FCC Test Report

Part 15 subpart E

Client Information:

Applicant:	Plastoform Industries Ltd.
Applicant add.:	Rm. 902-4 Seapower Center 73 Lei Muk Road, Kwai Chung

Product Information:

Product Name:	Big Blue Studio Chrome
Model No.:	AD105A4BK
Derivative model No.:	--
Brand Name:	BROOKSTONE
FCC ID:	VL5-AD105A4BK
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
Standards:	CFR 47 FCC PART 15 SUBPART E:2016 section 15.407

Prepared By:

Dongguan Yaxu (AiT) Technology Limited

Add. : No.22, Jinqianling Third Street, Jitigang, Huangjiang,Dongguan, Guangdong, China

Date of Receipt:	Aug. 05, 2016	Date of Test:	Aug. 05~ Oct. 11, 2016
Date of Issue:	Oct. 11, 2016	Test Result:	Pass

This device described above has been tested by Dongguan Yaxu (AiT) Technology Limited, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

*This test report must not be used by the client to claim product endorsement by any agency of the U.S. government.

Reviewed by: Seal-Chen Approved by:

1 Contents

2 Test Summary

2.1 Compliance with FCC Part 15 subpart E

FCC Part15 (15.407)		
Test Item	FCC standard	Judgment
AC Conducted Emission	15.207	PASS
26dB Bandwidth	§ 15.407 (2) (26 dB)	PASS
Maximum Conducted Output Power	15.407(a) (1).(2).(3).(4).(5)	PASS
Radiated Emission And (Unwanted Emissions) Measurement	15.407(b)& 15.209	PASS
Radiated Restricted Band Edge Measurement	15.407(b)7	PASS
Power Spectral Density	15.407(a) (1).(2).(3).(4).(5)	PASS
Frequency Stability	15.407(g)	PASS
Automatically Discontinue Transmission	15.407(c)	PASS
Antenna Requirement	15.203/15.204	PASS
Note: Reference to the ANSI C63.10-2013, KDB 789033 D02v01r01, KDB 662911 D01v02r01 and KDB 644545 D03v01. " N/A" denotes test is not applicable in this Test Report.		

2.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, The following measurements uncertainty Levels maximum value of the uncertainty as below

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	Radiated Emission Test	±3.57dB

3 Test Facility

The test facility is recognized, certified or accredited by the following organizations:

.CNAS- Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2005 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on Apr. 18, 2013

.FCC- Registration No: 248337

The 3m Semi-Anechoic Chamber, 3m/10m Open Area Test Site and Shielding Room of Dongguan Yaxu (AiT) technology Limited have been registered by Federal Communications Commission (FCC) on Aug.29, 2014.

.Industry Canada(IC)-Registration No: IC 6819A-1

The 3m Semi-Anechoic Chamber and 3m/10m Open Area Test Site of A Dongguan Yaxu (AiT) technology Limited have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing on Oct. 01, 2014.

.VCCI- Registration No: 2705

The 3m/10m Open Area Test Site and Shielding Room of Dongguan Yaxu (AiT) technology Limited have been registered by Voluntary Control Council for Interference on Jan.24, 2010 and Oct. 30, 2010. The Telecommunication Ports Conducted Disturbance Measurement of Asia Institute Technology (Dongguan) Limited have been registered by Voluntary Control Council for Interference on Sep. 06, 2011.

3.1 Deviation from standard

None

3.2 Abnormalities from standard conditions

None

4 General Information

4.1 General Description of EUT

Manufacturer:	Brookstone Inc.
Manufacturer Address:	One Innovation Way, Merrimack, New HampShire, 03054 United States
EUT Name:	Big Blue Studio Chrome
Model No.:	AD105A4BK
Antenna Gain:	4.54dBi
Operation frequency:	For 802.11a/n-HT20/ac-VHT20: 5260~5320MHz, 5500~5700MHz For 802.11n-HT40/ac-VHT40: 5270~5310MHz, 5510~5670MHz For 802.11ac-VHT80: 5290MHz, 5530~5610MHz
Modulation Type and Antenna Type:	802.11a/n/ac: OFDM PCB antenna
Maximum Average Output Power with 5GHz	802.11a: 14.62dBm 802.11n-HT20: 14.73dBm 802.11n-HT40: 11.94dBm 802.11ac-VHT20: 14.68dBm 802.11ac-VHT40: 11.84dBm 802.11ac-VHT80: 5.72dBm
Brand Name:	BROOKSTONE
Power Supply Range:	Input: AC 100-240v 50/60Hz 1.0A, Output: DC18V 2A
Power Supply:	The same as above.
H/W No.:	E09-02160-01
S/W No.:	1.0

Channel List

UNII-2a 802.11a/n-HT20/ac-VHT20

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	56	5280	60	5300	64	5320

UNII-2a 802.11n-HT40/ac-VHT40)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310				

UNII-2a 802.11 ac-VHT80

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
58	5290						

UNII-2c 802.11a/n-HT20/ac-VHT20

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	104	5520	108	5540	112	5560
116	5580	120	5600	124	5620	128	5640
132	5660	136	5680	140	5700		

UNII-2c 802.11n-HT40/ac-VHT40)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	110	5550	118	5590	126	5630
134	5670						

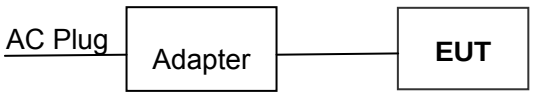
UNII-2c 802.11 ac-VHT80

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610				

4.2 Description of Test conditions

(1) EUT was tested in normal configuration (Please See following Block diagram)

1. Block diagram of EUT configuration(TX Mode)



(2) E.U.T. test conditions:

15.31(e): For intentional radiators, measurements of the variation of the input power or the adiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominalrated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

(3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. If required reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

(4) Frequency range of radiated measurements:

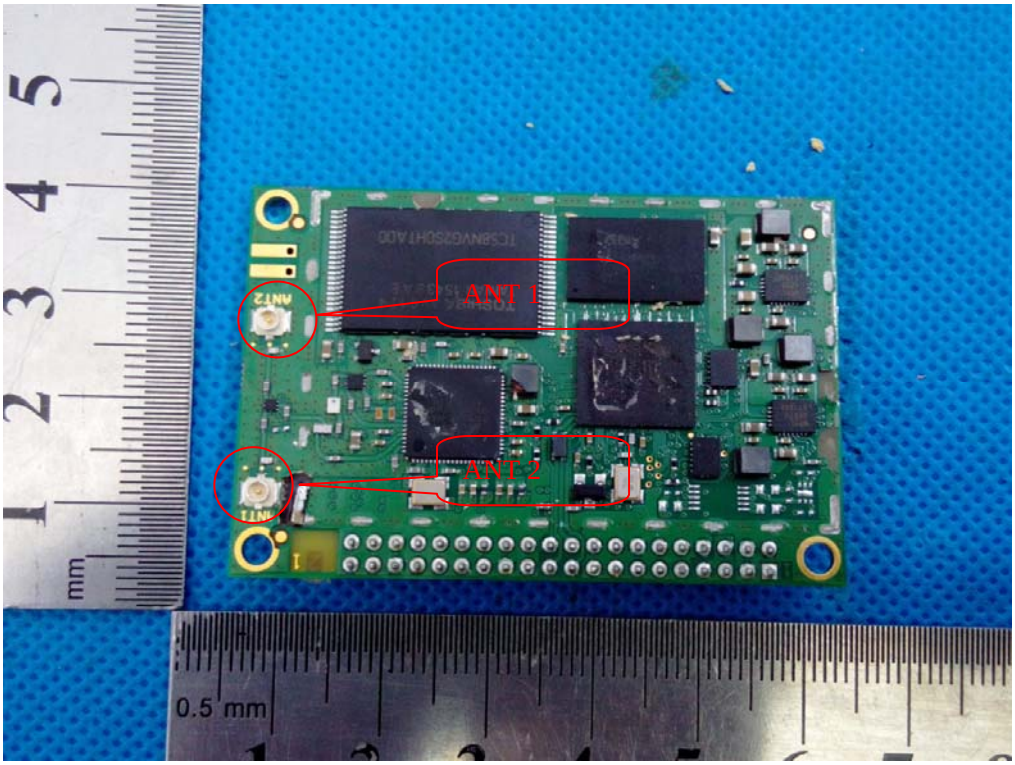
According to the 15.33, The test range will be up to the tenth harmonic of the highest fundamental frequency.

(5) The EUT ‘s duty cycle is set to 100%

(6) The measurements are performed at all Bit Rate of Transmitter, For all tests the worst-case was selected as the table below, the data of the worst-case is shown in the report.

Test Mode	Mode 1: Transmit by 802.11a with antenna #1
	Mode 2: Transmit by 802.11n-HT20 with antenna #1
	Mode 3: Transmit by 802.11n-HT40 with antenna #1
	Mode 4: Transmit by 802.11ac-VHT20 with antenna #1
	Mode 5: Transmit by 802.11ac-VHT40 with antenna #1
	Mode 6: Transmit by 802.11ac-VHT80 with antenna #1

(7) Description of Antenna RF Port

Antenna RF Port


Note:1. 1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.
2. Antenna 1 and Antenna 2 can not transmit simultaneously.

4.3 EUT Peripheral List

No.	Equipment	Manufacturer	Model No.	Serial No.	Power cord	signal cable
1	Adapter	N/A	KSAS0361800200HU	N/A	1.2m/unshielded /detachable(DC)	N/A

4.4 Test Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	Notebook	Asus	FCC	N/A	N/A	N/A	N/A

5 Equipments List for All Test Items

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	SIGNAL ANALYZER	R&S	FSV40	101470	2016.06.29	2017.06.29
2	EMI Measuring Receiver	R&S	ESR	101660	2016.06.29	2017.06.29
3	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01-27	1205323	2016.06.29	2017.06.29
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2016.06.29	2017.06.29
5	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2016.06.29	2017.06.29
6	Broadband Horn Antenna	SCHWARZBECK	BBHA9120D	452	2016.06.29	2017.06.29
7	SHF-EHF Horn	SCHWARZBECK	BBHA9170	BBHA9170367	2016.06.29	2017.06.29
8	Loop Antenna	ETS	6512	00165355	2016.06.29	2017.06.29
9	Radiated Cable 1#（30MHz-1GHz）	FUJIKURA	5D-2W	01	2015.12.25	2016.12.24
10	Radiated Cable 2# (1GHz -40GHz)	FUJIKURA	10D2W	02	2015.12.25	2016.12.24
11	Conducted Cable 1#(9KHz-30MHz)	FUJIKURA	1D-2W	01	2015.12.25	2016.12.24
12	Power Meter	Anritsu	ML2495A	N/A	2016.06.29	2017.06.29
13	Power sensor	Anritsu	MA2411B	N/A	2016.06.29	2017.06.29
Note: N/A						

6 Test Result

6.1 Conduction Emissions Measurement

6.1.1 Applied procedures / Limit

(Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Quasi-peak (dBuV)	Average (dBuV)	Standard
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

6.1.2 Test procedure

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

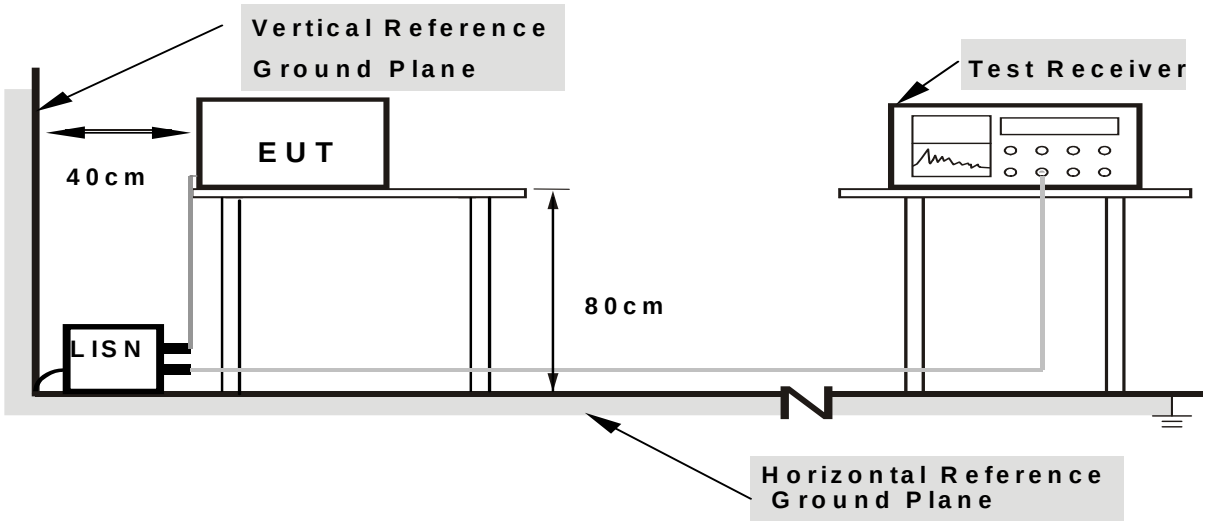
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos

6.1.3 DEVIATION FROM TEST STANDARD

No deviation

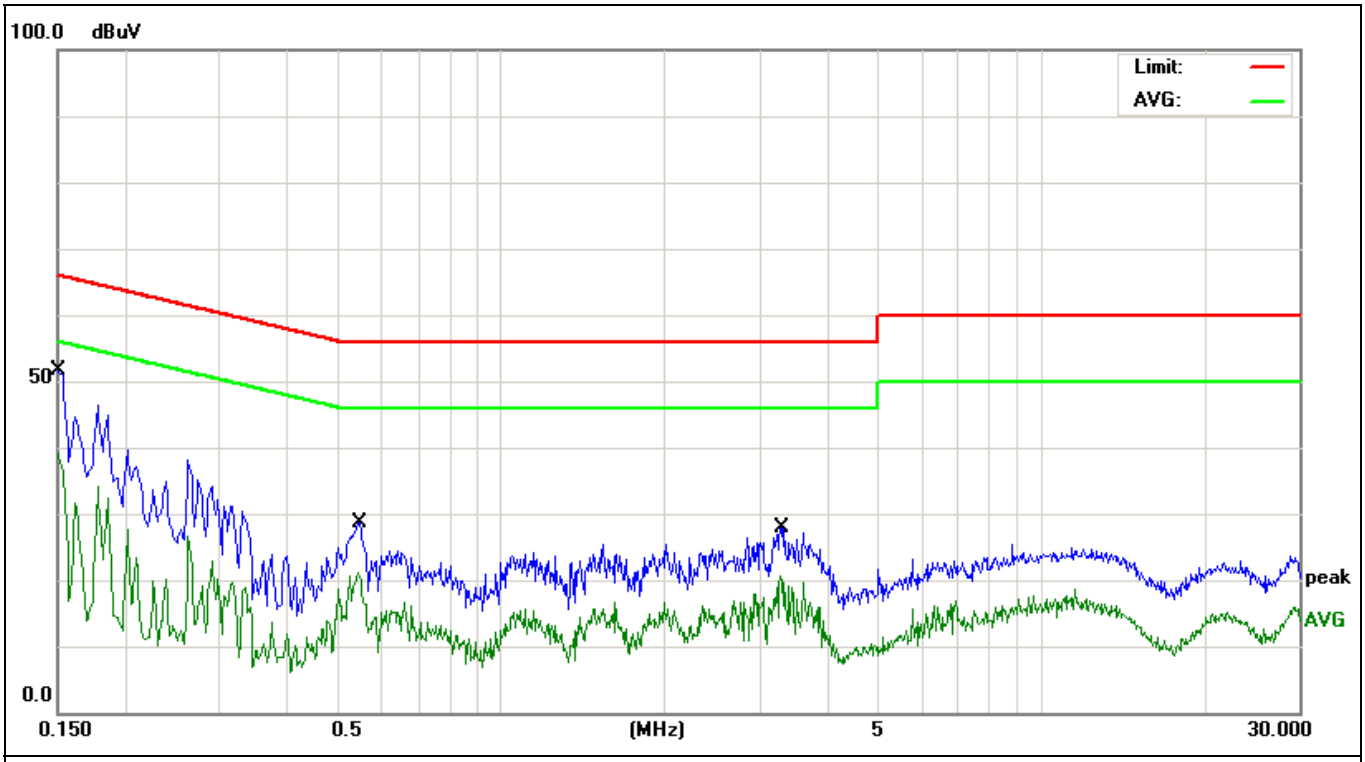
6.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

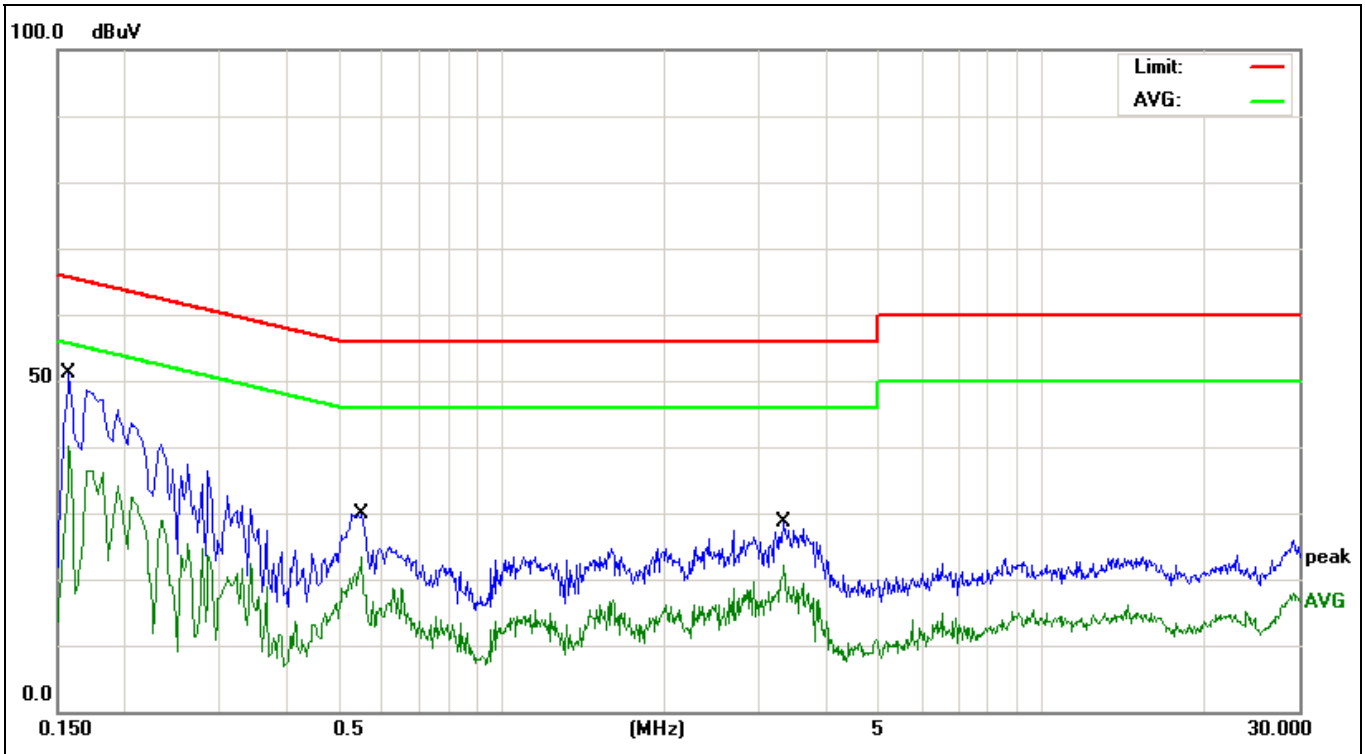
6.1.5 Test results

EUT：	Big Blue Studio Chrome	Model Name. ：	AD105A4BK
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Test Date :	2016-09-16
Test Mode：	TX (worst case)	Phase :	L/N



Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1500	39.64	11.94	51.58	65.99	-14.41	QP
2		0.1500	27.22	11.94	39.16	55.99	-16.83	AVG
3		0.5420	11.09	10.00	21.09	46.00	-24.91	AVG
4		0.5460	18.59	10.00	28.59	56.00	-27.41	QP
5		3.2860	10.60	10.03	20.63	46.00	-25.37	AVG
6		3.3100	17.89	10.03	27.92	56.00	-28.08	QP



Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1580	39.34	11.75	51.09	65.56	-14.47	QP
2		0.1580	28.32	11.75	40.07	55.56	-15.49	AVG
3		0.5500	19.96	10.00	29.96	56.00	-26.04	QP
4		0.5500	13.45	10.00	23.45	46.00	-22.55	AVG
5		3.3140	18.62	10.04	28.66	56.00	-27.34	QP
6		3.3380	12.20	10.04	22.24	46.00	-23.76	AVG

6.2 Radiated Emissions Measurement

6.2.1 Applied procedures / Limit

Test Requirement: FCC Part15 section 15.407

Limits:

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	PEAK (dBuV/m)	AVERAGE (dBuV/m)
Above 1000	74	54

Notes:

(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 1000 MHz, 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 20 dB under any condition of modulation.

Measurement Distance: 3m (Semi-Anechoic Chamber)

Frequency range: 9 kHz – 40 GHz for transmitting mode.

Test instrumentation resolution bandwidth
9 kHz (9 kHz - 30 MHz), 120 kHz (30 MHz - 1000 MHz), 1 MHz (1000 MHz – 40 GHz)

Detector: For PK and QP value:

RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz

VBW ≥ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For AV value:

RBW = 1 MHz for f ≥ 1 GHz,

VBW =10 Hz

Sweep = auto

Detector function = peak

Trace = max hold

Test Procedure:

1)9 kHz to 30 MHz emissions:

For testing performed with the loop antenna, testing was performed in accordance to ANSI C63.10. The centre of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT, During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2)30 MHz to 1 GHz emissions:

For testing performed with the bi-log type antenna, testing was performed in accordance to ANSI C63.10. The measurement is performed with the EUT rotated 360º, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

3)1 GHz to 40 GHz emissions:

Test site with RF absorbing material covering the ground plane that met the site validation criterion called out in CISPR 16-1-4:2007 was used to perform radiated emission test above 1 GHz.

For testing performed with the horn antenna, testing was performed in accordance to ANSI C63.10. The measurement is performed with the EUT rotated 360º, the antenna height scan between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for

receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

And according 15.35(a)

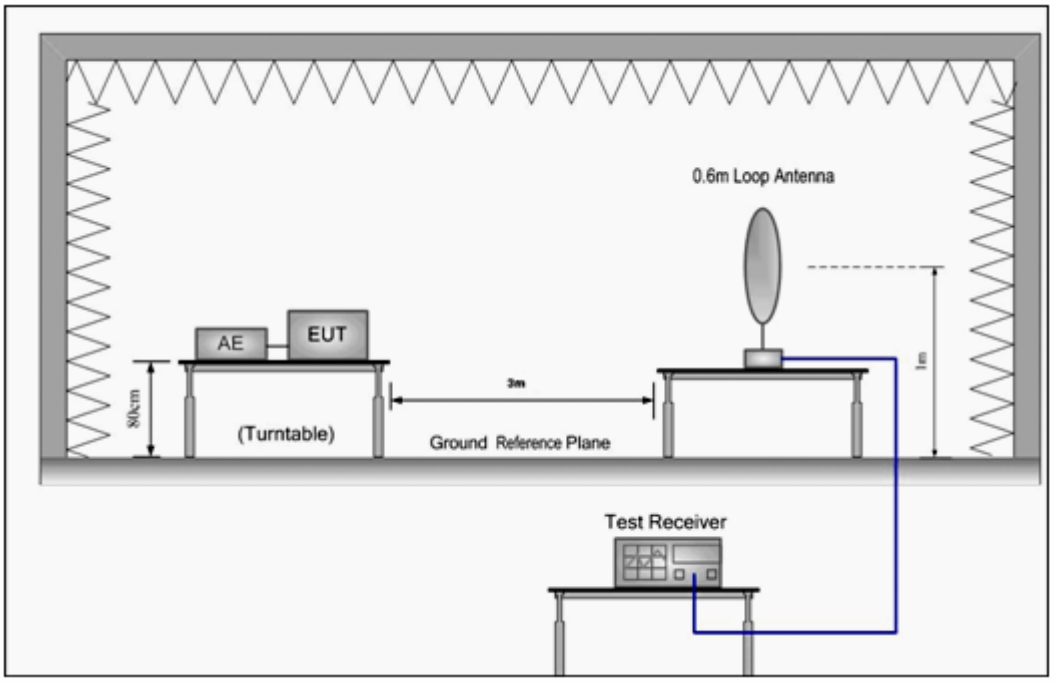
15.35(a) On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified. The specifications for the measuring instrument using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Interference (CISPR) of the International Electro technical Commission. As an alternative to CISPR quasi-peak measurements, the responsible party, at its option, may demonstrate compliance with the emission limits using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, as long as the same bandwidths as indicated for CISPR quasi-peak measurements are employed.

Note: For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements.

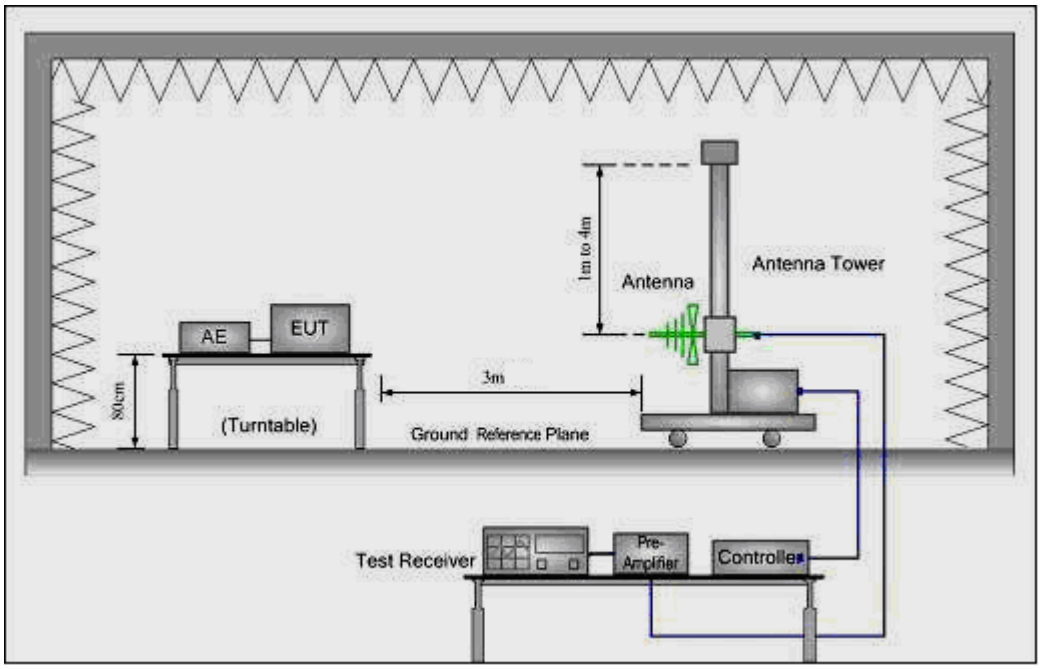
According to 15.35 (b) Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, e.g., see §§ 15.250, 15.252, 15.255, and 15.509-15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device, e.g., the total peak power level. Note that the use of a pulse desensitization correction factor may be needed to determine the total peak emission level. The instruction manual or application note for the measurement instrument should be consulted for determining pulse desensitization factors, as necessary.

Test Configuration:

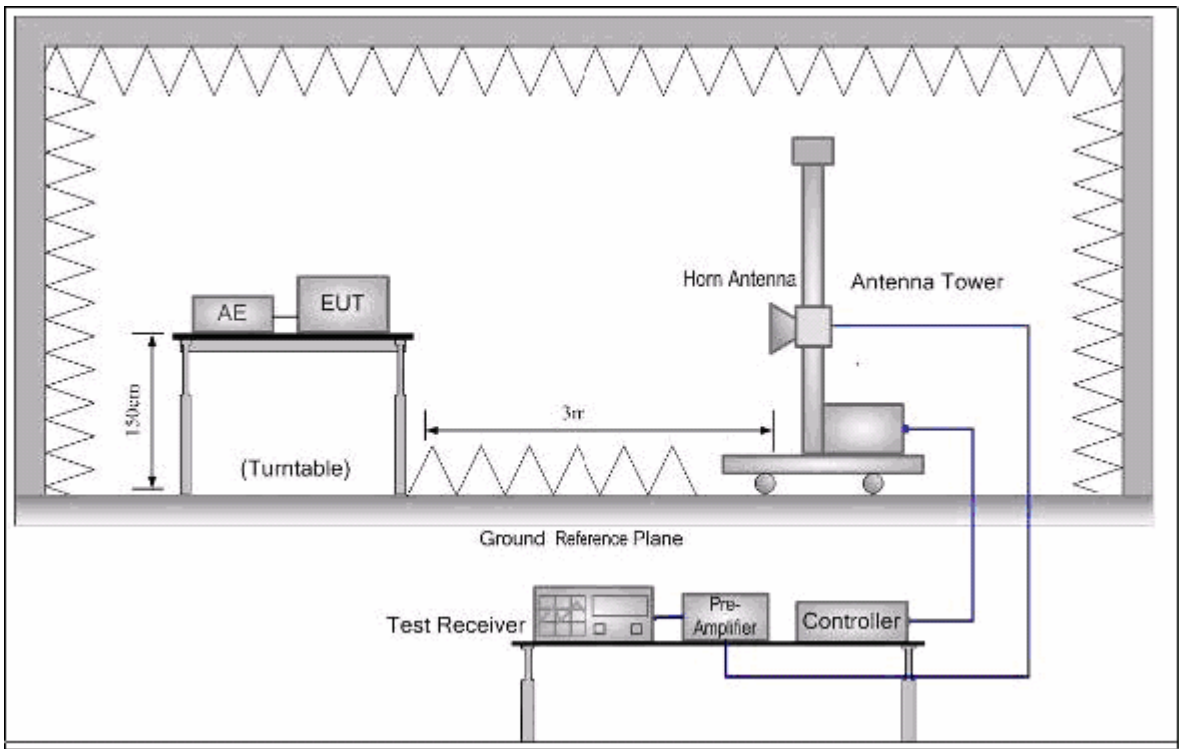
1) 9 kHz to 30 MHz emissions:



2) 30 MHz to 1 GHz emissions:



3) 1 GHz to 40 GHz emissions:



The field strength is calculated by adding the Antenna Factor, Cable Loss & Per-amplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna, Factor + Cable Loss – Preamplifier Factor

6.2.2 Radiated Emissions Test Data

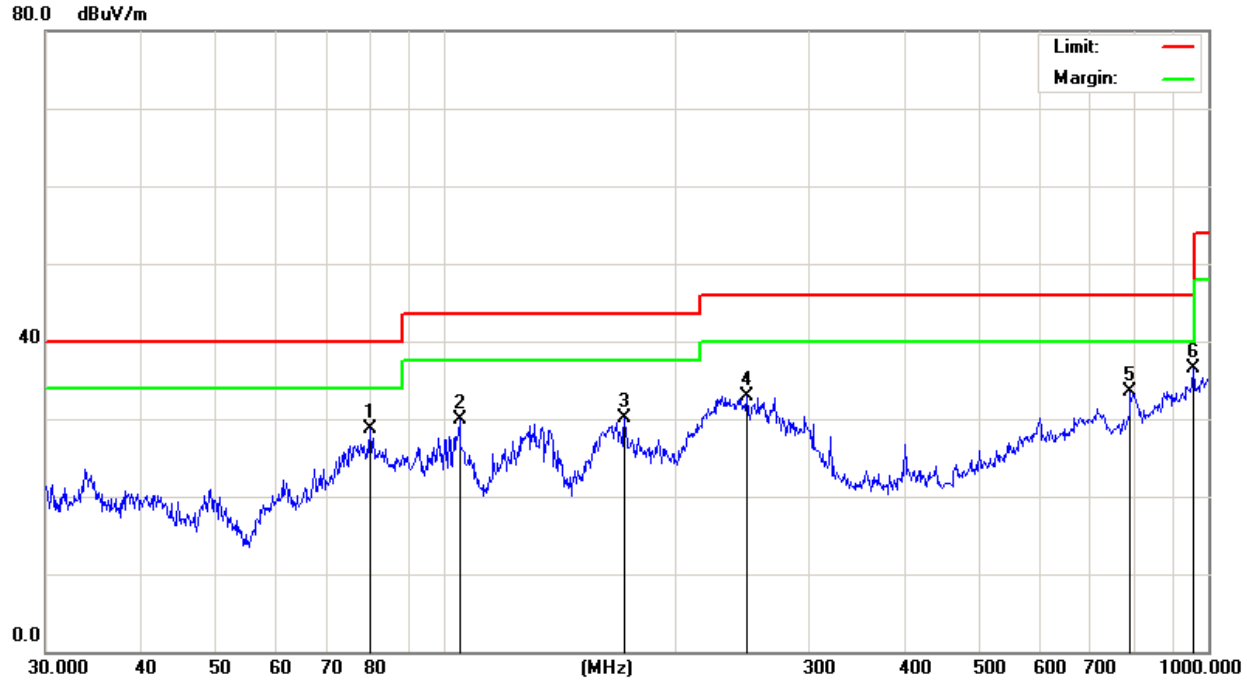
9 kHz~30 MHz Field Strength of Unwanted Emissions. Quasi-Peak Measurement

The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

30 MHz~1 GHz Field Strength of Unwanted Emissions. Quasi-Peak Measurement

EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Pressure：	1010 hPa	Relative Humidity：	50%
Test Mode ：	TX mode(worse-case)	Test Voltage ：	DC 18V from adapter, AC 120V/60Hz for adapter
Measurement Distance	3 m	Frenqucy Range	30MHz to 1GHz
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.		

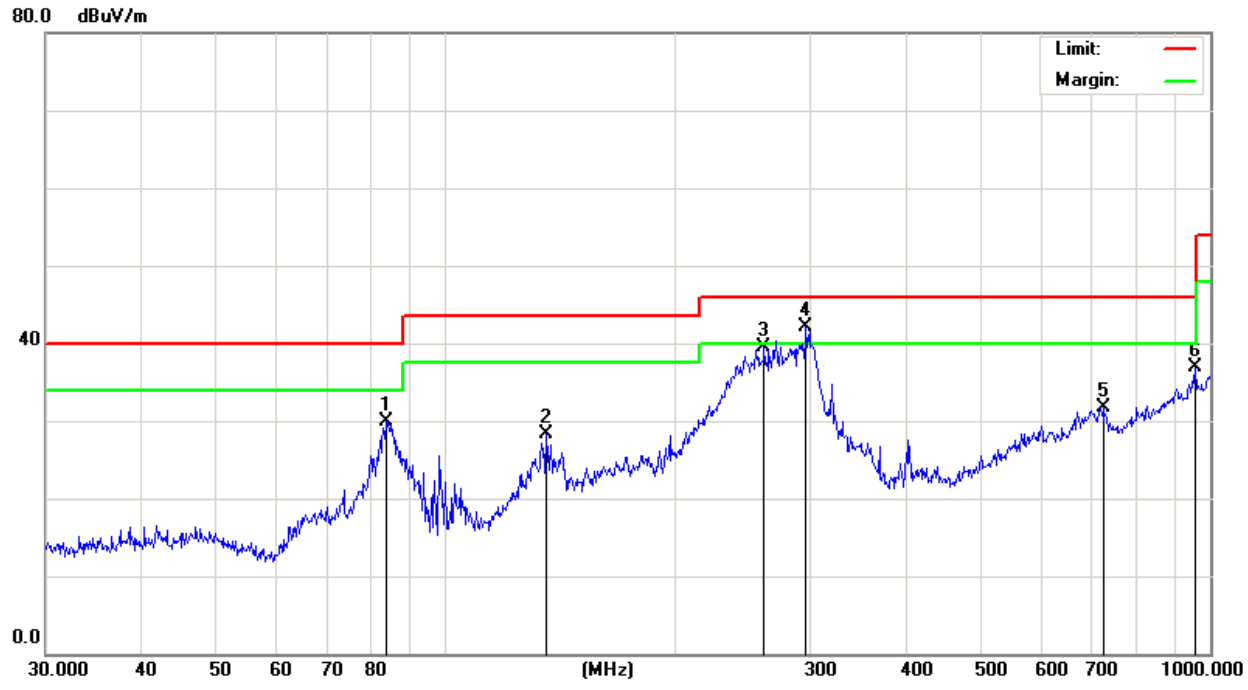
Vertical



Measurement Level = Reading Level + Factor, Factor=Ant Factor + Cable Loss– Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		79.8002	47.81	-19.11	28.70	40.00	-11.30	QP
2		104.5361	43.51	-13.59	29.92	43.50	-13.58	QP
3		171.9946	45.46	-15.41	30.05	43.50	-13.45	QP
4		248.5519	46.65	-13.71	32.94	46.00	-13.06	QP
5		790.6186	31.33	2.14	33.47	46.00	-12.53	QP
6	*	955.4380	32.56	3.88	36.44	46.00	-9.56	QP

Horizontal



Measurement Level = Reading Level + Factor, Factor=Ant Factor + Cable Loss– Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		83.5221	47.99	-18.10	29.89	40.00	-10.11	QP
2		135.5062	43.07	-14.73	28.34	43.50	-15.16	QP
3		261.0581	52.31	-12.83	39.48	46.00	-6.52	QP
4	*	296.1836	52.30	-10.13	42.17	46.00	-3.83	QP
5		724.2611	32.07	-0.46	31.61	46.00	-14.39	QP
6		955.4380	32.96	3.88	36.84	46.00	-9.16	QP

1~40 GHz Field Strength of Fundamental & Field Strength of Unwanted Emissions. Peak & Average Measurement.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 52	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	46.79	12.85	59.64	74.00	-14.36	peak
10520.000	35.16	12.85	48.01	54.00	-5.99	AVG
15780.000	37.64	16.56	54.20	74.00	-19.80	peak
15780.000	26.51	16.56	43.07	54.00	-10.93	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	46.79	12.85	59.64	74.00	-14.36	peak
10520.000	35.16	12.85	48.01	54.00	-5.99	AVG
15780.000	37.64	16.56	54.20	74.00	-19.80	peak
15780.000	26.51	16.56	43.07	54.00	-10.93	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 60	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	45.31	13.49	58.80	74.00	-15.20	peak
10600.000	33.73	13.49	47.22	54.00	-6.78	AVG
15900.000	35.30	16.59	51.89	74.00	-22.11	peak
15900.000	22.48	16.59	39.07	54.00	-14.93	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	48.54	13.49	62.03	74.00	-11.97	peak
10600.000	35.95	13.49	49.44	54.00	-4.56	AVG
15900.000	37.45	16.59	54.04	74.00	-19.96	peak
15900.000	26.72	16.59	43.31	54.00	-10.69	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 64	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	45.19	13.81	59.00	74.00	-15.00	peak
10640.000	33.34	13.81	47.15	54.00	-6.85	AVG
15960.000	35.60	16.46	52.06	74.00	-21.94	peak
15960.000	24.73	16.46	41.19	54.00	-12.81	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	46.31	13.81	60.12	74.00	-13.88	peak
10640.000	34.84	13.81	48.65	54.00	-5.35	AVG
15960.000	36.43	16.46	52.89	74.00	-21.11	peak
15960.000	23.89	16.46	40.35	54.00	-13.65	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 52	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	42.89	12.85	55.74	74.00	-18.26	peak
10520.000	32.46	12.85	45.31	54.00	-8.69	AVG
15780.000	33.07	16.56	49.63	74.00	-24.37	peak
15780.000	22.23	16.56	38.79	54.00	-15.21	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	45.61	12.85	58.46	74.00	-15.54	peak
10520.000	33.70	12.85	46.55	54.00	-7.45	AVG
15780.000	33.45	16.56	50.01	74.00	-23.99	peak
15780.000	22.50	16.56	39.06	54.00	-14.94	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 60	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	44.19	13.49	57.68	74.00	-16.32	peak
10600.000	33.28	13.49	46.77	54.00	-7.23	AVG
15900.000	32.67	16.59	49.26	74.00	-24.74	peak
15900.000	21.43	16.59	38.02	54.00	-15.98	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	43.14	13.49	56.63	74.00	-17.37	peak
10600.000	32.63	13.49	46.12	54.00	-7.88	AVG
15900.000	34.78	16.59	51.37	74.00	-22.63	peak
15900.000	23.87	16.59	40.46	54.00	-13.54	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 64	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	45.73	13.81	59.54	74.00	-14.46	peak
10640.000	34.25	13.81	48.06	54.00	-5.94	AVG
15960.000	33.17	16.46	49.63	74.00	-24.37	peak
15960.000	22.47	16.46	38.93	54.00	-15.07	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	44.14	13.81	57.95	74.00	-16.05	peak
10640.000	32.76	13.81	46.57	54.00	-7.43	AVG
15960.000	32.42	16.46	48.88	74.00	-25.12	peak
15960.000	22.03	16.46	38.49	54.00	-15.51	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n40 Channel 54	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10540.000	43.56	13.02	56.58	74.00	-17.42	peak
10540.000	32.20	13.02	45.22	54.00	-8.78	AVG
15810.000	33.23	16.57	49.80	74.00	-24.20	peak
15810.000	22.32	16.57	38.89	54.00	-15.11	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10540.000	45.57	13.02	58.59	74.00	-15.41	peak
10540.000	33.40	13.02	46.42	54.00	-7.58	AVG
15810.000	32.64	16.57	49.21	74.00	-24.79	peak
15810.000	21.76	16.57	38.33	54.00	-15.67	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n40 Channel 62	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10620.000	44.45	13.65	58.10	74.00	-15.90	peak
10620.000	32.97	13.65	46.62	54.00	-7.38	AVG
15930.000	33.36	16.53	49.89	74.00	-24.11	peak
15930.000	22.19	16.53	38.72	54.00	-15.28	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10620.000	43.81	13.65	57.46	74.00	-16.54	peak
10620.000	32.17	13.65	45.82	54.00	-8.18	AVG
15930.000	32.56	16.53	49.09	74.00	-24.91	peak
15930.000	22.08	16.53	38.61	54.00	-15.39	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac20 Channel 52	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	45.70	12.85	58.55	74.00	-15.45	peak
10520.000	34.42	12.85	47.27	54.00	-6.73	AVG
15780.000	37.03	16.56	53.59	74.00	-20.41	peak
15780.000	25.46	16.56	42.02	54.00	-11.98	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10520.000	46.45	12.85	59.30	74.00	-14.70	peak
10520.000	34.76	12.85	47.61	54.00	-6.39	AVG
15780.000	36.92	16.56	53.48	74.00	-20.52	peak
15780.000	26.30	16.56	42.86	54.00	-11.14	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac20 Channel 60	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	47.38	13.49	60.87	74.00	-13.13	peak
10600.000	36.71	13.49	50.20	54.00	-3.80	AVG
15900.000	36.15	16.59	52.74	74.00	-21.26	peak
15900.000	25.32	16.59	41.91	54.00	-12.09	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10600.000	44.46	13.49	57.95	74.00	-16.05	peak
10600.000	31.33	13.49	44.82	54.00	-9.18	AVG
15900.000	33.86	16.59	50.45	74.00	-23.55	peak
15900.000	23.43	16.59	40.02	54.00	-13.98	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac20 Channel 64	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	46.20	13.81	60.01	74.00	-13.99	peak
10640.000	34.45	13.81	48.26	54.00	-5.74	AVG
15960.000	36.56	16.46	53.02	74.00	-20.98	peak
15960.000	25.07	16.46	41.53	54.00	-12.47	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10640.000	45.51	13.81	59.32	74.00	-14.68	peak
10640.000	34.44	13.81	48.25	54.00	-5.75	AVG
15960.000	35.32	16.46	51.78	74.00	-22.22	peak
15960.000	23.55	16.46	40.01	54.00	-13.99	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac40 Channel 54	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10540.000	43.16	13.02	56.18	74.00	-17.82	peak
10540.000	32.69	13.02	45.71	54.00	-8.29	AVG
15810.000	33.35	16.57	49.92	74.00	-24.08	peak
15810.000	22.56	16.57	39.13	54.00	-14.87	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10540.000	44.10	13.02	57.12	74.00	-16.88	peak
10540.000	33.65	13.02	46.67	54.00	-7.33	AVG
15810.000	32.68	16.57	49.25	74.00	-24.75	peak
15810.000	21.51	16.57	38.08	54.00	-15.92	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac40 Channel 62	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10620.000	43.64	13.65	57.29	74.00	-16.71	peak
10620.000	32.71	13.65	46.36	54.00	-7.64	AVG
15930.000	34.57	16.53	51.10	74.00	-22.90	peak
15930.000	23.53	16.53	40.06	54.00	-13.94	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10620.000	43.53	13.65	57.18	74.00	-16.82	peak
10620.000	32.40	13.65	46.05	54.00	-7.95	AVG
15930.000	33.76	16.53	50.29	74.00	-23.71	peak
15930.000	22.62	16.53	39.15	54.00	-14.85	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac80 Channel 58	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10580.000	45.61	13.34	58.95	74.00	-15.05	peak
10580.000	34.84	13.34	48.18	54.00	-5.82	AVG
15870.000	34.56	16.58	51.14	74.00	-22.86	peak
15870.000	23.34	16.58	39.92	54.00	-14.08	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10580.000	43.53	13.34	56.87	74.00	-17.13	peak
10580.000	32.21	13.34	45.55	54.00	-8.45	AVG
15870.000	33.35	16.58	49.93	74.00	-24.07	peak
15870.000	22.47	16.58	39.05	54.00	-14.95	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 100	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11140.000	41.48	16.97	58.45	74.00	-15.55	peak
11140.000	30.13	16.97	47.10	54.00	-6.90	AVG
16710.000	35.76	17.80	53.56	74.00	-20.44	peak
16710.000	23.81	17.80	41.61	54.00	-12.39	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11140.000	40.20	16.97	57.17	74.00	-16.83	peak
11140.000	29.96	16.97	46.93	54.00	-7.07	AVG
16710.000	34.53	17.80	52.33	74.00	-21.67	peak
16710.000	22.84	17.80	40.64	54.00	-13.36	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 120	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	42.80	16.99	59.79	74.00	-14.21	peak
11200.000	31.42	16.99	48.41	54.00	-5.59	AVG
16800.000	34.61	18.65	53.26	74.00	-20.74	peak
16800.000	23.76	18.65	42.41	54.00	-11.59	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	43.76	16.99	60.75	74.00	-13.25	peak
11200.000	31.80	16.99	48.79	54.00	-5.21	AVG
16800.000	33.60	18.65	52.25	74.00	-21.75	peak
16800.000	22.45	18.65	41.10	54.00	-12.90	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11a Channel 140	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11400.000	42.52	17.04	59.56	74.00	-14.44	peak
11400.000	30.18	17.04	47.22	54.00	-6.78	AVG
17100.000	30.76	21.31	52.07	74.00	-21.93	peak
17100.000	20.40	21.31	41.71	54.00	-12.29	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11400.000	41.81	17.04	58.85	74.00	-15.15	peak
11400.000	30.60	17.04	47.64	54.00	-6.36	AVG
17100.000	30.74	21.31	52.05	74.00	-21.95	peak
17100.000	20.49	21.31	41.80	54.00	-12.20	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 100	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11140.000	42.76	16.97	59.73	74.00	-14.27	peak
11140.000	31.45	16.97	48.42	54.00	-5.58	AVG
16710.000	33.93	17.80	51.73	74.00	-22.27	peak
16710.000	22.27	17.80	40.07	54.00	-13.93	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11140.000	41.87	16.97	58.84	74.00	-15.16	peak
11140.000	30.14	16.97	47.11	54.00	-6.89	AVG
16710.000	33.50	17.80	51.30	74.00	-22.70	peak
16710.000	22.74	17.80	40.54	54.00	-13.46	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 120	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	42.66	16.99	59.65	74.00	-14.35	peak
11200.000	31.52	16.99	48.51	54.00	-5.49	AVG
16800.000	33.47	18.65	52.12	74.00	-21.88	peak
16800.000	22.85	18.65	41.50	54.00	-12.50	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	41.96	16.99	58.95	74.00	-15.05	peak
11200.000	31.14	16.99	48.13	54.00	-5.87	AVG
16800.000	33.46	18.65	52.11	74.00	-21.89	peak
16800.000	22.22	18.65	40.87	54.00	-13.13	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 140	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11400.000	43.38	17.04	60.42	74.00	-13.58	peak
11400.000	31.69	17.04	48.73	54.00	-5.27	AVG
17100.000	30.12	21.31	51.43	74.00	-22.57	peak
17100.000	20.07	21.31	41.38	54.00	-12.62	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11400.000	40.65	17.04	57.69	74.00	-16.31	peak
11400.000	30.02	17.04	47.06	54.00	-6.94	AVG
17100.000	30.53	21.31	51.84	74.00	-22.16	peak
17100.000	20.47	21.31	41.78	54.00	-12.22	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n40 Channel 102	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11020.000	43.67	16.83	60.50	74.00	-13.50	peak
11020.000	32.46	16.83	49.29	54.00	-4.71	AVG
16530.000	34.59	16.10	50.69	74.00	-23.31	peak
16530.000	24.48	16.10	40.58	54.00	-13.42	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11020.000	42.53	16.83	59.36	74.00	-14.64	peak
11020.000	31.58	16.83	48.41	54.00	-5.59	AVG
16530.000	33.31	16.10	49.41	74.00	-24.59	peak
16530.000	22.52	16.10	38.62	54.00	-15.38	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n40 Channel 118	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11180.000	43.87	16.98	60.85	74.00	-13.15	peak
11180.000	31.66	16.98	48.64	54.00	-5.36	AVG
16770.000	33.55	18.37	51.92	74.00	-22.08	peak
16770.000	22.14	18.37	40.51	54.00	-13.49	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11180.000	43.58	16.98	60.56	74.00	-13.44	peak
11180.000	31.43	16.98	48.41	54.00	-5.59	AVG
16770.000	32.62	18.37	50.99	74.00	-23.01	peak
16770.000	21.75	18.37	40.12	54.00	-13.88	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n40 Channel 134	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11340.000	43.87	17.03	60.90	74.00	-13.10	peak
11340.000	32.45	17.03	49.48	54.00	-4.52	AVG
17010.000	33.62	20.57	54.19	74.00	-19.81	peak
17010.000	21.84	20.57	42.41	54.00	-11.59	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11340.000	42.14	17.03	59.17	74.00	-14.83	peak
11340.000	31.32	17.03	48.35	54.00	-5.65	AVG
17010.000	32.45	20.57	53.02	74.00	-20.98	peak
17010.000	21.48	20.57	42.05	54.00	-11.95	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac20 Channel 100	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11000.000	43.18	16.80	59.98	74.00	-14.02	peak
11000.000	32.22	16.80	49.02	54.00	-4.98	AVG
16500.000	36.54	15.82	52.36	74.00	-21.64	peak
16500.000	25.11	15.82	40.93	54.00	-13.07	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11000.000	42.19	16.80	58.99	74.00	-15.01	peak
11000.000	31.73	16.80	48.53	54.00	-5.47	AVG
16500.000	35.50	15.82	51.32	74.00	-22.68	peak
16500.000	24.61	15.82	40.43	54.00	-13.57	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac20 Channel 120	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	43.61	16.99	60.60	74.00	-13.40	peak
11200.000	32.48	16.99	49.47	54.00	-4.53	AVG
16800.000	33.55	18.65	52.20	74.00	-21.80	peak
16800.000	22.34	18.65	40.99	54.00	-13.01	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11200.000	42.23	16.99	59.22	74.00	-14.78	peak
11200.000	31.35	16.99	48.34	54.00	-5.66	AVG
16800.000	32.74	18.65	51.39	74.00	-22.61	peak
16800.000	21.43	18.65	40.08	54.00	-13.92	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11n20 Channel 144	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11440.000	43.72	16.94	60.66	74.00	-13.34	peak
11440.000	32.45	16.94	49.39	54.00	-4.61	AVG
17160.000	28.84	22.03	50.87	74.00	-23.13	peak
17160.000	17.21	22.03	39.24	54.00	-14.76	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11440.000	42.03	16.94	58.97	74.00	-15.03	peak
11440.000	32.57	16.94	49.51	54.00	-4.49	AVG
17160.000	28.45	22.03	50.48	74.00	-23.52	peak
17160.000	17.16	22.03	39.19	54.00	-14.81	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac40 Channel 102	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11020.000	42.96	16.83	59.79	74.00	-14.21	peak
11020.000	32.12	16.83	48.95	54.00	-5.05	AVG
16530.000	33.64	16.10	49.74	74.00	-24.26	peak
16530.000	23.73	16.10	39.83	54.00	-14.17	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11020.000	42.20	16.83	59.03	74.00	-14.97	peak
11020.000	31.31	16.83	48.14	54.00	-5.86	AVG
16530.000	33.51	16.10	49.61	74.00	-24.39	peak
16530.000	23.12	16.10	39.22	54.00	-14.78	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac40 Channel 118	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11180.000	43.13	16.98	60.11	74.00	-13.89	peak
11180.000	32.55	16.98	49.53	54.00	-4.47	AVG
16770.000	33.47	18.37	51.84	74.00	-22.16	peak
16770.000	23.72	18.37	42.09	54.00	-11.91	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11180.000	42.33	16.98	59.31	74.00	-14.69	peak
11180.000	32.80	16.98	49.78	54.00	-4.22	AVG
16770.000	33.36	18.37	51.73	74.00	-22.27	peak
16770.000	23.25	18.37	41.62	54.00	-12.38	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac40 Channel 142	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11420.000	43.17	16.99	60.16	74.00	-13.84	peak
11420.000	32.45	16.99	49.44	54.00	-4.56	AVG
17130.000	29.94	21.67	51.61	74.00	-22.39	peak
17130.000	20.52	21.67	42.19	54.00	-11.81	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11420.000	42.47	16.99	59.46	74.00	-14.54	peak
11420.000	32.21	16.99	49.20	54.00	-4.80	AVG
17130.000	29.84	21.67	51.51	74.00	-22.49	peak
17130.000	20.15	21.67	41.82	54.00	-12.18	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac80 Channel 106	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11060.000	44.18	16.89	61.07	74.00	-12.93	peak
11060.000	32.21	16.89	49.10	54.00	-4.90	AVG
16590.000	33.80	16.67	50.47	74.00	-23.53	peak
16590.000	23.53	16.67	40.20	54.00	-13.80	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11060.000	42.62	16.89	59.51	74.00	-14.49	peak
11060.000	31.44	16.89	48.33	54.00	-5.67	AVG
16590.000	33.76	16.67	50.43	74.00	-23.57	peak
16590.000	22.15	16.67	38.82	54.00	-15.18	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

TX Mode:	Ant 1	Measurement Distance:	3 m
Test channel:	802.11ac80 Channel 122	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11220.000	43.41	16.99	60.40	74.00	-13.60	peak
11220.000	31.58	16.99	48.57	54.00	-5.43	AVG
16830.000	32.32	18.92	51.24	74.00	-22.76	peak
16830.000	21.65	18.92	40.57	54.00	-13.43	AVG
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11220.000	42.14	16.99	59.13	74.00	-14.87	peak
11220.000	30.83	16.99	47.82	54.00	-6.18	AVG
16830.000	32.18	18.92	51.10	74.00	-22.90	peak
16830.000	21.09	18.92	40.01	54.00	-13.99	AVG

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

6.3 Radiated Restricted Band Edge Measurement

6.3.1 Applied procedures / Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz..
(2) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
(4) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
(5) The provisions of §15.205 apply to intentional radiators operating under this section. (6) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

6.3.2 Test procedure

a. Detector function: Peak mode
SPAN: 100MHz
RBW: 1 MHz
VBW: 3 MHz
Sweep time= Auto.
b. Using Peak Search to read the peak power of Carrier frequencies after Maximum Hold function is completed.
c. Find the next peak frequency outside the operation frequency band.

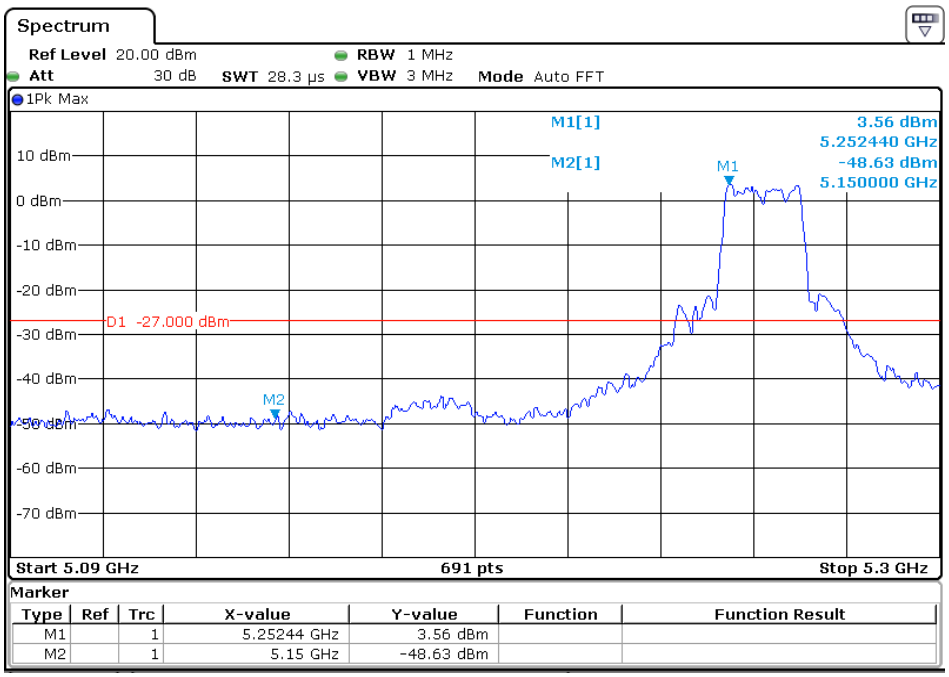
6.3.3 Deviation from standard

No deviation.

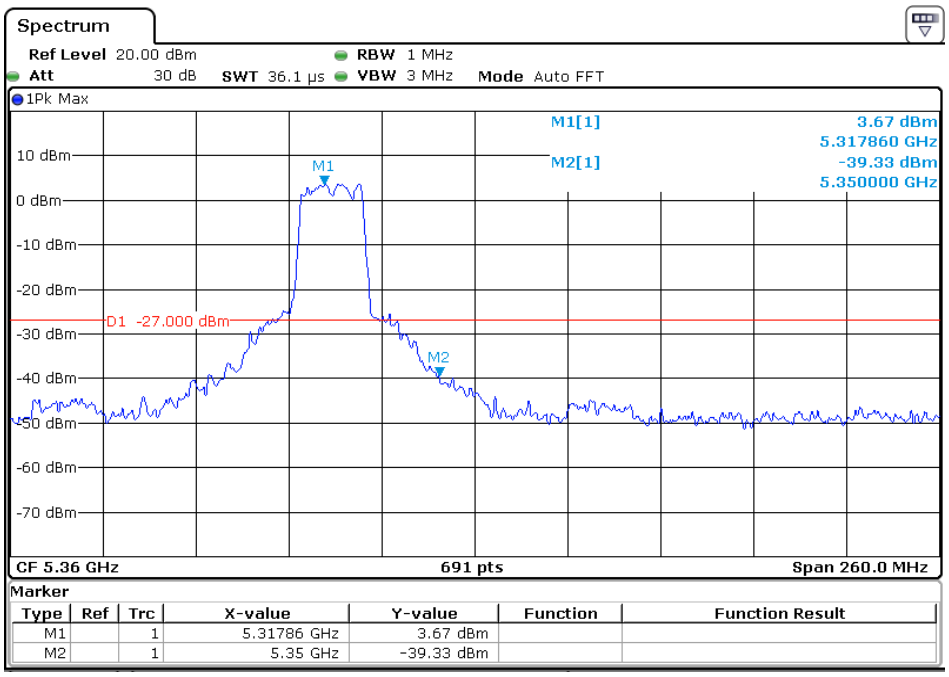
6.3.4 Test results

Note:1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1.

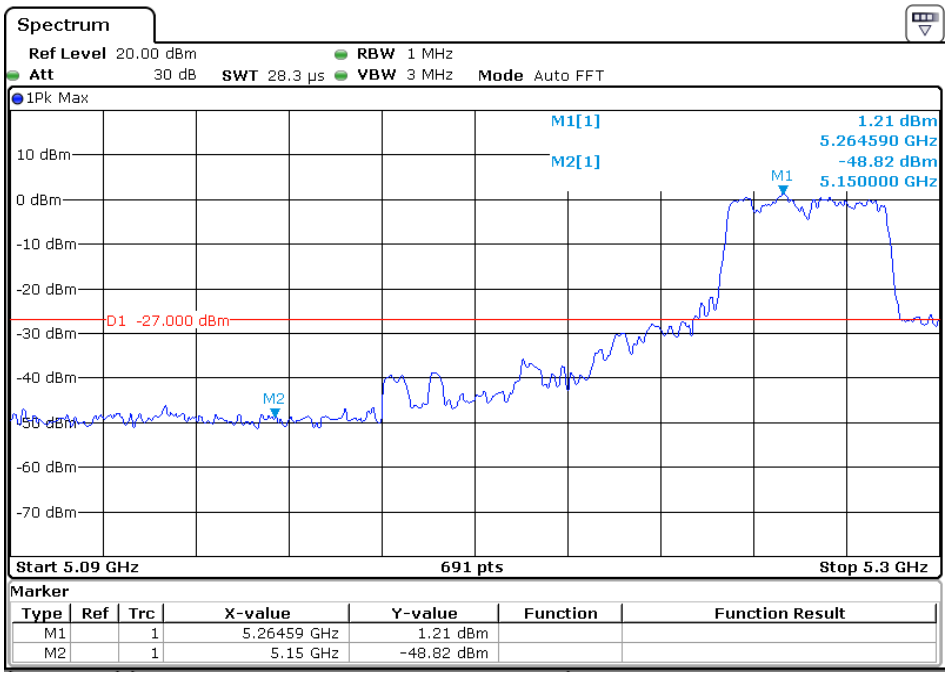
Ant 1#(Worst data)
802.11n(20M) (5.25GHz-5.35GHz)
CH 52 (Lower) Data rate 7.2Mbps



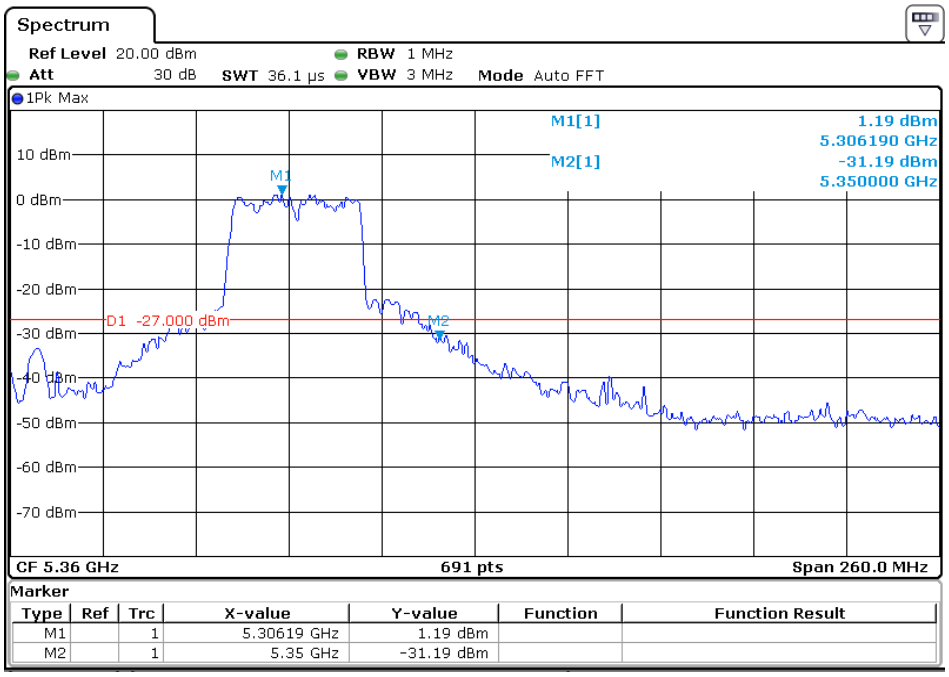
Ant 1#(Worst data)
802.11n(20M) (5.25GHz-5.35GHz)
CH 64 (Upper) Data rate 7.2Mbps



Ant 1#(Worst data)
802.11n(40M) (5.25GHz-5.35GHz)
CH 54 (Lower) Data rate 15Mbps



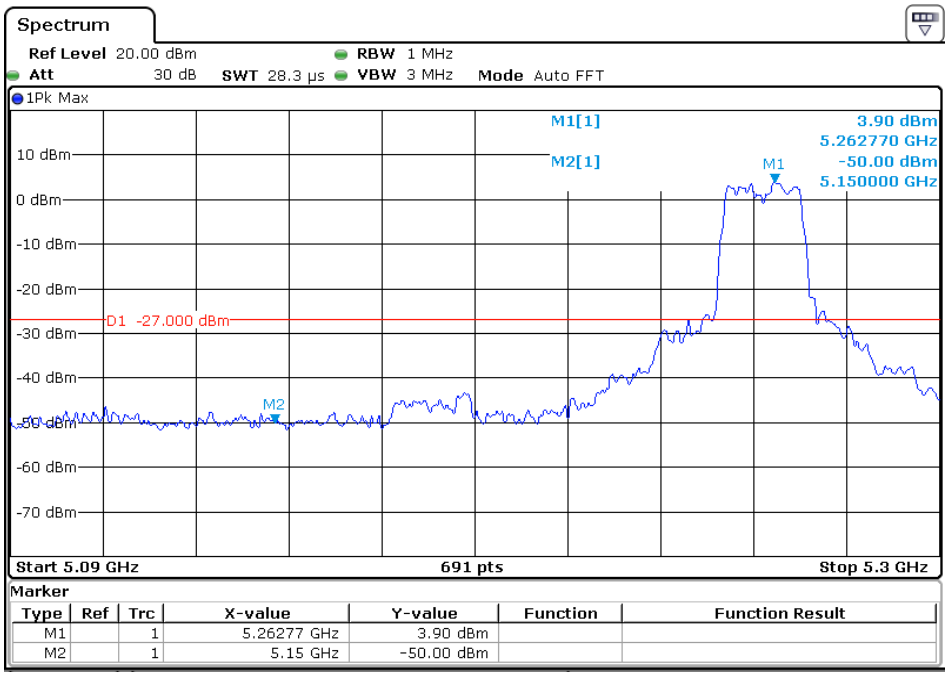
Ant 1#(Worst data)
802.11n(40M) (5.25GHz-5.35GHz)
CH 62 (Upper) Data rate 15Mbps



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

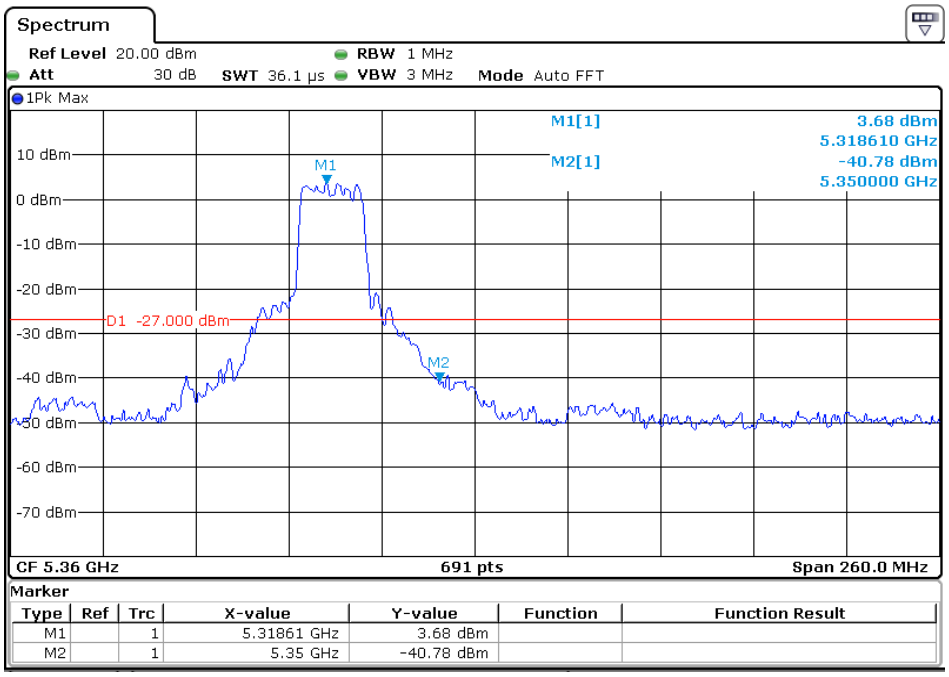
CH 52 (Lower) Data rate 6Mbps



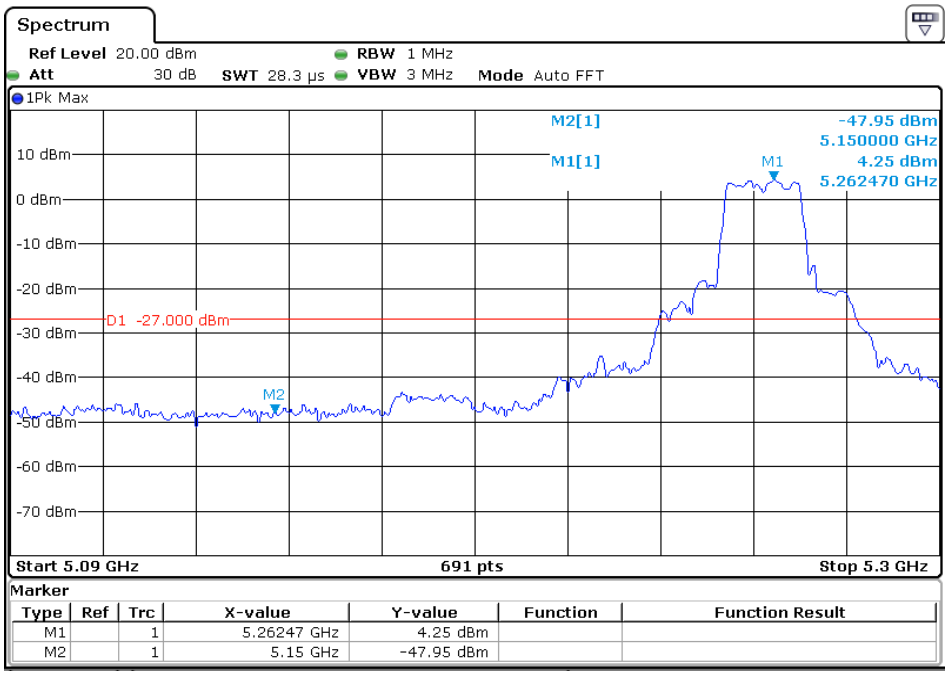
Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

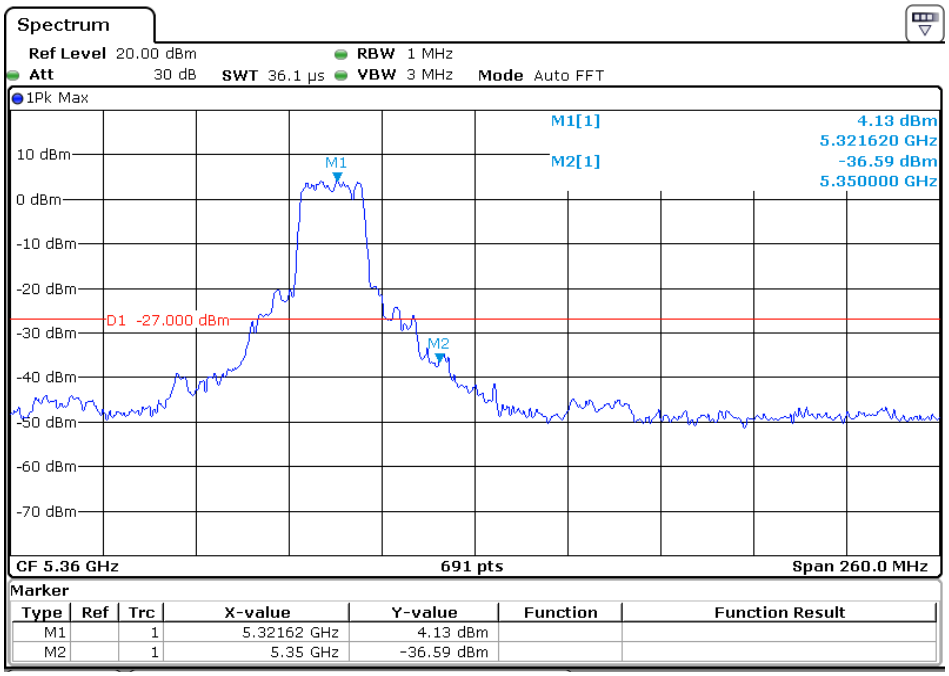
CH 64 (Upper) Data rate 6Mbps



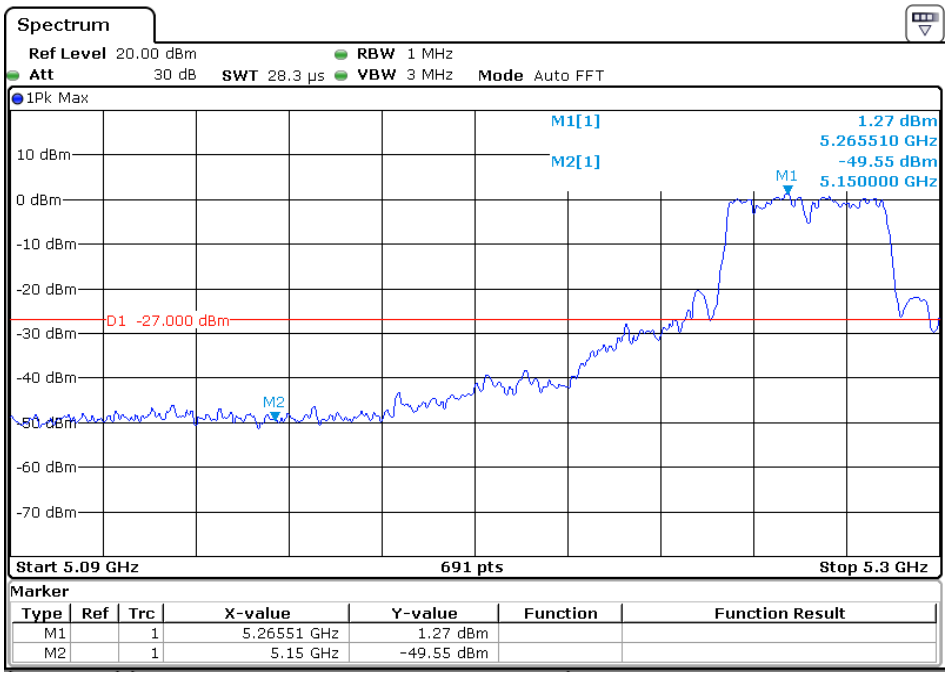
Ant 1#(Worst data)
802.11ac(20M) (5.25GHz-5.35GHz)
CH 52 (Lower) Data rate 7.2Mbps



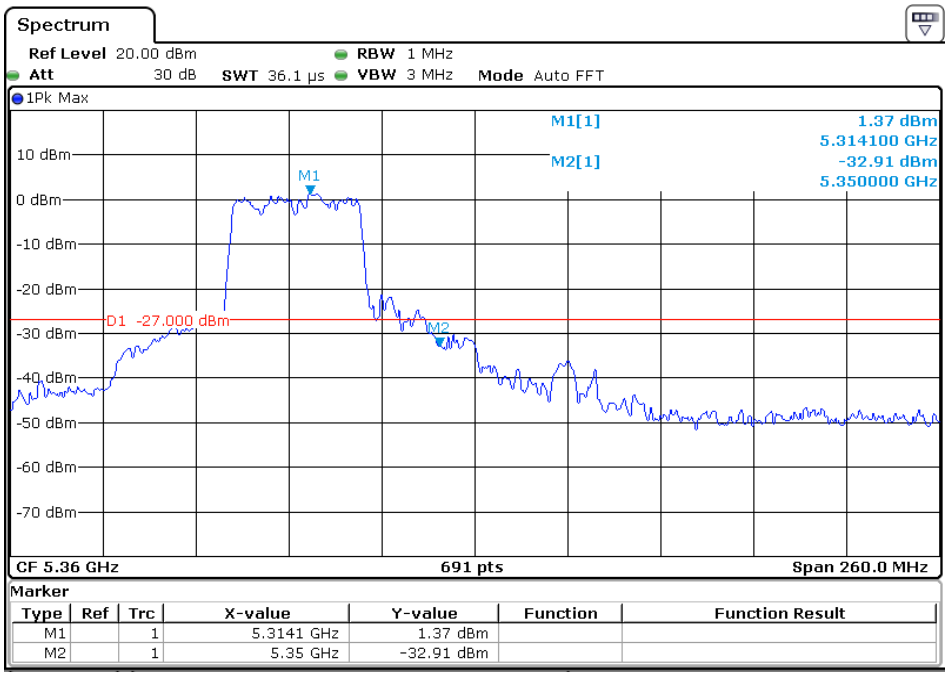
Ant 1#(Worst data)
802.11ac(20M) (5.25GHz-5.35GHz)
CH 64 (Upper) Data rate 7.2Mbps



Ant 1#(Worst data)
802.11ac(40M) (5.25GHz-5.35GHz)
CH 54 (Lower) Data rate 15Mbps



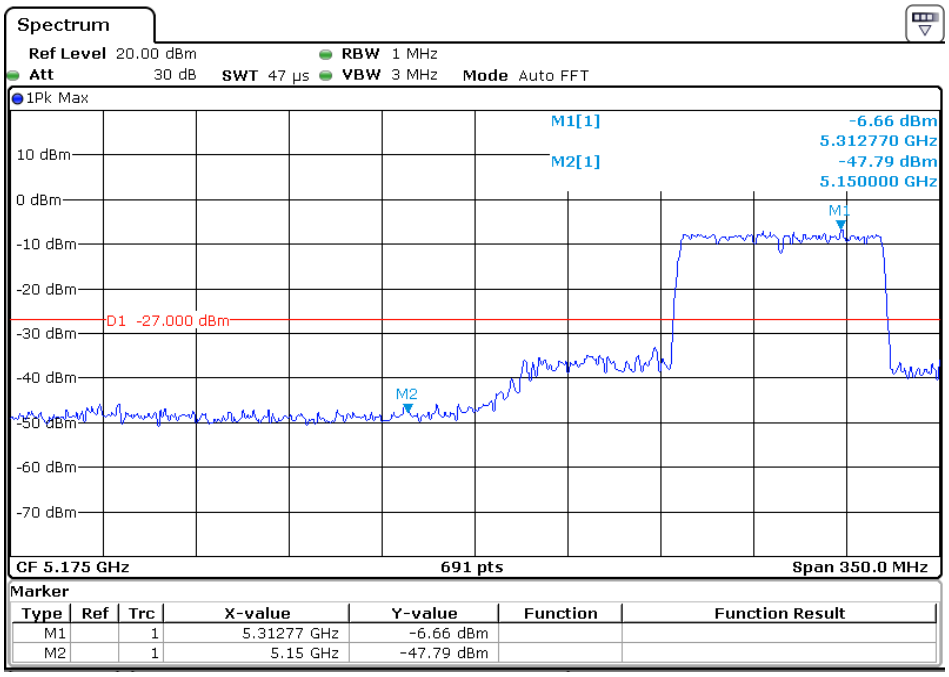
Ant 1#(Worst data)
802.11ac(40M) (5.25GHz-5.35GHz)
CH 62 (Upper) Data rate 15Mbps



Ant 1#(Worst data)

802.11ac(80M) (5.25GHz-5.35GHz)

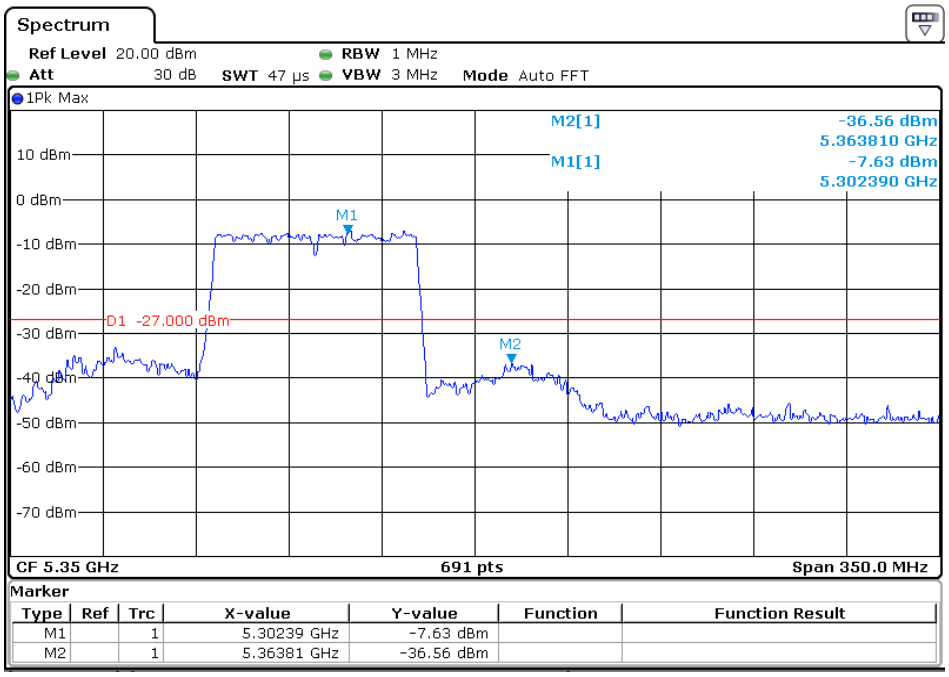
CH 58 (Right Side) Data rate 32.5Mbps



Ant 1#(Worst data)

802.11ac(80M) (5.25GHz-5.35GHz)

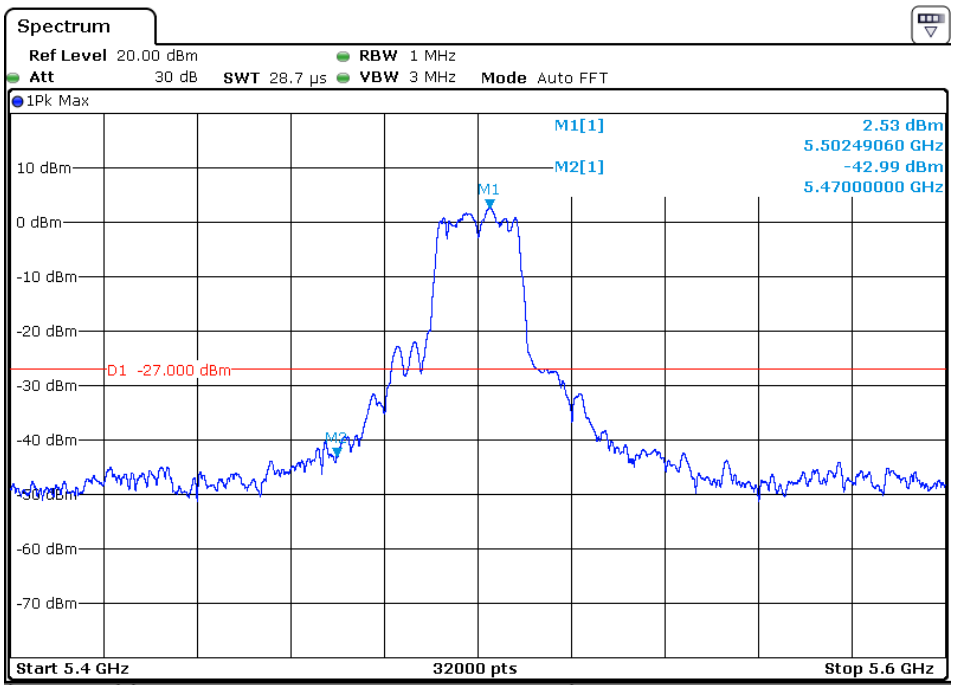
CH 58 (Left Side) Data rate 32.5Mbps



Ant 1#(Worst data)

802.11n(20M) (5.47GHz-5.725GHz)

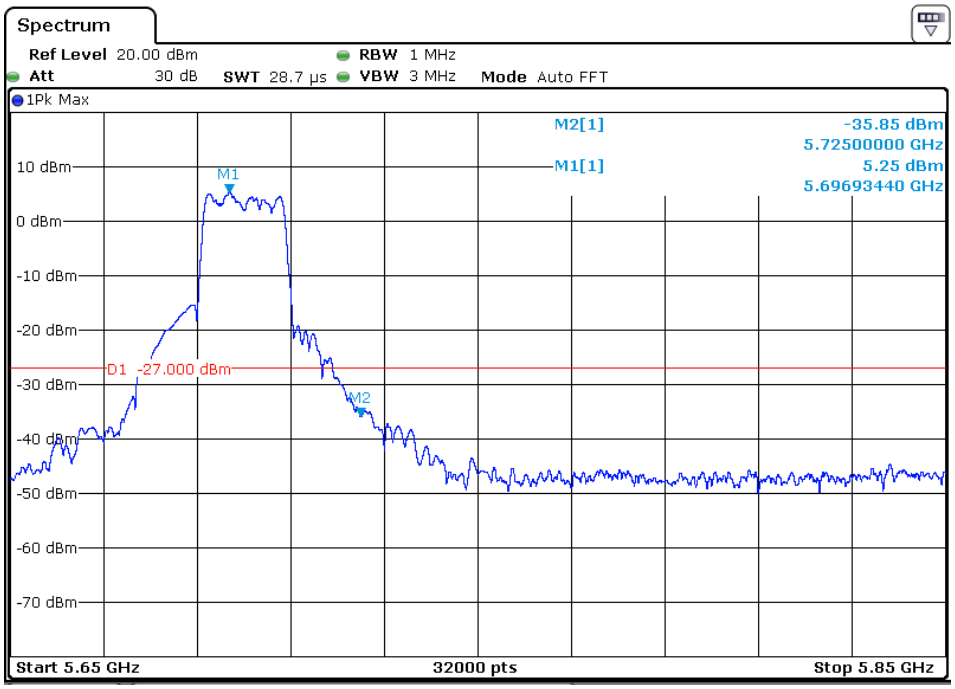
The Lowest Channel 100: 5500MHz



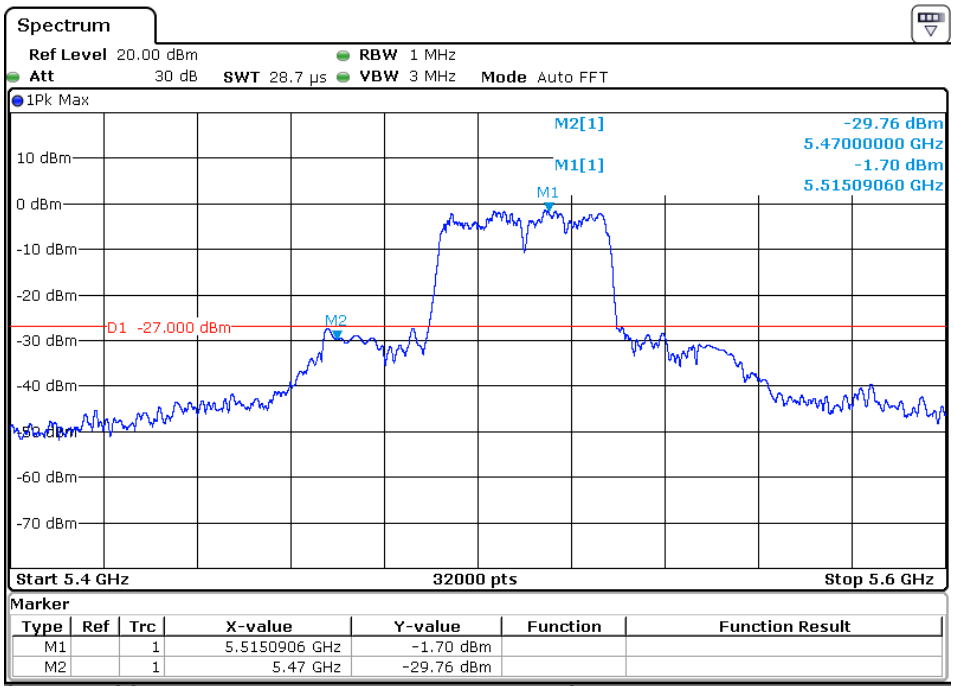
Ant 1#(Worst data)

802.11n(20M) (5.47GHz-5.725GHz)

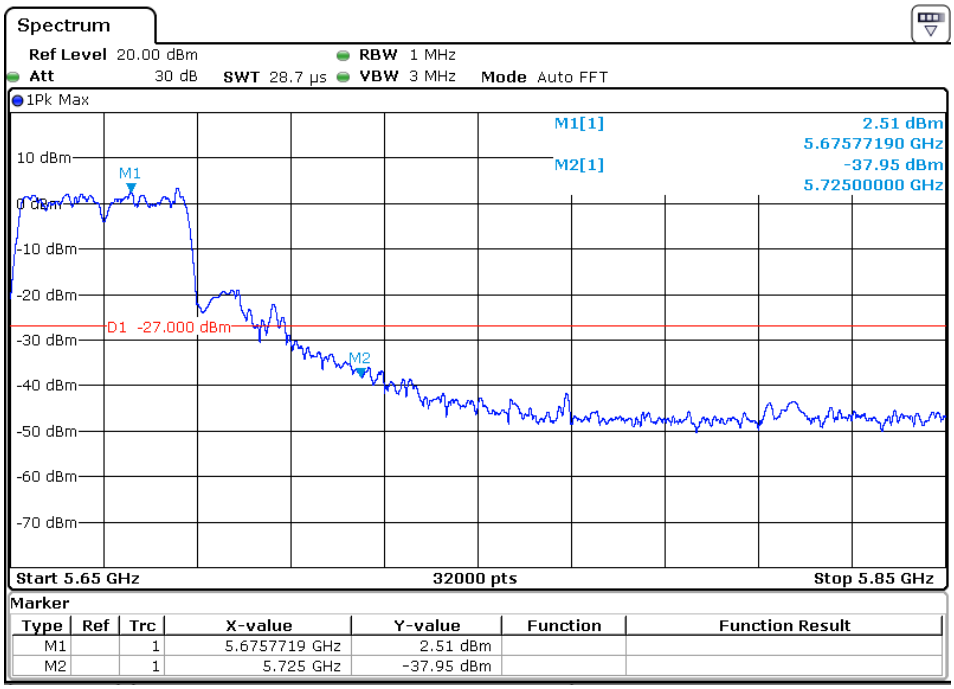
The High Channel 140: 5700MHz



Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The Lowest Channel 102: 5510MHz



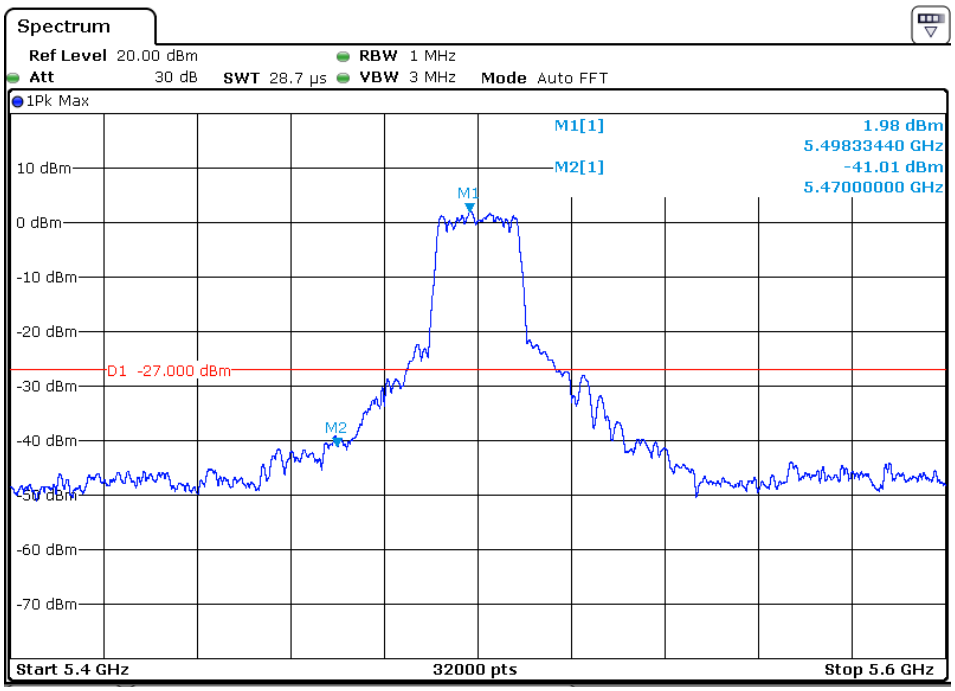
Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The High Channel 134: 5670MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

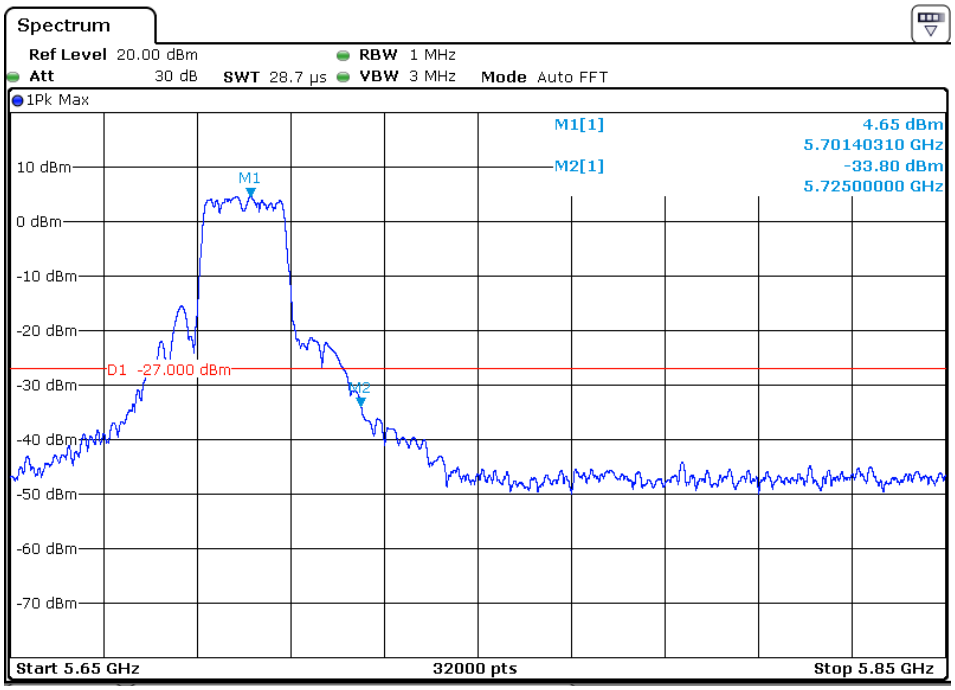
The Lowest Channel 100: 5500MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

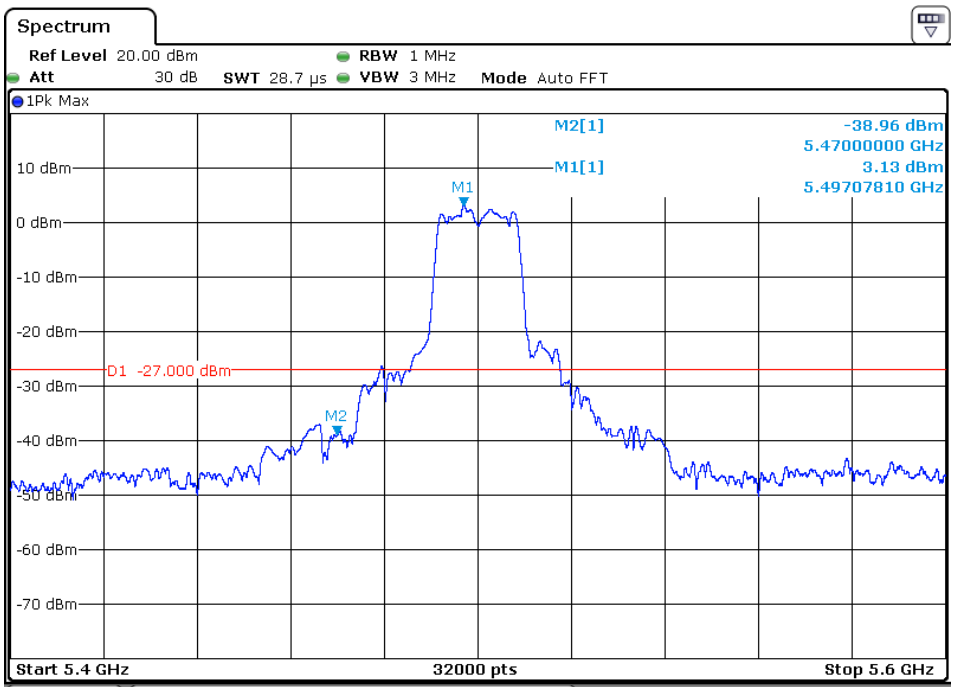
The High Channel 140: 5700MHz



Ant 1#(Worst data)

802.11ac(20M) (5.47GHz-5.725GHz)

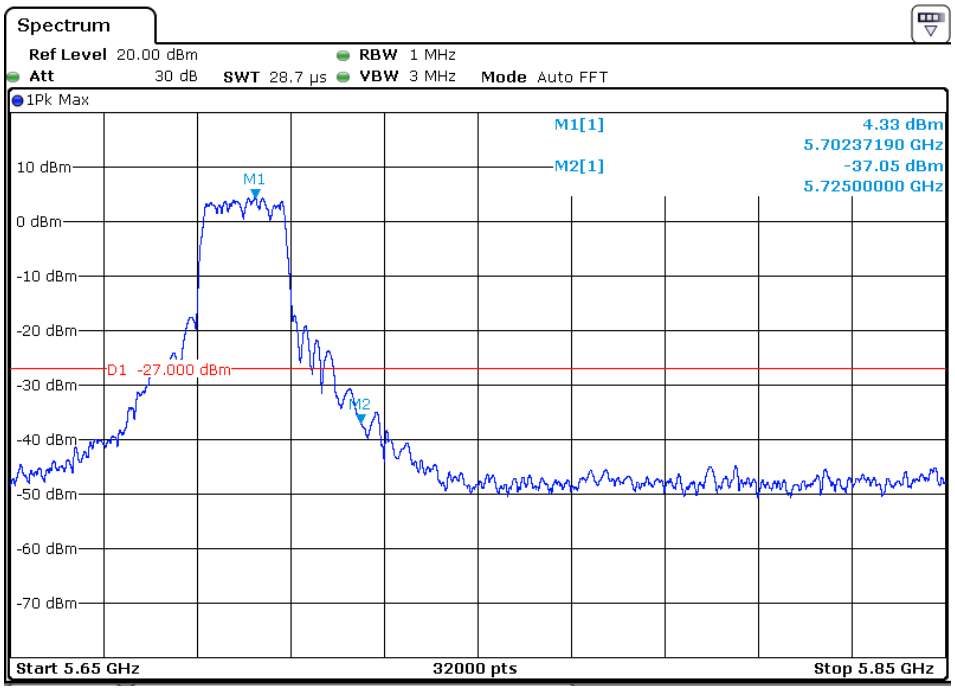
The Lowest Channel 100: 5500MHz



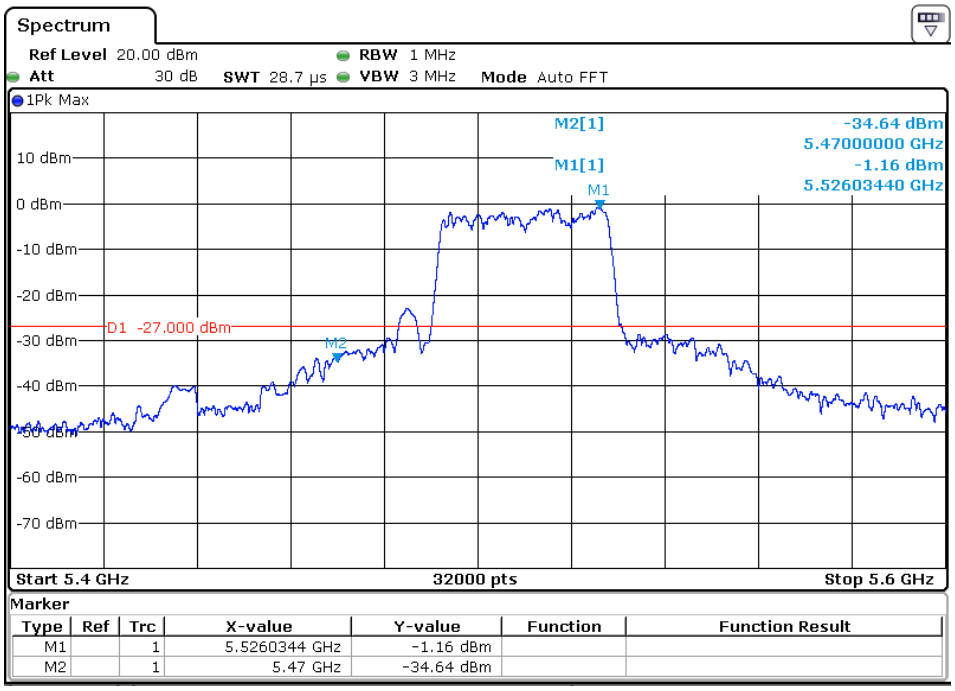
Ant 1#(Worst data)

802.11ac(20M) (5.47GHz-5.725GHz)

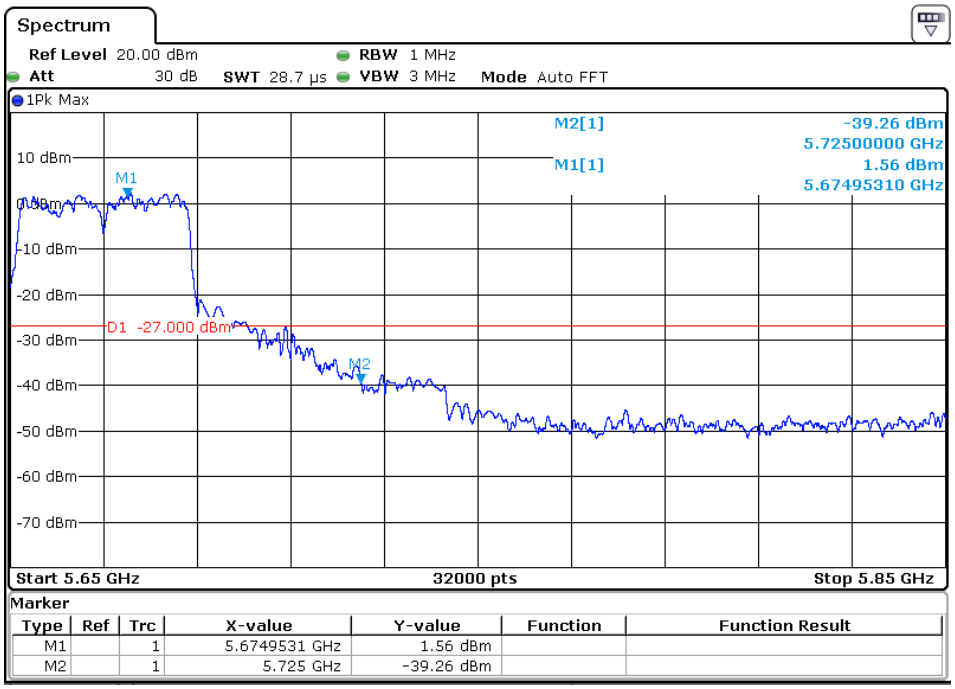
The High Channel 142: 5700MHz



Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Lowest Channel 102: 5510MHz



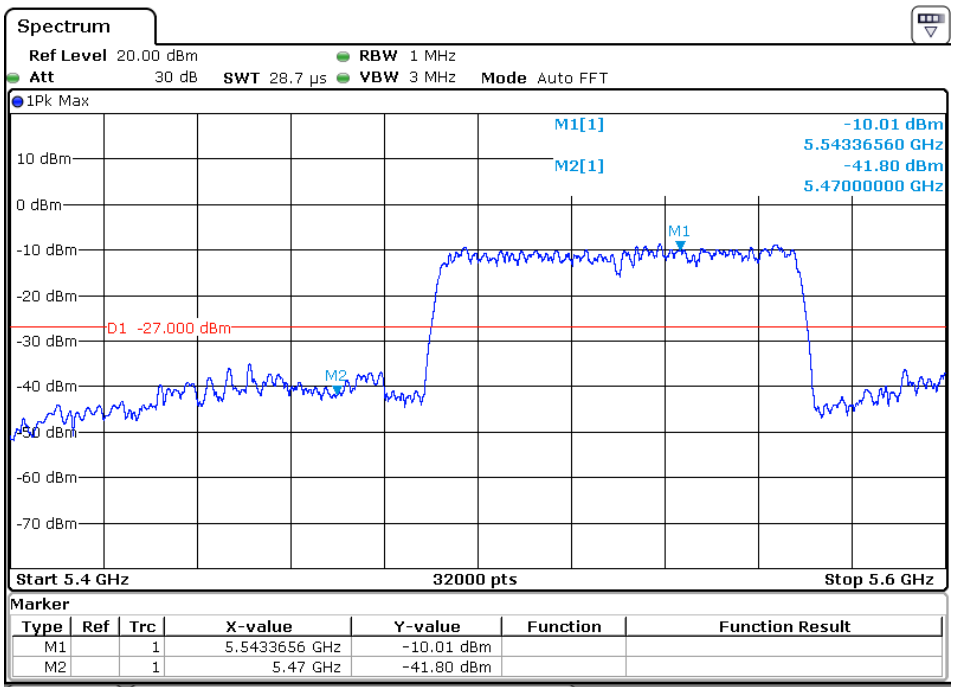
Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The High Channel 134: 5670MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

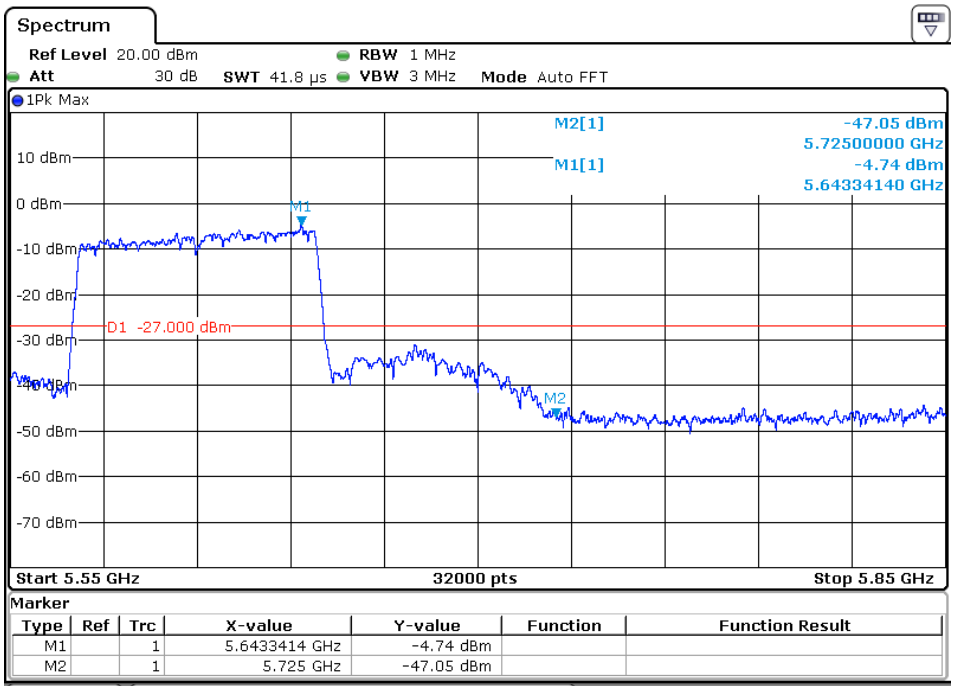
The Lowest Channel 106: 5530MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

The High Channel 122: 5610MHz



6.4 BANDWIDTH TEST

6.4.1 Applied procedures / Limit

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum power control level, as defined in KDB 789033, at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26 dB bandwidth.
The 26 dB bandwidth is used to determine the conducted power limits.
There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.
The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

6.4.2 Test procedure

26 dB BANDWID PROCEDURES

a. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01

b. Set RBW = approximately 1% of the emission bandwidth.

c. Trace mode = max hold

d. Detector = Peak

e. 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%

6 dB BANDWID PROCEDURES

a. Set resolution bandwidth (RBW) = 100 kHz

b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.

c. Trace mode = max hold.

d. Sweep = auto couple.

e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

99% BANDWID PROCEDURES

1. Set center frequency to the nominal EUT channel center frequency.

2. Set span = 1.5 times to 5.0 times the OBW.

3. Set RBW = 1 % to 5 % of the OBW

4. Set VBW ⩾ 3 • RBW

5. 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.

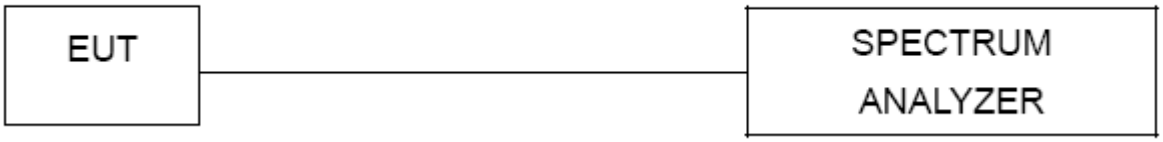
6. Use the 99 % power bandwidth function of the instrument (if available).

7. 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.

6.4.3 Deviation from standard

No deviation.

6.4.4 Test setup



6.4.5 Test results

Note:1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.

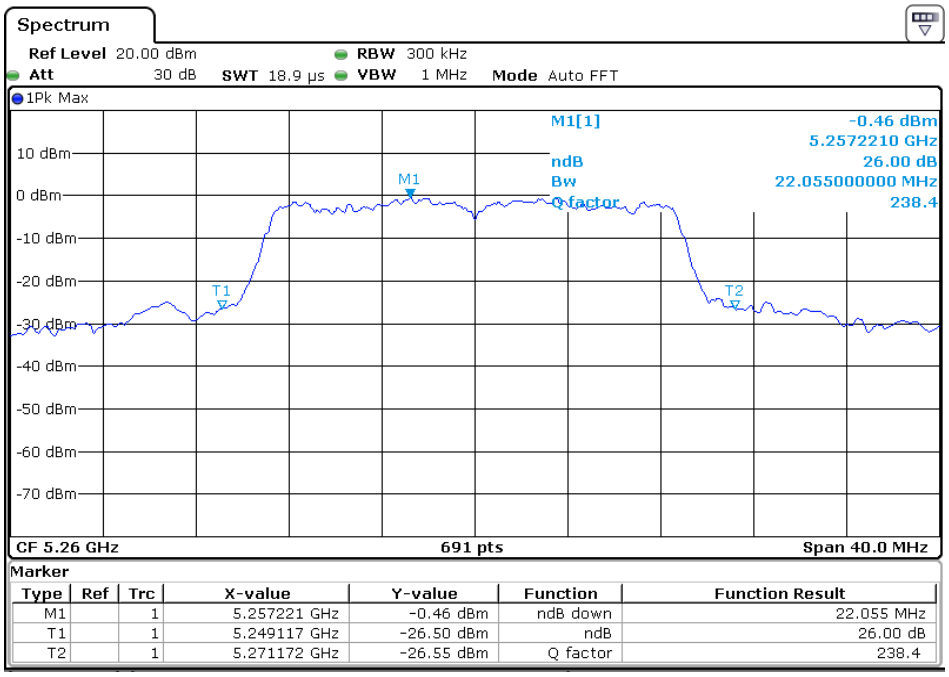
EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1010 hPa	Test Power ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	802.11a/n20/n40/ac20/ac40/ac80-Ant 1#(worst case)		

Test Mode	Test Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Ant 1# 802.11n(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	CH52	5260	22.055
	CH60	5300	21.129
	CH64	5320	20.724
Ant 1# 802.11n(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	CH54	5270	40.289
	CH62	5310	40.463
Ant 1# 802.11a (5.25GHz-5.35GHz) Data rate 6Mbps	CH52	5260	20.897
	CH60	5300	20.55
	CH64	5320	20.55
Ant 1# 802.11ac(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	CH52	5260	20.781
	CH60	5300	20.318
	CH64	5320	20.434
Ant 1# 802.11ac(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	CH54	5270	40.203
	CH62	5310	40.55
Ant 1# 802.11ac(80M) (5.25GHz-5.35GHz) Data rate 32.5Mbps	CH58	5290	81.45
Note:			
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.		
2	Antenna 1 and Antenna 2 can not transmit simultaneously.		

Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

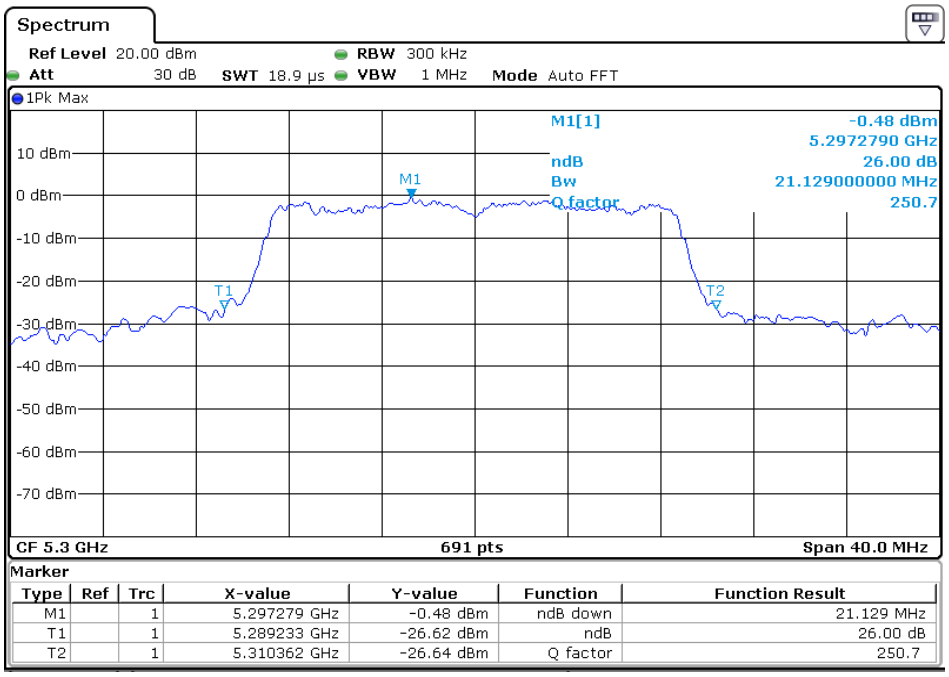
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

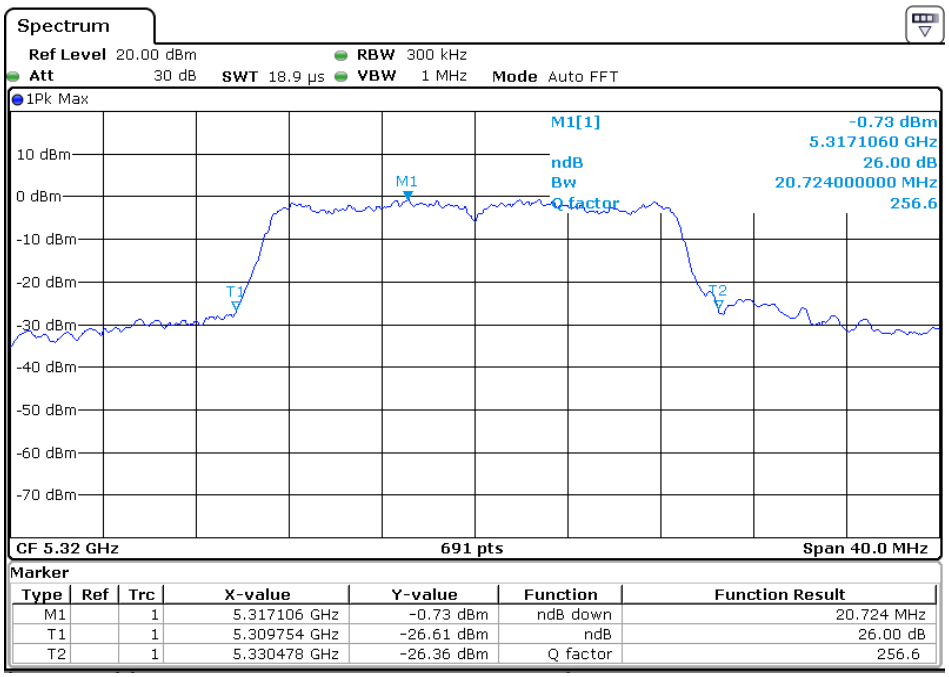
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

The High Channel 64: 5320MHz

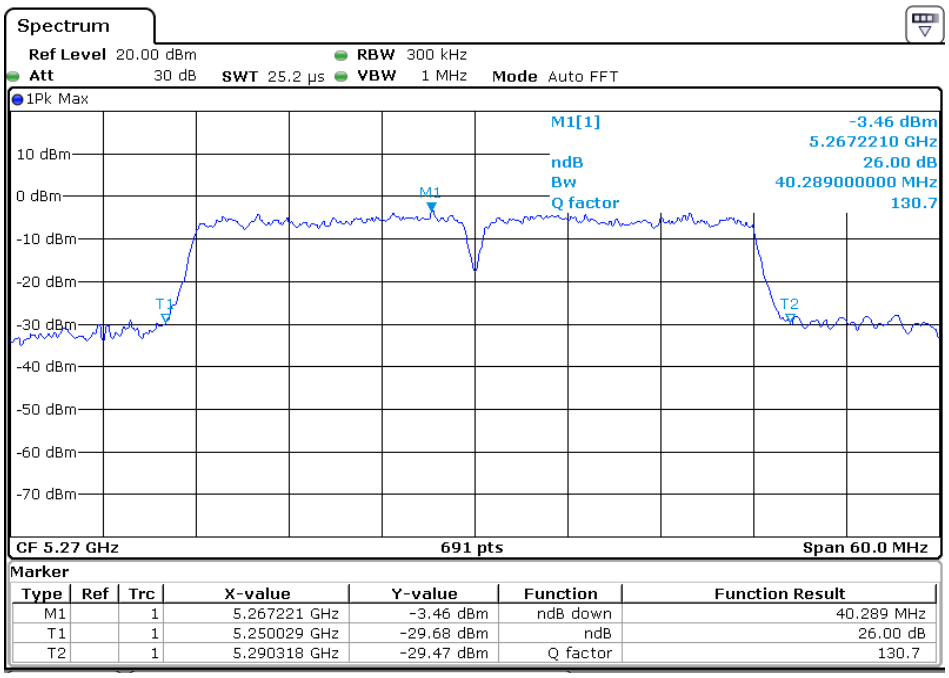


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.317106 GHz	-0.73 dBm	ndB down	20.724 MHz
T1		1	5.309754 GHz	-26.61 dBm	ndB	26.00 dB
T2		1	5.330478 GHz	-26.36 dBm	Q factor	256.6

Ant 1#(Worst data)

802.11n(40M) (5.25GHz-5.35GHz)

The Lowest Channel 54: 5270MHz

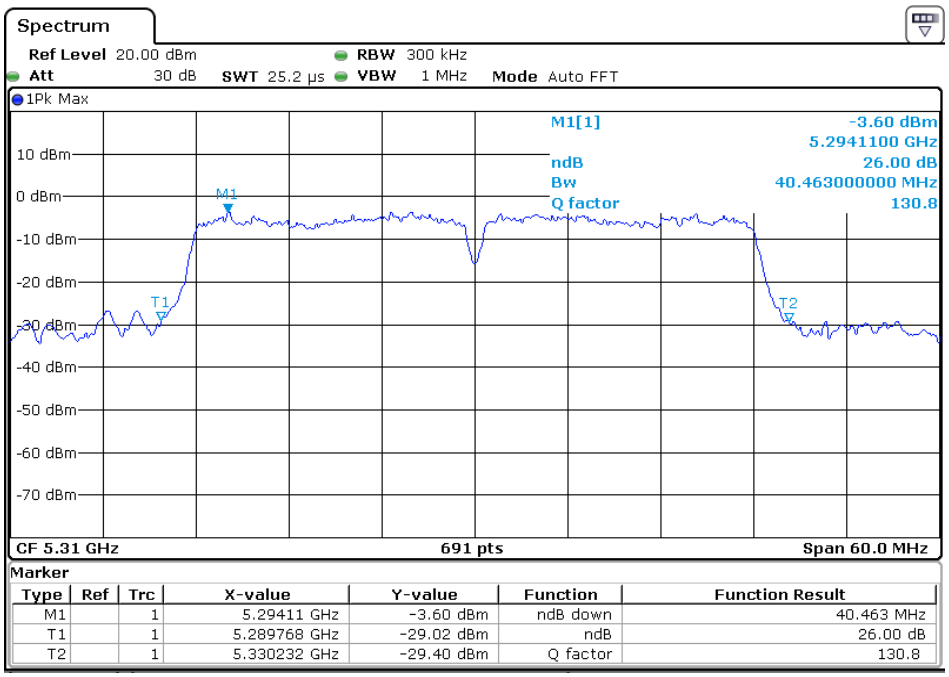


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.267221 GHz	-3.46 dBm	ndB down	40.289 MHz
T1		1	5.250029 GHz	-29.68 dBm	ndB	26.00 dB
T2		1	5.290318 GHz	-29.47 dBm	Q factor	130.7

Ant 1#(Worst data)

802.11n(40M) (5.25GHz-5.35GHz)

The High Channel 62: 5310MHz

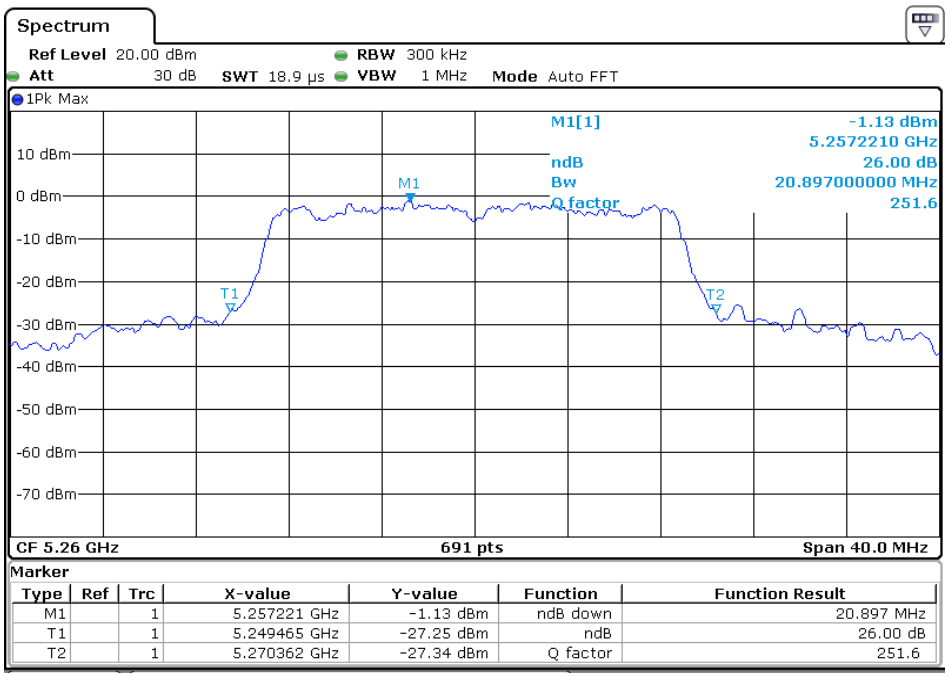


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.29411 GHz	-3.60 dBm	ndB down	40.463 MHz
T1		1	5.289768 GHz	-29.02 dBm	ndB	26.00 dB
T2		1	5.330232 GHz	-29.40 dBm	Q factor	130.8

Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

The Lowest Channel 52: 5260MHz

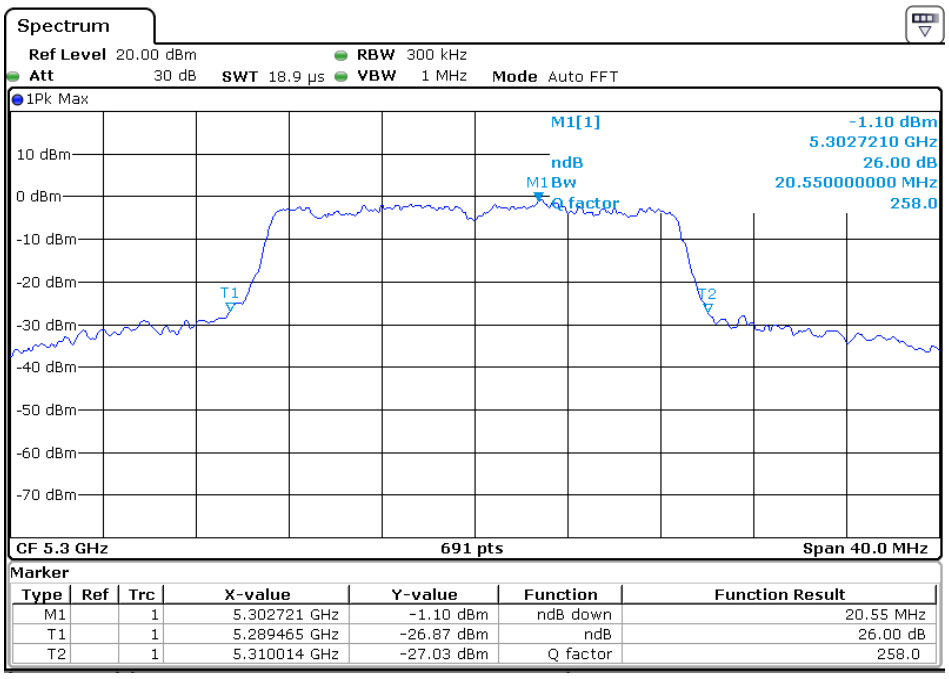


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.257221 GHz	-1.13 dBm	ndB down	20.897 MHz
T1		1	5.249465 GHz	-27.25 dBm	ndB	26.00 dB
T2		1	5.270362 GHz	-27.34 dBm	Q factor	251.6

Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

The Middle Channel 60: 5300MHz



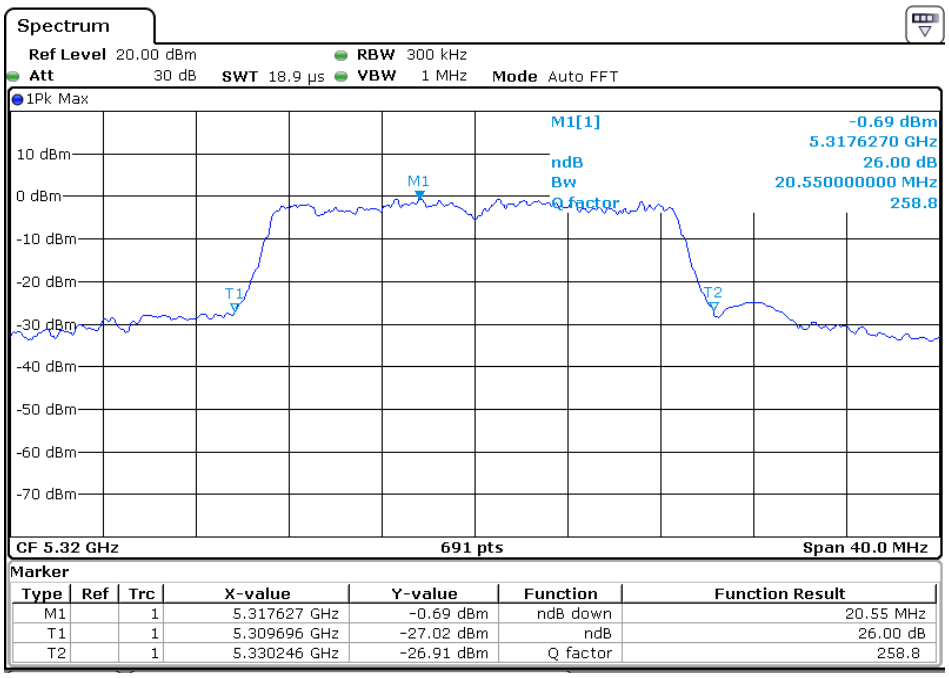
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.302721 GHz	-1.10 dBm	ndB down	20.55 MHz
T1		1	5.289465 GHz	-26.87 dBm	ndB	26.00 dB
T2		1	5.310014 GHz	-27.03 dBm	Q factor	258.0

Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

The High Channel 64: 5320MHz



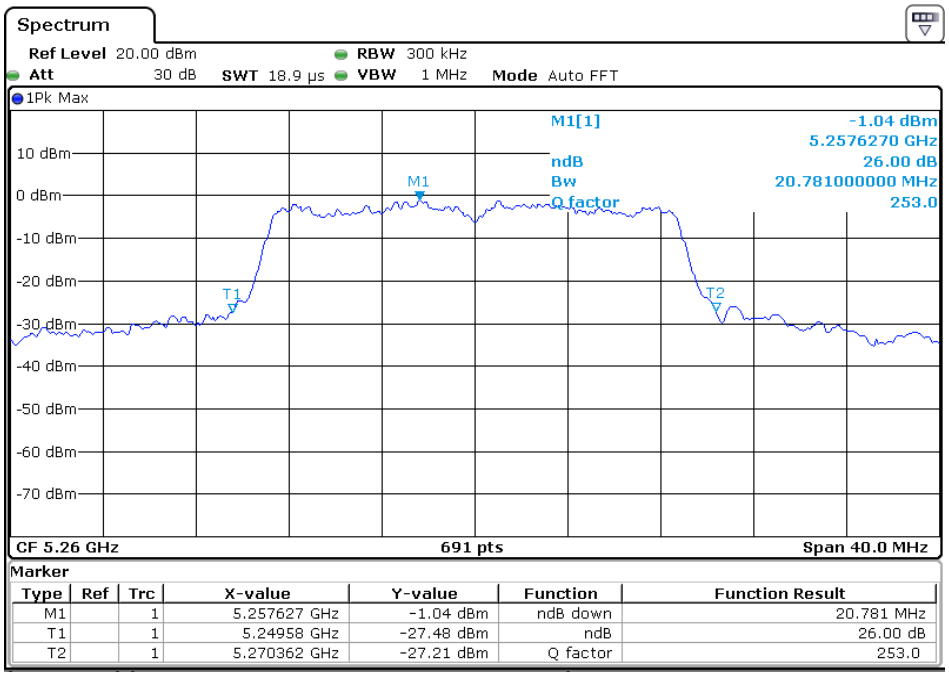
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.317627 GHz	-0.69 dBm	ndB down	20.55 MHz
T1		1	5.309696 GHz	-27.02 dBm	ndB	26.00 dB
T2		1	5.330246 GHz	-26.91 dBm	Q factor	258.8

Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

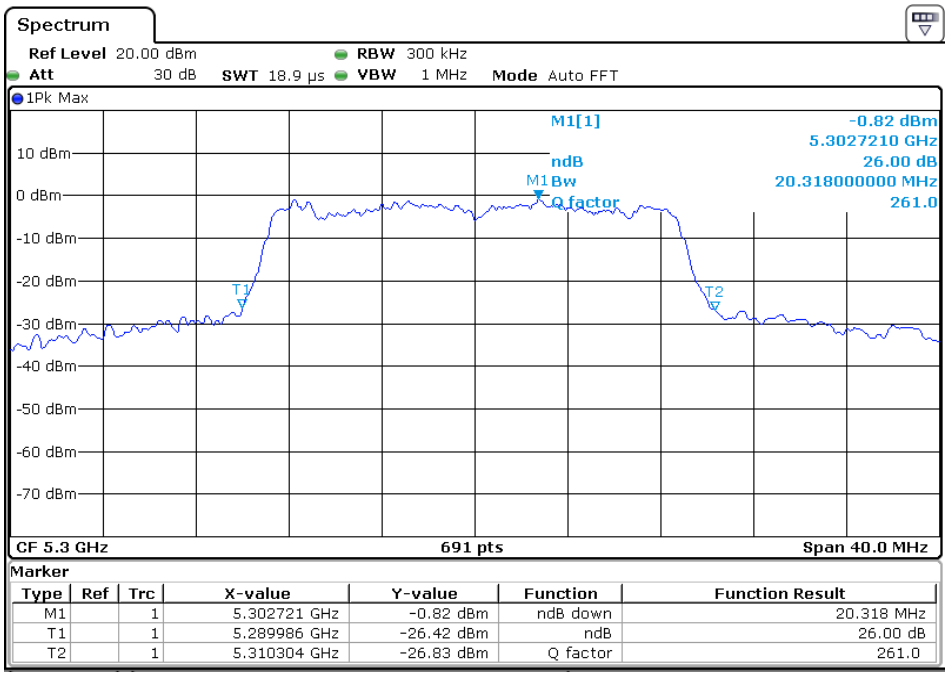
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

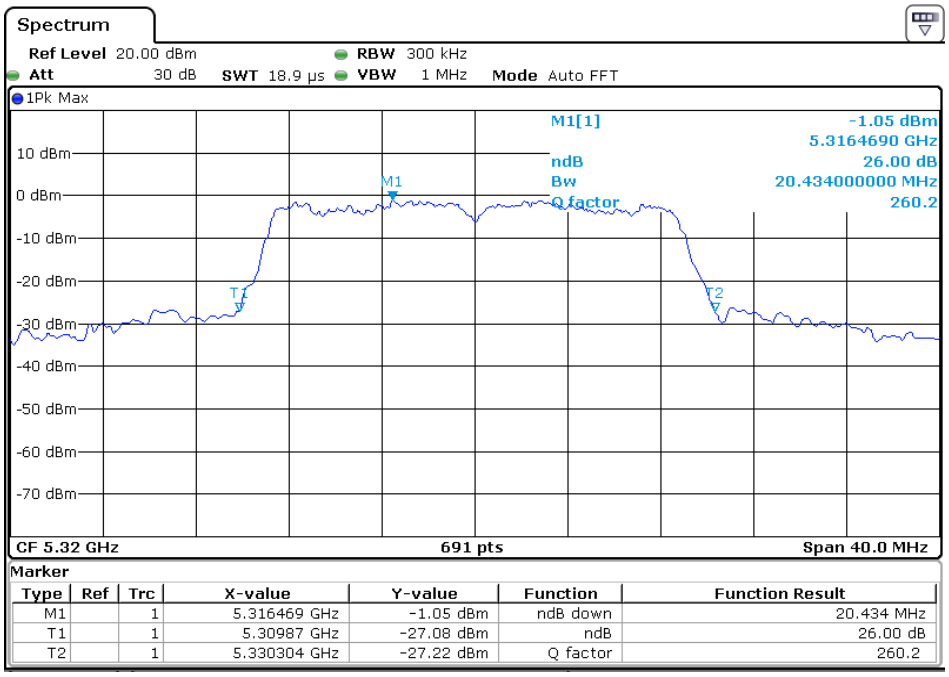
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

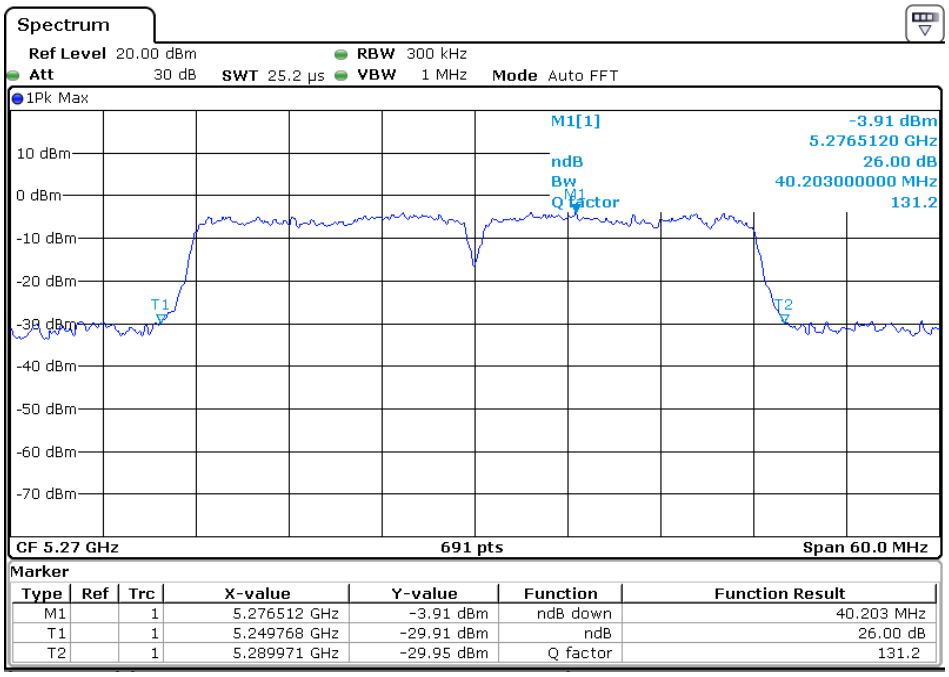
The High Channel 64: 5320MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

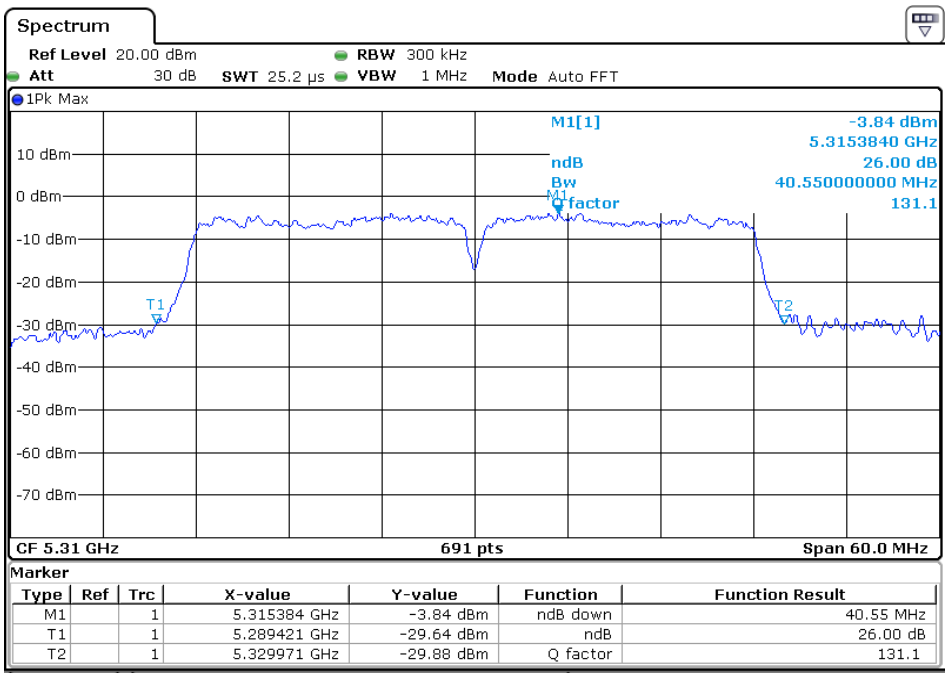
The Lowest Channel 54: 5270MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

The High Channel 62: 5310MHz



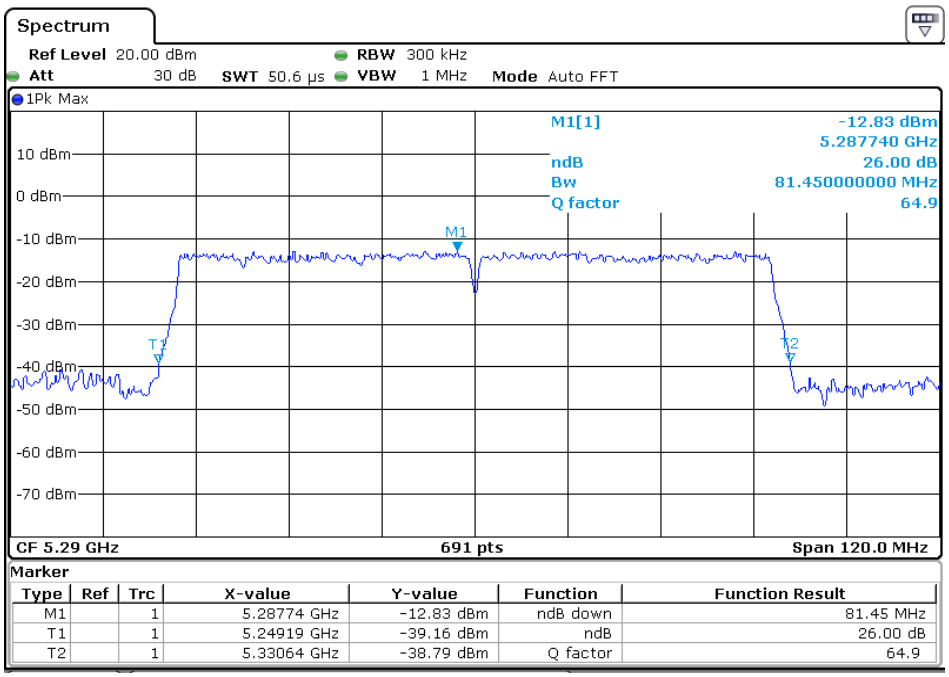
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.315384 GHz	-3.84 dBm	ndB down	40.55 MHz
T1		1	5.289421 GHz	-29.64 dBm	ndB	26.00 dB
T2		1	5.329971 GHz	-29.88 dBm	Q factor	131.1

Ant 1#(Worst data)

802.11ac(80M) (5.25GHz-5.35GHz)

The High Channel 58: 5290MHz

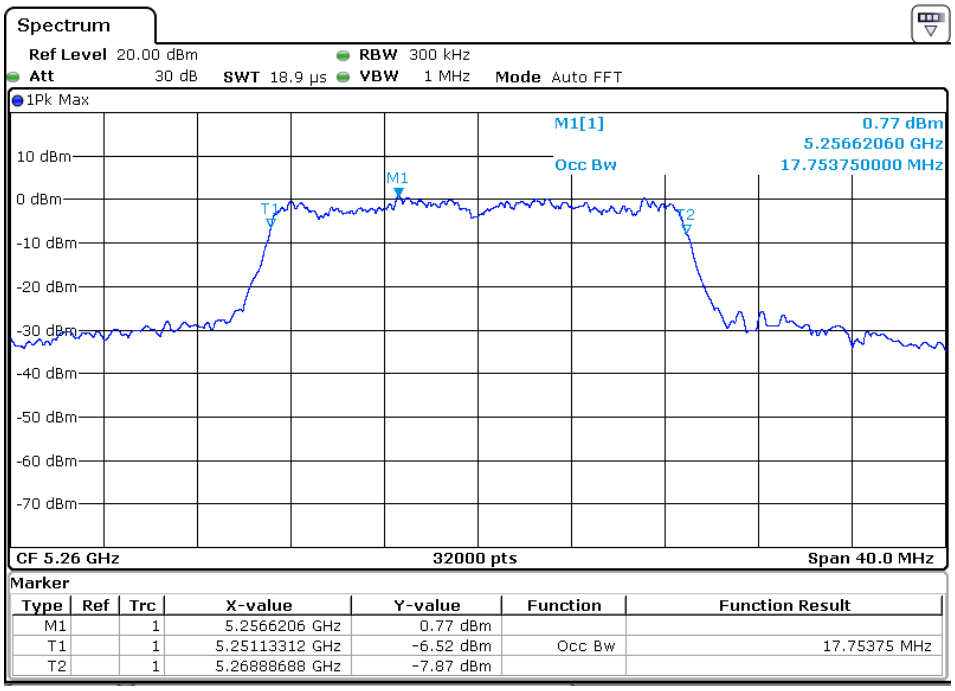


Marker

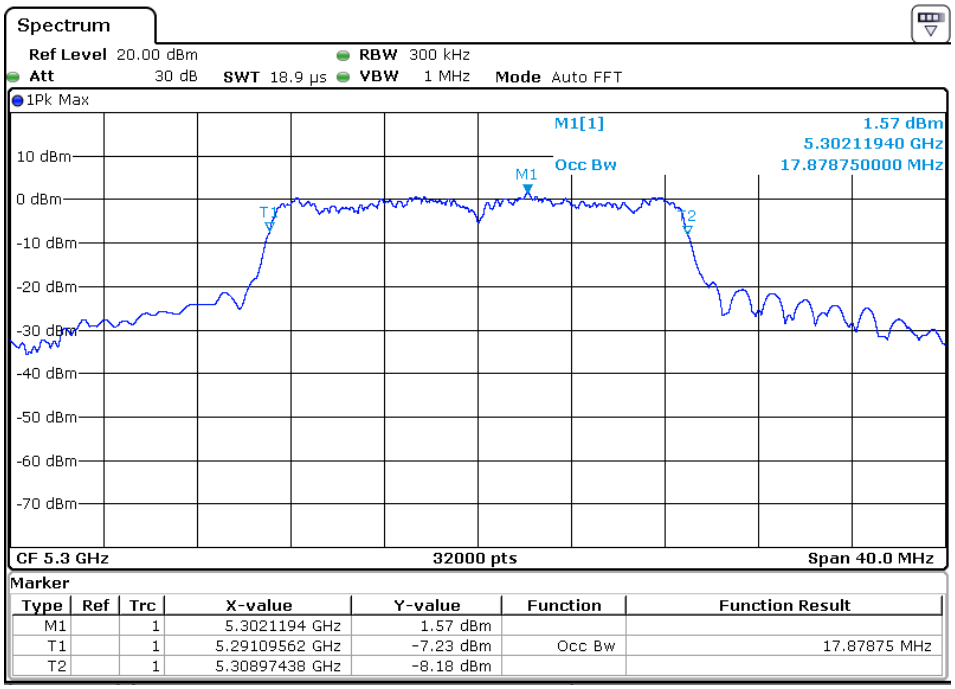
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.28774 GHz	-12.83 dBm	ndB down	81.45 MHz
T1		1	5.24919 GHz	-39.16 dBm	ndB	26.00 dB
T2		1	5.33064 GHz	-38.79 dBm	Q factor	64.9

Test Mode	Test Channel	Frequency (MHz)	99% Bandwidth (MHz)
Ant 1# 802.11n(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	CH52	5260	17.75375
	CH60	5300	17.87875
	CH64	5320	17.79125
Ant 1# 802.11n(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	CH54	5270	36.31
	CH62	5310	36.5675
Ant 1# 802.11a (5.25GHz-5.35GHz) Data rate 6Mbps	CH52	5260	17.835
	CH60	5300	17.74
	CH64	5320	17.78875
Ant 1# 802.11ac(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	CH52	5260	17.95375
	CH60	5300	17.90625
	CH64	5320	17.95875
Ant 1# 802.11ac(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	CH54	5270	36.4225
	CH62	5310	36.355
Ant 1# 802.11ac(80M) (5.25GHz-5.35GHz) Data rate 32.5Mbps	CH58	5290	76.17
Note:			
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.		
2	Antenna 1 and Antenna 2 can not transmit simultaneously.		

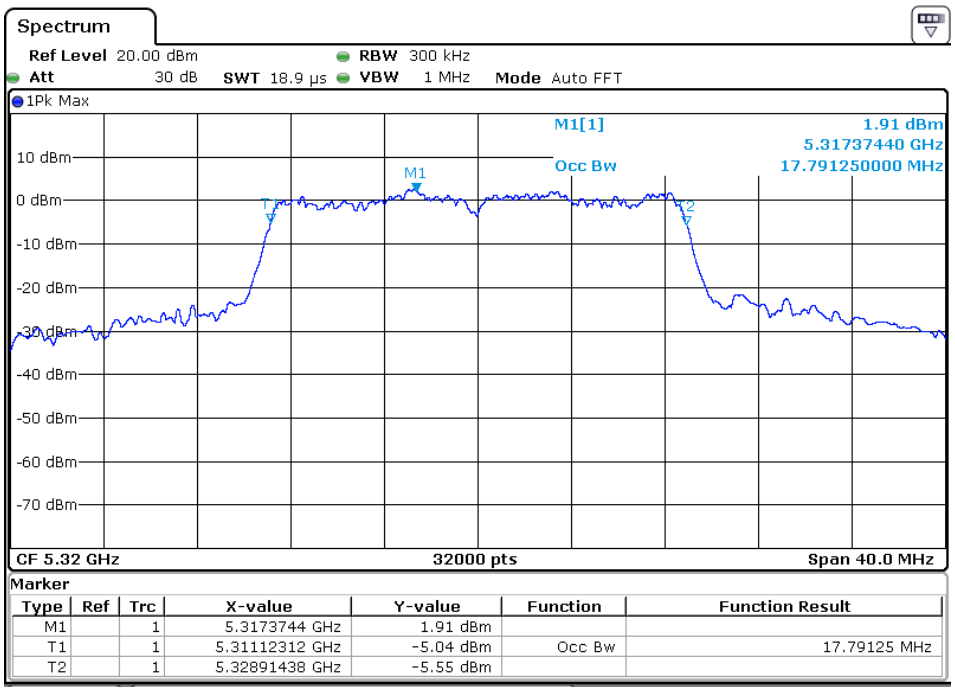
Ant 1#(Worst data)
802.11n(20M) (5.25GHz-5.35GHz)
The Lowest Channel 52: 5260MHz



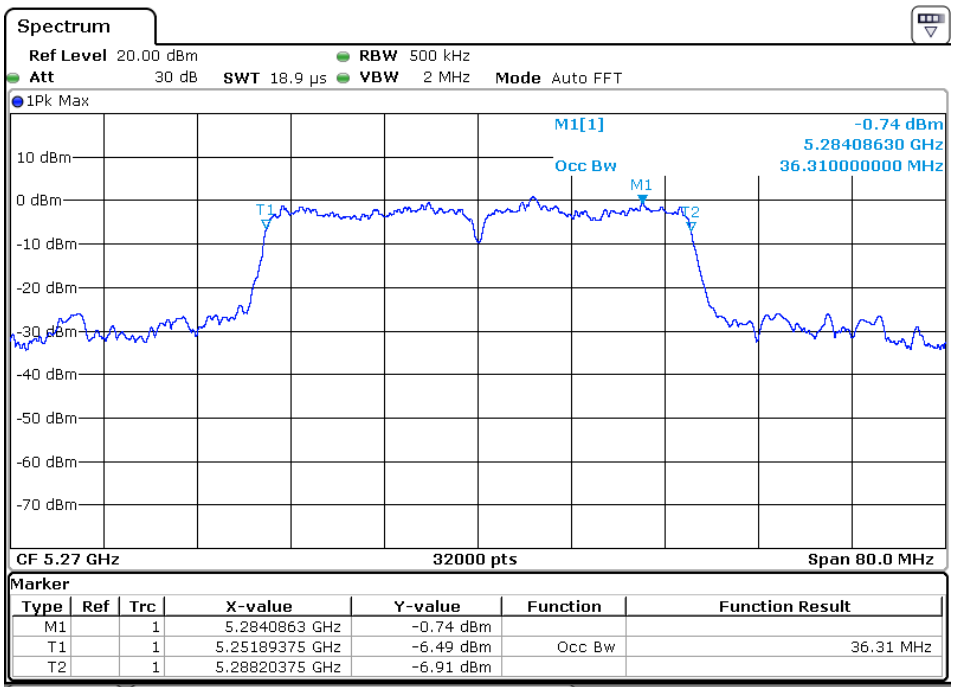
Ant 1#(Worst data)
802.11n(20M) (5.25GHz-5.35GHz)
The Middle Channel 60: 5300MHz



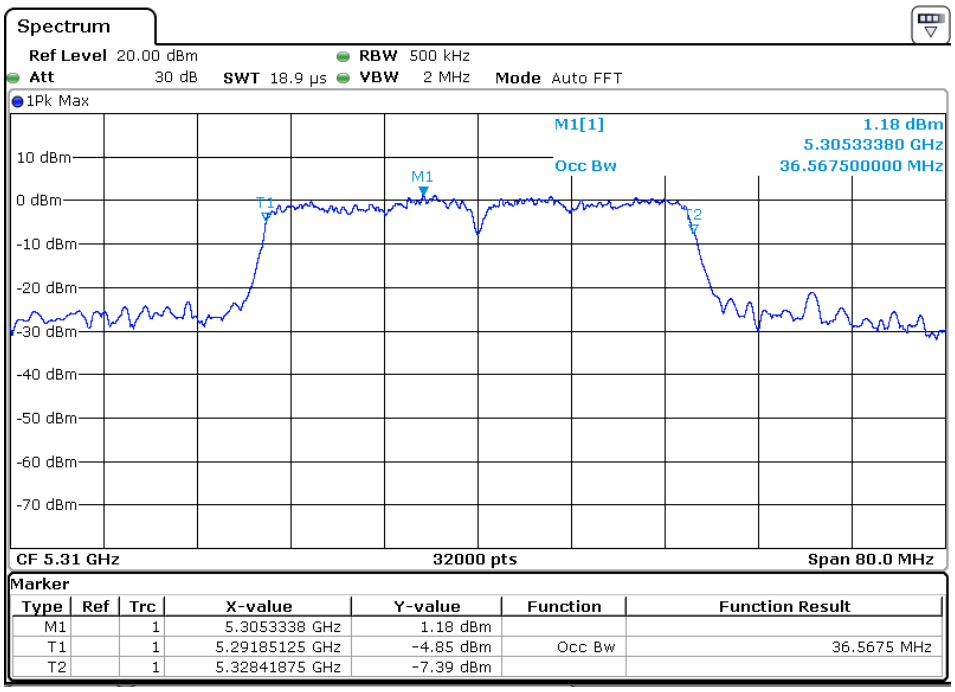
Ant 1#(Worst data)
802.11n(20M) (5.25GHz-5.35GHz)
The High Channel 64: 5320MHz



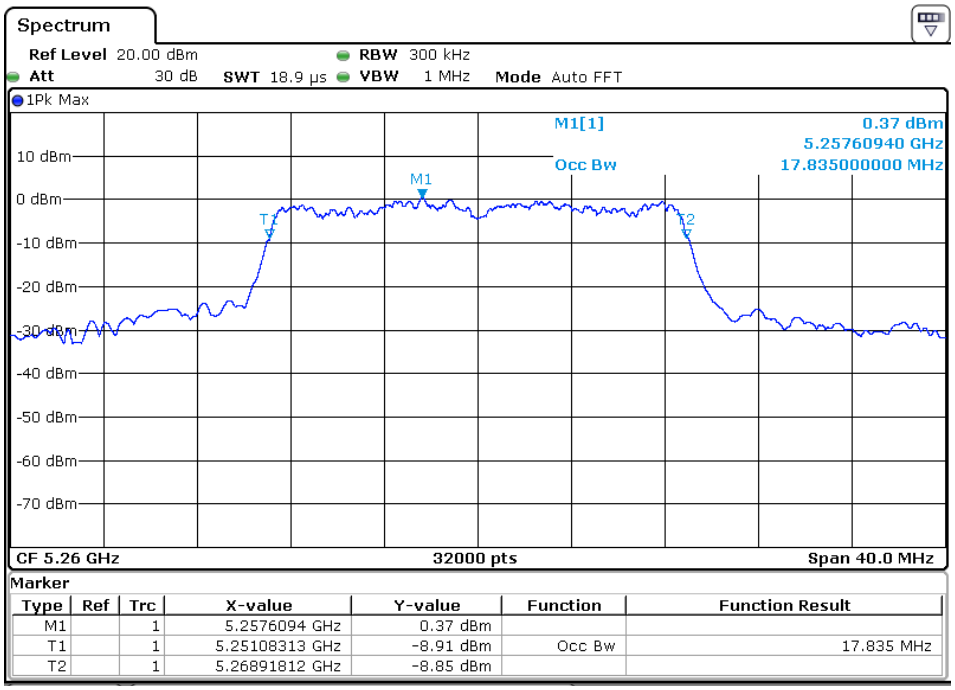
Ant 1#(Worst data)
802.11n(40M) (5.25GHz-5.35GHz)
The Lowest Channel 54: 5270MHz



Ant 1#(Worst data)
802.11n(40M) (5.25GHz-5.35GHz)
The High Channel 62: 5310MHz



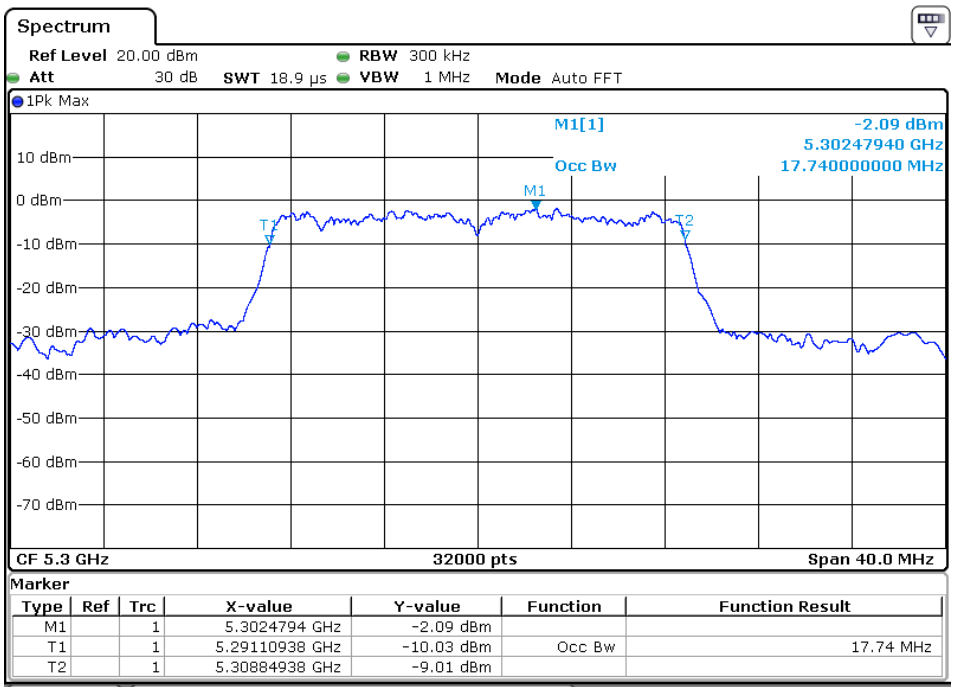
Ant 1#(Worst data)
802.11a (5.25GHz-5.35GHz)
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

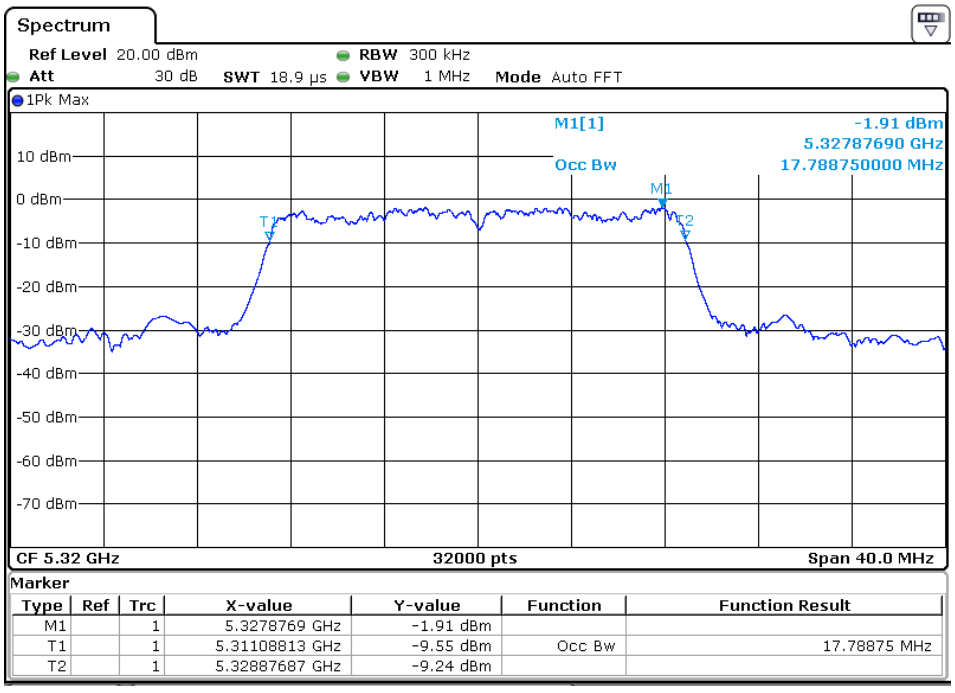
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

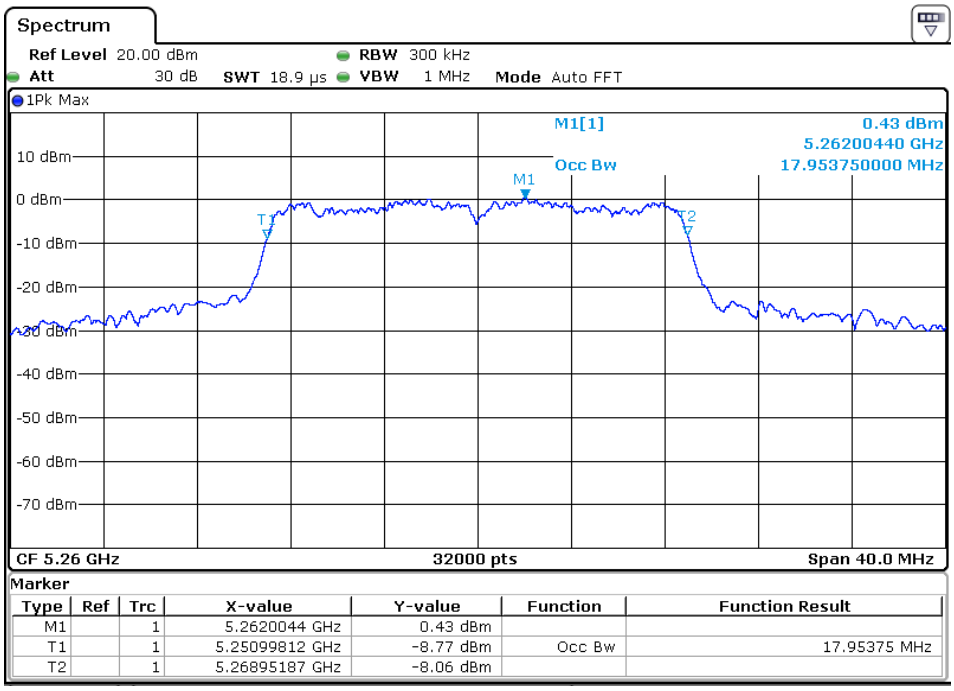
The High Channel 64: 5320MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

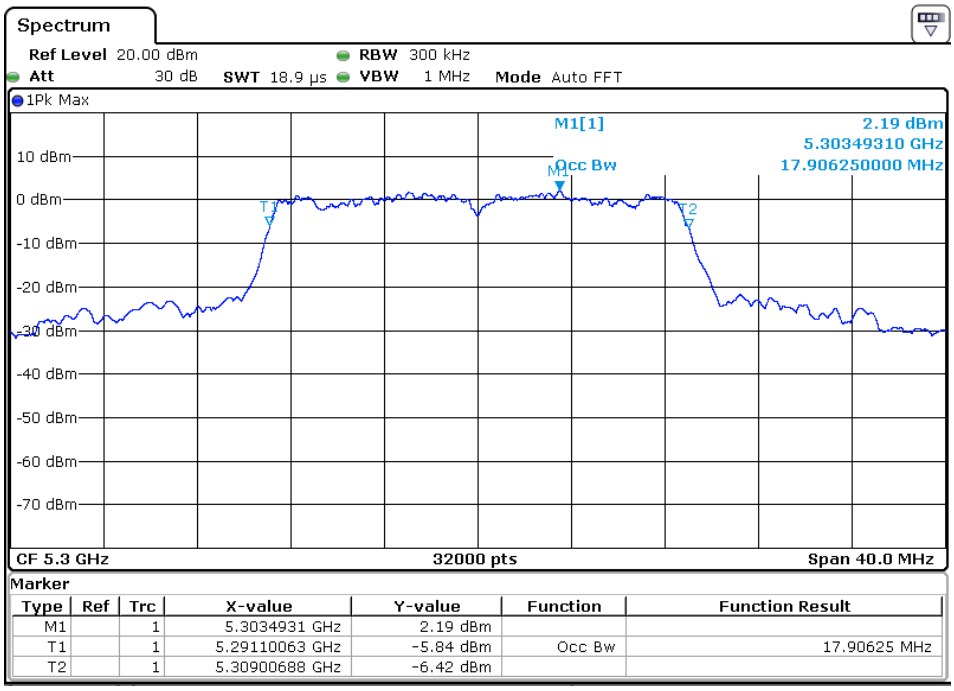
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

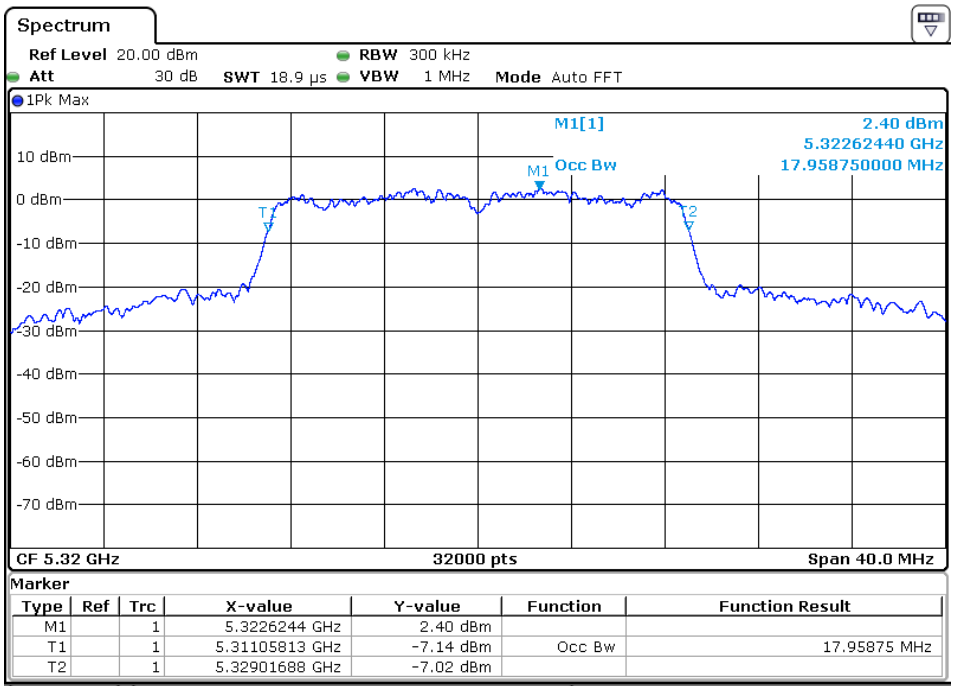
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

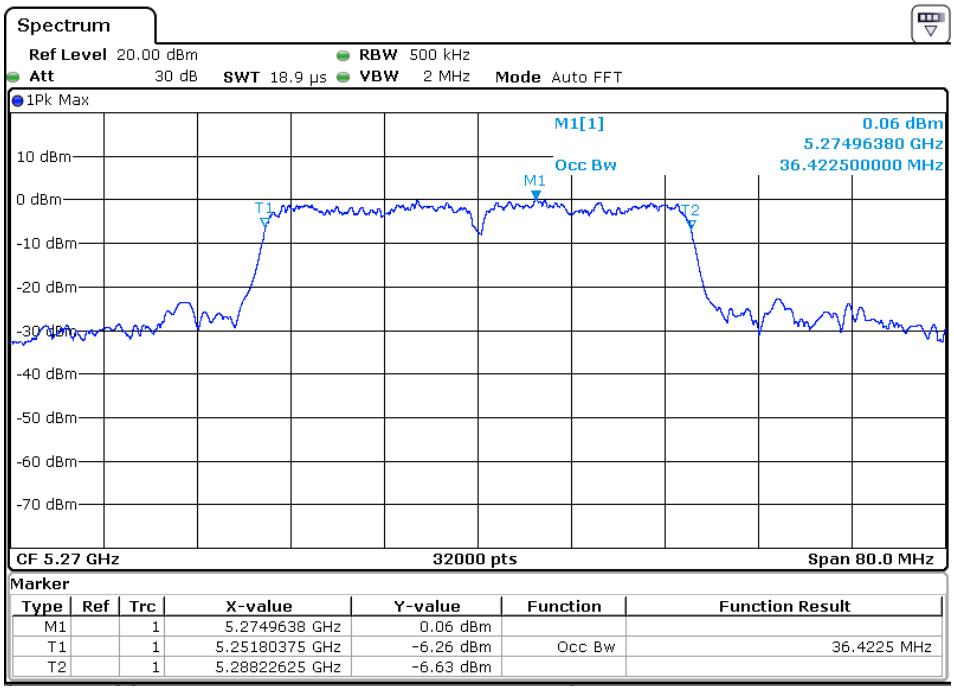
The High Channel 64: 5320MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

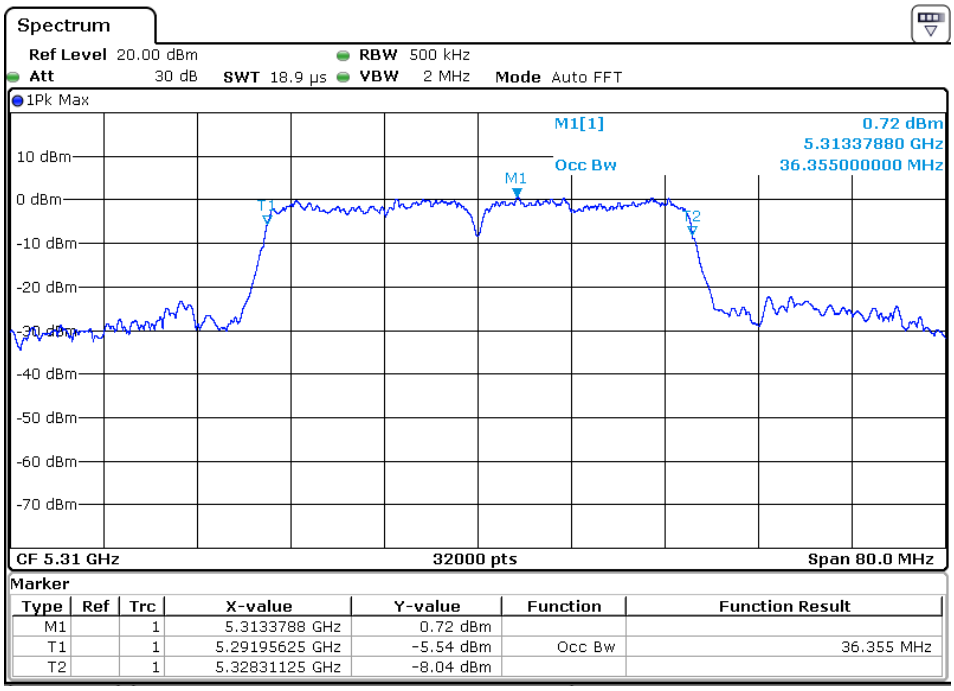
The Lowest Channel 54: 5270MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

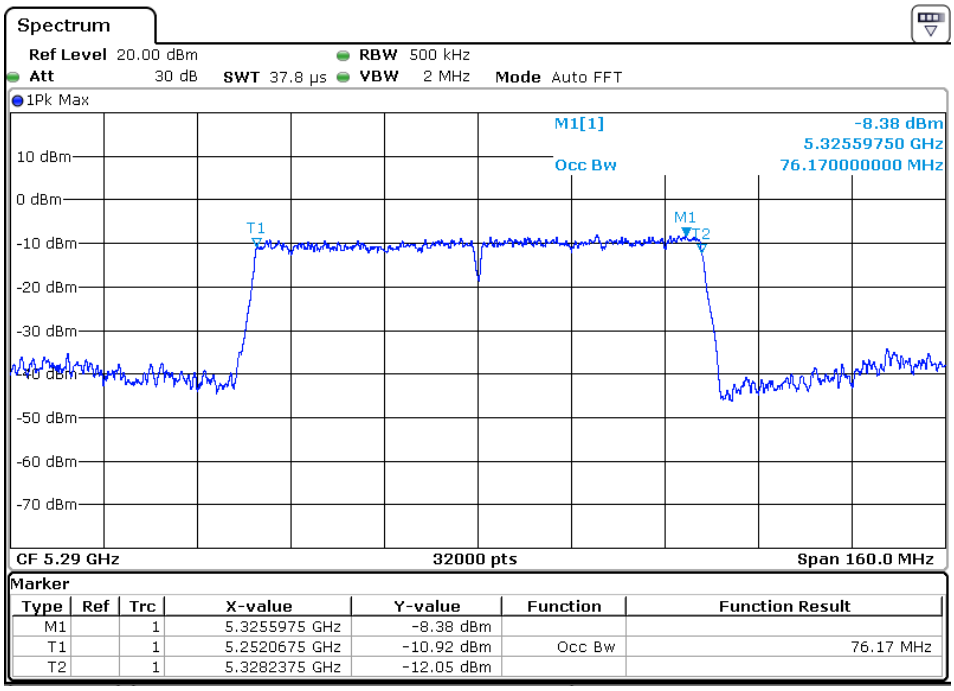
The High Channel 62: 5310MHz



Ant 1#(Worst data)

802.11ac(80M) (5.25GHz-5.35GHz)

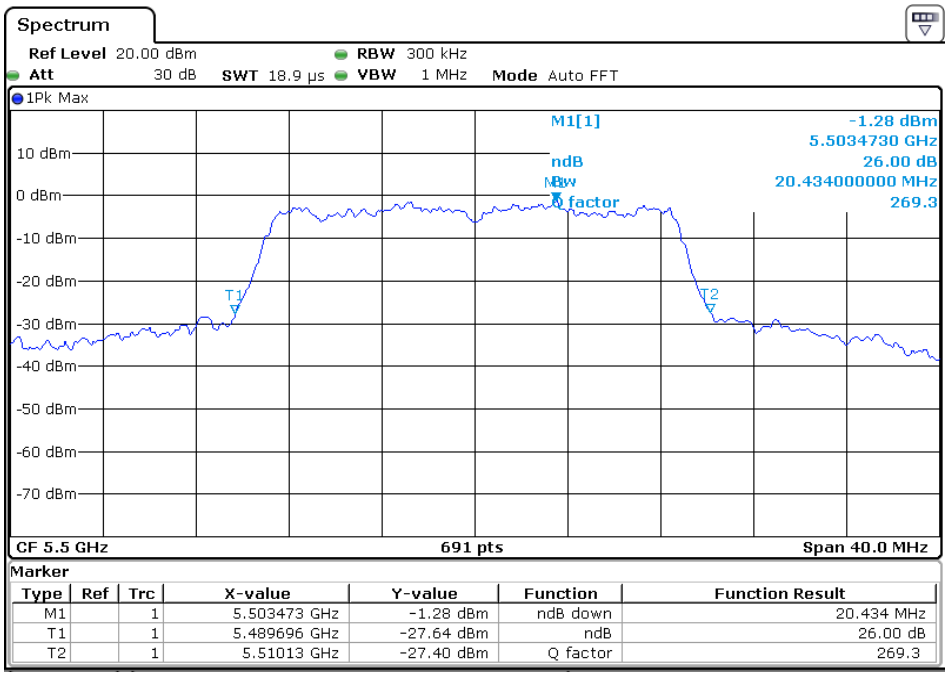
The High Channel 58: 5290MHz



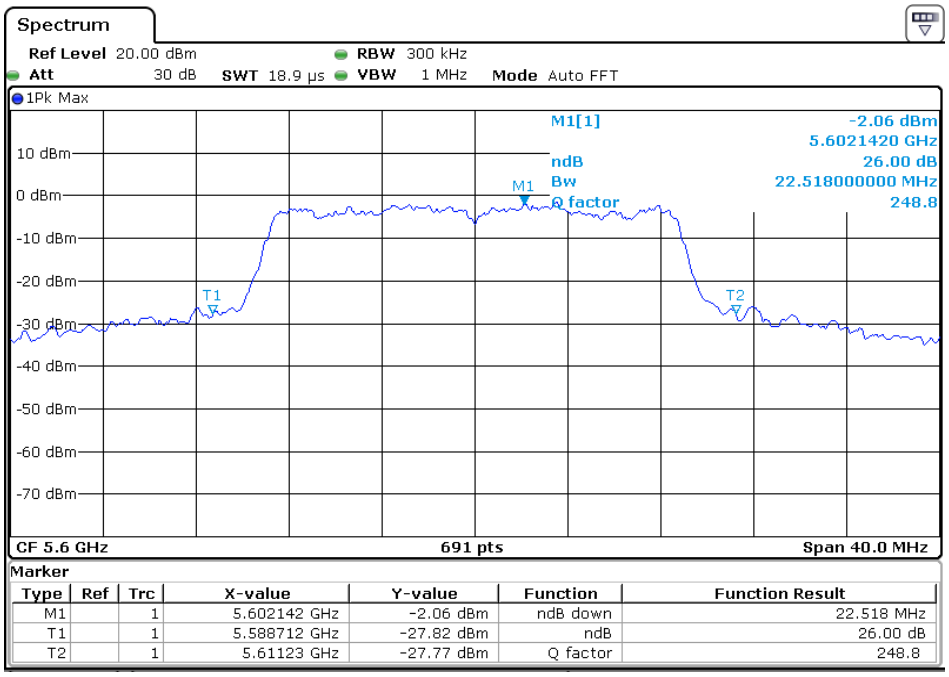
EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1010 hPa	Test Power ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	802.11a/n20/n40/ac20/ac40/ac80-Ant 1#(worst case)		

Test Mode	Test Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Ant 1# 802.11n(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	CH100	5500	20.434
	CH120	5600	22.518
	CH140	5700	24.197
Ant 1# 802.11n(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	CH102	5510	40.724
	CH118	5590	40.637
	CH134	5670	40.984
Ant 1# 802.11a (5.47GHz-5.725GHz) Data rate 6Mbps	CH100	5500	23.271
	CH120	5600	21.418
	CH140	5700	20.839
Ant 1# 802.11ac(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	CH100	5500	20.955
	CH120	5600	23.444
	CH144	5720	23.907
Ant 1# 802.11ac(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	CH102	5510	40.289
	CH118	5590	40.637
	CH134	5670	42.113
Ant 1# 802.11ac(80M) (5.47GHz-5.725GHz) Data rate 32.5Mbps	CH106	5530	81.27
	CH122	5610	81.45
Note:			
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.		
2	Antenna 1 and Antenna 2 can not transmit simultaneously.		

Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Lowest Channel 100: 5500MHz



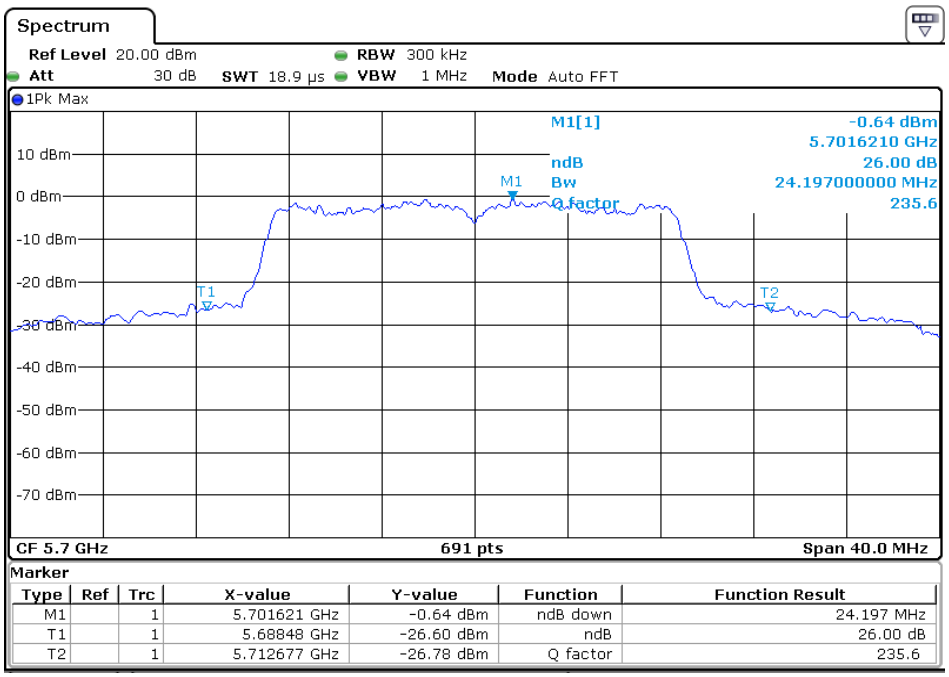
Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



Ant 1#(Worst data)

802.11n(20M) (5.47GHz-5.725GHz)

The High Channel 140: 5700MHz

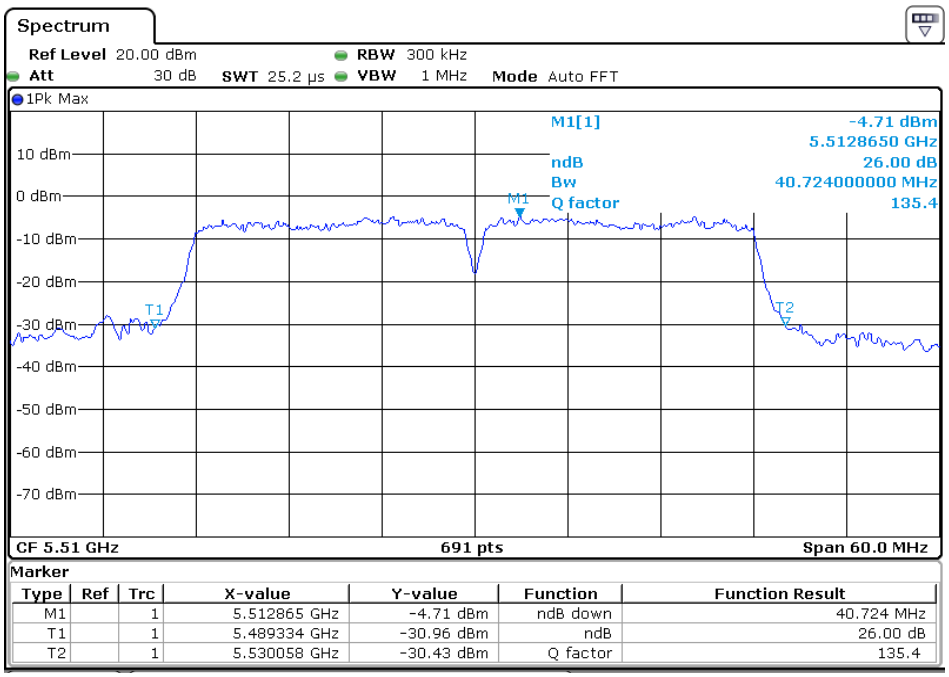


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.701621 GHz	-0.64 dBm	ndB down	24.197 MHz
T1		1	5.68848 GHz	-26.60 dBm	ndB	26.00 dB
T2		1	5.712677 GHz	-26.78 dBm	Q factor	235.6

Ant 1#(Worst data)

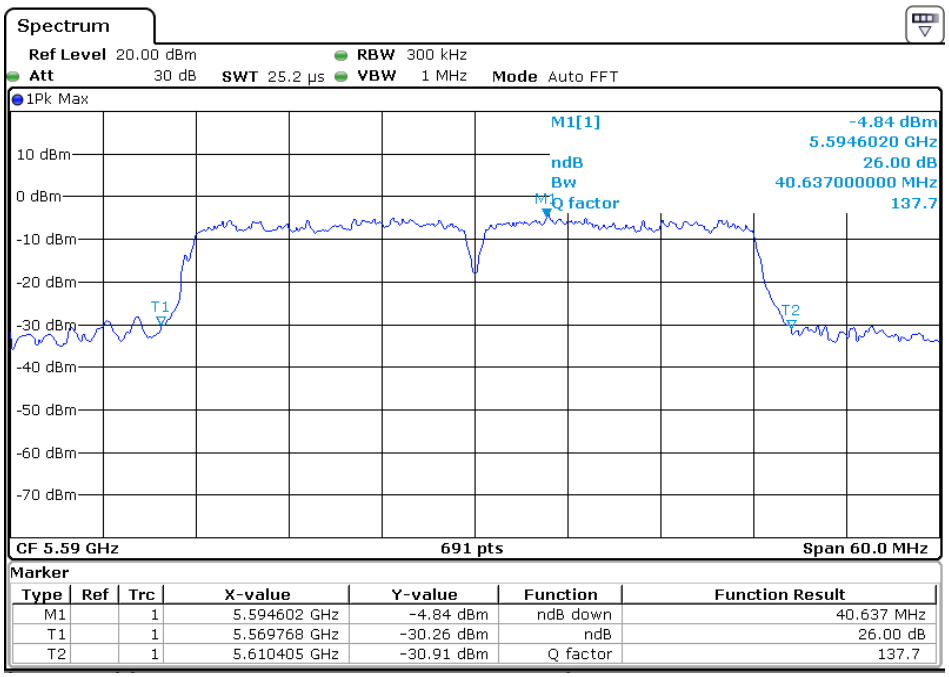
802.11n(40M) (5.47GHz-5.725GHz)

The Lowest Channel 102: 5510MHz



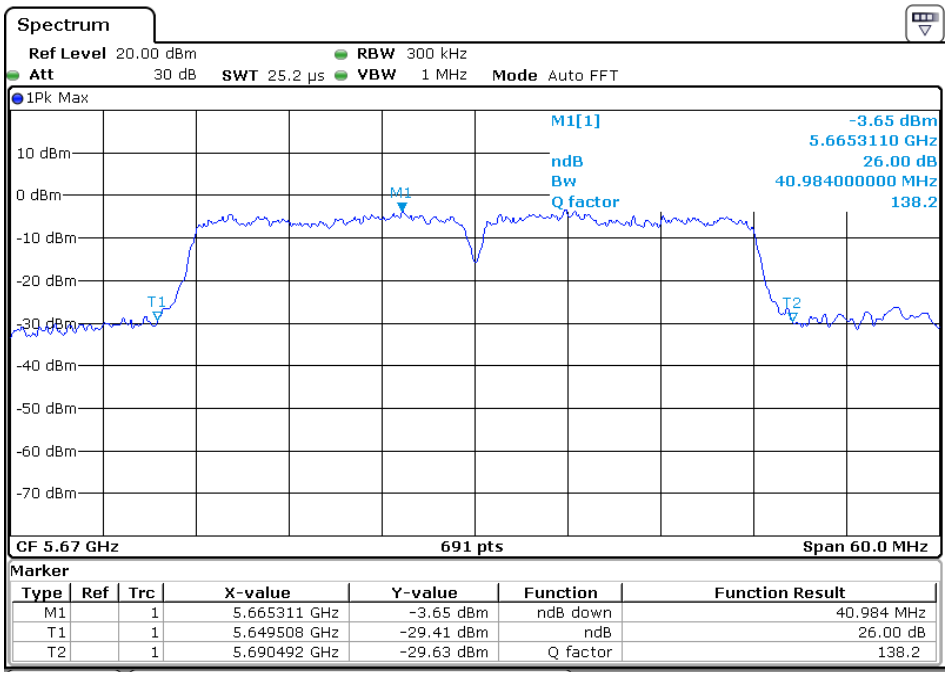
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.512865 GHz	-4.71 dBm	ndB down	40.724 MHz
T1		1	5.489334 GHz	-30.96 dBm	ndB	26.00 dB
T2		1	5.530058 GHz	-30.43 dBm	Q factor	135.4

Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



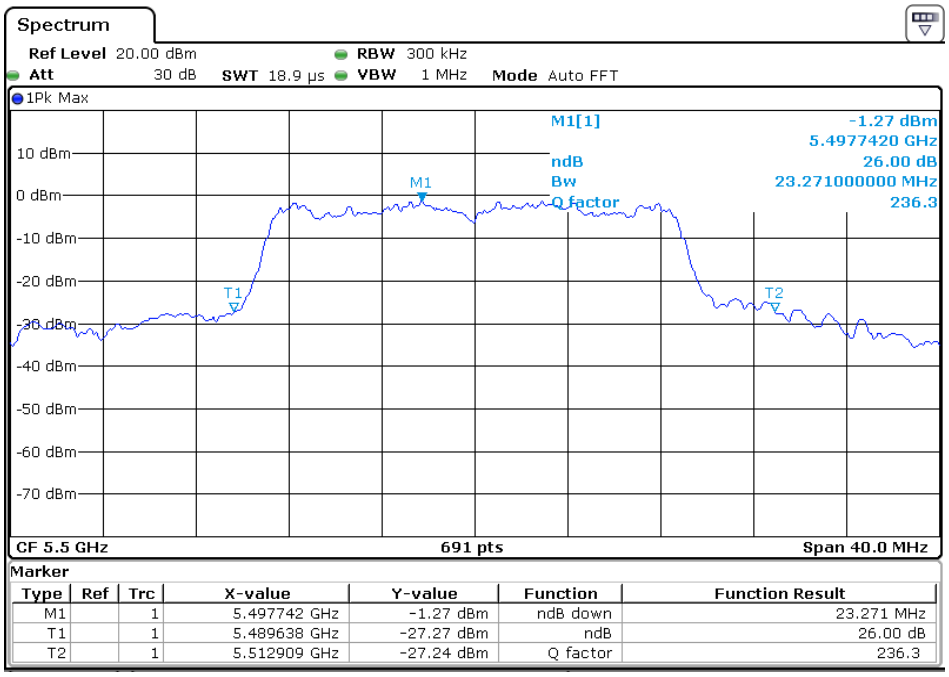
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.594602 GHz	-4.84 dBm	ndB down	40.637 MHz
T1		1	5.569768 GHz	-30.26 dBm	ndB	26.00 dB
T2		1	5.610405 GHz	-30.91 dBm	Q factor	137.7

Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The High Channel 134: 5670MHz

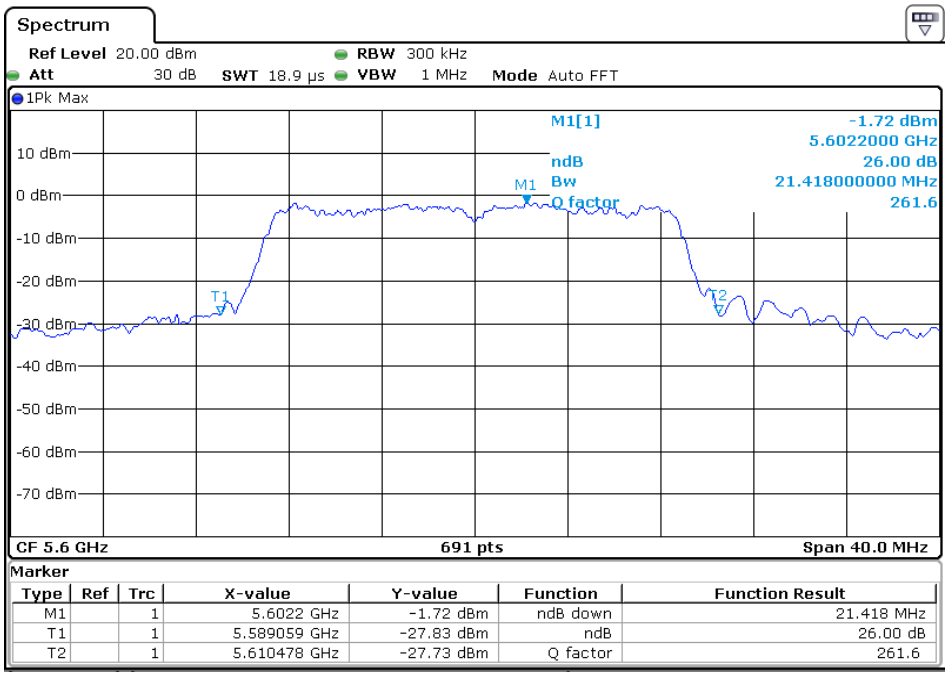


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.665311 GHz	-3.65 dBm	ndB down	40.984 MHz
T1		1	5.649508 GHz	-29.41 dBm	ndB	26.00 dB
T2		1	5.690492 GHz	-29.63 dBm	Q factor	138.2

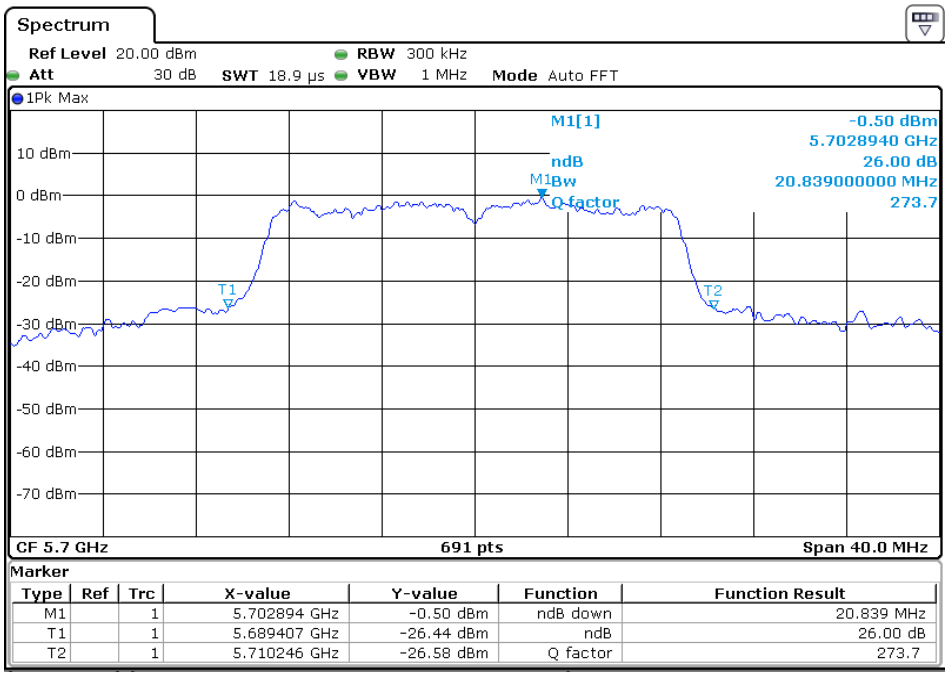
Ant 1#(Worst data)
802.11a (5.47GHz-5.725GHz)
The Lowest Channel 100: 5500MHz



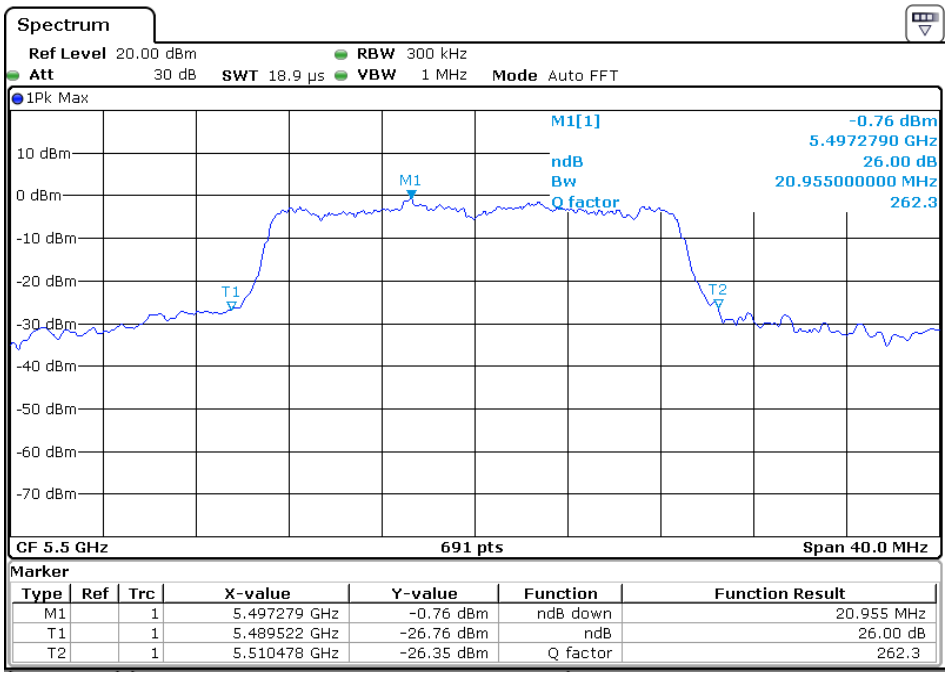
Ant 1#(Worst data)
802.11a (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



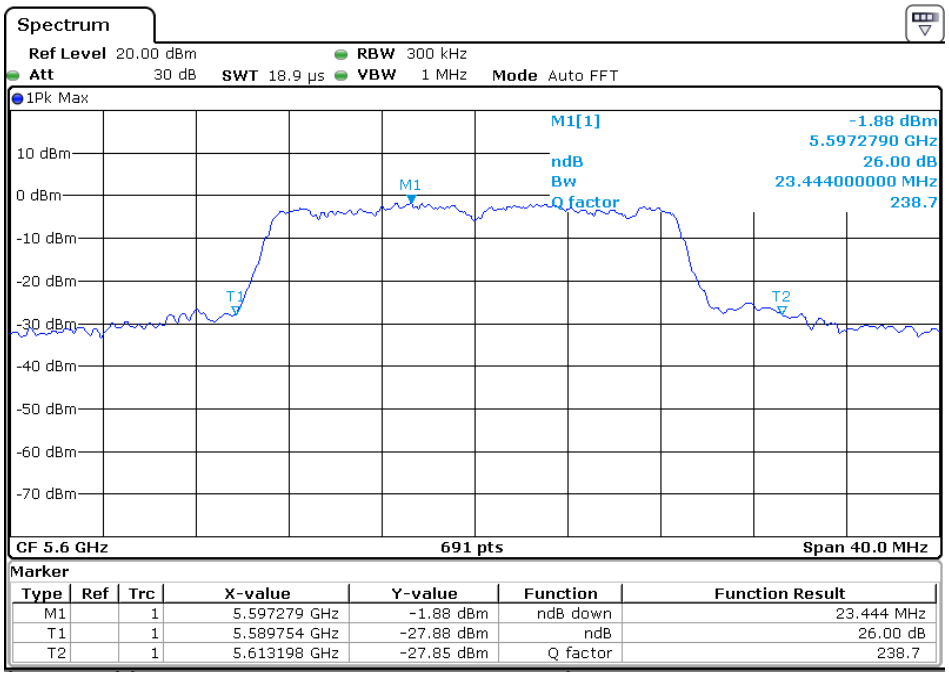
Ant 1#(Worst data)
802.11a (5.47GHz-5.725GHz)
The High Channel 140: 5700MHz



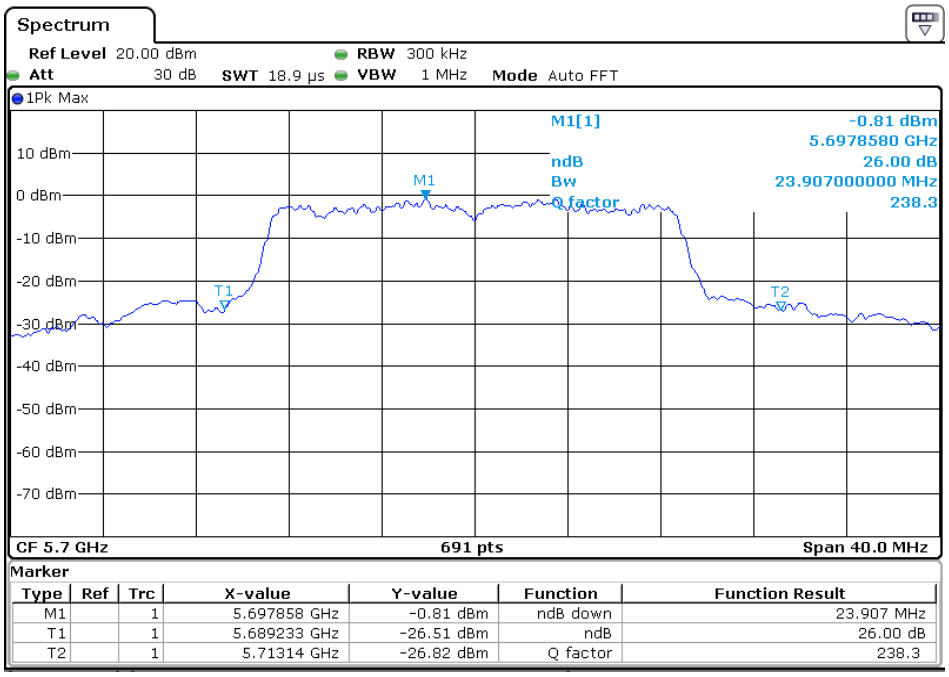
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The Lowest Channel 100: 5500MHz



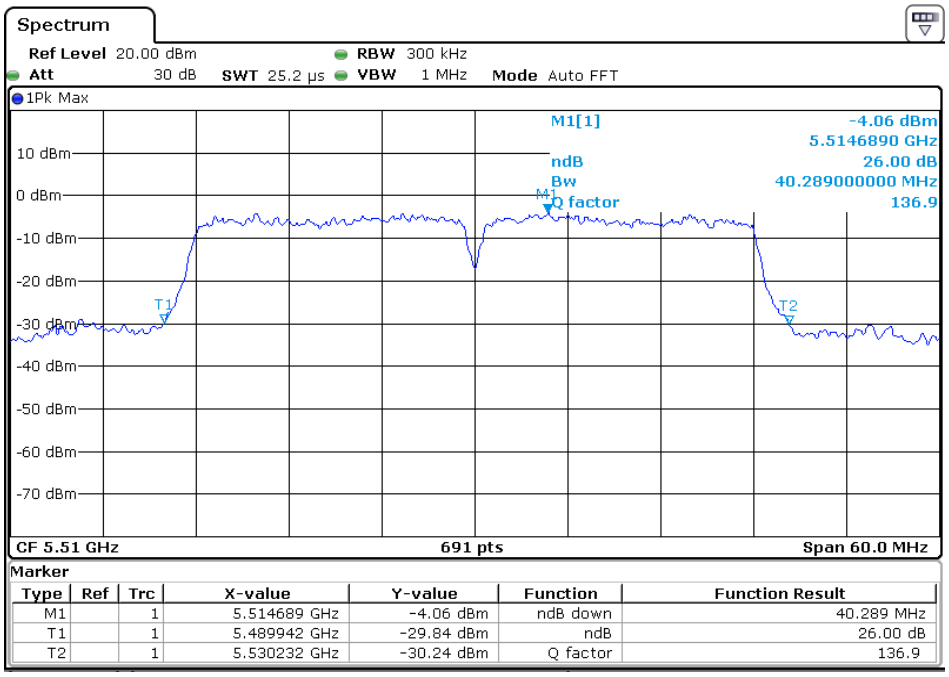
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



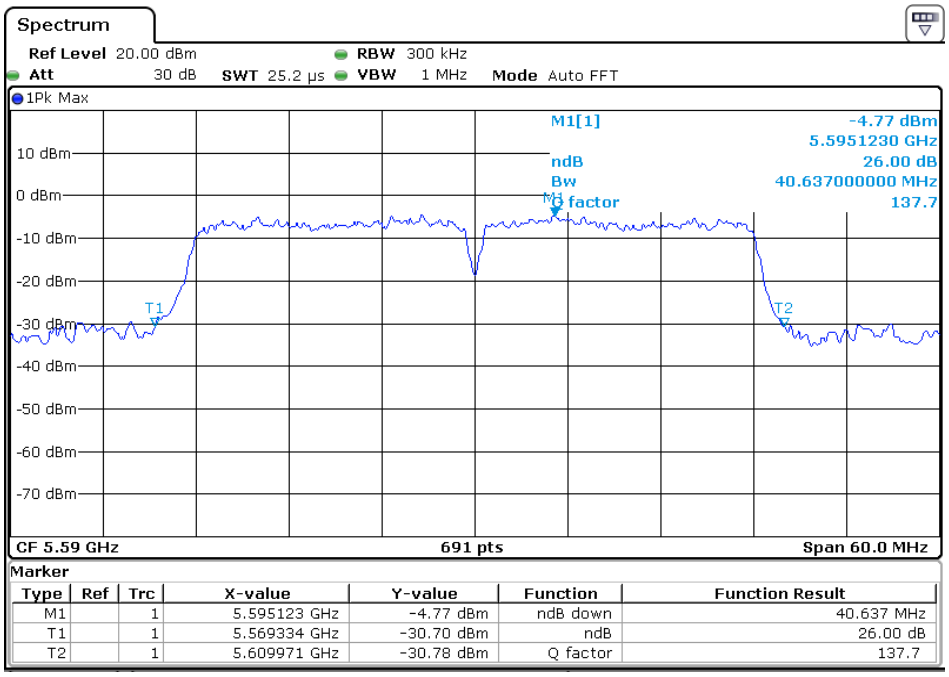
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The High Channel 142: 5700MHz



Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Lowest Channel 102: 5510MHz



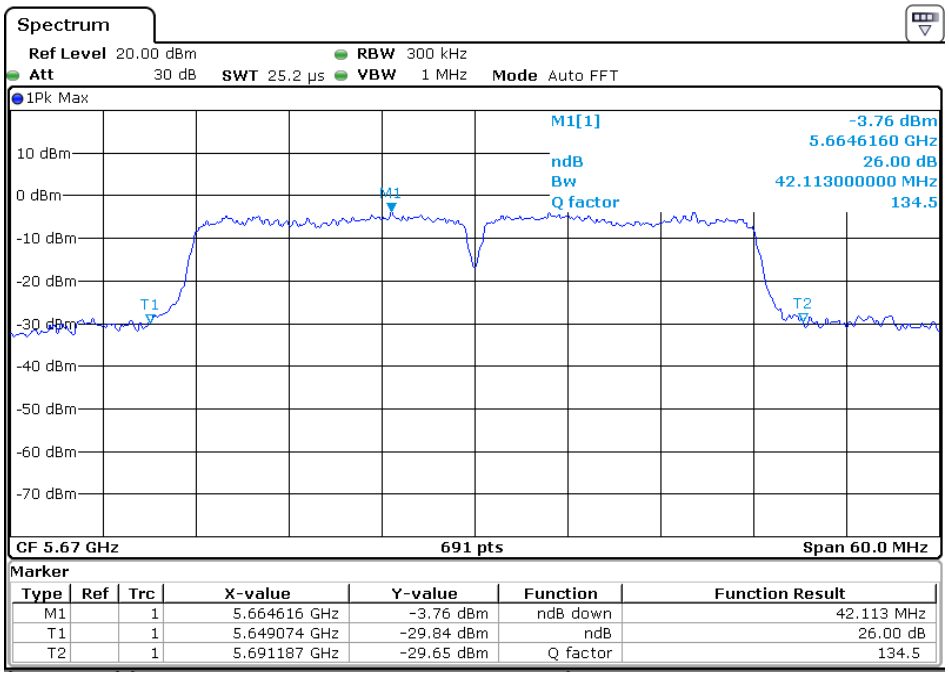
Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



Ant 1#(Worst data)

802.11ac(40M) (5.47GHz-5.725GHz)

The High Channel 134: 5670MHz

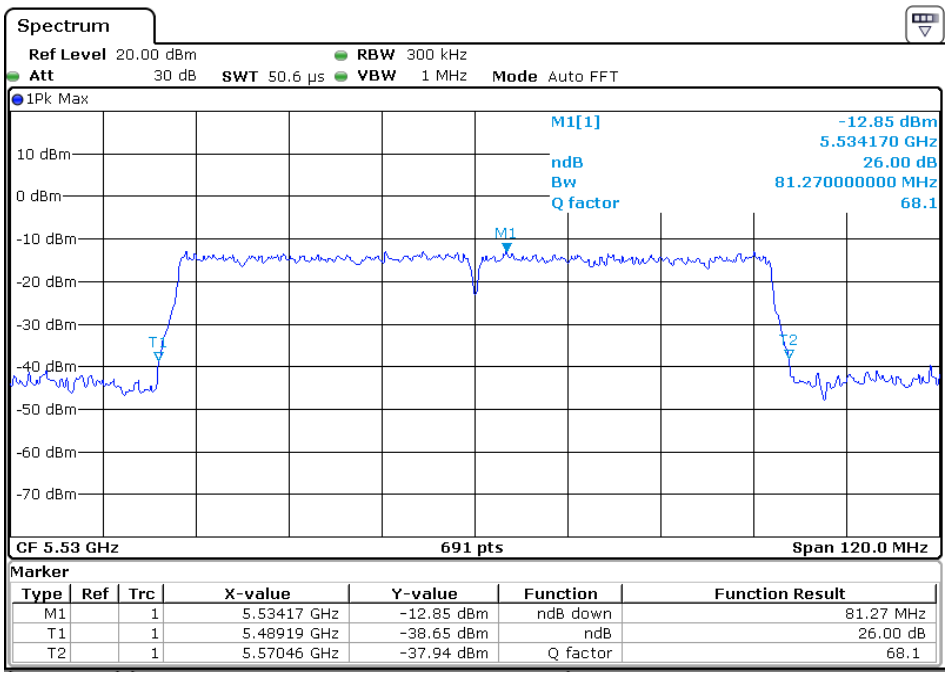


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.664616 GHz	-3.76 dBm	ndB down	42.113 MHz
T1		1	5.649074 GHz	-29.84 dBm	ndB	26.00 dB
T2		1	5.691187 GHz	-29.65 dBm	Q factor	134.5

Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

The Lowest Channel 106: 5530MHz

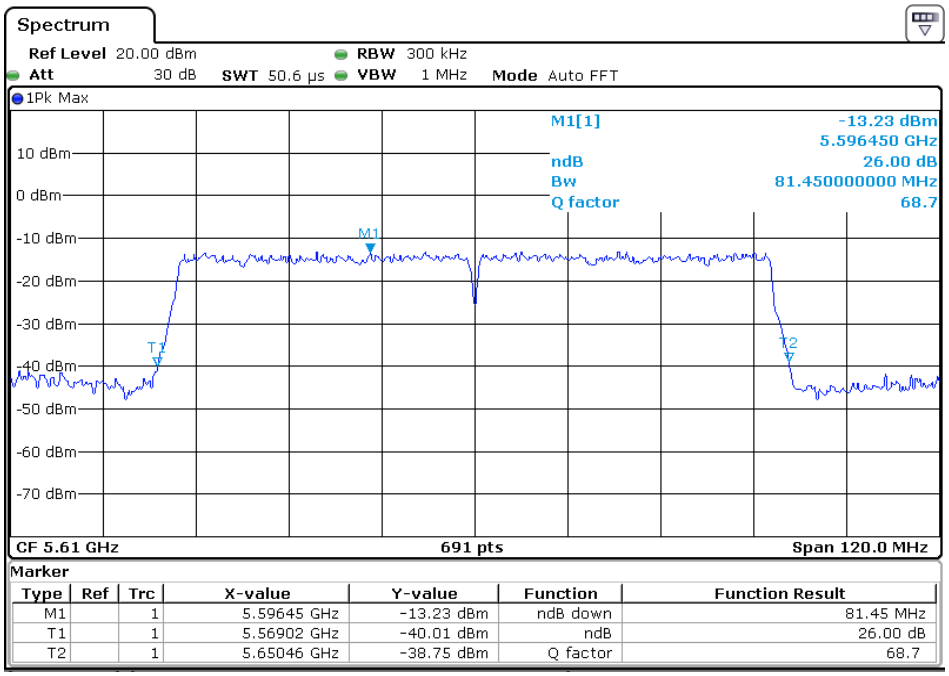


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.53417 GHz	-12.85 dBm	ndB down	81.27 MHz
T1		1	5.48919 GHz	-38.65 dBm	ndB	26.00 dB
T2		1	5.57046 GHz	-37.94 dBm	Q factor	68.1

Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

The High Channel 122: 5610MHz

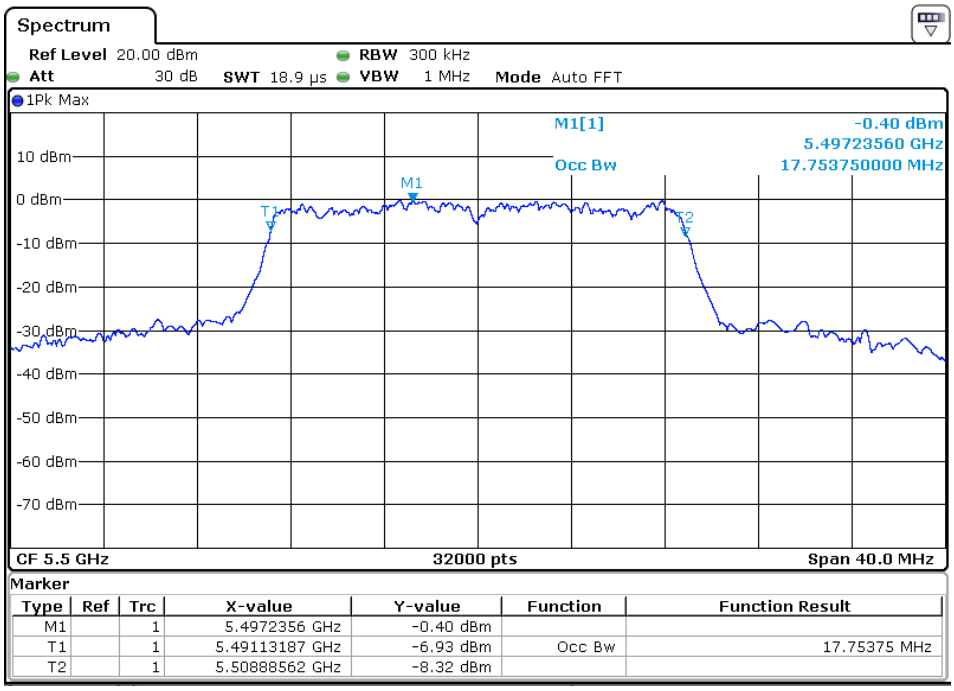


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.59645 GHz	-13.23 dBm	ndB down	81.45 MHz
T1		1	5.56902 GHz	-40.01 dBm	ndB	26.00 dB
T2		1	5.65046 GHz	-38.75 dBm	Q factor	68.7

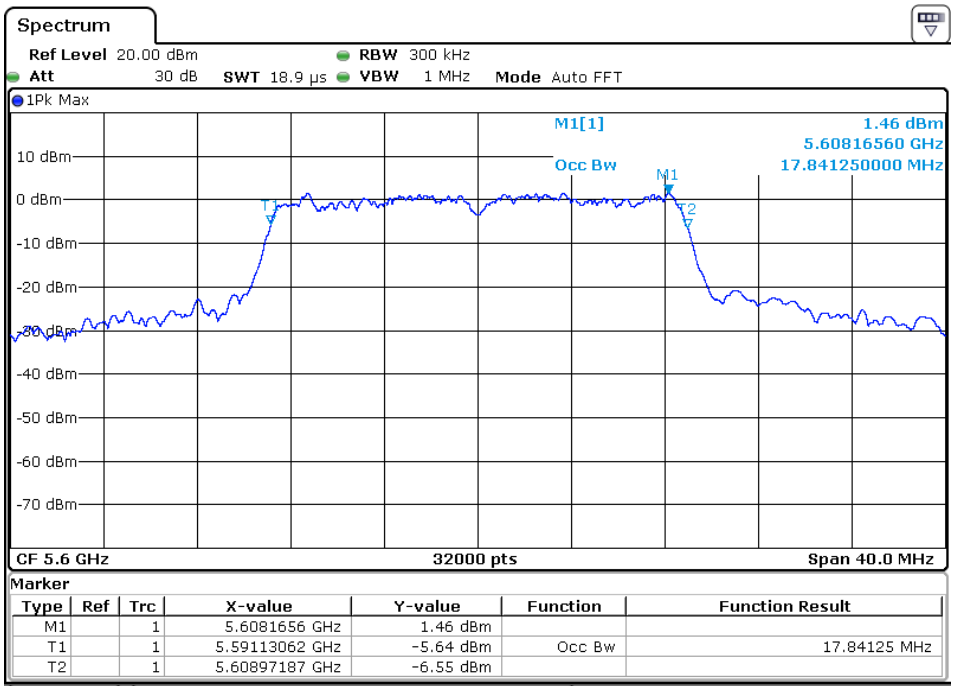
EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	26 ℃	Relative Humidity：	53%
Pressure：	1010 hPa	Test Power ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	802.11a/n20/n40/ac20/ac40/ac80-Ant 1#(worst case)		

Test Mode	Test Channel	Frequency (MHz)	99% Bandwidth (MHz)
Ant 1# 802.11n(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	CH100	5500	17.75375
	CH120	5600	17.84125
	CH140	5700	17.795
Ant 1# 802.11n(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	CH102	5510	36.365
	CH118	5590	36.63
	CH134	5670	36.385
Ant 1# 802.11a (5.47GHz-5.725GHz) Data rate 6Mbps	CH100	5500	17.7725
	CH120	5600	17.99625
	CH140	5700	17.78
Ant 1# 802.11ac(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	CH100	5500	17.81125
	CH120	5600	17.82625
	CH144	5720	17.8
Ant 1# 802.11ac(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	CH102	5510	36.3125
	CH118	5590	36.6
	CH134	5670	36.2675
Ant 1# 802.11ac(80M) (5.47GHz-5.725GHz) Data rate 32.5Mbps	CH106	5530	76.285
	CH122	5610	75.9
Note:			
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.		
2	Antenna 1 and Antenna 2 can not transmit simultaneously.		

Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Lowest Channel 100: 5500MHz



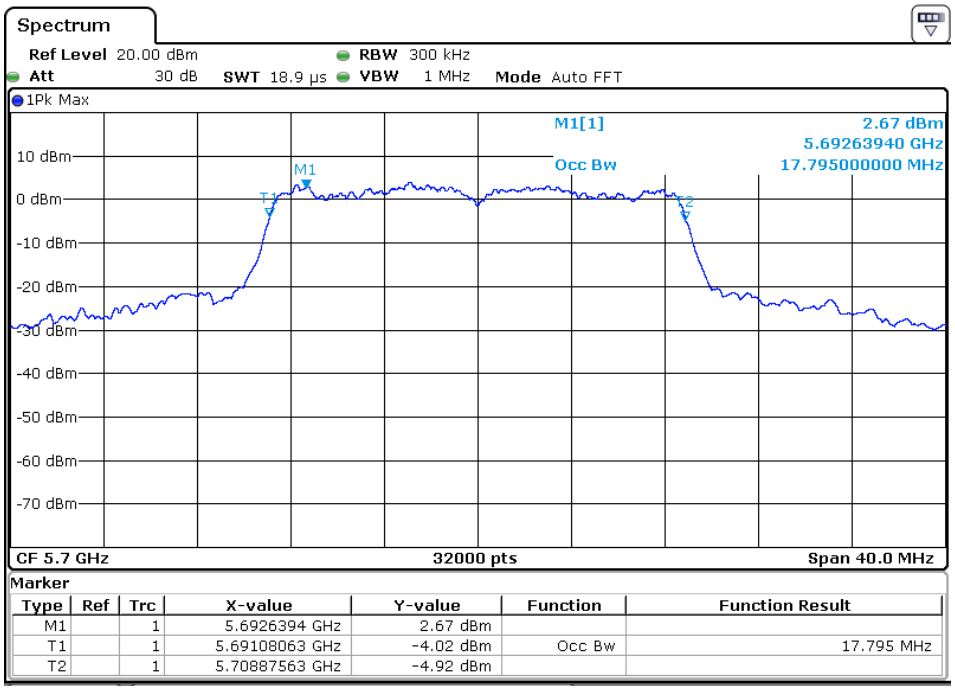
Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



Ant 1#(Worst data)

802.11n(20M) (5.47GHz-5.725GHz)

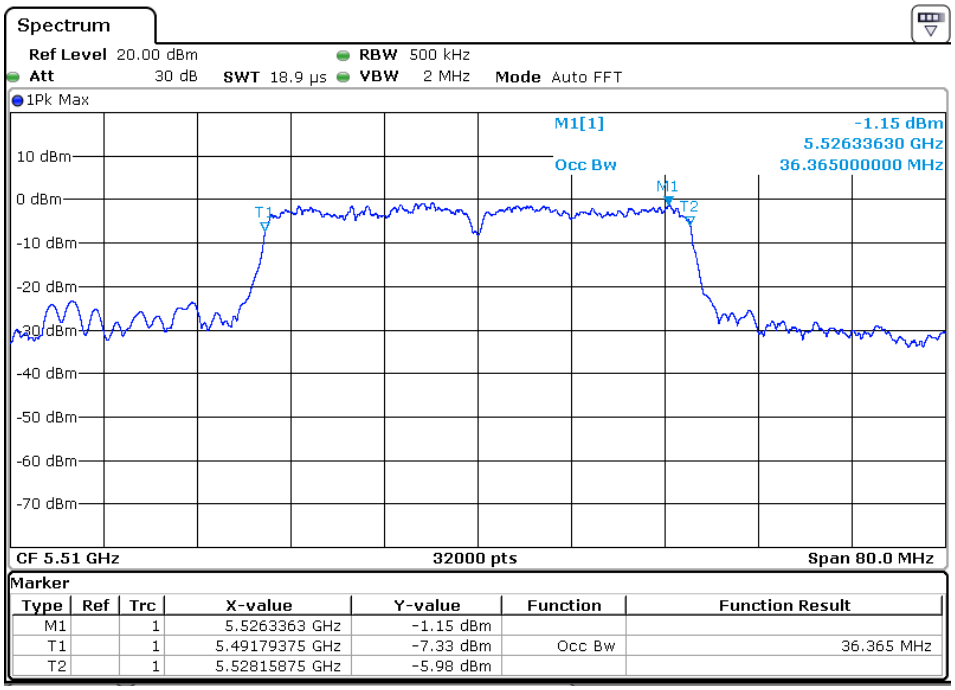
The High Channel 140: 5700MHz



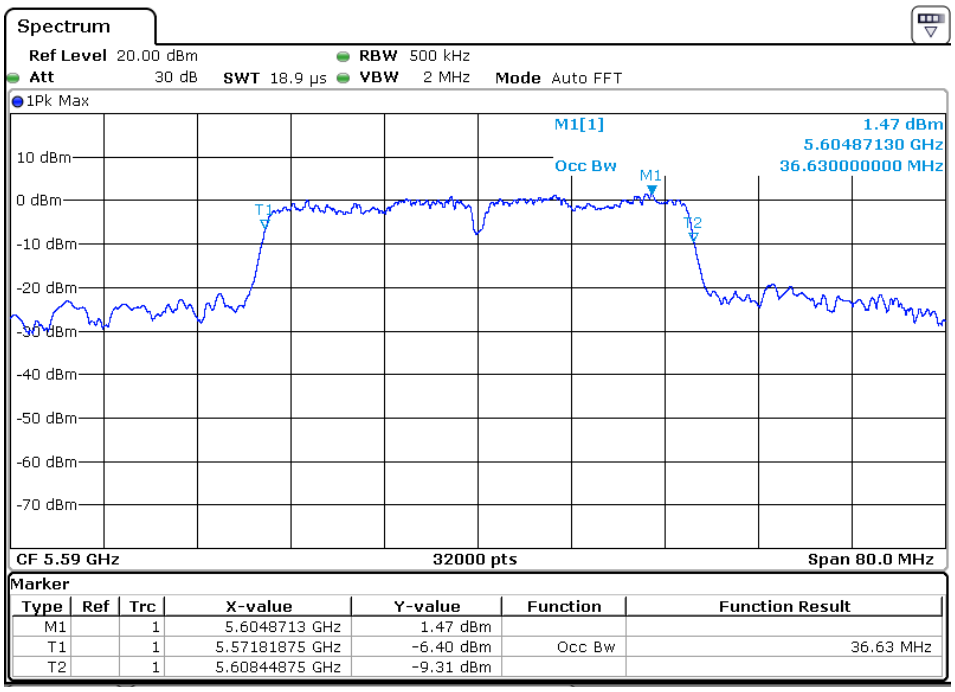
Ant 1#(Worst data)

802.11n(40M) (5.47GHz-5.725GHz)

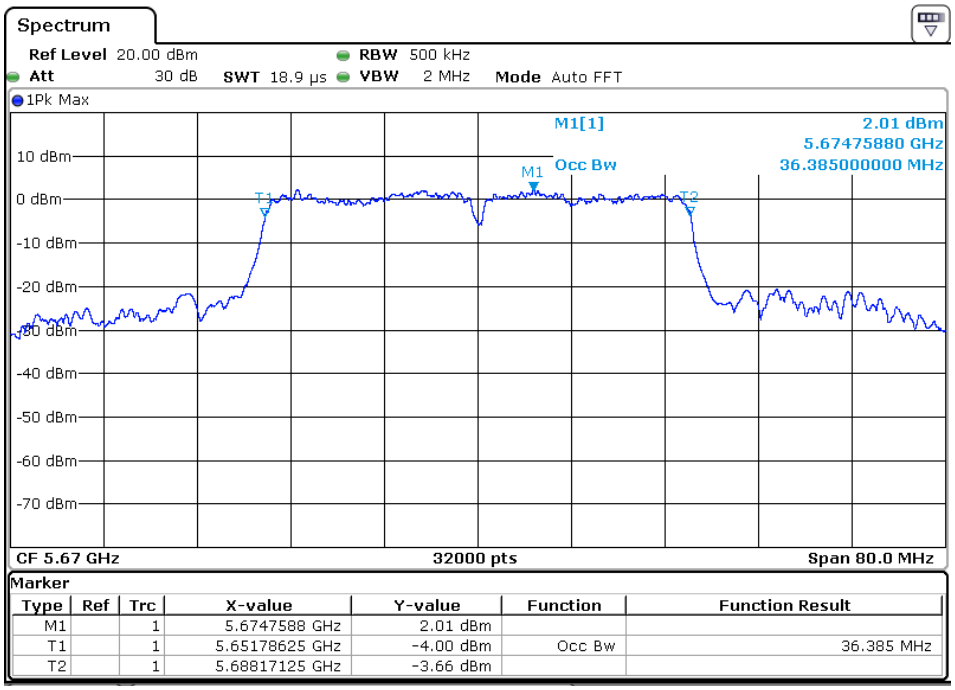
The Lowest Channel 102: 5510MHz



Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



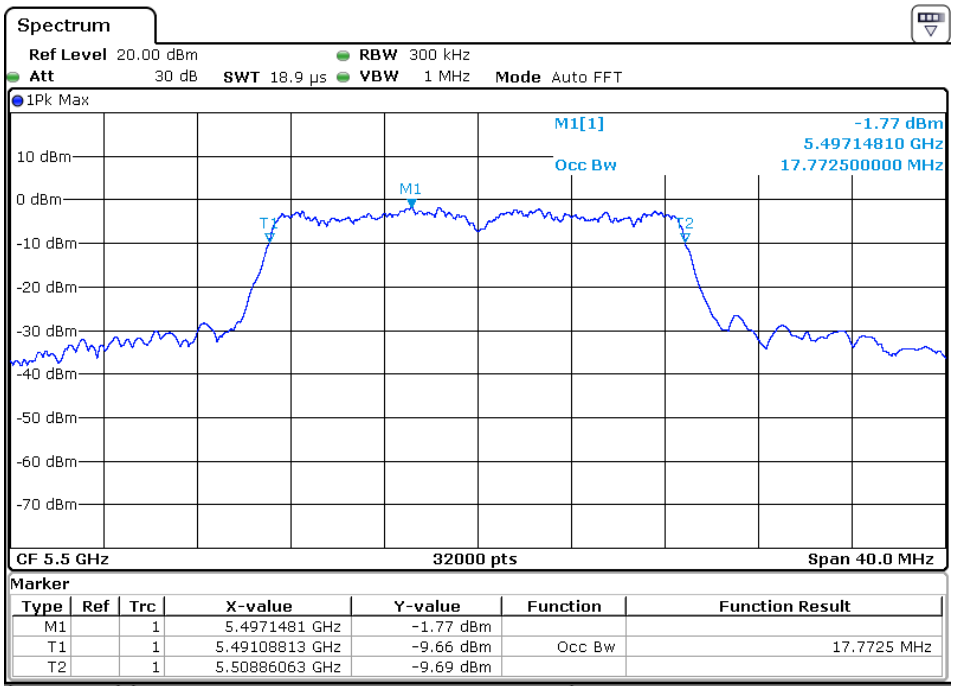
Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The High Channel 134: 5670MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

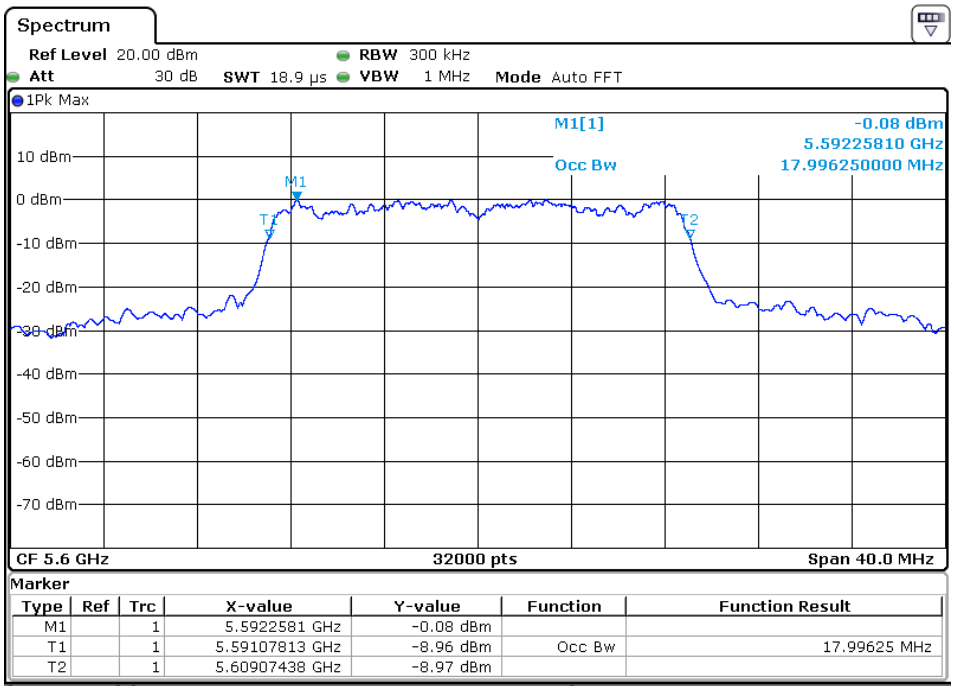
The Lowest Channel 100: 5500MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

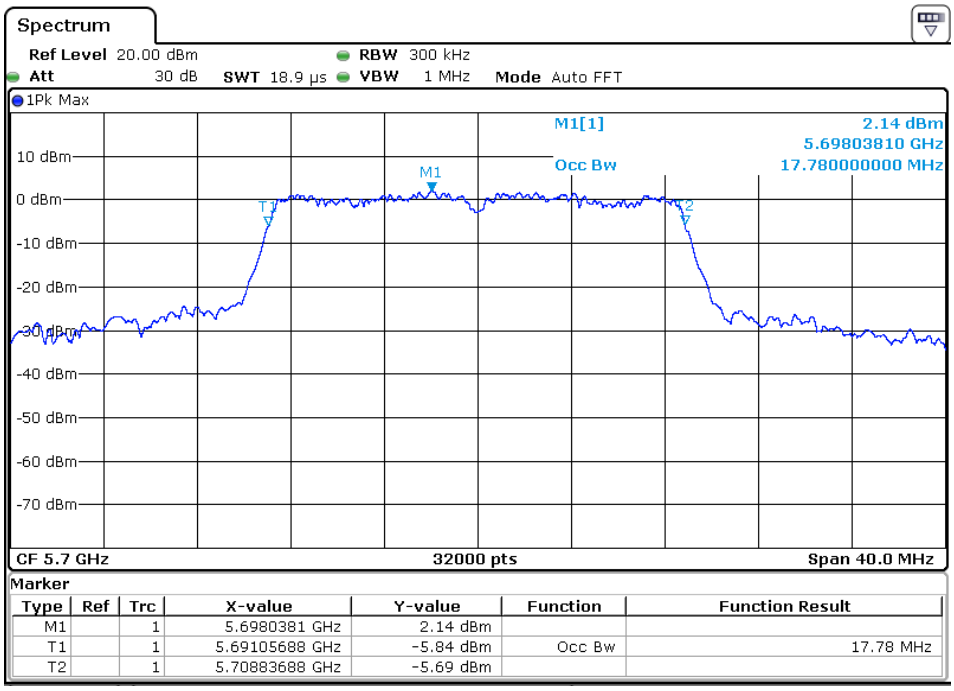
The Middle Channel 120: 5600MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

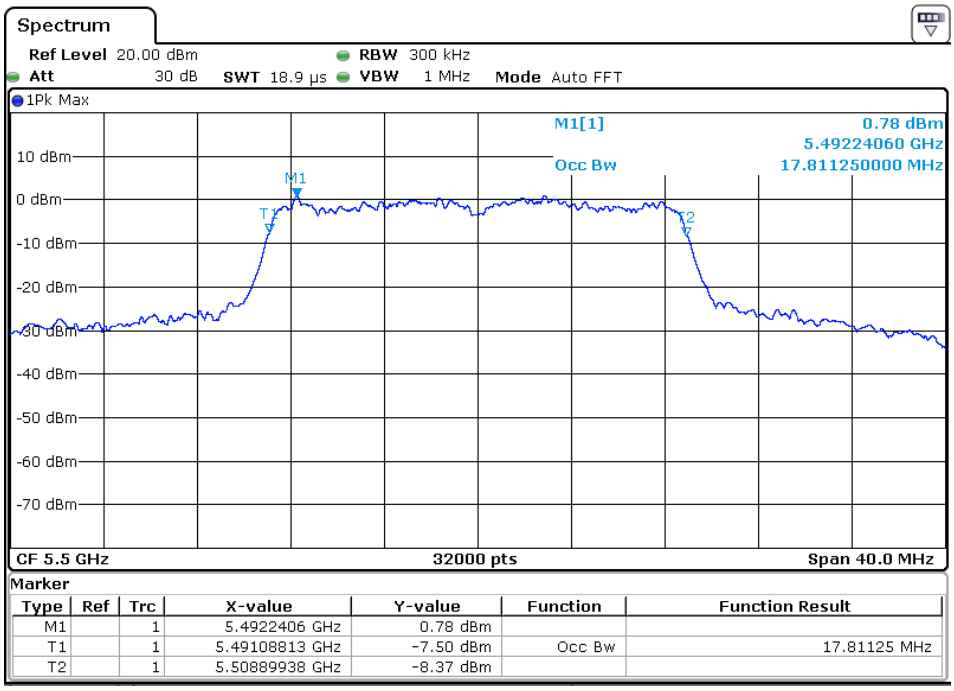
The High Channel 140: 5700MHz



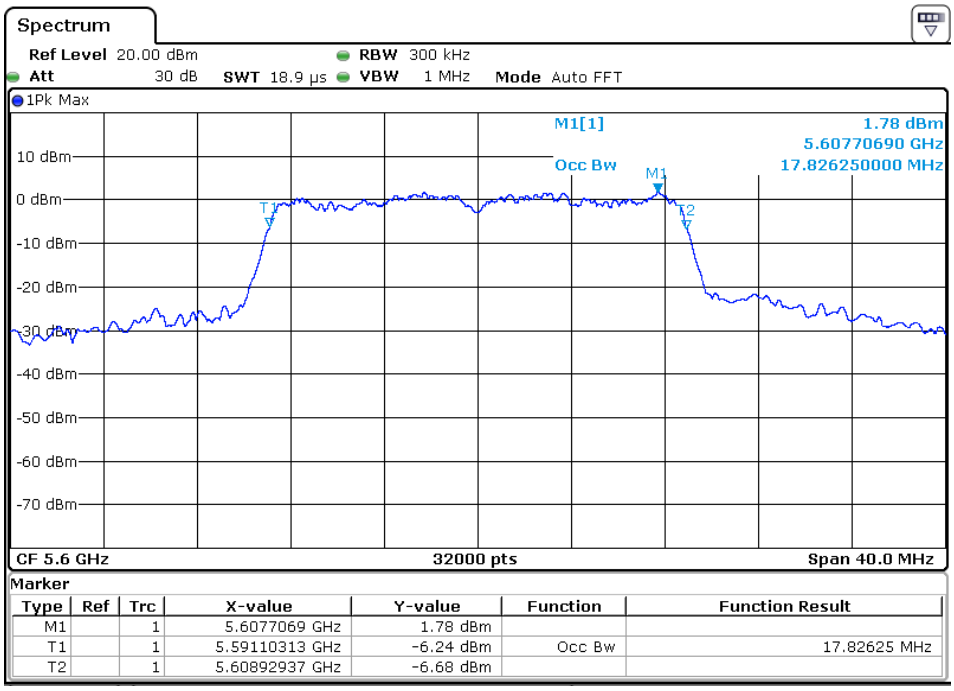
Ant 1#(Worst data)

802.11ac(20M) (5.47GHz-5.725GHz)

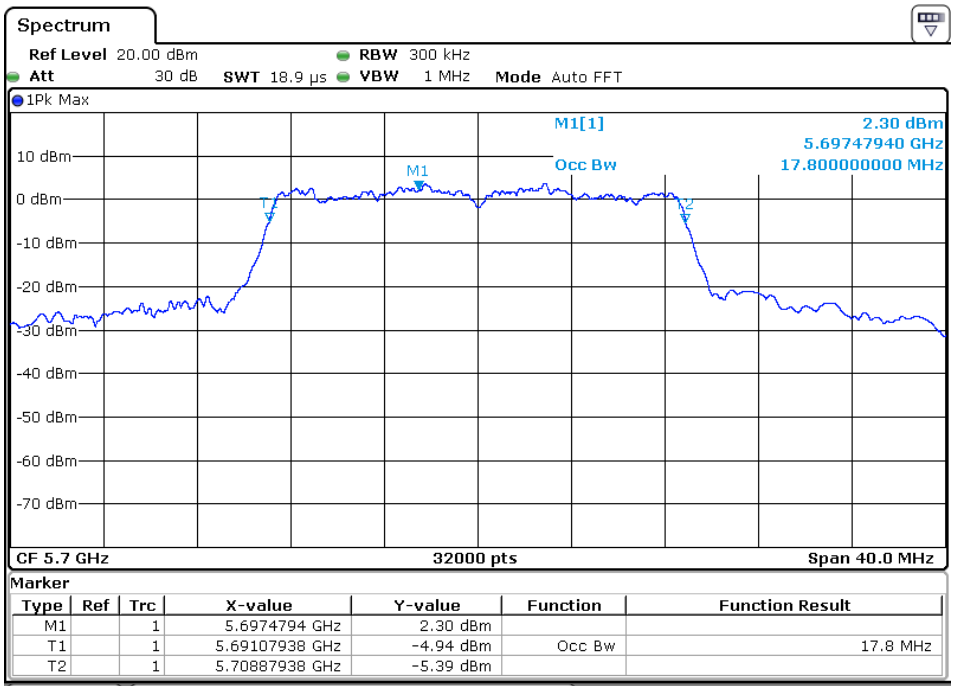
The Lowest Channel 100: 5500MHz



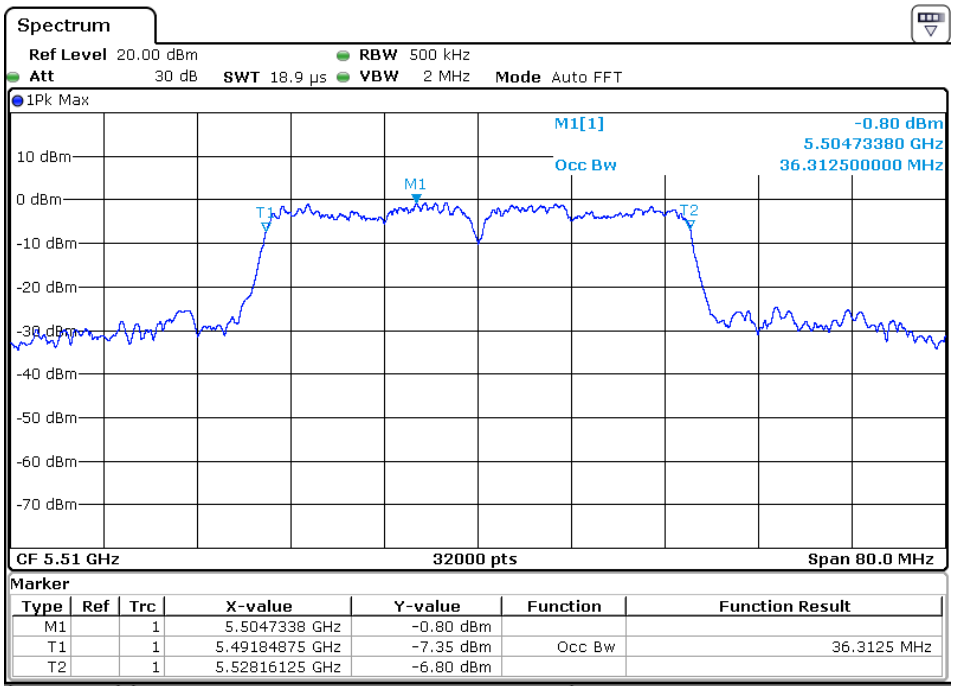
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



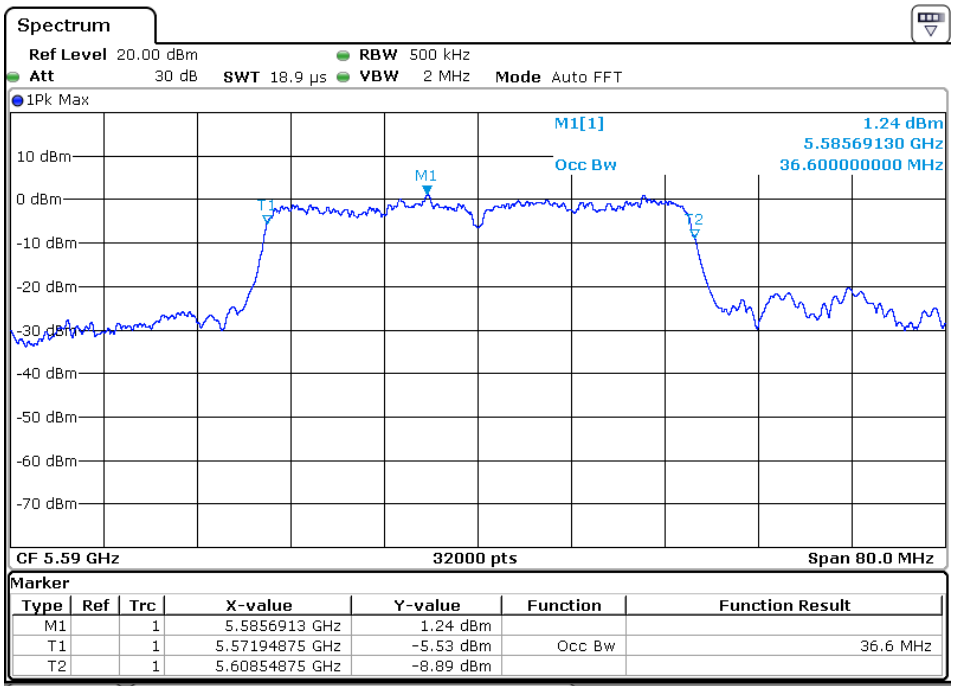
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The High Channel 142: 5700MHz



Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Lowest Channel 102: 5510MHz



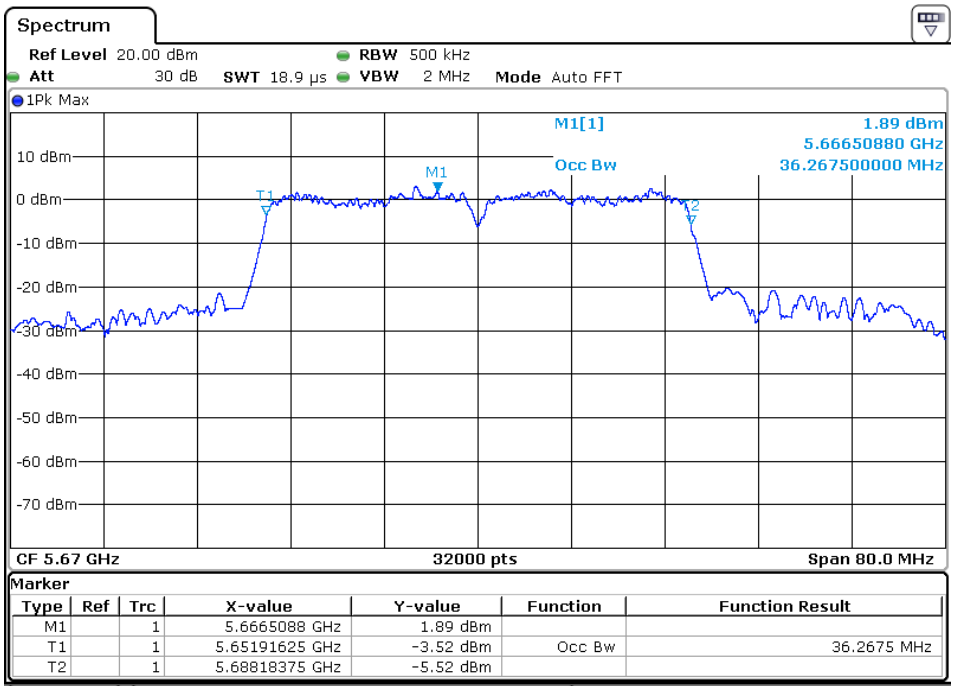
Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



Ant 1#(Worst data)

802.11ac(40M) (5.47GHz-5.725GHz)

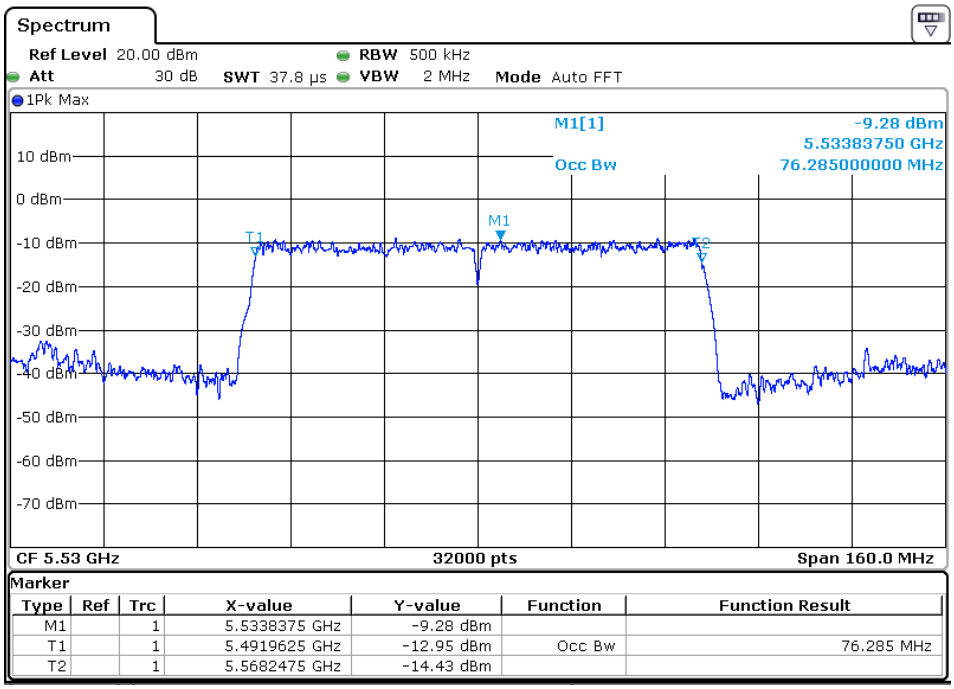
The High Channel 134: 5670MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

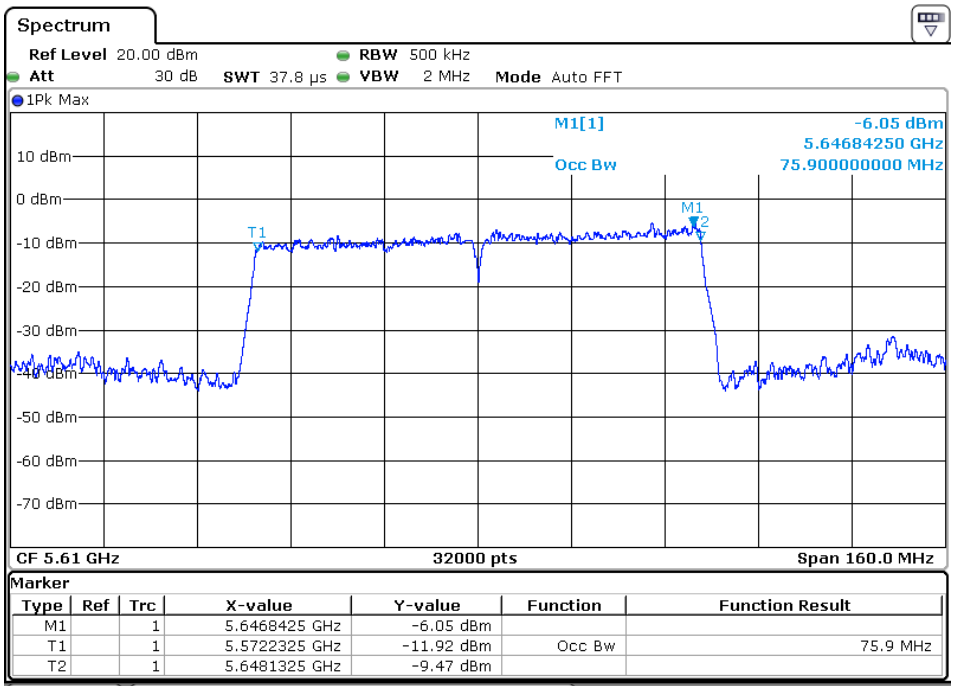
The Lowest Channel 106: 5530MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

The High Channel 122: 5610MHz



6.5 Peak Power Density

6.5.1 Applied procedures / Limit

For the 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 + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.5.2 Test procedure

1. The setting follows Method SA-1 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 . For devices operating in the band, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (*i.e.,* 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

(i) Set span to encompass the entire emission bandwidth (EBW) of the signal.
(ii) Set sweep trigger to “free run.”
(iii) Set RBW = 1 MHz.
(iv) Set VBW ≥ 1/T, where T is defined in section II.B.1.a).
(v) Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
(vi) Sweep time = auto.
(vii) Detector = peak.
(viii) Video filtering shall be applied to a voltage-squared or power signal (rms), if possible. Otherwise, it shall be set to operate on a linear voltage signal (which may require use of linear display mode). Log mode must not be used.

The preferred voltage-squared (i.e., power or rms) mode is selected on some analyzers by setting the “Average-VBW Type” to power or rms.

If power averaging (rms) mode is not available, linear voltage mode is selected on some analyzers by setting the display mode to linear. Other analyzers have a setting for “Average-VBW Type” that can be set to “Voltage” regardless of the display mode.

(ix) Trace mode = max hold.
(x) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
(xi) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.
(xii) If linear mode was used in step (viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.

6.5.3 TEST SETUP

6.5.4 Deviation from standard

No deviation.

6.5.5 Test results

Note:1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.

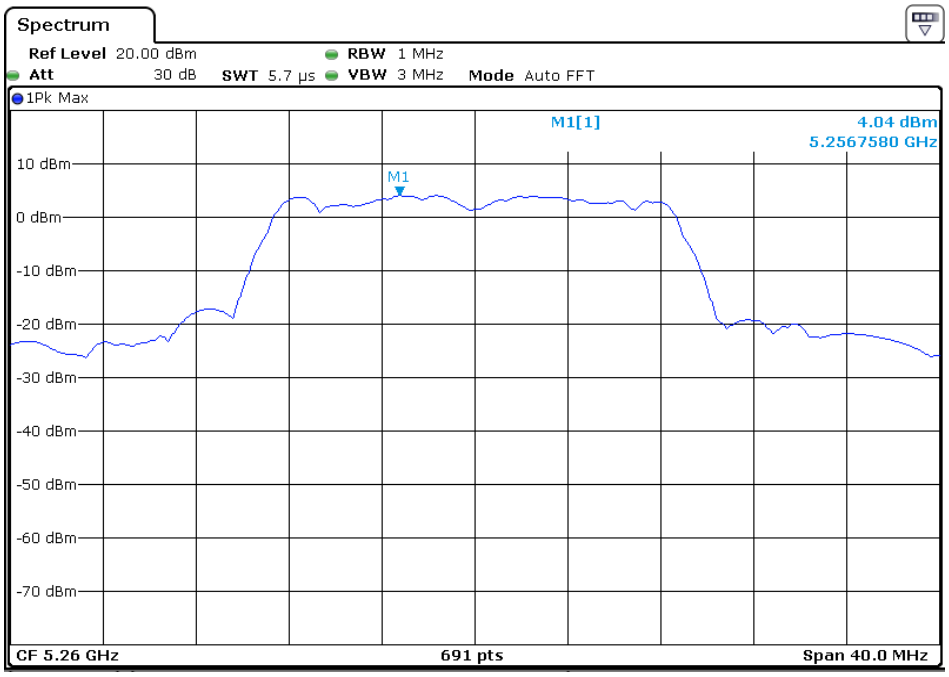
Result plot as follows:

Test Mode	Channel	Channel frenqucy (MHz)	Ant 1# Reading (dBm)	Limit (dBm)	Result
Ant 1# 802.11n(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	Low	5260	4.04	11.00	Pass
	Middle	5300	4.88	11.00	Pass
	Highest	5320	4.13	11.00	Pass
Ant 1# 802.11n(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	Low	5270	1.88	11.00	Pass
	Highest	5310	1.74	11.00	Pass
Ant 1# 802.11a (5.25GHz-5.35GHz) Data rate 6Mbps	Low	5260	4.00	11.00	Pass
	Middle	5300	4.06	11.00	Pass
	Highest	5320	4.60	11.00	Pass
Ant 1# 802.11ac(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	Low	5260	4.15	11.00	Pass
	Middle	5300	4.27	11.00	Pass
	Highest	5320	4.54	11.00	Pass
Ant 1# 802.11ac(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	Low	5270	0.71	11.00	Pass
	Highest	5310	1.81	11.00	Pass
Ant 1# 802.11ac(80M) (5.25GHz-5.35GHz) Data rate 32.5Mbps	Middle	5290	-7.17	11.00	Pass
Note:					
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.				
2.	Antenna 1 and Antenna 2 can not transmit Simultaneously.				

Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

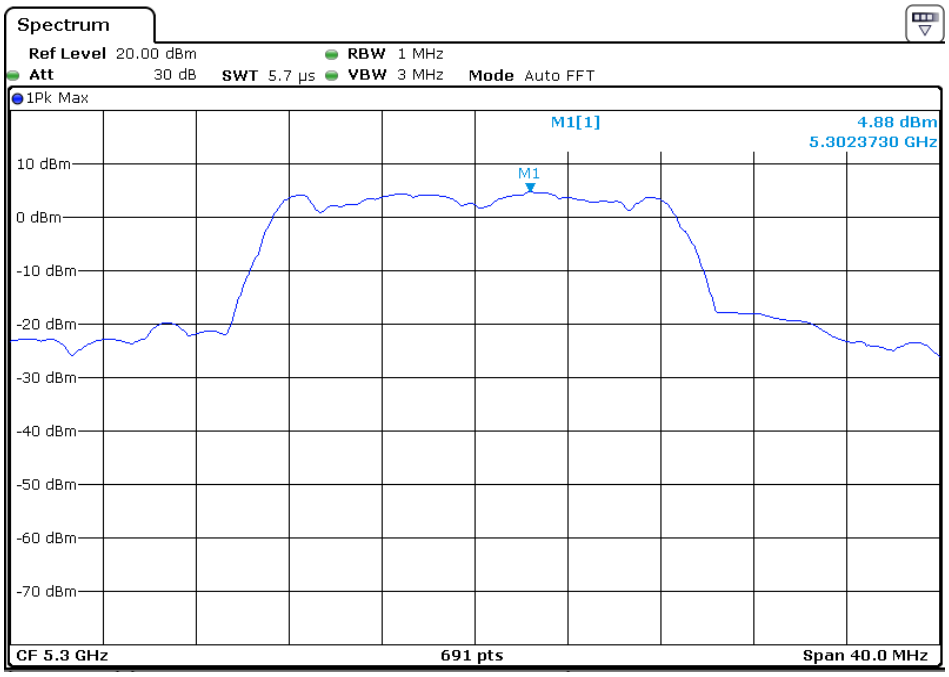
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

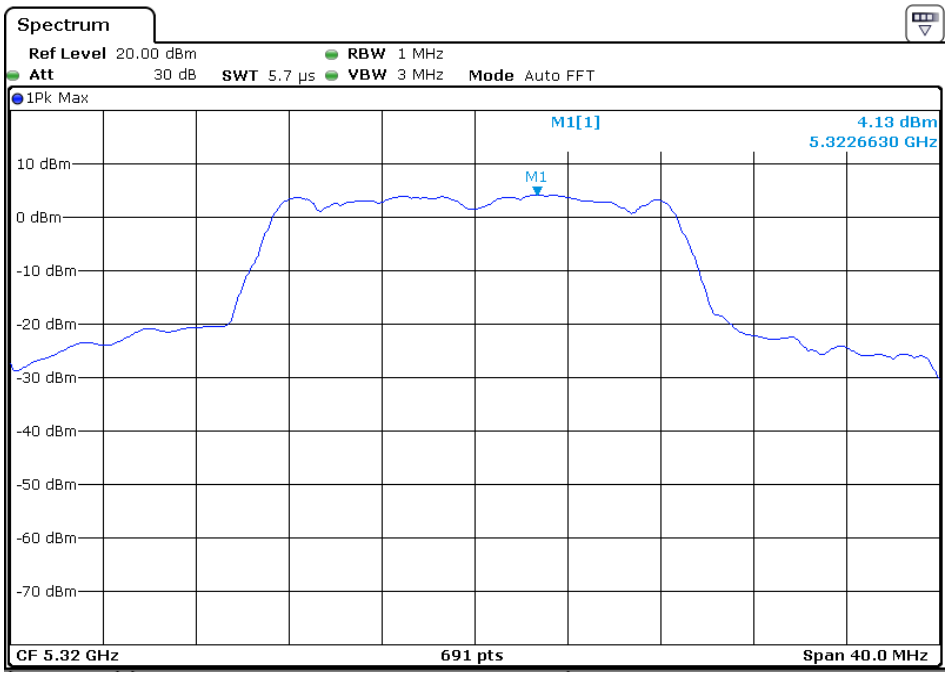
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11n(20M) (5.25GHz-5.35GHz)

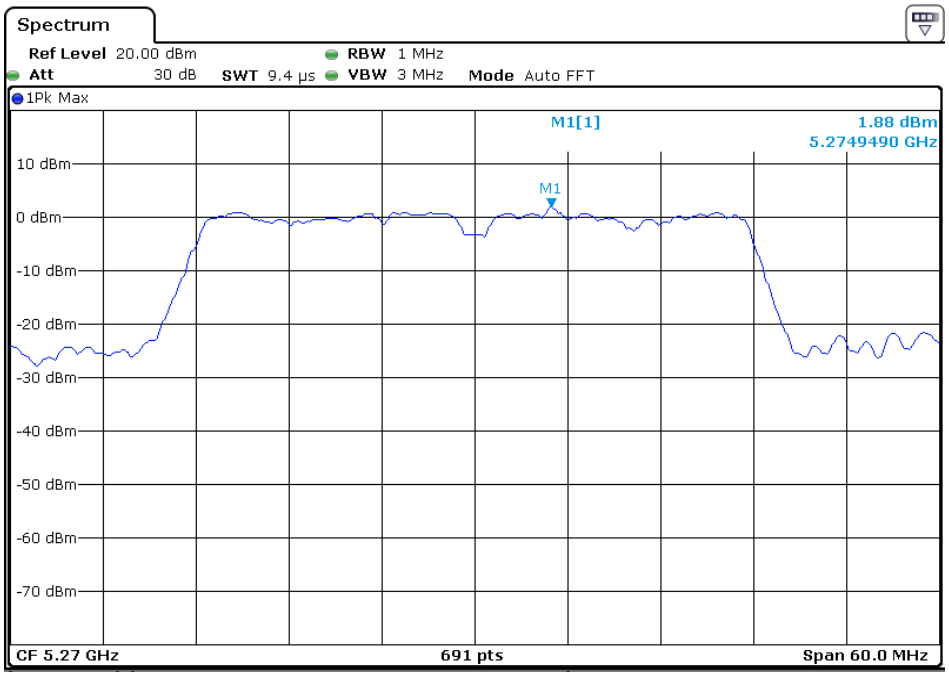
The Highest Channel 64: 5320MHz



Ant 1#(Worst data)

802.11n(40M) (5.25GHz-5.35GHz)

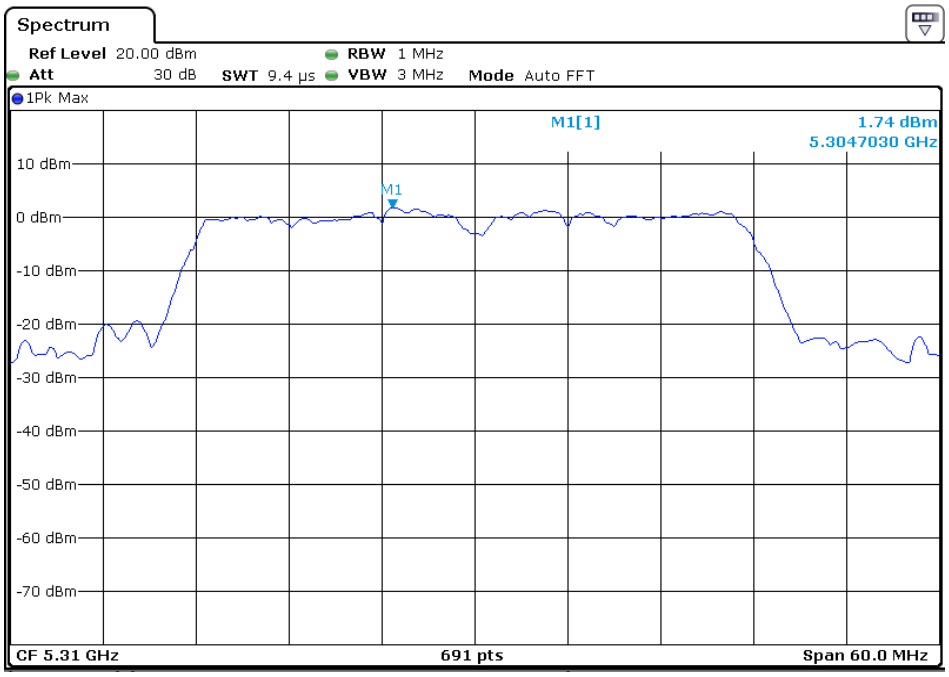
The Lowest Channel 54: 5270MHz



Ant 1#(Worst data)

802.11n(40M) (5.25GHz-5.35GHz)

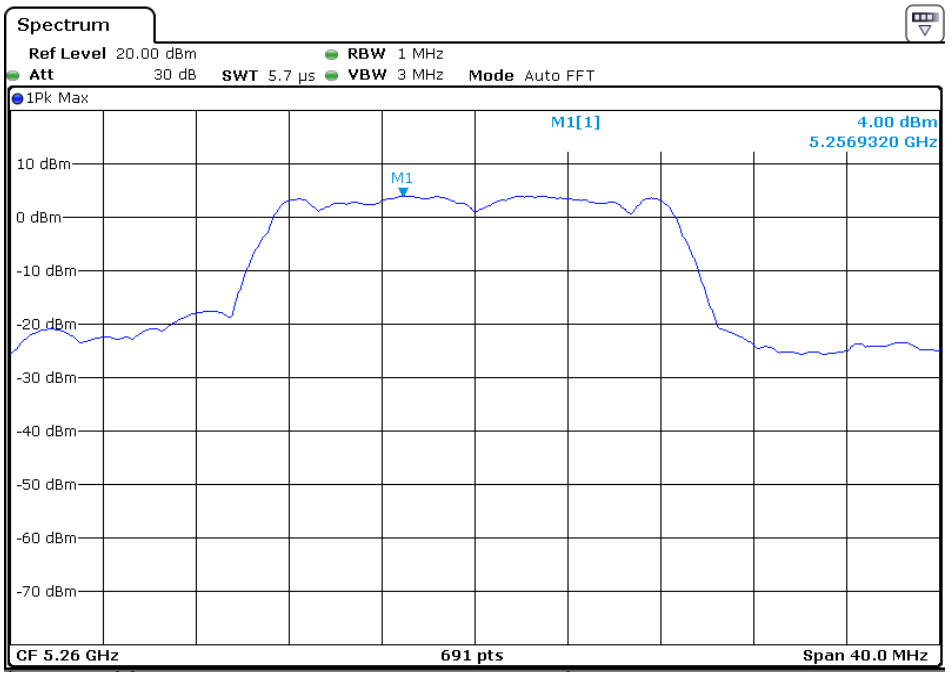
The Highest Channel 62: 5310MHz



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

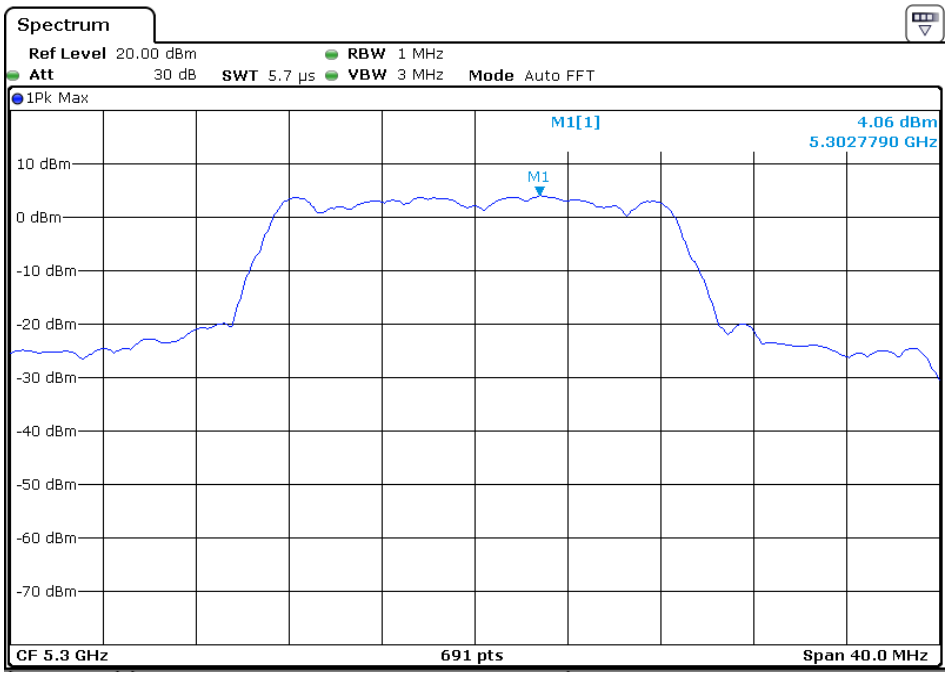
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

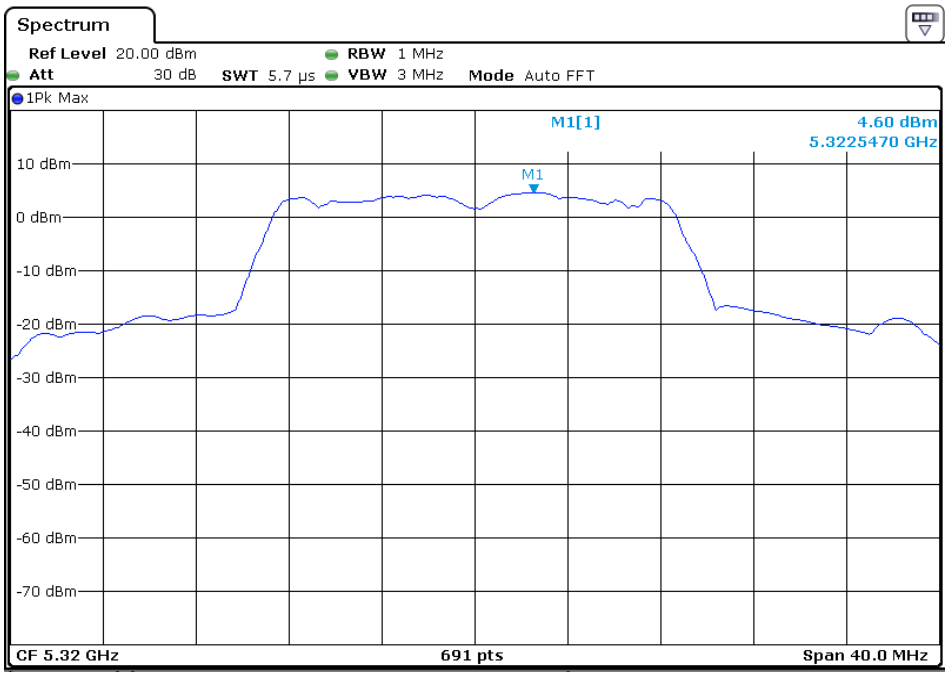
The Mddle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11a (5.25GHz-5.35GHz)

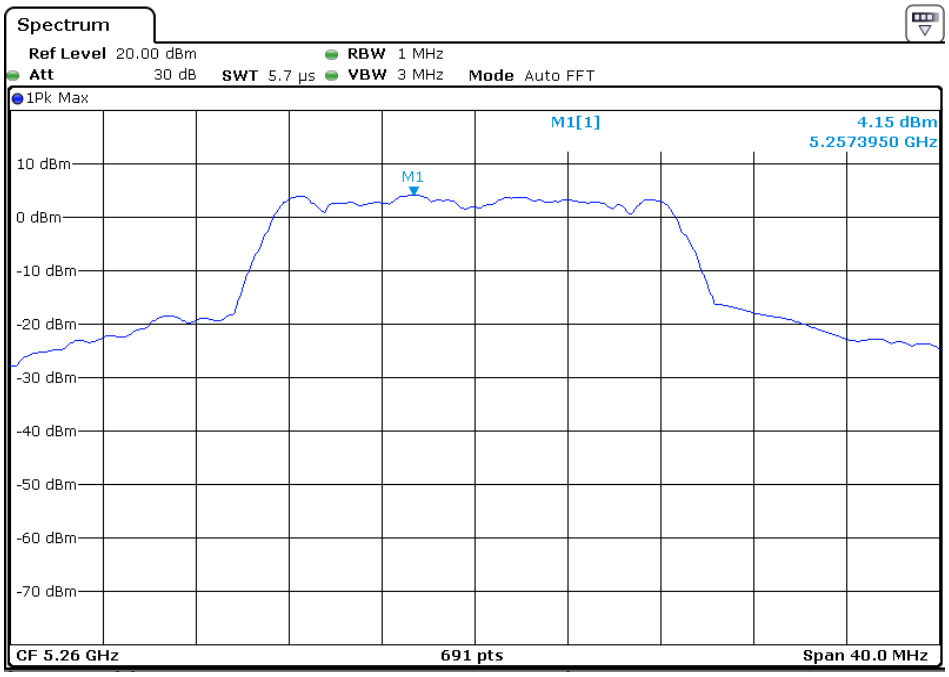
The Highest Channel 64: 5320MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

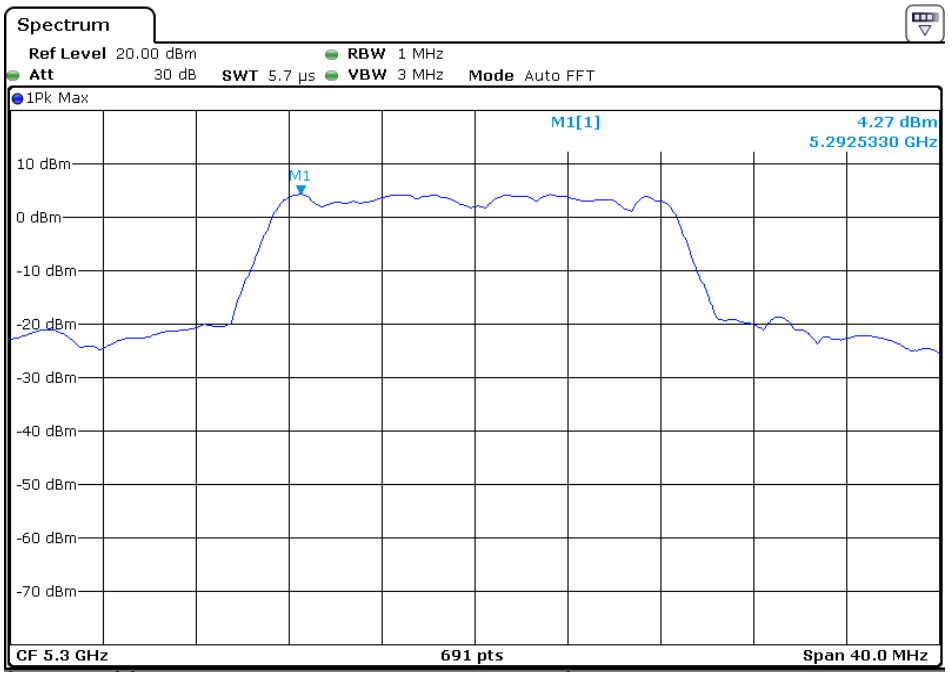
The Lowest Channel 52: 5260MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

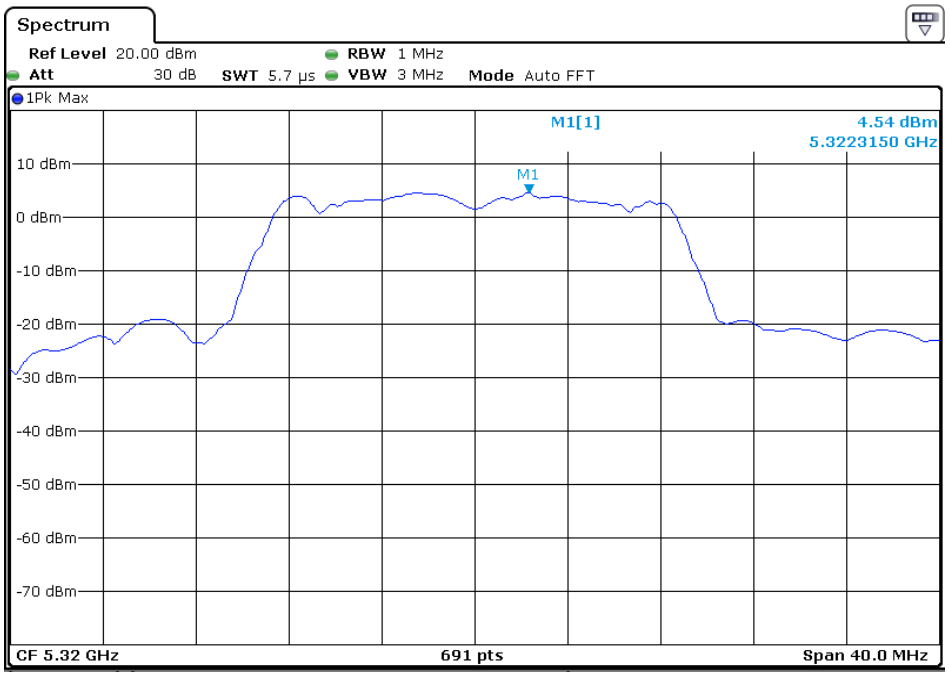
The Middle Channel 60: 5300MHz



Ant 1#(Worst data)

802.11ac(20M) (5.25GHz-5.35GHz)

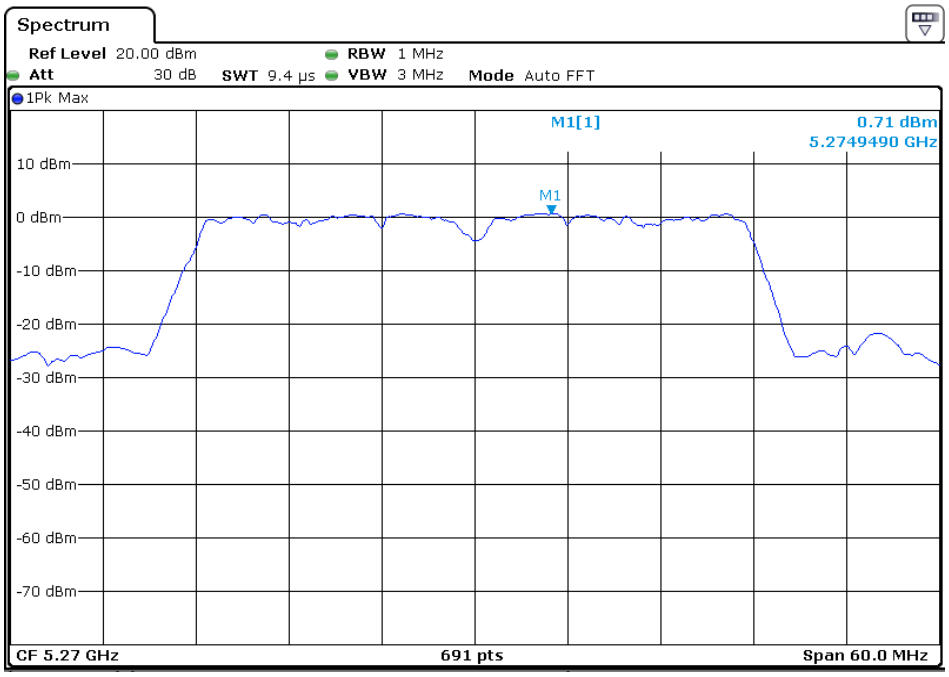
The Highest Channel 64: 5320MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

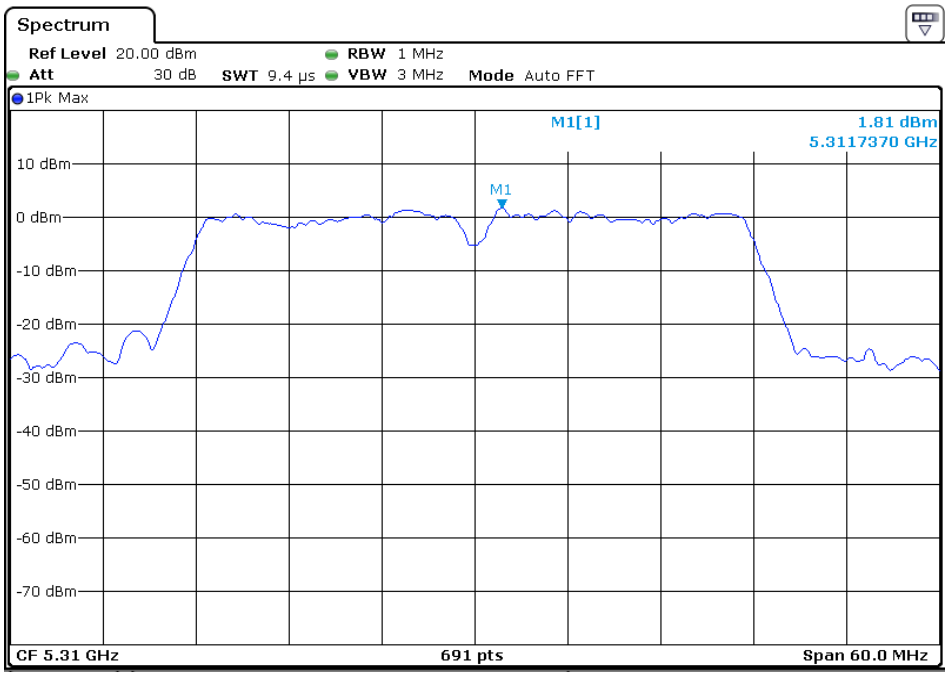
The Lowest Channel 54: 5270MHz



Ant 1#(Worst data)

802.11ac(40M) (5.25GHz-5.35GHz)

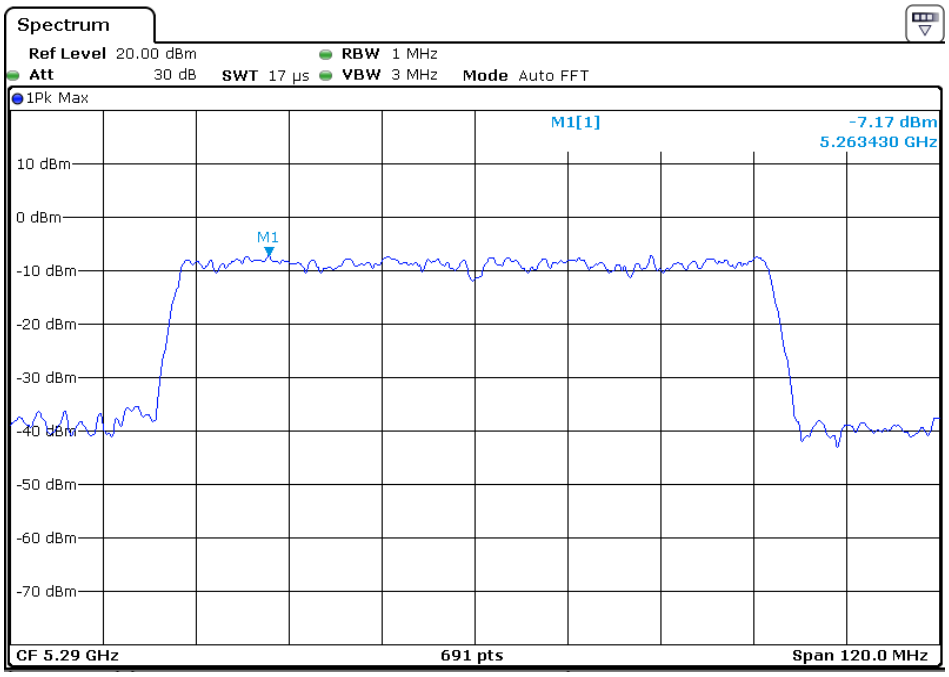
The Highest Channel 62: 5310MHz



Ant 1#(Worst data)

802.11ac(80M) (5.25GHz-5.35GHz)

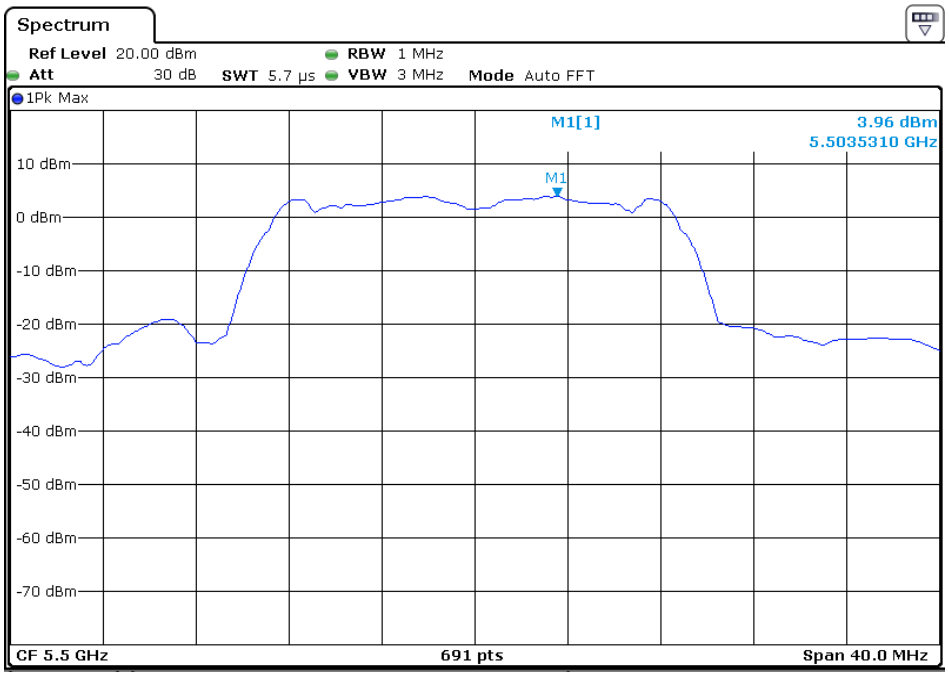
Channel 58: 5290MHz



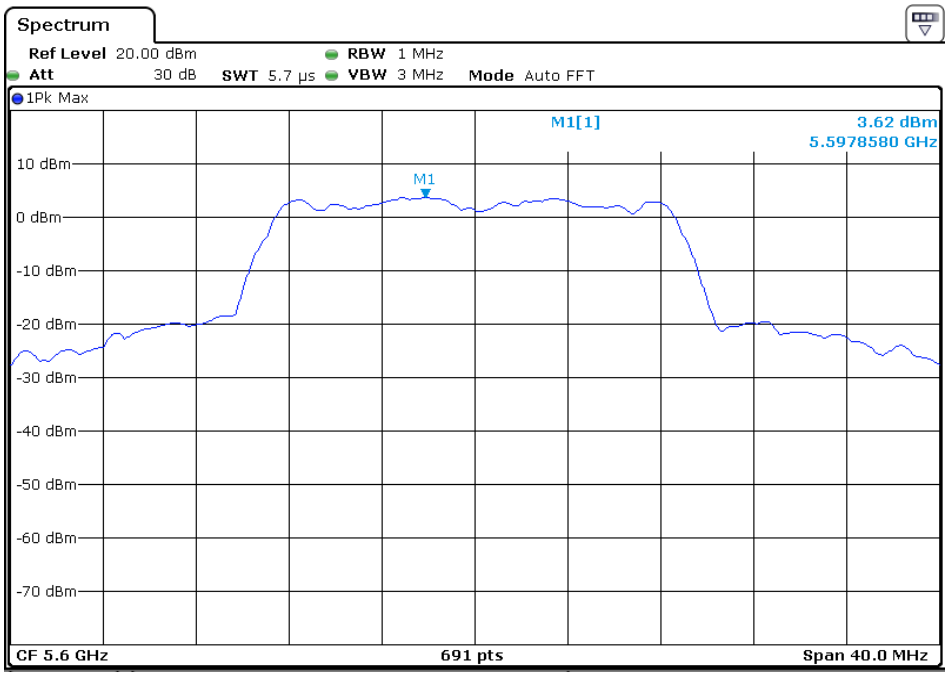
EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	22 ℃	Relative Humidity：	53%
Pressure：	1010 hPa	Test Power ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	802.11a/n20/n40/ac20/ac40/ac80-Ant 1#		

Test Mode	Channel	Channel frenqucy (MHz)	Ant 1# Reading (dBm)	Limit (dBm)	Result
Ant 1# 802.11n(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	Low	5500	3.96	11.00	Pass
	Middle	5600	3.62	11.00	Pass
	Highest	5700	4.74	11.00	Pass
Ant 1# 802.11n(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	Low	5510	1.13	11.00	Pass
	Middle	5590	0.17	11.00	Pass
	Highest	5670	1.24	11.00	Pass
Ant 1# 802.11a (5.47GHz-5.725GHz) Data rate 6Mbps	Low	5500	3.58	11.00	Pass
	Middle	5600	3.66	11.00	Pass
	Highest	5700	4.30	11.00	Pass
Ant 1# 802.11ac(20M) (5.47GHz-5.725GHz) Data rate 7.2Mbps	Low	5500	3.80	11.00	Pass
	Middle	5600	3.76	11.00	Pass
	Highest	5720	4.69	11.00	Pass
Ant 1# 802.11ac(40M) (5.47GHz-5.725GHz) Data rate 15Mbps	Low	5510	1.05	11.00	Pass
	Middle	5590	0.70	11.00	Pass
	Highest	5710	0.86	11.00	Pass
Ant 1# 802.11ac(80M) (5.47GHz-5.725GHz) Data rate 32.5Mbps	Low	5530	-7.81	11.00	Pass
	Highest	5610	-8.12	11.00	Pass
Note:					
1.	1/2 Represent the value of antenna1/2,The worst data is Antenna 1,only shown Antenna 1Plot.				
2.	Antenna 1 and Antenna 2 can not transmit simultaneously.				

Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Lowest Channel 100: 5500MHz



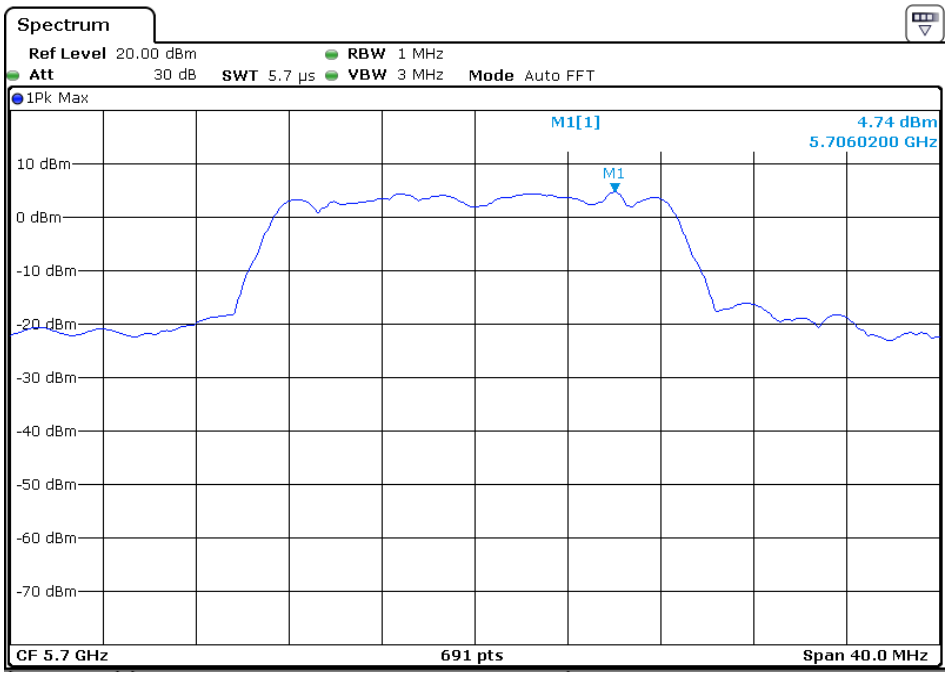
Ant 1#(Worst data)
802.11n(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



Ant 1#(Worst data)

802.11n(20M) (5.47GHz-5.725GHz)

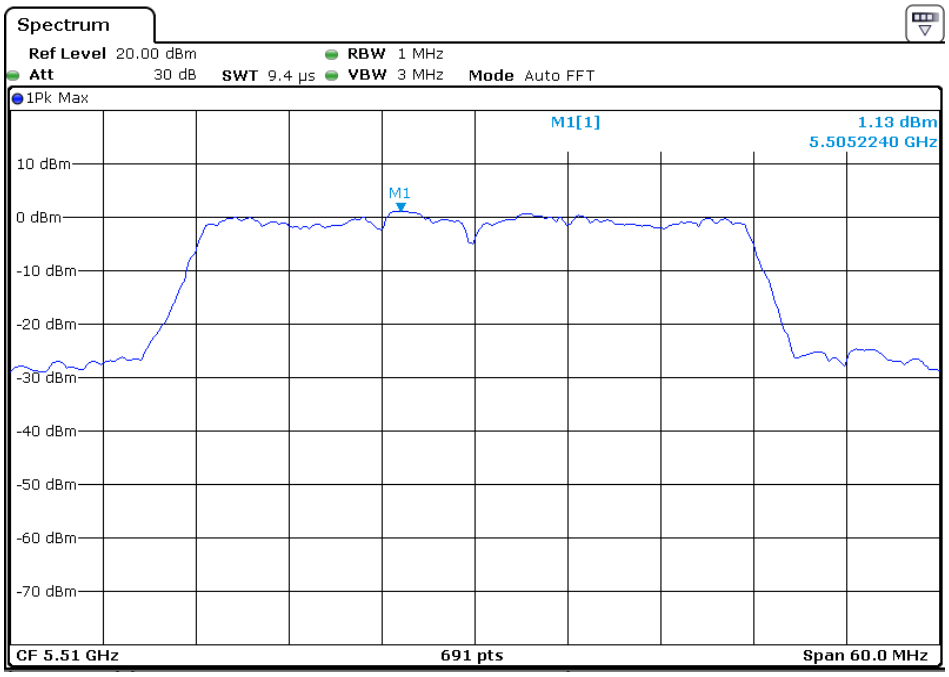
The Highest Channel 140: 5700MHz



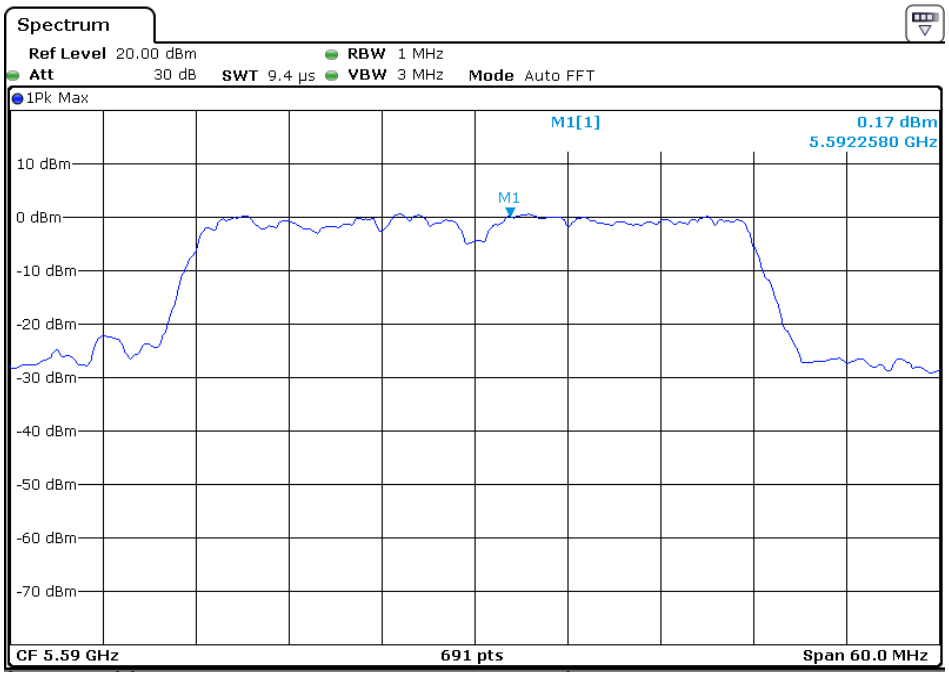
Ant 1#(Worst data)

802.11n(40M) (5.47GHz-5.725GHz)

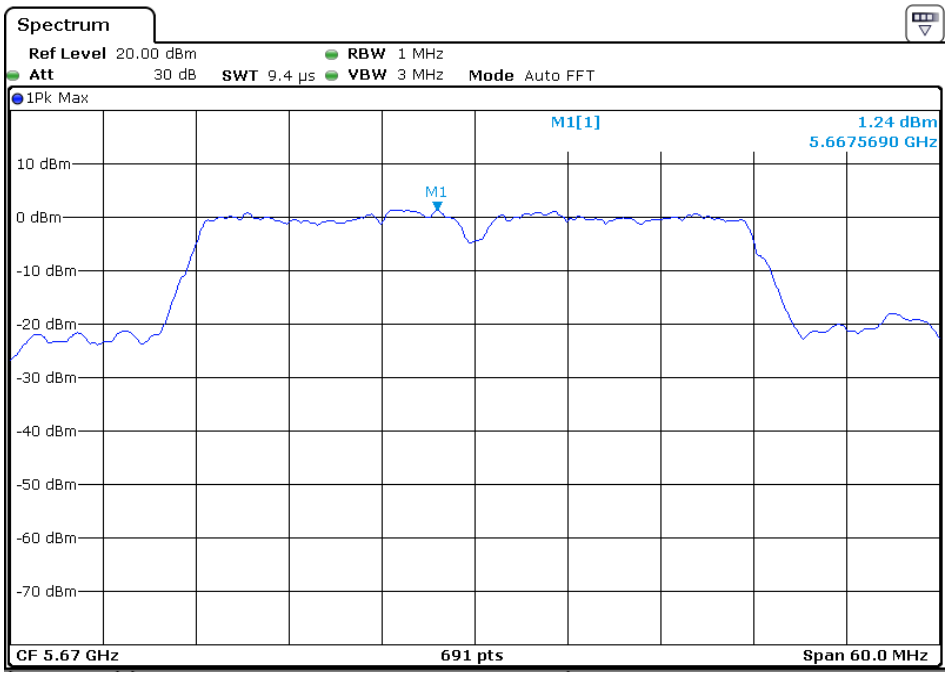
The Lowest Channel 102: 5510MHz



Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



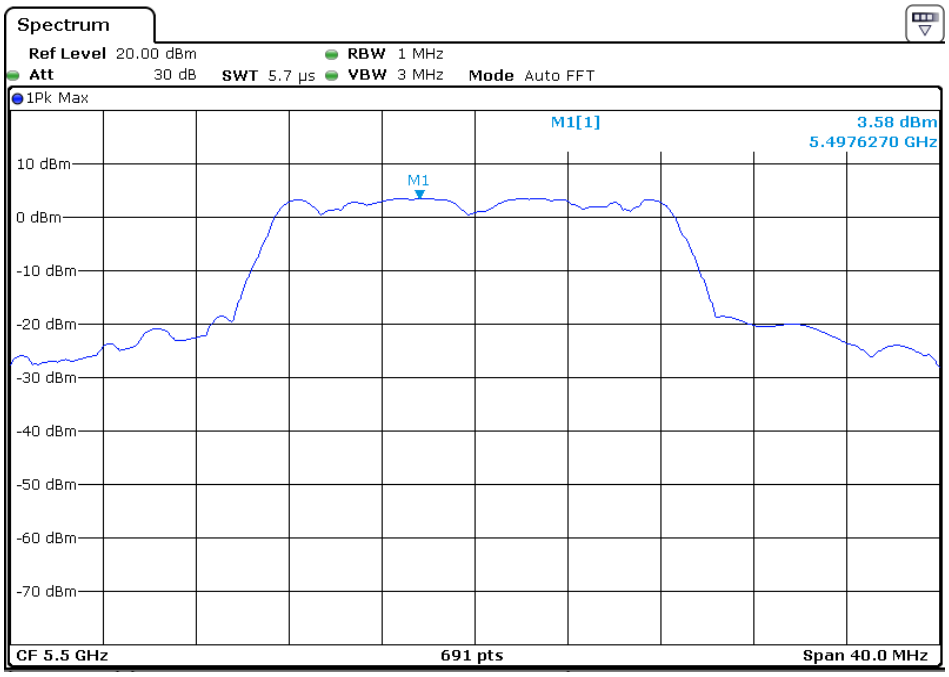
Ant 1#(Worst data)
802.11n(40M) (5.47GHz-5.725GHz)
The Highest Channel 134: 5670MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

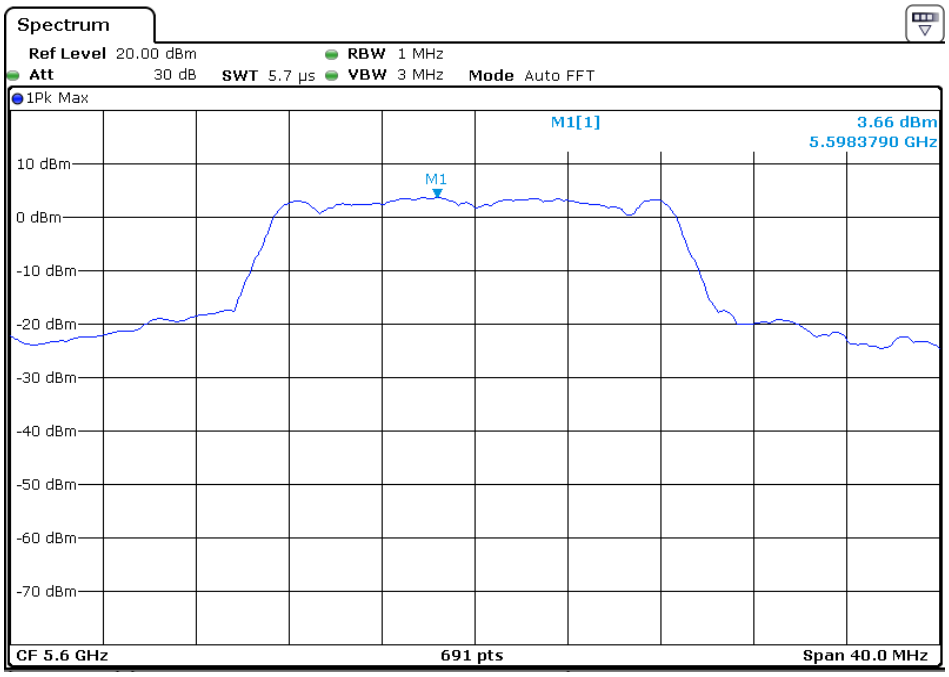
The Lowest Channel 100: 5500MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

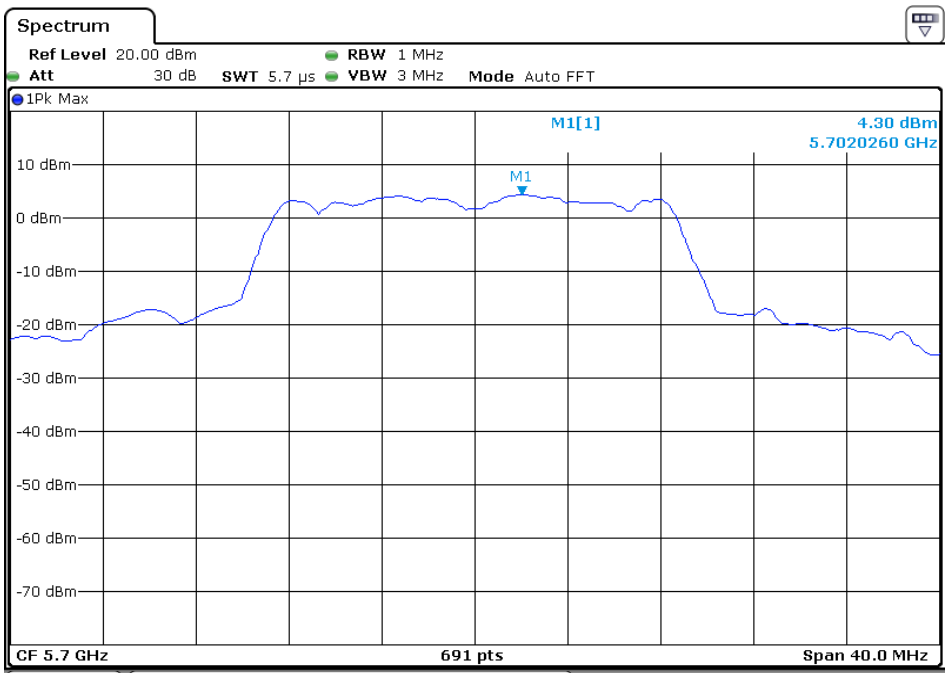
The Mddle Channel 120: 5600MHz



Ant 1#(Worst data)

802.11a (5.47GHz-5.725GHz)

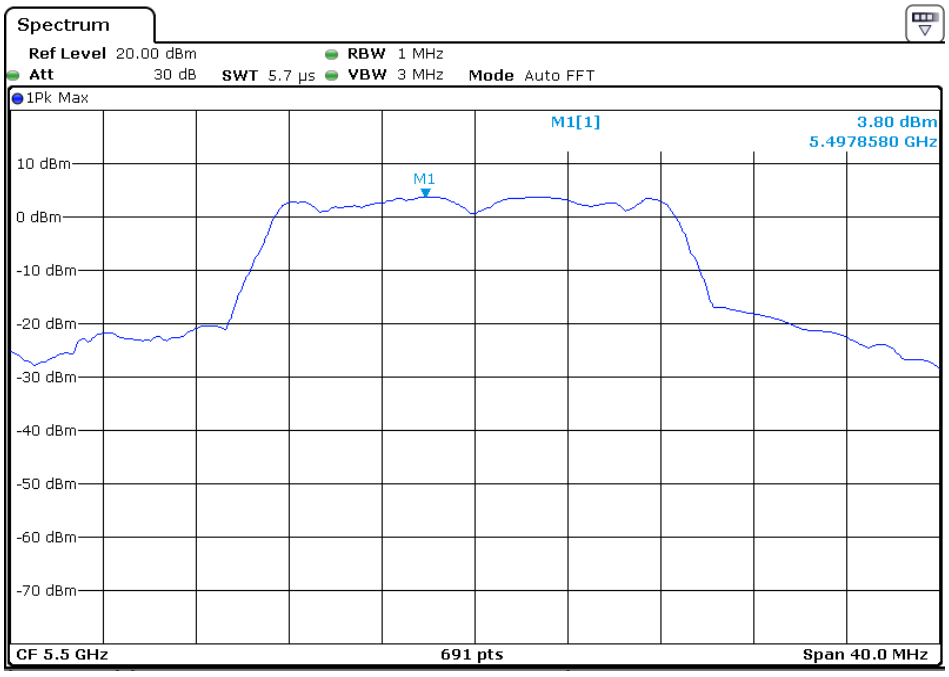
The Highest Channel 140: 5700MHz



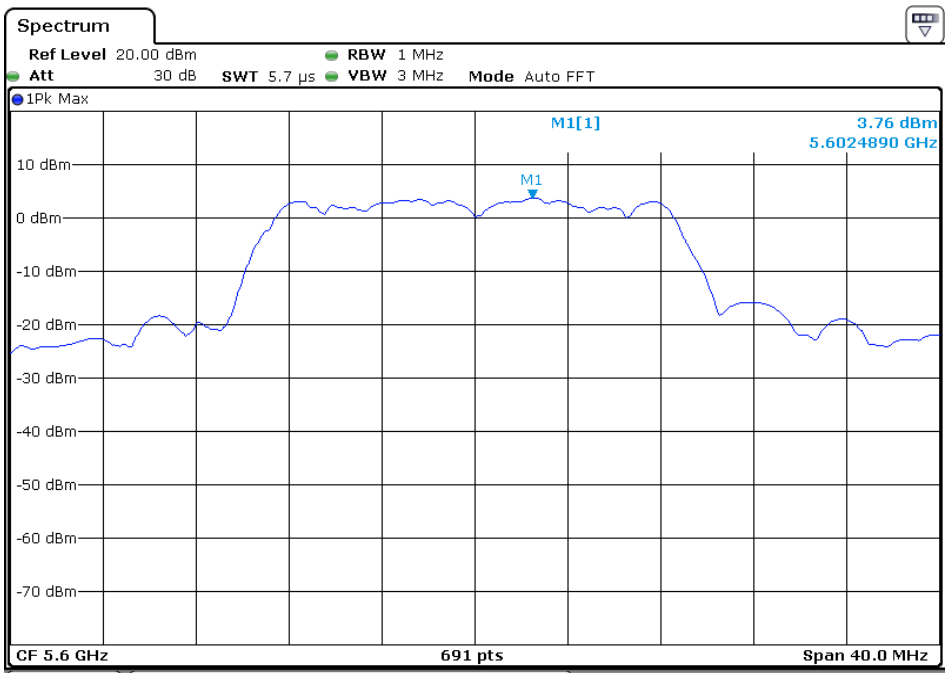
Ant 1#(Worst data)

802.11ac(20M) (5.47GHz-5.725GHz)

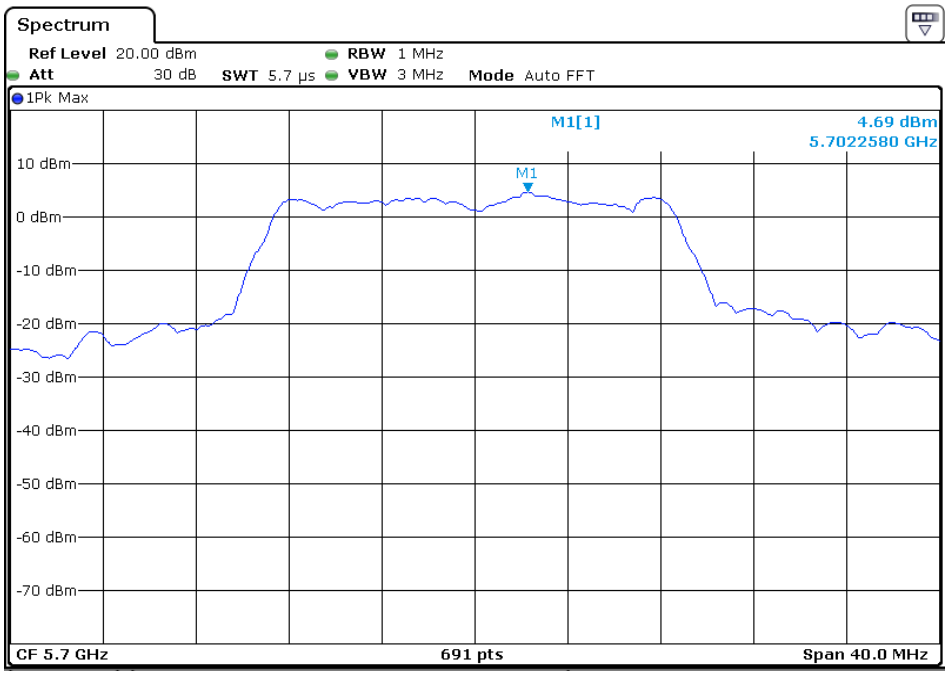
The Lowest Channel 100: 5500MHz



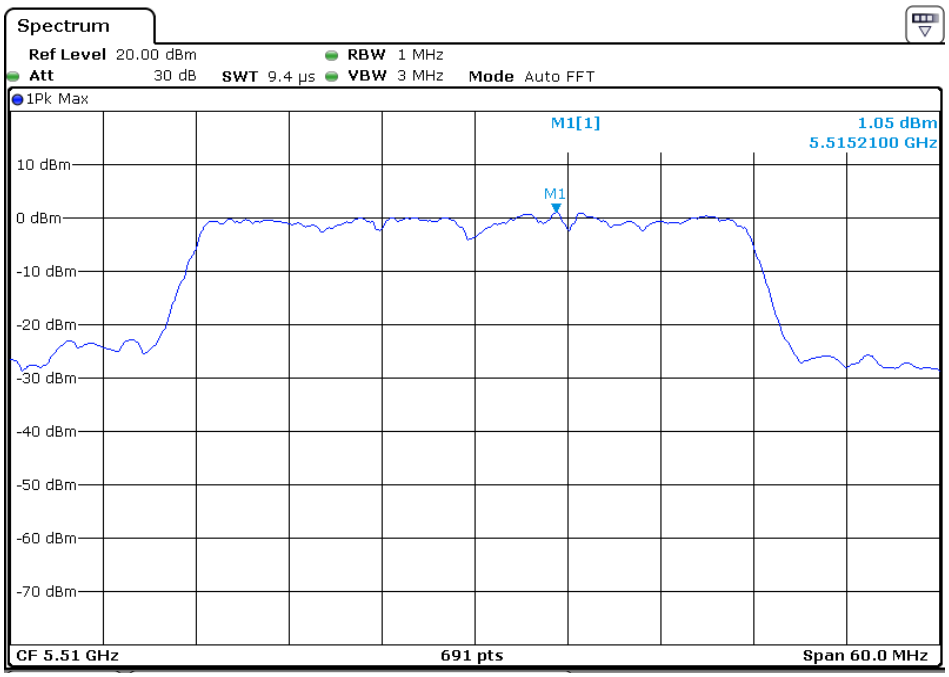
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The Middle Channel 120: 5600MHz



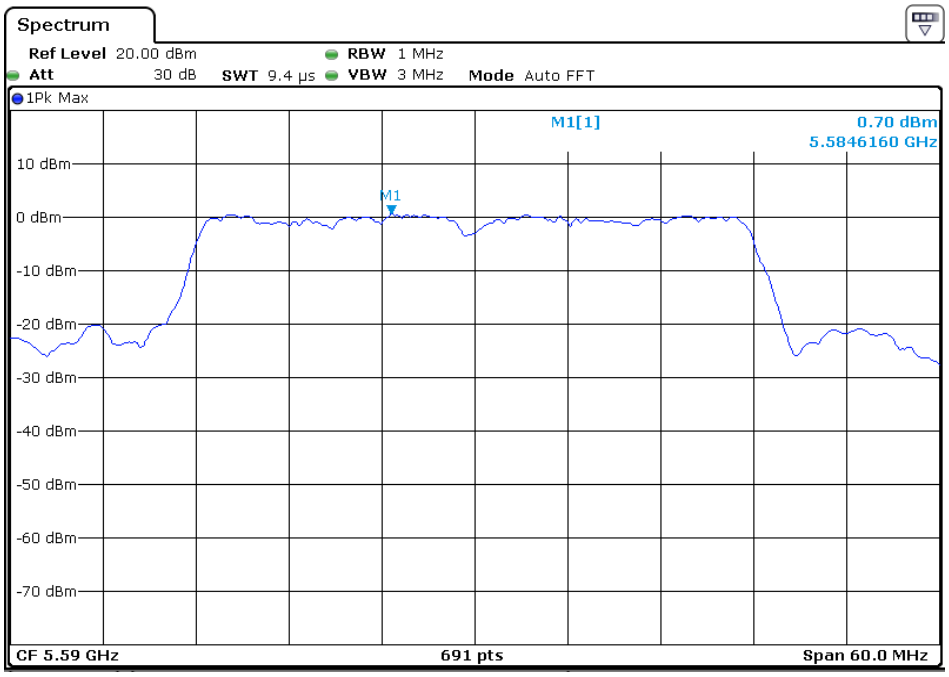
Ant 1#(Worst data)
802.11ac(20M) (5.47GHz-5.725GHz)
The Highest Channel 140: 5720MHz



Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Lowest Channel 102: 5510MHz



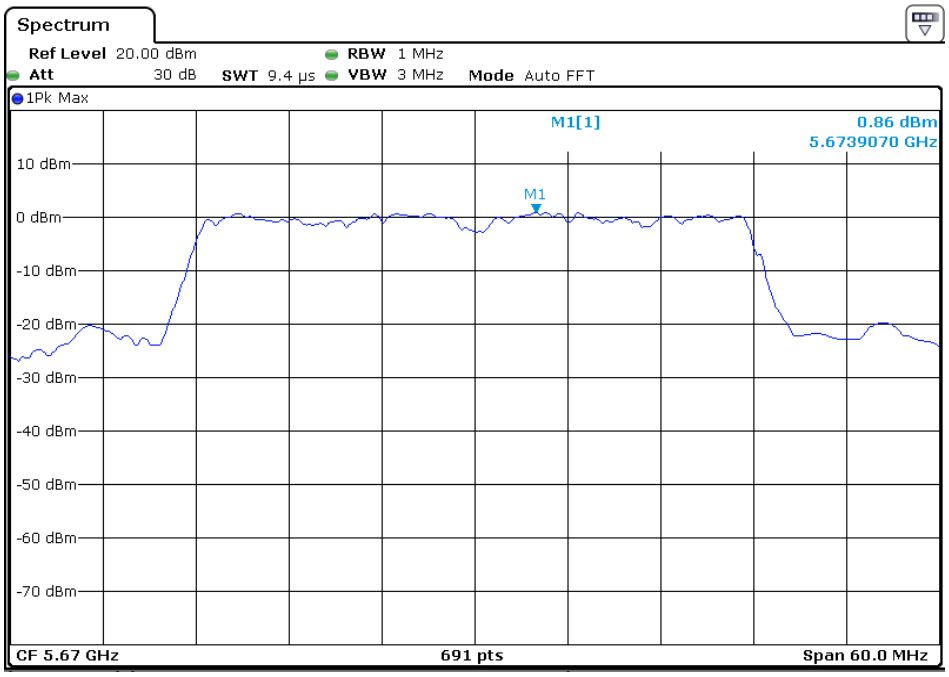
Ant 1#(Worst data)
802.11ac(40M) (5.47GHz-5.725GHz)
The Middle Channel 118: 5590MHz



Ant 1#(Worst data)

802.11ac(40M) (5.47GHz-5.725GHz)

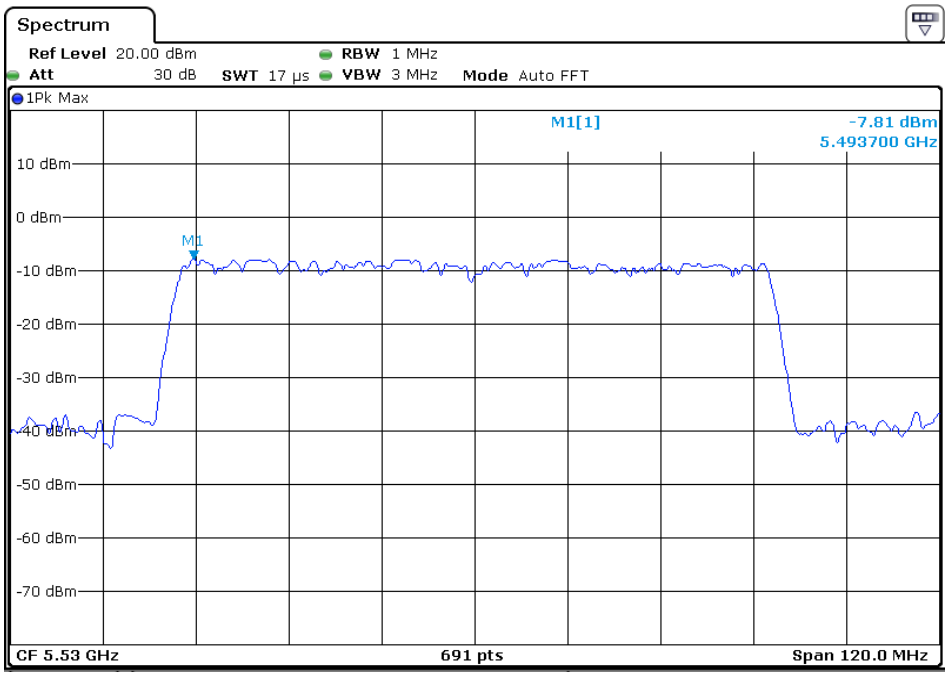
The Highest Channel 134: 5670MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

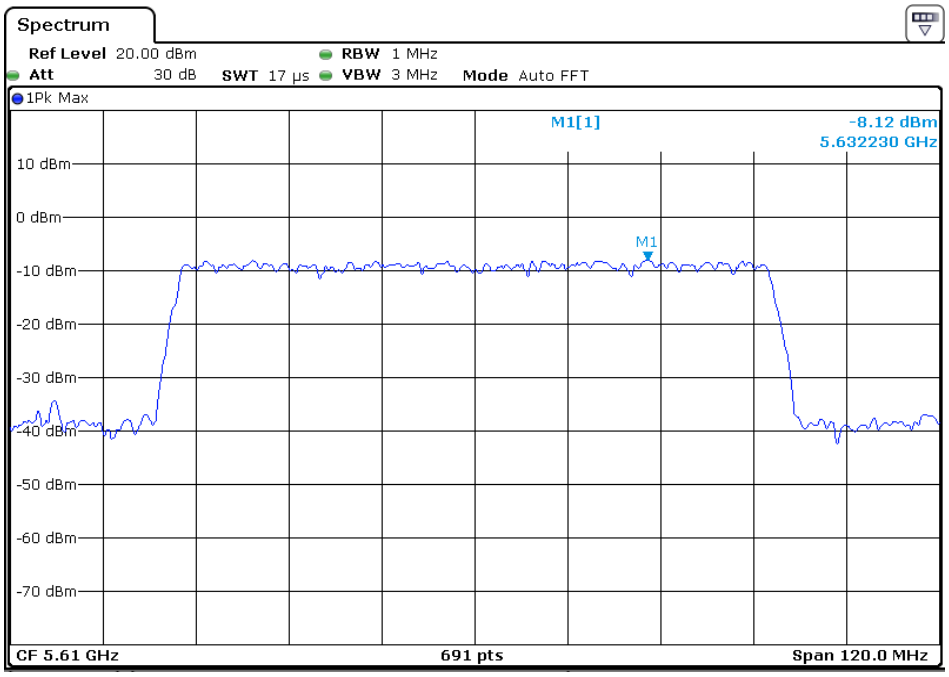
The Lowest Channel 106: 5530MHz



Ant 1#(Worst data)

802.11ac(80M) (5.47GHz-5.725GHz)

The Highest Channel 122: 5610MHz



6.6 Maximum Peak Output Power

6.6.1 Applied procedures / Limit

(2) For the 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 + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC Part15 (15.407) , Subpart E

Section	Test Item	Limit	Frequency Range (MHz)	Result
15.407(E) (ii)/(2)	Peak Output Power	250 mW or 11 dBm + 10 log B	5.25-5.35 GHz and 5.47-5.725 GHz	PASS

6.6.2 Test procedure

KDB 789033 D02v01r01 - Section E) 3) b) Method PM-G
The EUT was directly connected to the Power Sensor & Power meter.
Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

6.6.3 Test Setup

6.6.4 Deviation from standard

No deviation.

6.6.5 Test results

EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	22 ℃	Relative Humidity：	60%
Pressure：	1010 hPa	Test Voltage ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	TX		
Note: All the data rates have be tested and the worst-case as the table below.			

Test Mode	Frequency (MHz)	Ant 1# Reading Power (dBm)	Limit (dBm)	Result
802.11n(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	5260	14.73	23.98	Pass
	5300	14.62	23.98	Pass
	5320	14.69	23.98	Pass
802.11n(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	5270	11.94	23.98	Pass
	5310	11.85	23.98	Pass
802.11a (5.25GHz-5.35GHz) Data rate 6Mbps	5260	14.31	23.98	Pass
	5300	14.62	23.98	Pass
	5320	14.53	23.98	Pass
802.11ac(20M) (5.25GHz-5.35GHz) Data rate 7.2Mbps	5260	13.38	23.98	Pass
	5300	13.29	23.98	Pass
	5320	13.60	23.98	Pass
802.11ac(40M) (5.25GHz-5.35GHz) Data rate 15Mbps	5270	11.84	23.98	Pass
	5310	11.26	23.98	Pass
802.11ac(80M) (5.25GHz-5.35GHz) Data rate 32.5Mbps	5290	5.72	23.98	Pass

EUT：	Big Blue Studio Chrome	Model Name ：	AD105A4BK
Temperature：	22 ℃	Relative Humidity：	60%
Pressure：	1010 hPa	Test Voltage ：	DC 18V from adapter, AC 120V/60Hz for adapter
Test Mode ：	TX		
Note: All the data rates have be tested and the worst-case as the table below.			

Test Mode	Frequency (MHz)	Ant 1# Reading Power (dBm)	Limit (dBm)	Result
802.11n(20M) (5.47-5.725GHz) Data rate 7.2Mbps	5500	13.52	23.98	Pass
	5600	14.08	23.98	Pass
	5700	13.74	23.98	Pass
802.11n(40M) (5.47-5.725GHz) Data rate 15Mbps	5510	10.28	23.98	Pass
	5590	10.76	23.98	Pass
	5670	10.55	23.98	Pass
802.11a (5.47-5.725GHz) Data rate 6Mbps	5500	13.21	23.98	Pass
	5600	13.54	23.98	Pass
	5700	13.67	23.98	Pass
802.11ac(20M) (5.47-5.725GHz) Data rate 7.2Mbps	5500	14.68	23.98	Pass
	5600	14.27	23.98	Pass
	5720	14.65	23.98	Pass
802.11ac(40M) (5.47-5.725GHz) Data rate 15Mbps	5510	11.26	23.98	Pass
	5590	11.37	23.98	Pass
	5710	11.62	23.98	Pass
802.11ac(80M) (5.47-5.725GHz) Data rate 32.5Mbps	5530	5.12	23.98	Pass
	5610	5.65	23.98	Pass

6.7 FREQUENCY STABILITY MEASUREMENT

6.7.1 Applied procedures / Limit

Manufacturers 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.

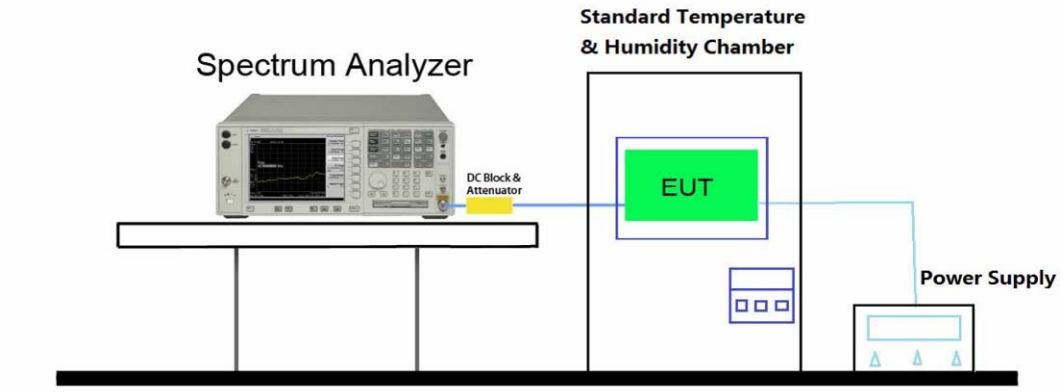
6.7.2 Test procedure

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

6.7.3 Deviation from standard

No deviation.

6.7.4 Test setup



6.7.5 Test results

Voltage (%)	Power (VAC)	Temp (℃)	Frequency Tolerance (ppm)
100%	120	- 20	3.43
		- 10	2.02
		0	1.78
		+ 10	3.21
		+ 20 (Ref)	2.12
		+ 30	4.10
		+ 40	2.56
		+ 50	3.87
115%	138	+ 20	3.87
85%	102	+ 20	3.42

Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} *10^6.

6.8 AUTOMATICALLY DISCONTINUE TRANSMISSION

6.8.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

6.8.2 TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission

6.9 ANTENNA REQUIREMENT

6.9.1 STANDARD REQUIREMENT

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

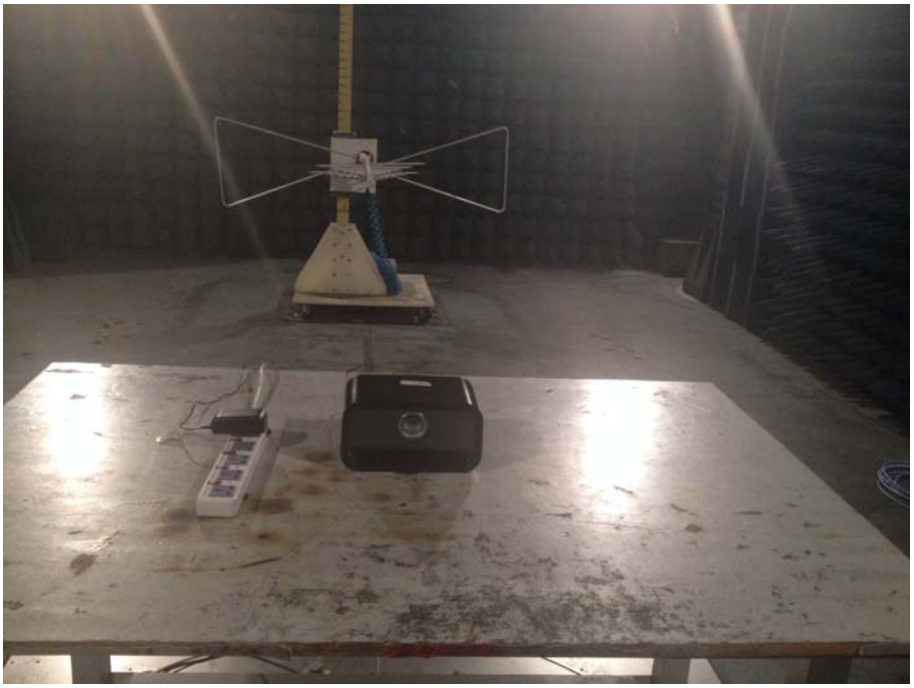
6.9.2 EUT ANTENNA

The EUT antenna comply with the standard requirement.

7 Photographs

7.1 Radiated Emission Test Setup

Below 1G



Above 1G

7.2 Conduction Emission Test Setup

7.3 EUT Constructional Details

Please refer to report E-F1609002-1.

****End of report****