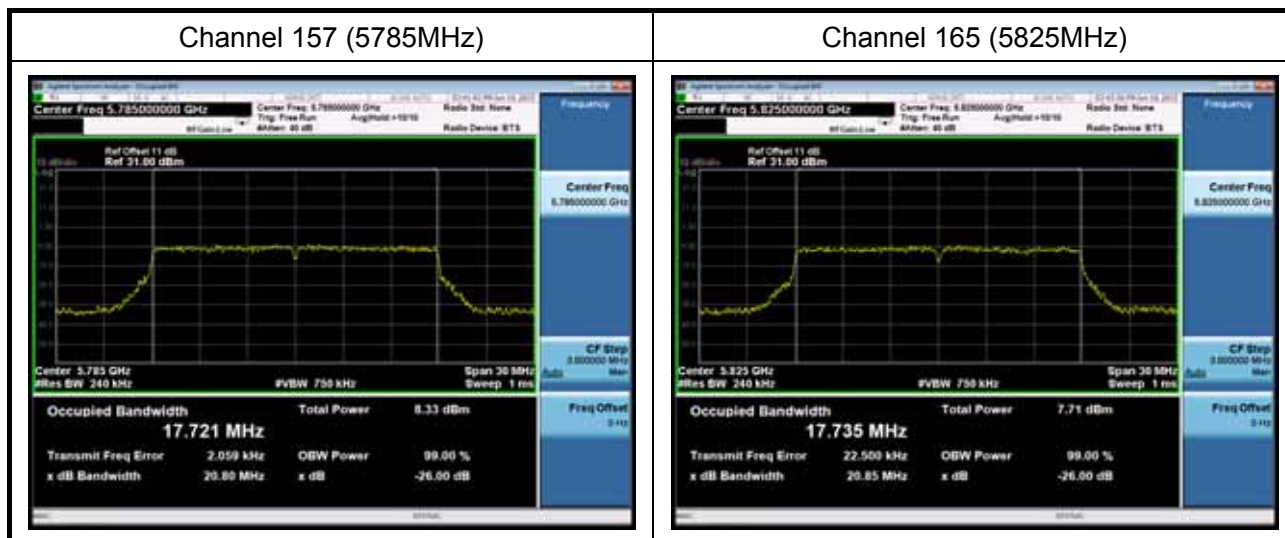


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	20.80	17721	Pass
165	5825	20.85	17735	Pass





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(40MHz)(Ant 0/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
38	5190	39.53	36326	Pass
46	5230	39.47	36365	Pass
151	5755	39.76	36350	Pass
159	5795	39.26	36373	

Channel 38 (5190MHz)



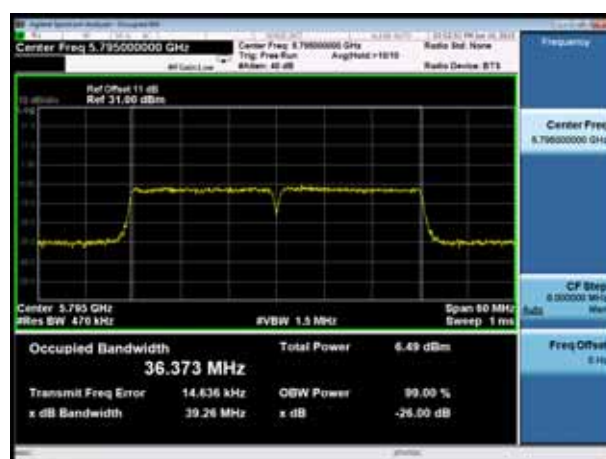
Channel 46 (5230MHz)



Channel 151 (5755MHz)



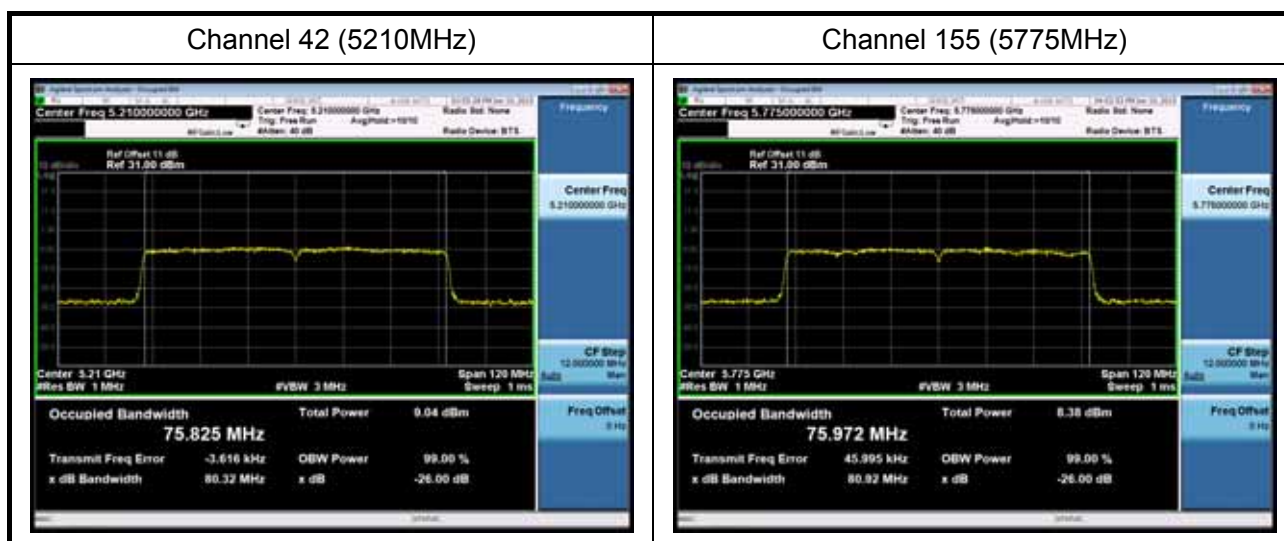
Channel 159(5795MHz)





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(80MHz)(Ant 0/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
42	5210	80.32	75825	Pass
155	5775	80.92	75972	Pass





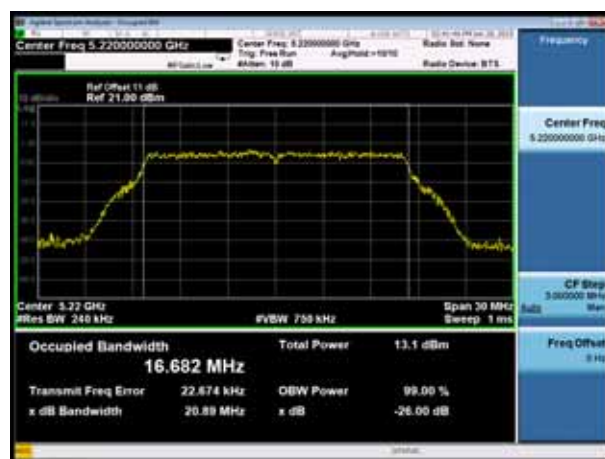
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11a (Ant 1)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.83	16707	Pass
44	5220	20.89	16682	Pass
48	5240	20.70	16687	Pass
149	5745	20.77	16700	Pass

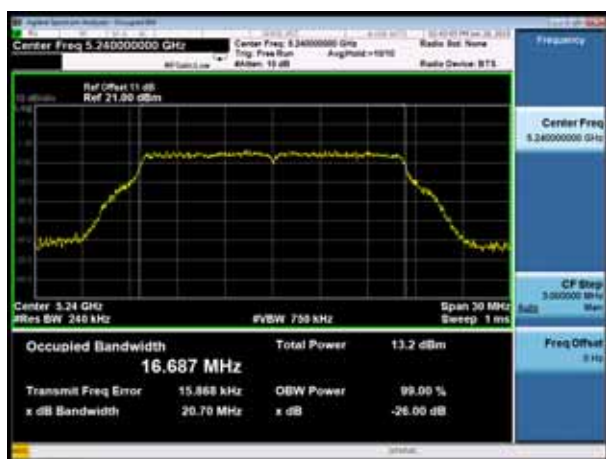
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

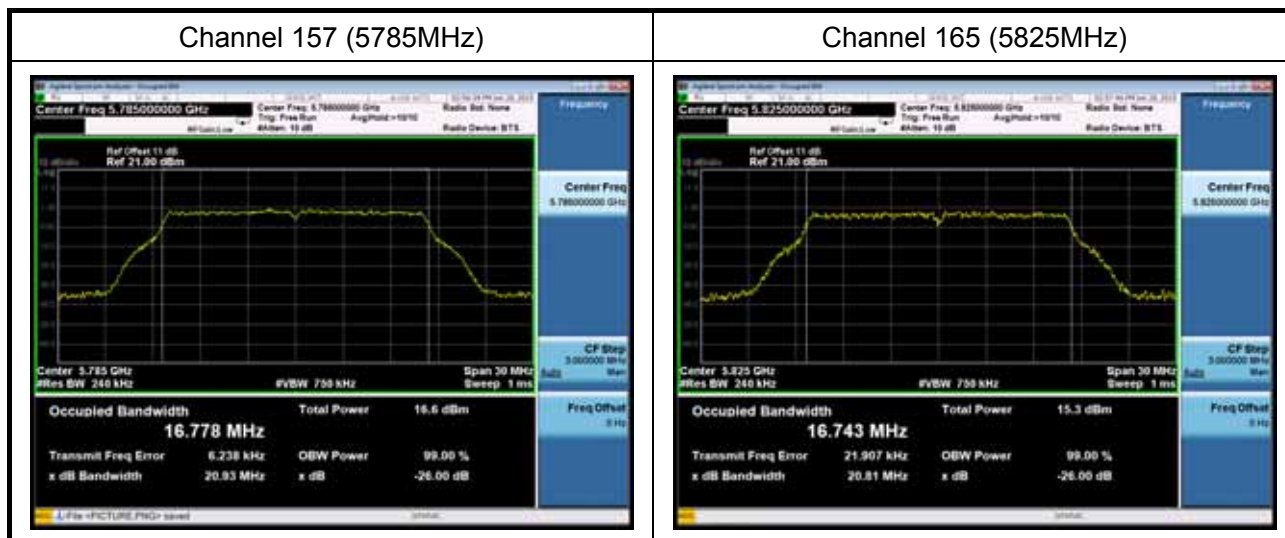


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	20.93	16778	Pass
165	5825	20.81	16743	Pass





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(20MHz)(Ant 1/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.75	17718	Pass
44	5220	21.02	17722	Pass
48	5240	20.56	17715	Pass
149	5745	20.63	17745	Pass
157	5785	20.51	17713	Pass
165	5825	20.63	17724	Pass

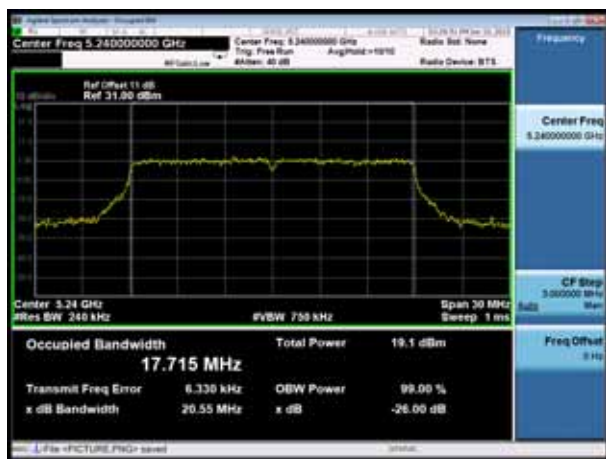
Channel 36 (5180MHz)



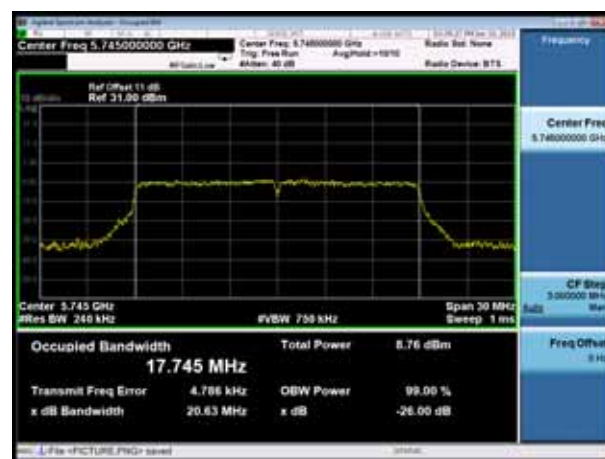
Channel 44 (5220MHz)



Channel 48 (5240MHz)

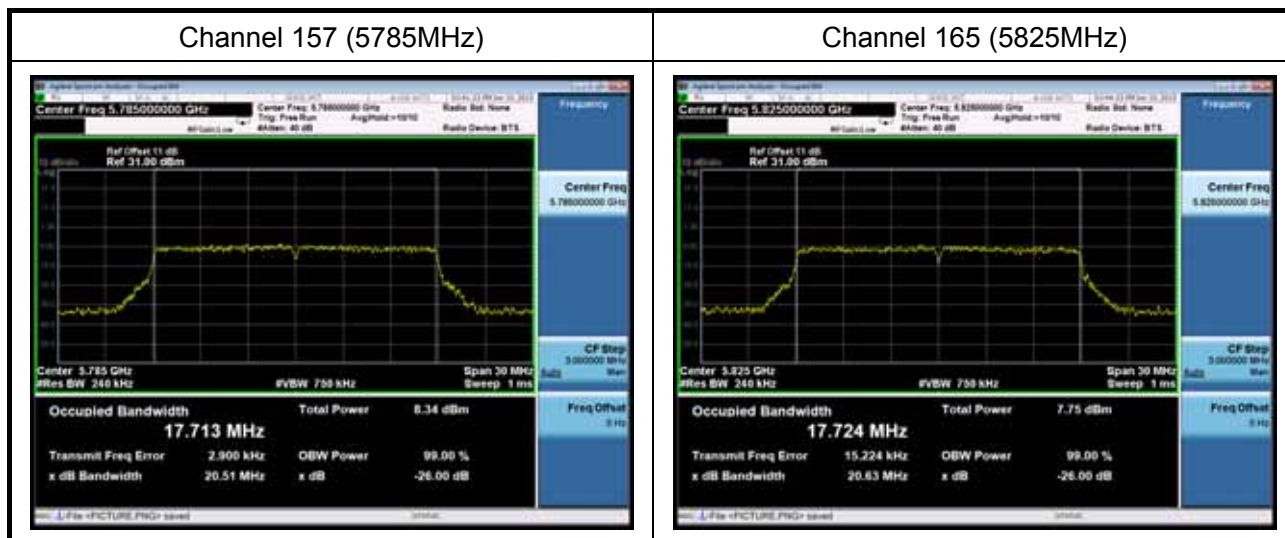


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	20.51	17713	Pass
165	5825	20.63	17724	Pass





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(40MHz) (Ant 1/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
38	5190	39.45	36478	Pass
46	5230	39.15	36286	Pass
151	5755	39.68	36347	Pass
159	5795	39.29	36302	Pass

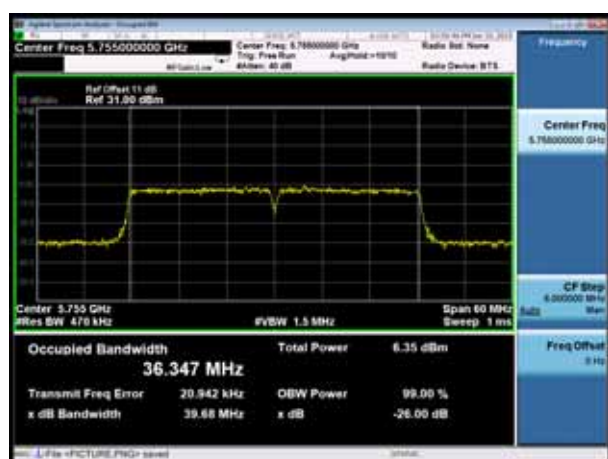
Channel 38 (5190MHz)



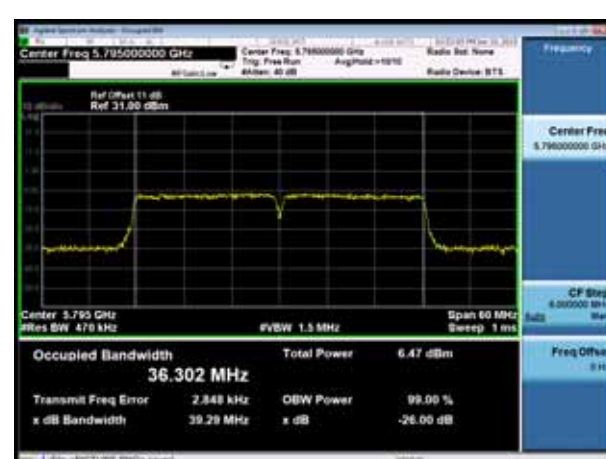
Channel 46 (5230MHz)



Channel 151 (5755MHz)



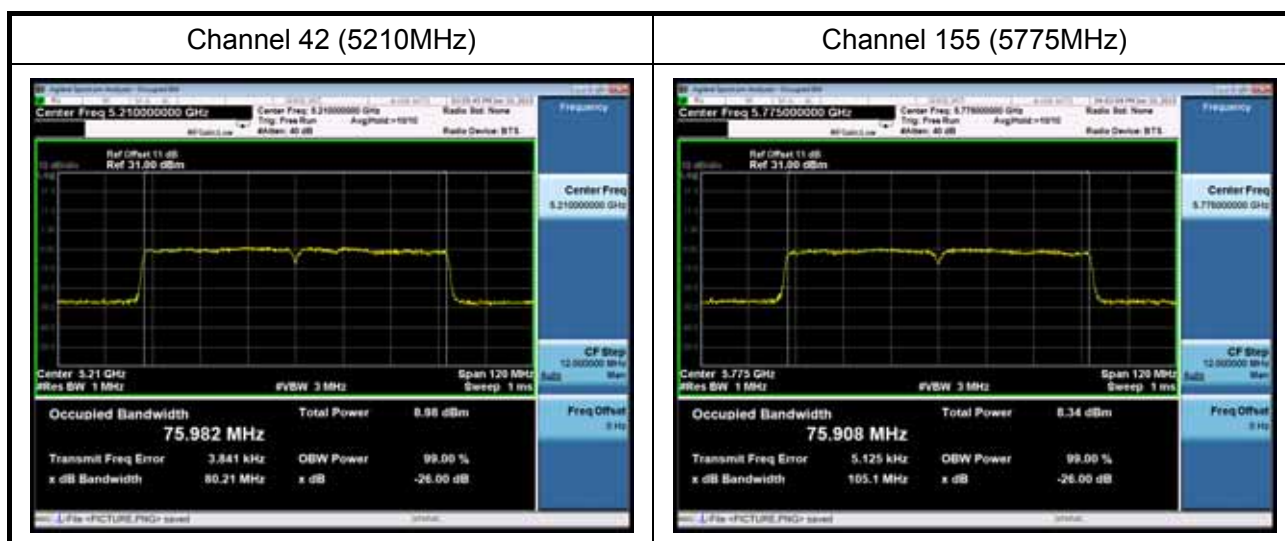
Channel 159(5795MHz)





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(80MHz) (Ant 1/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
42	5210	80.21	75982	Pass
155	5775	105.10	75908	Pass





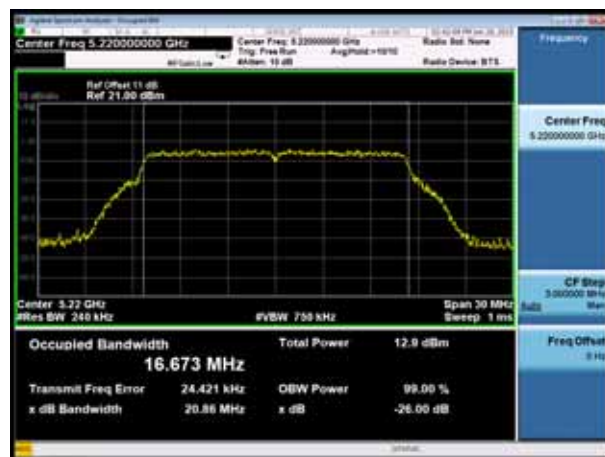
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11a (Ant 2)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.82	16689	Pass
44	5220	20.86	16673	Pass
48	5240	20.82	16693	Pass
149	5745	20.66	16694	Pass

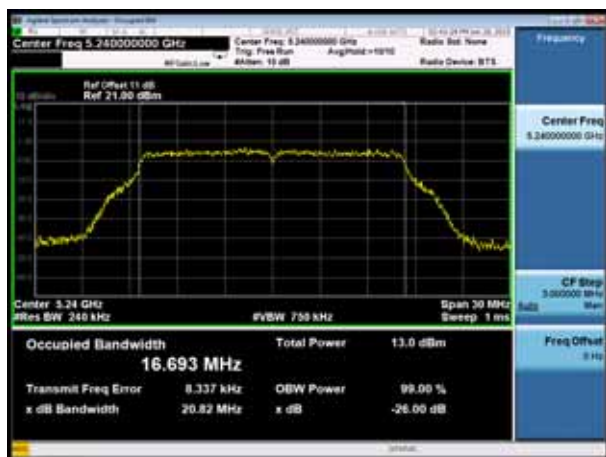
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

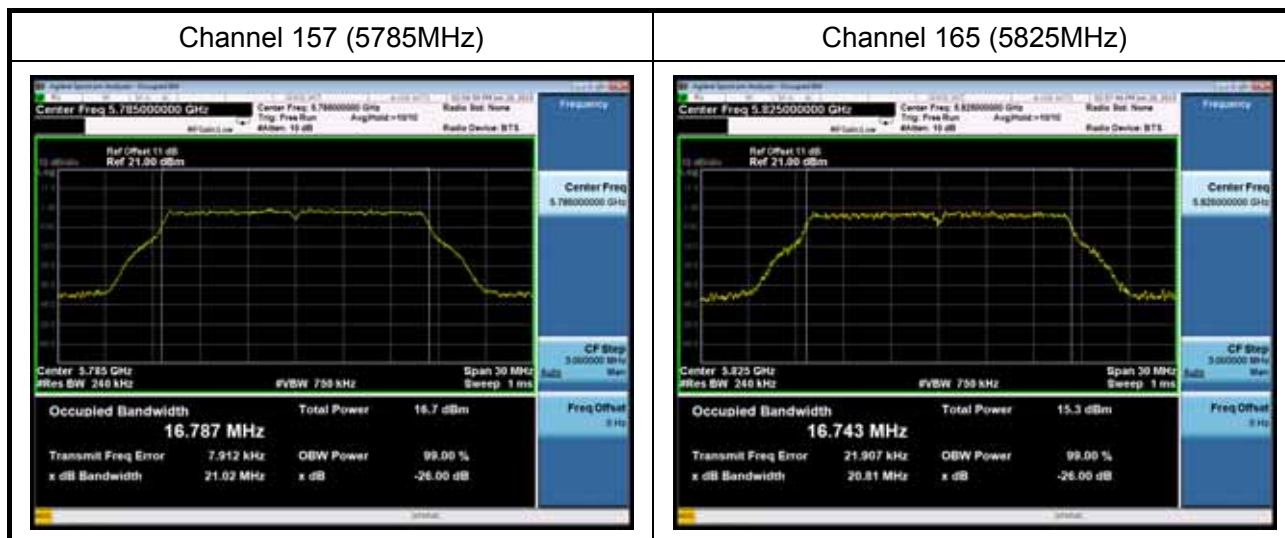


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	21.02	16787	Pass
165	5825	20.81	16743	Pass





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(20MHz) (Ant 2/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
36	5180	20.79	17733	Pass
44	5220	20.91	17717	Pass
48	5240	20.74	17709	Pass
149	5745	20.82	17725	Pass
157	5785	22.47	17725	Pass
165	5825	20.80	17683	Pass

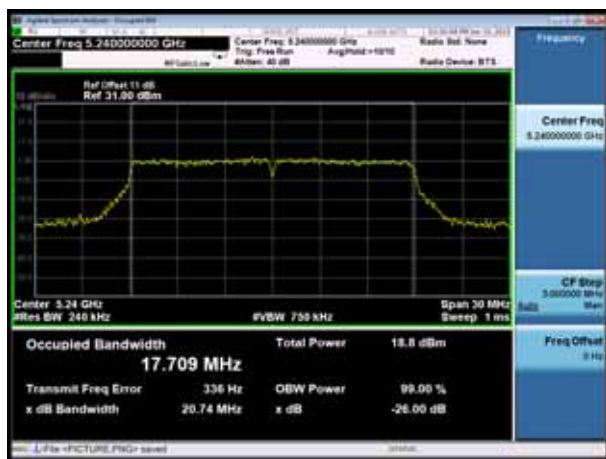
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)

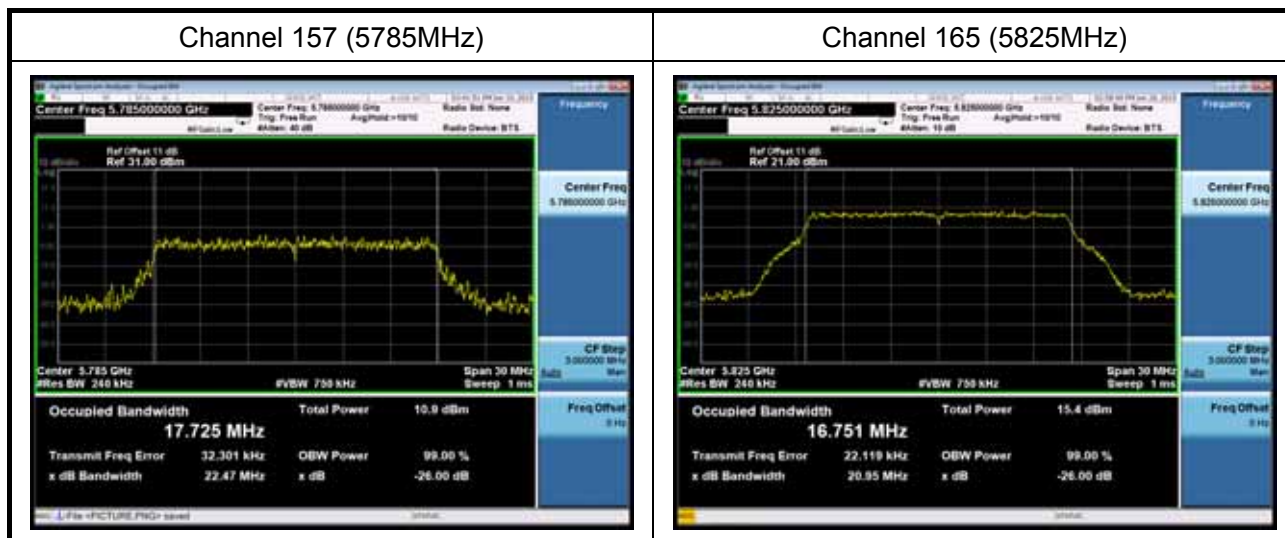


Channel 149 (5745MHz)





Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
157	5785	22.47	17725	Pass
165	5825	20.95	16751	Pass





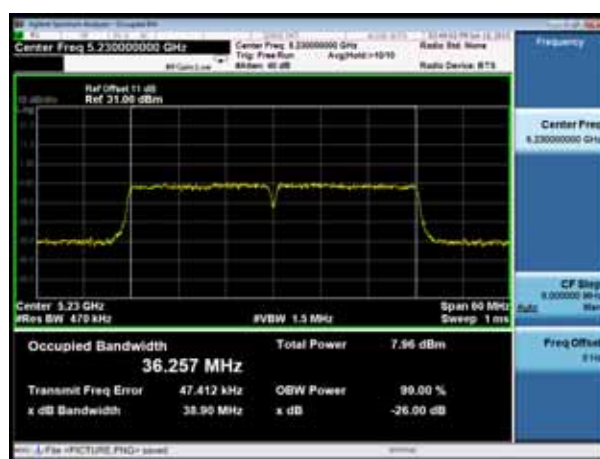
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(40MHz) (Ant 2/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
38	5190	38.97	36321	Pass
46	5230	38.90	36257	Pass
151	5755	39.75	36306	Pass
159	5795	39.84	36372	Pass

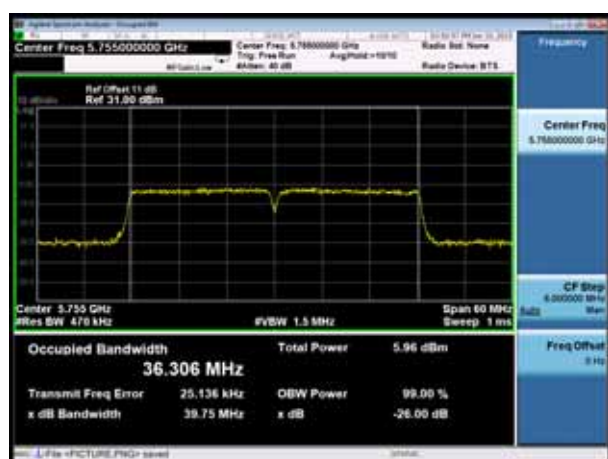
Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 151 (5755MHz)



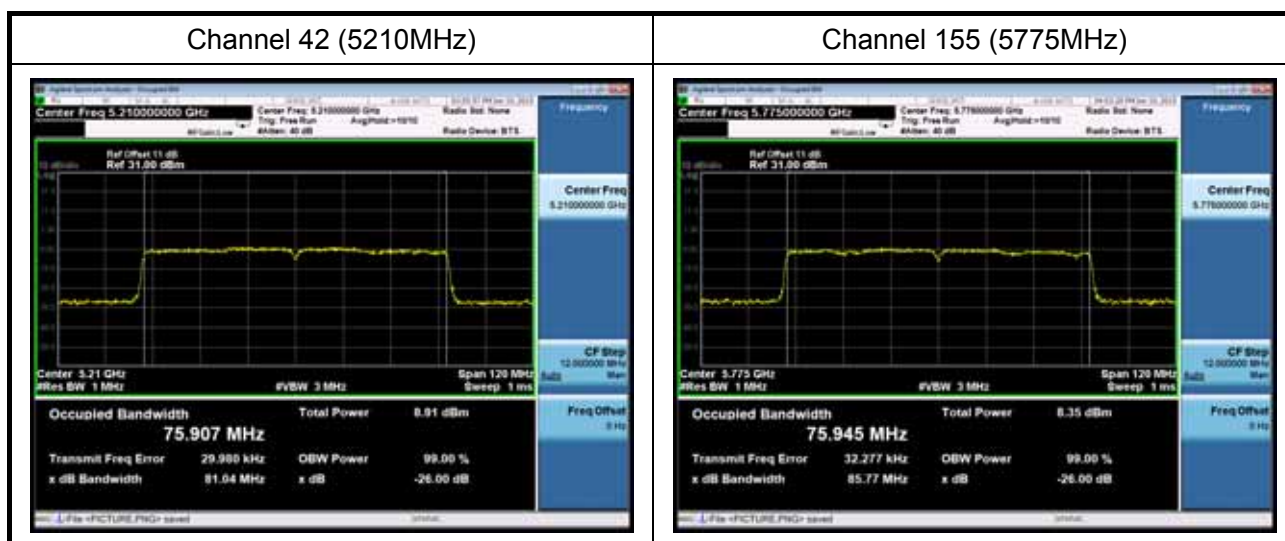
Channel 159(5795MHz)





Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11ac(80MHz)(Ant 2/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	99% Occupied Bandwidth (kHz)	Result
42	5210	81.04	75907	Pass
155	5775	85.77	75945	Pass





6. 6dB Bandwidth Measurement

6.1 Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	Agilent	N9010A	MY53400169	2014.11.03	2015.11.03
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-003	2015.03.31	2016.03.30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

6.2 Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

6.3 Test Procedure used

KDB 789033 D02v01 – Section C.2

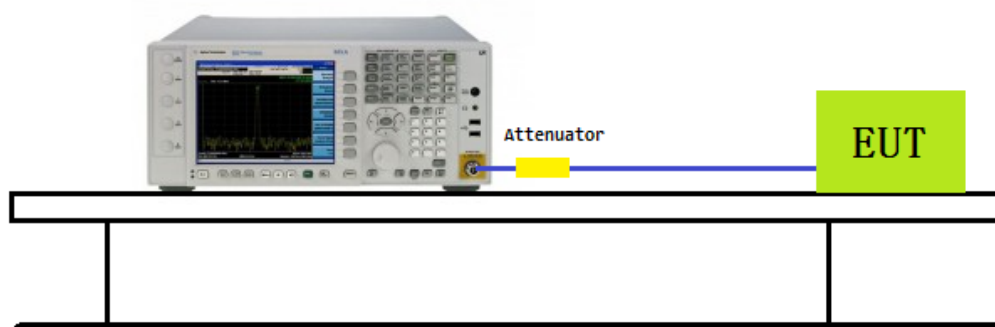
6.4 Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW = 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



6.5 Test Setup

Spectrum Analyzer





6.6 Test Result

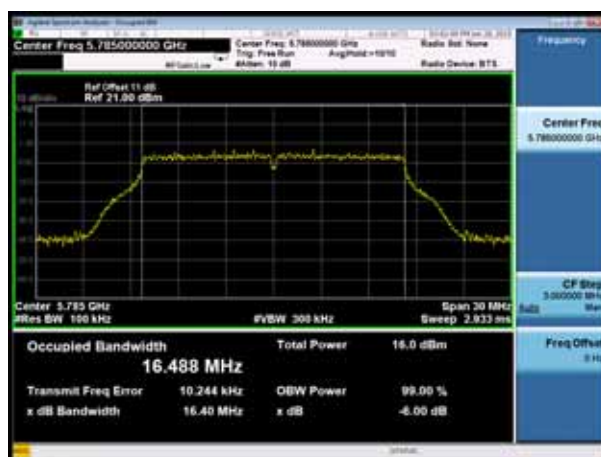
Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11a (Ant 0)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	16.36	Pass
157	5785	16.40	Pass
165	5825	16.30	Pass

Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)





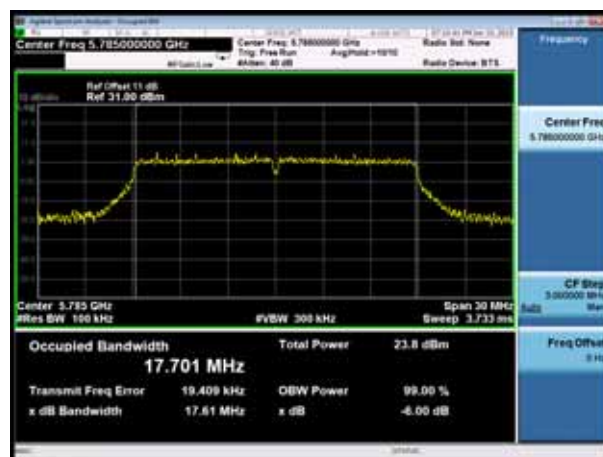
Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(20MHz)(Ant 0/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	17.63	Pass
157	5785	17.61	Pass
165	5825	17.59	Pass

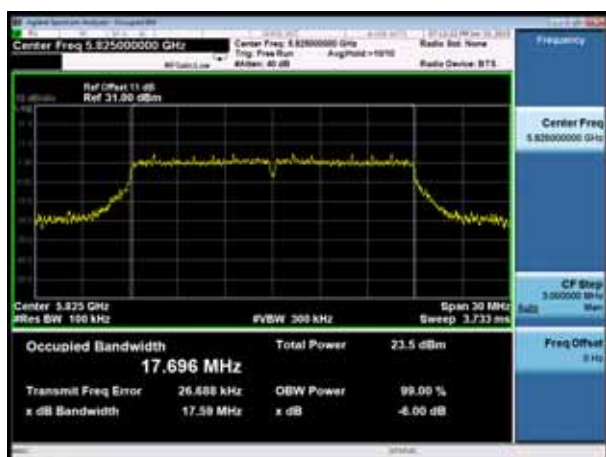
Channel 149 (5745MHz)



Channel 157 (5785MHz)



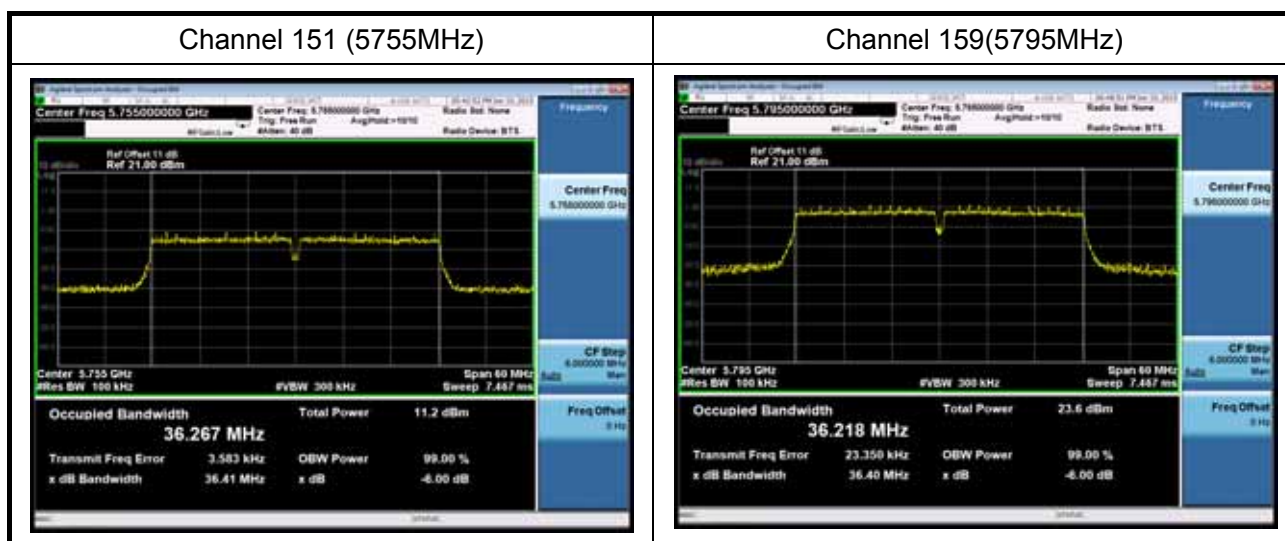
Channel 165 (5825MHz)





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(40MHz)(Ant 0/Ant 0+1+2)
Test Date	2015-06-10

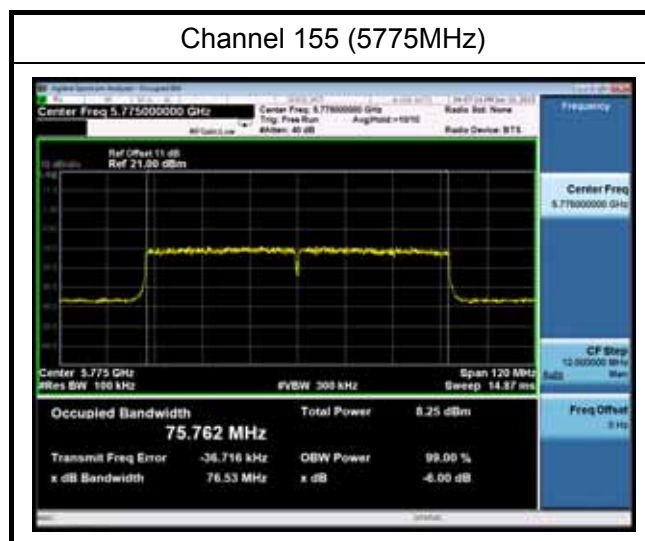
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
151	5755	36.41	Pass
159	5795	36.40	Pass





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(80MHz)(Ant 0/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
155	5775	76.53	Pass





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11a (Ant 1)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	16.39	Pass
157	5785	16.38	Pass
165	5825	16.37	Pass

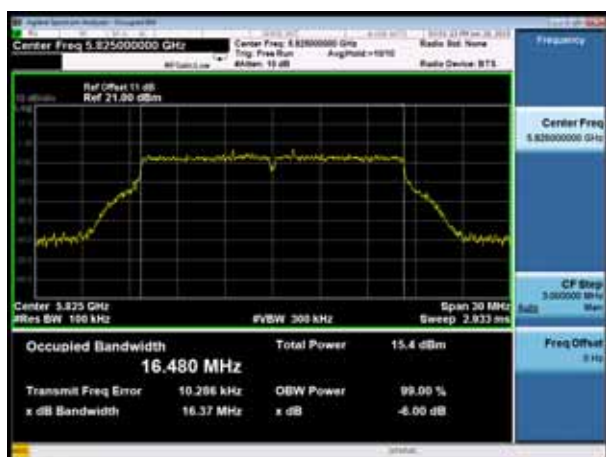
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

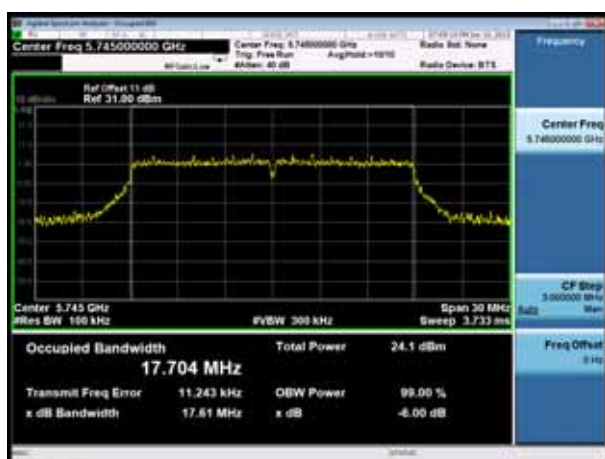




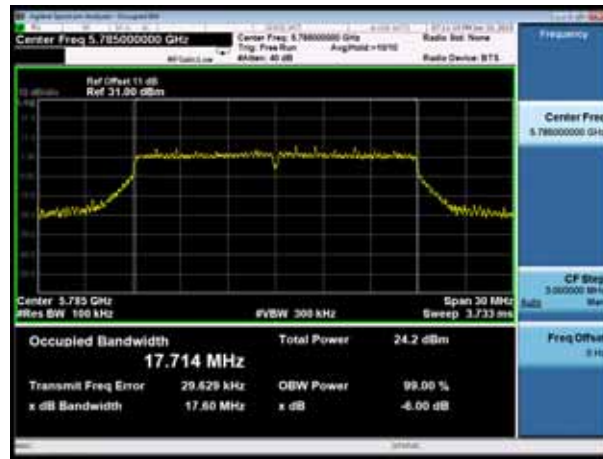
Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(20MHz)(Ant 1/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	17.61	Pass
157	5785	17.60	Pass
165	5825	17.68	Pass

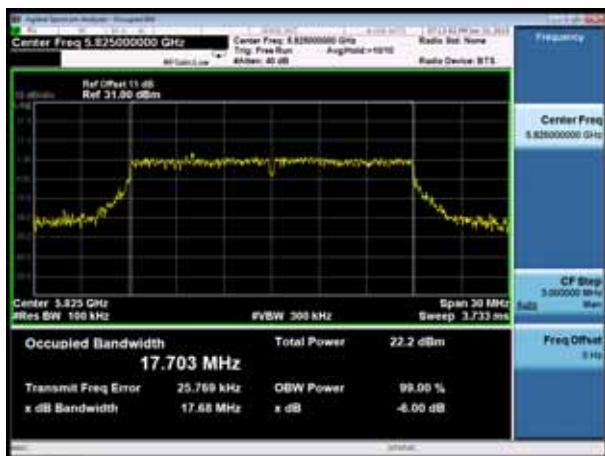
Channel 149 (5745MHz)



Channel 157 (5785MHz)



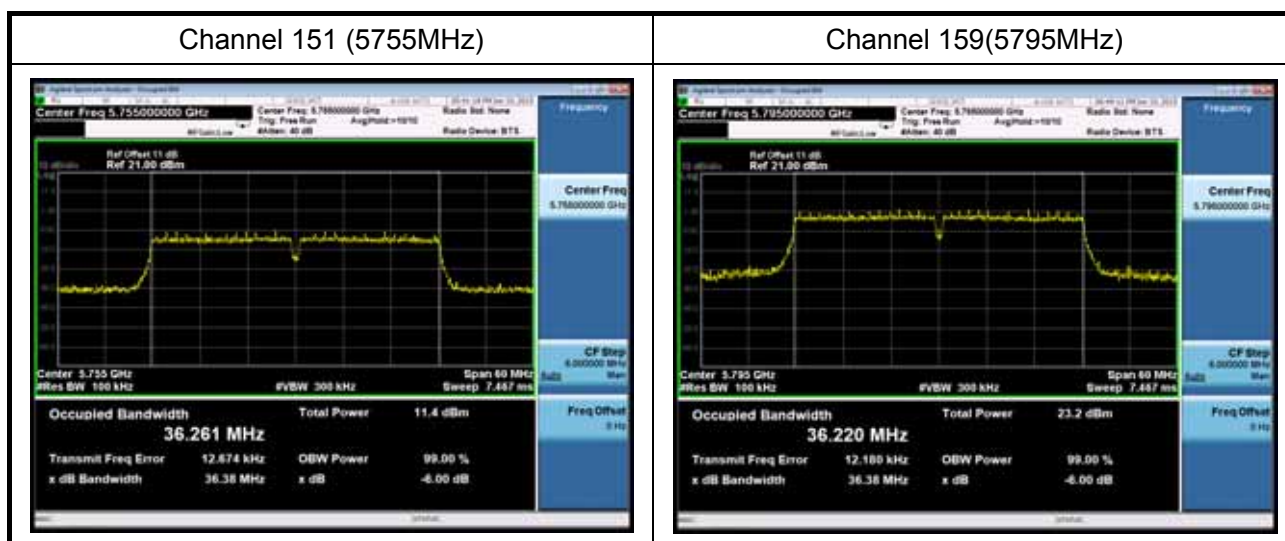
Channel 165 (5825MHz)





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(40MHz)(Ant 1/Ant 0+1+2)
Test Date	2015-06-10

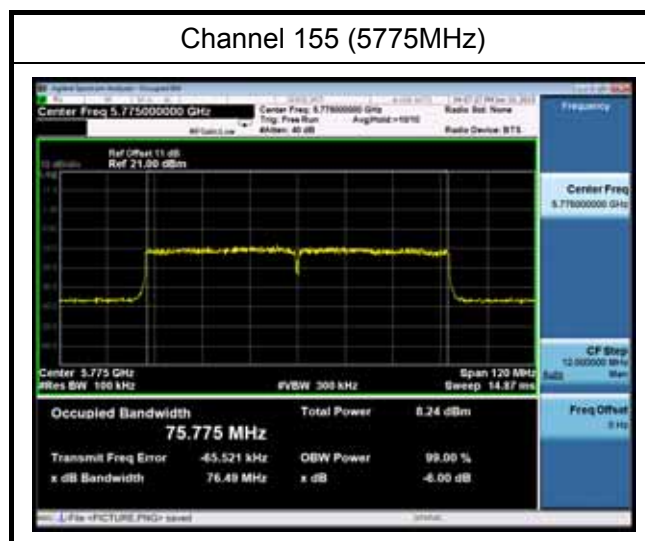
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
151	5755	36.38	Pass
159	5795	36.38	Pass





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(80MHz)(Ant 1/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
155	5775	76.49	Pass





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11a (Ant 2)
Test Date	2015-06-29

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	16.49	Pass
157	5785	16.41	Pass
165	5825	16.51	Pass

Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

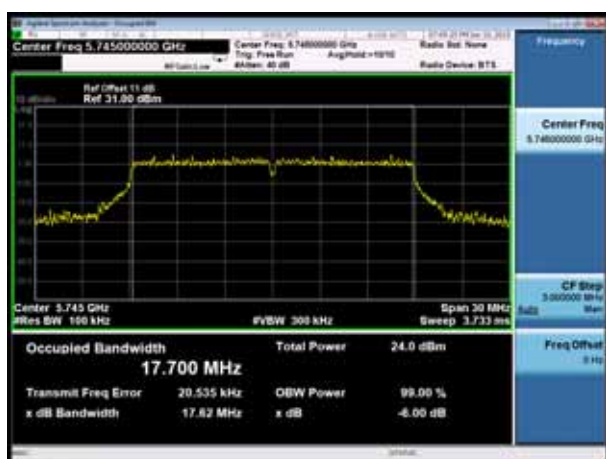




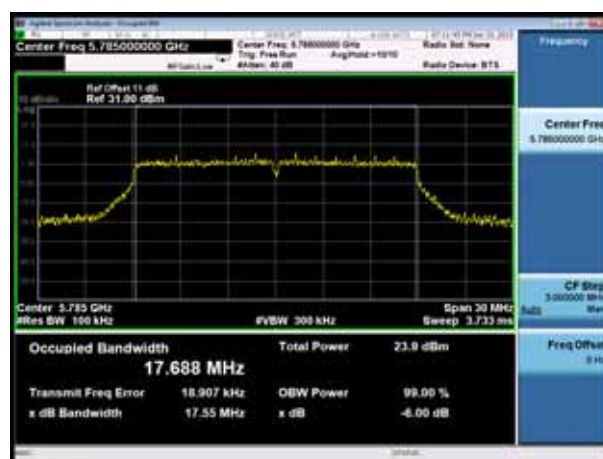
Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(20MHz)(Ant 2/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
149	5745	17.62	Pass
157	5785	17.55	Pass
165	5825	17.60	Pass

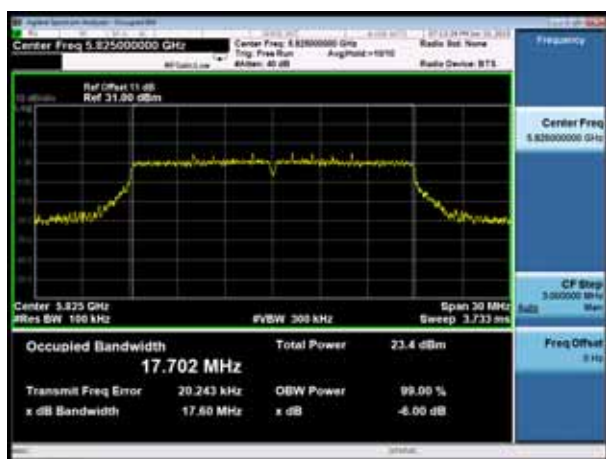
Channel 149 (5745MHz)



Channel 157 (5785MHz)



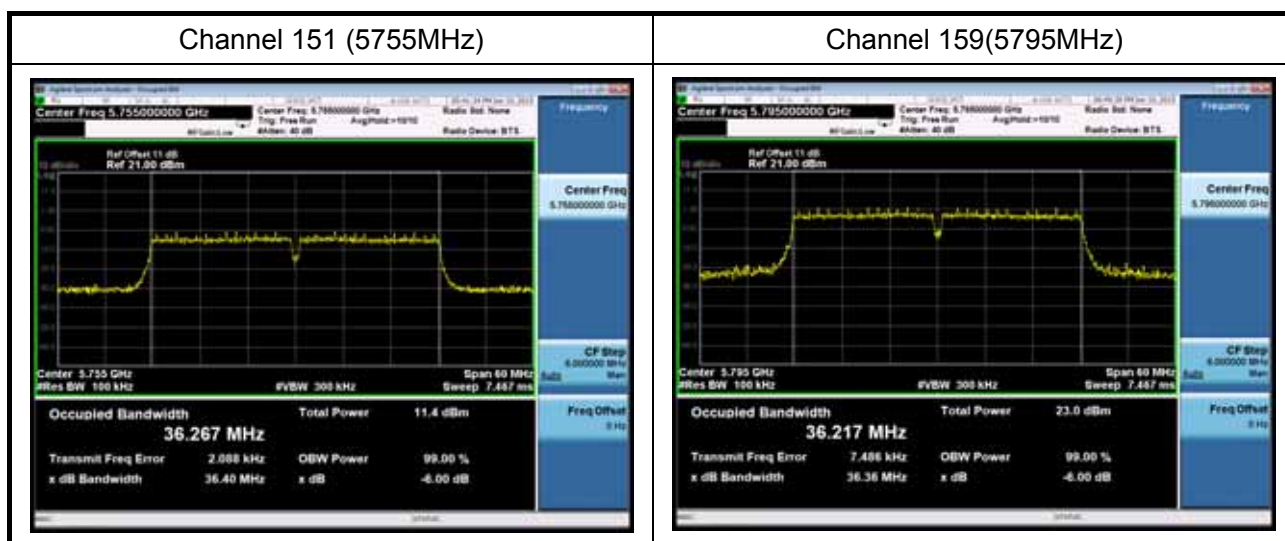
Channel 165 (5825MHz)





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(40MHz)(Ant 2/Ant 0+1+2)
Test Date	2015-06-10

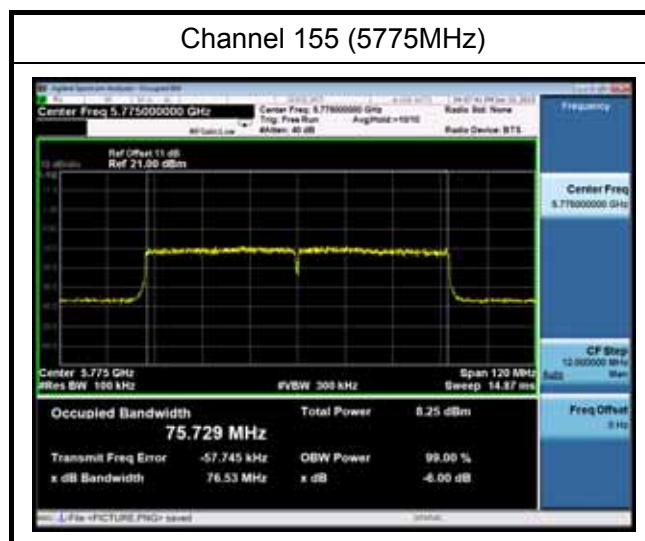
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
151	5755	36.40	Pass
159	5795	36.36	Pass





Test Item	6dB Bandwidth Measurement
Test Mode	Transmit by 802.11ac(80MHz) (Ant 2/Ant 0+1+2)
Test Date	2015-06-10

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Result
155	5775	76.53	Pass





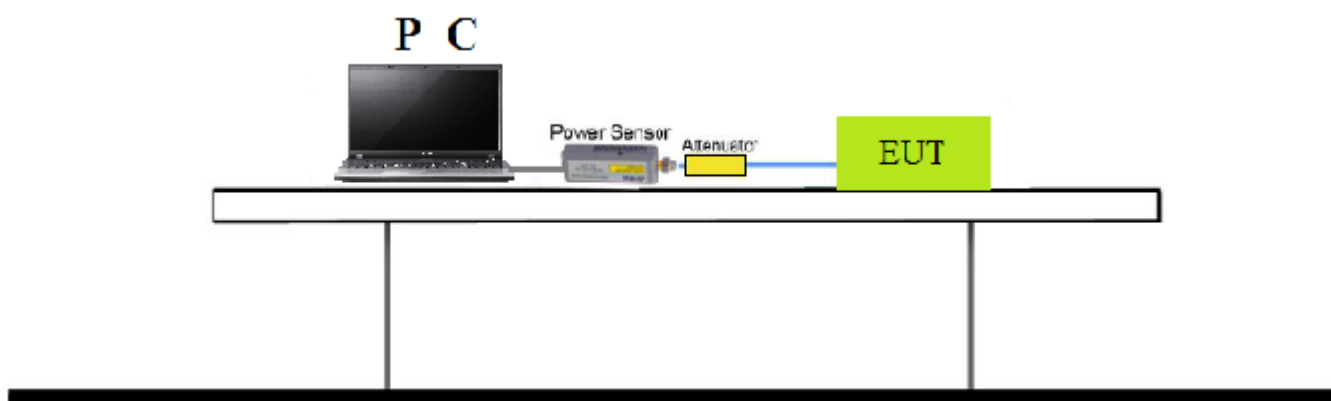
7. Power Output

7.1 Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Calibration Date	Valid Date.
PC	Lenovo	E40-70	MP078UQV	N/A	N/A
POWER SENSOR	Agilent	U2021XA	MY53260020	2015/03/27	2016/03/26
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-003	2015.03.31	2016.03.30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

7.2 Test Setup





7.3 Limit

For FCC 15.407 Power Limit:

- For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- For the band 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antenna with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power for each 1 dB of antenna gain in excess of 23 dBi would be required.

5.15-5.25 GHz: Limit (dBm) = 30dBm

5.725-5.85 GHz Limit (dBm) = 30dBm-(6.63dBi-6dBi)=29.37dBm



7.4 Test Procedure

The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements. Use the wideband power meter to test RMS power and record the result.



7.5 Test Result

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (yellow marker) for final test of each channel.

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)				
		802.11a	20MHz Bandwidth		40MHz Bandwidth	
			800ns GI	400ns GI	800ns GI	400ns GI
0	1	6	6.5	7.2	13.5	15.0
1	1	9	13.0	14.4	27.0	30.0
2	1	12	19.5	21.7	40.5	45.0
3	1	18	26.0	28.9	54.0	60.0
4	1	24	39.0	43.3	81.0	90.0
5	1	36	52.0	57.8	108.0	120.0
6	1	48	58.5	65.0	121.5	135.0
7	1	54	65.0	72.2	135.0	150.0
8	2	---	13.0	14.4	27.0	30.0
9	2	---	26.0	28.9	54.0	60.0
10	2	---	39.0	43.3	81.0	90.0
11	2	---	52.0	57.8	108.0	120.0
12	2	---	78.0	86.7	162.0	180.0
13	2	---	104.0	115.6	216.0	240.0
14	2	---	117.0	130.0	243.0	270.0
15	2	---	130.0	144.0	270.0	300.0



Spatial Streams	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)							
				20MHz		40MHz		80MHz		160MHz	
				Guard Interval		Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5	58.5	65
	1	QPSK	1/2	13	14.4	27	30	58.5	65	117	130
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5	175.5	195
	3	16-QAM	1/2	26	28.9	54	60	117	130	234	260
	4	16-QAM	3/4	39	43.3	81	90	175.5	195	351	390
	5	64-QAM	2/3	52	57.8	108	120	234	260	468	520
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5	526.5	585
	7	64-QAM	5/6	65	72.2	135	150	292.5	325	585	650
	8	256-QAM	3/4	78	86.7	162	180	351	390	702	780
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3	780	866.7
2	0	BPSK	1/2	13	14.4	27	30	58.6	65	117	130
	1	QPSK	1/2	26	28.8	54	60	117	130	234	260
	2	QPSK	3/4	39	43.4	81	90	175.6	195	351	390
	3	16-QAM	1/2	52	57.8	108	120	234	260	468	520
	4	16-QAM	3/4	78	86.6	162	180	351	390	702	780
	5	64-QAM	2/3	104	115.6	216	240	468	520	936	1040
	6	64-QAM	3/4	117	130	243	270	526.6	585	1053	1170
	7	64-QAM	5/6	130	144.4	270	300	585	650	1170	1300
	8	256-QAM	3/4	156	173.4	324	360	702	780	1404	1560
	9	256-QAM	5/6	N/A	N/A	360	400	780	866.6	1560	1733.4



Power output at various data rates

Test Mode	Bandwidth	Frequency (MHz)	Channel	Data Rate	Average Power (dBm)
802.11a (Ant 1)	20	5180	36	6	20.56
				24	20.11
				54	20.24
802.11ac(20MHz) (Ant 1)	20	5180	36	MCS0NSS1	19.53
				MCS5NSS1	19.32
				MCS9NSS1	19.45
802.11ac(40MHz) (Ant 1)	40	5190	38	MCS0NSS1	15.82
				MCS5NSS1	15.33
				MCS9NSS1	15.64
802.11ac(80MHz) (Ant 1)	80	5210	42	MCS0NSS1	15.02
				MCS5NSS1	14.98
				MCS9NSS1	14.87



Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Average Power Output(dBm)			Total Average Power (dBm)	Limit (dBm)	Result
				Ant (0+1+2)					
				Ant 0	Ant 1	Ant 2			
802.11a	13	36	5180	20.71	20.56	19.48	25.05	30	Pass
		44	5220	21.03	20.3	19.63	25.13	30	Pass
		48	5240	21.36	20.85	19.35	25.37	30	Pass
		149	5745	18.31	18.38	18.96	23.33	30	Pass
		157	5785	22.77	21.08	20.13	26.24	30	Pass
		165	5825	21.97	20.98	20.38	25.93	30	Pass
802.11ac(20MHz)	13	36	5180	18.43	19.53	18.21	23.53	30	Pass
		44	5220	22.29	20.78	19.66	25.81	30	Pass
		48	5240	22.39	21.19	19.99	26.07	30	Pass
		149	5745	14.57	16.11	14.39	19.87	29.37	Pass
		157	5785	22.12	20.41	20.59	25.88	29.37	Pass
		165	5825	22.22	20.23	19.68	25.62	29.37	Pass
802.11ac(40MHz)	27	38	5190	15.12	15.82	14.87	20.06	30	Pass
		46	5230	20.95	20.82	20.33	25.48	30	Pass
		151	5755	14.12	14.32	14.55	19.10	29.37	Pass
		159	5795	21.62	19.82	19.31	25.14	29.37	Pass
802.11ac(80MHz)	58.6	42	5210	14.50	15.02	14.49	19.45	30	Pass
		155	5775	21.64	20.27	20.06	25.49	29.37	Pass



8. Power Spectral Density

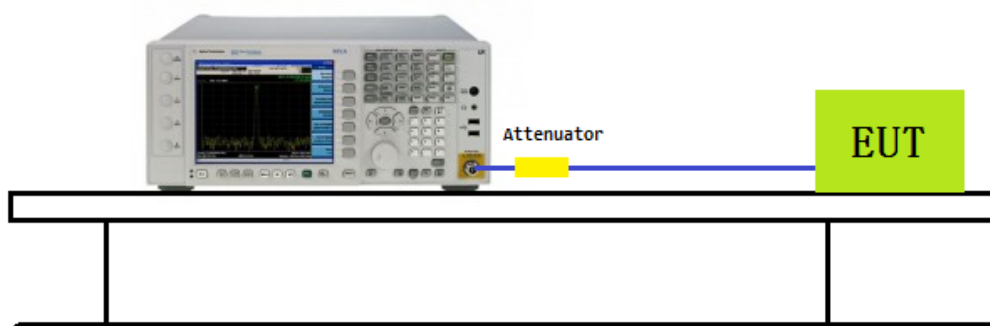
8.1 Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	Agilent	N9010A	MY53400169	2014.11.03	2015.11.03
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-003	2015.03.31	2016.03.30

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

8.2 Test Setup

Spectrum Analyzer





8.3 Limit

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.15-5.25 GHz: Limit (dBm) = 17dBm

5.725-5.85 GHz Limit (dBm/500kHz) = 30dBm/500kHz -(6.63dBi-6 dBi)=29.37dBm/500kHz



8.4 Test Procedure

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 100 kHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (RMS)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add $10 \times \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \times \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.
11. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor $10 \times \log(500\text{kHz}/100\text{kHz}) = 7 \text{ dB}$ to the measured result.



8.5 Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Freq. (MHz)	PSD(dBm/MHz)			Duty Cycle(%)	Total PSD	Limit	Result
				Ant (0+1+2)						
				Ant0	An1	Ant2				
802.11a	6	36	5180	9.04	8.84	7.89	95	13.61	17	Pass
		44	5220	9.62	8.69	9.40		14.25	17	Pass
		48	5240	10.14	8.99	8.30		14.20	17	Pass
802.11ac (20MHz)	13	36	5180	6.47	7.70	6.67	98	11.75	17	Pass
		44	5220	10.55	8.57	8.01		13.96	17	Pass
		48	5240	9.41	8.52	8.53		13.61	17	Pass
802.11ac (40MHz)	27	38	5190	-0.14	0.67	0.20	94	5.30	17	Pass
		46	5230	-0.38	0.85	0.29		5.32	17	Pass
802.11ac (80MHz)	58.6	42	5210	-4.10	-2.42	-4.09	92	1.67	17	Pass

Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10(\text{Ant 0 PSD}/10) + 10(\text{Ant 1 PSD}/10)\} + 10 \cdot \log(1/\text{duty cycle})$

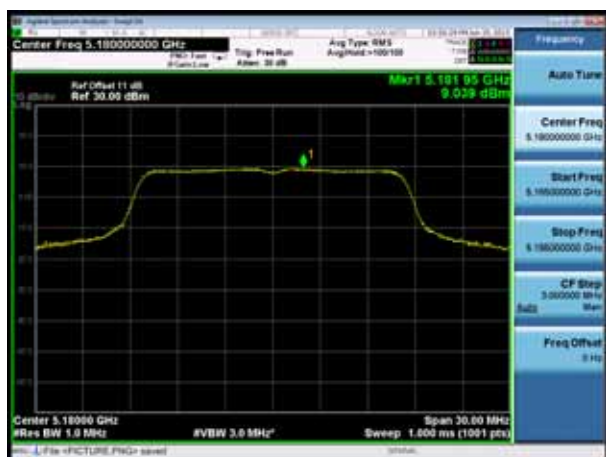
Test Mode	Data Rate (Mbps)	CH.	Freq. (MHz)	PSD(dBm/500KHz)			Duty Cycle(%)	Constant Factor	Total PSD	Limit	Result
				Ant (0+1+2)							
				Ant0	Ant1	Ant2					
802.11a	6	149	5745	-5.55	-3.01	-5.07	95	7	7.60	29.37	Pass
		157	5785	1.89	0.82	1.38		7	13.38	29.37	Pass
		165	5825	2.39	0.83	-0.08		7	13.16	29.37	Pass
802.11ac (20MHz)	13	149	5745	-5.41	-4.51	-6.21	98	7	6.45	29.37	Pass
		157	5785	1.83	0.56	0.95		7	12.92	29.37	Pass
		165	5825	2.26	0.59	-0.14		7	12.79	29.37	Pass
802.11ac (40MHz)	27	151	5755	-9.24	-8.12	-9.49	94	7	3.13	29.37	Pass
		159	5795	-3.88	-2.37	-3.05		7	8.98	29.37	Pass
802.11ac (80MHz)	58.6	155	5775	-6.89	-6.22	-4.80	92	7	6.25	29.37	Pass

Note: When EUT duty cycle < 98%, the total PSD = $10 \cdot \log\{10(\text{Ant 0 PSD}/10) + 10(\text{Ant 1 PSD}/10)\} + 10 \cdot \log(1/\text{duty cycle}) + \text{Constant Factor}$.

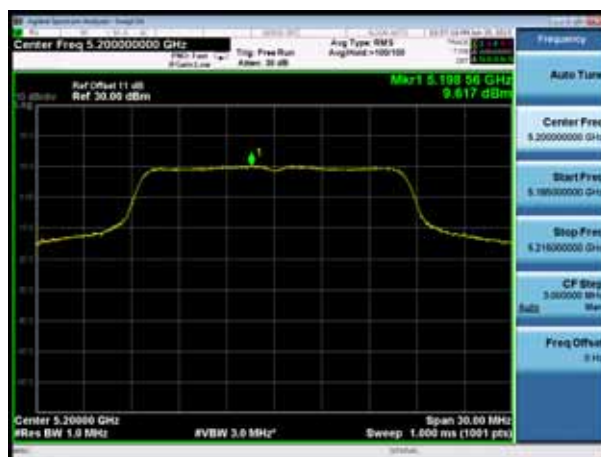


802.11a Power Spectral Density- Ant 0+1+2-0

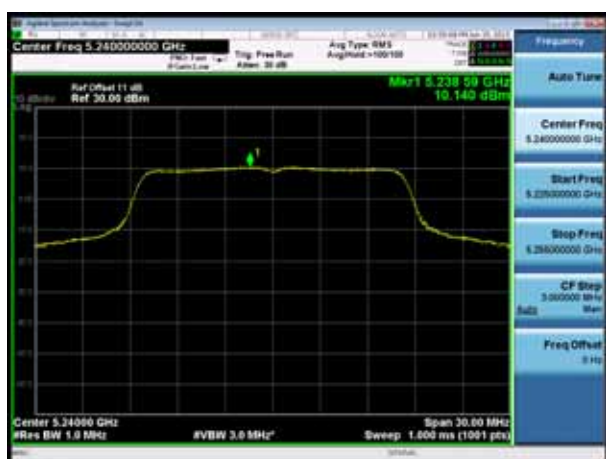
Channel 36 (5180MHz)



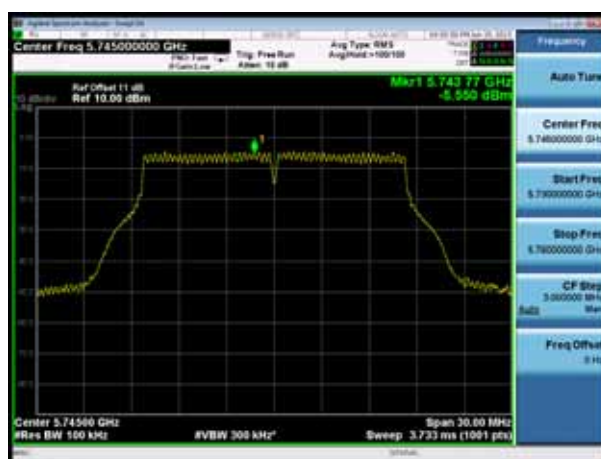
Channel 40 (5200MHz)



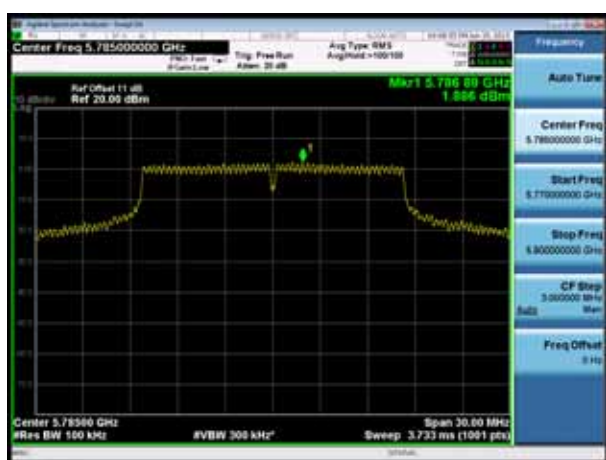
Channel 48 (5240MHz)



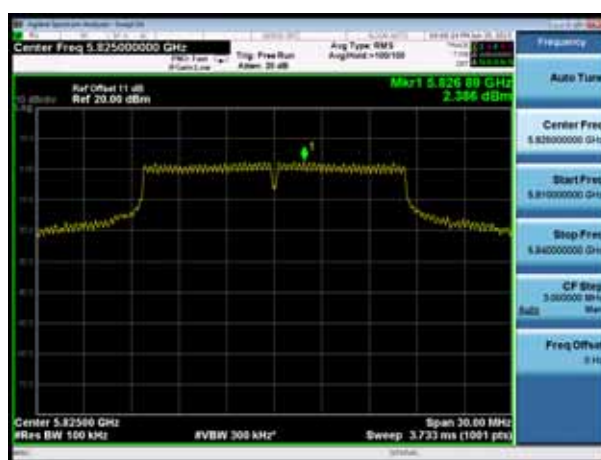
Channel 149 (5745MHz)



Channel 157 (5785MHz)



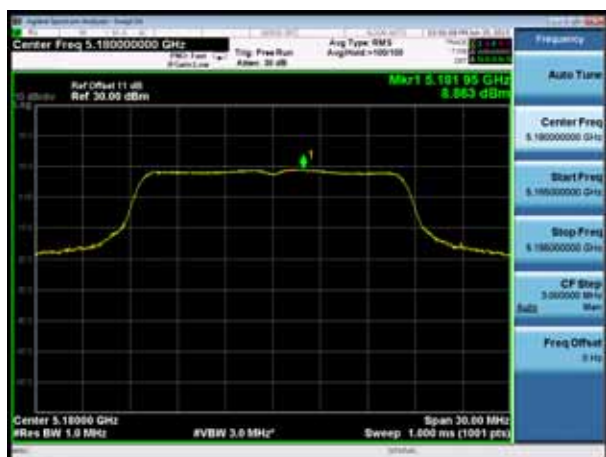
Channel 165 (5825MHz)



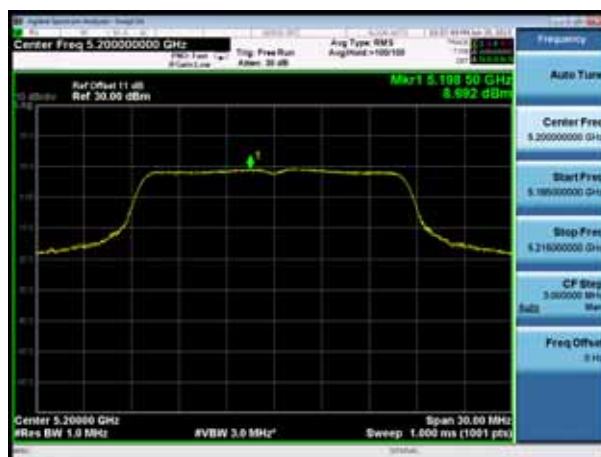


802.11a Power Spectral Density- Ant 0+1+2-1

Channel 36 (5180MHz)



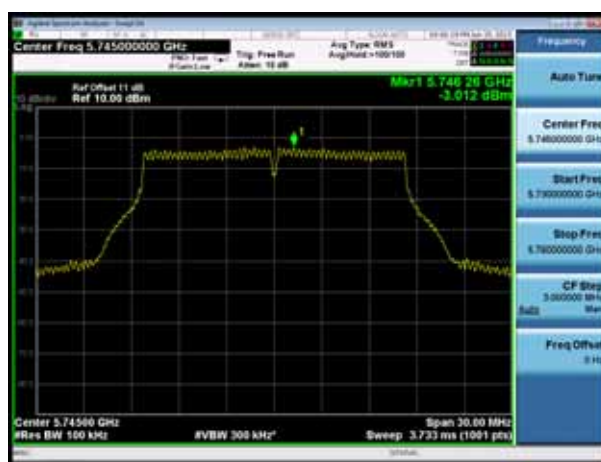
Channel 44 (5220MHz)



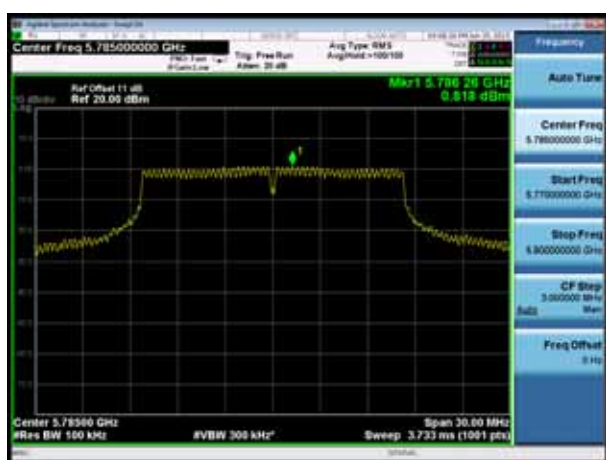
Channel 48 (5240MHz)



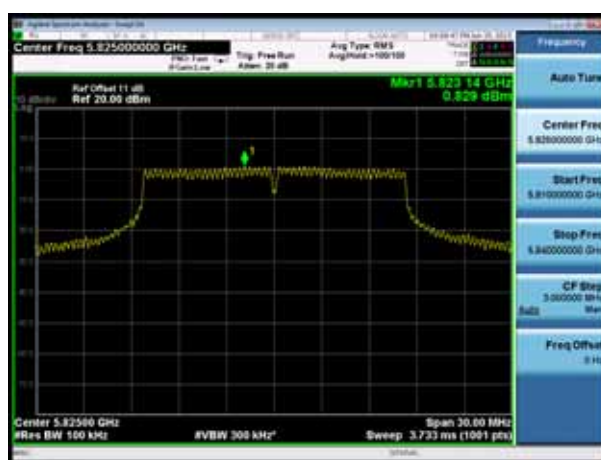
Channel 149 (5745MHz)



Channel 157 (5785MHz)



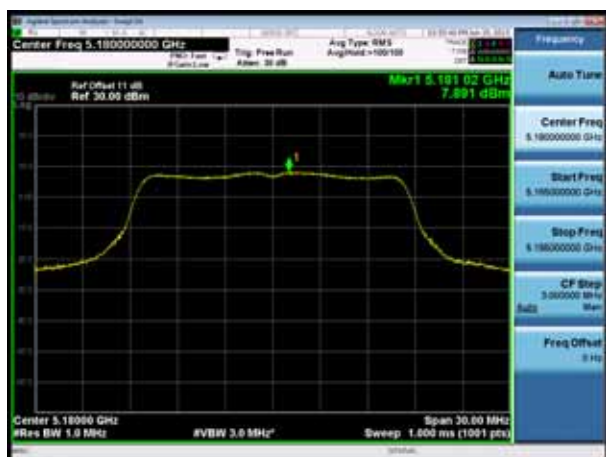
Channel 165 (5825MHz)



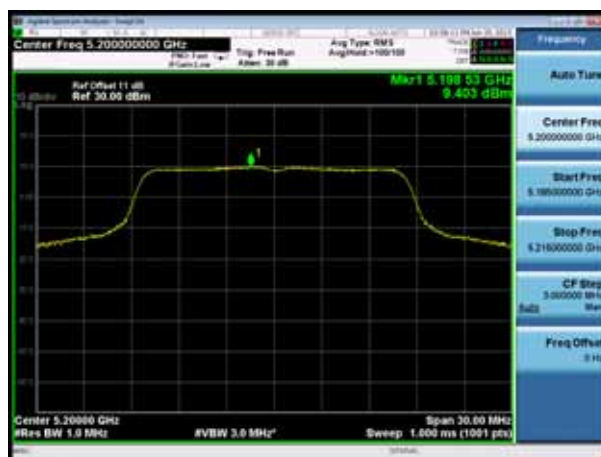


802.11a Power Spectral Density- Ant 0+1+2-2

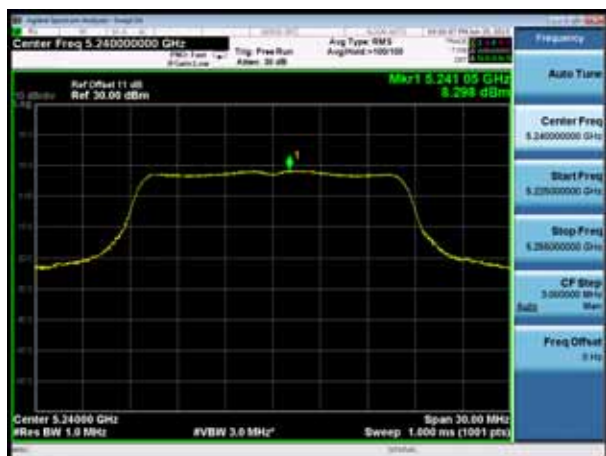
Channel 36 (5180MHz)



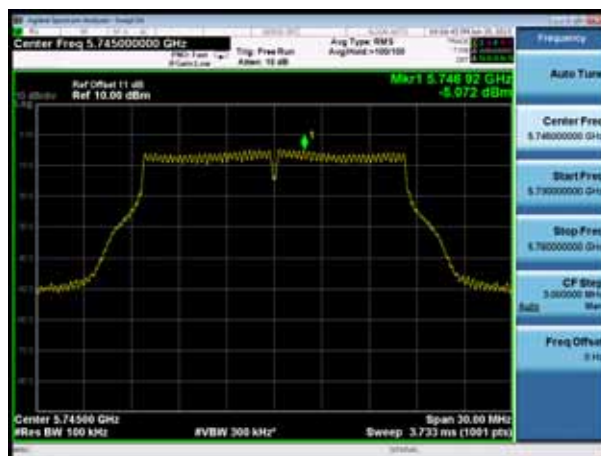
Channel 44 (5220MHz)



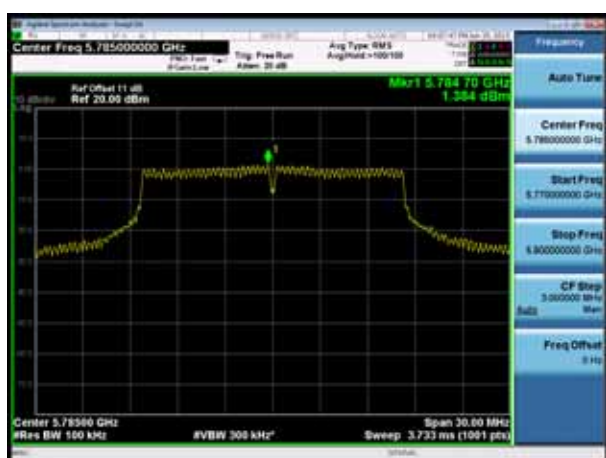
Channel 48 (5240MHz)



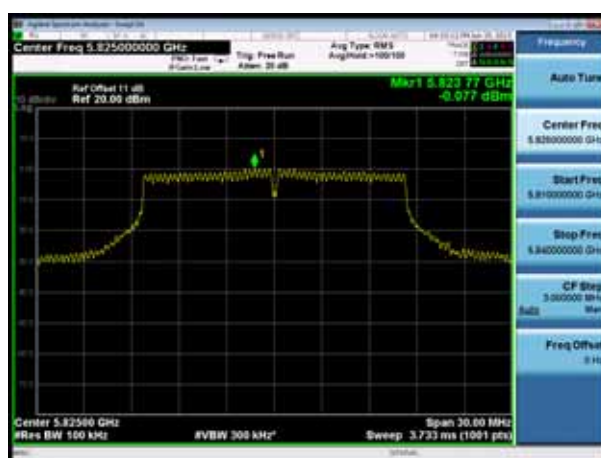
Channel 149 (5745MHz)



Channel 157 (5785MHz)



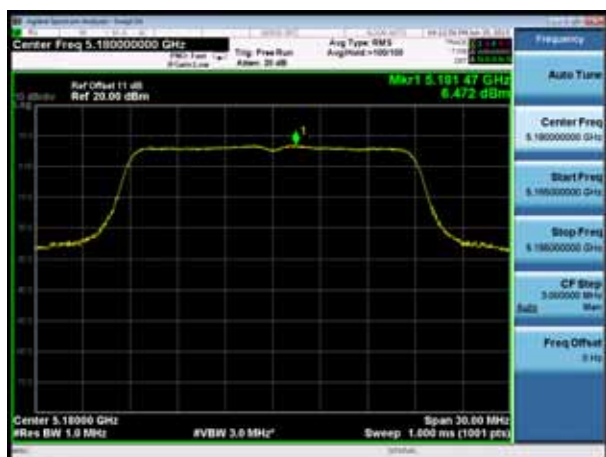
Channel 165 (5825MHz)



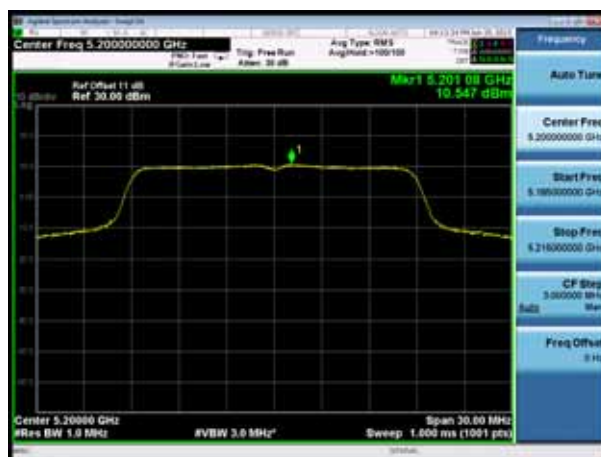


802.11 ac(20MHz) Power Spectral Density- Ant 0+1+2-0

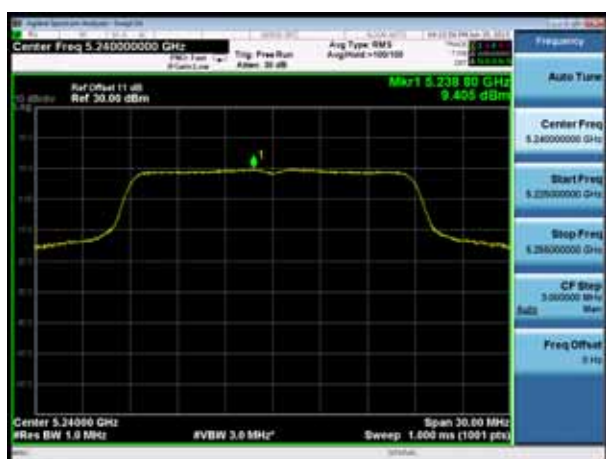
Channel 36 (5180MHz)



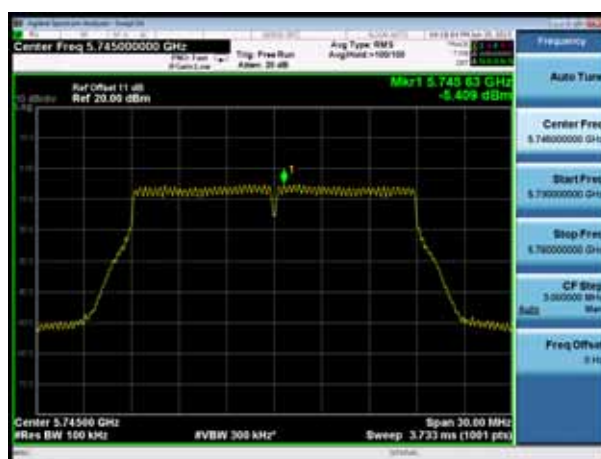
Channel 44 (5220MHz)



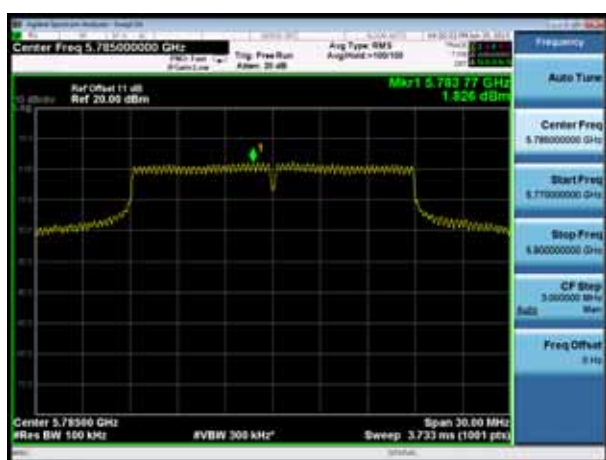
Channel 48 (5240MHz)



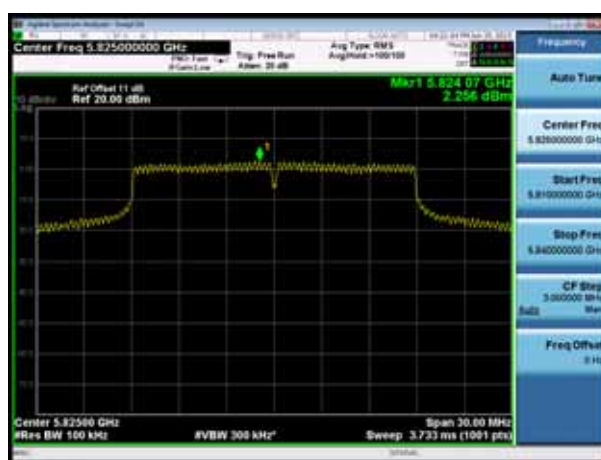
Channel 149 (5745MHz)



Channel 157 (5785MHz)



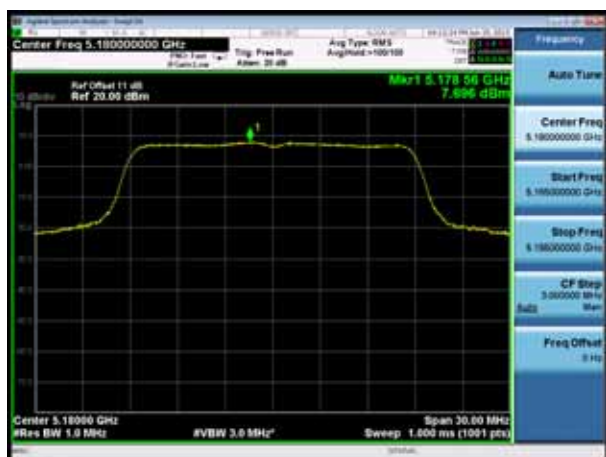
Channel 165 (5825MHz)



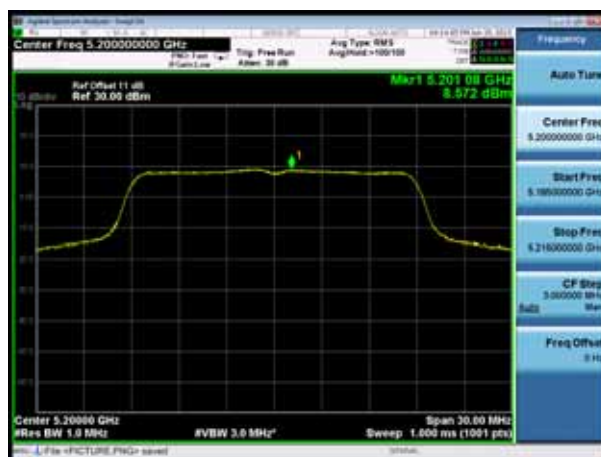


802.11 ac(20MHz) Power Spectral Density- Ant 0+1+2-1

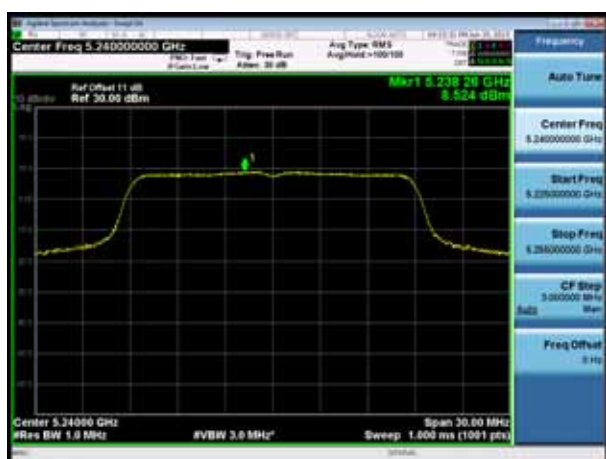
Channel 36 (5180MHz)



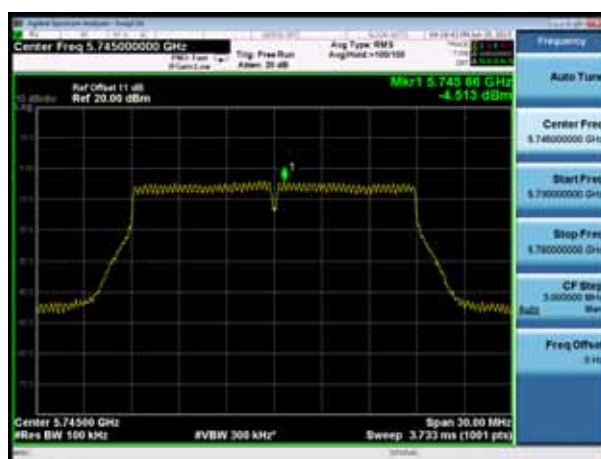
Channel 44 (5220MHz)



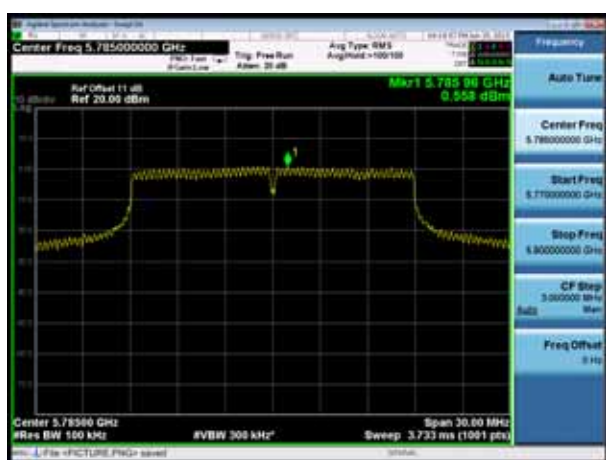
Channel 48 (5240MHz)



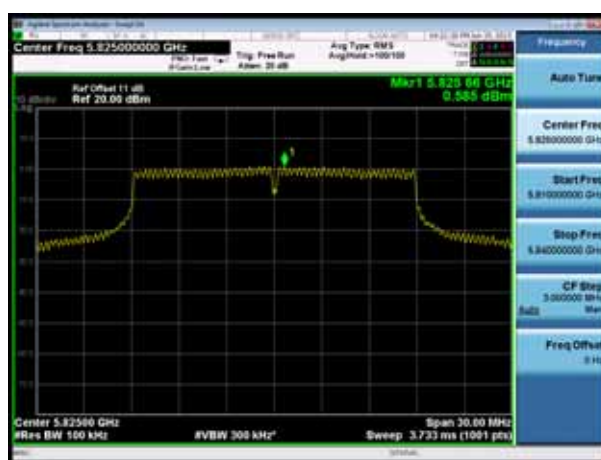
Channel 149 (5745MHz)



Channel 157 (5785MHz)



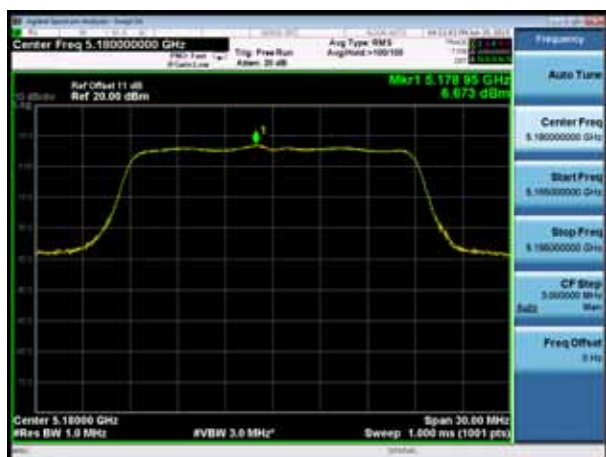
Channel 165 (5825MHz)



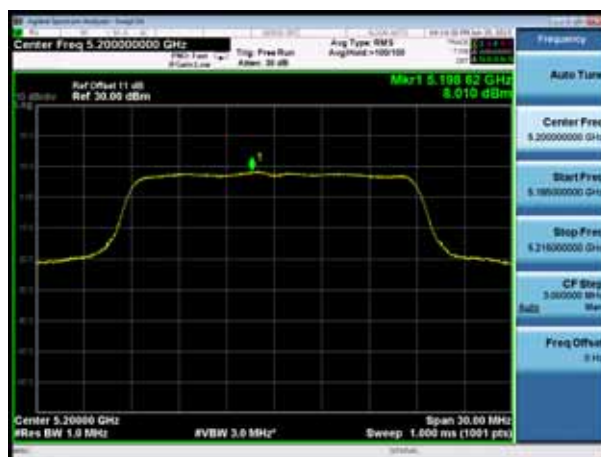


802.11 ac(20MHz) Power Spectral Density- Ant 0+1+2-2

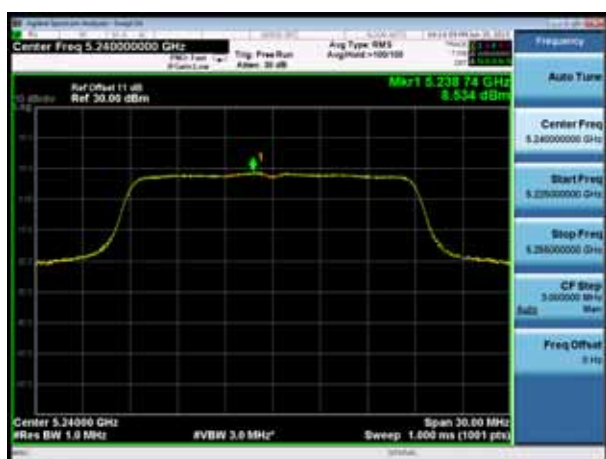
Channel 36 (5180MHz)



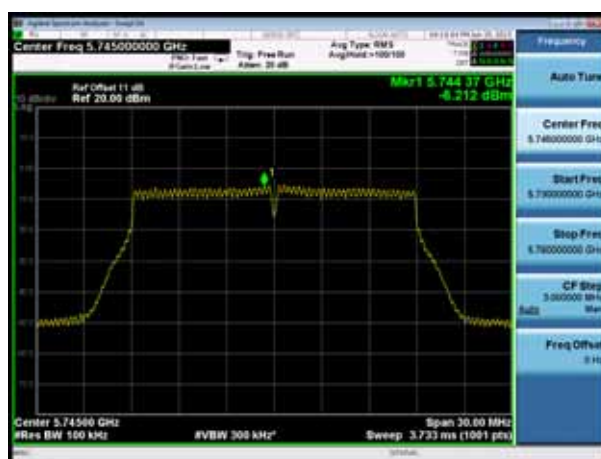
Channel 44 (5220MHz)



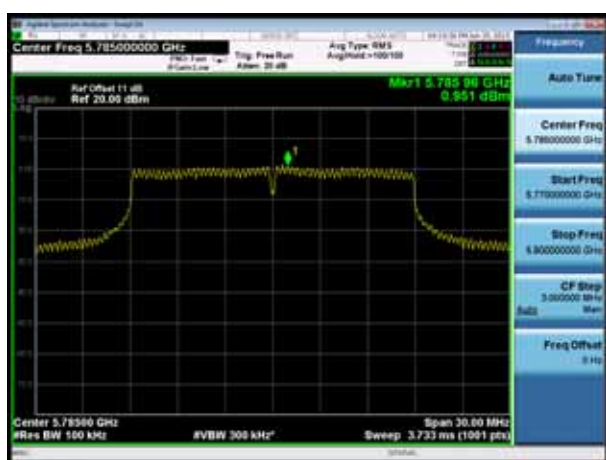
Channel 48 (5240MHz)



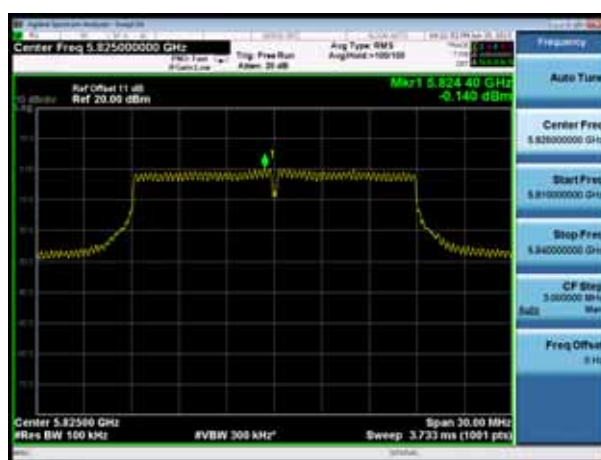
Channel 149 (5745MHz)



Channel 157 (5785MHz)



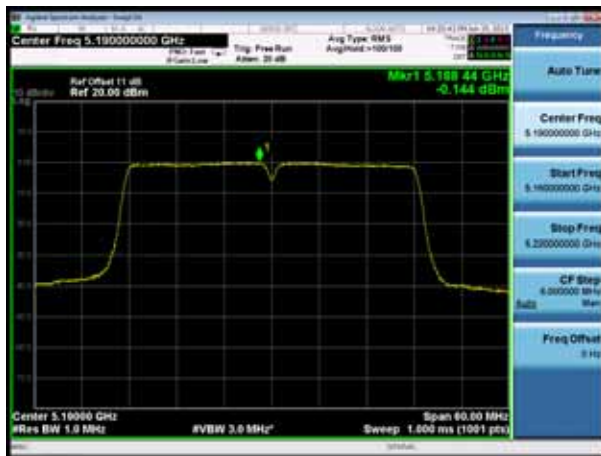
Channel 165 (5825MHz)





802.11ac(40MHz) Power Spectral Density- Ant 0+1+2-0

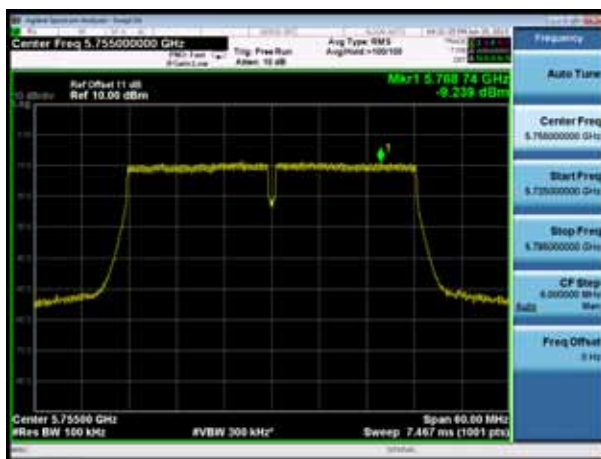
Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 155 (5755MHz)



Channel 159 (5795MHz)





802.11ac(40MHz) Power Spectral Density- Ant 0+1+2-1

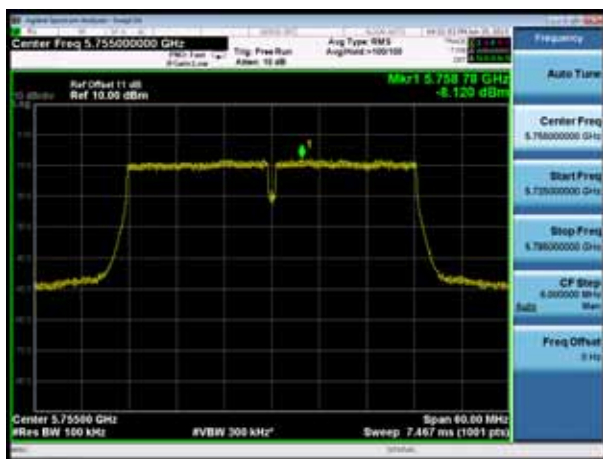
Channel 38 (5190MHz)



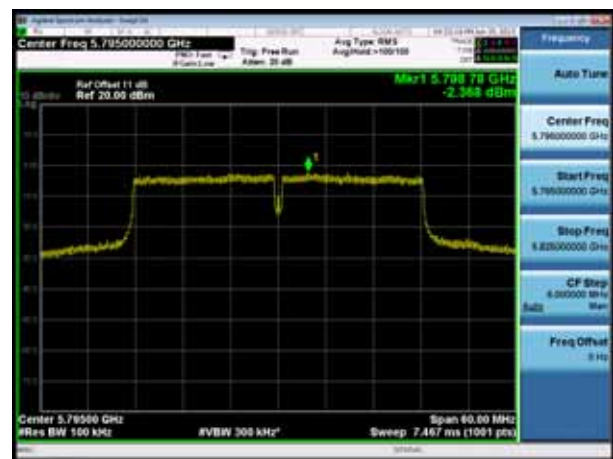
Channel 46 (5230MHz)



Channel 155 (5755MHz)



Channel 159 (5795MHz)



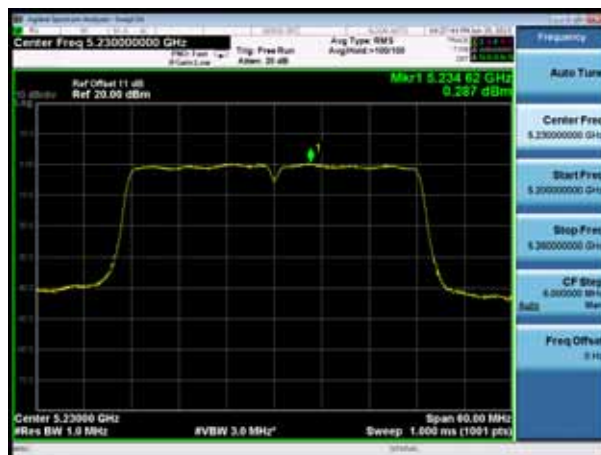


802.11ac(40MHz) Power Spectral Density- Ant 0+1+2-2

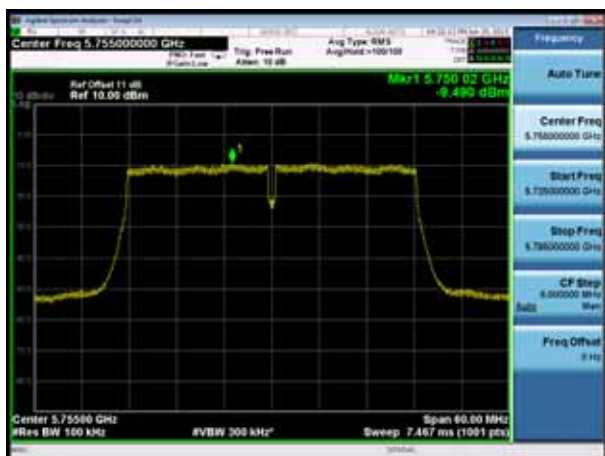
Channel 38 (5190MHz)



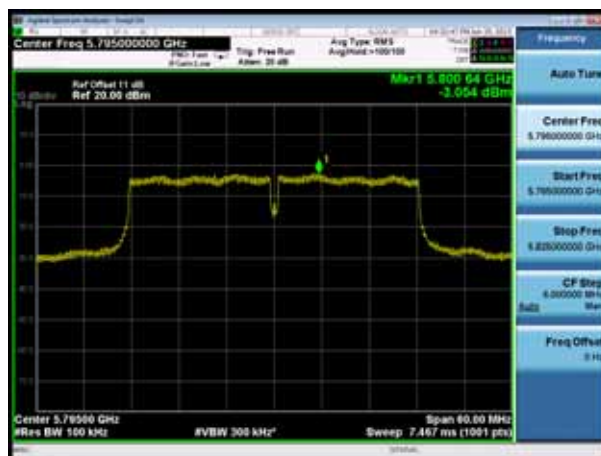
Channel 46 (5230MHz)



Channel 155 (5755MHz)



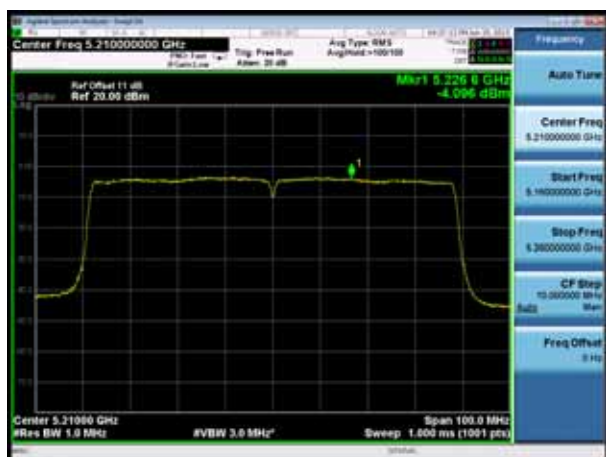
Channel 159 (5795MHz)



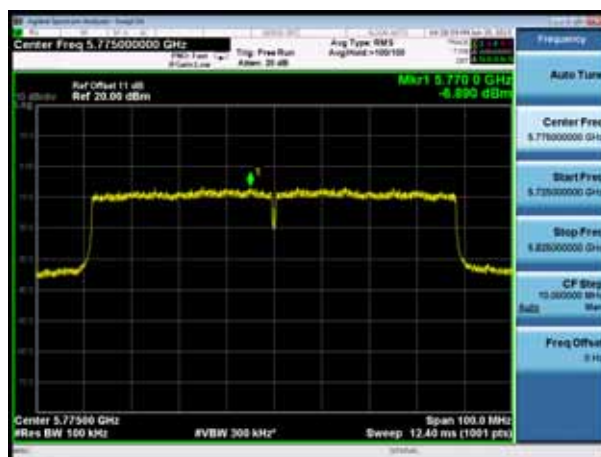


802.11ac(80MHz) Power Spectral Density- Ant 0+1+2-0

Channel 42 (5210MHz)



Channel 155 (5775MHz)

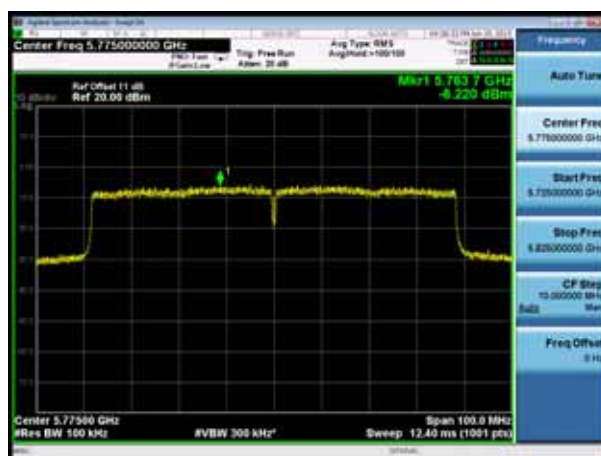


802.11ac(80MHz) Power Spectral Density- Ant 0+1+2-1

Channel 42 (5210MHz)



Channel 155 (5775MHz)





802.11ac(80MHz) Power Spectral Density- Ant 0+1+2-2

Channel 42 (5210MHz)



Channel 155 (5775MHz)





9. Band Edges Measurement

9.1 Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

**For 15.407(b) requirement:**

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBuV/m)
5150 - 5350	-27	68.2
5470 - 5725	-27	68.2
5725 - 5825	-27 [Note(1)]	68.2
	-17 [Note(2)]	78.2
Note(1): Outside the frequency range 5715 - 5835MHz.		
Note(2): Within the frequency range from the band edge to 10MHz below or above the band edge, 5715 - 5725MHz and 5825 - 5835MHz.		

Note:

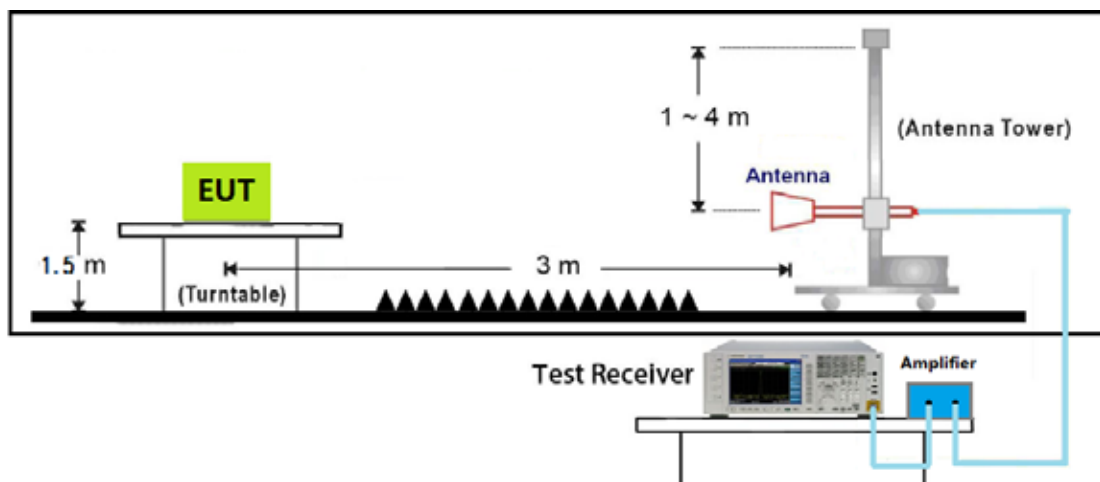
1. Refer to KDB 789033 D02v01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

2. All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	200	3
216 - 960	200	3
Above 960	500	3



9.2 Test Setup Layout



9.3 Measurement Equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date.
EMI Test Receiver	R&S	ESCI	100563	2015.03.10	2016.03.09
H64 Preamplifier	HP	8447F	3113A05582	2015.03.10	2016.03.09
Preamplifier	Agilent	8449B	3008A02342	2015.03.10	2016.03.09
Preamplifier	COM-POWER	PA-840	711885	2015.03.24	2016.03.23
Ultra Broadband Antenna	R&S	HL562	100362	2015.05.03	2016.05.02
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2015.05.03	2016.05.02
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-347	2015.05.03	2016.05.02
Spectrum Analyzer	Agilent	N9010A	MY53400169	2014.09.25	2015.09.25
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2015.03.10	2016.03.09



9.4 Measurement Data

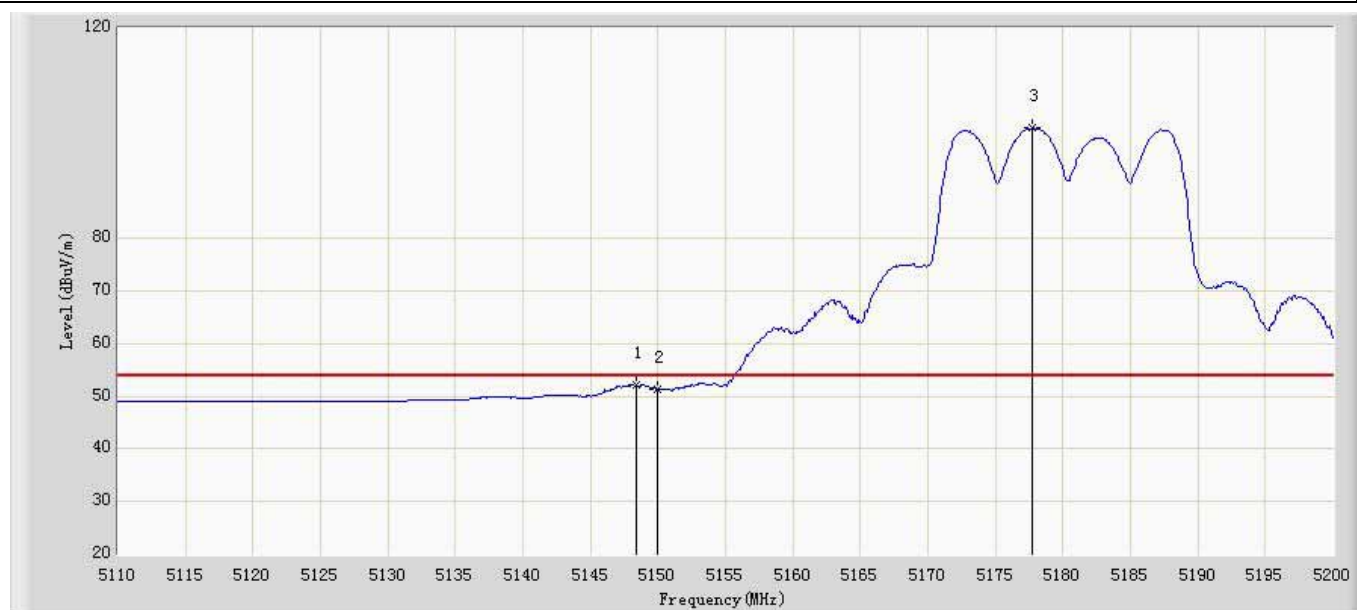
Site: AC102	Time: 2015/08/15 - 11:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 36 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	73.278	33.631	-0.722	74.000	39.647	PK
2	*	5173.810	121.380	81.740	N/A	N/A	39.640	PK



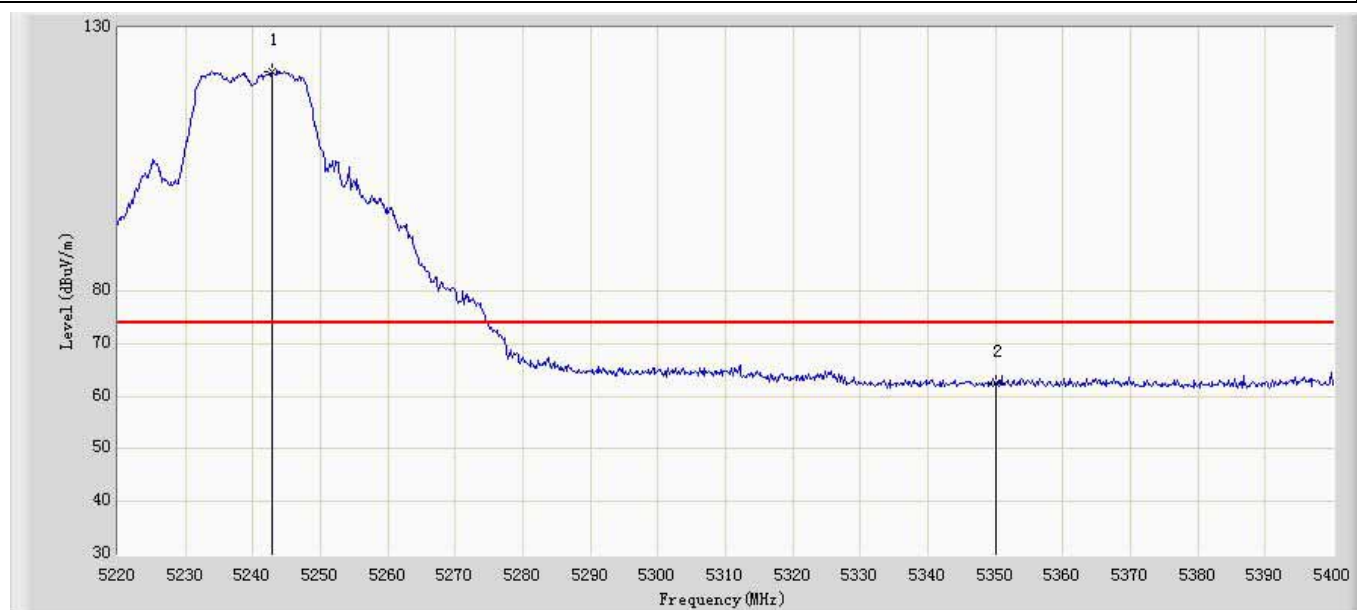
Site: AC102	Time: 2015/08/15 - 13:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 36 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5148.430	52.158	12.510	-1.842	54.000	39.648	AV
2		5150.000	51.355	11.708	-2.645	54.000	39.647	AV
3	*	5177.680	100.905	61.266	N/A	N/A	39.640	AV



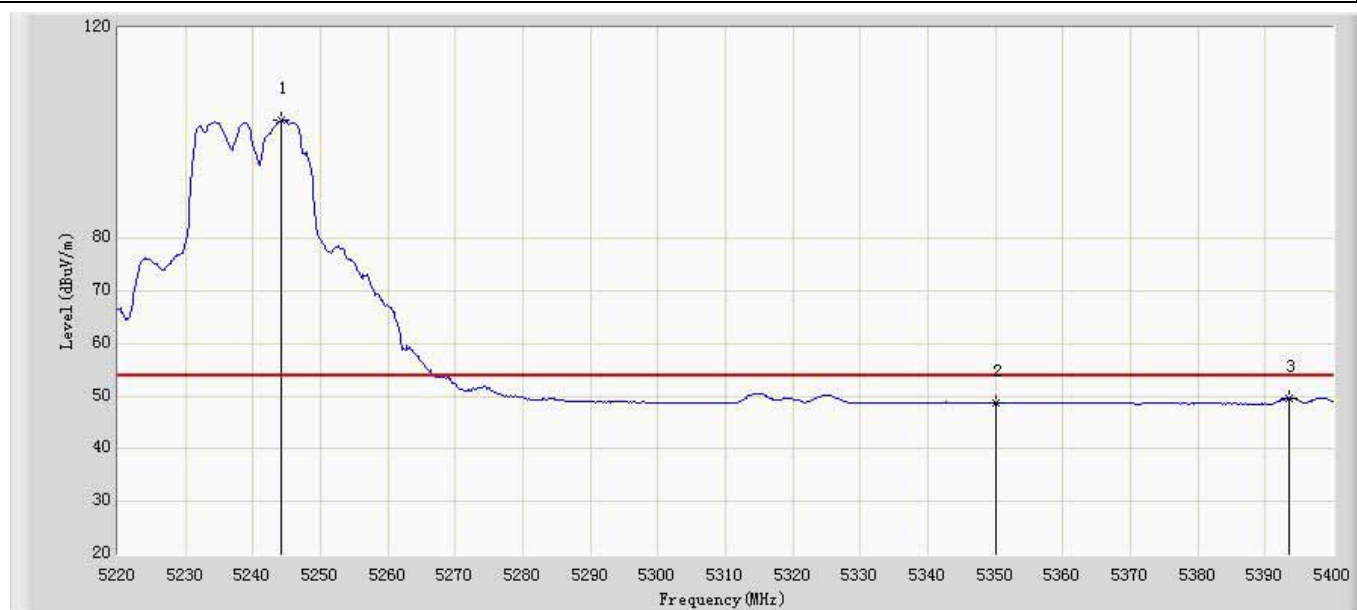
Site: AC102	Time: 2015/08/15 - 11:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 48 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5242.860	121.644	82.008	N/A	N/A	39.636	PK
2		5350.000	62.364	22.744	-11.636	74.000	39.620	PK



Site: AC102	Time: 2015/08/15 - 13:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 48 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5244.120	102.437	62.802	N/A	N/A	39.636	AV
2		5350.000	48.656	9.036	-5.344	54.000	39.620	AV
3		5393.520	49.684	10.077	-4.316	54.000	39.607	AV



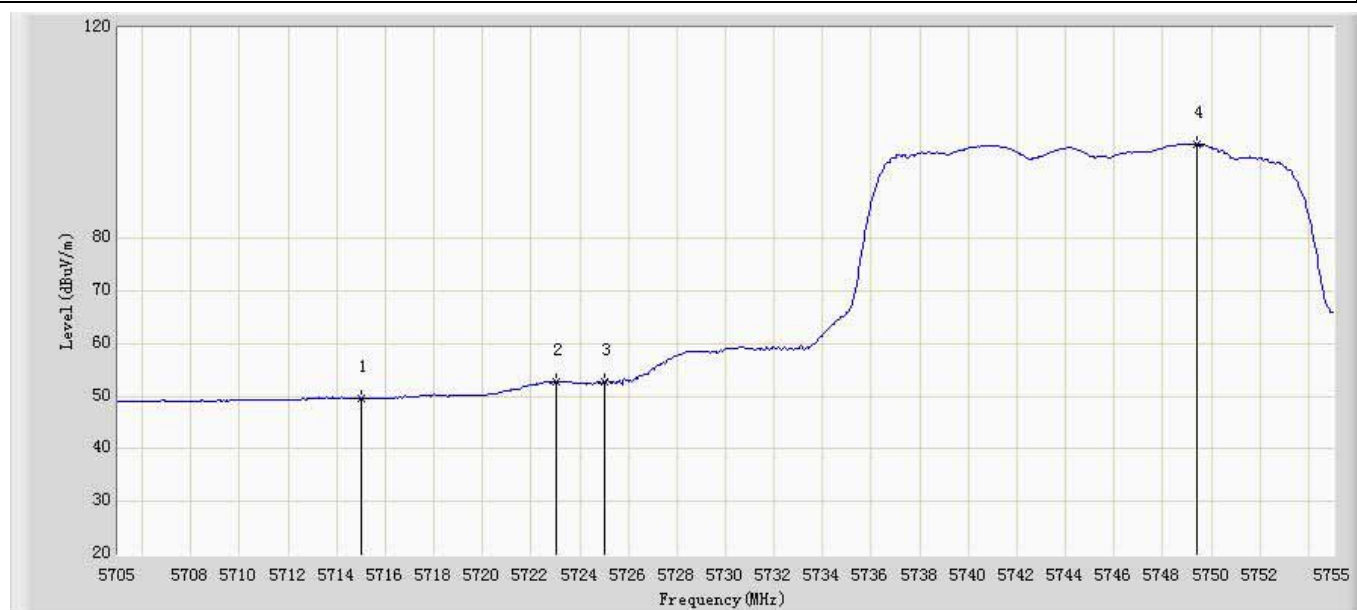
Site: AC102	Time: 2015/08/15 - 11:20
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 149 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	63.559	23.629	-4.641	68.2	39.930	PK
2		5723.450	72.371	32.43	-5.829	78.2	39.941	PK
3		5725.000	71.11	31.167	-7.09	78.2	39.943	PK
4	*	5746.950	120.135	80.169	N/A	N/A	39.966	PK



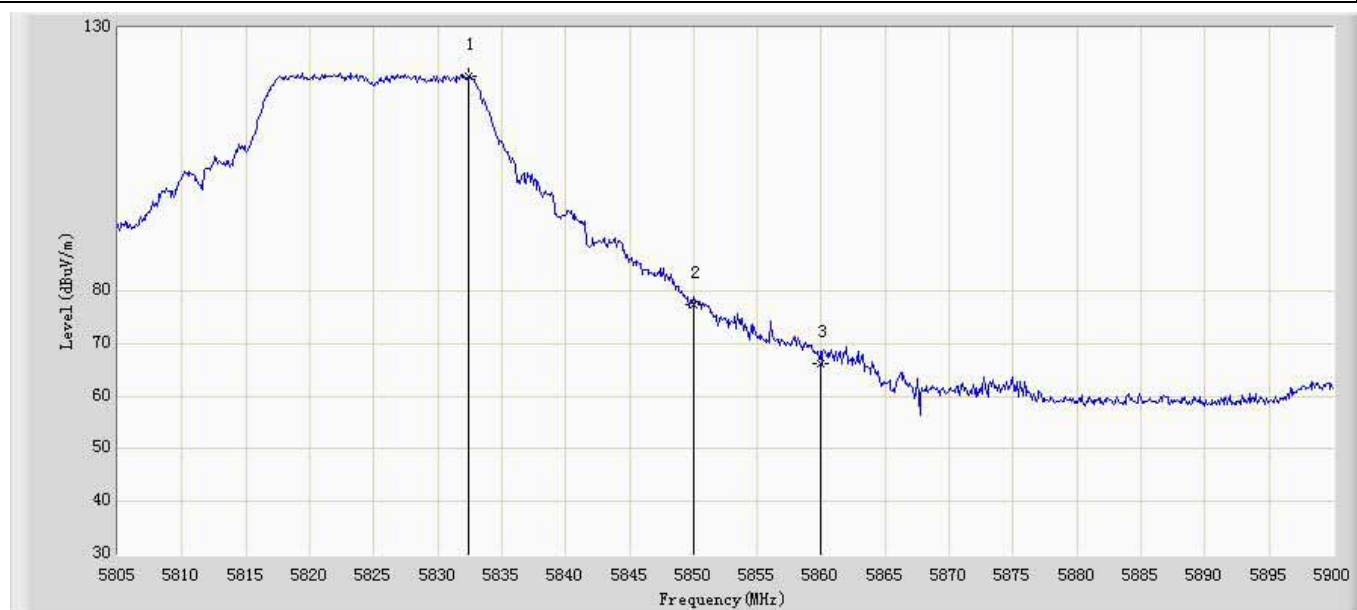
Site: AC102	Time: 2015/08/15 - 13:53
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 149 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	49.652	9.722	-18.548	68.2	39.930	AV
2		5723.050	52.778	12.838	-25.422	78.2	39.941	AV
3		5725.000	52.869	12.926	-25.331	78.2	39.943	AV
4	*	5749.400	97.814	57.845	N/A	N/A	39.968	AV



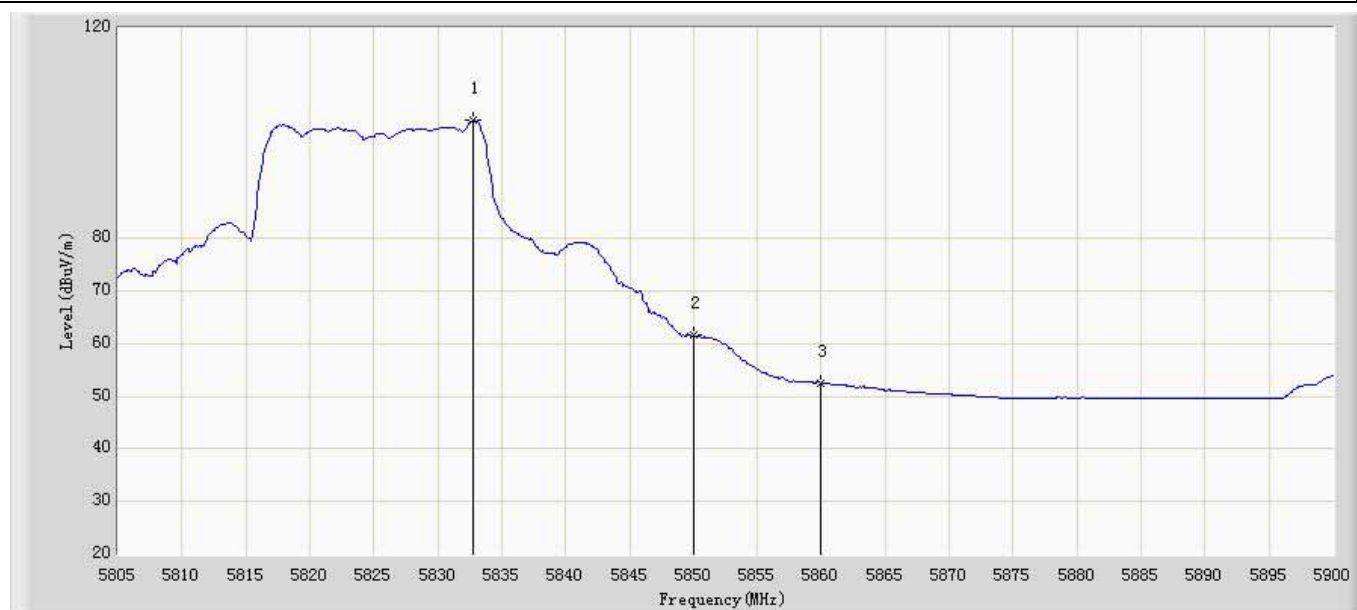
Site: AC102	Time: 2015/08/15 - 11:20
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 165 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5832.360	120.828	80.752	N/A	N/A	40.076	PK
2		5850.000	77.454	37.348	-0.746	78.2	40.106	PK
3		5860.000	66.117	25.997	-2.083	68.2	40.120	PK



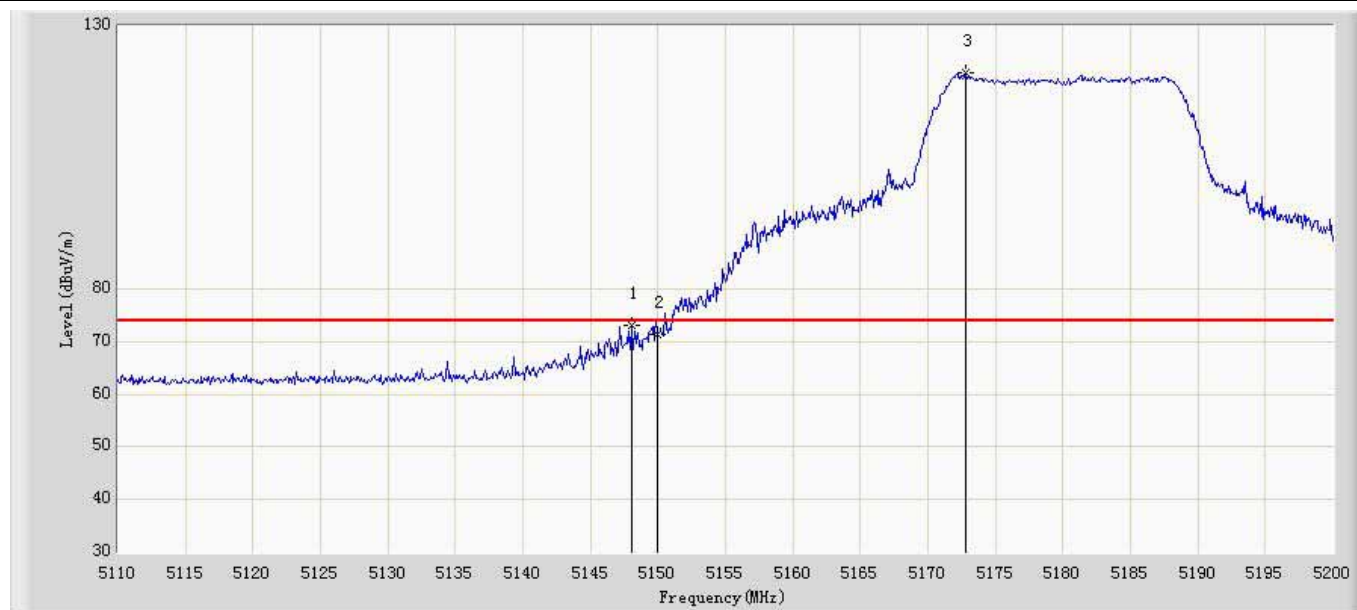
Site: AC102	Time: 2015/08/15 - 14:05
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 165 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5832.740	102.459	62.383	N/A	N/A	40.076	AV
2		5850.000	61.537	21.431	-16.663	78.2	40.106	AV
3		5860.000	52.58	12.46	-15.62	68.2	40.120	AV



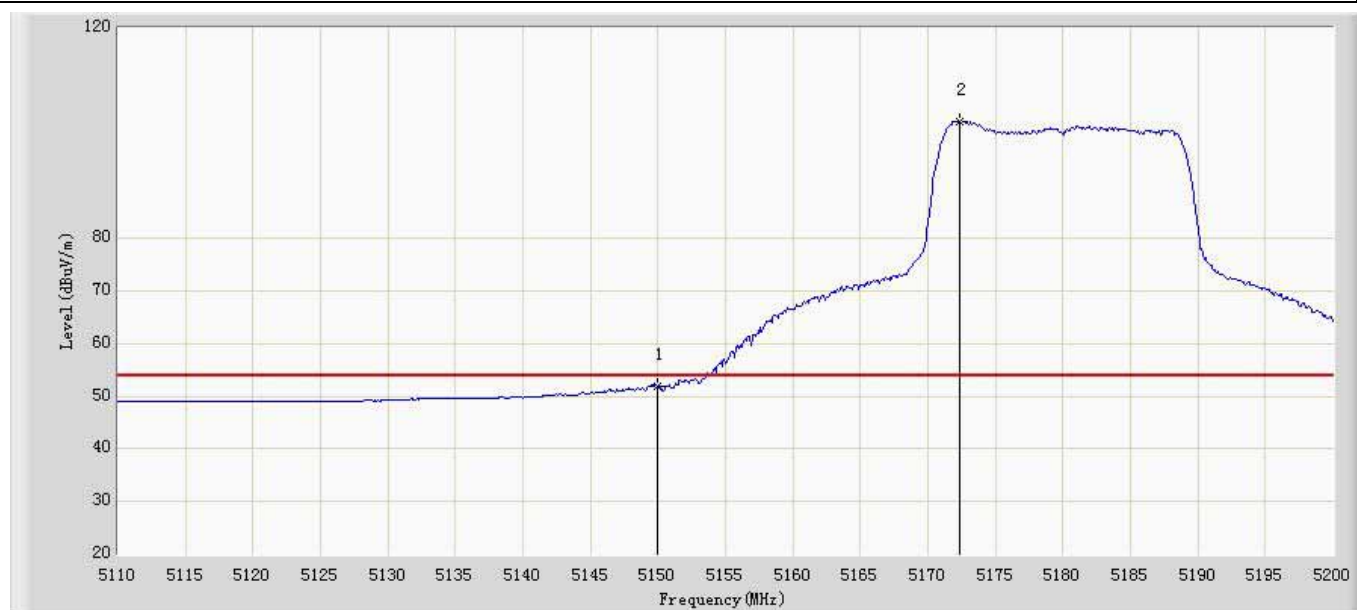
Site: AC102	Time: 2015/08/15 - 10:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 36 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5148.070	73.067	33.419	-0.933	74.000	39.648	PK
2		5150.000	71.474	31.827	-2.526	74.000	39.647	PK
3	*	5172.820	122.174	82.534	N/A	N/A	39.641	PK



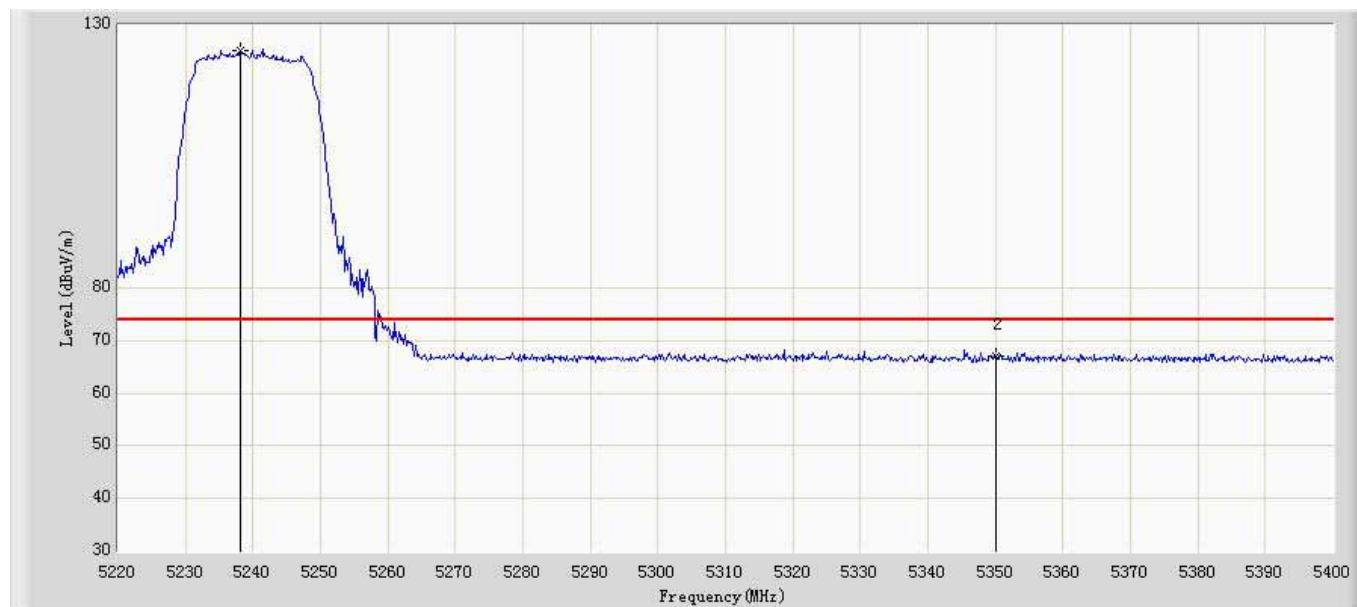
Site: AC102	Time: 2015/08/15 - 10:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 36 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	51.789	12.142	-2.211	54.000	39.647	AV
2	*	5172.370	102.290	62.650	N/A	N/A	39.640	AV



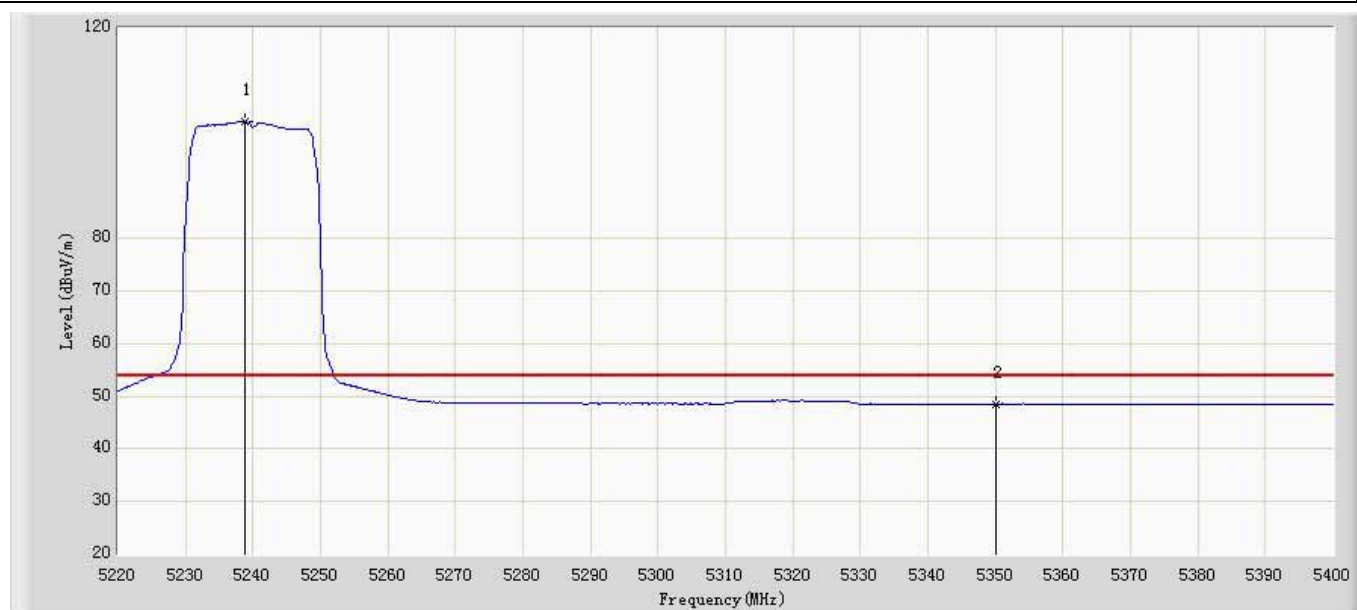
Site: AC102	Time: 2015/09/21 - 10:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 48 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5238.180	125.092	85.454	N/A	N/A	39.639	PK
2		5350.000	67.103	27.483	-6.897	74.000	39.620	PK



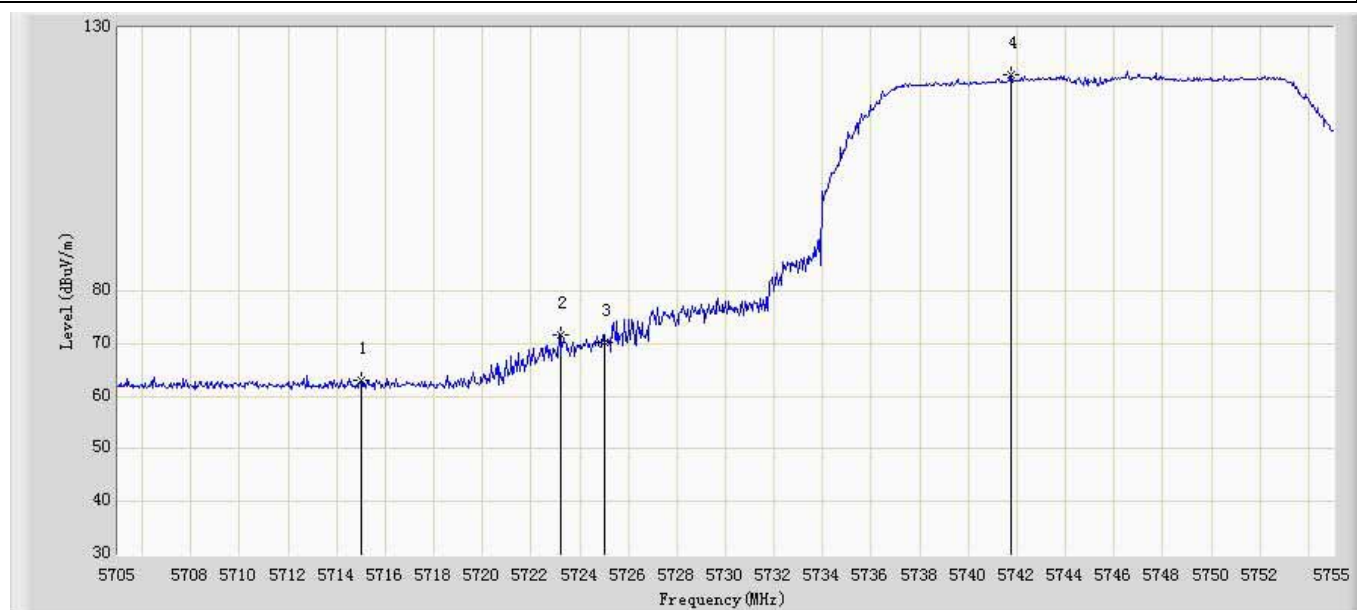
Site: AC102	Time: 2015/09/21 - 10:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 48 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5238.900	102.159	62.521	N/A	N/A	39.638	AV
2		5350.000	48.526	8.906	-5.474	54.000	39.620	AV



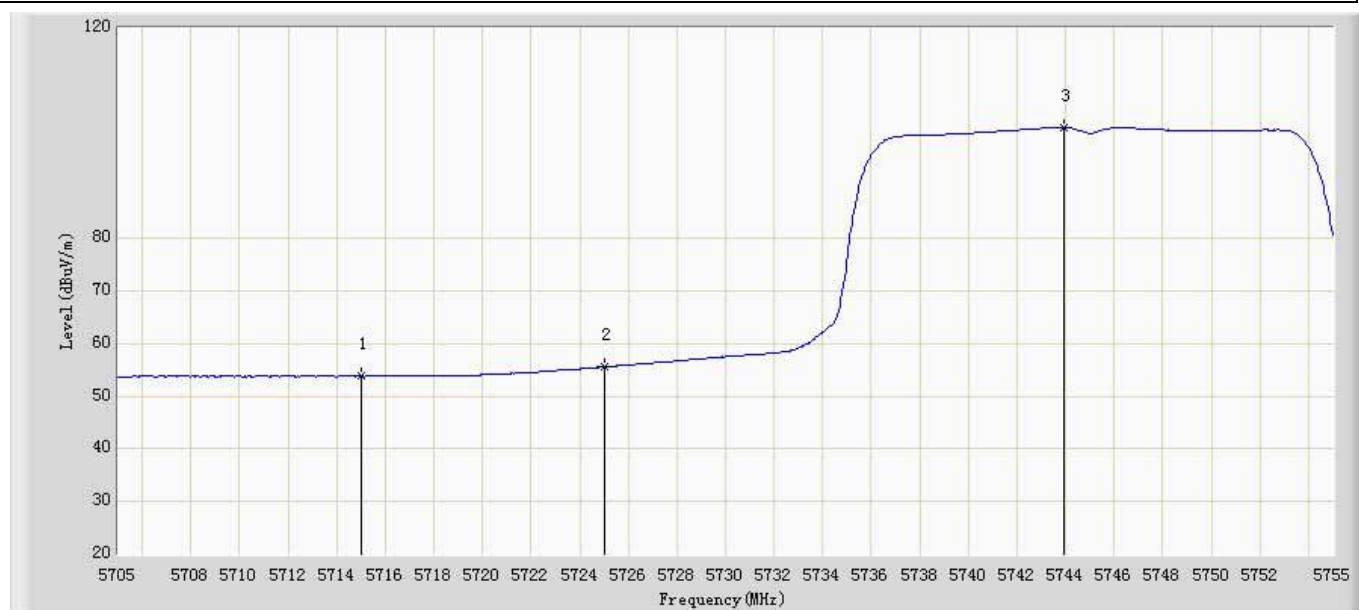
Site: AC102	Time: 2015/08/17 - 10:32
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 149 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	63.185	23.255	-5.015	68.2	39.930	PK
2		5723.250	71.642	31.701	-6.558	78.2	39.941	PK
3		5725.000	70.163	30.22	-8.037	78.2	39.943	PK
4	*	5741.750	121.191	81.231	N/A	N/A	39.960	PK



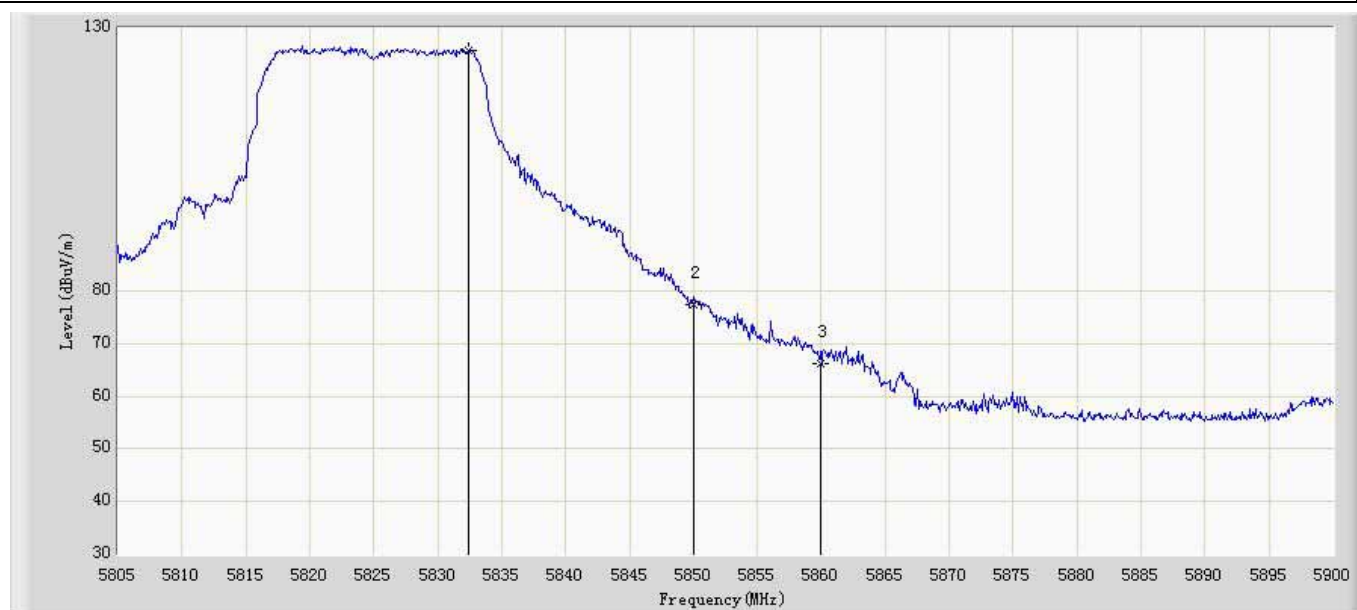
Site: AC102	Time: 2015/08/17 - 10:34
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 149 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	53.789	13.859	-14.411	68.2	39.930	AV
2		5725.000	55.576	15.633	-22.624	78.2	39.943	AV
3	*	5743.950	101.029	61.066	N/A	N/A	39.963	AV



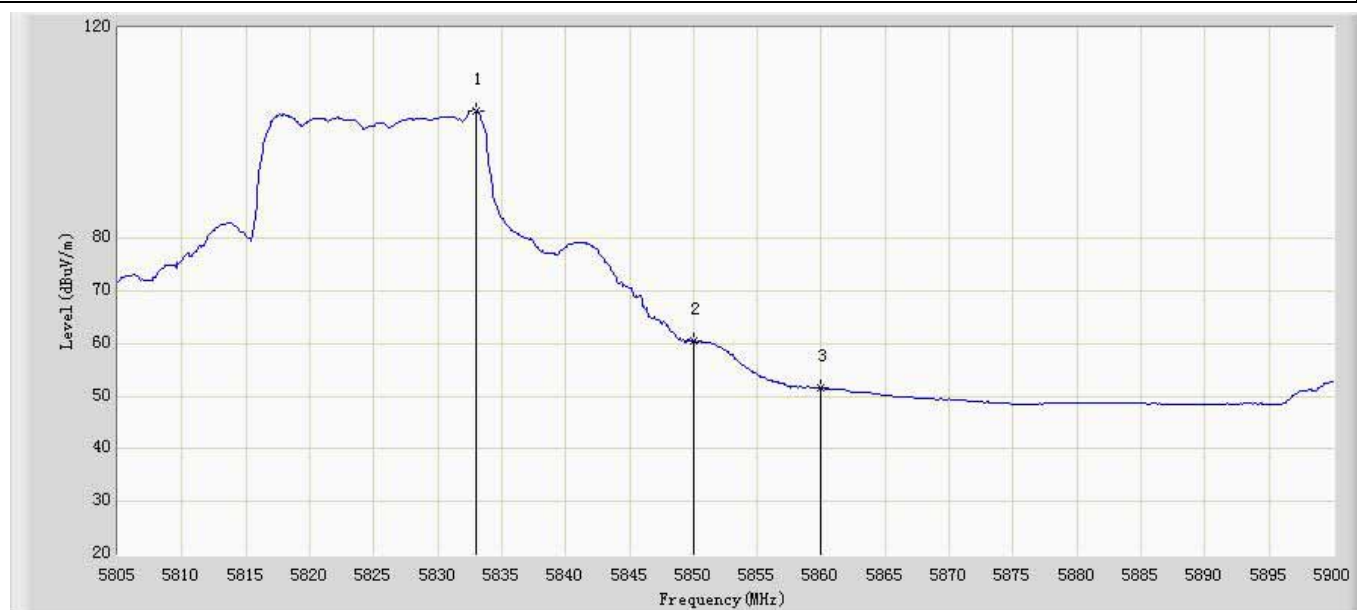
Site: AC102	Time: 2015/09/21 - 09:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 165 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5832.360	125.828	85.752	N/A	N/A	40.076	PK
2		5850.000	77.454	37.348	-0.746	78.2	40.106	PK
3		5860.000	66.117	25.997	-2.083	68.2	40.120	PK



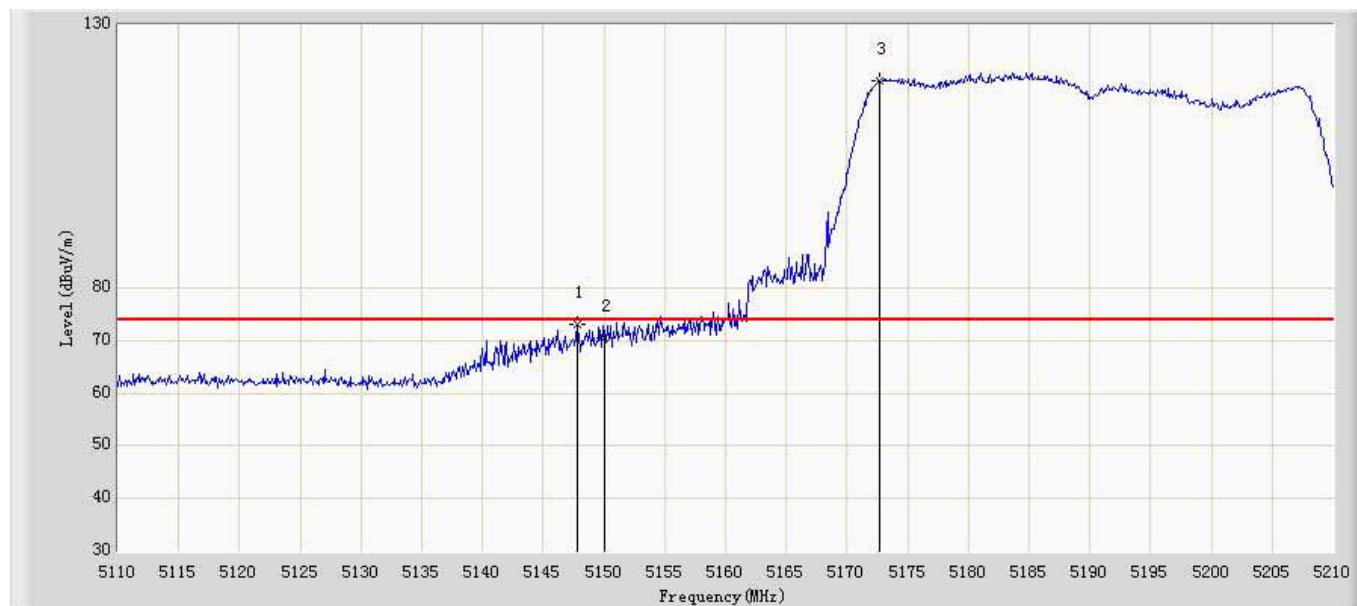
Site: AC102	Time: 2015/09/21 - 10:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 165 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5833.025	104.317	64.241	N/A	N/A	40.076	AV
2		5850.000	60.537	20.431	-17.663	78.2	40.106	AV
3		5860.000	51.581	11.461	-16.619	68.2	40.120	AV



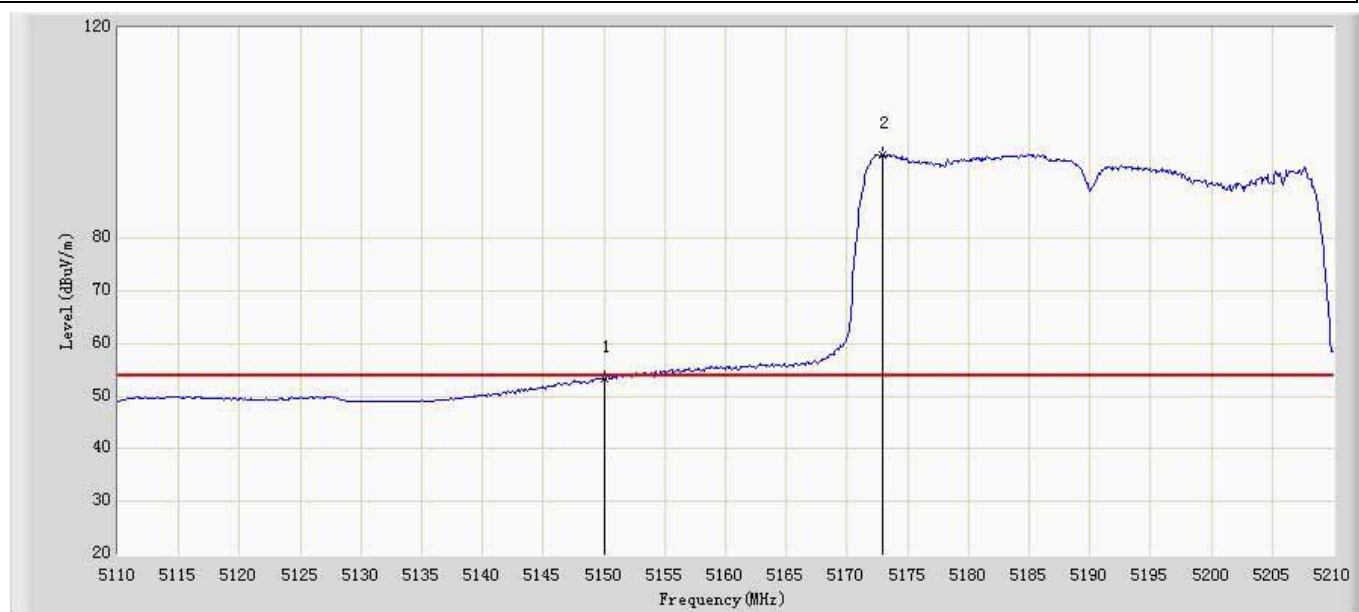
Site: AC102	Time: 2015/08/17 - 11:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 38 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5147.800	73.046	33.398	-0.954	74.000	39.648	PK
2		5150.000	70.569	30.922	-3.431	74.000	39.647	PK
3	*	5172.700	119.414	79.773	N/A	N/A	39.641	PK



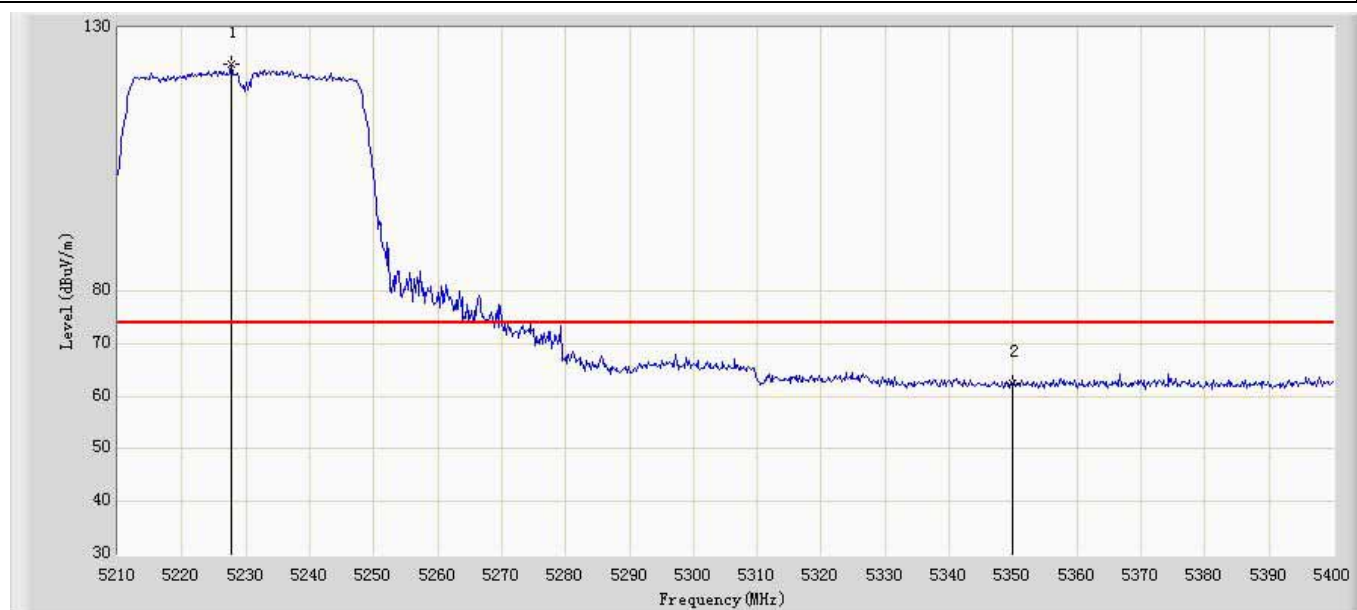
Site: AC102	Time: 2015/08/17 - 11:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 38 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.190	13.543	-0.810	54.000	39.647	AV
2	*	5172.900	95.727	56.087	N/A	N/A	39.640	AV



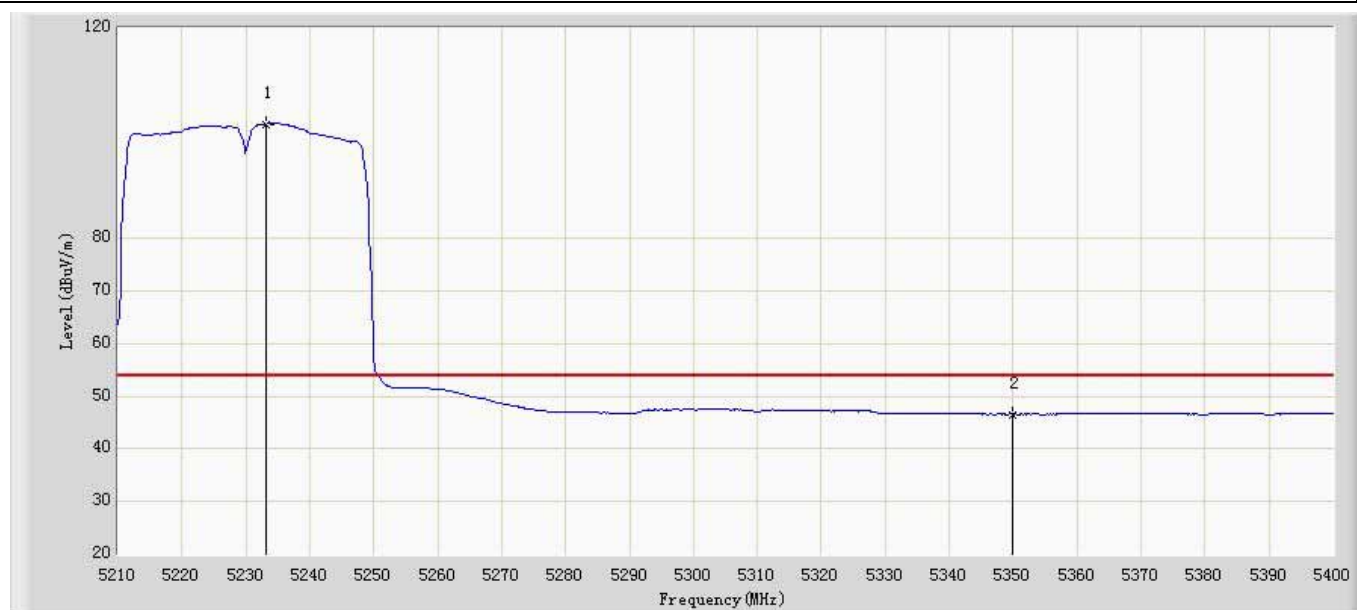
Site: AC102	Time: 2015/08/17 - 10:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 46 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5227.670	123.000	83.359	N/A	N/A	39.641	PK
2		5350.000	62.447	22.827	-11.553	74.000	39.620	PK



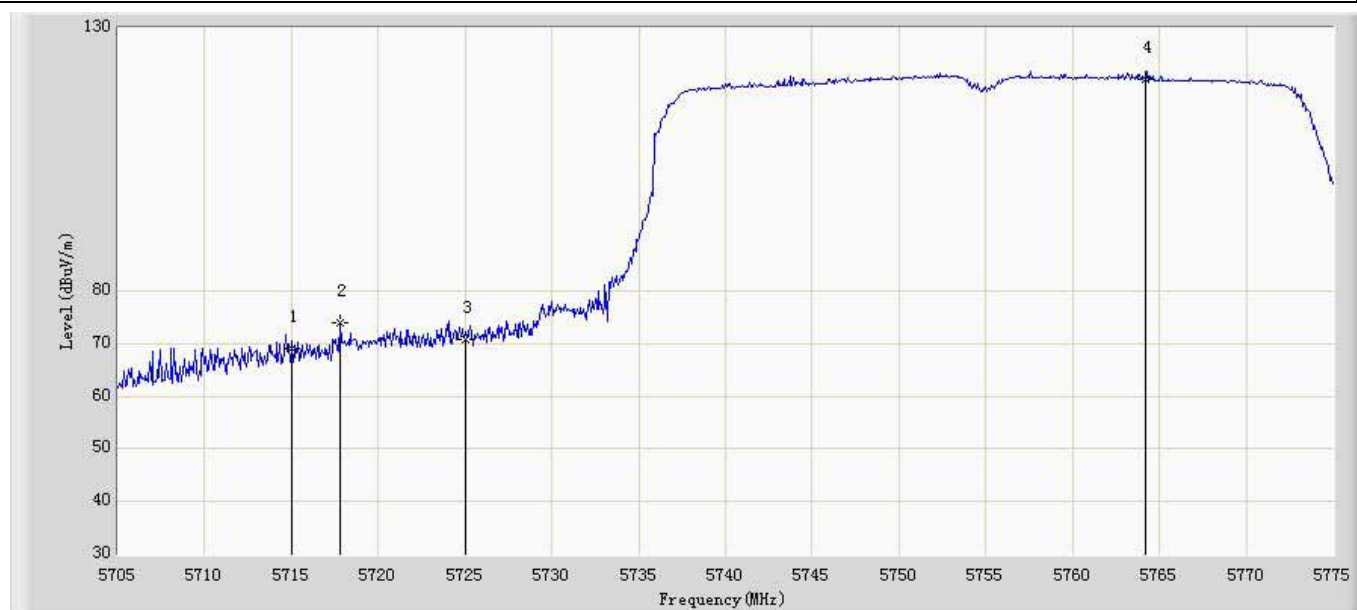
Site: AC102	Time: 2015/08/17 - 10:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 46 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5233.180	101.741	62.100	N/A	N/A	39.641	AV
2		5350.000	46.562	6.942	-7.438	54.000	39.620	AV



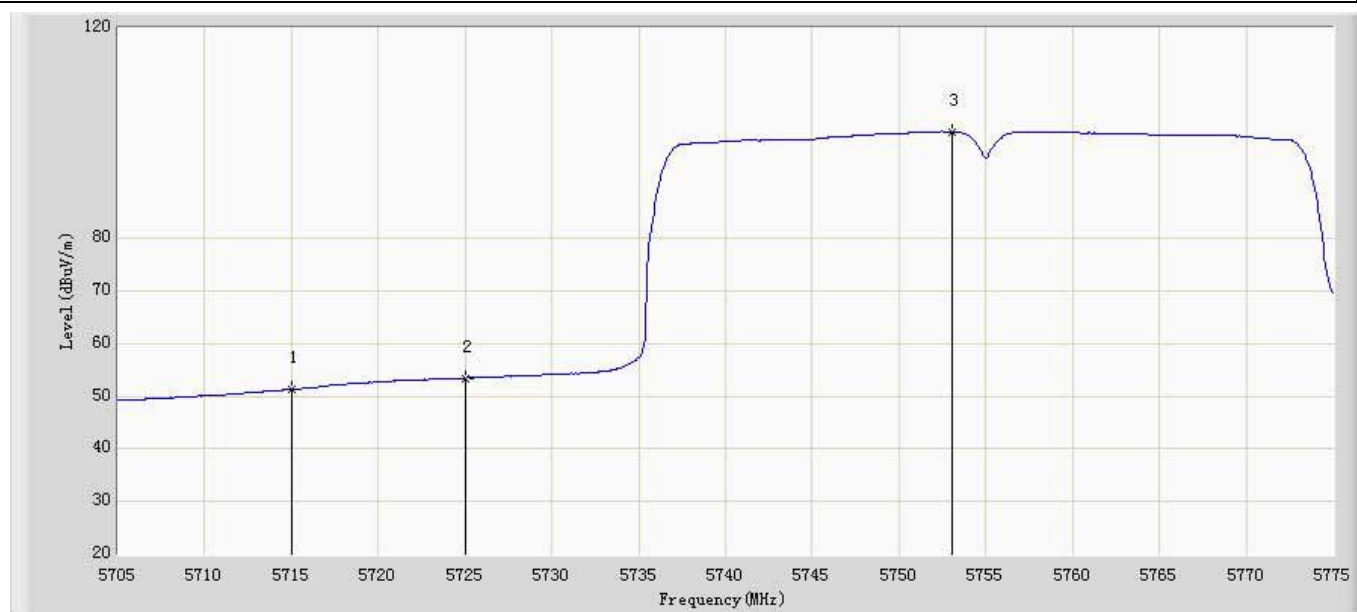
Site: AC102	Time: 2015/08/17 - 10:38
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 151 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	67.124	27.194	-1.076	68.2	39.930	PK
2		5717.810	73.927	33.994	-4.273	78.2	39.933	PK
3		5725.000	70.788	30.845	-7.412	78.2	39.943	PK
4	*	5764.220	120.174	80.189	N/A	N/A	39.985	PK



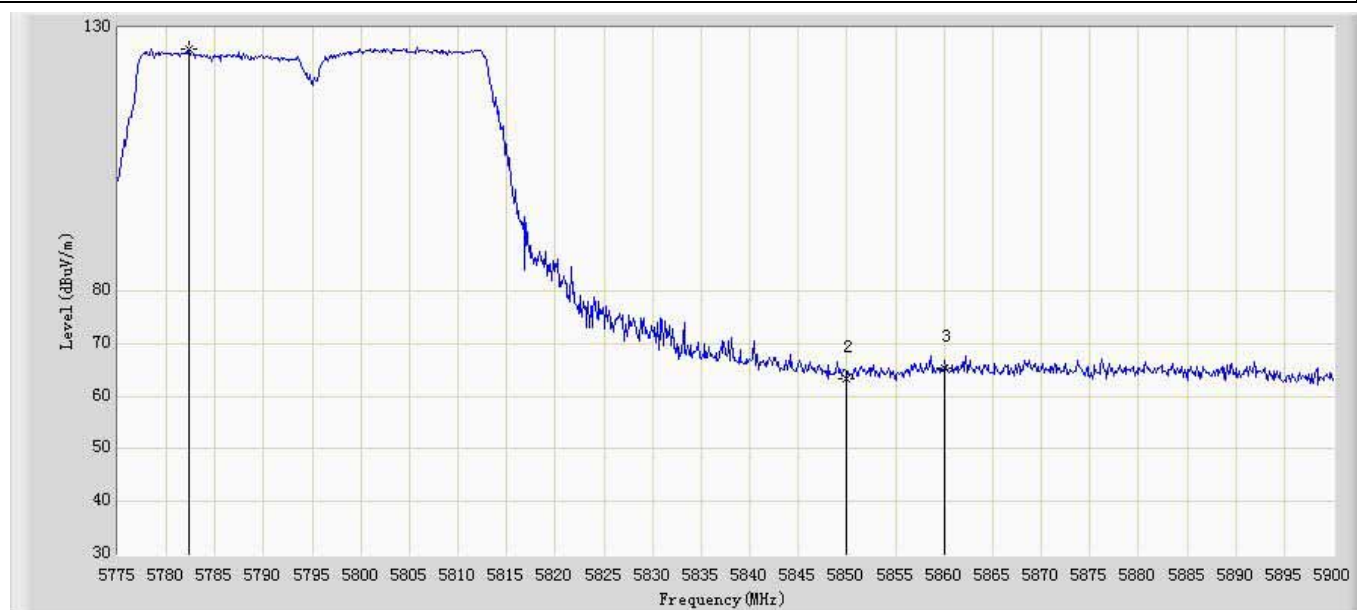
Site: AC102	Time: 2015/08/17 - 10:38
FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 151 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	51.352	11.422	-16.848	68.2	39.930	AV
2		5725.000	53.452	13.509	-24.748	78.2	39.943	AV
3	*	5753.090	100.265	60.293	N/A	N/A	39.972	AV



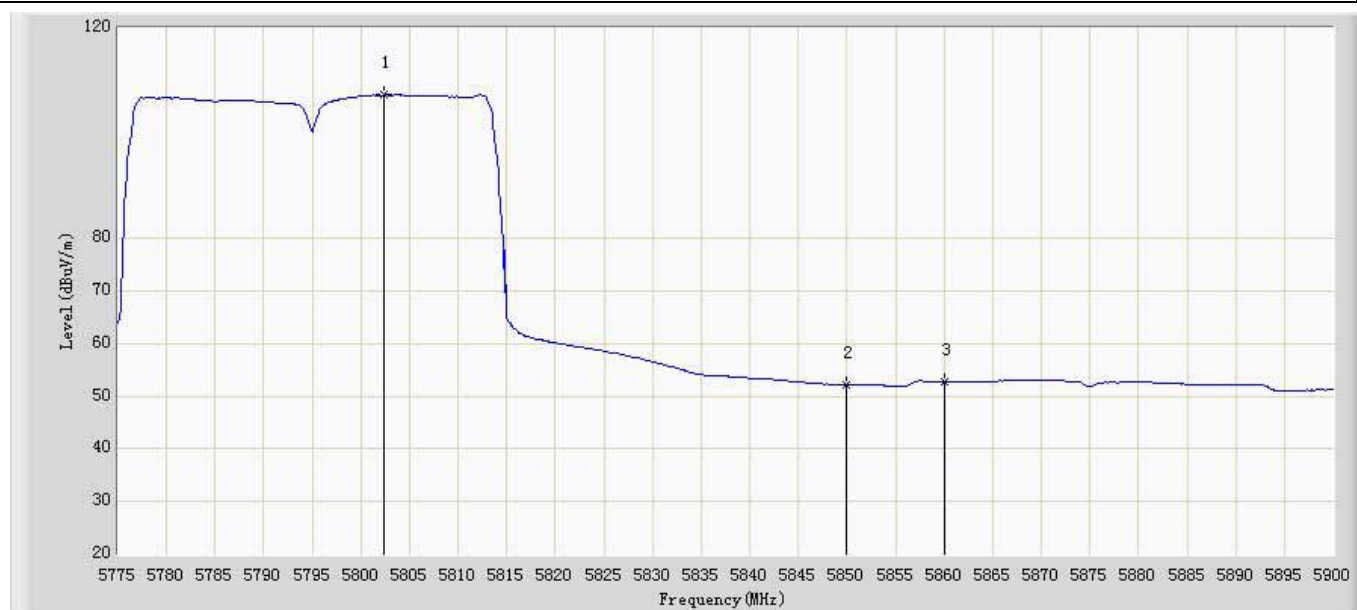
Site: AC102	Time: 2015/09/22 - 10:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 159 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5782.33	126.141	86.132	N/A	N/A	40.009	PK
2		5850.000	65.759	25.653	-12.441	78.2	40.106	PK
3	*	5860.000	66.791	26.671	-1.409	68.2	40.12	PK



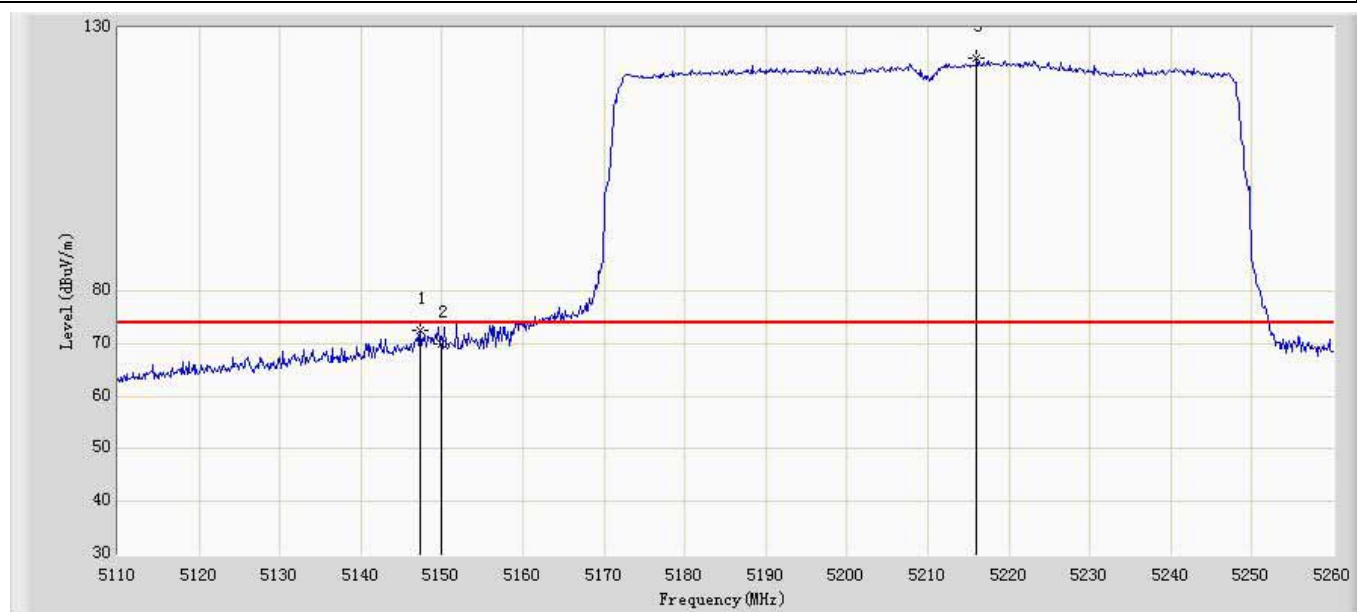
Site: AC102	Time: 2015/09/22 - 10:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 159 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5802.341	107.06	67.024	N/A	N/A	40.036	AV
2		5850.000	53.592	13.486	-24.608	78.2	40.106	AV
3	*	5860.000	54.652	14.532	-13.548	68.2	40.12	AV



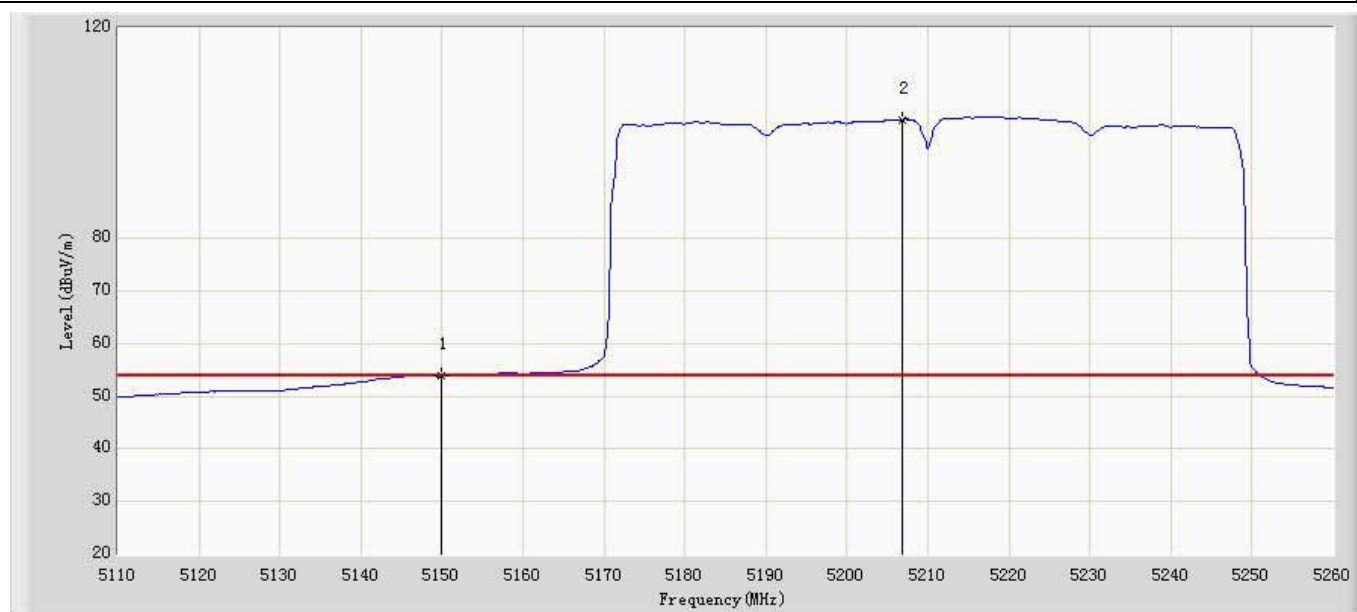
Site: AC102	Time: 2015/08/17 - 10:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 42 by 802.11ac80 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5147.350	72.509	32.861	-1.491	74.000	39.648	PK
2		5150.000	69.838	30.191	-4.162	74.000	39.647	PK
3	*	5216.050	124.315	84.673	N/A	N/A	39.642	PK



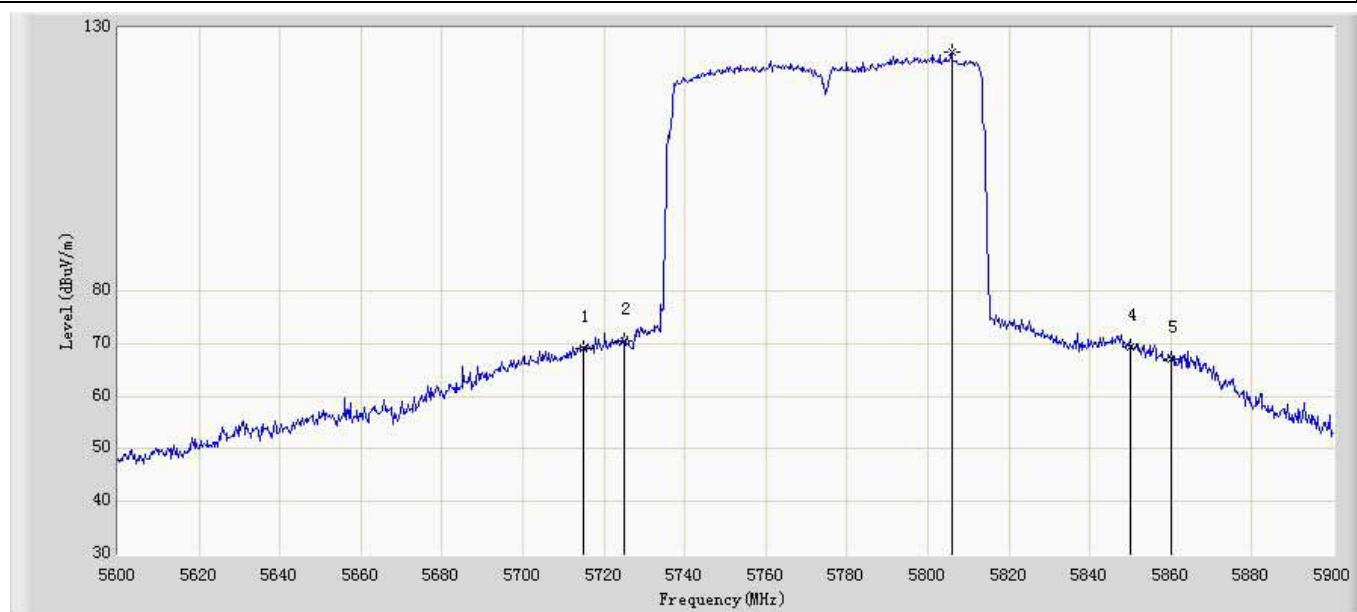
Site: AC102	Time: 2015/08/17 - 10:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 42 by 802.11ac80 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	53.787	14.140	-0.213	54.000	39.647	AV
2	*	5206.900	102.559	62.919	N/A	N/A	39.640	AV



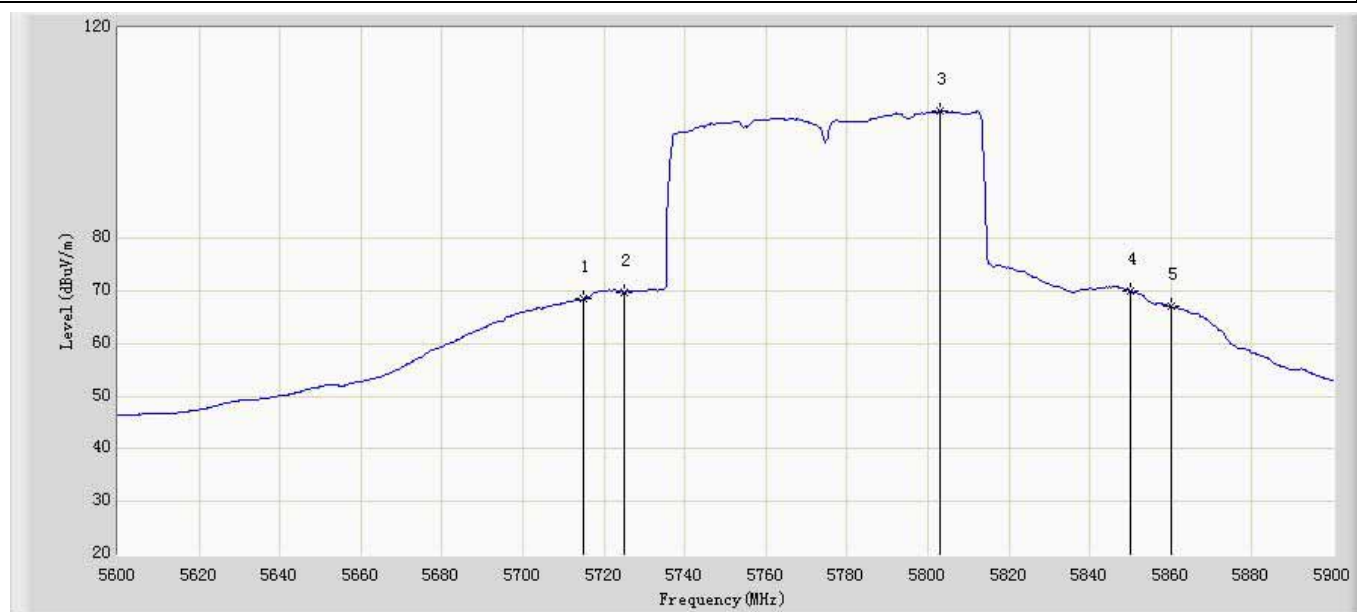
Site: AC102	Time: 2015/09/22 - 10:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 155 by 802.11ac80 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	67.367	27.437	-0.833	68.2	39.93	PK
2	*	5725.000	70.069	30.126	-8.131	78.2	39.943	PK
3		5805.800	125.367	85.327	N/A	N/A	40.04	PK
4		5850.000	69.870	29.764	-8.330	78.2	40.106	PK
5		5860.000	67.451	27.331	-0.749	68.2	40.12	PK



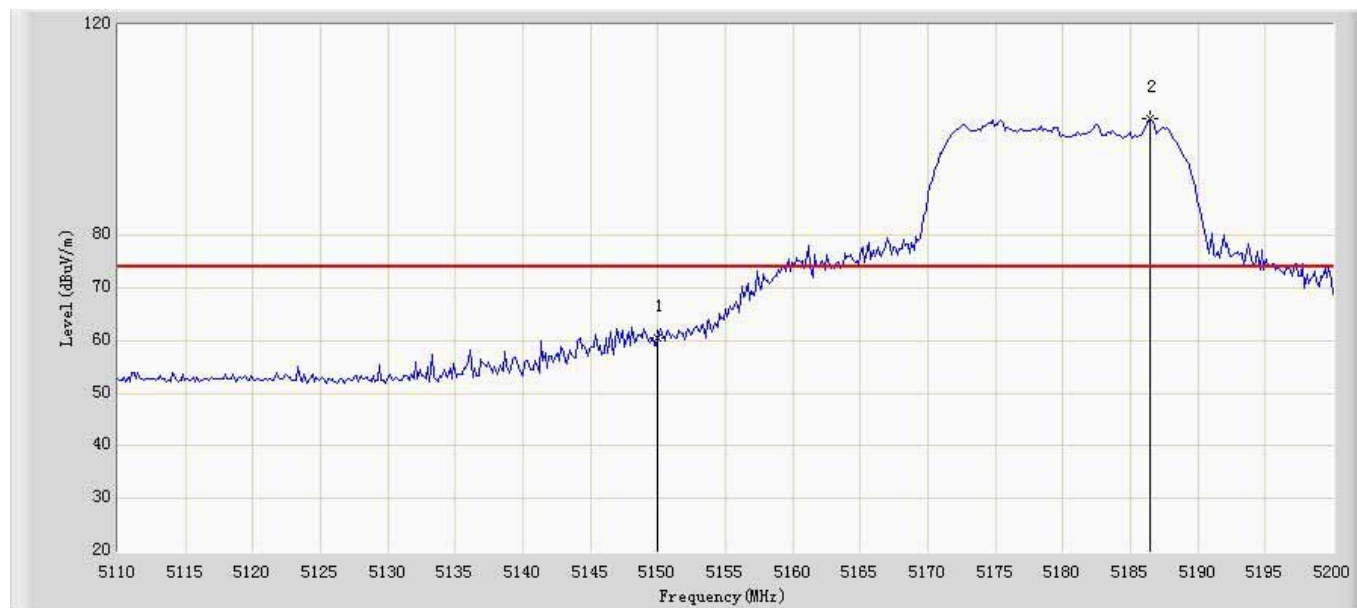
Site: AC102	Time: 2015/09/22 - 10:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Vertical
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 155 by 802.11ac80 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	66.373	26.443	-1.827	68.2	39.93	AV
2		5725.000	69.189	29.246	-9.011	78.2	39.943	AV
3		5802.800	104.168	64.132	N/A	N/A	40.036	AV
4	*	5850.000	69.875	29.769	-8.325	78.2	40.106	AV
5		5860.000	66.556	26.436	-1.644	68.2	40.12	AV



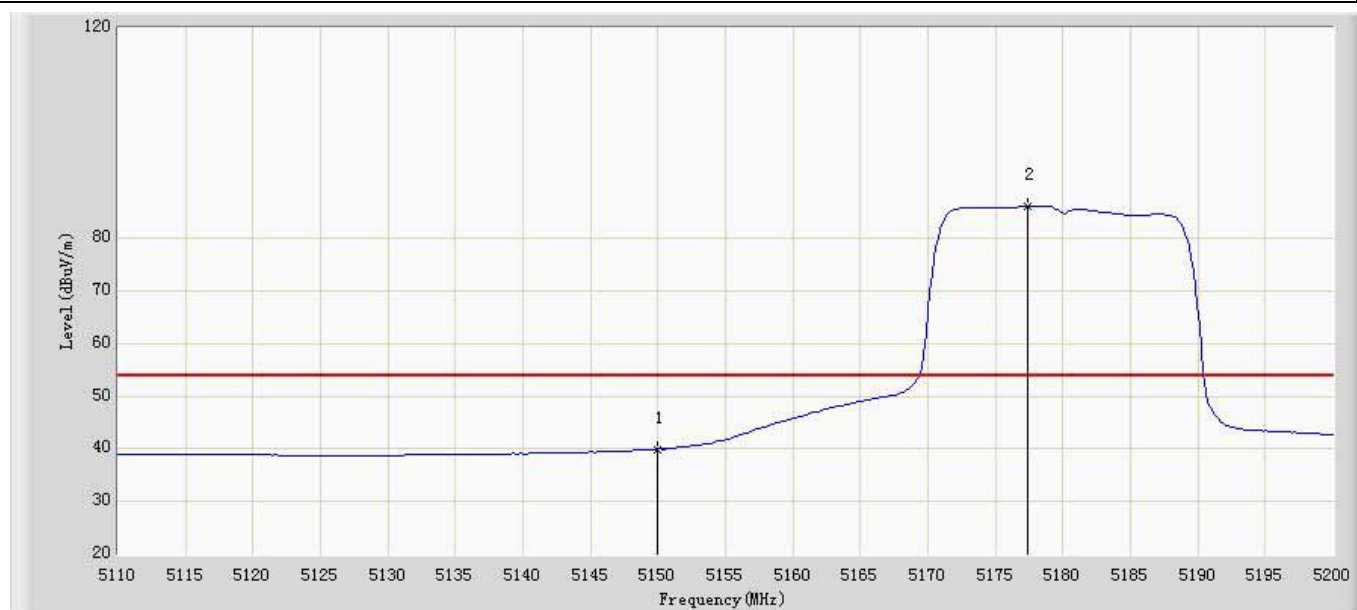
Site: AC102	Time: 2015/08/17 - 15:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 36 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	60.637	20.990	-13.363	74.000	39.647	PK
2	*	5186.500	102.240	62.601	N/A	N/A	39.639	PK



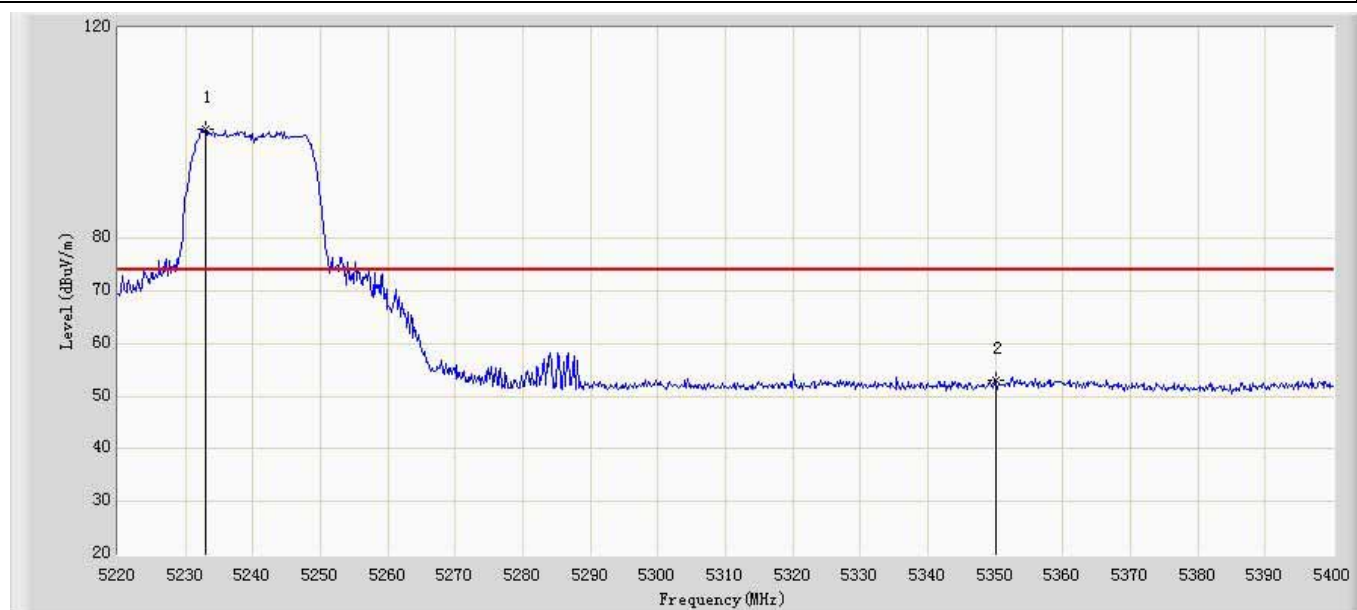
Site: AC102	Time: 2015/08/17 - 15:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 36 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	39.963	0.316	-14.037	54.000	39.647	AV
2	*	5177.350	86.136	46.497	N/A	N/A	39.640	AV



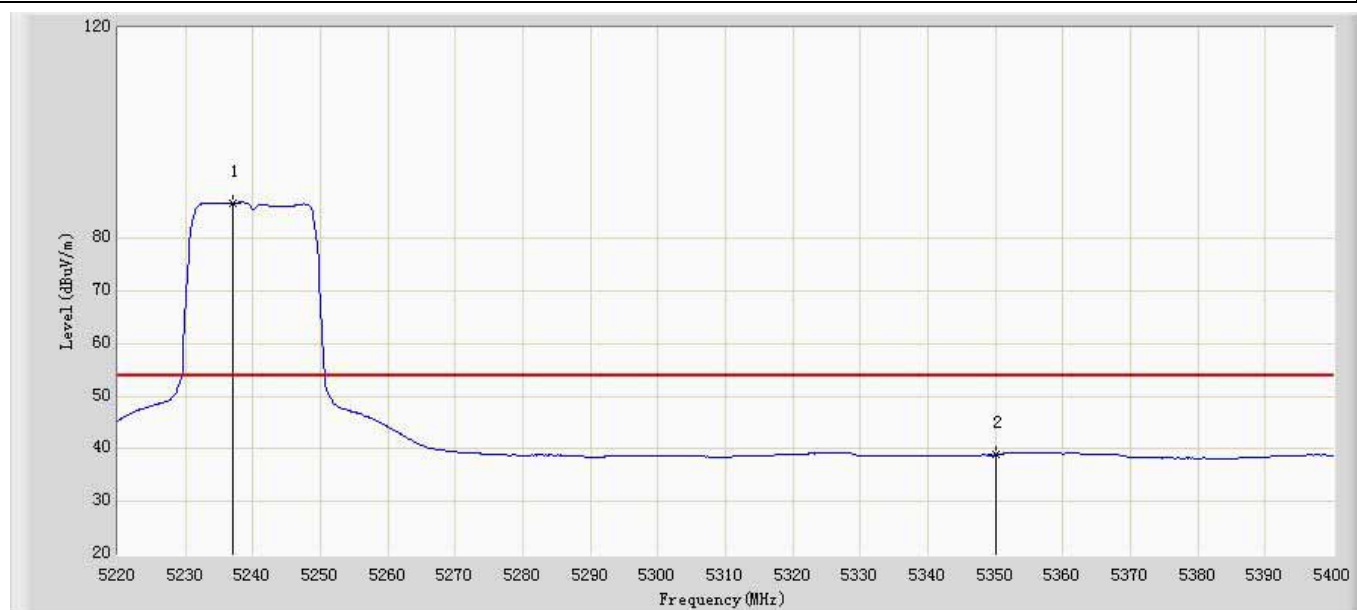
Site: AC102	Time: 2015/08/17 - 15:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 48 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5232.960	100.756	61.115	N/A	N/A	39.641	PK
2		5350.000	53.115	13.495	-20.885	74.000	39.620	PK



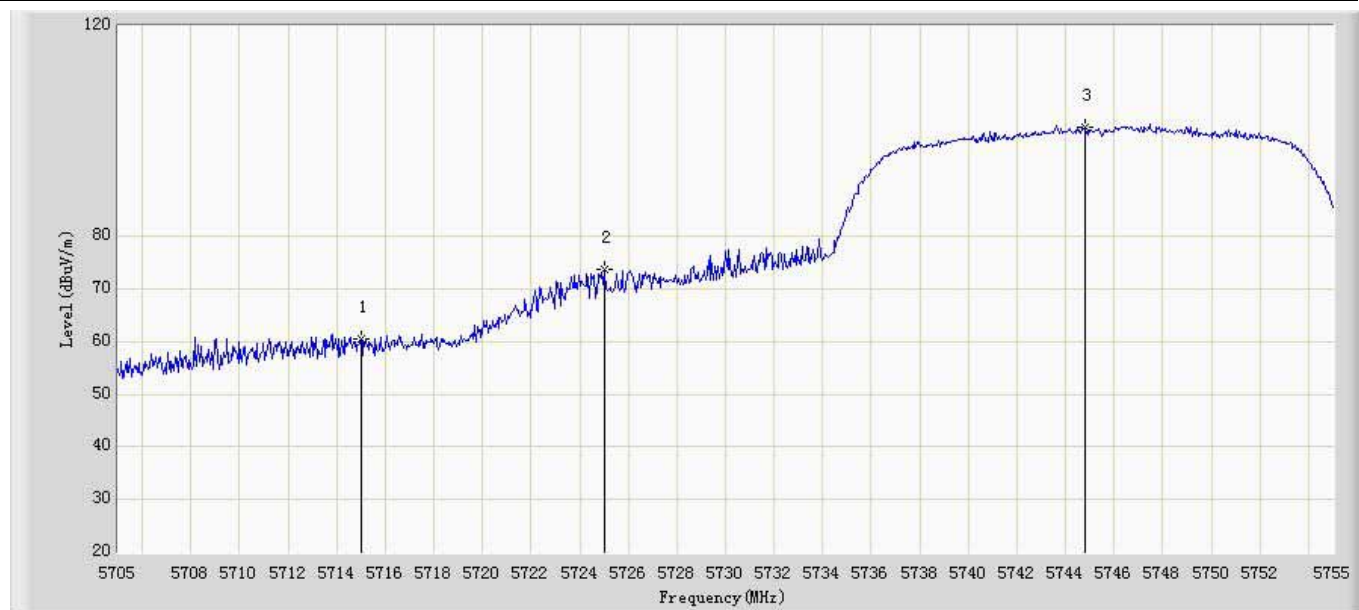
Site: AC102	Time: 2015/08/17 - 15:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 48 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5236.920	86.753	47.114	N/A	N/A	39.639	AV
2		5350.000	38.858	-0.762	-15.142	54.000	39.620	AV



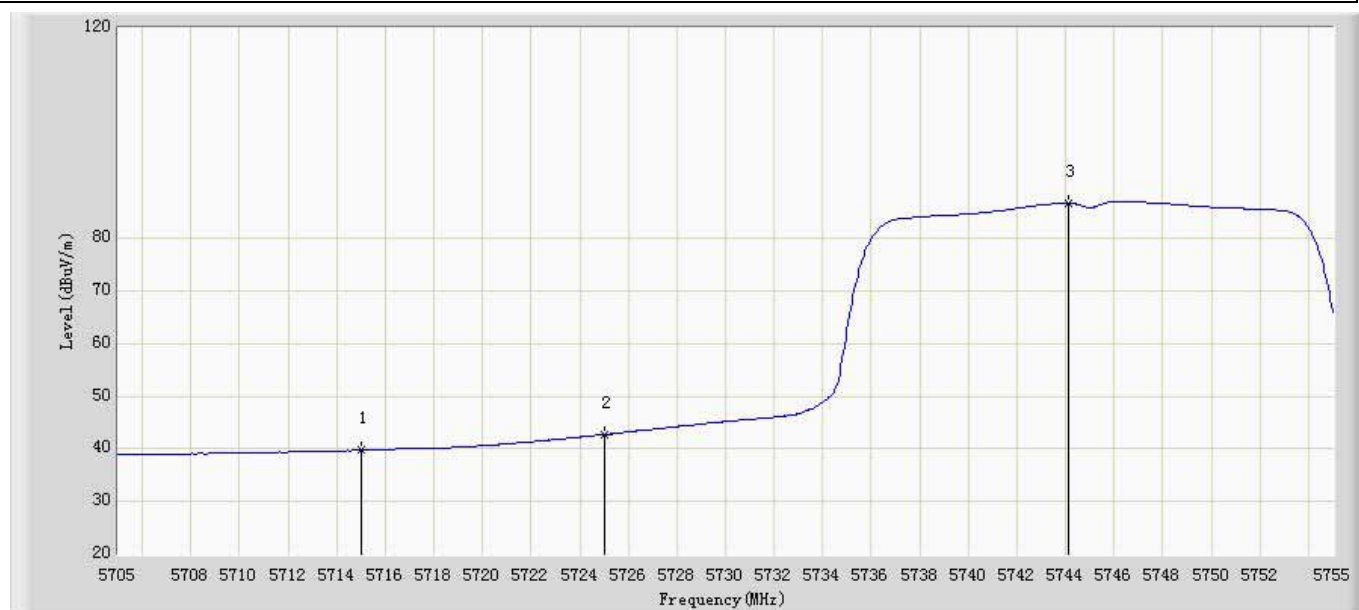
Site: AC102	Time: 2015/08/17 - 15:54
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 149 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	60.645	20.715	-7.555	68.2	39.930	PK
2		5725.000	73.695	33.752	-4.505	78.2	39.943	PK
3	*	5744.800	100.788	60.824	N/A	N/A	39.963	PK



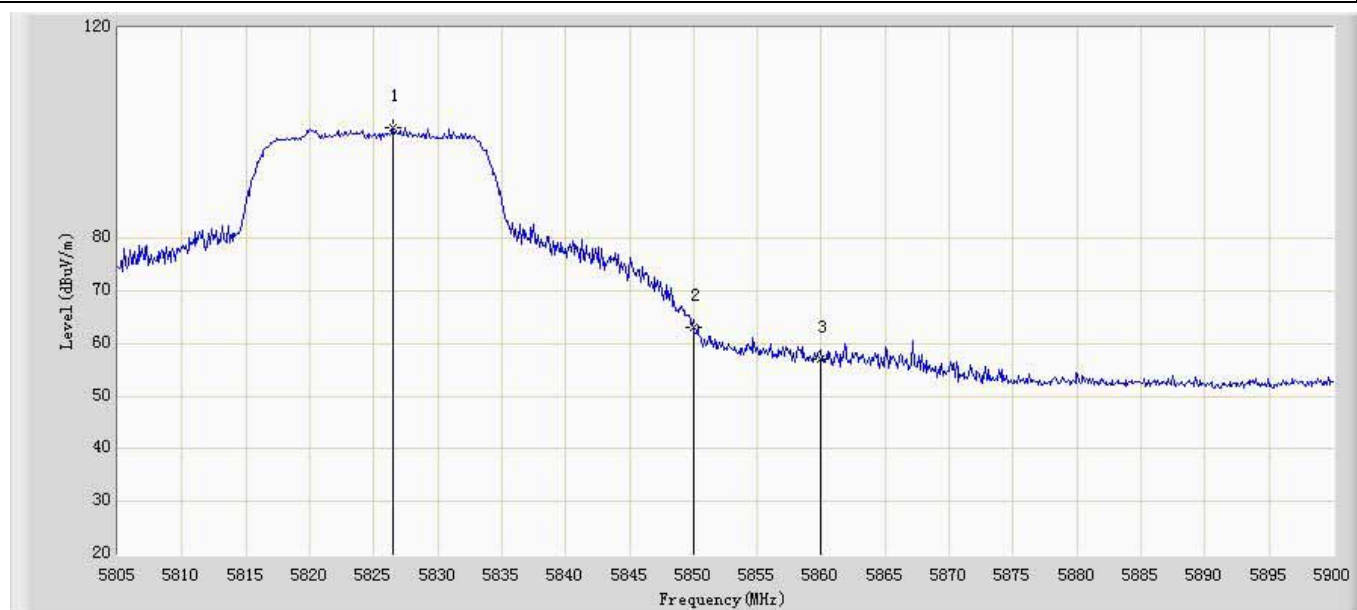
Site: AC102	Time: 2015/08/17 - 16:00
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 149 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	39.738	-0.192	-28.462	68.2	39.930	AV
2		5725.000	42.721	2.778	-35.479	78.2	39.943	AV
3	*	5744.100	86.702	46.739	N/A	N/A	39.963	AV



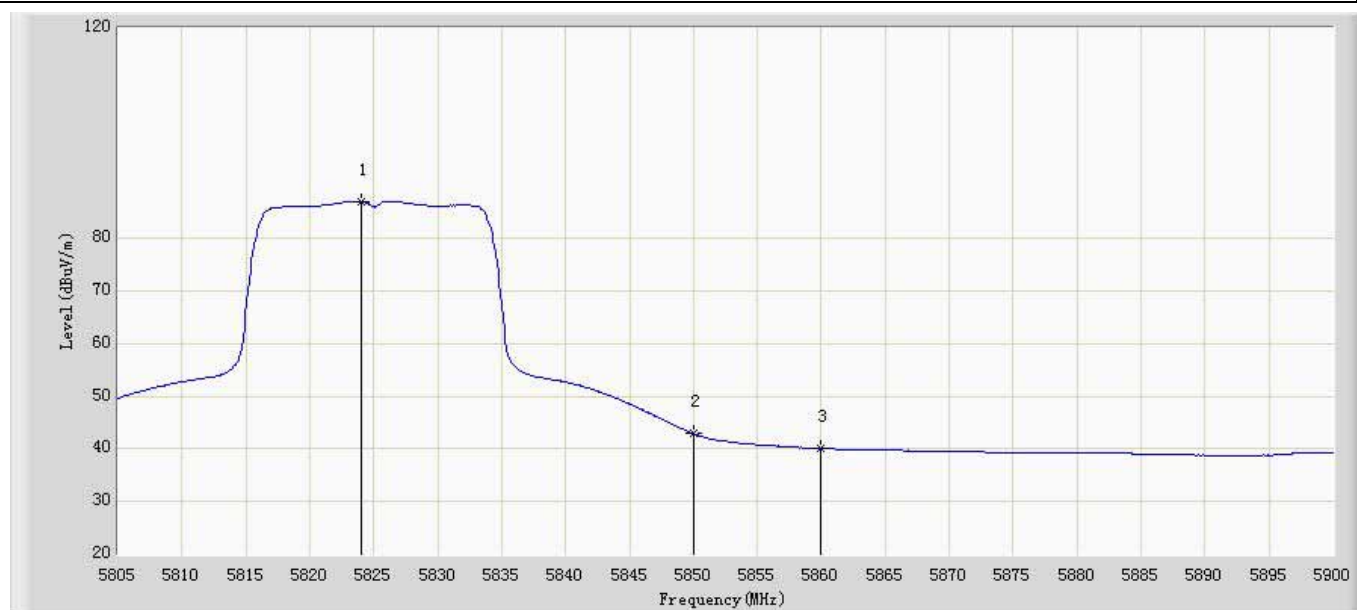
Site: AC102	Time: 2015/08/17 - 16:01
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 165 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5826.470	100.986	60.921	N/A	N/A	40.066	PK
2		5850.000	63.016	22.91	-15.184	78.2	40.106	PK
3		5860.000	56.971	16.851	-11.229	68.2	40.120	PK



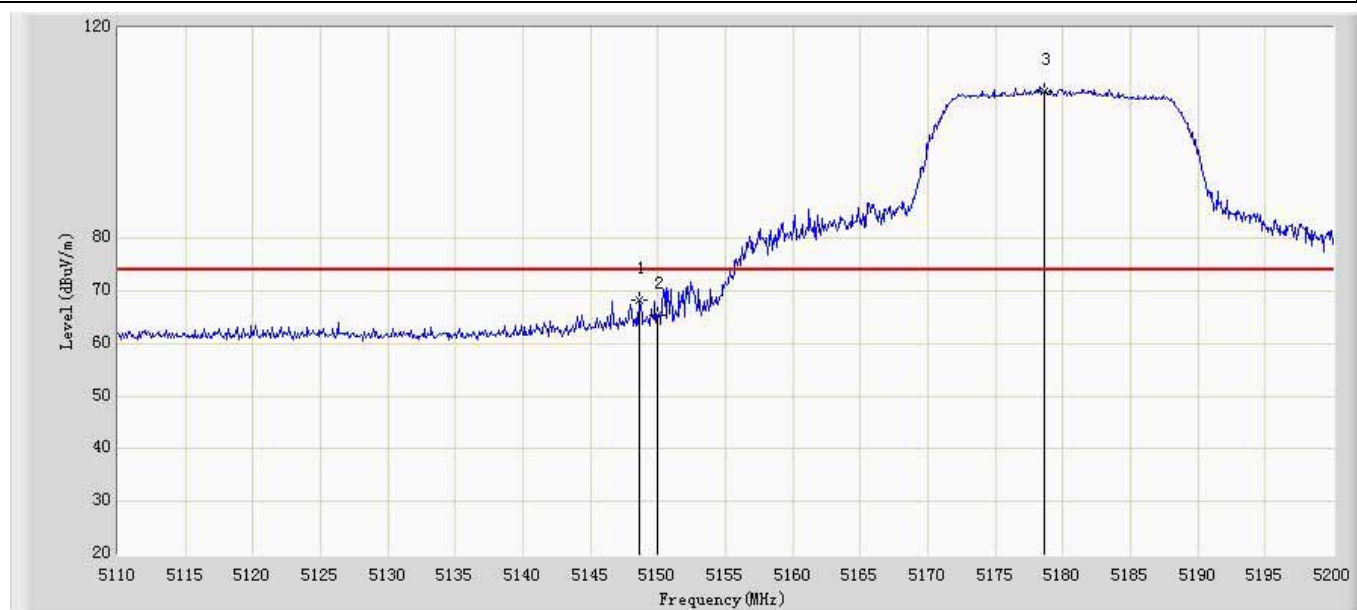
Site: AC102	Time: 2015/08/17 - 16:04
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode1:TX at channel 165 by 802.11a Ant0/1/2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5824.000	87.073	47.011	N/A	N/A	40.062	AV
2		5850.000	42.869	2.763	-35.331	78.2	40.106	AV
3		5860.000	40.082	-0.038	-28.118	68.2	40.120	AV



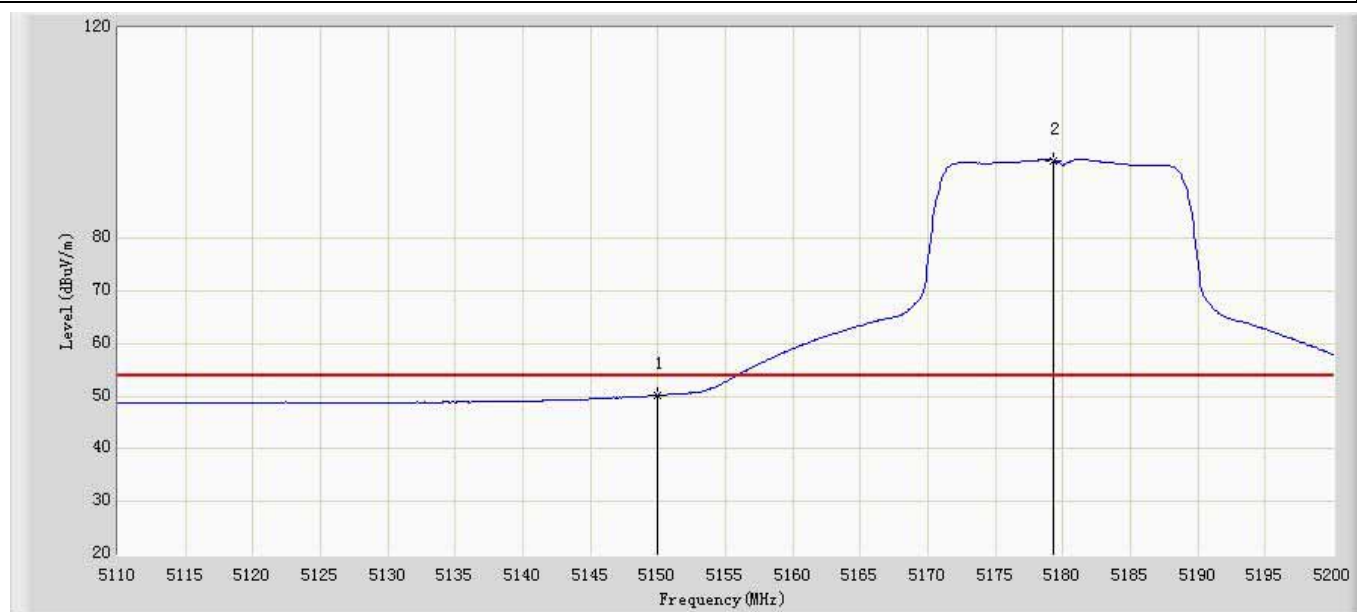
Site: AC102	Time: 2015/08/17 - 11:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 36 by 802.11ac(20MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5148.610	68.274	28.626	-5.726	74.000	39.647	PK
2		5150.000	65.371	25.724	-8.629	74.000	39.647	PK
3	*	5178.670	108.014	68.375	N/A	N/A	39.639	PK



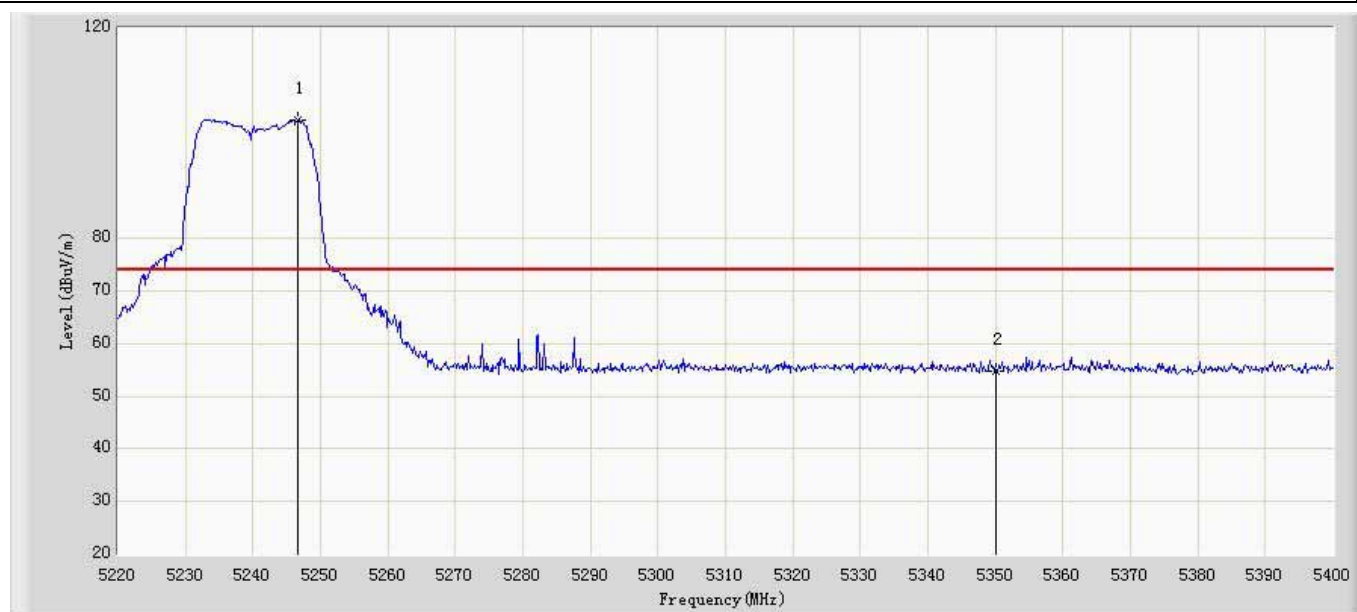
Site: AC102	Time: 2015/08/17 - 11:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 36 by 802.11ac(20MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	50.166	10.519	-3.834	54.000	39.647	AV
2	*	5179.300	94.855	55.216	N/A	N/A	39.639	AV



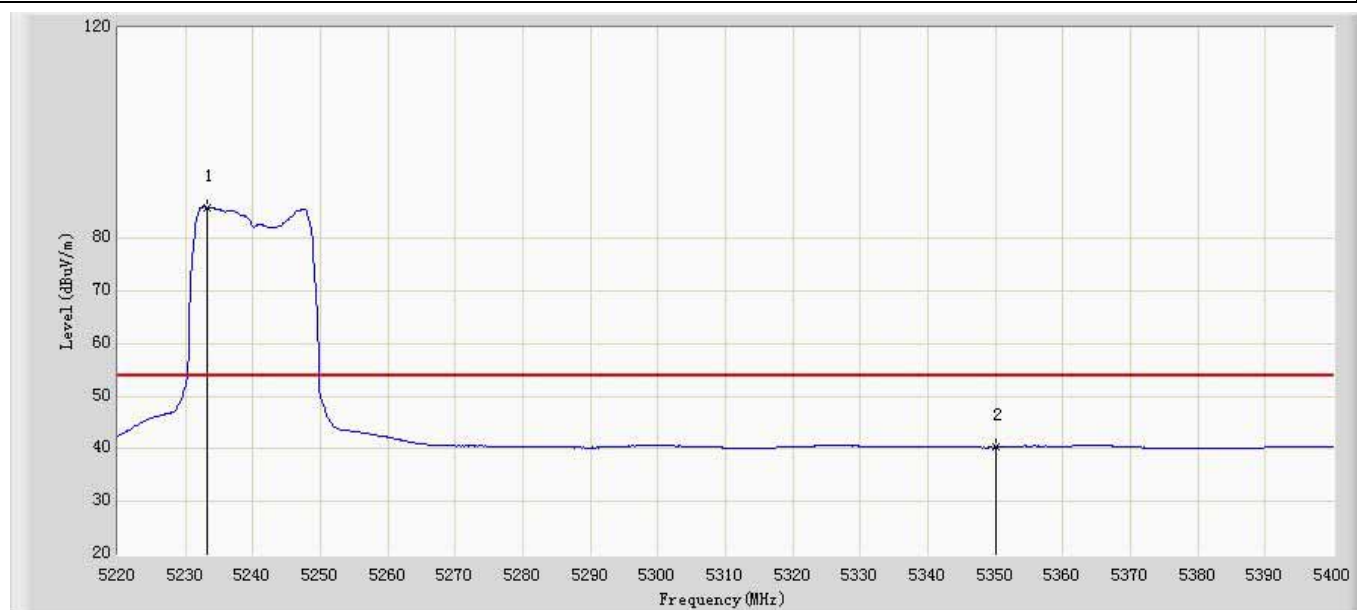
Site: AC102	Time: 2015/09/21 - 11:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 48 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5246.640	102.496	62.862	N/A	N/A	39.634	PK
2		5350.000	54.654	15.034	-19.346	74.000	39.620	PK



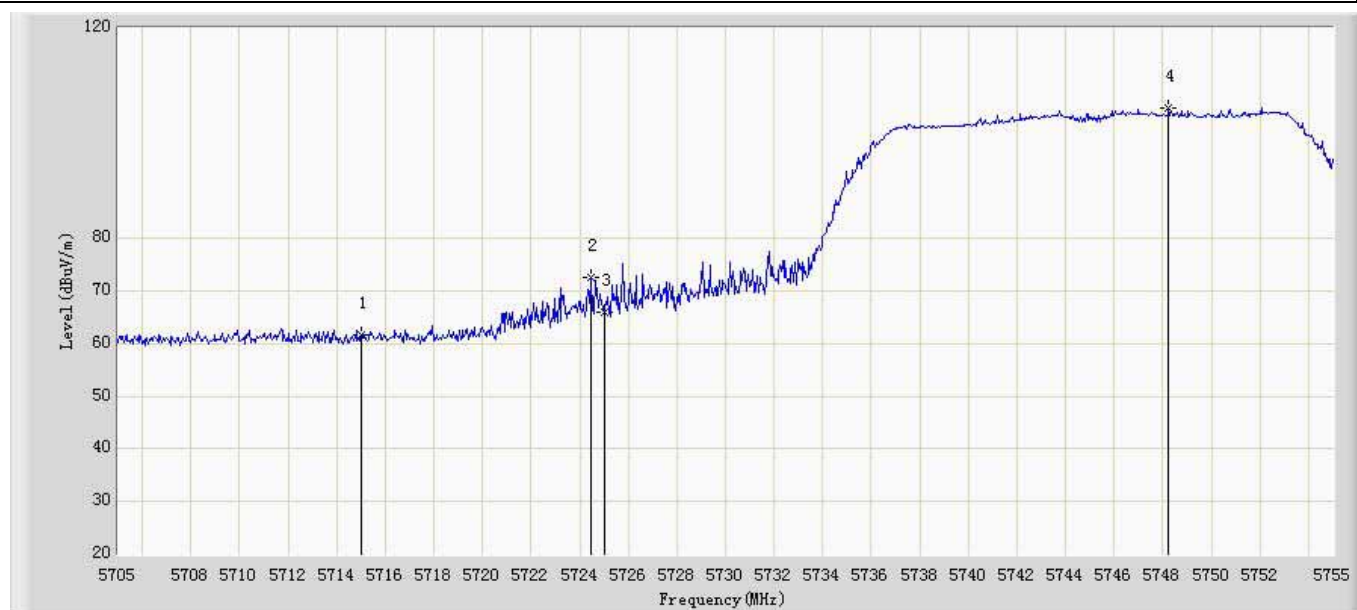
Site: AC102	Time: 2015/09/21 - 11:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 48 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5233.140	85.903	46.262	N/A	N/A	39.641	AV
2		5350.000	40.285	0.665	-13.715	54.000	39.620	AV



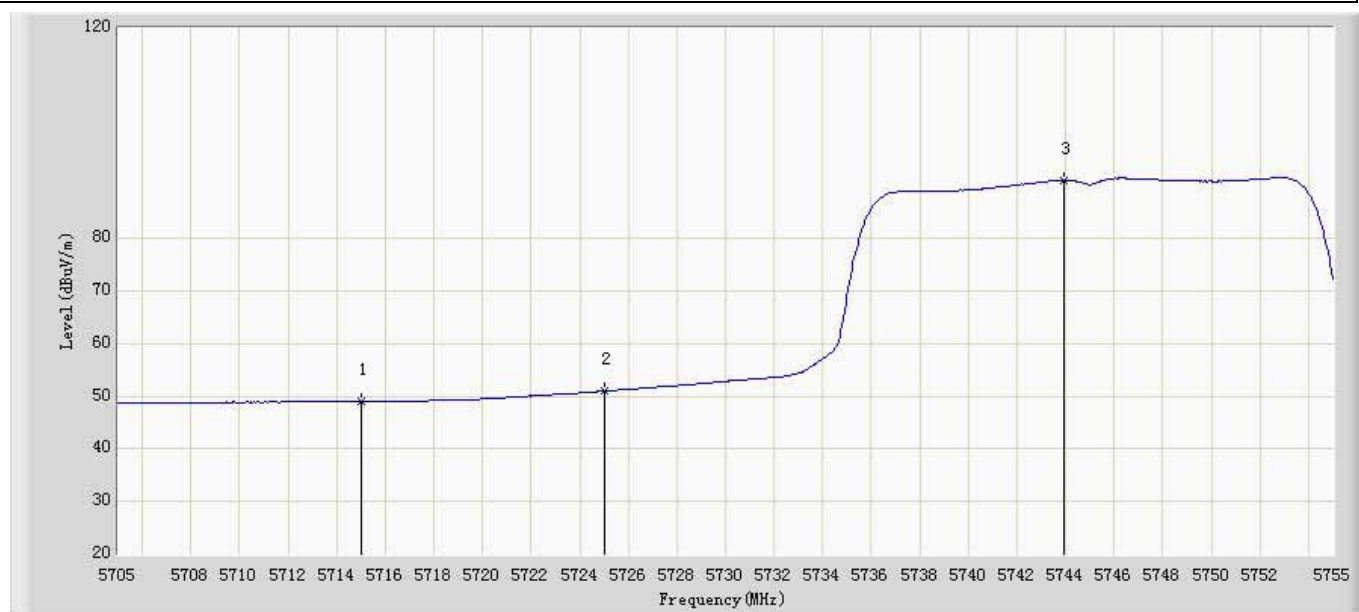
Site: AC102	Time: 2015/08/17 - 11:41
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 149 by 802.11ac(20MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	61.556	21.626	-6.644	68.2	39.930	PK
2		5724.450	72.639	32.697	-5.561	78.2	39.942	PK
3		5725.000	65.869	25.926	-12.331	78.2	39.943	PK
4	*	5748.250	104.792	64.825	N/A	N/A	39.967	PK



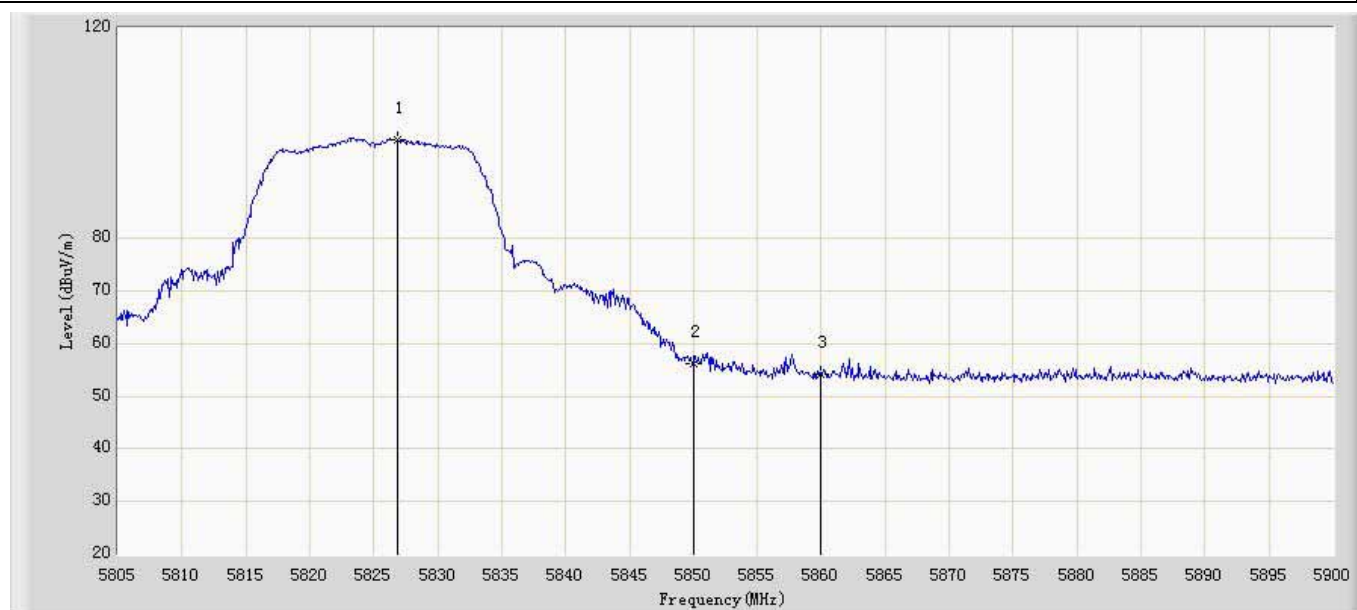
Site: AC102	Time: 2015/08/17 - 11:46
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 149 by 802.11ac(20MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	49.029	9.099	-19.171	68.2	39.930	AV
2		5725.000	50.925	10.982	-27.275	78.2	39.943	AV
3	*	5743.950	91.074	51.111	N/A	N/A	39.963	AV



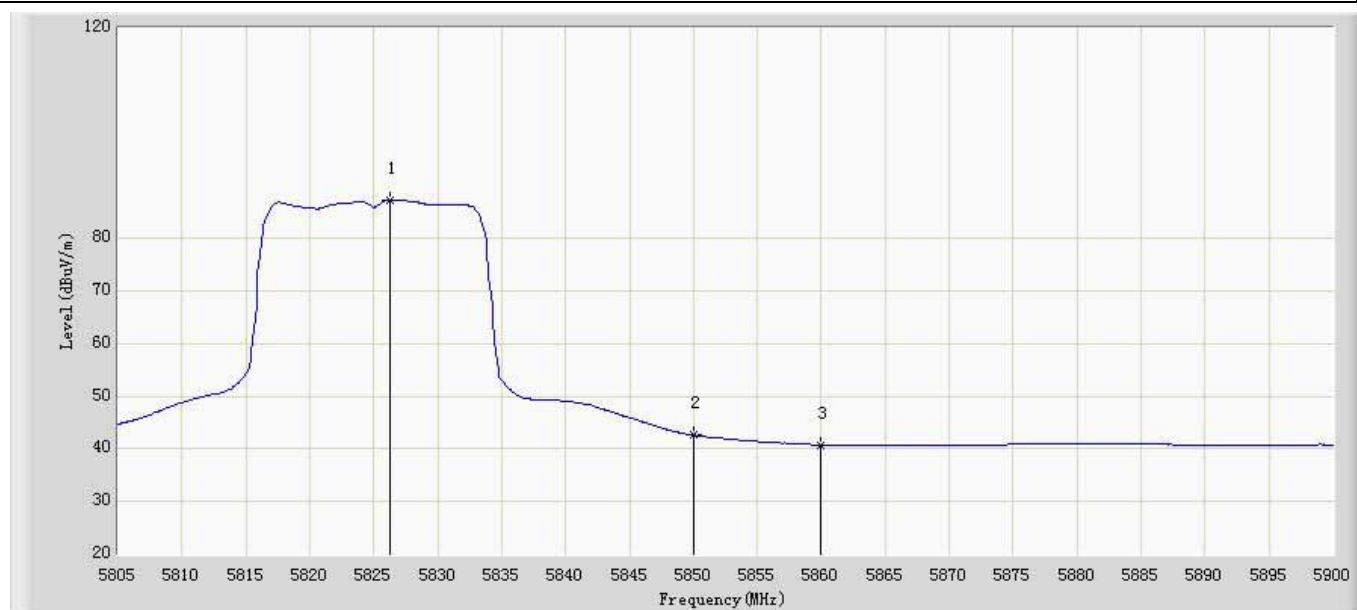
Site: AC102	Time: 2015/09/21 - 11:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 165 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5826.850	98.781	58.715	N/A	N/A	40.066	PK
2		5850.000	56.135	16.029	-22.065	78.2	40.106	PK
3		5860.000	54.086	13.966	-14.114	68.2	40.120	PK



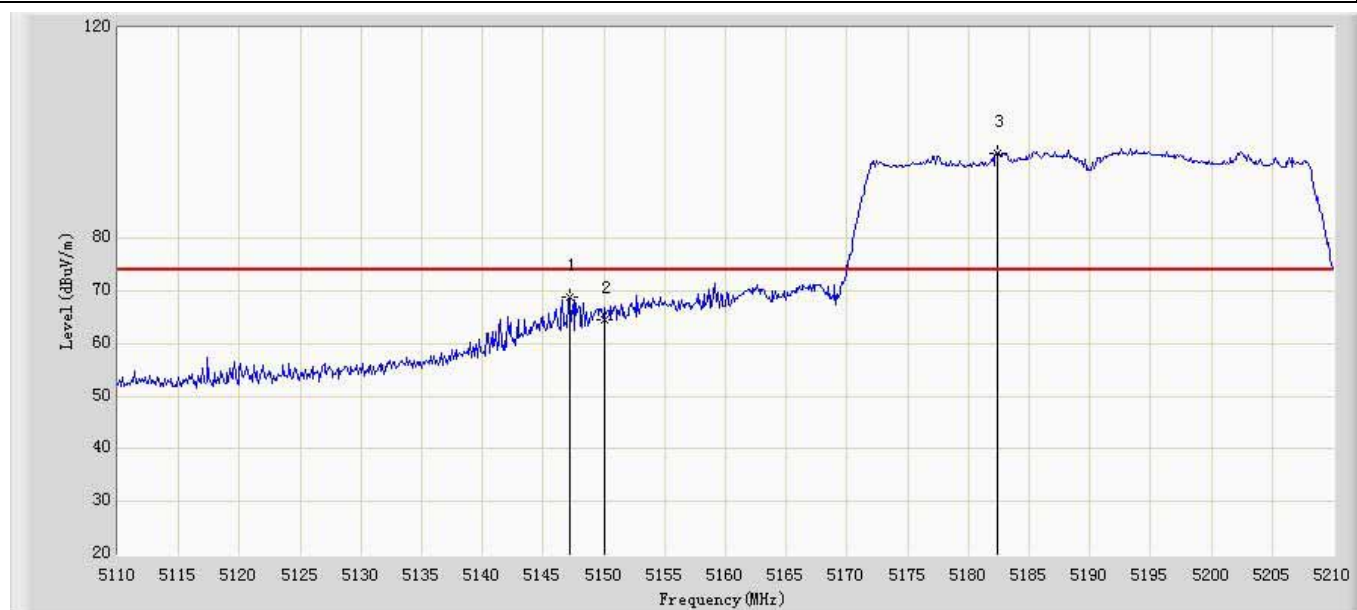
Site: AC102	Time: 2015/09/21 - 11:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode2:TX at channel 165 by 802.11ac20 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5826.280	87.320	47.255	N/A	N/A	40.065	AV
2		5850.000	42.585	2.479	-35.615	78.2	40.106	AV
3		5860.000	40.764	0.644	-27.436	68.2	40.120	AV



Site: AC102	Time: 2015/08/17 - 11:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 38 by 802.11ac(40MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5147.200	68.885	29.237	-5.115	74.000	39.648	PK
2		5150.000	64.508	24.861	-9.492	74.000	39.647	PK
3	*	5182.400	96.252	56.613	N/A	N/A	39.639	PK



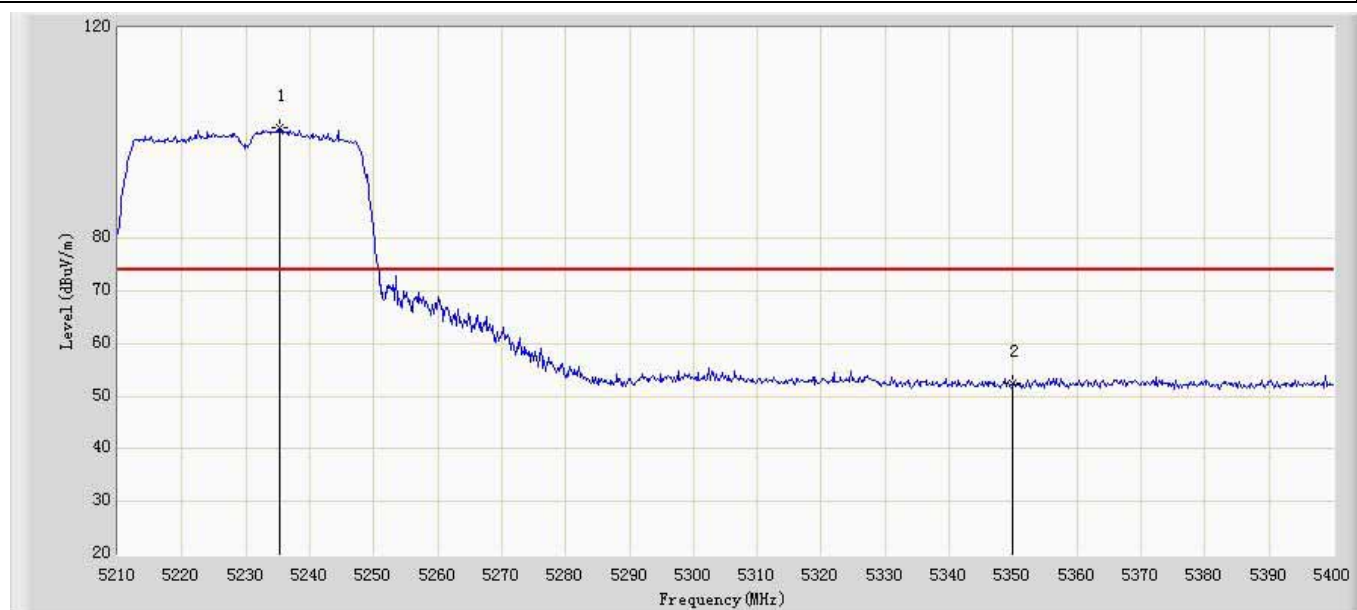
Site: AC102	Time: 2015/08/17 - 11:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 38 by 802.11ac(40MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	44.608	4.961	-9.392	54.000	39.647	AV
2	*	5188.200	80.445	40.806	N/A	N/A	39.639	AV



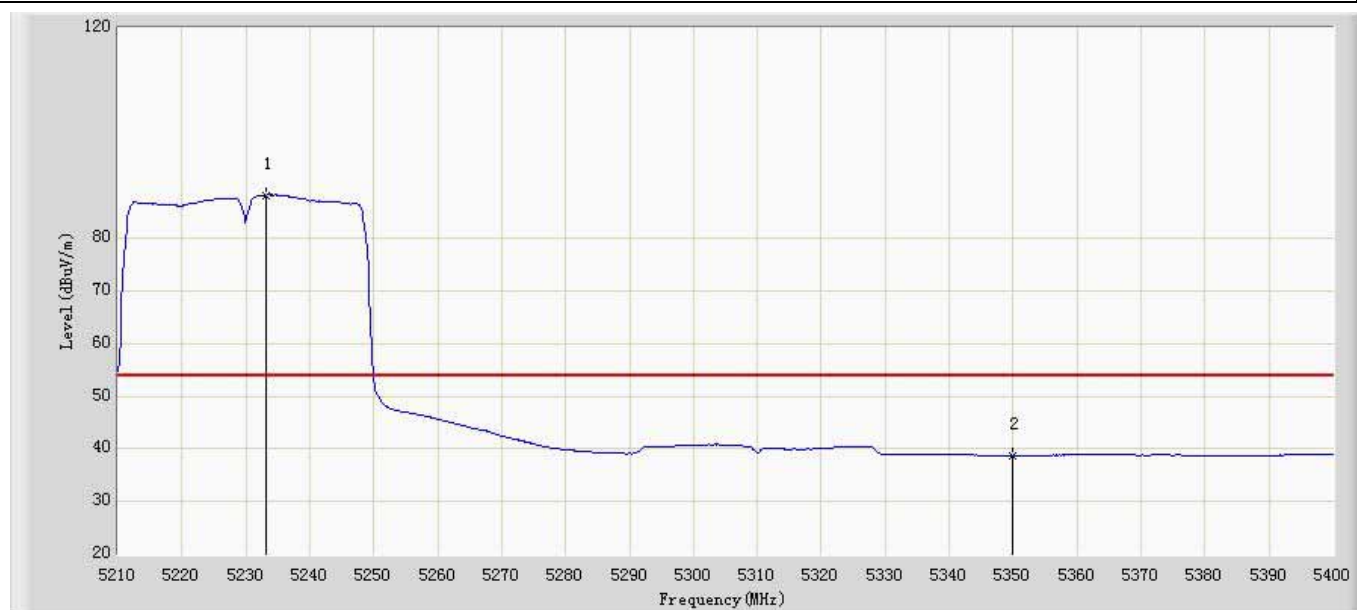
Site: AC102	Time: 2015/08/17 - 11:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 46 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5235.270	100.920	61.280	N/A	N/A	39.640	PK
2		5350.000	52.536	12.916	-21.464	74.000	39.620	PK



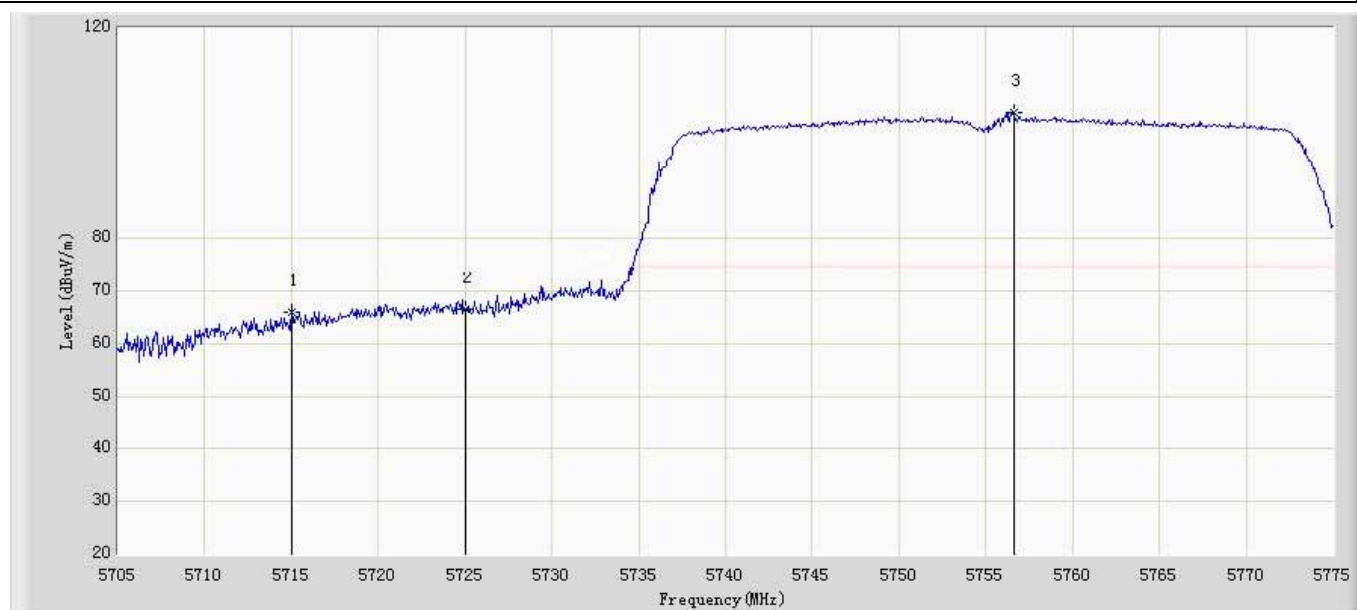
Site: AC102	Time: 2015/08/17 - 11:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 46 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5233.180	88.224	48.583	N/A	N/A	39.641	AV
2		5350.000	38.756	-0.864	-15.244	54.000	39.620	AV



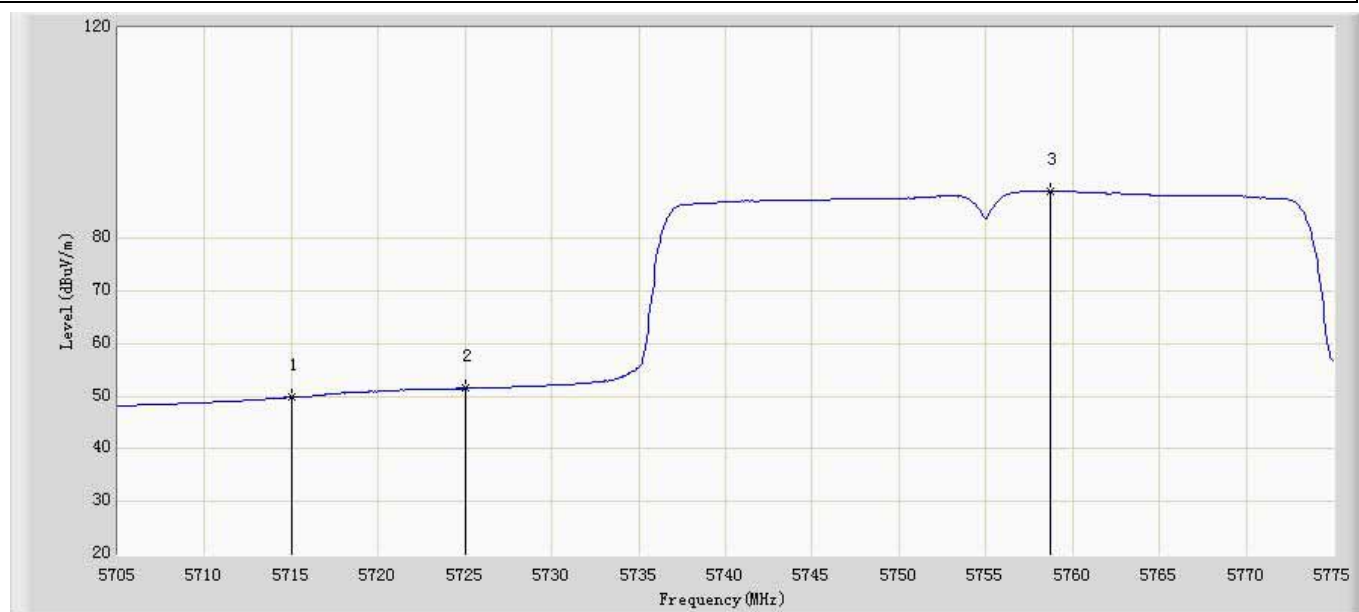
Site: AC102	Time: 2015/08/17 - 14:51
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 151 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	65.999	26.069	-2.201	68.2	39.930	PK
2		5725.000	66.591	26.648	-11.609	78.2	39.943	PK
3	*	5756.590	103.795	63.818	N/A	N/A	39.976	PK



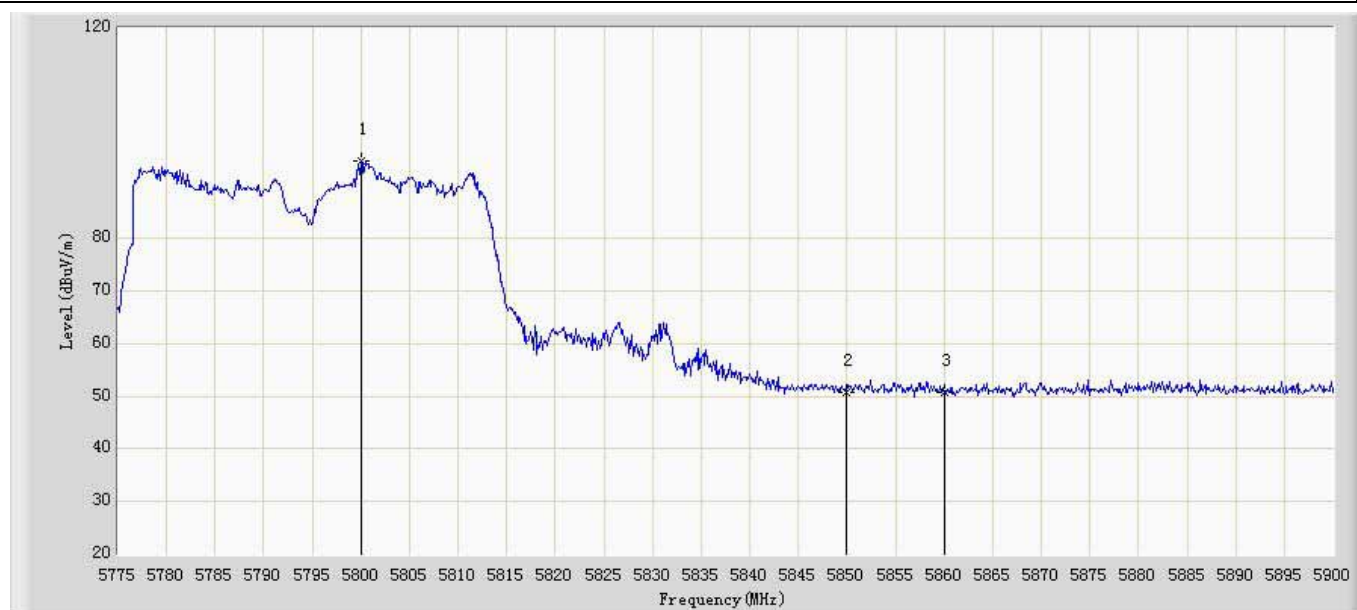
Site: AC102	Time: 2015/08/17 - 14:51
Limit: FCC_Part15.407_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 151 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5715.000	49.792	9.862	-18.408	68.2	39.930	AV
2	*	5725.000	51.486	11.543	-26.714	78.2	39.943	AV
3		5758.760	88.957	48.978	N/A	N/A	39.979	AV



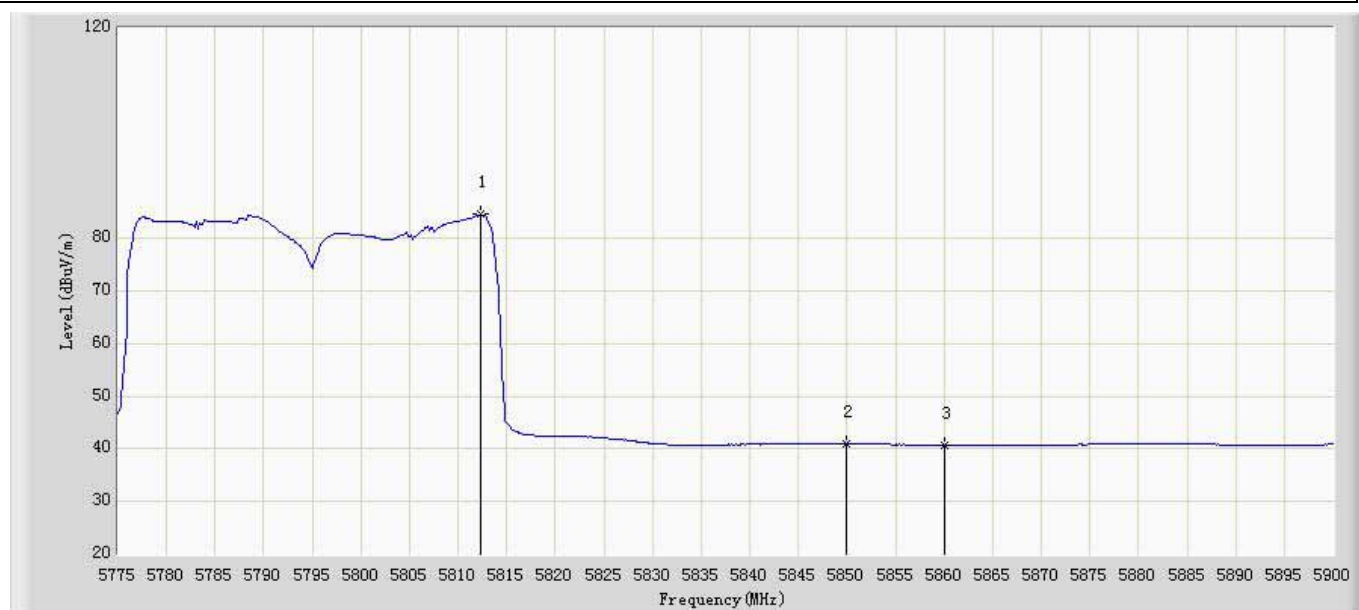
Site: AC102	Time: 2015/09/21 - 11:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 159 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5800.000	94.577	54.543	N/A	N/A	40.034	PK
2		5850.000	50.798	10.692	-27.402	78.2	40.106	PK
3		5860.000	50.685	10.565	-17.515	68.2	40.120	PK



Site: AC102	Time: 2015/09/21 - 11:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode3:TX at channel 159 by 802.11ac40 Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5812.375	84.539	44.492	N/A	N/A	40.047	AV
2		5850.000	40.975	0.869	-37.225	78.2	40.106	AV
3		5860.000	40.690	0.570	-27.51	68.2	40.120	AV



Site: AC102	Time: 2015/08/17 - 13:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 42 by 802.11ac(80MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5149.150	68.985	29.337	-5.015	74.000	39.648	PK
2		5150.000	67.069	27.422	-6.931	74.000	39.647	PK
3	*	5216.950	95.735	56.093	21.735	74.000	39.642	PK



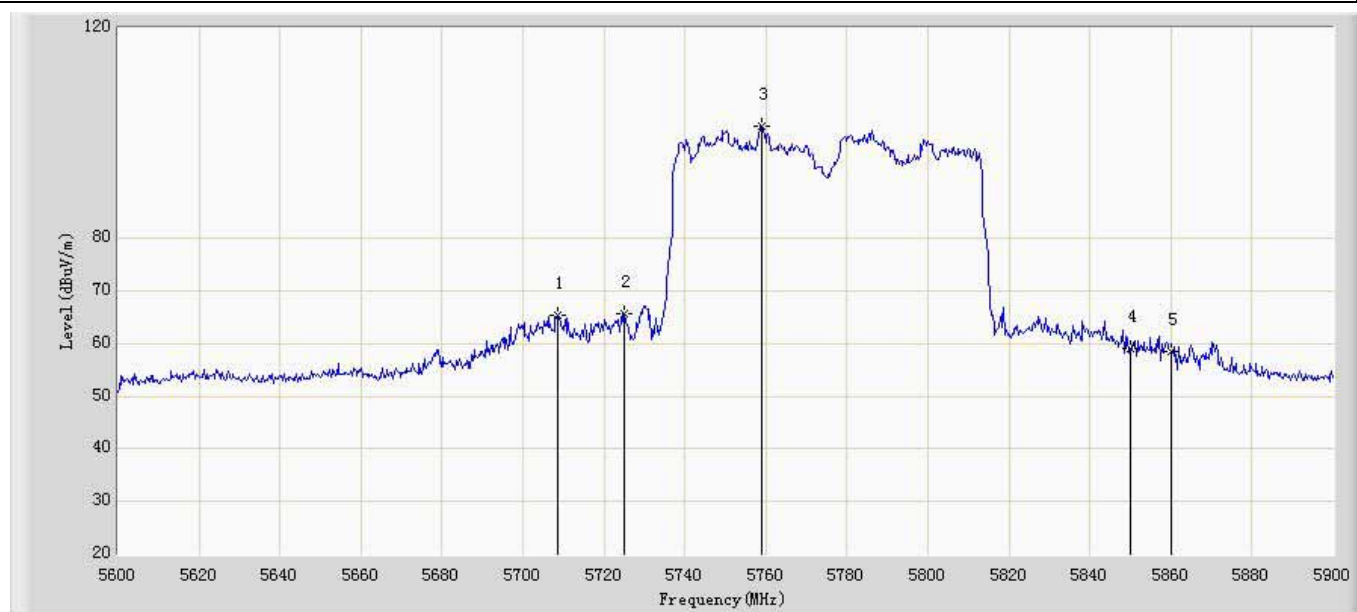
Site: AC102	Time: 2015/08/17 - 13:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 42 by 802.11ac(80MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5150.000	48.509	8.862	-5.491	54.000	39.647	AV
2	*	5238.850	80.719	41.081	26.719	54.000	39.638	AV



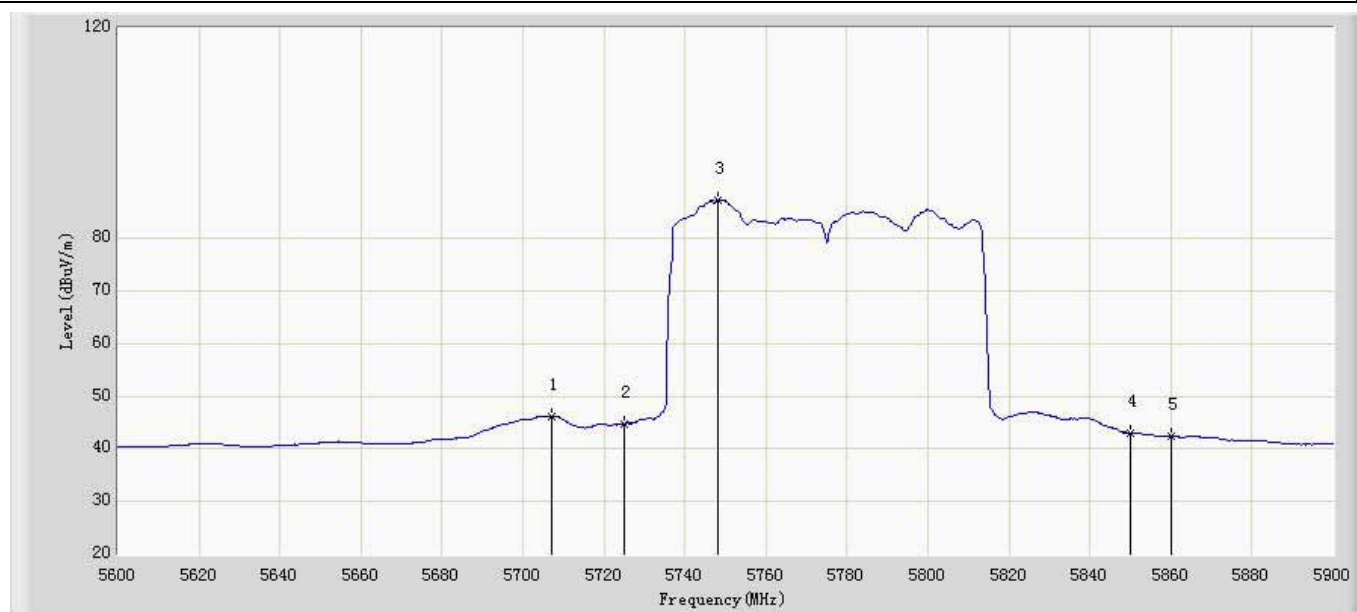
Site: AC102	Time: 2015/09/21 - 11:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 155 by 802.11ac(80MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5708.600	65.347	25.425	-2.853	68.2	39.922	PK
2		5725.000	65.650	25.707	-12.55	78.2	39.943	PK
3	*	5759.000	101.323	61.344	N/A	N/A	39.979	PK
4		5850.000	59.224	19.118	-18.976	78.2	40.106	PK
5		5860.000	58.625	18.505	-9.575	68.2	40.120	PK



Site: AC102	Time: 2015/09/21 - 11:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA 9120D(1-18GHz)	Polarity: Horizontal
EUT: VMG3925-B10A	Power: 120V/60Hz
Note: Mode4:TX at channel 155 by 802.11ac(80MHz) Ant0+1+2	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5707.100	46.114	6.196	-22.086	68.2	39.919	AV
2		5725.000	44.798	4.855	-33.402	78.2	39.943	AV
3	*	5748.200	87.290	47.323	N/A	N/A	39.967	AV
4		5850.000	43.096	2.990	-35.104	78.2	40.106	AV
5		5860.000	42.375	2.255	-25.825	68.2	40.120	AV



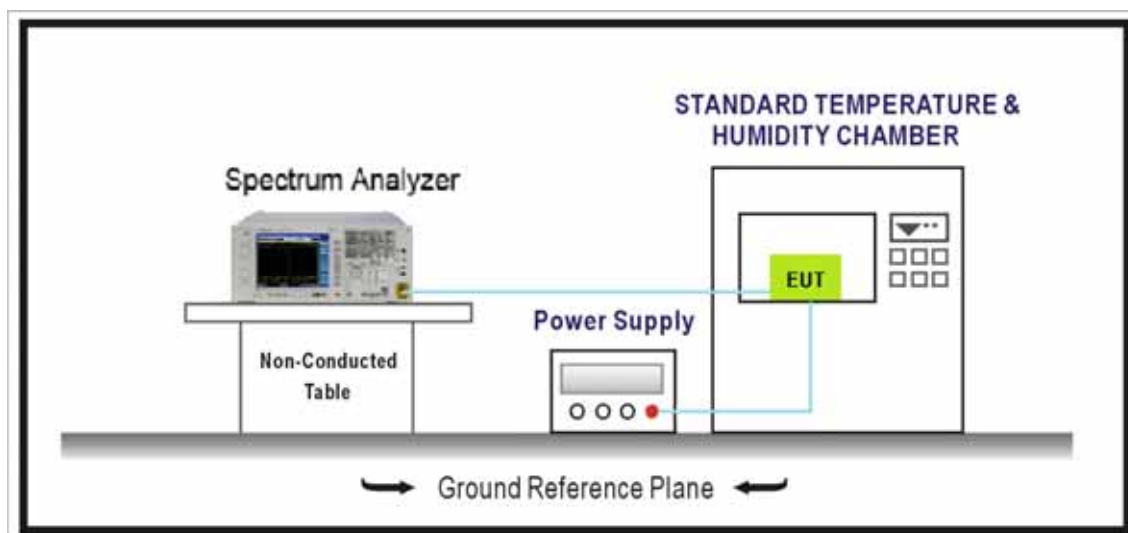
10. Frequency Stability

10.1 Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Calibration Date	Valid Date.
Spectrum Analyzer	Agilent	N9010A	MY53400169	2014.11.03	2015.11.03
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2015.04.09	2016.04.10

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

10.2 Test Setup





10.3 Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

10.4 Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20 operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10 decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20 . Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

**10.5 Test Result**

Product	VMG3925-B10A
Test Item	Frequency Stability
Test Mode	Carrier Transmit

Operating Frequency	Temp ()	Voltage (AC)	Frequency Tolerance (ppm)			
			0 minutes		2 minutes	
			Operation Frequency(MHz)	Measure Level(ppm)	Operation Frequency(MHz)	Measure Level(ppm)
36	0	102	5180.0108	2.13	5180.0114	2.05
		120	5180.0105	2.14	5180.0125	2.47
		138	5180.0122	2.28	5180.0114	2.13
	10	102	5180.0124	2.29	5180.0104	1.97
		120	5180.0114	2.17	5180.0122	2.07
		138	5180.0102	2.04	5180.0108	2.02
	20	102	5180.0103	2.14	5180.0117	2.45
		120	5180.0116	2.30	5180.0121	2.16
		138	5180.0120	2.28	5180.0125	2.46
	30	102	5180.0122	2.30	5180.0106	2.41
		120	5180.0119	2.44	5180.0128	1.99
		138	5180.0115	2.03	5180.0102	2.48
	40	102	5180.0118	2.25	5180.0126	2.24
		120	5180.0110	1.97	5180.0118	1.97
		138	5180.0104	2.02	5180.0105	2.33
44	0	102	5220.0123	1.96	5220.0103	2.24
		120	5220.0111	2.34	5220.0114	2.28
		138	5220.0119	2.29	5220.0123	2.13
	10	102	5220.0120	2.29	5220.0128	2.09
		120	5220.0112	2.30	5220.0107	2.44
		138	5220.0129	2.35	5220.0110	2.05
	20	102	5220.0107	2.07	5220.0128	2.37
		120	5220.0107	2.00	5220.0112	2.20
		138	5220.0128	2.27	5220.0119	2.38
	30	102	5220.0102	2.30	5220.0125	1.96



		120	5220.0119	2.37	5220.0109	2.13
		138	5220.0108	2.37	5220.0102	2.12
	40	102	5220.0126	2.22	5220.0109	2.39
		120	5220.0107	2.00	5220.0103	2.06
		138	5220.0114	1.98	5220.0113	2.46
48	0	102	5240.0120	1.99	5240.0105	2.36
		120	5240.0127	2.43	5240.0115	1.99
		138	5240.0108	2.17	5240.0104	1.99
	10	102	5240.0118	2.10	5240.0119	2.43
		120	5240.0118	2.29	5240.0102	2.11
		138	5240.0122	2.13	5240.0117	2.49
	20	102	5240.0106	2.27	5240.0119	2.40
		120	5240.0110	2.46	5240.0124	2.33
		138	5240.0106	2.23	5240.0117	2.12
	30	102	5240.0101	2.18	5240.0107	2.21
		120	5240.0111	2.33	5240.0114	2.23
		138	5240.0129	2.41	5240.0117	2.13
	40	102	5240.0104	2.30	5240.0113	2.30
		120	5240.0108	2.21	5240.0126	2.42
		138	5240.0105	2.02	5240.0124	2.09
149	0	102	5745.0113	2.00	5745.0115	2.08
		120	5745.0109	2.25	5745.0109	2.22
		138	5745.0106	2.02	5745.0105	2.40
	10	102	5745.0119	2.41	5745.0120	2.48
		120	5745.0102	2.29	5745.0115	2.42
		138	5745.0107	2.39	5745.0110	1.96
	20	102	5745.0110	2.30	5745.0109	2.43
		120	5745.0110	2.24	5745.0125	1.97
		138	5745.0112	2.14	5745.0113	2.24
	30	102	5745.0108	2.38	5745.0105	2.15
		120	5745.0123	2.49	5745.0109	2.12
		138	5745.0106	2.00	5745.0109	2.09
	40	102	5745.0114	2.32	5745.0127	2.31
		120	5745.0122	2.08	5745.0102	2.18
		138	5745.0116	2.35	5745.0103	2.05



157	0	102	5795.0127	2.30	5795.0109	2.20
		120	5795.0107	2.03	5795.0110	2.08
		138	5795.0121	2.19	5795.0126	2.21
	10	102	5795.0128	2.46	5795.0116	2.36
		120	5795.0107	2.01	5795.0111	2.49
		138	5795.0117	2.03	5795.0114	2.09
	20	102	5795.0130	2.47	5795.0116	2.14
		120	5795.0106	2.13	5795.0108	2.46
		138	5795.0118	2.46	5795.0123	2.35
	30	102	5795.0125	2.47	5795.0108	2.20
		120	5795.0145	2.08	5795.0101	2.17
		138	5795.0120	2.05	5795.0110	2.18
	40	102	5795.0129	2.32	5795.0113	2.30
		120	5795.0105	2.26	5795.0120	2.48
		138	5795.0146	2.24	5795.0119	2.49
165	0	102	5825.0130	2.33	5825.0120	2.12
		120	5825.0105	1.96	5825.0108	2.23
		138	5825.0115	2.16	5825.0115	2.32
	10	102	5825.0124	2.07	5825.0121	2.38
		120	5825.0105	2.08	5825.0125	2.18
		138	5825.0117	2.36	5825.0109	2.43
	20	102	5825.0128	2.19	5825.0110	2.40
		120	5825.0106	2.49	5825.0116	2.26
		138	5825.0118	2.31	5825.0108	2.37
	30	102	5825.0128	2.03	5825.0105	1.99
		120	5825.0107	2.22	5825.0121	2.26
		138	5825.0116	2.23	5825.0121	2.40
	40	102	5825.0123	2.12	5825.0125	1.96
		120	5825.0107	2.45	5825.0105	2.42
		138	5825.0119	2.15	5825.0127	2.35