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Shenzhen Branch

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Report No.: HKES170100014203  
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## FCC REPORT

<b>Application No:</b>	HKES1701000142IT
<b>Applicant:</b>	Pismo Labs Technology Limited
<b>Product Name:</b>	Peplink / Pepwave / Pismo Labs wireless product
<b>Model No.(EUT):</b>	MAX HD4, MAX HD4 LTE, MAX HD4 LTEA , PIMSO803AC*
*	Please refer to section 5.2 of this report which indicates which model was actually tested and which were electrically identical.
<b>FCC ID:</b>	U8G-P1803AC
<b>Standards:</b>	47 CFR Part 15, Subpart E (2016)
<b>Date of Receipt:</b>	2017-02-07
<b>Date of Test:</b>	2017-02-08 to 2017-03-03
<b>Date of Issue:</b>	2017-03-07
<b>Test Result:</b>	<b>PASS *</b>

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang  
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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## 2 Version

<b><i>Revision Record</i></b>				
<b><i>Version</i></b>	<b><i>Chapter</i></b>	<b><i>Date</i></b>	<b><i>Modifier</i></b>	<b><i>Remark</i></b>
01		2017-03-07		Original

<b>Authorized for issue by:</b>			
		Hank yan.	
<b>Tested By</b>		(Hank Yan) /Project Engineer	2017-03-03
			<b>Date</b>
<b>Checked By</b>		Eric Fu	2017-03-07
			<b>Date</b>



### 3 Test Summary

Test Item	Test Requirement	Test method	Result
<b>Antenna Requirement</b>	47 CFR Part 15 Section 15.203	ANSI C63.10: 2013	PASS
<b>AC Power Line Conducted Emission</b>	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
<b>Conducted Output Power</b>	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
<b>6dB Occupied Bandwidth</b>	47 CFR Part 15 Section 15.407(e)	ANSI C63.10: 2013	PASS
<b>26 dB Emission Bandwidth &amp; 99% Occupied Bandwidth</b>	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
<b>Power Spectral Density</b>	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
<b>Radiated Spurious Emissions</b>	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
<b>Restricted bands around fundamental frequency (Radiated Emission)</b>	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
<b>Frequency Stability</b>	47 CFR Part 15 Section 15.407(g)	ANSI C63.10: 2013	PASS
<b>Automatically Discontinue Transmission Requirement</b>	47 CFR Part 15 Section 15.407 (c)	ANSI C63.10: 2013	PASS



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## 5 General Information

### 5.1 Client Information

Applicant:	Pismo Labs Technology Limited
Address of Applicant:	Flat A5, HK Spinners Ind. Bldg, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong

### 5.2 General Description of EUT

Product Name:	Peplink / Pepwave / Pismo Labs wireless product			
Model No.:	MAX HD4			
Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels
UNII Band I	IEEE 802.11a	5180-5240	4	
	IEEE 802.11n/ac 20MHz	5180-5240	4	
	IEEE 802.11n/ac 40MHz	5190-5230	2	
	IEEE 802.11ac 80MHz	5210	1	
UNII Band III	IEEE 802.11a	5745-5825	5	
	IEEE 802.11n/ac 20MHz	5745-5825	5	
	IEEE 802.11n/ac 40MHz	5755-5795	2	
	IEEE 802.11ac 80MHz	5775	1	
Type of Modulation:	IEEE 802.11a: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE 802.11n: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE 802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)			
Antenna Type:	Dedicated Antenna			
Antenna Gain:	Band I: 5.5dBi, Band III: 6dBi			
AC Adaptor:	AC/DC Adapter:Model: ATS050T-P121 Input: AC 100-240V, 50-60Hz, 1.2A MAX Output: DC 12V, 4.2A Or DC 12V-48V			

#### Declaration of EUT Family Grouping:

Model No.: MAX HD4, MAX HD4 LTE, MAX HD4 LTEA , PIMSO803AC

Only the model MAX HD4 was tested, since the circuitry design, PCB layout, electrical components used, internal wiring and functions were identical for all above models. Only different is the model number for commercial purpose.

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**Note:**

In FCC 15.31, 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, and the selected channel to perform the test as below:

Frequency Range of Operation Operating Frequency Range (in each Band)	Number of Measurement Frequencies Required	Location of Measurement Frequency in Band of Operation
1 MHz or less	1	centre
1 MHz to 10 MHz	2	1 near high end, 1 near low end
Greater than 10 MHz	3	1 near high end, 1 near centre

For UNII Band I:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5180
	The Middle channel	5200
	The Highest channel	5240
IEEE 802.11n/ac 40MHz	The Lowest channel	5190
	The Highest channel	5230
IEEE 802.11ac 80MHz	One channel	5210

For UNII Band III:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5745
	The Middle channel	5785
	The Highest channel	5825
IEEE 802.11n/ac 40MHz	The Lowest channel	5755
	The Highest channel	5795
IEEE 802.11ac 80MHz	One channel	5775



### **5.3 Test Environment and Mode**

<b>Operating Environment:</b>	
Temperature:	25.0 °C
Humidity:	55% RH
Atmospheric Pressure:	1020 mbar
<b>Test mode:</b>	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

### **5.4 Description of Support Units**

The EUT has been tested independent unit.

### **5.5 Test Location**

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch  
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.  
518057.  
Tel: +86 755 2601 2053 Fax: +86 755 2671 0594  
No tests were sub-contracted.



## 5.6 Test Facility

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

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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) for the competence in the field of testing.

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

## 5.7 Deviation from Standards

None.

## 5.8 Abnormalities from Standard Conditions

None.

## 5.9 Other Information Requested by the Customer

None.



## 5.10 Equipment List

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2016-05-13	2017-05-13
2	EMI Test Receiver	Agilent Technologies	N9038A	SEM004-05	2016-10-09	2017-10-09
3	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2014-11-01	2017-11-01
4	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEM003-11	2015-10-17	2018-10-17
5	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEM003-12	2014-11-24	2017-11-24
6	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2016-04-25	2017-04-25
7	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A
8	DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
9	Loop Antenna	Beijing Daze	ZN30401	SEM003-09	2015-05-13	2018-05-13

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-Lindgren	N/A	SEM001-01	2016-05-13	2017-05-13
2	Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2016-04-25	2017-04-25
3	BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
4	Double-ridged horn (1-18GHz)	ETS-Lindgren	3117	SEM003-11	2015-10-17	2018-10-17
5	Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
6	Horn Antenna(26GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEM003-13	2015-02-12	2018-02-12
7	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2016-04-25	2017-04-25
8	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEM004-10	2016-10-17	2017-10-17
9	Pre-amplifier(26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2016-02-12	2017-02-12
10	DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
11	Loop Antenna	Beijing Daze	ZN30401	SEM003-09	2015-05-13	2018-05-13

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RF connected test						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
3	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
4	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09

General used equipment						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	Humidity/Temperature Indicator	Anymetre	TH101B	SEM002-11	2016-07-23	2017-07-23
2	Humidity/Temperature Indicator	Mingle	N/A	SEM002-12	2016-10-12	2017-10-12
3	Humidity/Temperature Indicator	Mingle	N/A	SEM002-13	2016-10-12	2017-10-12
4	Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2016-05-18	2017-05-18



## 6 Test results and Measurement Data

### 6.1 Antenna Requirement

<b>Standard requirement:</b>	47 CFR Part 15C Section 15.203
15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
<b>EUT Antenna:</b>	 

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The device uses dedicated antenna (RP-SMA Connect). The Max. antenna gain is 5.5dBi for Band I, the Max. antenna gain is 6dBi for band III, and directional gain is 8.50dBi for band I, directional gain is 9.00dBi for band III.



## 6.2 Conducted Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)			
Test Method:	ANSI C63.10: 2013, section 6.2			
Test Frequency Range:	150kHz to 30MHz			
Limit:	Frequency range (MHz)		Limit (dBuV)	
			Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	5-30	60	50	
* Decreases with the logarithm of the frequency.				
Test Procedure:	<ol style="list-style-type: none"> <li>1) The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a <math>50\Omega/50\mu\text{H} + 5\Omega</math> linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</li> <li>3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,</li> <li>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</li> <li>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ol>			

<b>Test Setup:</b>	
<b>Exploratory Test Mode:</b>	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.
<b>Final Test Mode:</b>	Through Pre-scan, find the 1SS0 of rate of 802.11ac at 48 channel is the worst case. Only the worst case is recorded in the report.
<b>Instruments Used:</b>	Refer to section 5.10 for details
<b>Test Results:</b>	Pass

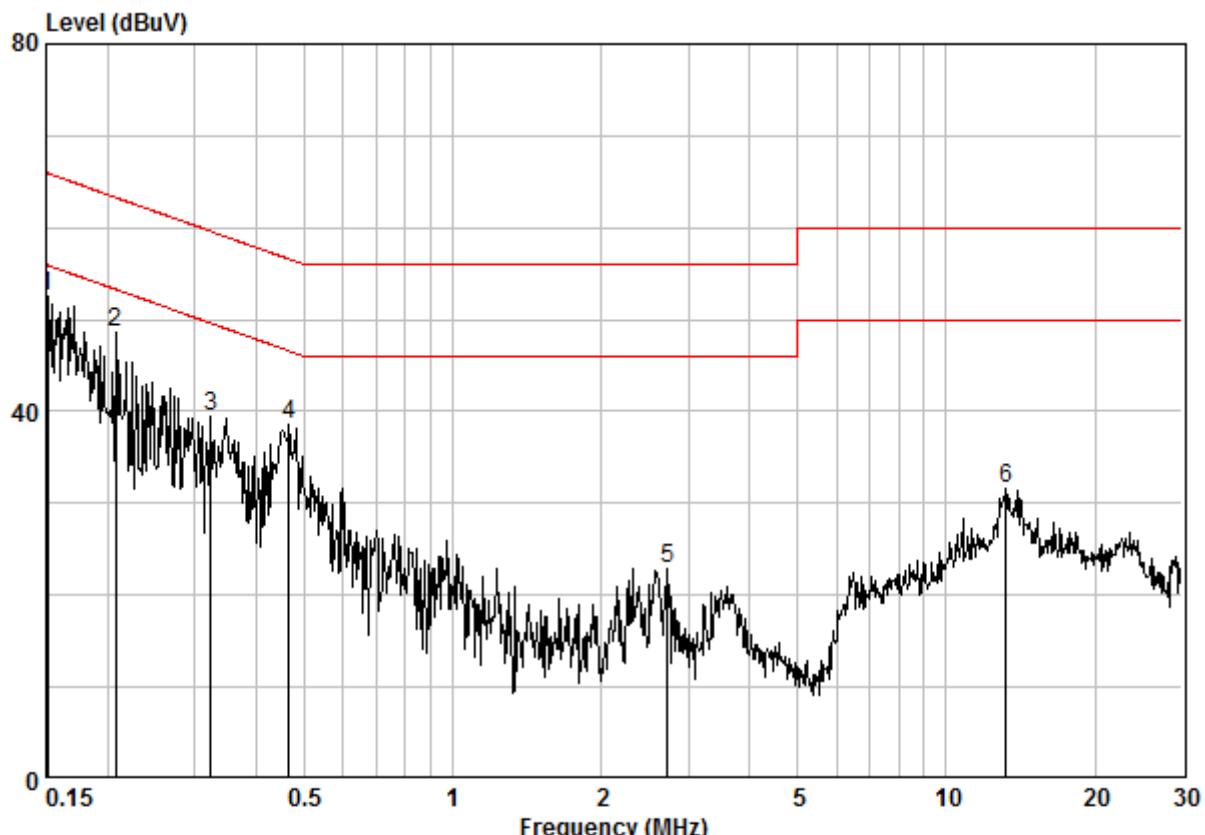


### Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live Line:



Site : Shielding Room

Condition : CE LINE

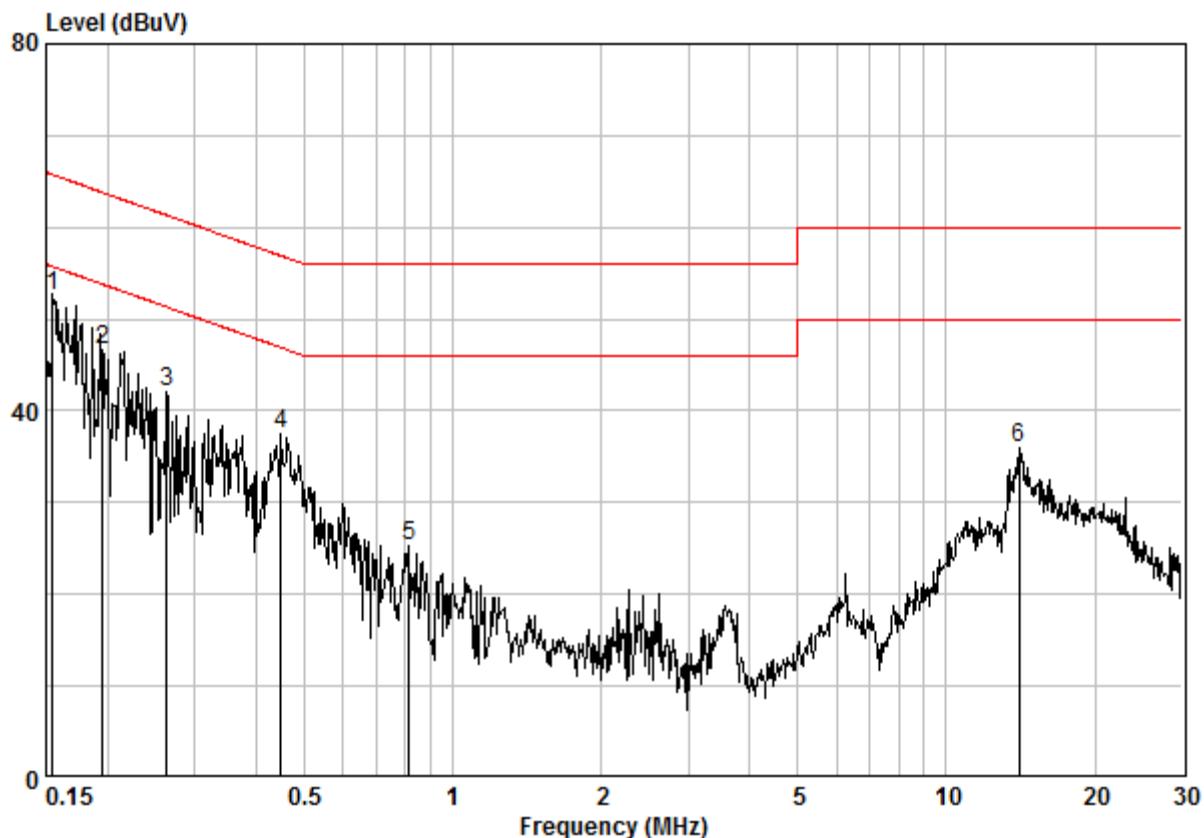
Job.No : 0142IT

Test Mode : c

	Freq	Cable	LISN	Read	Limit	Over	Remark
		Loss	Factor	Level	Level	Line	
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.15080	0.02	9.64	42.80	52.46	55.96	-3.50 Peak
2	0.20723	0.02	9.64	38.95	48.61	53.32	-4.70 Peak
3	0.32340	0.02	9.64	29.73	39.39	49.62	-10.22 Peak
4	0.46614	0.02	9.64	28.96	38.62	46.58	-7.97 Peak
5	2.721	0.03	9.68	13.22	22.94	46.00	-23.06 Peak
6	13.197	0.15	9.92	21.48	31.56	50.00	-18.44 Peak



Neutral Line:



Site : Shielding Room  
Condition : CE NEUTRAL  
Job.No : 0142IT  
Test Mode : c

	Freq	Cable	LISN	Read	Limit		Over	Remark
		Loss	Factor	Level	Level	Line		
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15485	0.02	9.64	42.90	52.56	55.74	-3.18	Peak
2	0.19550	0.02	9.63	36.98	46.63	53.80	-7.17	Peak
3	0.26303	0.02	9.63	32.48	42.13	51.34	-9.21	Peak
4	0.44916	0.02	9.63	27.89	37.54	46.89	-9.35	Peak
5	0.81737	0.03	9.64	15.52	25.19	46.00	-20.81	Peak
6	14.063	0.15	9.95	25.82	35.92	50.00	-14.08	Peak

**Notes:**

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.



### 6.3 Duty Cycle

Test Requirement:	47 CFR Part 15C 15.407 and 789033 D02 General UNII Test Procedures New Rules v01, Section (B)
Test Method:	ANSI C63.10: 2013, section 12. 2, b, 2)
Test Setup:	<p style="text-align: center;"> </p>
Limit:	N/A
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst cases were recorded in the report.
Instruments Used:	Refer to section 5.10 for details.
Test Results:	<p>Pass</p> <p>Remark: Through Pre-scan, find the duty cycle of all antenna port is 100%, and find the power of antenna 1 is larger than antenna 2, so only the antenna 1 test data include in this report.</p>

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**Measurement Data**

**Band I**

802.11a mode			
Test channel	On time	Period	Duty Cycle(%)
36	100	100	100
802.11n(HT20) mode			
Test channel	On time	Period	Duty Cycle
36	100	100	100
802.11n(HT40) mode			
Test channel	On time	Period	Duty Cycle
38	100	100	100
802.11ac(HT20) mode			
Test channel	On time	Period	Duty Cycle(%)
36	100	100	100
802.11ac(HT40) mode			
Test channel	On time	Period	Duty Cycle
36	100	100	100
802.11ac(HT80) mode			
Test channel	On time	Period	Duty Cycle
38	100	100	100

**Band IV**

802.11a mode			
Test channel	On time	Period	Duty Cycle(%)
149	100	100	100
802.11n(HT20) mode			
Test channel	On time	Period	Duty Cycle
149	100	100	100
802.11n(HT40) mode			
Test channel	On time	Period	Duty Cycle
151	100	100	100
802.11ac(HT20) mode			
Test channel	On time	Period	Duty Cycle(%)
36	100	100	100
802.11ac(HT40) mode			
Test channel	On time	Period	Duty Cycle
36	100	100	100
802.11ac(HT80) mode			
Test channel	On time	Period	Duty Cycle
38	100	100	100



## 6.4 Conducted Output Power

Test Requirement:	47 CFR Part 15 Section 15.407(a)						
Test Method:	ANSI C63.10: 2013, Section 12.3.3.1						
Test Setup:	<p>The diagram shows a 'Power Meter' connected to an 'E.U.T' (Equipment Under Test) via an 'RF Output port'. The 'E.U.T' is positioned on a 'Non-Conducted Table', which is situated above a 'Ground Reference Plane'.</p>						
Test Instruments:	Refer to section 5.10 for details						
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates						
Final Test Mode:	<p>Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)</p> <p>Only the worst case is recorded in the report.</p>						
Limit:	<table border="1"> <thead> <tr> <th>Frequency Band</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>5150-5250MHz</td> <td>           Antenna gain below 6dBi: 30dBm (802.11 a)            Antenna gain greater than 6dBi :            Not exceed 30dBm – 2.50 (directional gain-6) = 27.50dBm (802.11 n &amp; 802.11ac)         </td> </tr> <tr> <td>5725-5850MHz</td> <td>           Antenna gain below 6dBi: 30dBm (802.11 a)            Antenna gain greater than 6dBi :            Not exceed 30dBm –3.00 (directional gain-6) = 27.00dBm (802.11 n &amp; 802.11ac)         </td> </tr> </tbody> </table>	Frequency Band	Limit	5150-5250MHz	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi : Not exceed 30dBm – 2.50 (directional gain-6) = 27.50dBm (802.11 n & 802.11ac)	5725-5850MHz	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi : Not exceed 30dBm –3.00 (directional gain-6) = 27.00dBm (802.11 n & 802.11ac)
Frequency Band	Limit						
5150-5250MHz	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi : Not exceed 30dBm – 2.50 (directional gain-6) = 27.50dBm (802.11 n & 802.11ac)						
5725-5850MHz	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi : Not exceed 30dBm –3.00 (directional gain-6) = 27.00dBm (802.11 n & 802.11ac)						
	Directional gain = $G_{ANT\ MAX} + 10 \log(N_{ANT}/N_{SS})$ dB ( $N_{SS} = 1$ , where NSS is the number of spatial streams) ( $N_{ANT} = 2$ , where NANT is the number of outputs) For band I: Directional Gain = 8.5dB For band III: Directional Gain = 9dB						
Test Results:	Pass						

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Pre-scan under all rate for ant.1 at the lowest channel of Band I.

WiFi Module 1:

Mode	802.11a							
Data Rate (Mbps)	6	9	12	18	24	36	48	54
Power (dBm)	9.13	9.07	8.92	8.77	8.71	8.63	8.58	8.50
Mode	802.11n(HT20)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Power (dBm)	9.16	9.02	8.93	8.88	8.73	8.62	8.48	8.35
Mode	802.11n(HT40)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Power (dBm)	9.08	9.03	8.93	8.81	8.76	8.68	8.54	8.46
Mode	802.11ac(HT20)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS9
Power (dBm)	9.21	9.09	8.95	8.80	8.68	8.57	8.49	8.33
Mode	802.11ac(HT40)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS9
Power (dBm)	7.55	7.49	7.42	7.27	7.17	7.04	6.97	6.83
Mode	802.11ac(HT80)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS10
Power (dBm)	9.87	9.80	9.74	9.61	9.54	9.45	9.32	9.21
								9.13

WiFi Module 2:

Mode	802.11a							
Data Rate (Mbps)	6	9	12	18	24	36	48	54
Power (dBm)	10.00	9.92	9.83	9.68	9.53	9.41	9.34	9.19
Mode	802.11n(HT20)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Power (dBm)	10.02	9.95	9.81	9.67	9.52	9.37	9.32	9.24
Mode	802.11n(HT40)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Power (dBm)	9.65	9.52	9.46	9.39	9.33	9.22	9.12	9.00
Mode	802.11ac(HT20)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS9
Power (dBm)	9.94	9.79	9.72	9.64	9.57	9.51	9.44	9.31
Mode	802.11ac(HT40)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS9
Power (dBm)	9.70	9.63	9.54	9.48	9.37	9.23	9.13	9.04
Mode	802.11ac(HT80)							
Data Rate	MCS0	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS10
Power (dBm)	9.54	9.40	9.30	9.18	9.11	9.00	8.93	8.80
								8.62

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## Measurement Data:

### WiFi Module 1:

802.11a mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5180	9.13	9.43	30.00	Pass
5200	9.51	10.10	30.00	Pass
5240	10.27	10.65	30.00	Pass
5745	15.31	14.59	30.00	Pass
5785	14.69	13.83	30.00	Pass
5825	13.24	13.26	30.00	Pass
802.11n20 mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5180	9.16	9.46	12.32	27.50
5200	9.38	10.12	12.78	27.50
5240	10.13	10.70	13.43	27.50
5745	14.67	14.49	17.59	27.00
5785	13.86	13.70	16.79	27.00
5825	13.26	13.19	16.24	27.00
802.11ac 20 mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5180	9.21	9.46	12.35	27.50
5220	9.42	10.16	12.82	27.50
5240	10.30	10.69	13.51	27.50
5745	15.20	14.61	17.93	27.00
5785	14.64	13.77	17.24	27.00
5825	13.21	13.20	16.22	27.00
802.11n40 mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5190	9.08	9.54	12.33	27.50
5230	9.62	10.38	13.03	27.50
5755	14.03	12.91	16.52	27.00
5795	12.87	12.22	15.57	27.00
802.11ac 40 mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5190	7.55	9.56	11.68	27.50
5230	6.88	10.40	12.00	27.50
5755	14.00	12.84	16.47	27.00
5795	12.98	12.22	15.63	27.00
802.11ac 80 mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5210	9.87	9.52	12.71	27.50
5775	15.71	15.52	18.63	27.00

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**Measurement Data:**  
**WiFi Module 2:**

802.11a mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Ant.1	Ant.2		
5180	10.00	8.98	30.00	Pass
5200	9.83	8.92	30.00	Pass
5240	9.77	8.96	30.00	Pass
5745	12.99	16.75	30.00	Pass
5785	12.41	16.05	30.00	Pass
5825	11.24	14.70	30.00	Pass
802.11n20 mode				
Frequency (MHz)	Conducted Output Power (dBm)			Result
	Ant.1	Ant.2	Total	
5180	10.02	9.58	12.82	Pass
5200	9.94	9.88	12.92	Pass
5240	9.79	9.65	12.73	Pass
5745	13.46	16.73	18.41	Pass
5785	13.22	16.00	17.84	Pass
5825	12.23	14.69	16.64	Pass
802.11ac 20 mode				
Frequency (MHz)	Conducted Output Power (dBm)			Result
	Ant.1	Ant.2	Total	
5180	9.94	9.74	12.85	Pass
5220	9.83	9.85	12.85	Pass
5240	9.75	9.68	12.73	Pass
5745	13.11	16.74	18.30	Pass
5785	12.47	15.98	17.58	Pass
5825	11.40	14.63	16.32	Pass
802.11n40 mode				
Frequency (MHz)	Conducted Output Power (dBm)			Result
	Ant.1	Ant.2	Total	
5190	9.65	9.61	12.64	Pass
5230	9.52	9.47	12.50	Pass
5755	12.22	17.46	18.60	Pass
5795	13.06	16.51	18.13	Pass
802.11ac 40 mode				
Frequency (MHz)	Conducted Output Power (dBm)			Result
	Ant.1	Ant.2	Total	
5190	9.70	9.66	12.69	Pass
5230	9.46	9.75	12.62	Pass
5755	13.58	17.41	18.91	Pass
5795	12.99	16.43	18.05	Pass
802.11ac 80 mode				
Frequency (MHz)	Conducted Output Power (dBm)			Result
	Ant.1	Ant.2	Total	
5210	9.54	9.62	12.59	Pass
5775	15.57	15.55	18.57	Pass

**Note: (--) The power limit for Band I is based on EIRP.**



## 6.5 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(a)
Test Method:	ANSI C63.10: 2013, section 12.4 & section 6.9.2
Test Setup:	<p style="text-align: center;"><b>Spectrum Analyzer</b></p> <p style="text-align: center;">Non-Conducted Table</p> <p style="text-align: center;">Ground Reference Plane</p>
Instruments Used:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.
Limit:	No restriction limits
Test Results:	Pass

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**Measurement Data:**

**WiFi Module 1:**

802.11a mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	22.87	16.83
5200	23.06	16.80
5240	22.97	16.83
5745	--	16.83
5785	--	16.86
5825	--	16.83
802.11 n20 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	24.85	17.94
5200	24.42	18.06
5240	24.42	17.94
5745	--	18.03
5785	--	18.06
5825	--	18.06
802.11ac 20 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	24.16	18.03
5220	24.10	18.03
5240	23.91	17.94
5745	--	18.00
5785	--	18.00
5825	--	18.03
802.11 n40 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	43.46	36.30
5230	44.71	36.36
5755	--	36.36
5795	--	36.42
802.11ac 40 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	44.23	36.30
5230	44.36	36.36
5755	--	36.36
5795	--	36.36
802.11ac 80 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5210	89.76	76.44
5775	--	76.56

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**WiFi Module 2:**

802.11a mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	23.51	16.95
5200	23.14	16.95
5240	23.39	16.95
5745	--	16.98
5785	--	16.95
5825	--	16.92
802.11 n20 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	23.79	18.00
5200	23.72	18.03
5240	23.91	18.06
5745	--	18.09
5785	--	17.97
5825	--	18.06
802.11ac 20 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	23.92	18.03
5220	24.10	18.09
5240	23.63	18.00
5745	--	17.97
5785	--	18.06
5825	--	18.06
802.11 n40 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	45.92	36.36
5230	44.08	36.30
5755	--	36.30
5795	--	36.42
802.11ac 40 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	44.85	36.36
5230	45.11	36.36
5755	--	36.30
5795	--	36.36
802.11ac 80 mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5210	89.74	76.32
5775	--	76.44

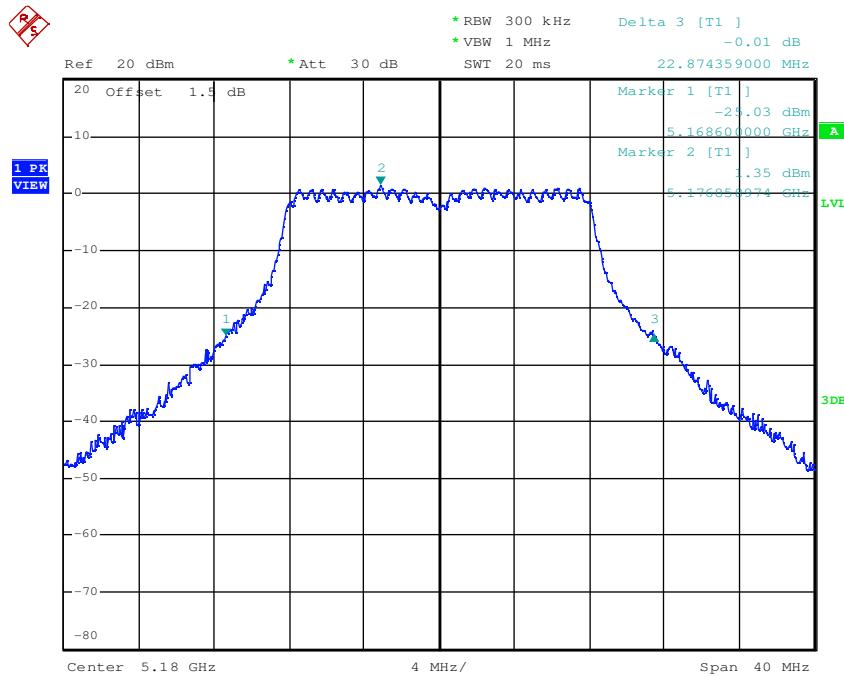


## 26dB Emission Bandwidth

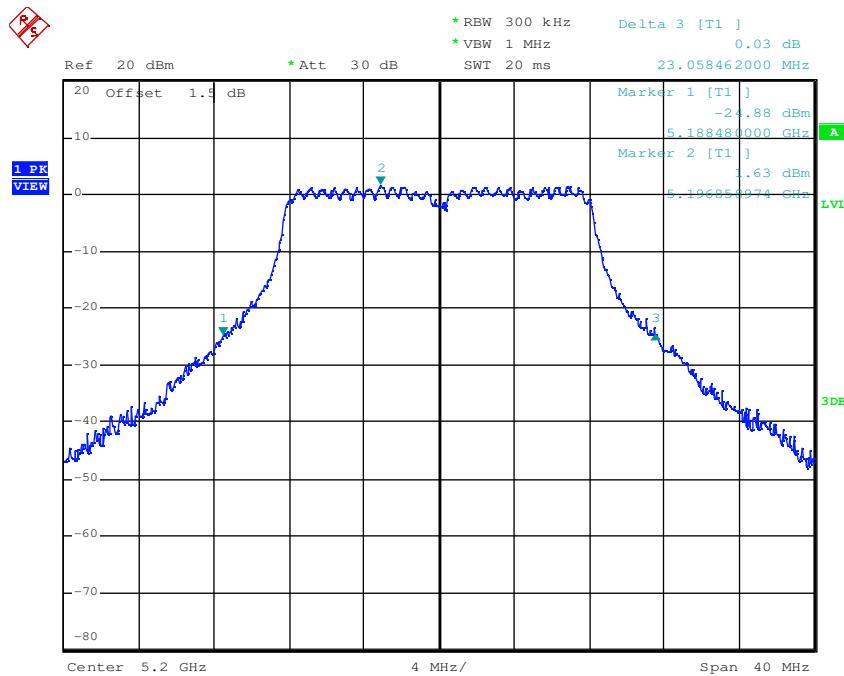
Test plot as follows:

WiFi Module 1:

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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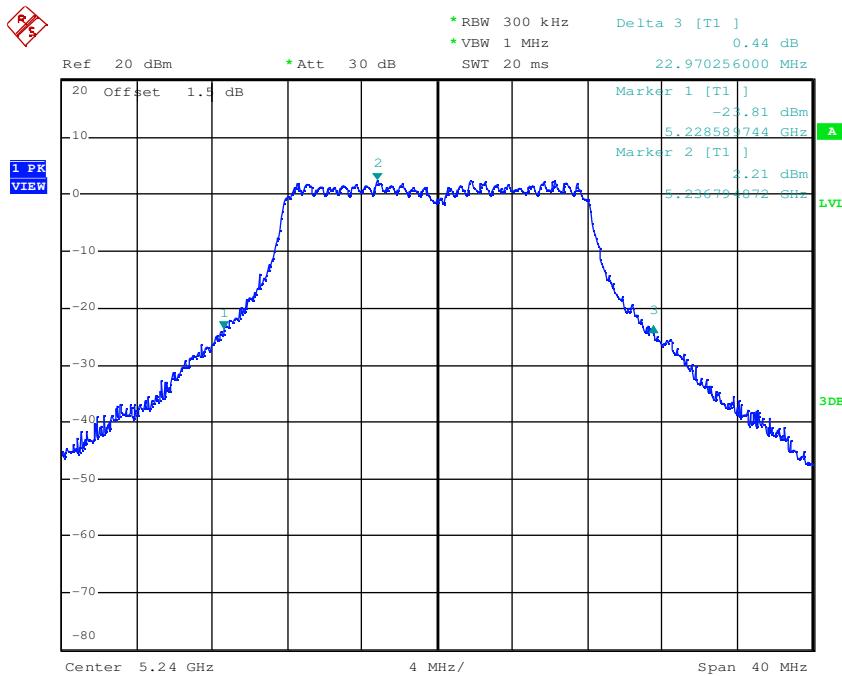


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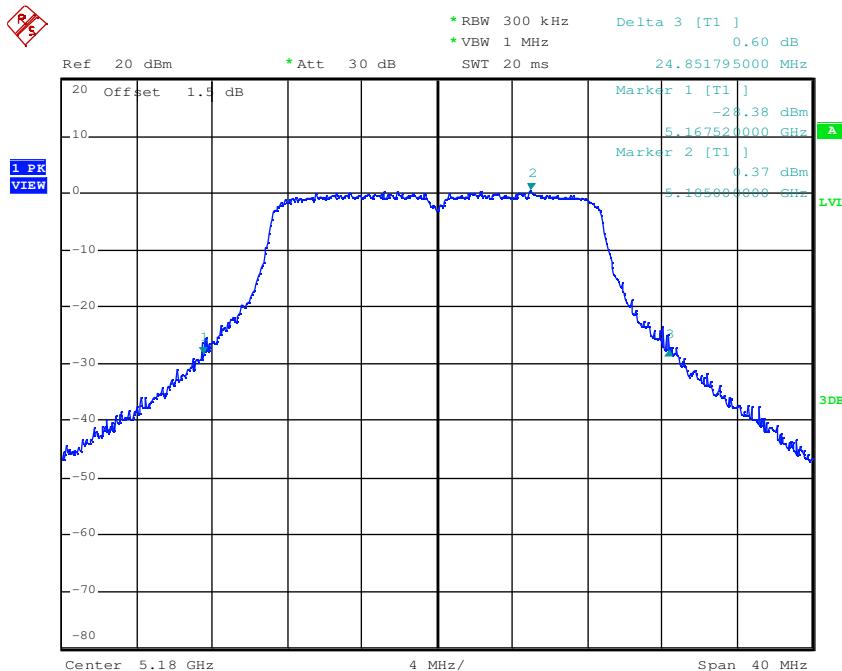


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11 n20	Frequency(MHz):	5180
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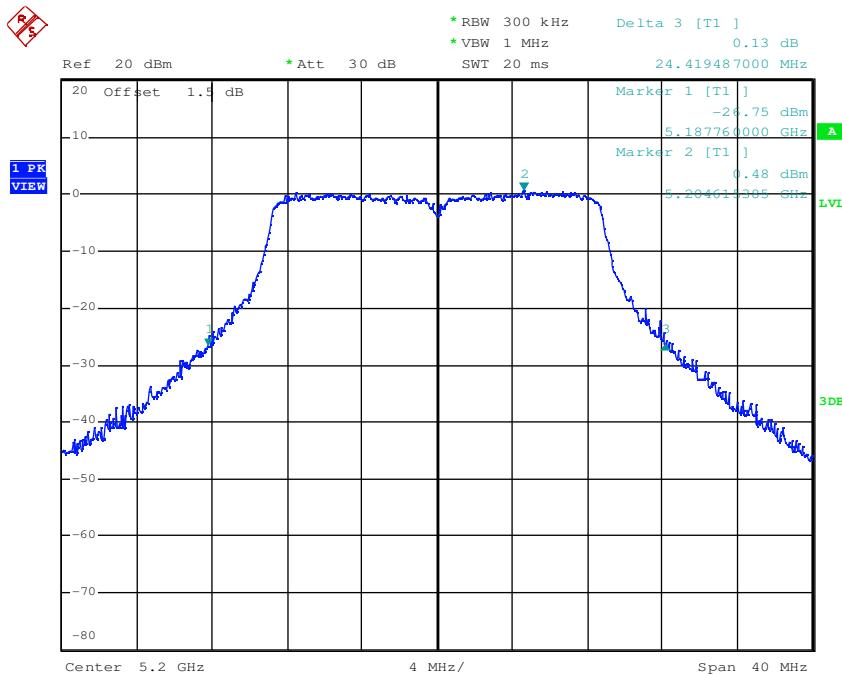


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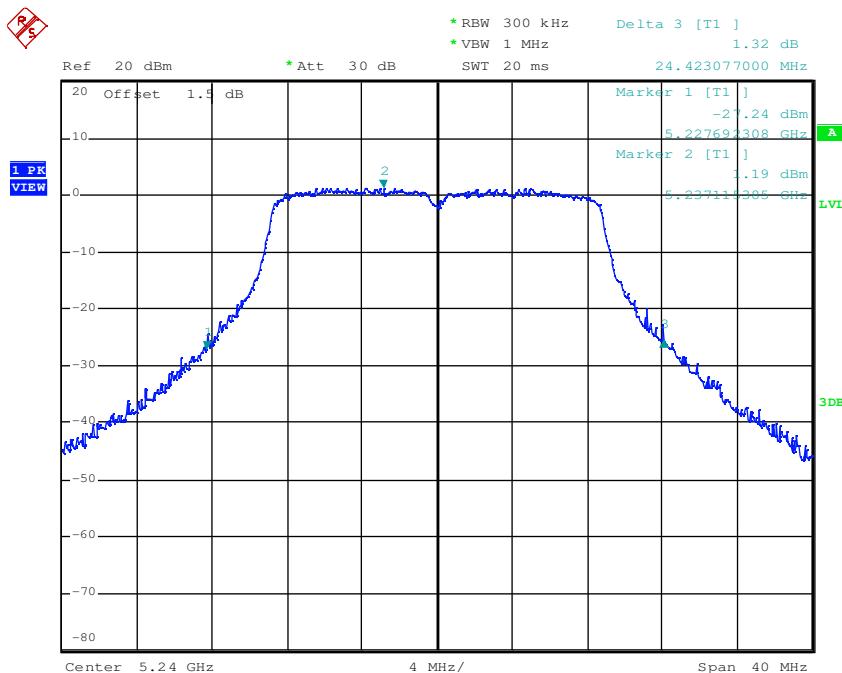


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Test mode:	802.11 n20	Frequency(MHz):	5200
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Test mode:	802.11 n20	Frequency(MHz):	5240
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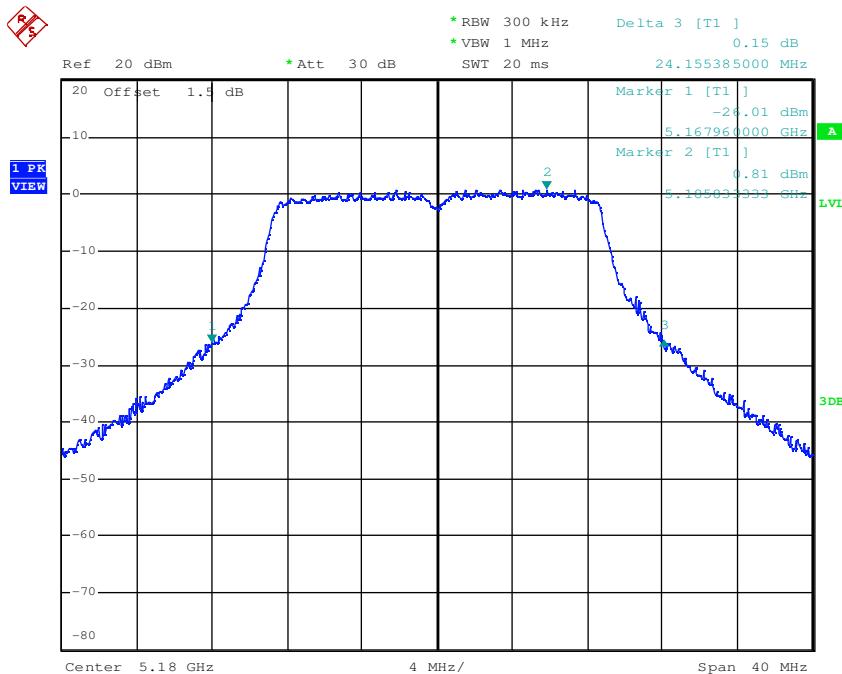


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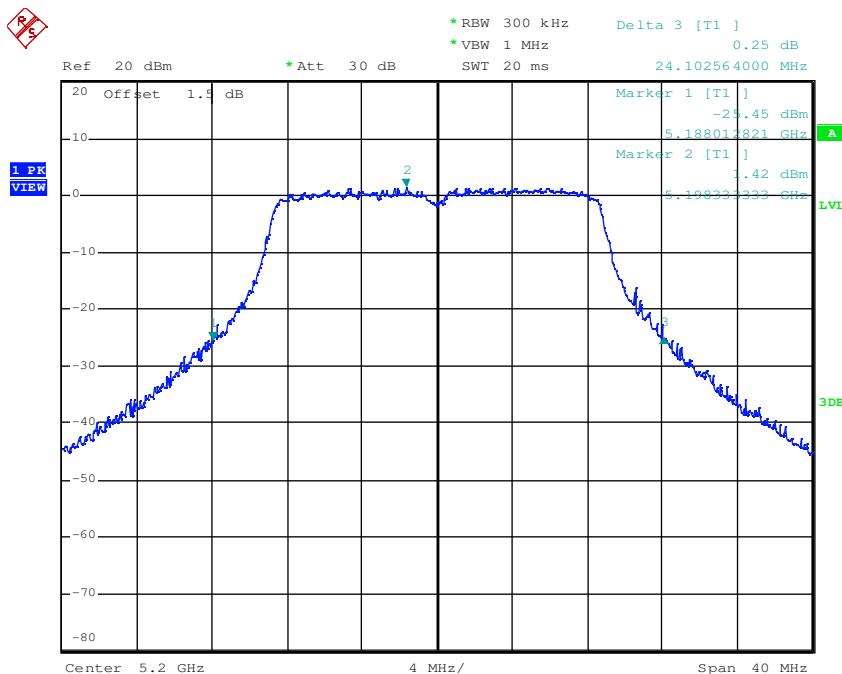


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Test mode:	802.11 ac20	Frequency(MHz):	5180
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Test mode:	802.11 ac20	Frequency(MHz):	5200
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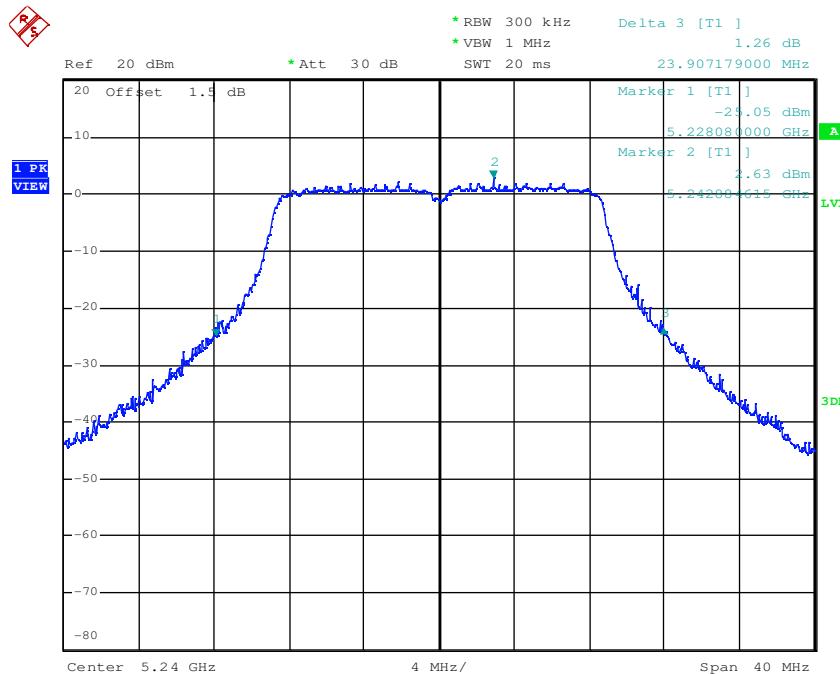


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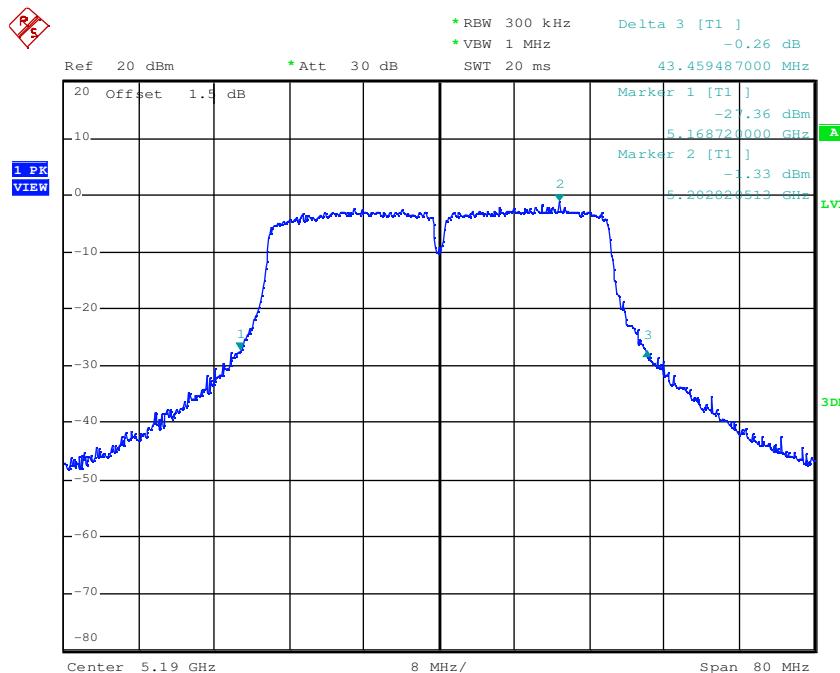


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Test mode:	802.11 ac20	Frequency(MHz):	5240
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Test mode:	802.11 n40	Frequency(MHz):	5190
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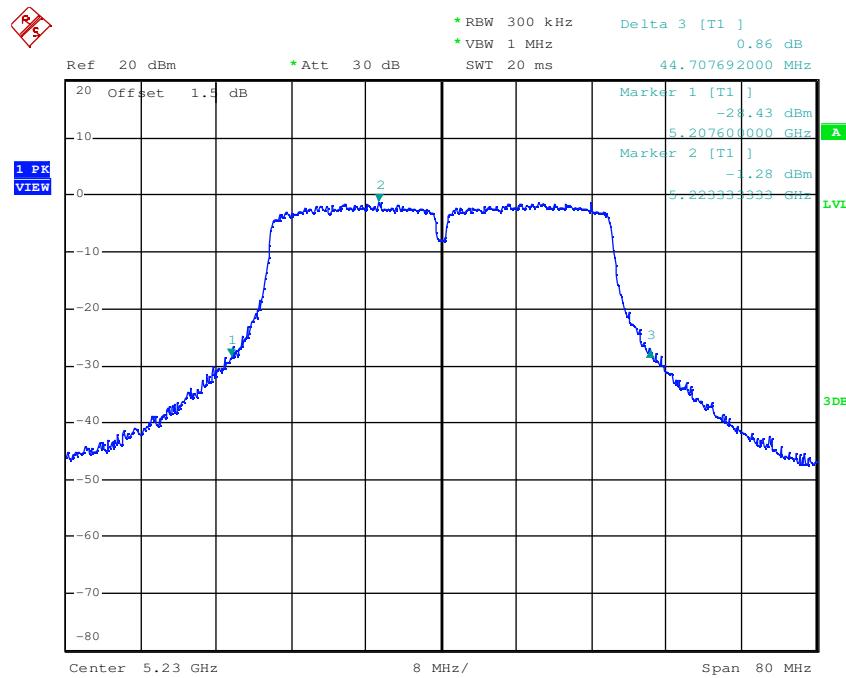


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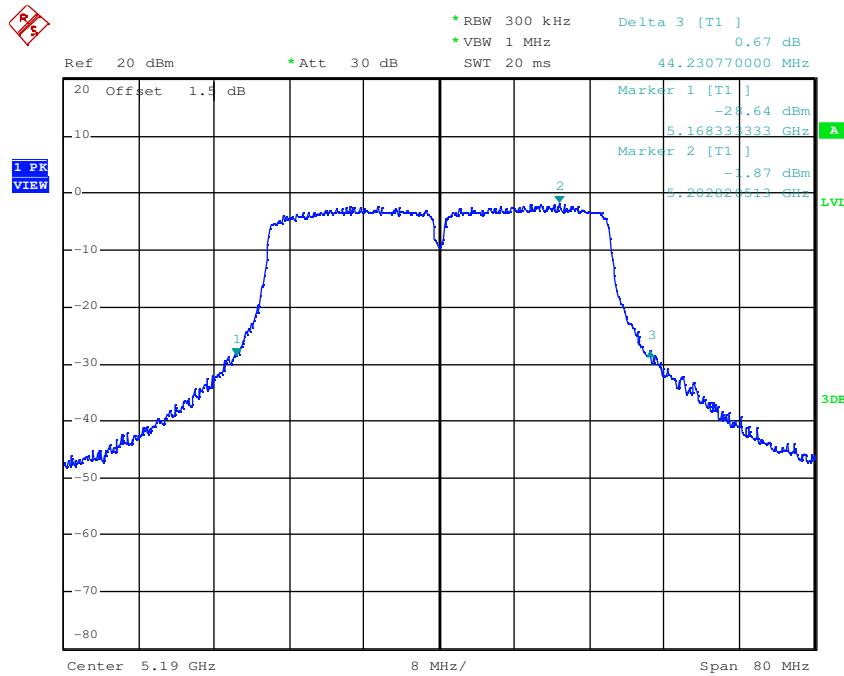


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Test mode:	802.11 n40	Frequency(MHz):	5230
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Test mode:	802.11 ac40	Frequency(MHz):	5190
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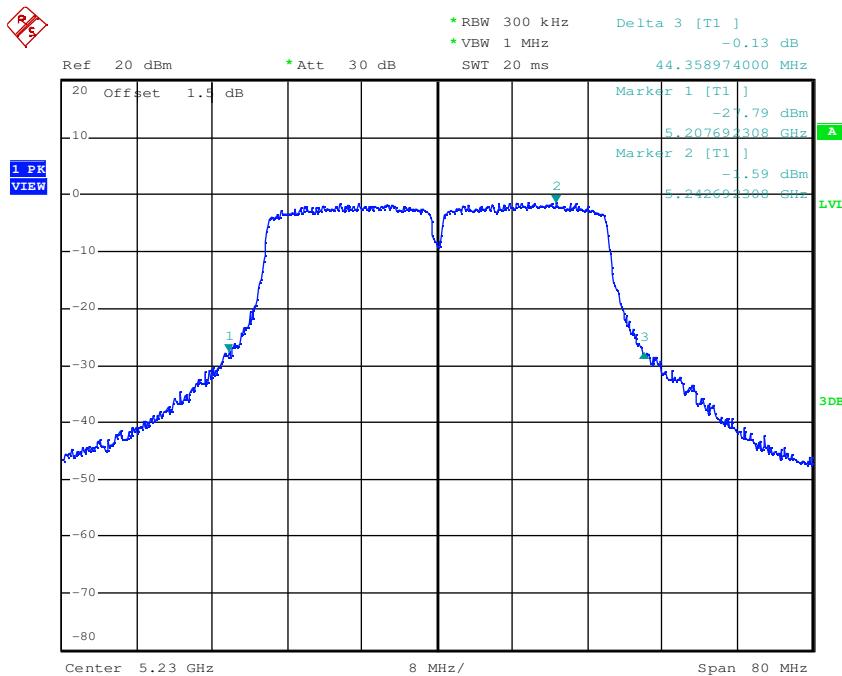


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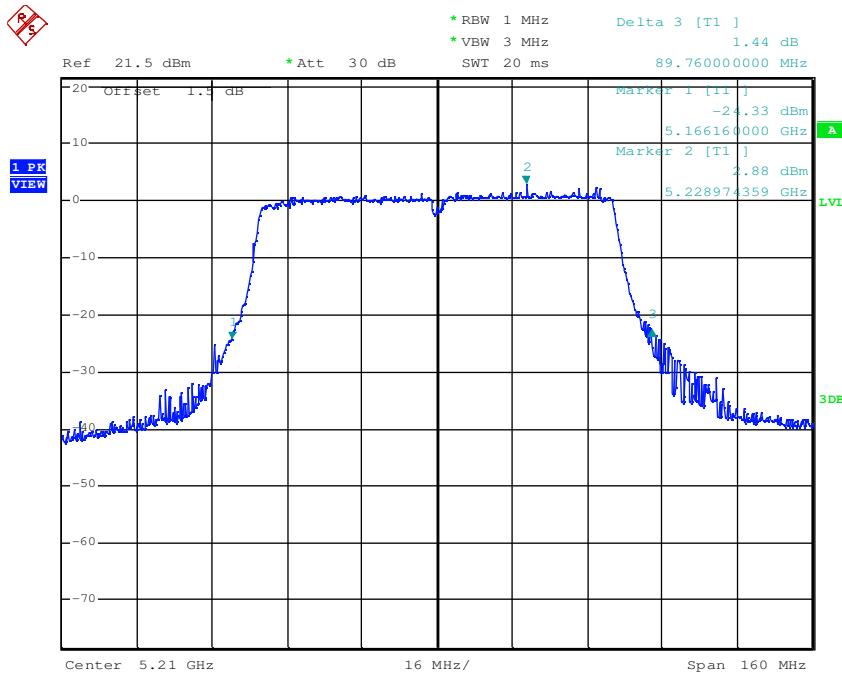


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Test mode:	802.11 ac40	Frequency(MHz):	5230
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Test mode:	802.11 ac80	Frequency(MHz):	5210
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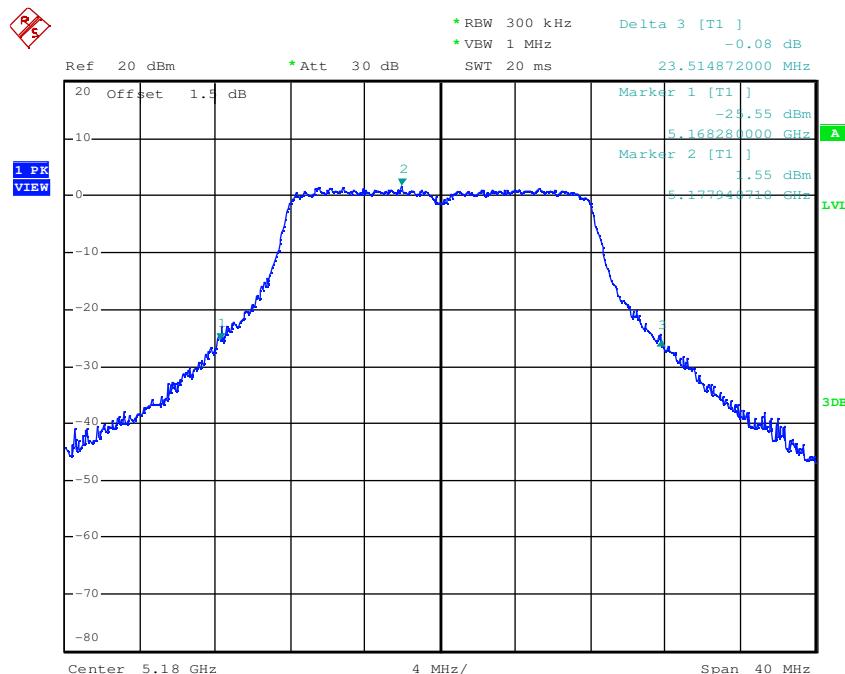
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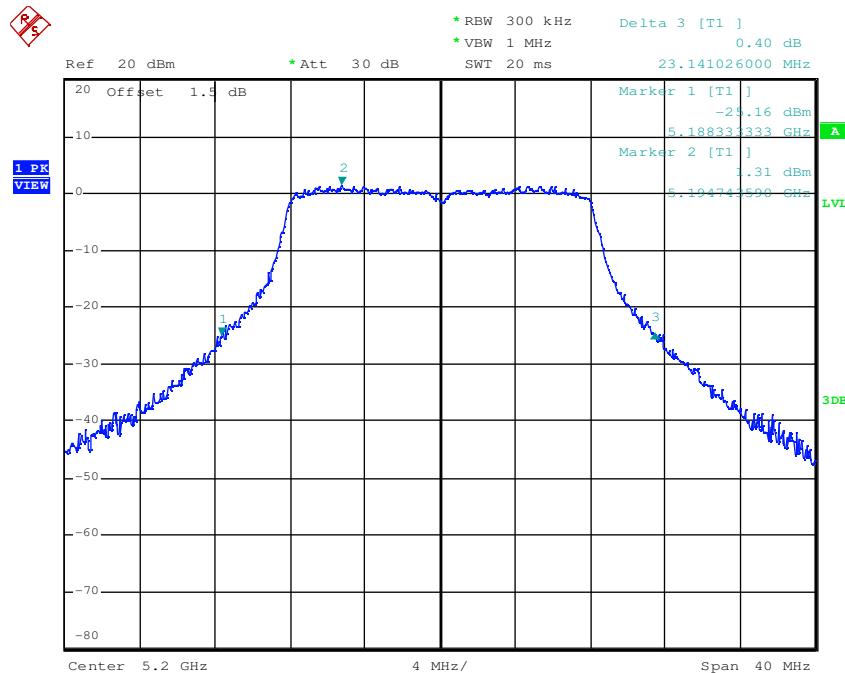
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**WiFi Module 2:**

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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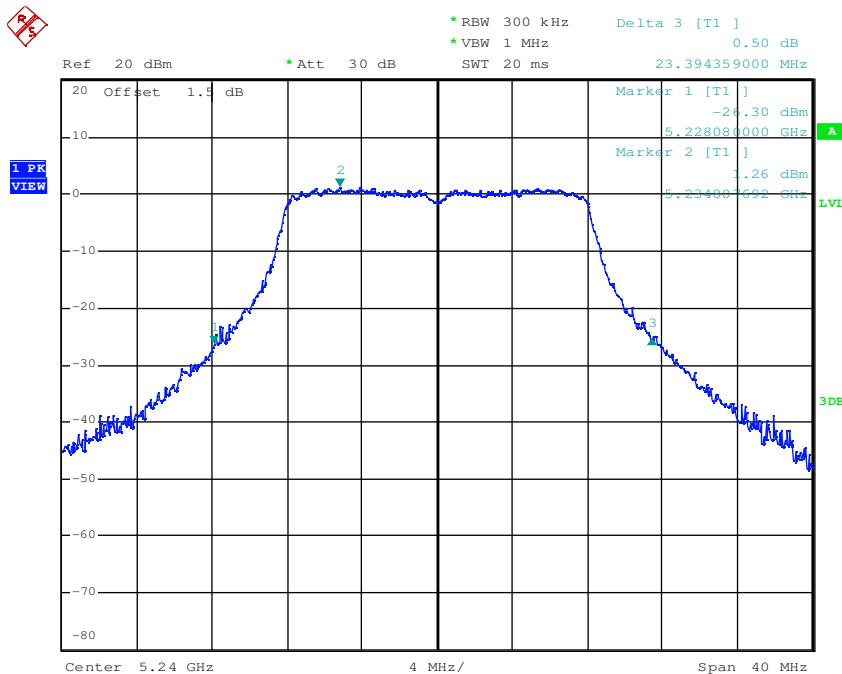


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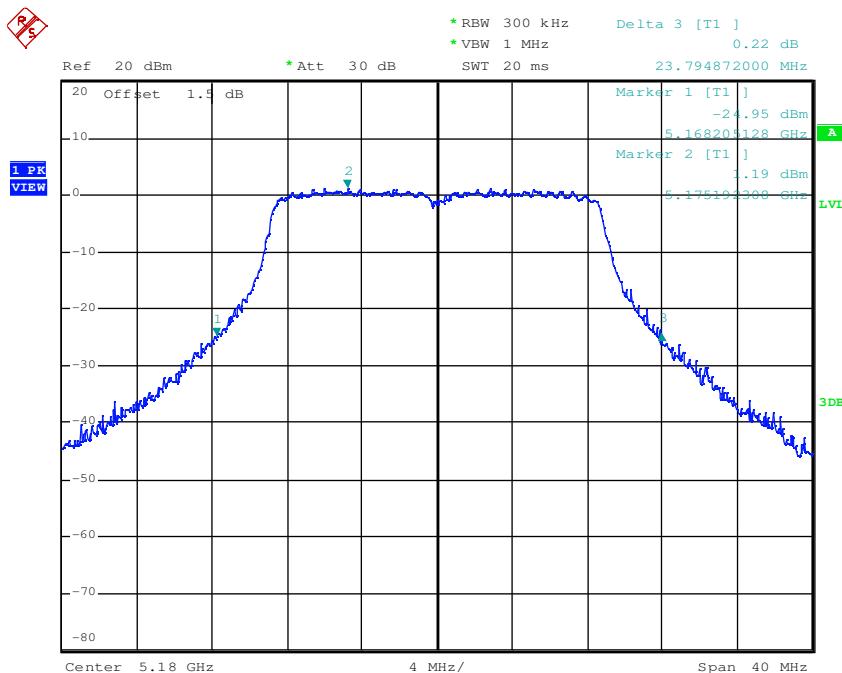


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11 n20	Frequency(MHz):	5180
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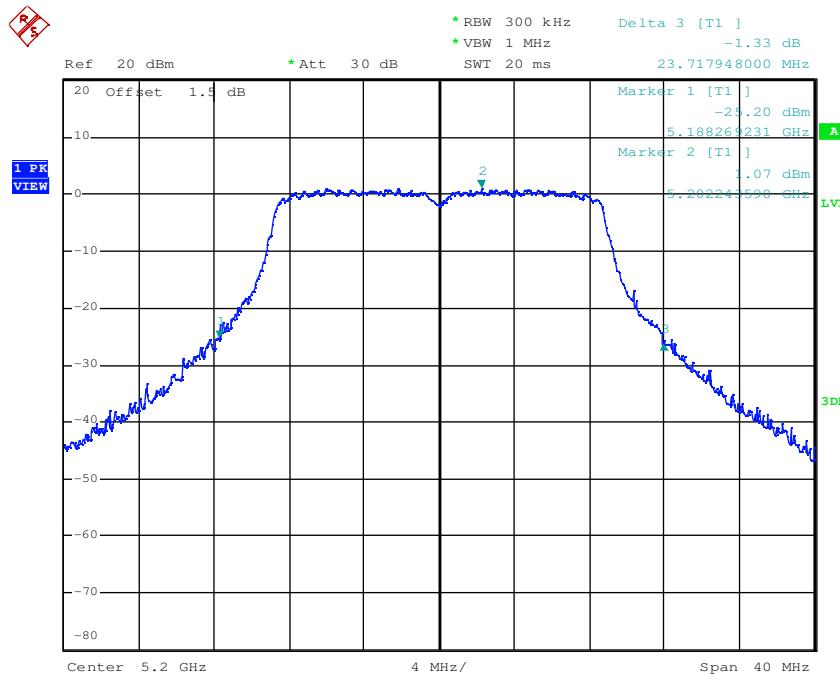


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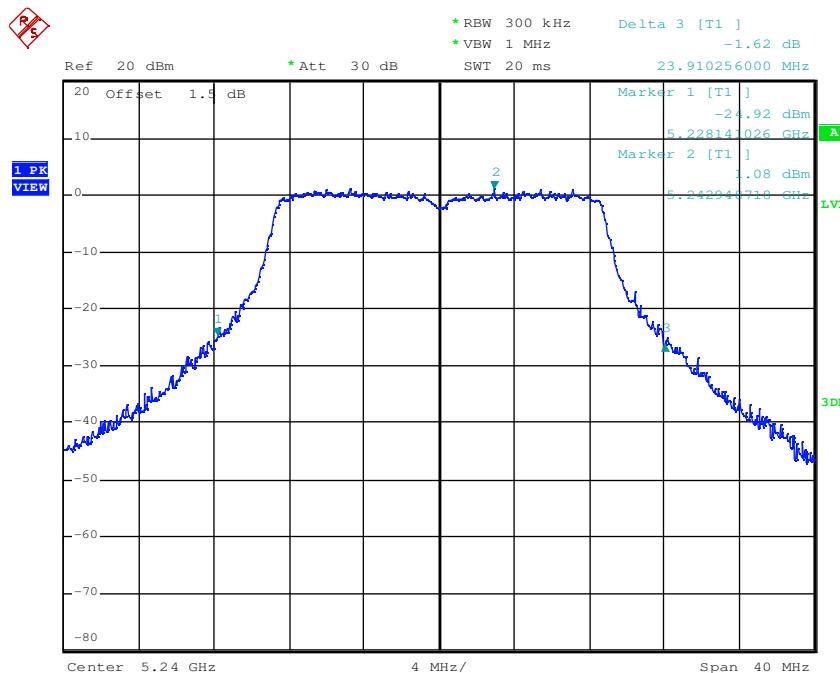


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Test mode:	802.11 n20	Frequency(MHz):	5200
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Test mode:	802.11 n20	Frequency(MHz):	5240
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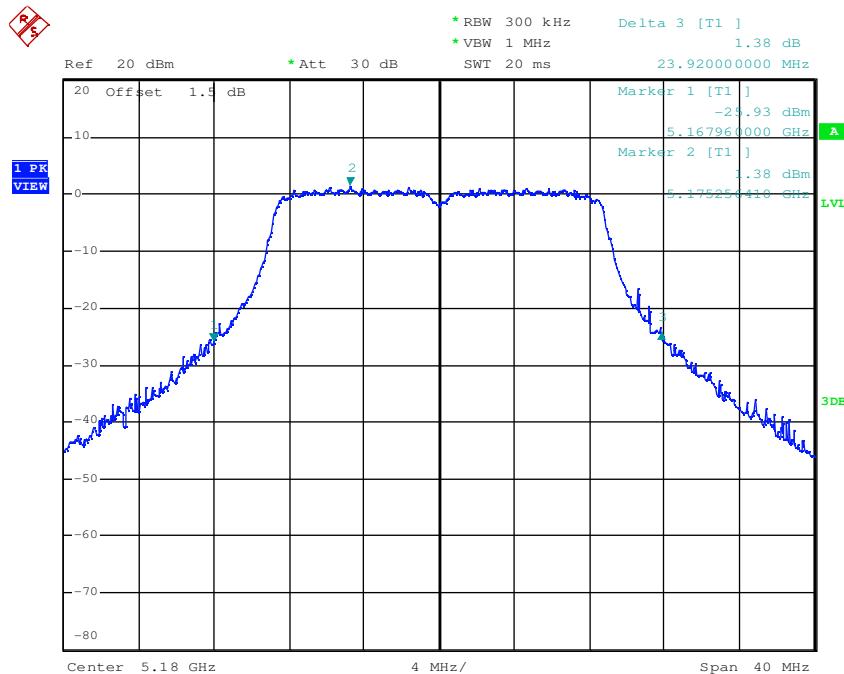


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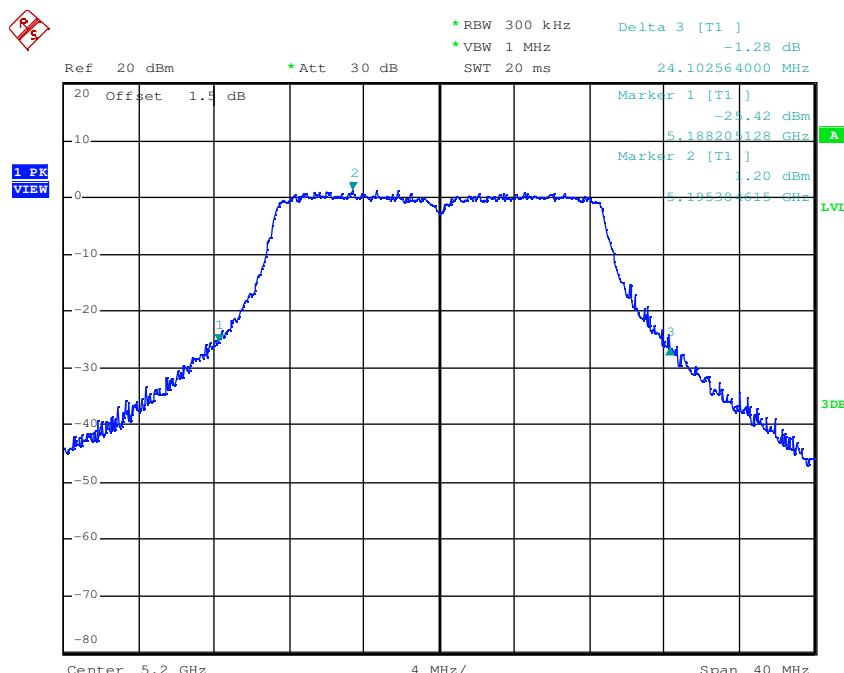


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Test mode:	802.11 ac20	Frequency(MHz):	5180
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Test mode:	802.11 ac20	Frequency(MHz):	5200
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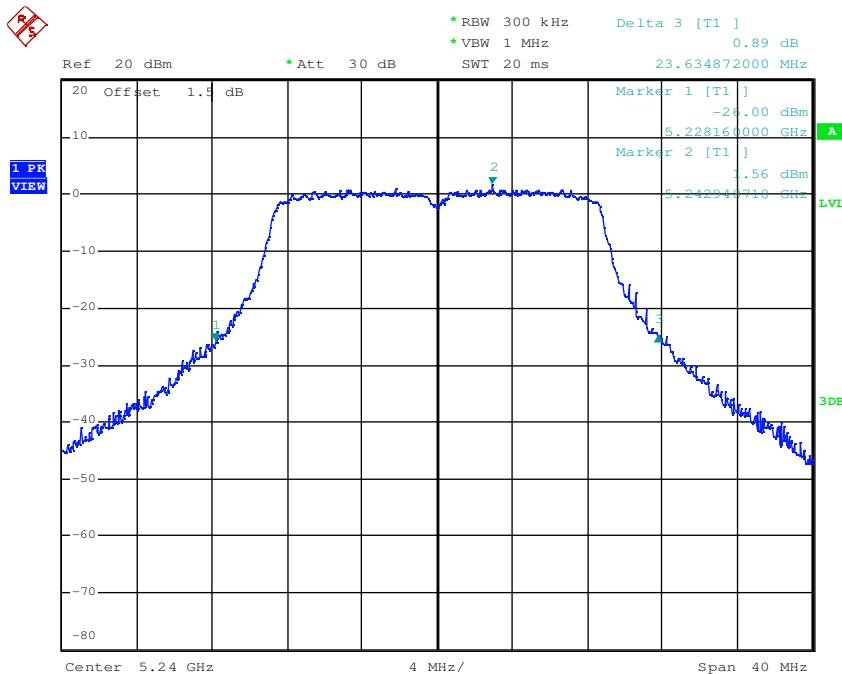


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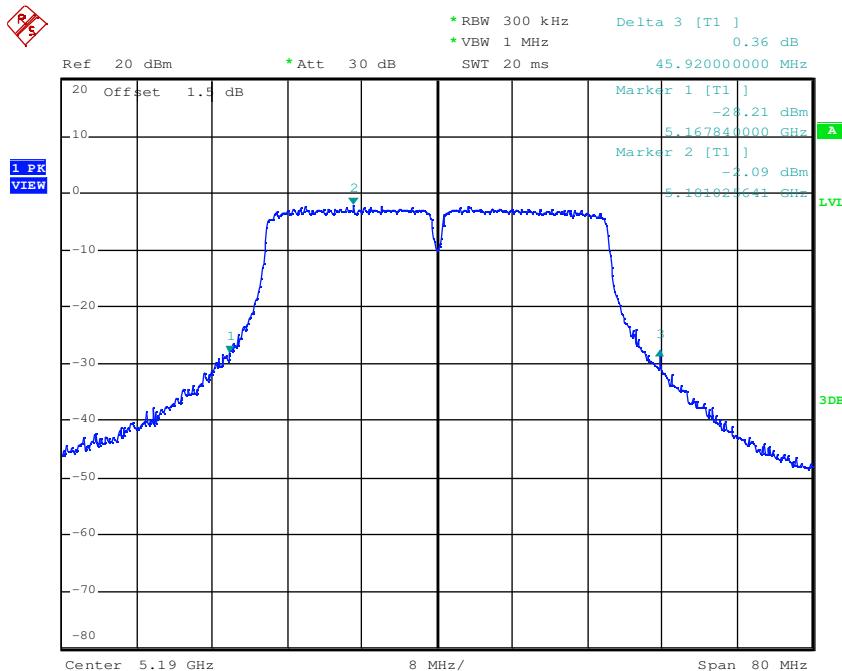


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Test mode:	802.11 ac20	Frequency(MHz):	5240
------------	-------------	-----------------	------



Test mode:	802.11 n40	Frequency(MHz):	5190
------------	------------	-----------------	------

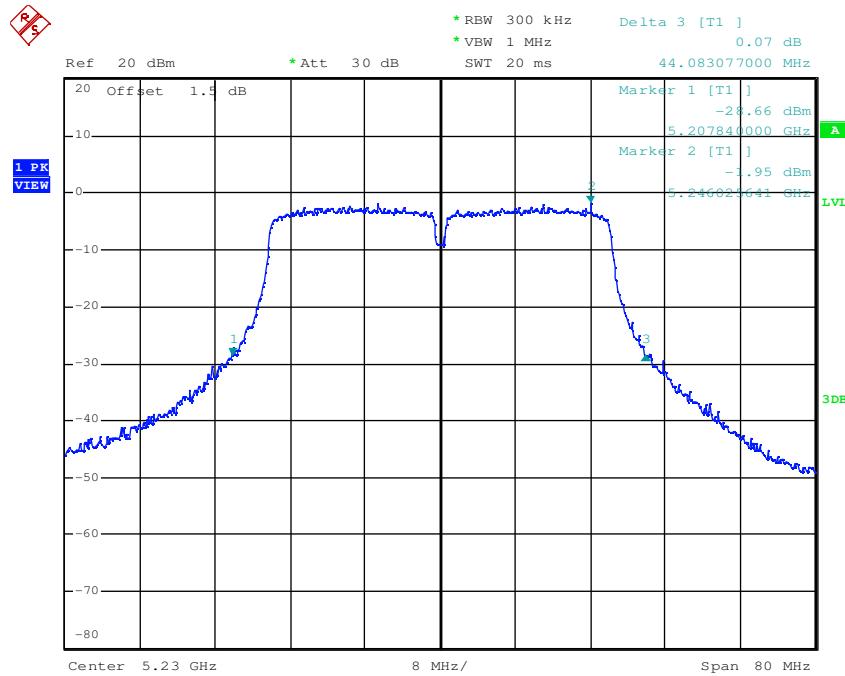


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

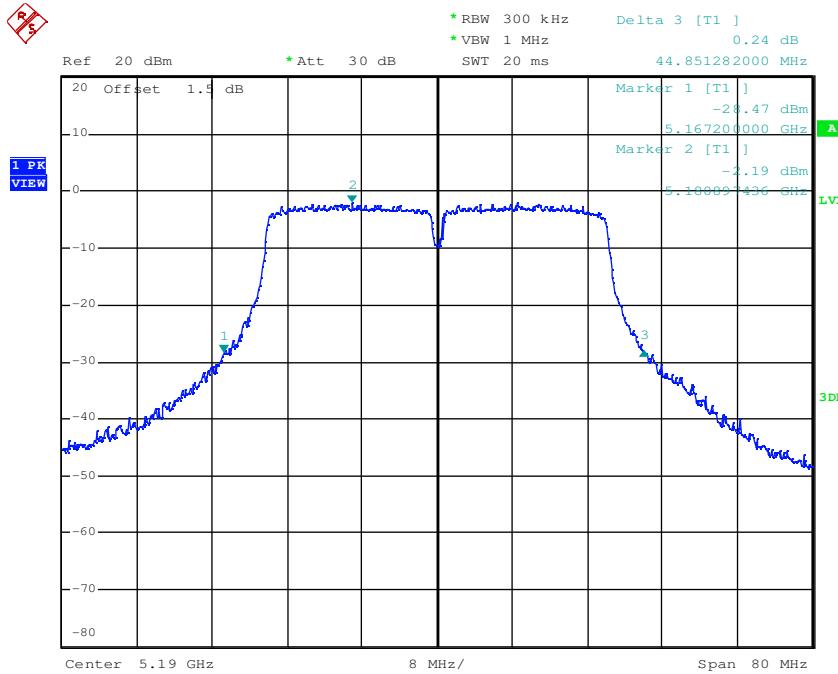


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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5190
------------	-------------	-----------------	------

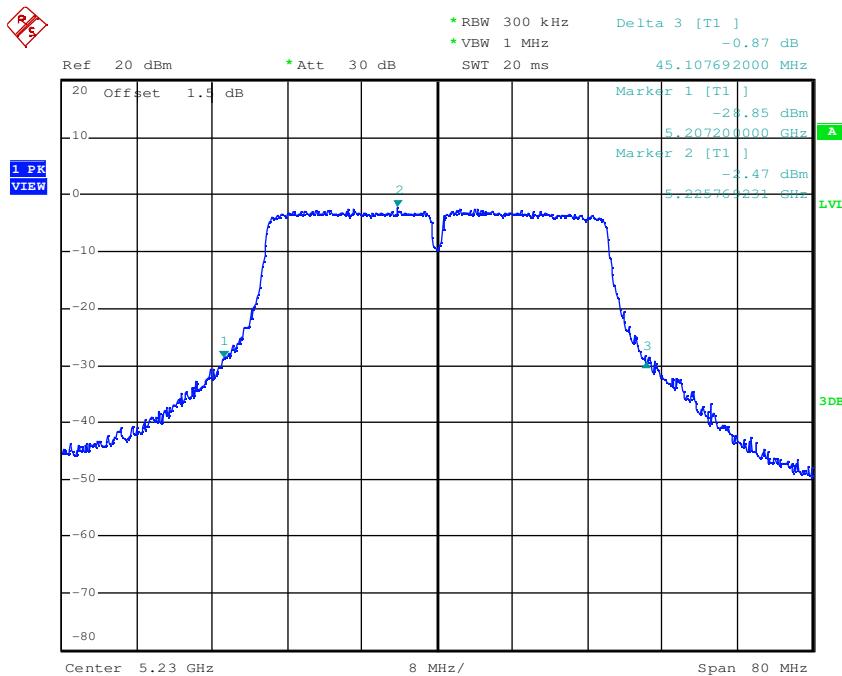


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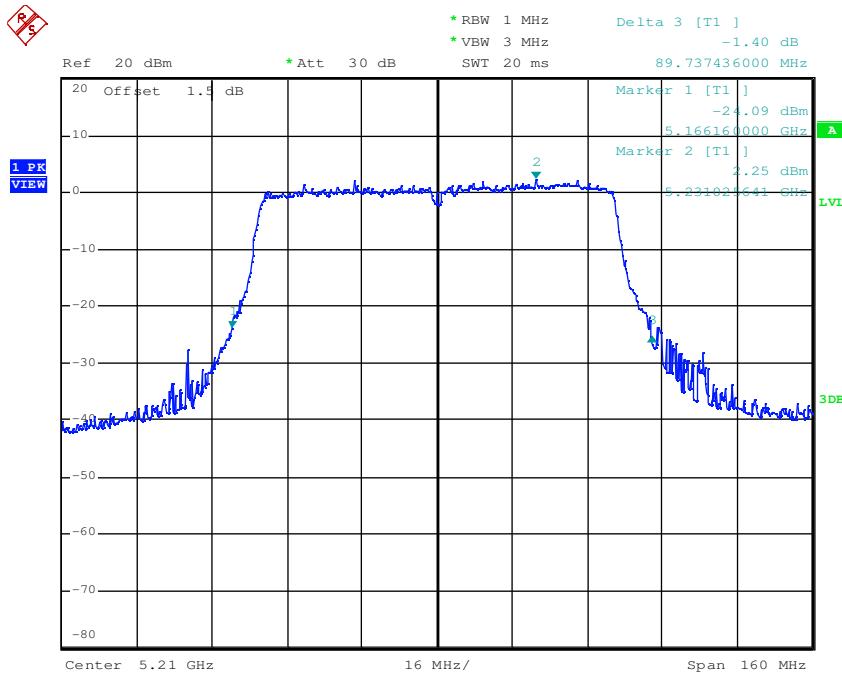


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Test mode:	802.11 ac40	Frequency(MHz):	5230
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Test mode:	802.11 ac80	Frequency(MHz):	5210
------------	-------------	-----------------	------



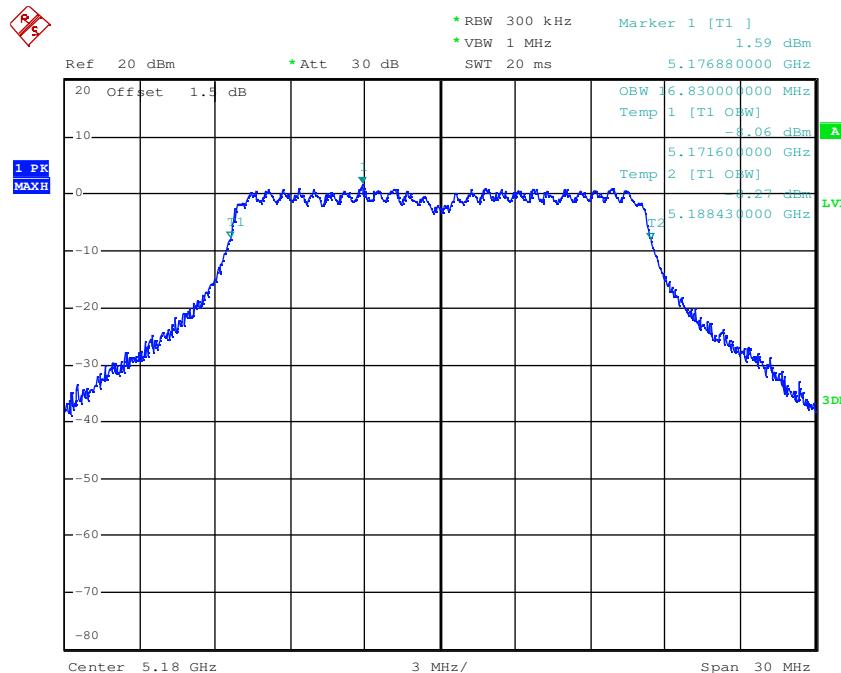


**99% occupied bandwidth**

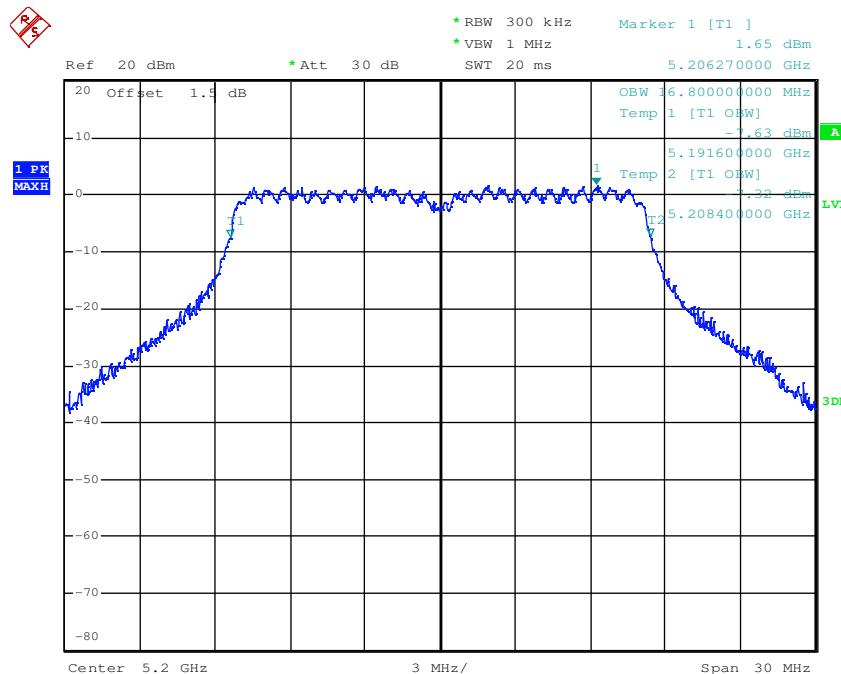
**Test plot as follows:**

**WiFi module 1:**

Test mode:	802.11a	Frequency(MHz):	5180
------------	---------	-----------------	------



Test mode:	802.11a	Frequency(MHz):	5200
------------	---------	-----------------	------

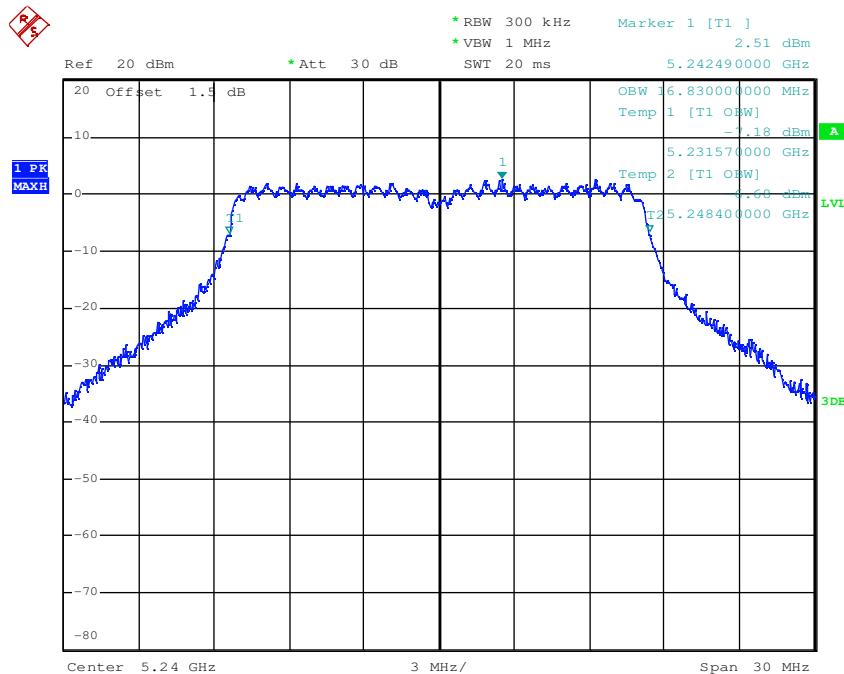


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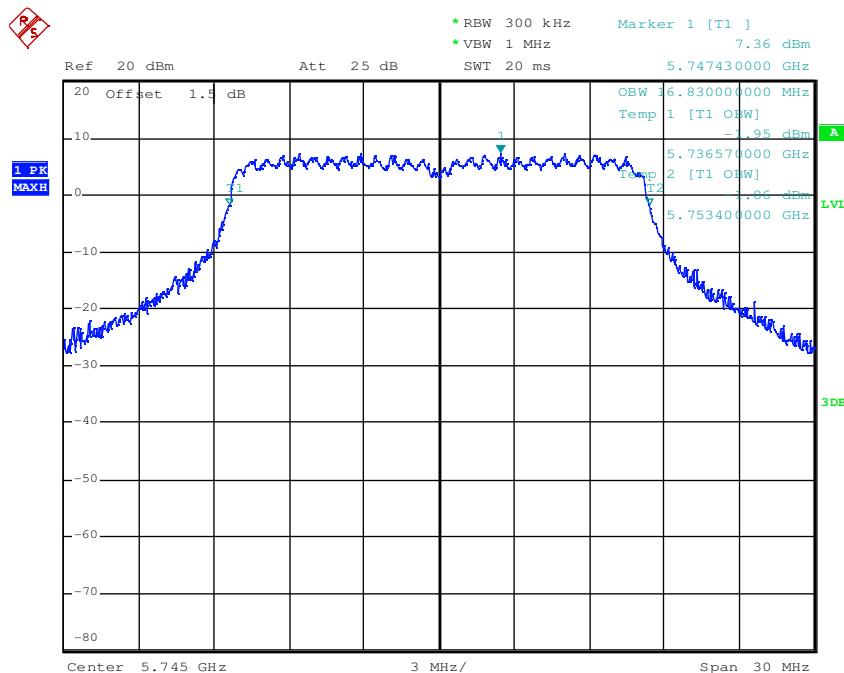


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5745
------------	---------	-----------------	------

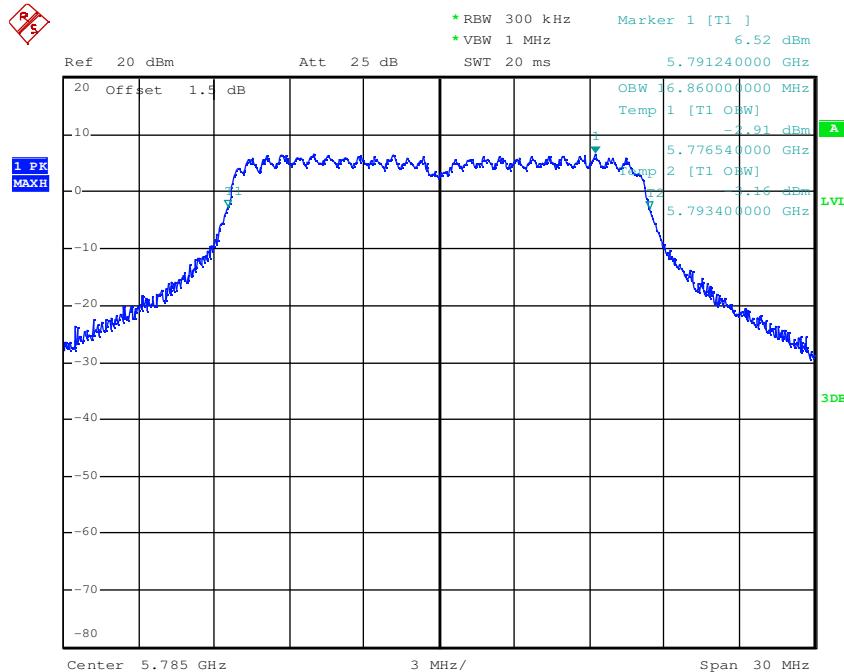


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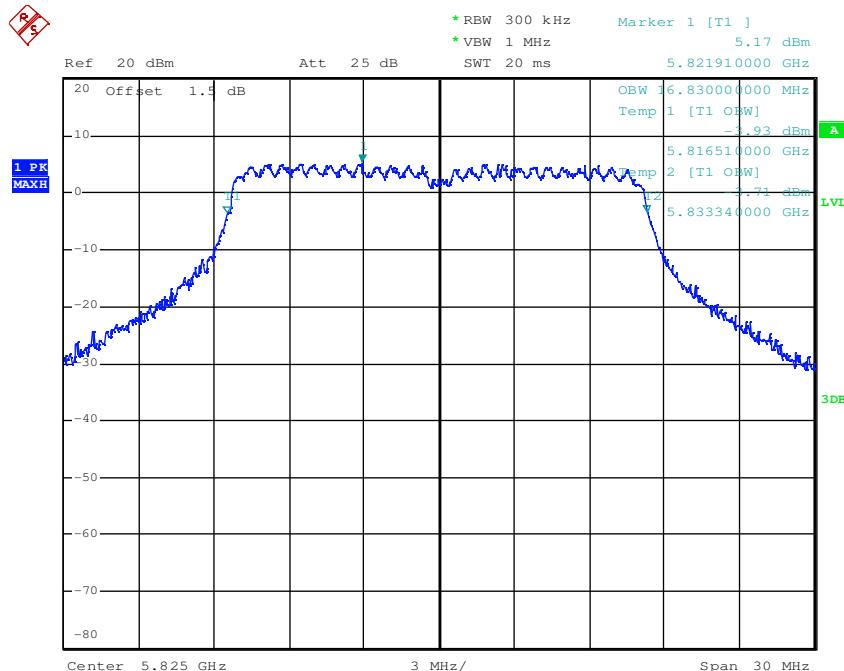


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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
------------	---------	-----------------	------

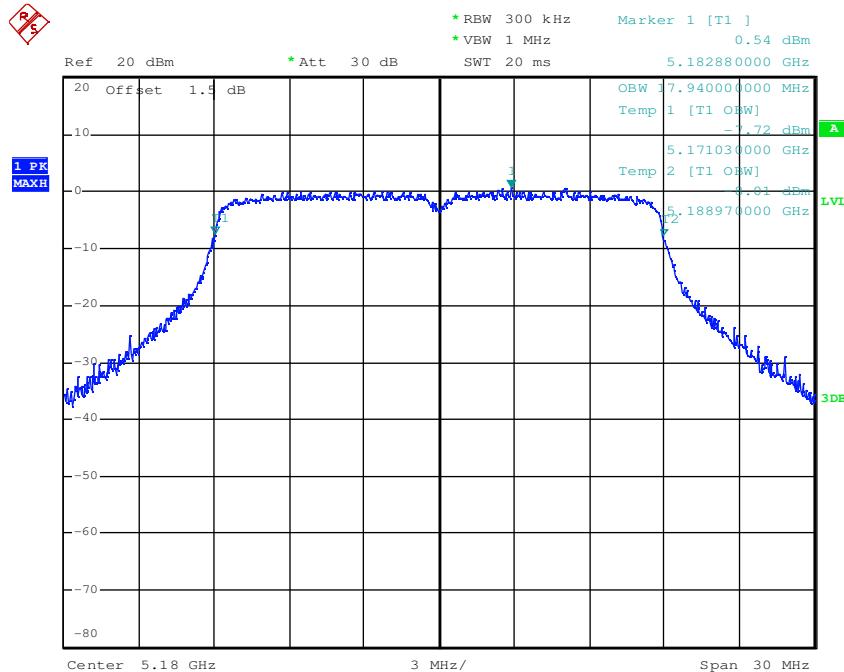


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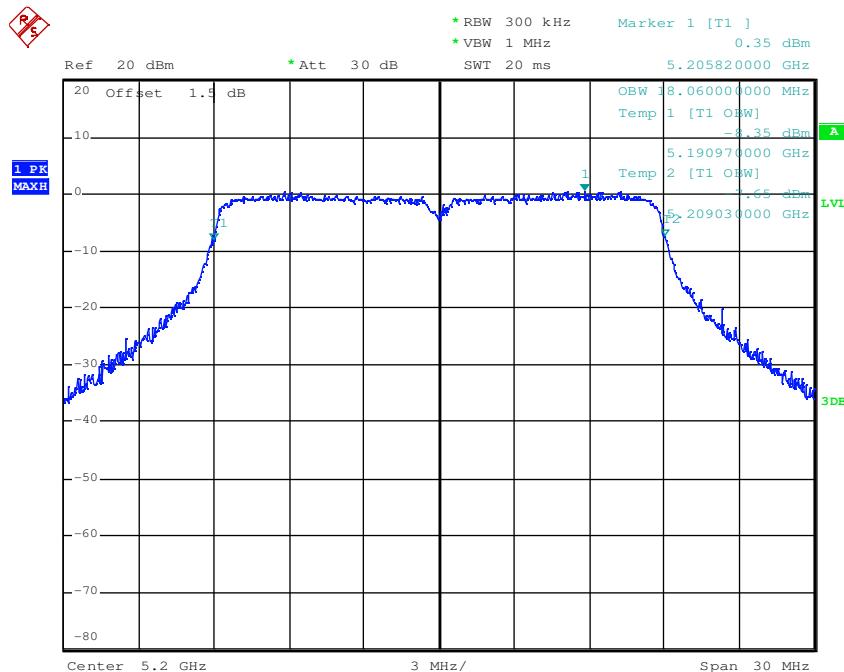


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Test mode:	802.11 n20	Frequency(MHz):	5180
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

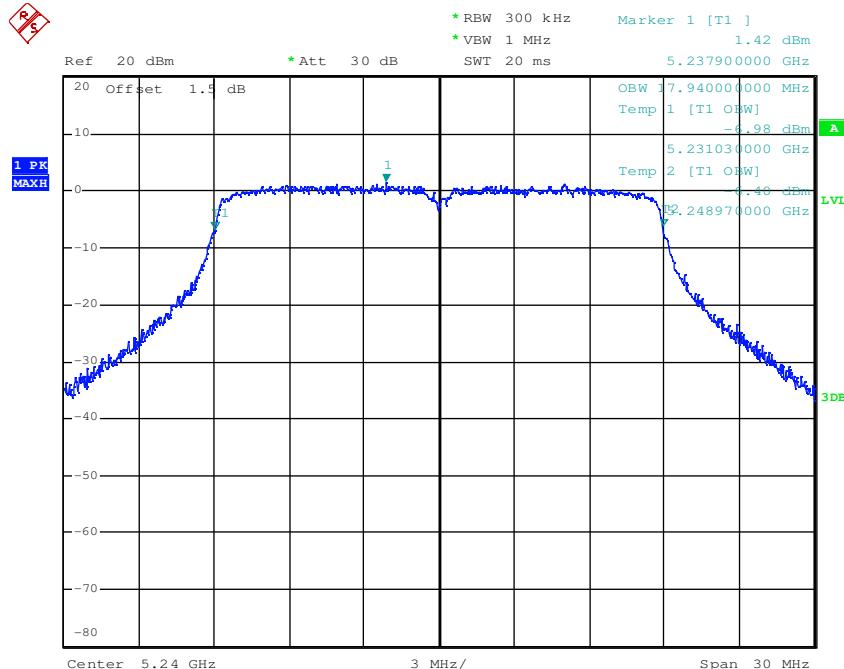


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

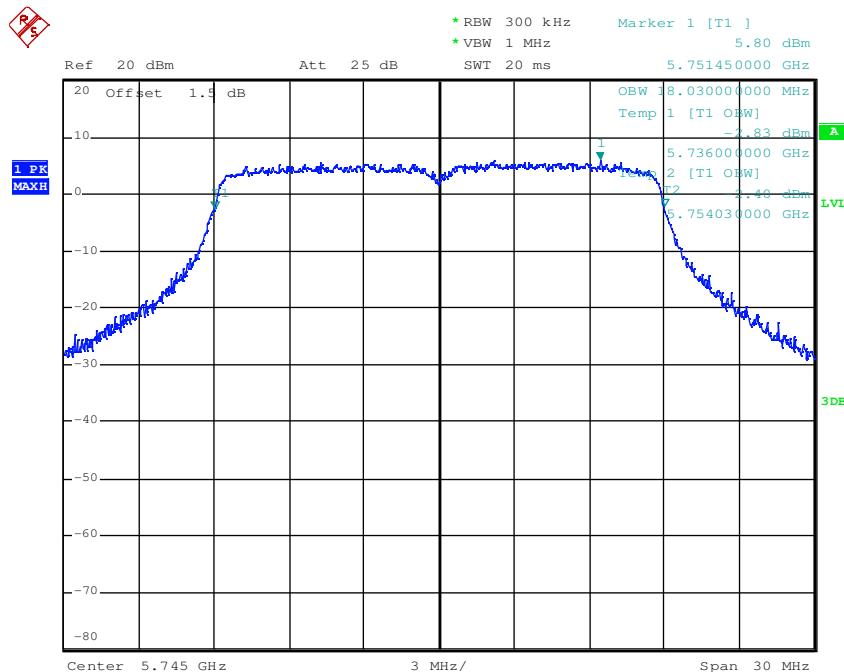


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Test mode:	802.11 n20	Frequency(MHz):	5240
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Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

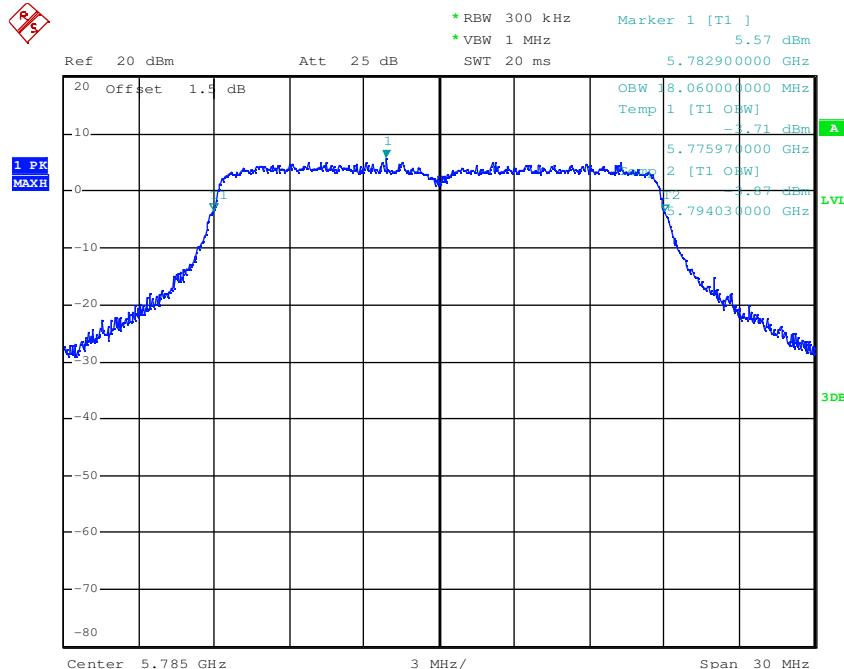


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**Shenzhen Branch**

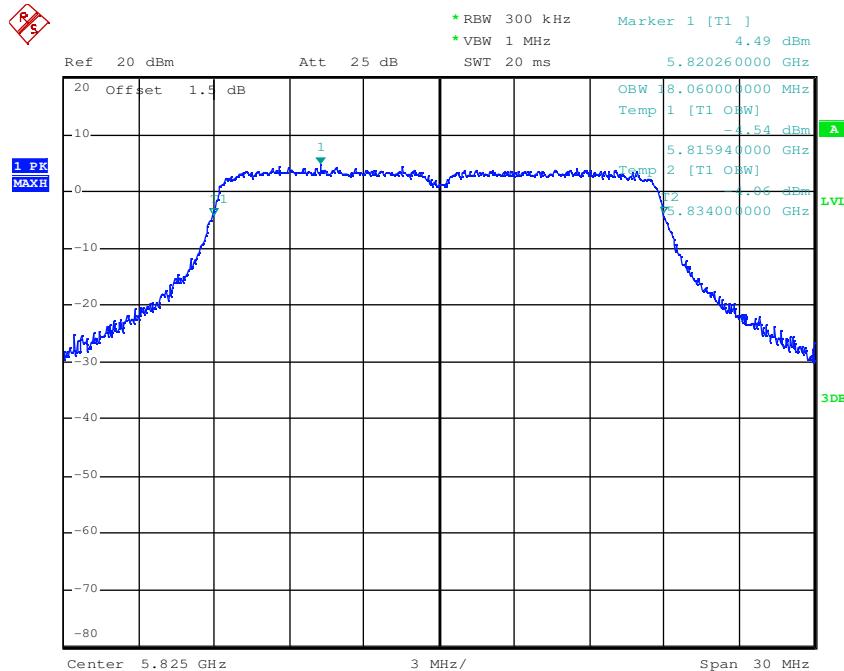


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Test mode:	802.11 n20	Frequency(MHz):	5785
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

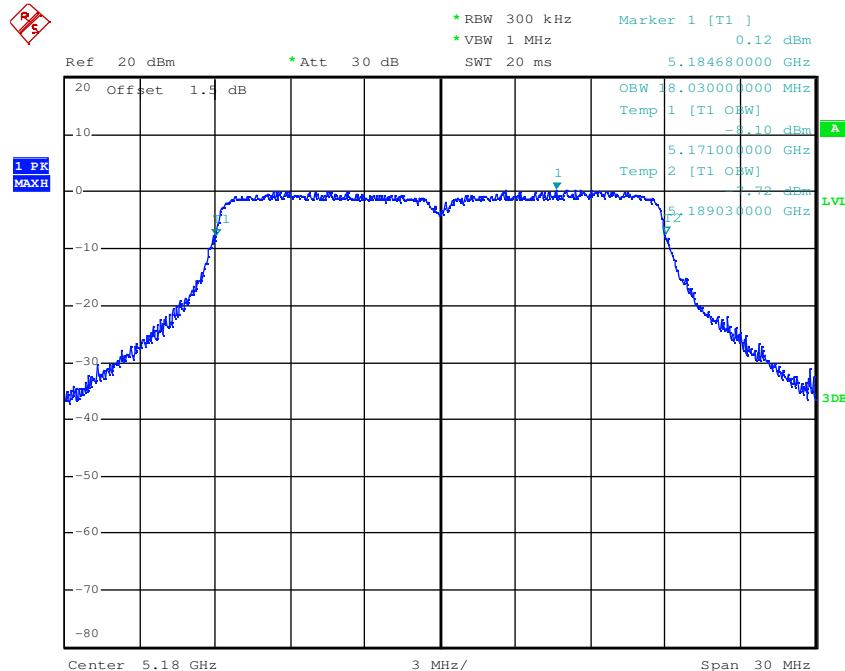


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

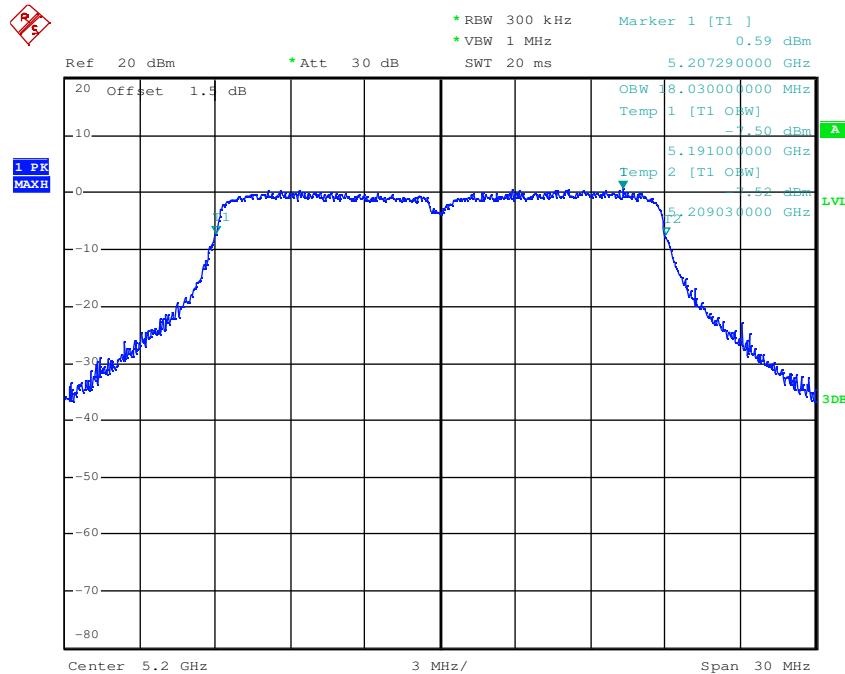


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Test mode:	802.11 ac20	Frequency(MHz):	5180
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

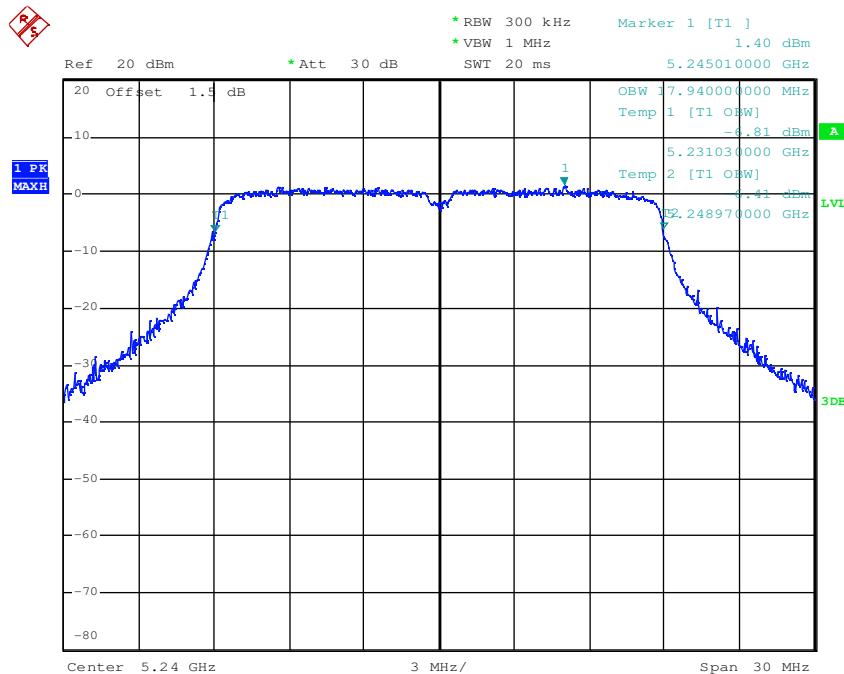


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

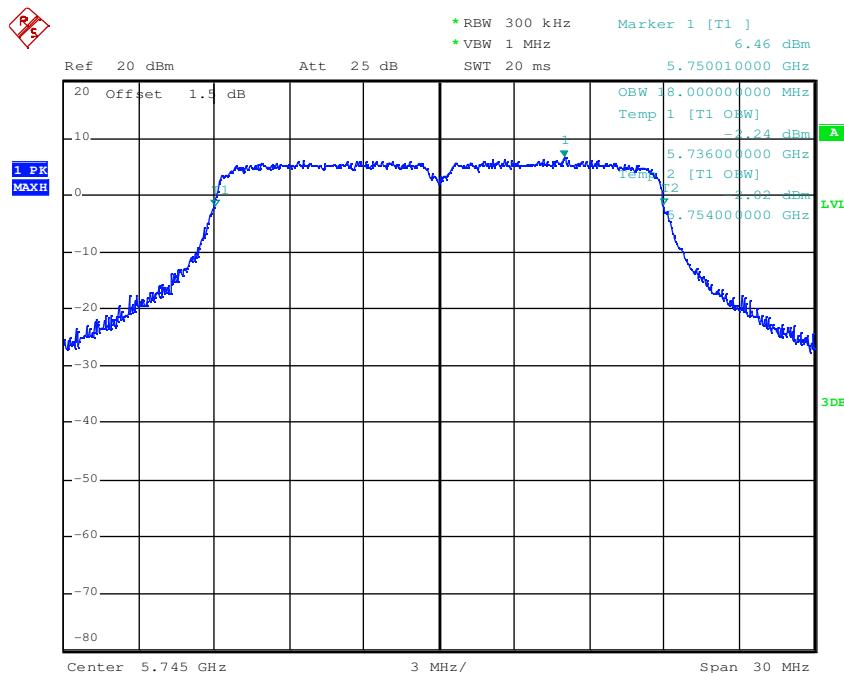


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Test mode:	802.11 ac20	Frequency(MHz):	5240
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

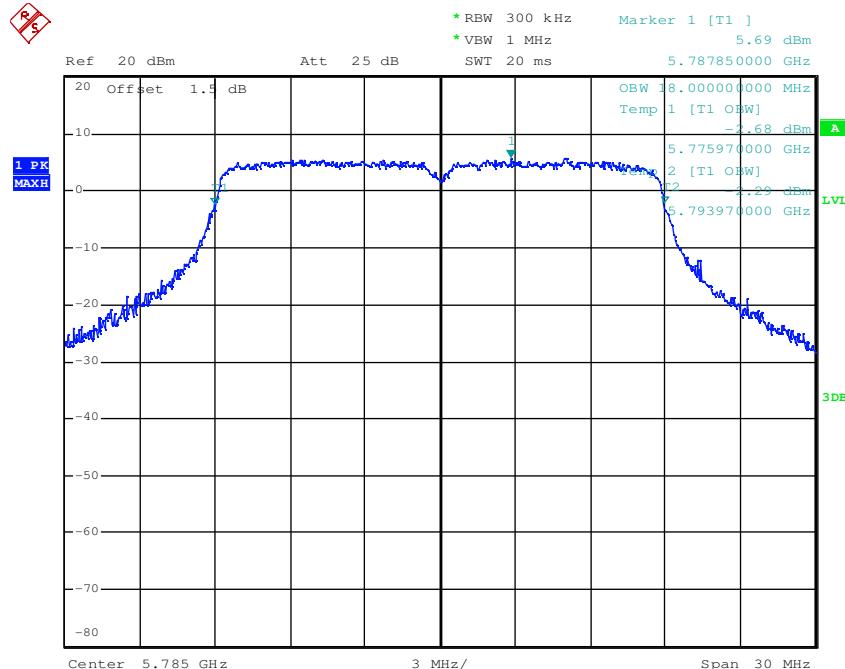


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

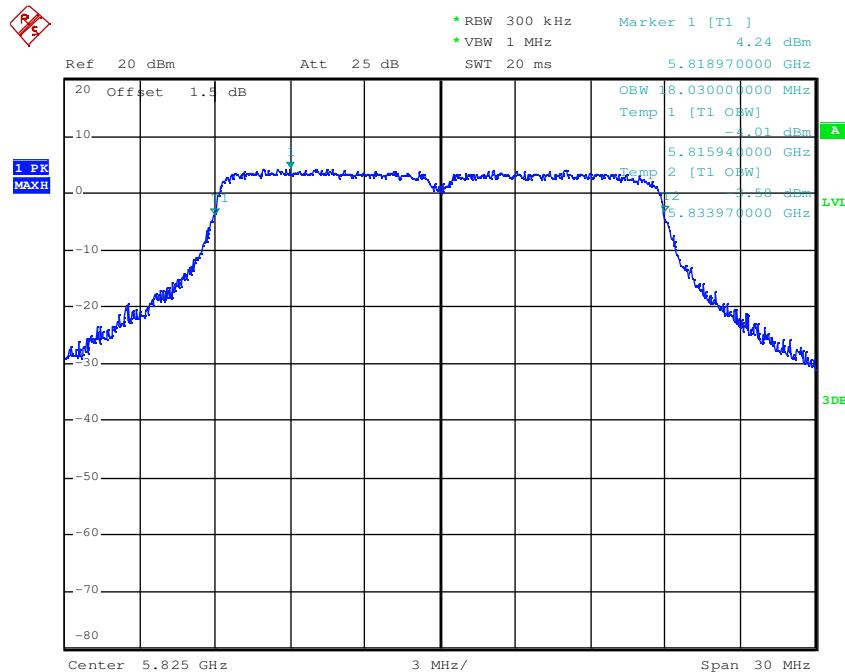


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Test mode:	802.11 ac20	Frequency(MHz):	5785
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

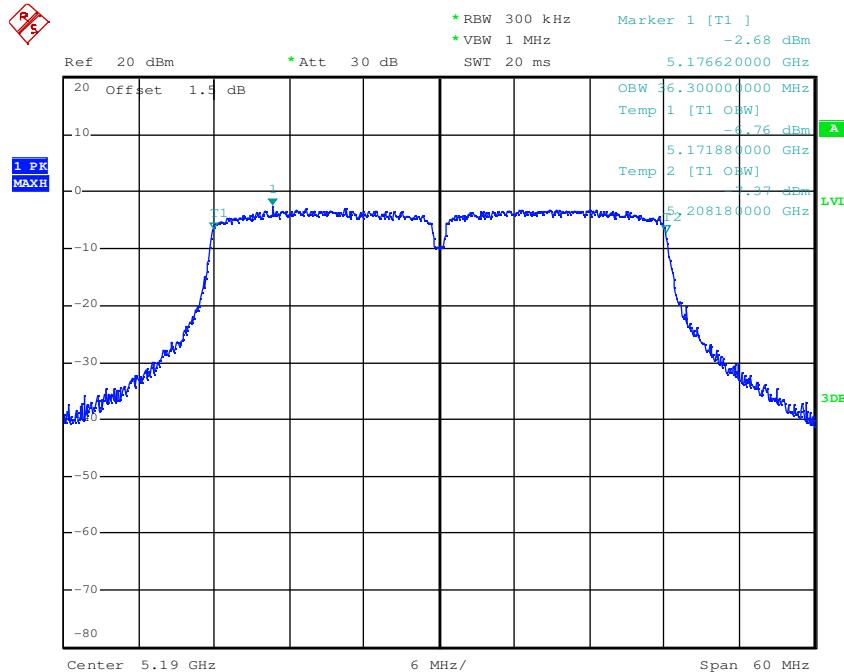


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**Shenzhen Branch**

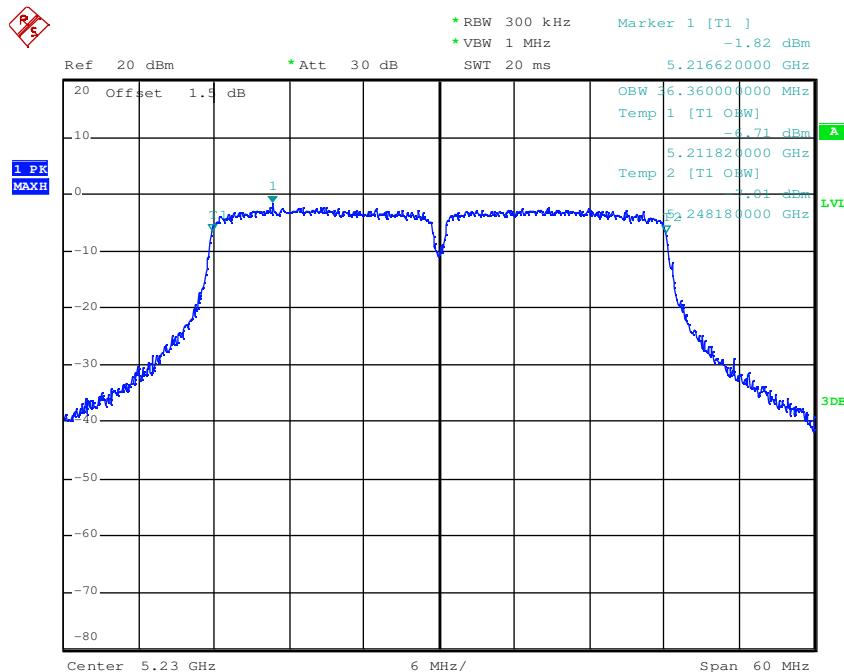


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

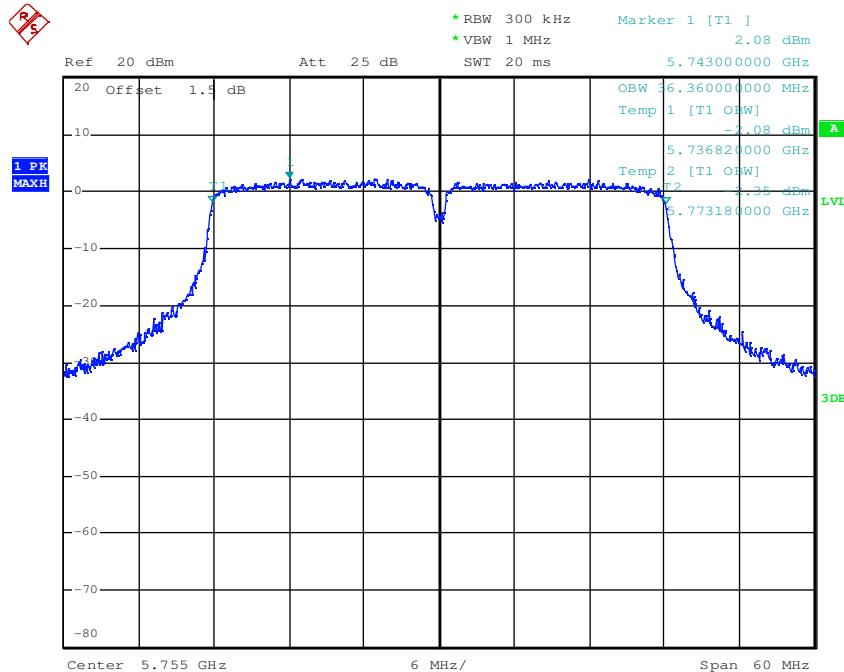


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**Shenzhen Branch**

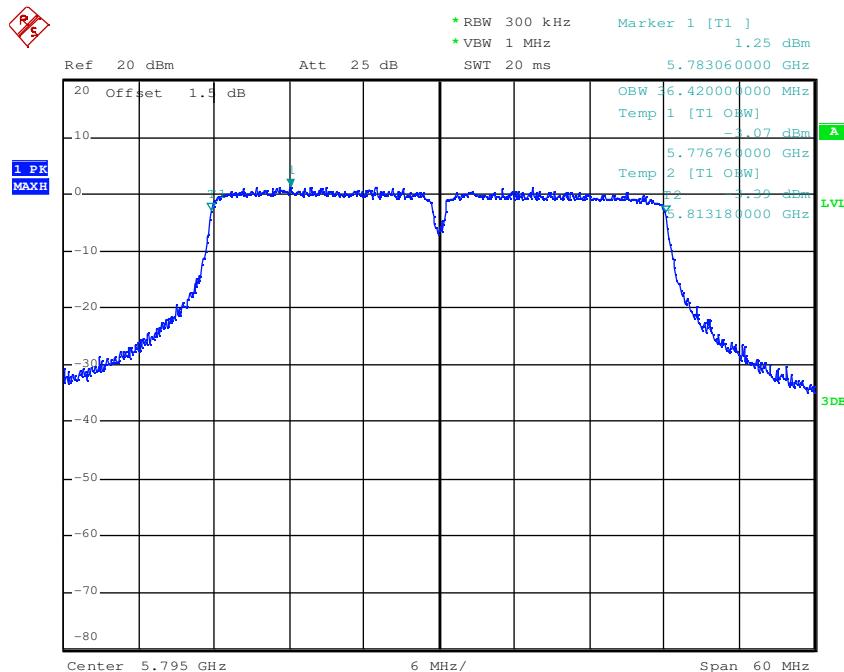


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Test mode:	802.11 n40	Frequency(MHz):	5755
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Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

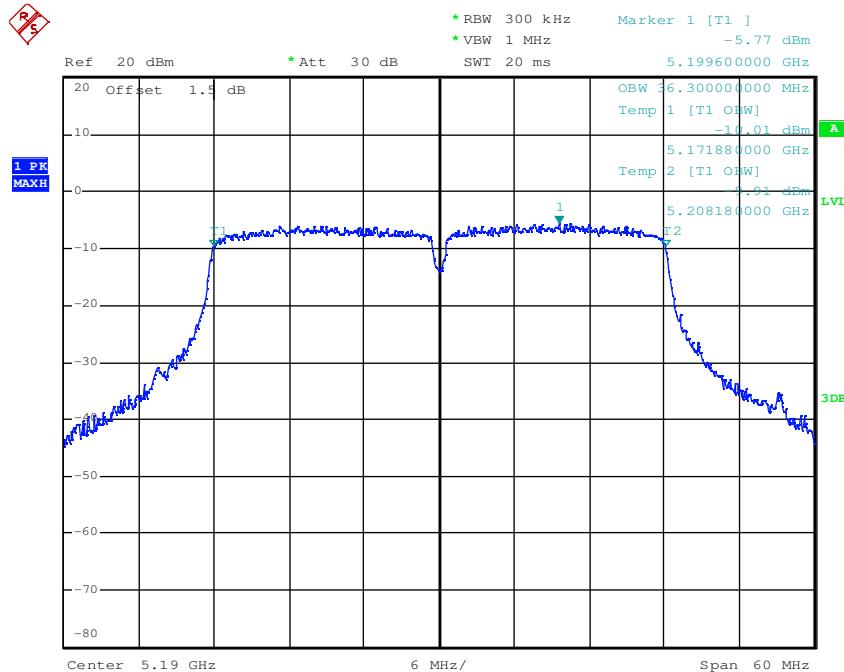


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**Shenzhen Branch**

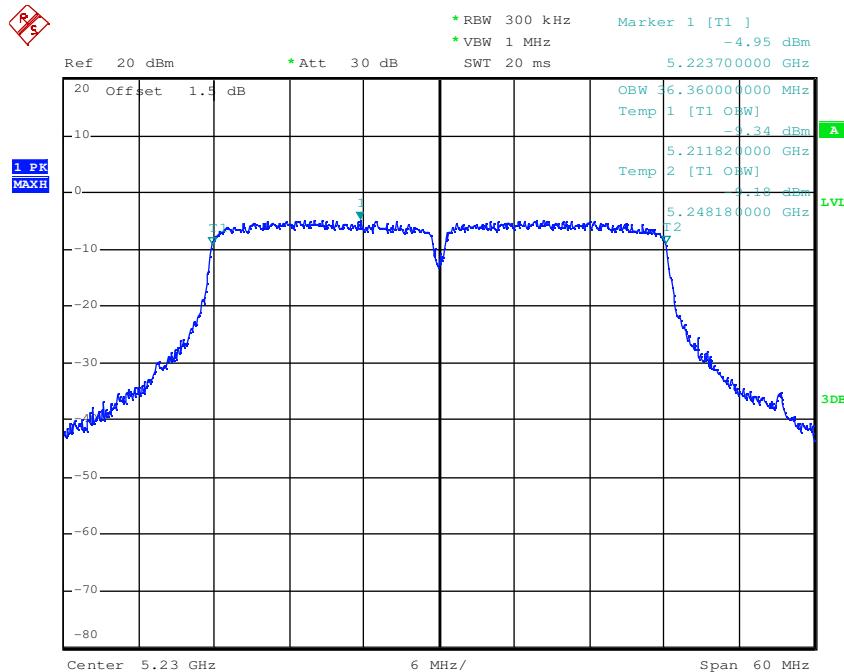


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Test mode:	802.11 ac40	Frequency(MHz):	5190
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Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

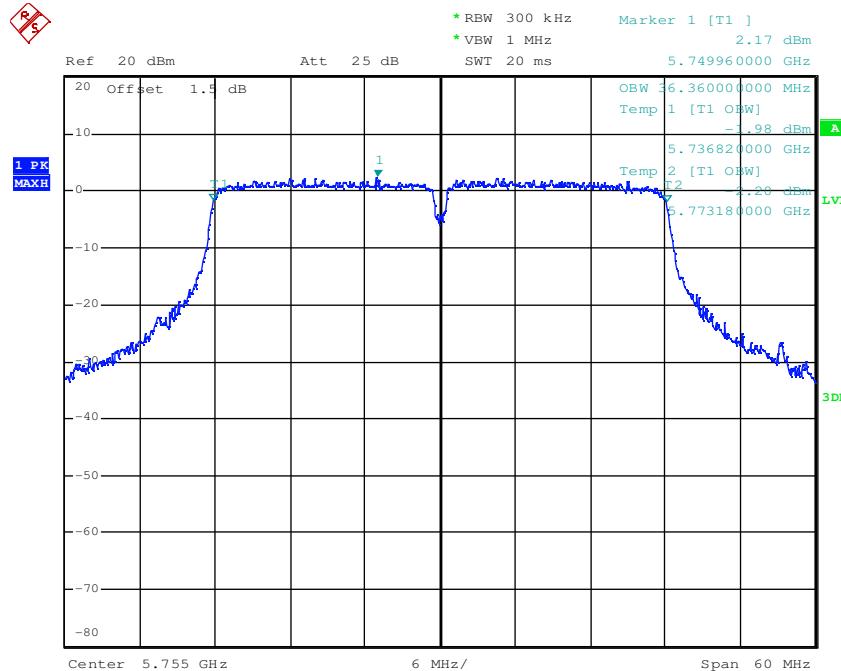


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**Shenzhen Branch**

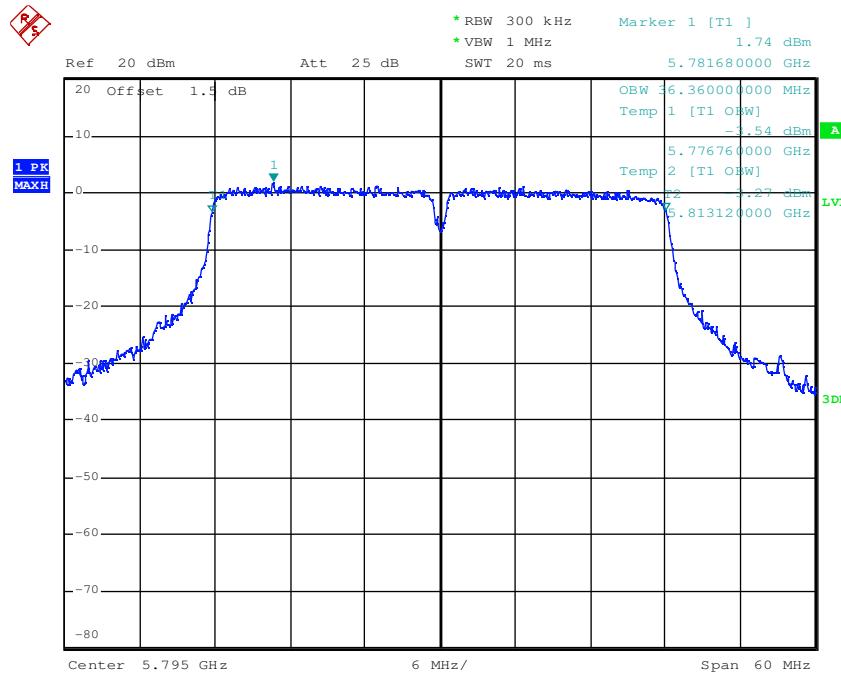


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

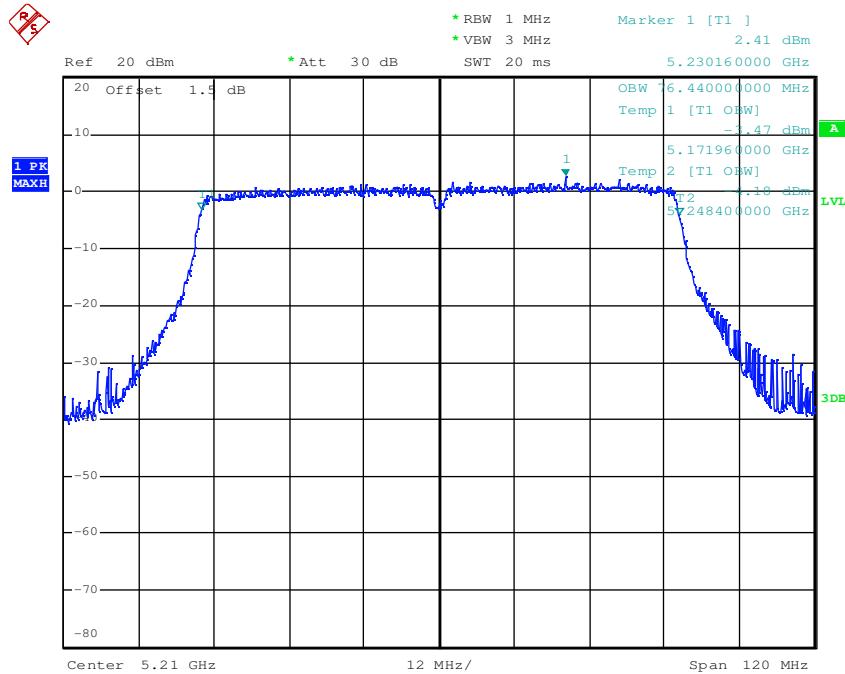


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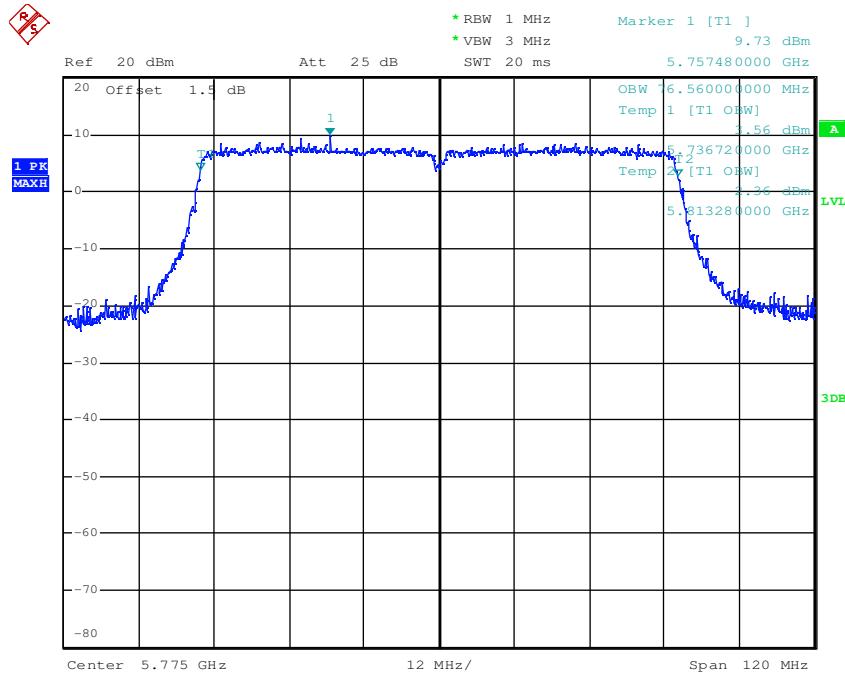


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Test mode:	802.11 ac80	Frequency(MHz):	5210
------------	-------------	-----------------	------



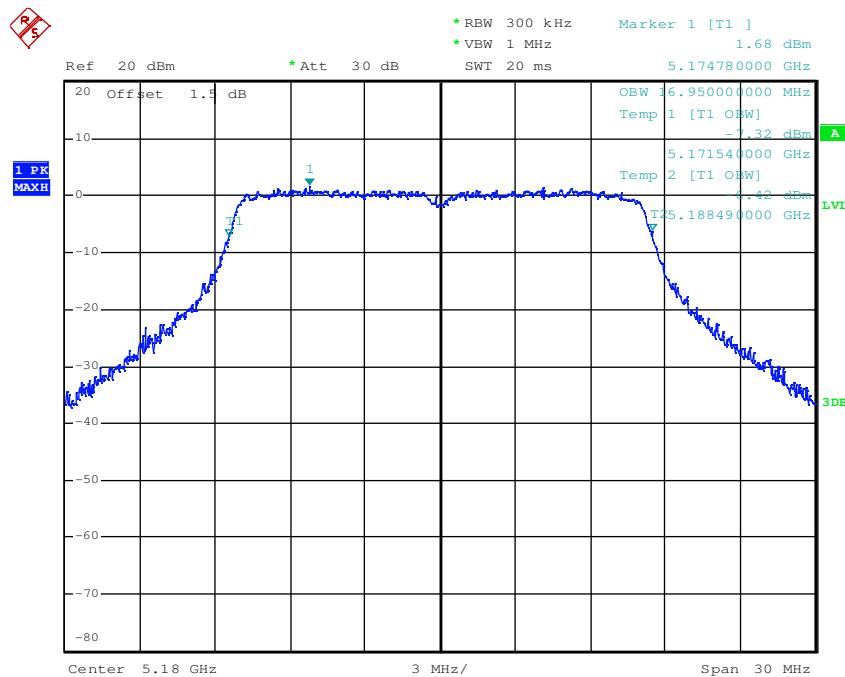
Test mode:	802.11 ac80	Frequency(MHz):	5775
------------	-------------	-----------------	------



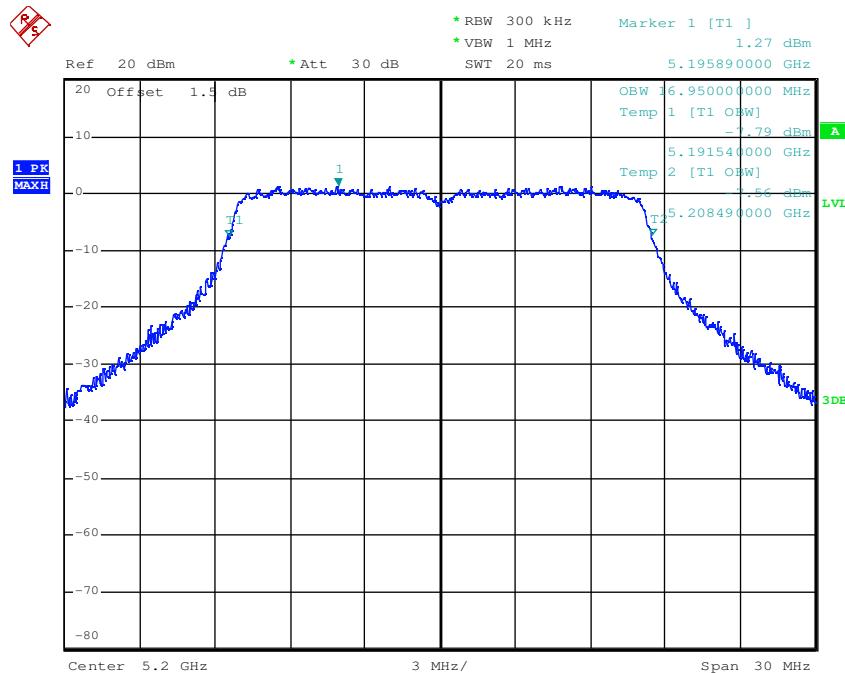


**WiFi module 2:**

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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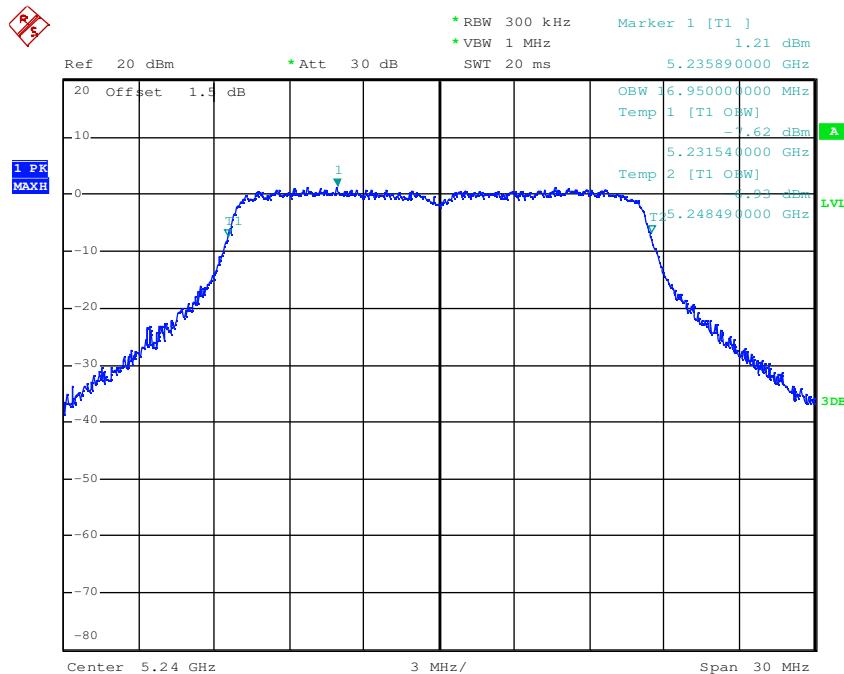


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**Shenzhen Branch**

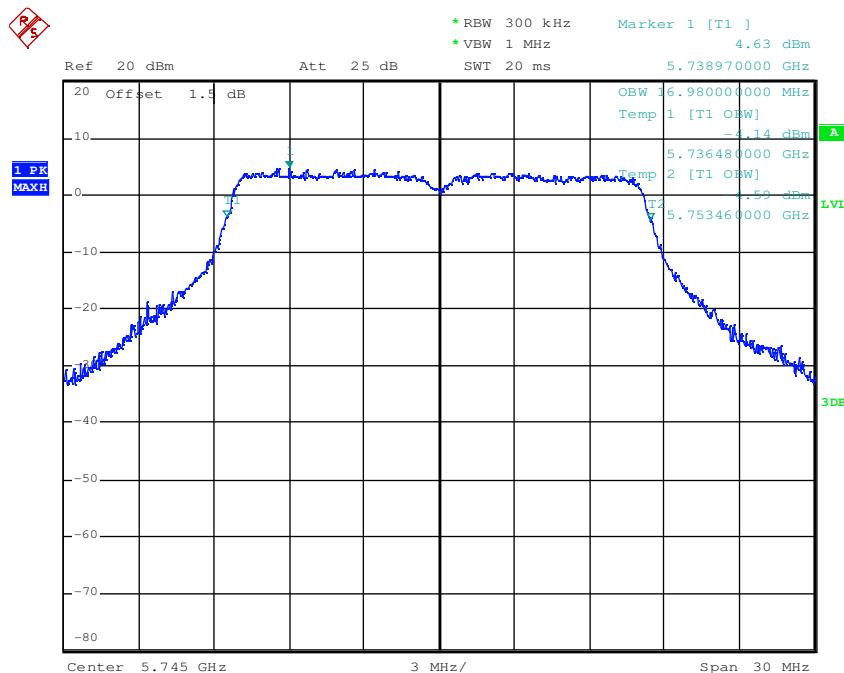


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5745
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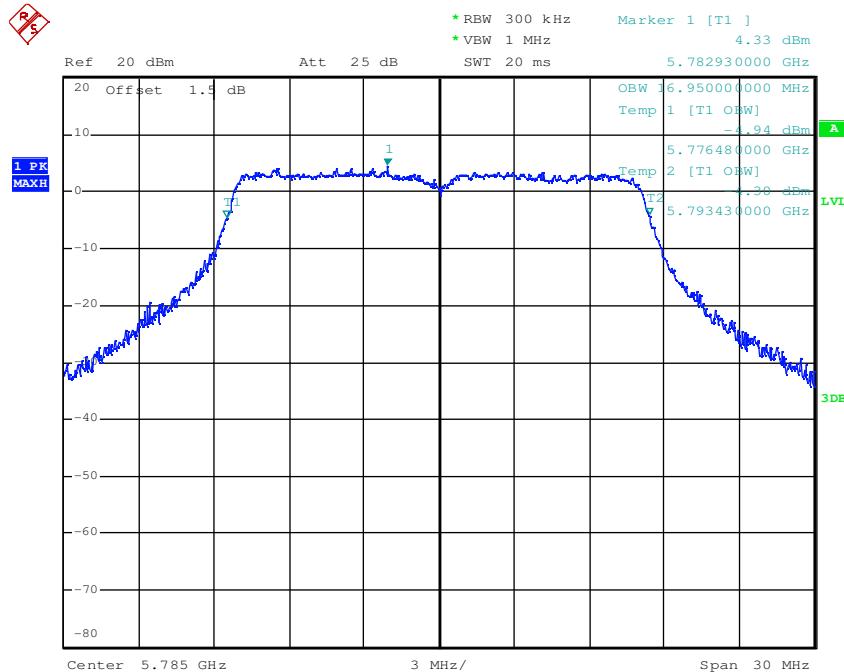


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

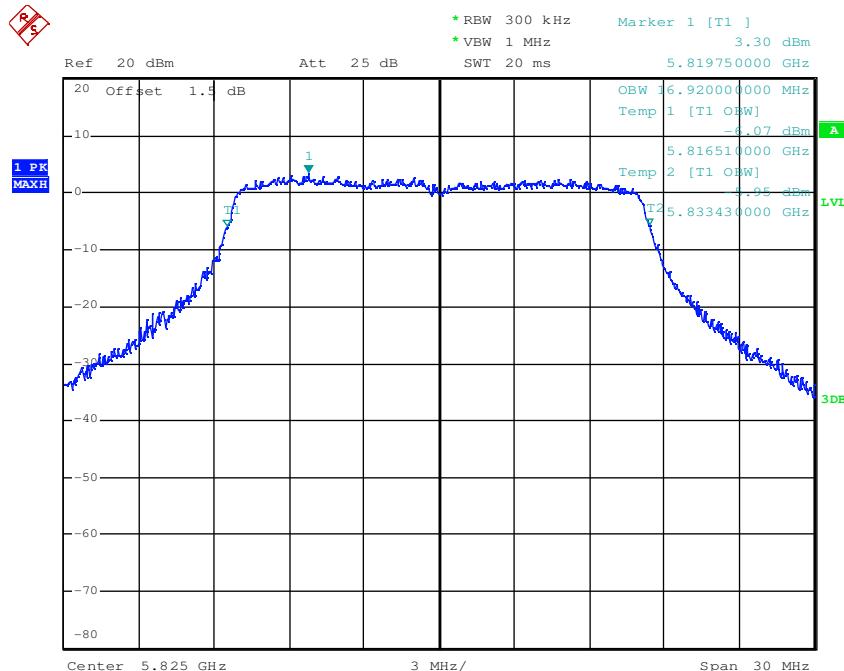


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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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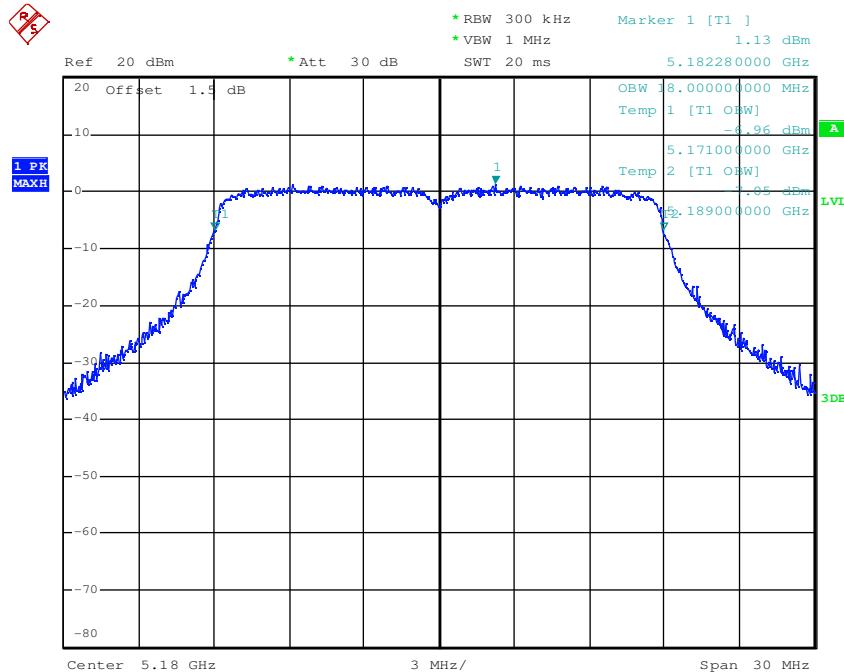


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

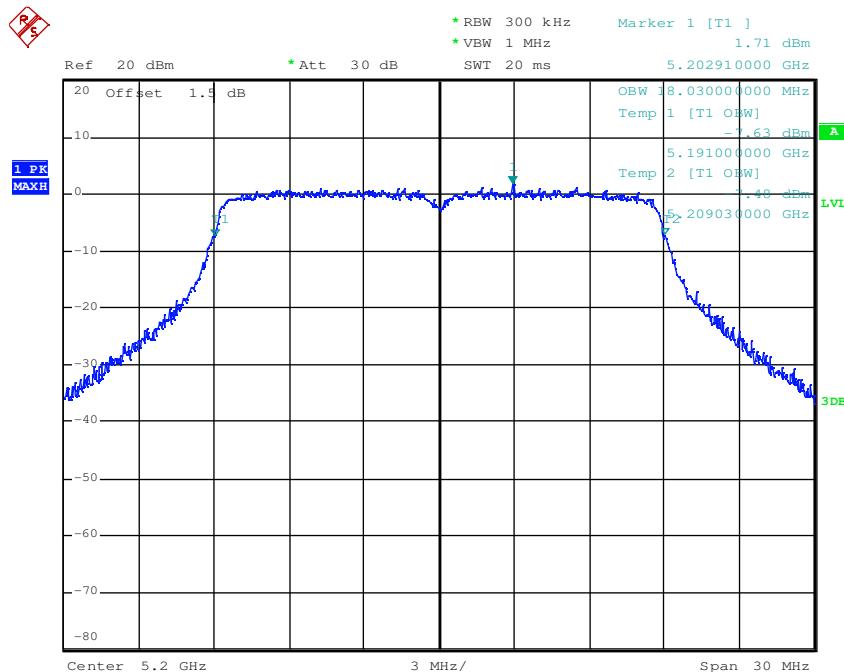


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Test mode:	802.11 n20	Frequency(MHz):	5180
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

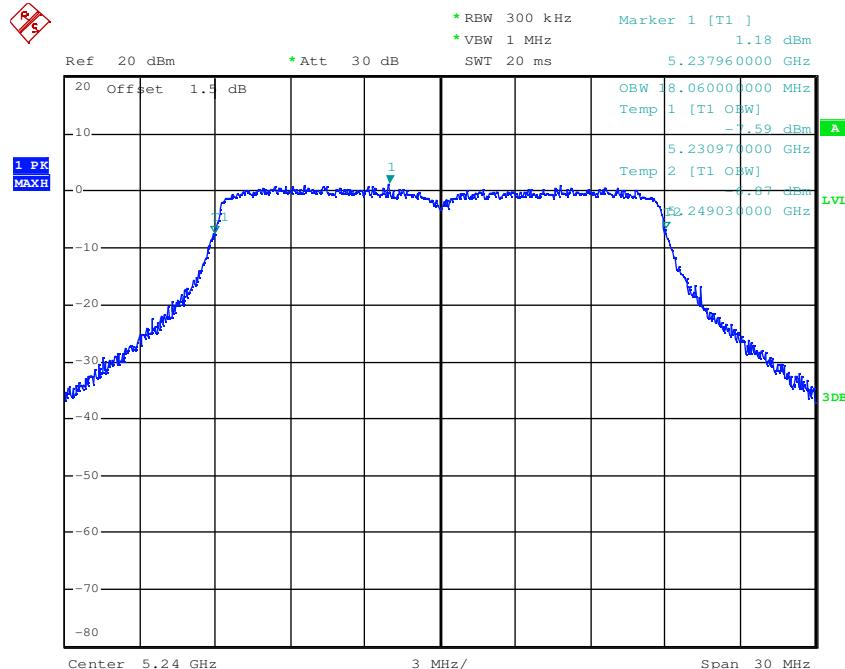


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

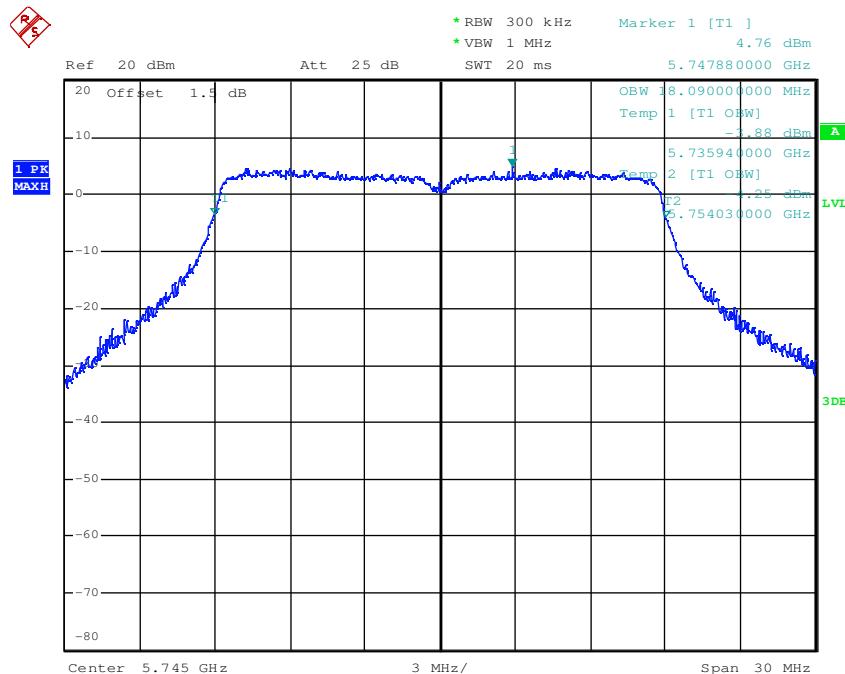


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Test mode:	802.11 n20	Frequency(MHz):	5240
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

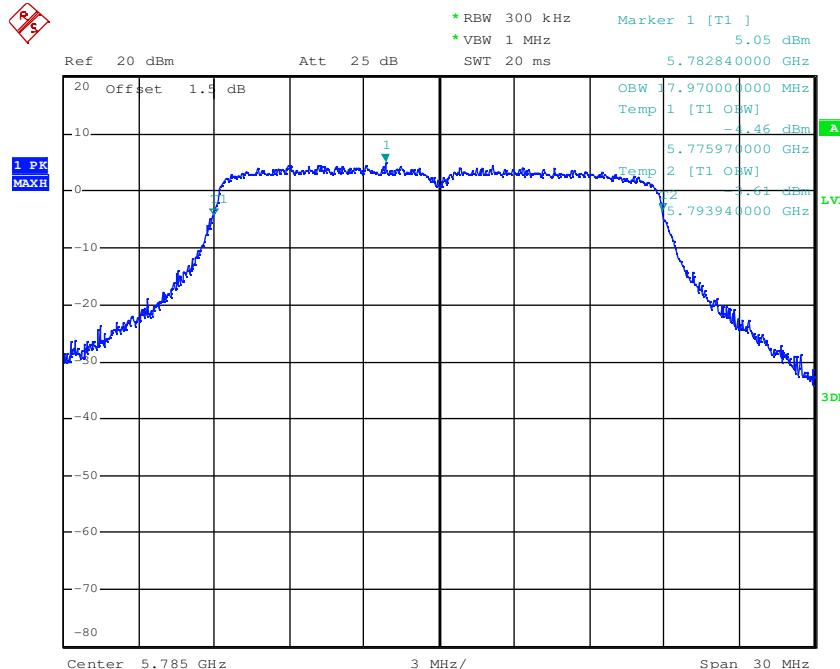


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

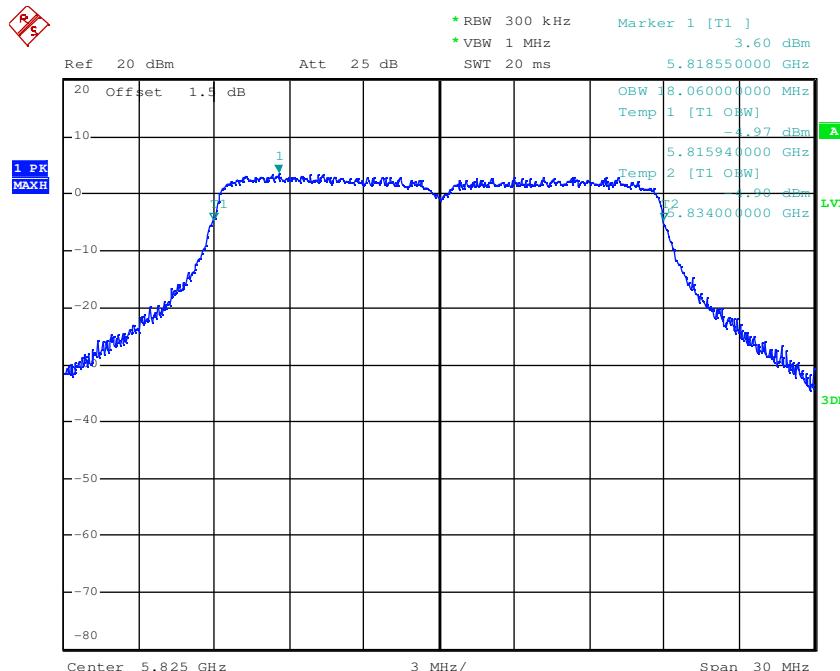


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Test mode:	802.11 n20	Frequency(MHz):	5785
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

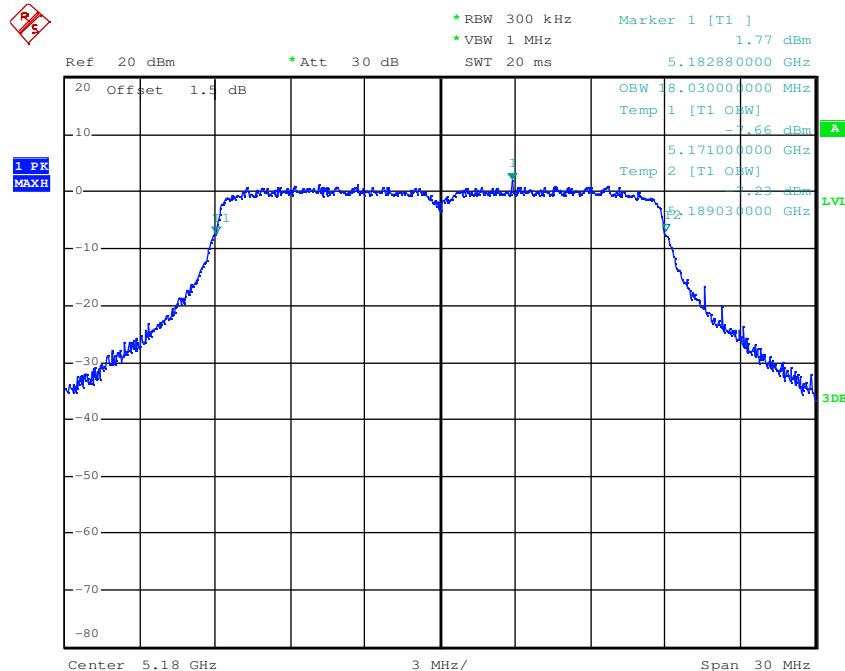


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

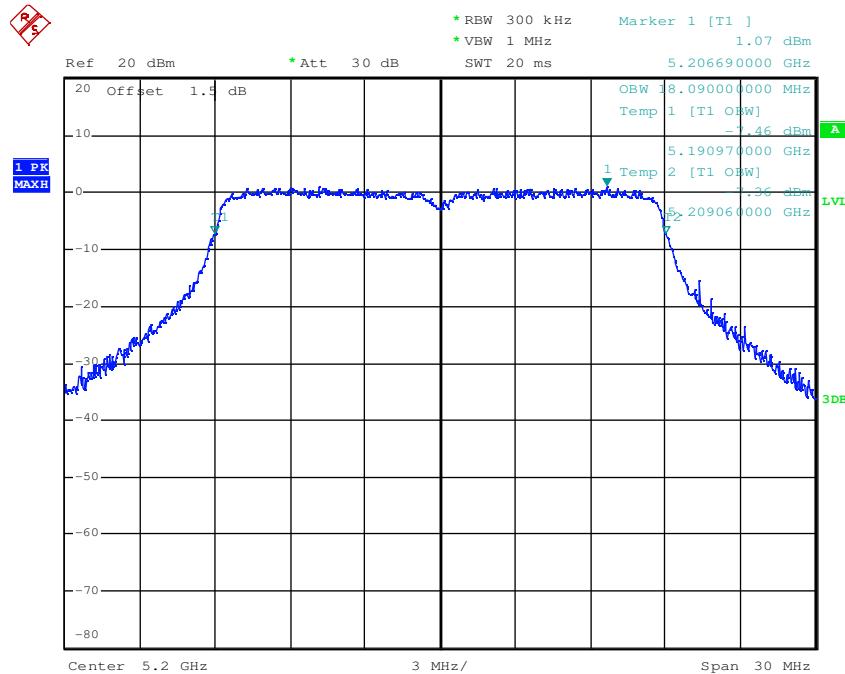


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Test mode:	802.11 ac20	Frequency(MHz):	5180
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

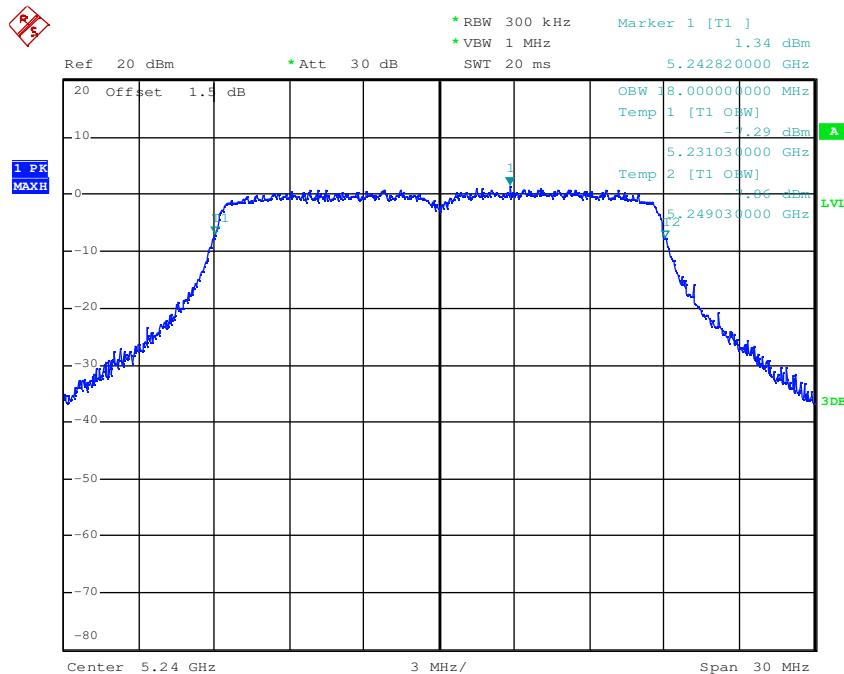


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

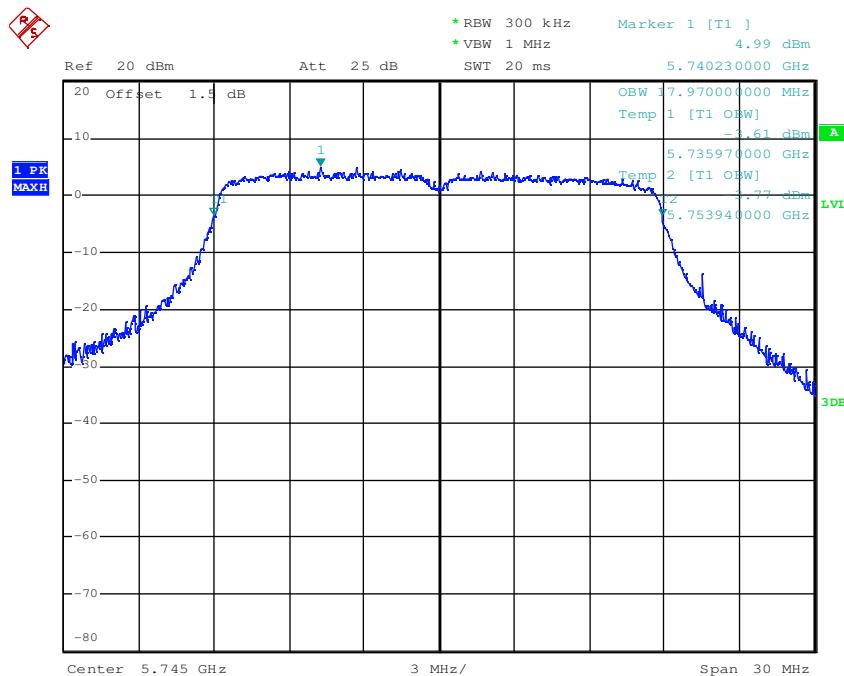


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Test mode:	802.11 ac20	Frequency(MHz):	5240
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

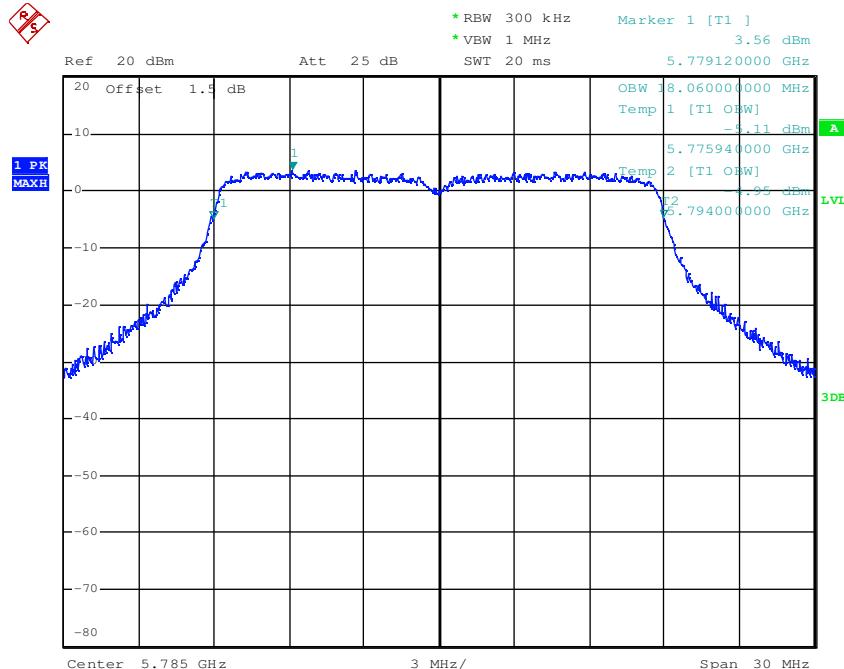


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

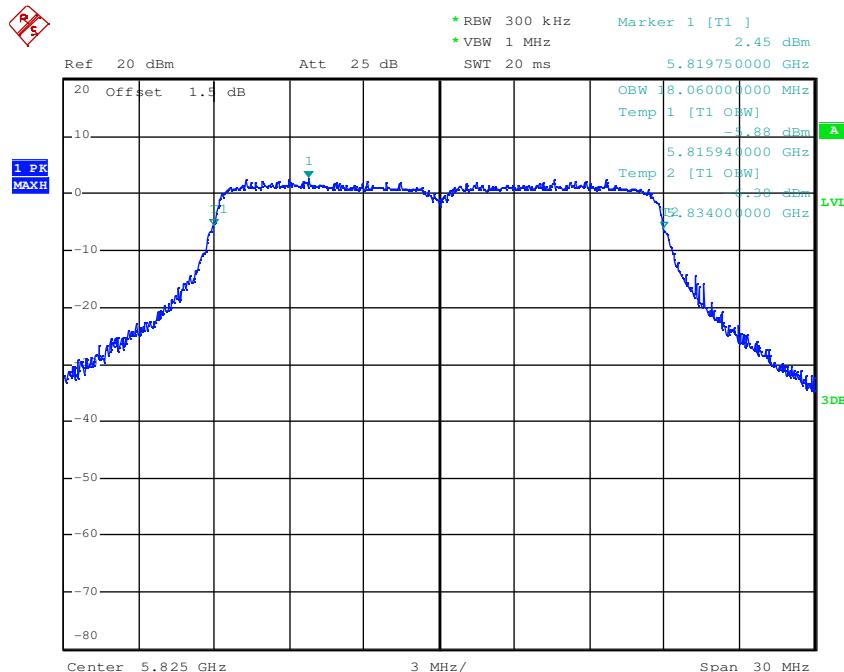


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Test mode:	802.11 ac20	Frequency(MHz):	5785
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

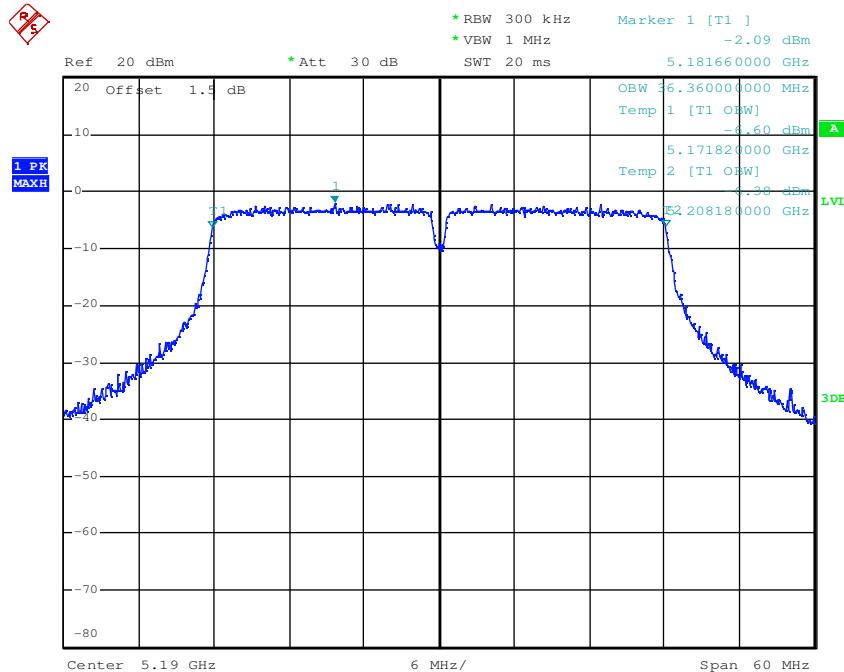


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Shenzhen Branch

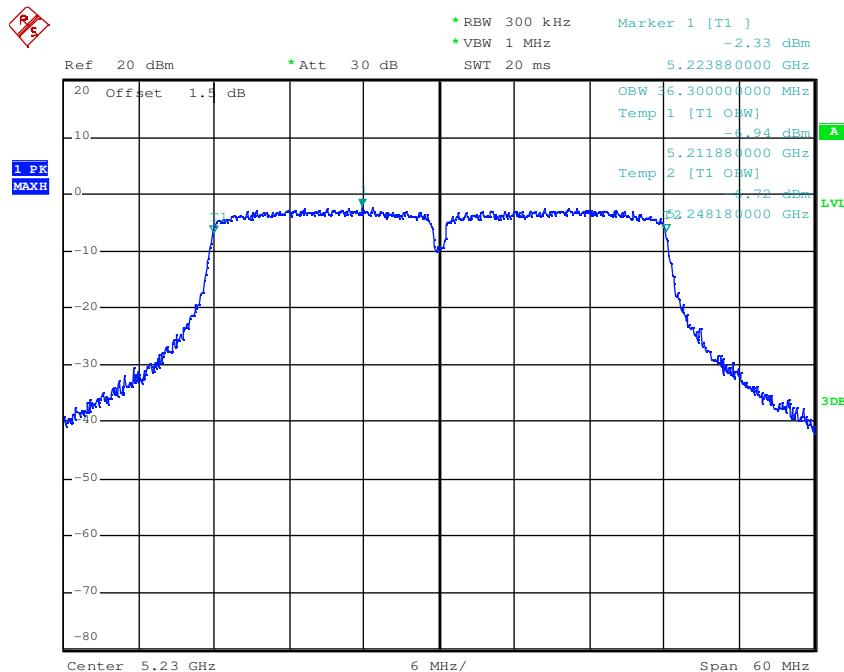


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

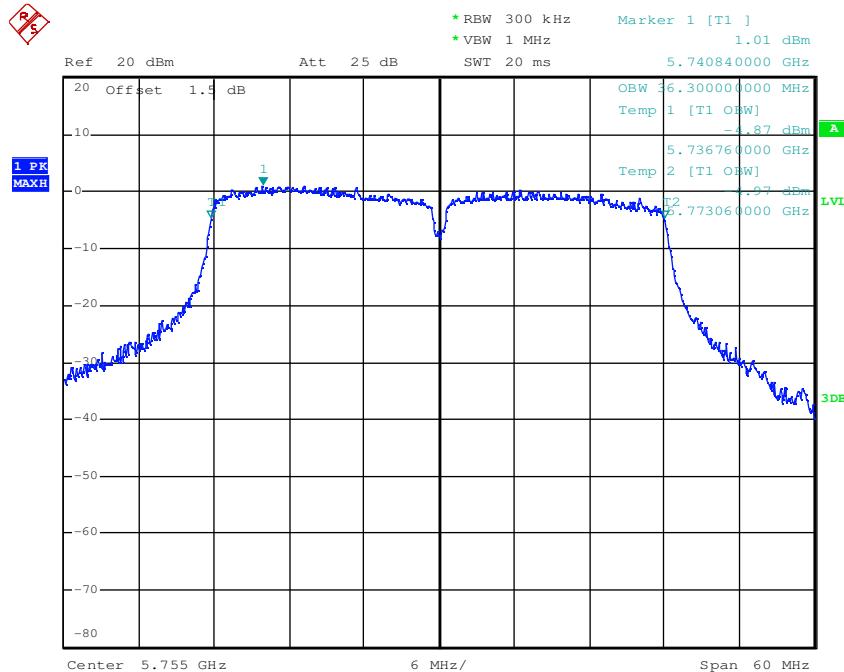


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

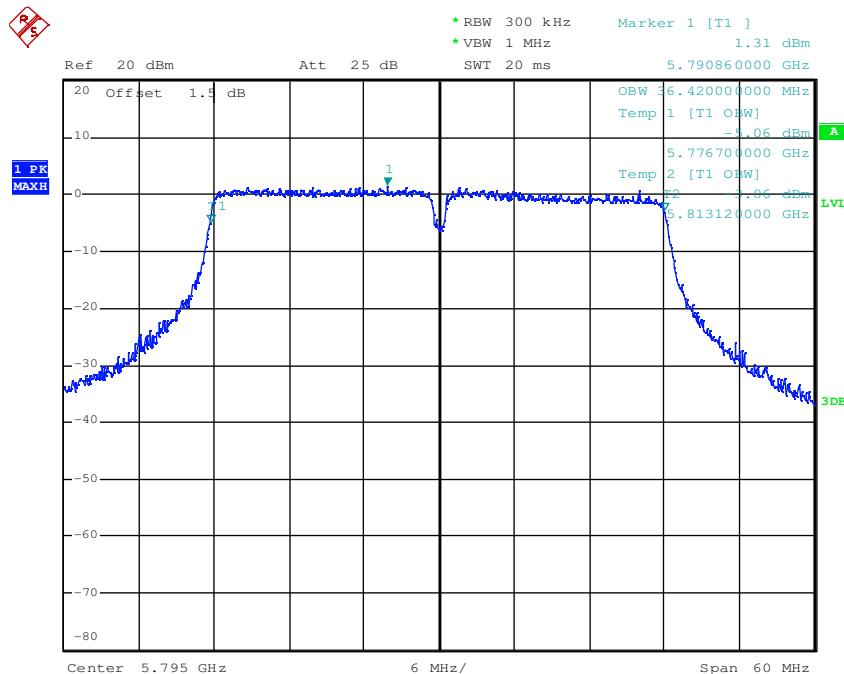


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Test mode:	802.11 n40	Frequency(MHz):	5755
------------	------------	-----------------	------



Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

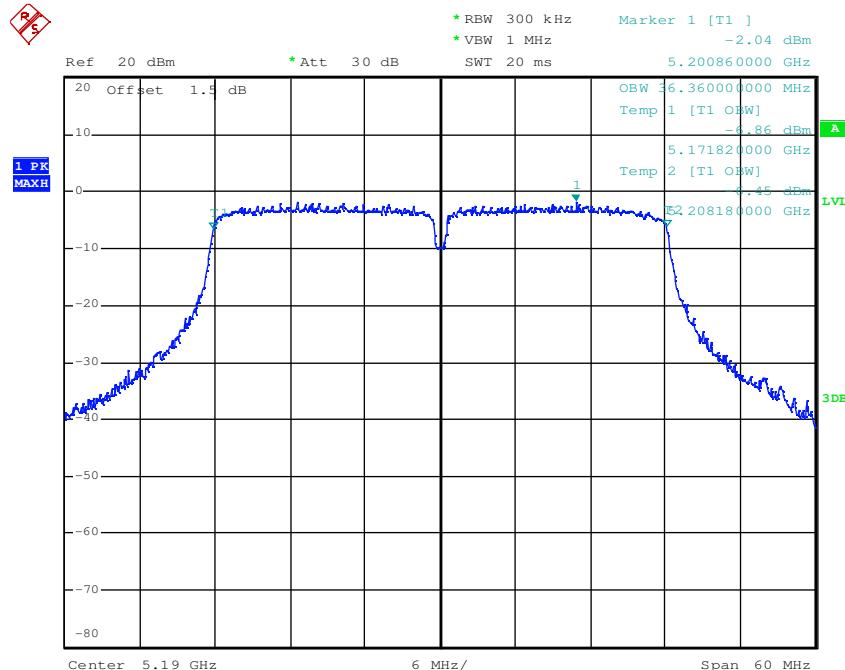


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

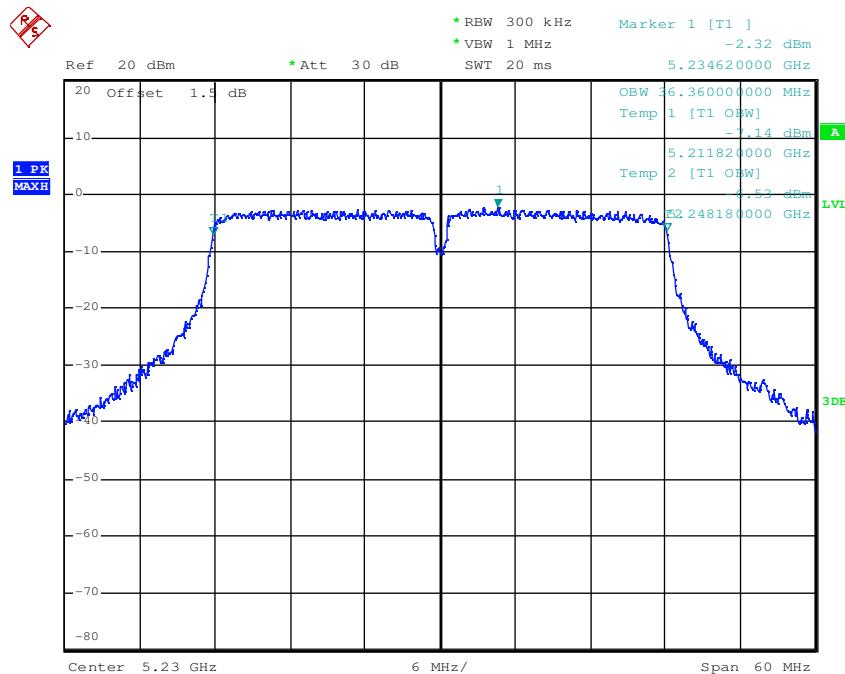


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Test mode:	802.11 ac40	Frequency(MHz):	5190
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

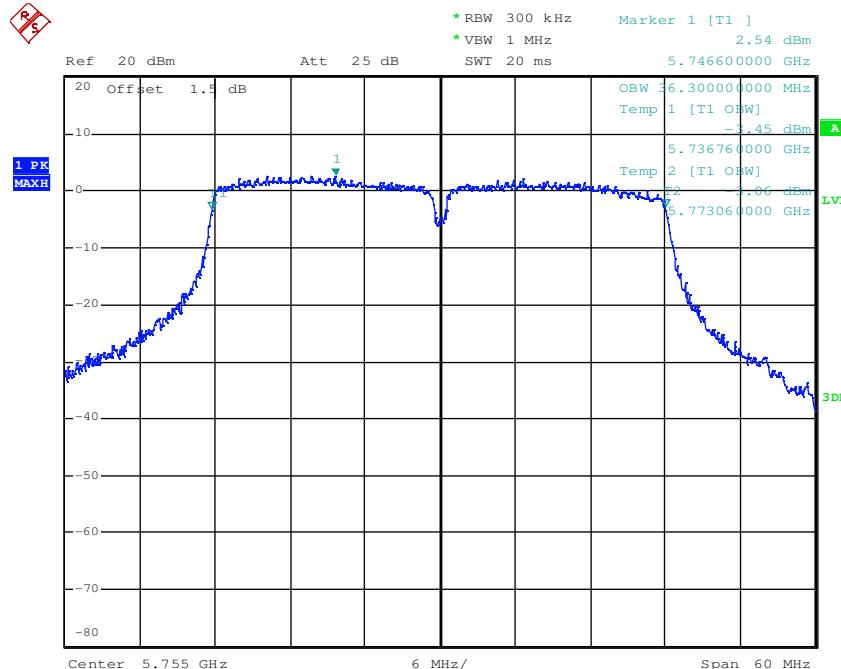


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

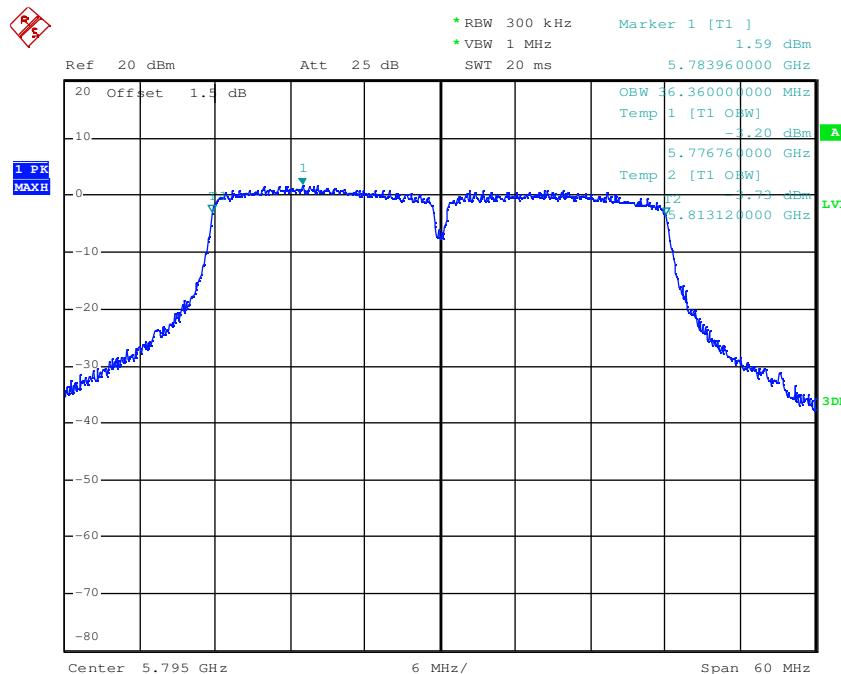


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

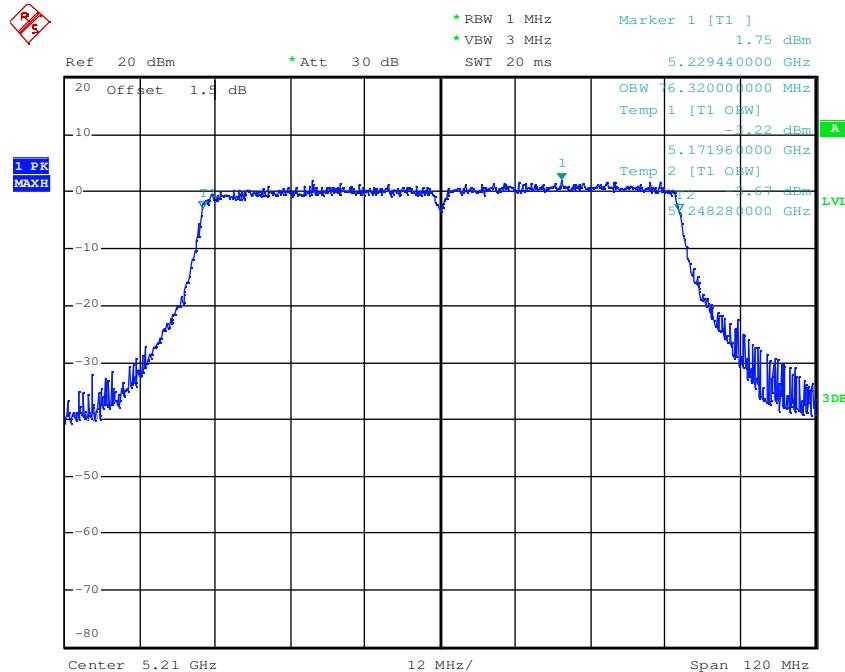


**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**

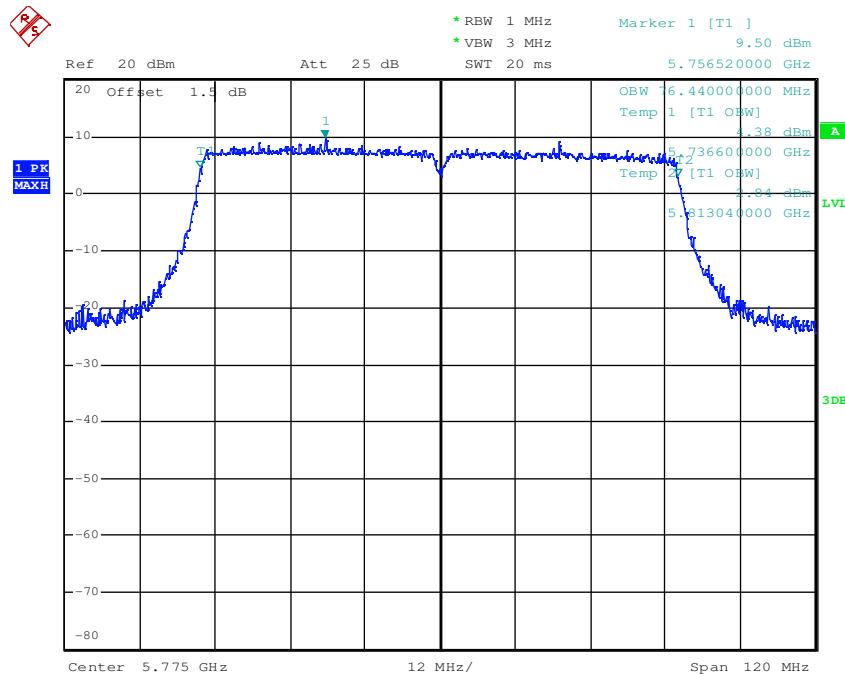


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Test mode:	802.11 ac80	Frequency(MHz):	5210
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Test mode:	802.11 ac80	Frequency(MHz):	5775
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## 6.6 6dB Emission Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(e)	
Test Method:	ANSI C63.10: 2013, section 6.9.2	
Test Setup:	<p>The diagram illustrates the test setup. A 'Spectrum Analyzer' is connected to an 'E.U.T' (Equipment Under Test) via a red coaxial cable. The 'E.U.T' is positioned on a 'Non-Conducted Table'. The entire setup rests on a 'Ground Reference Plane'.</p>	
Instruments Used:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	<p>Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a;          MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)</p> <p>Only the worst case is recorded in the report.</p>	
Limit:	Frequency Band	Limit
	5725-5850MHz	At least 500kHz
Test Results:	Pass	

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**Measurement Data:**

**WiFi module 1:**

802.11a mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	16.38	≥500	Pass
5785	16.38	≥500	Pass
5825	16.41	≥500	Pass
802.11 n20 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.64	≥500	Pass
5785	17.64	≥500	Pass
5825	17.64	≥500	Pass
802.11ac 20 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.58	≥500	Pass
5785	17.64	≥500	Pass
5825	17.64	≥500	Pass
802.11 n40 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	36.48	≥500	Pass
5795	36.42	≥500	Pass
802.11ac 40 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	36.48	≥500	Pass
5795	36.42	≥500	Pass
802.11ac 80 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5775	76.80	≥500	Pass

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**WiFi module 2:**

802.11a mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	16.38	≥500	Pass
5785	16.41	≥500	Pass
5825	16.38	≥500	Pass
802.11 n20 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.67	≥500	Pass
5785	17.34	≥500	Pass
5825	17.64	≥500	Pass
802.11ac 20 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.22	≥500	Pass
5785	17.64	≥500	Pass
5825	17.64	≥500	Pass
802.11 n40 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	35.88	≥500	Pass
5795	36.24	≥500	Pass
802.11ac 40 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	35.88	≥500	Pass
5795	35.88	≥500	Pass
802.11ac 80 mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5775	76.68	≥500	Pass

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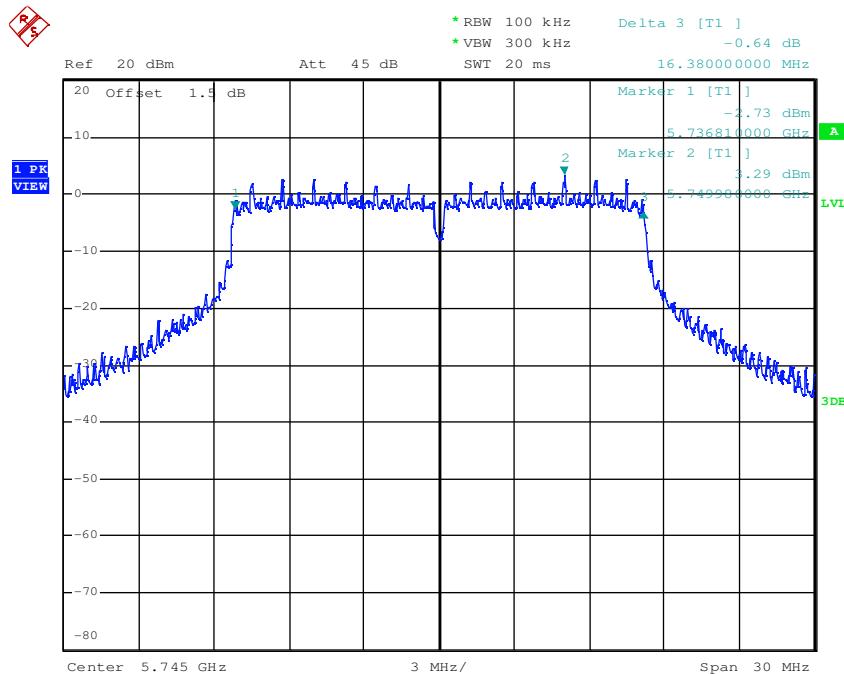


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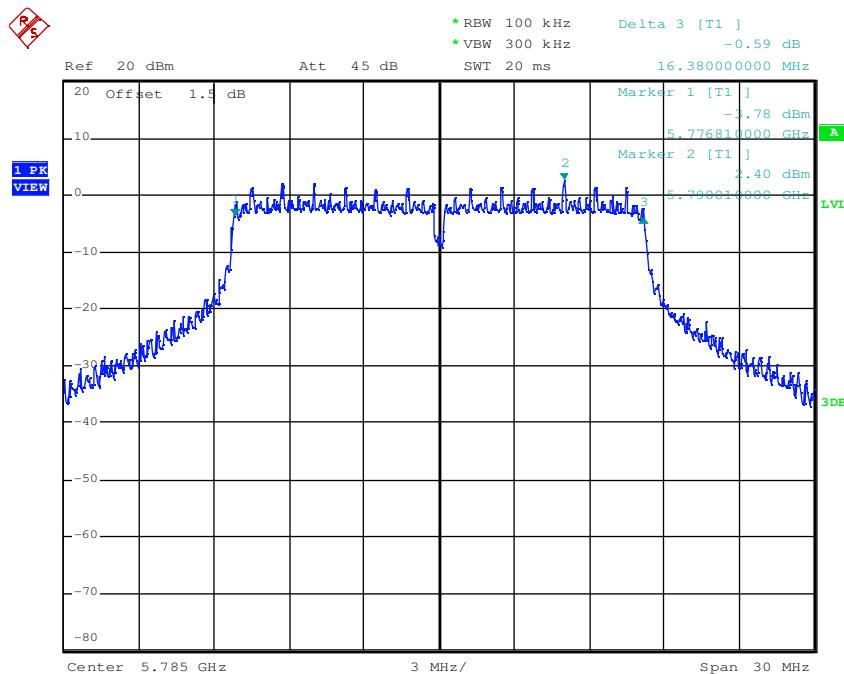
**Test plot as follows:**

**WiFi Module 1:**

Test mode:	802.11a	Frequency(MHz):	5745
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Test mode:	802.11a	Frequency(MHz):	5785
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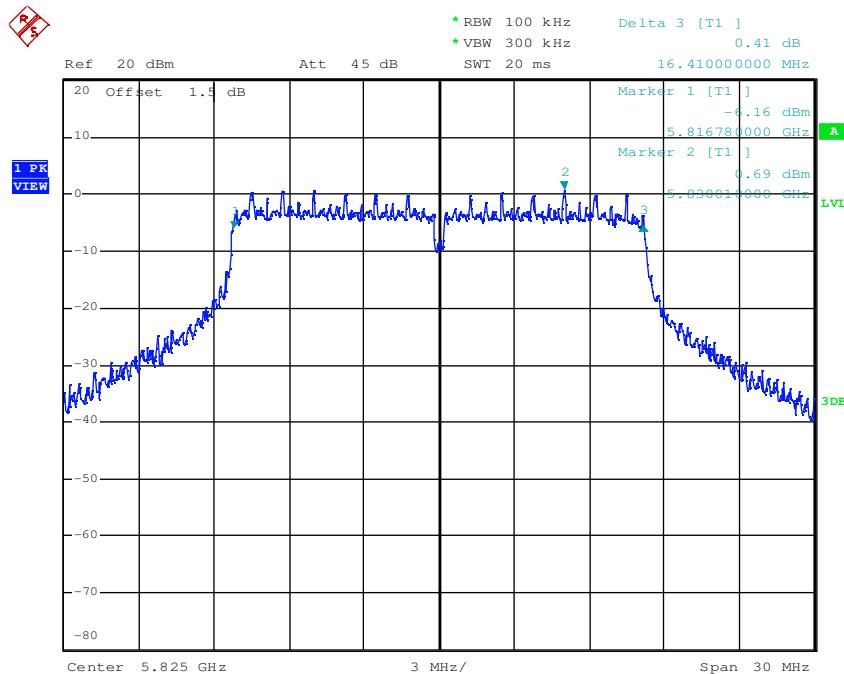


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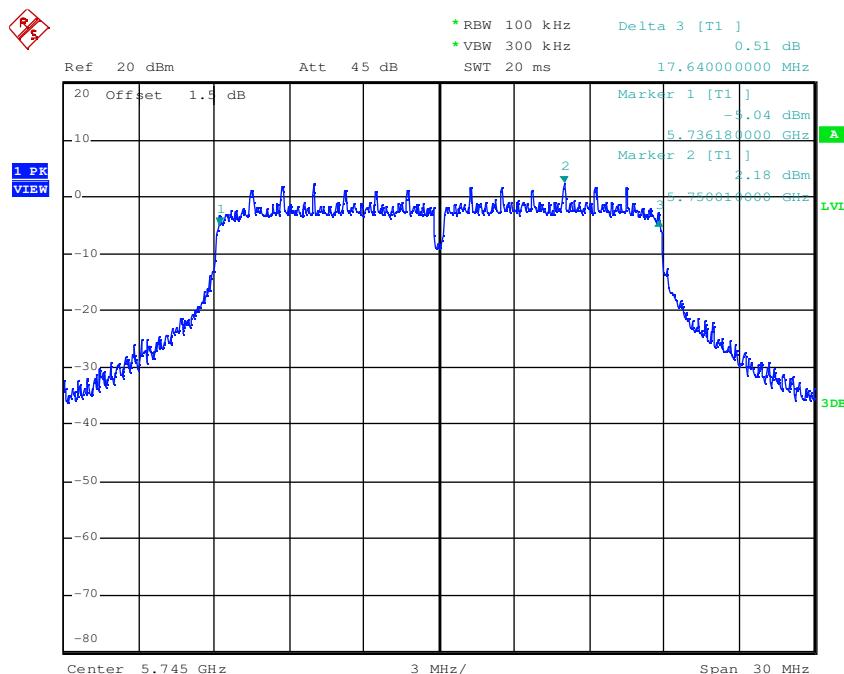


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Test mode:	802.11a	Frequency(MHz):	5825
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Test mode:	802.11 n20	Frequency(MHz):	5745
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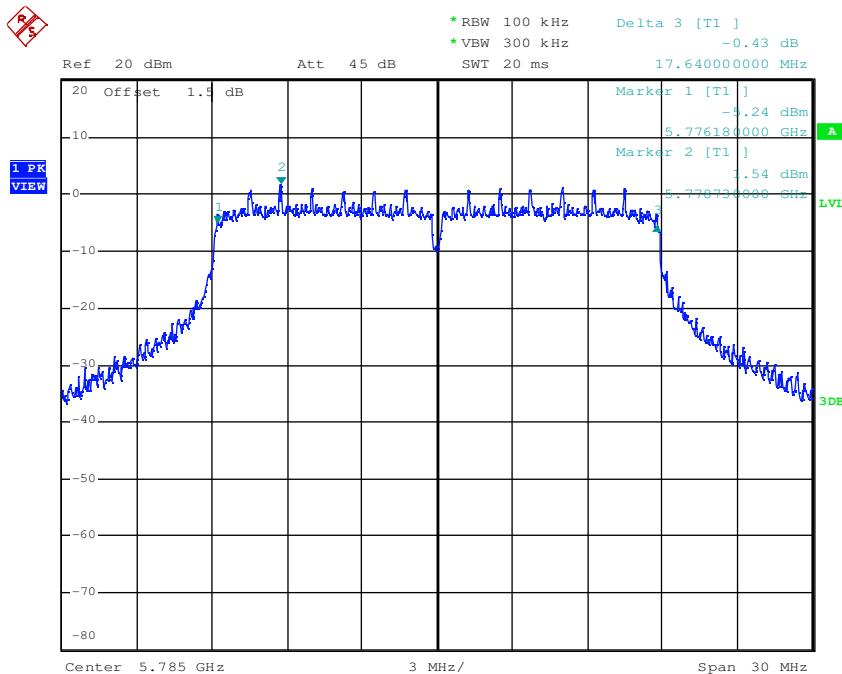


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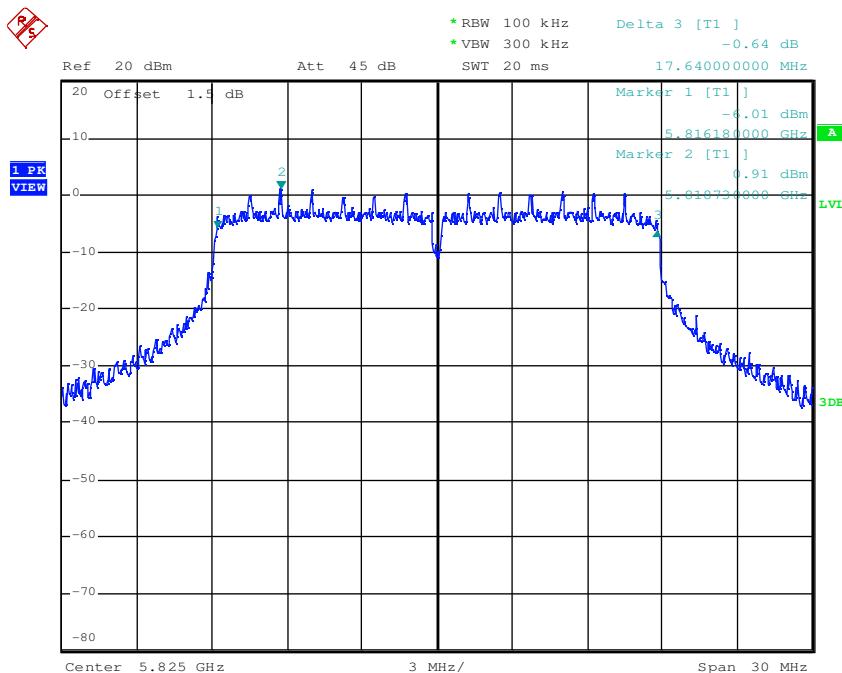


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Test mode:	802.11 n20	Frequency(MHz):	5785
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Test mode:	802.11 n20	Frequency(MHz):	5825
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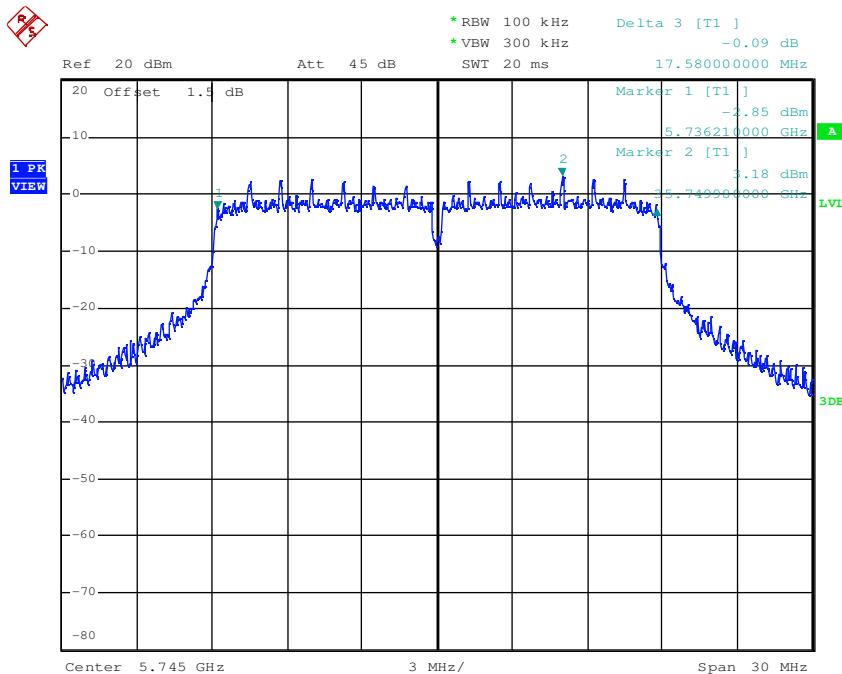


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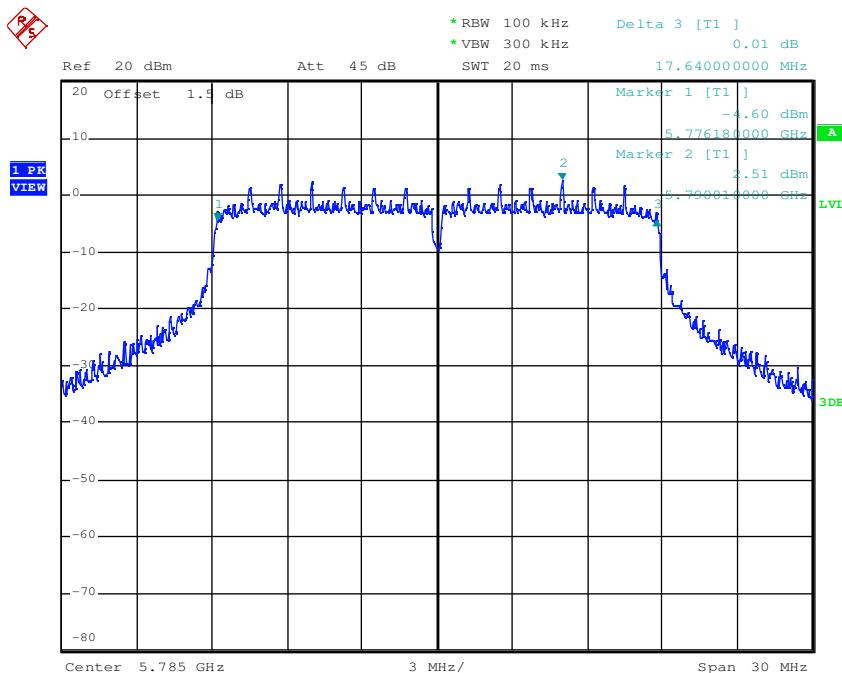


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Test mode:	802.11 ac20	Frequency(MHz):	5745
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Test mode:	802.11 ac20	Frequency(MHz):	5785
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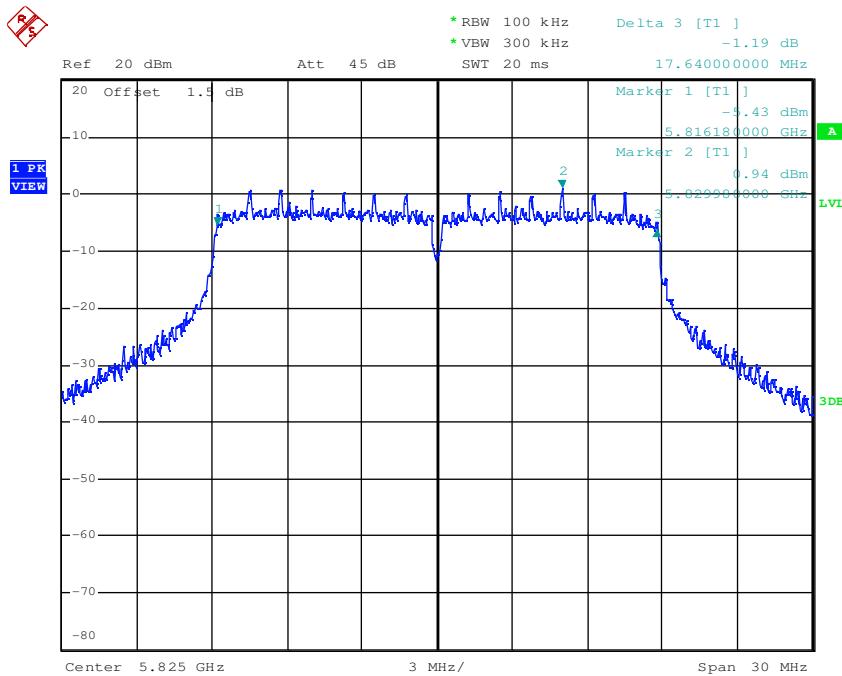


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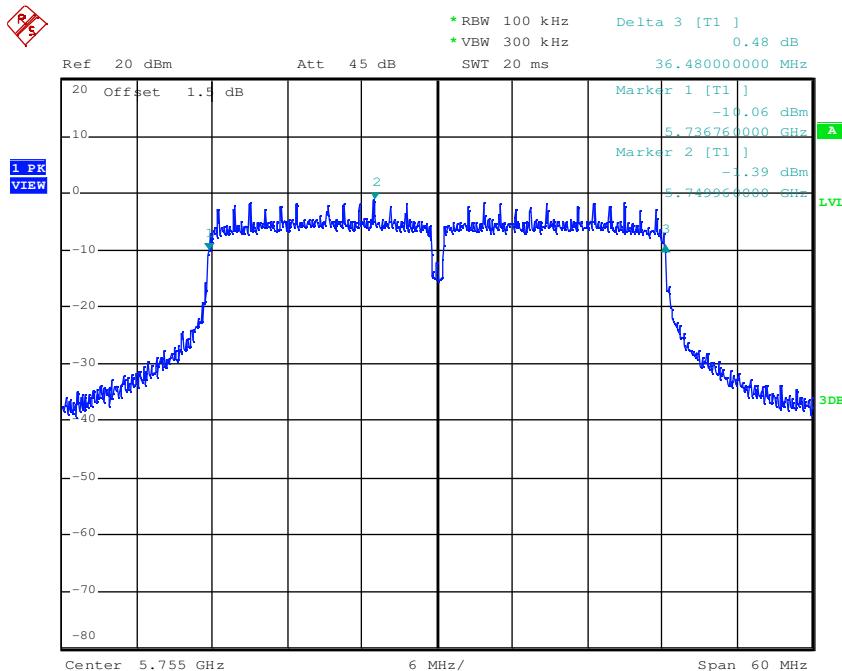


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Test mode:	802.11 ac20	Frequency(MHz):	5825
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Test mode:	802.11 n40	Frequency(MHz):	5755
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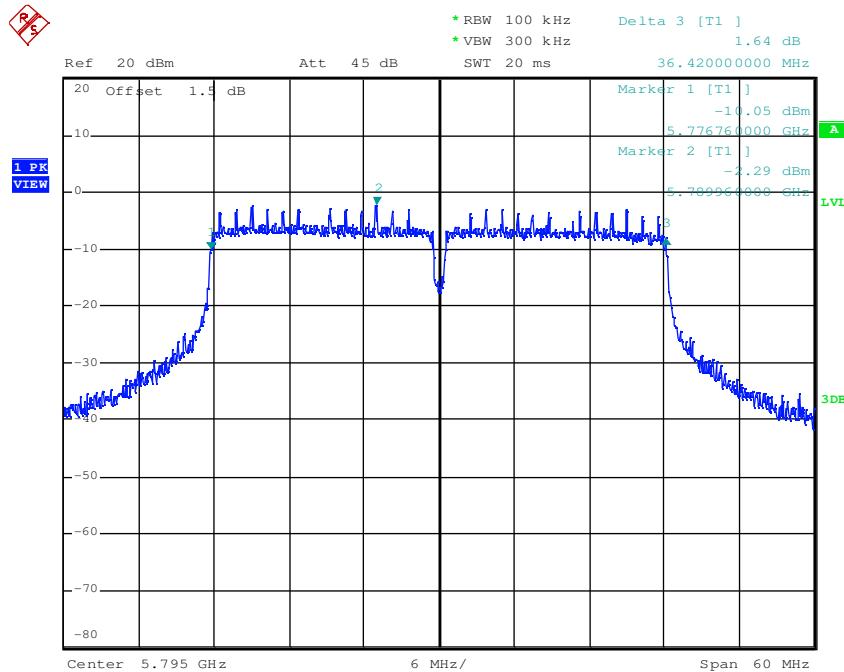


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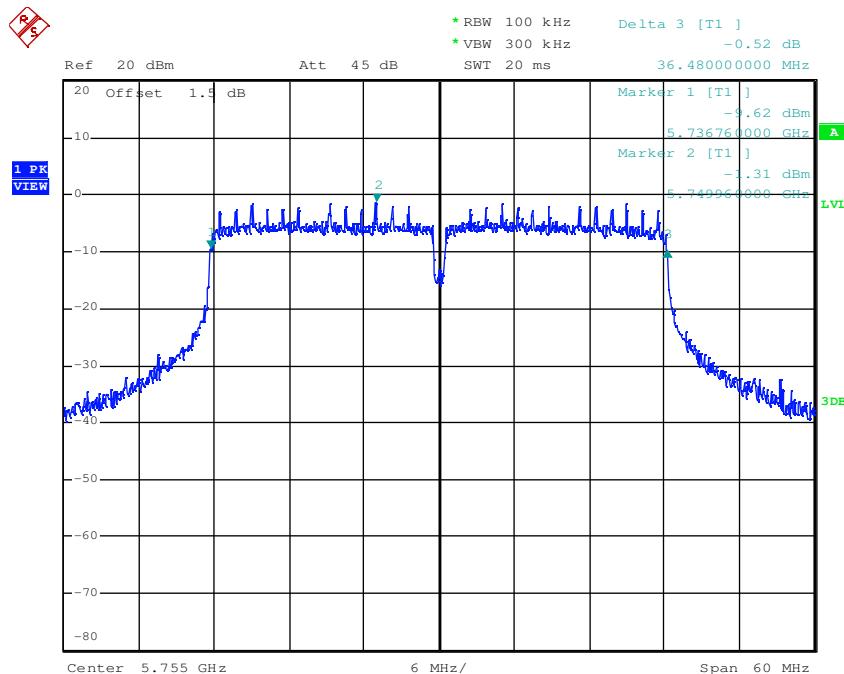


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Test mode:	802.11 n40	Frequency(MHz):	5795
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Test mode:	802.11 ac40	Frequency(MHz):	5755
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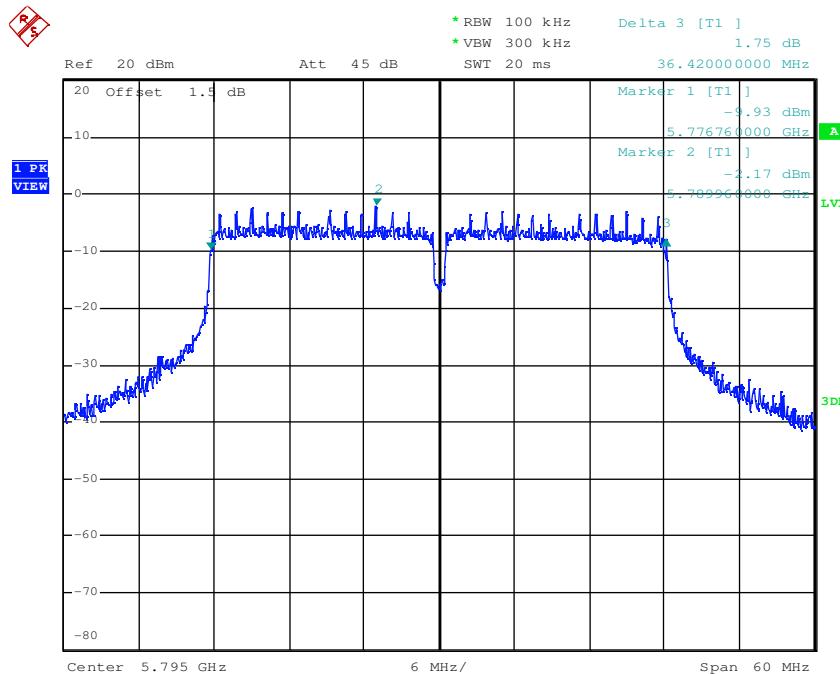


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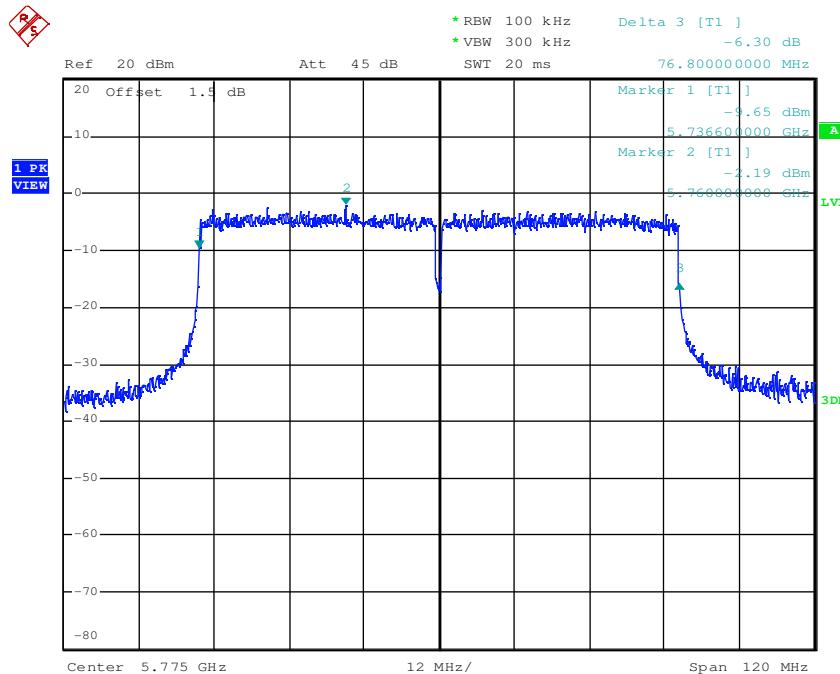


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Test mode:	802.11 ac40	Frequency(MHz):	5795
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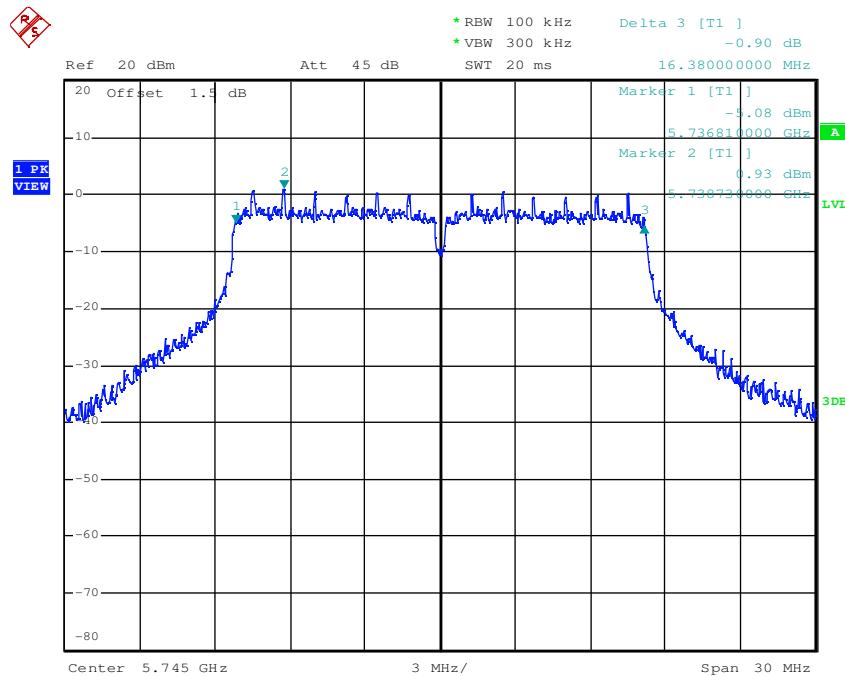
Test mode:	802.11 ac80	Frequency(MHz):	5775
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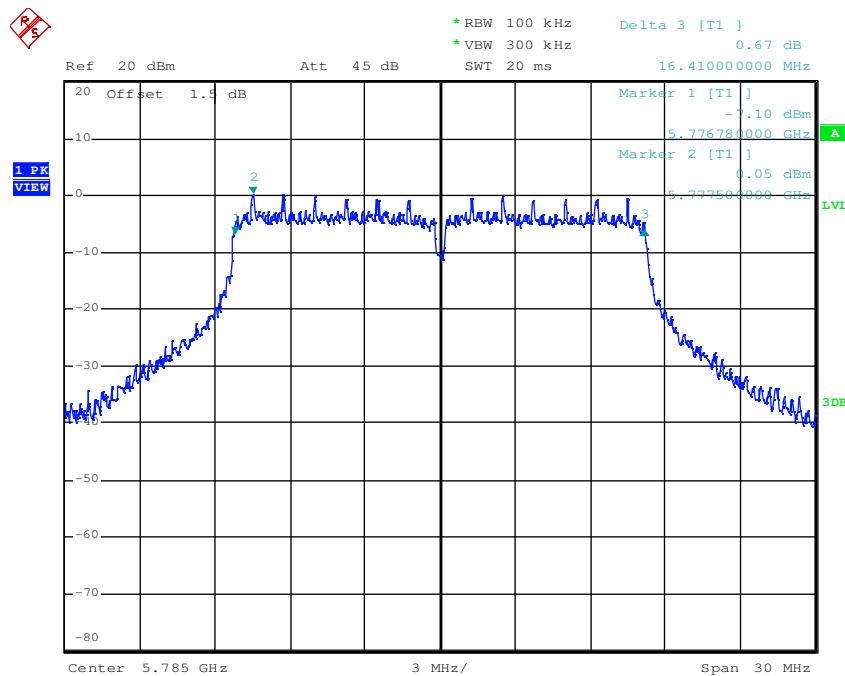


**WiFi Module 2:**

Test mode:	802.11a	Frequency(MHz):	5745
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Test mode:	802.11a	Frequency(MHz):	5785
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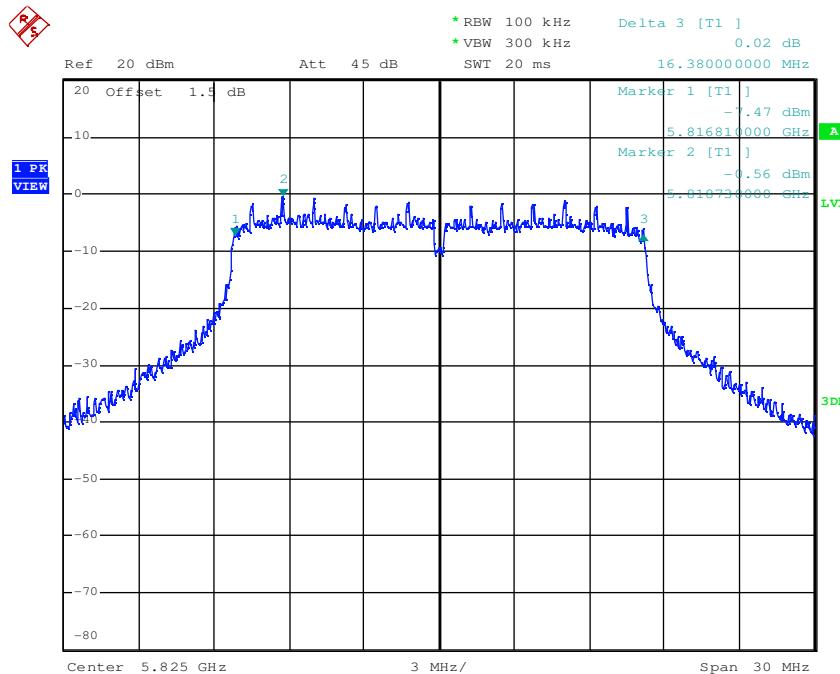


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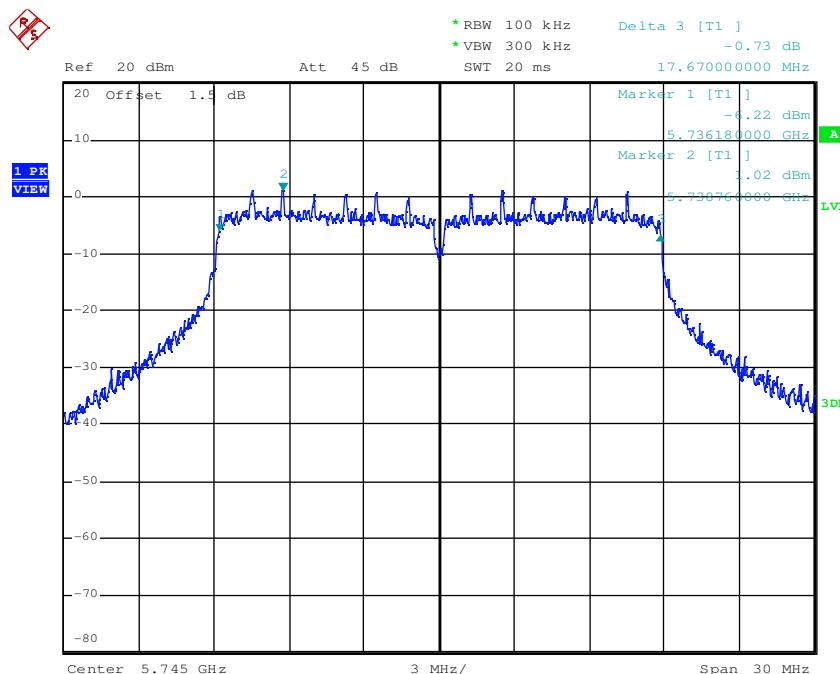


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Test mode:	802.11a	Frequency(MHz):	5825
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Test mode:	802.11 n20	Frequency(MHz):	5745
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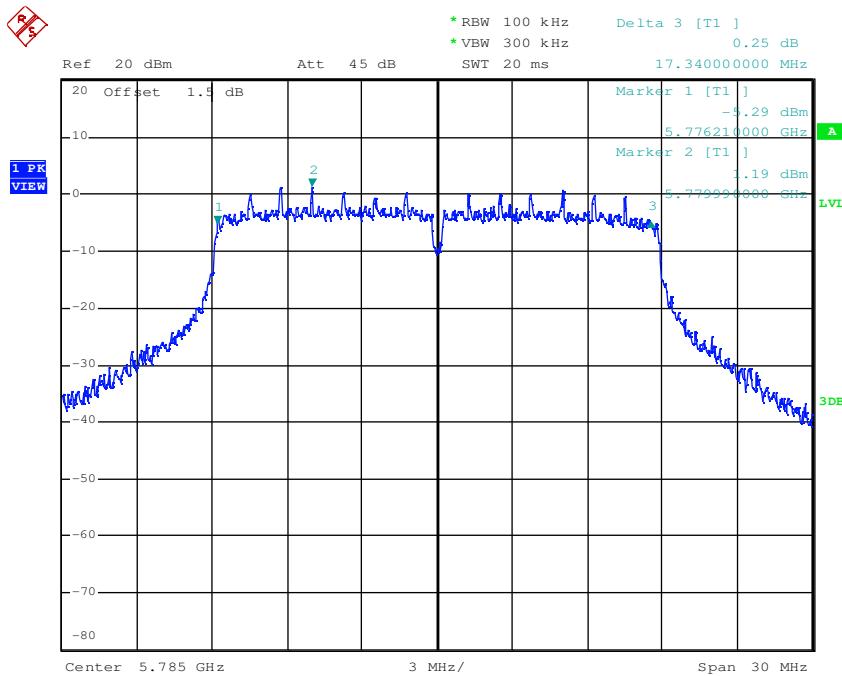


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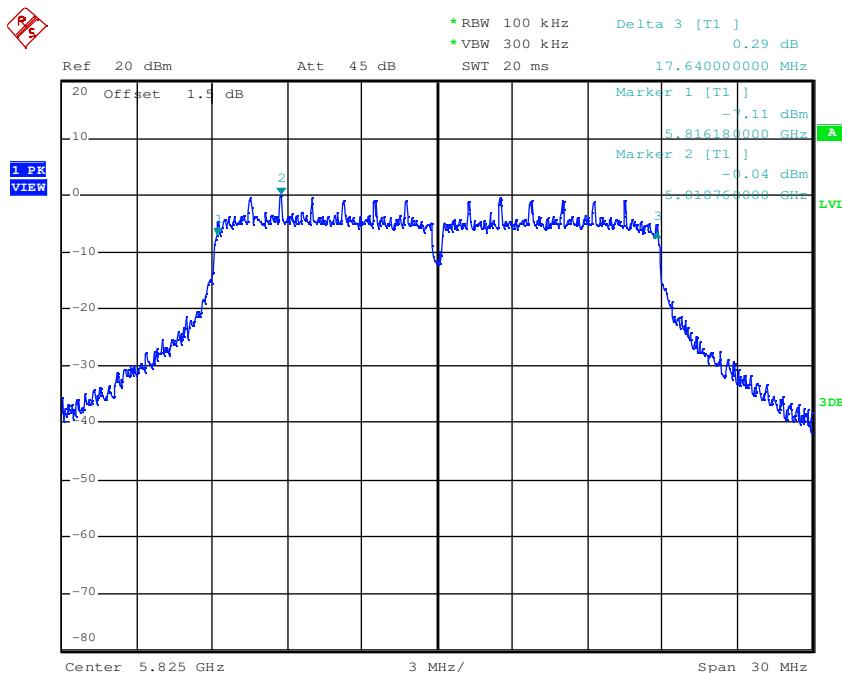


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Test mode:	802.11 n20	Frequency(MHz):	5785
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Test mode:	802.11 n20	Frequency(MHz):	5825
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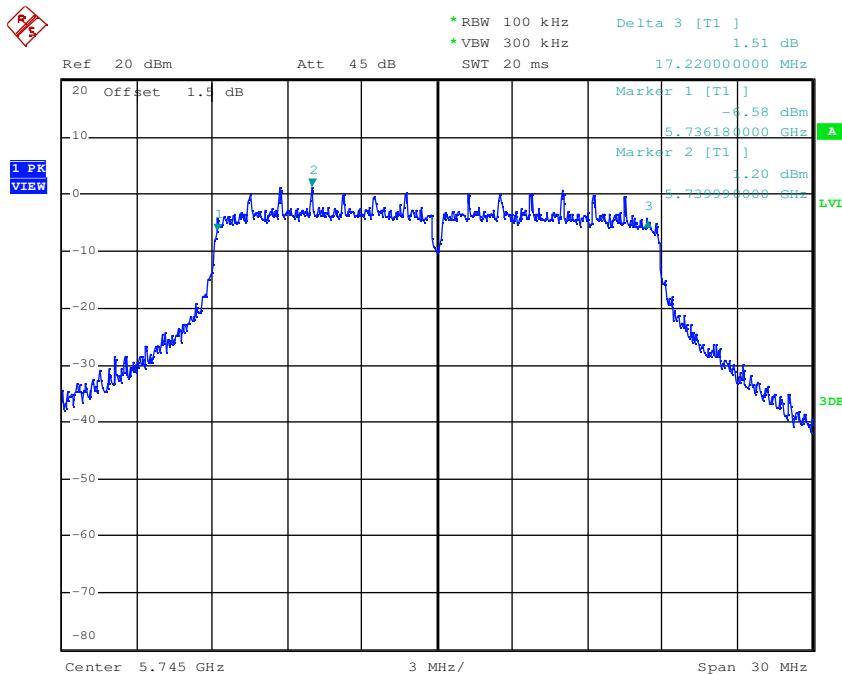


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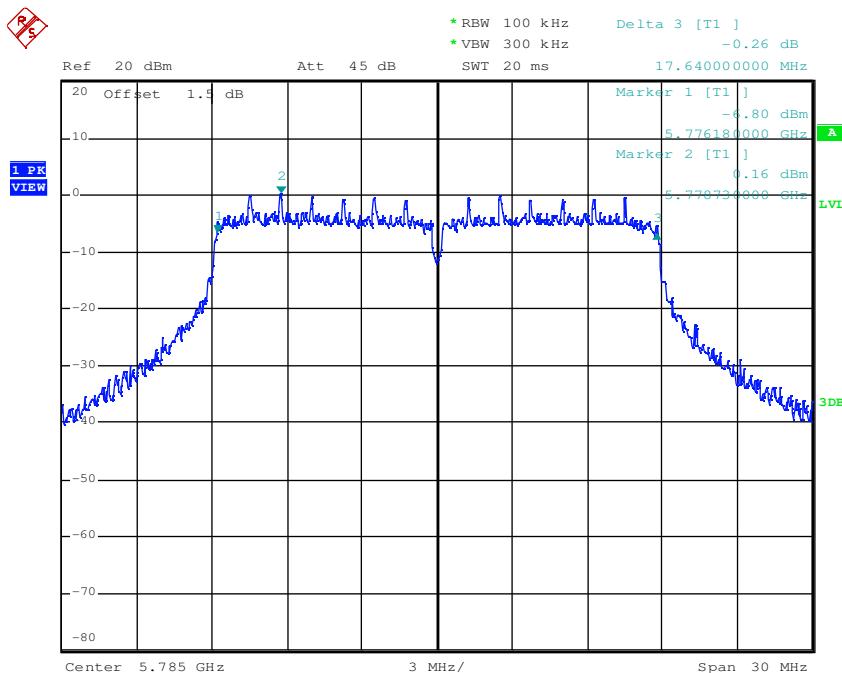


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Test mode:	802.11 ac20	Frequency(MHz):	5745
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Test mode:	802.11 ac20	Frequency(MHz):	5785
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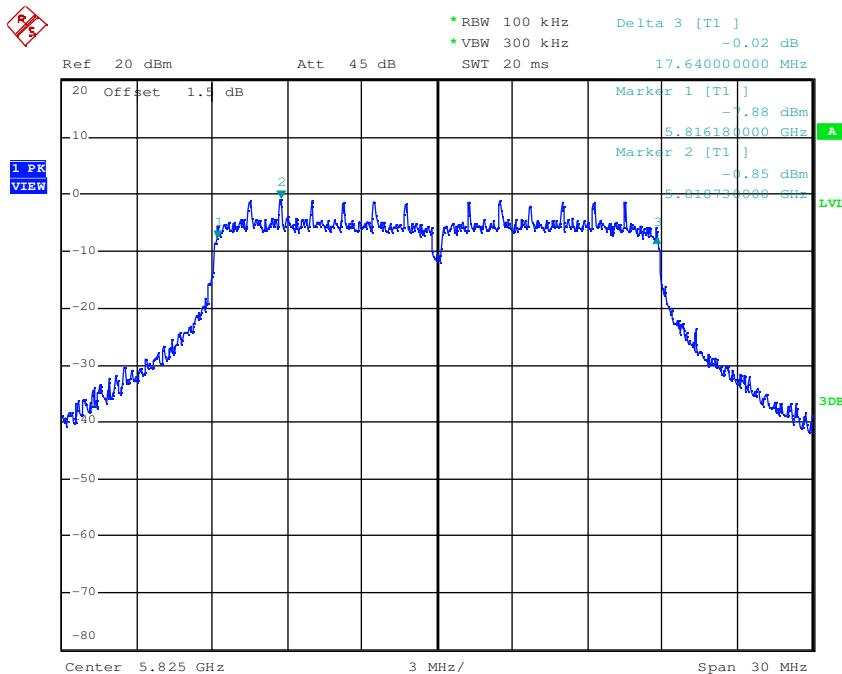


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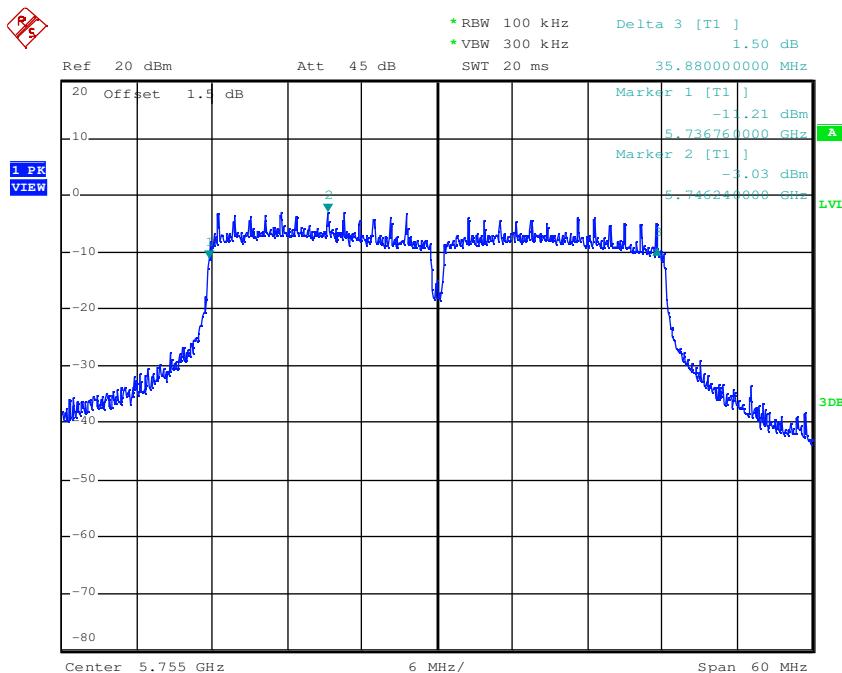


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Test mode:	802.11 ac20	Frequency(MHz):	5825
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Test mode:	802.11 n40	Frequency(MHz):	5755
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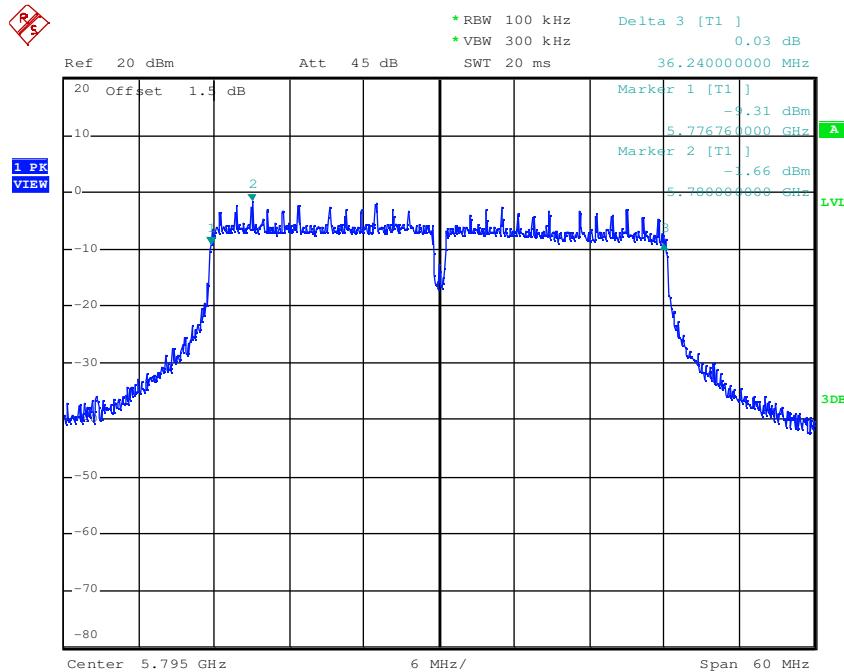


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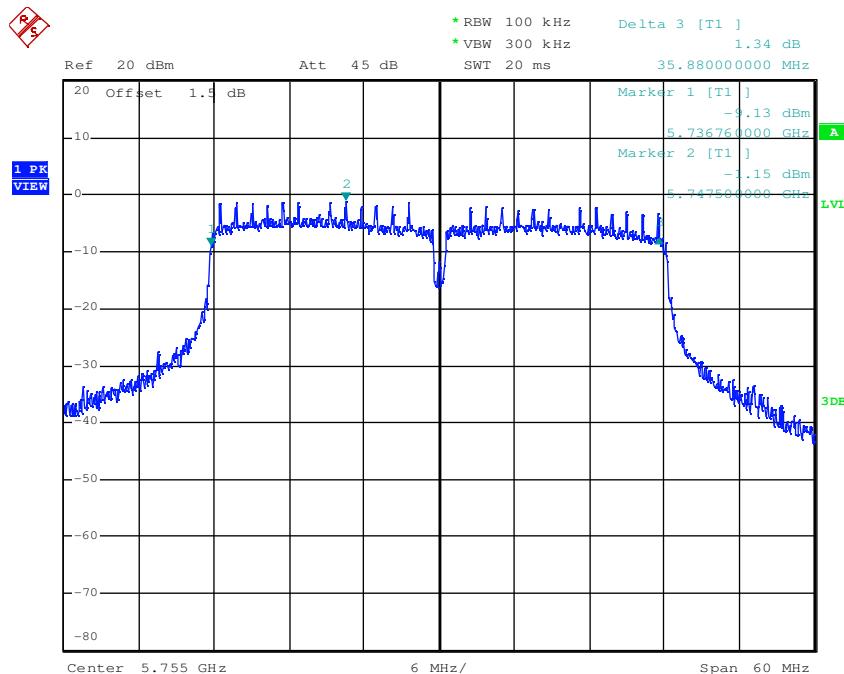


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Test mode:	802.11 n40	Frequency(MHz):	5795
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Test mode:	802.11 ac40	Frequency(MHz):	5755
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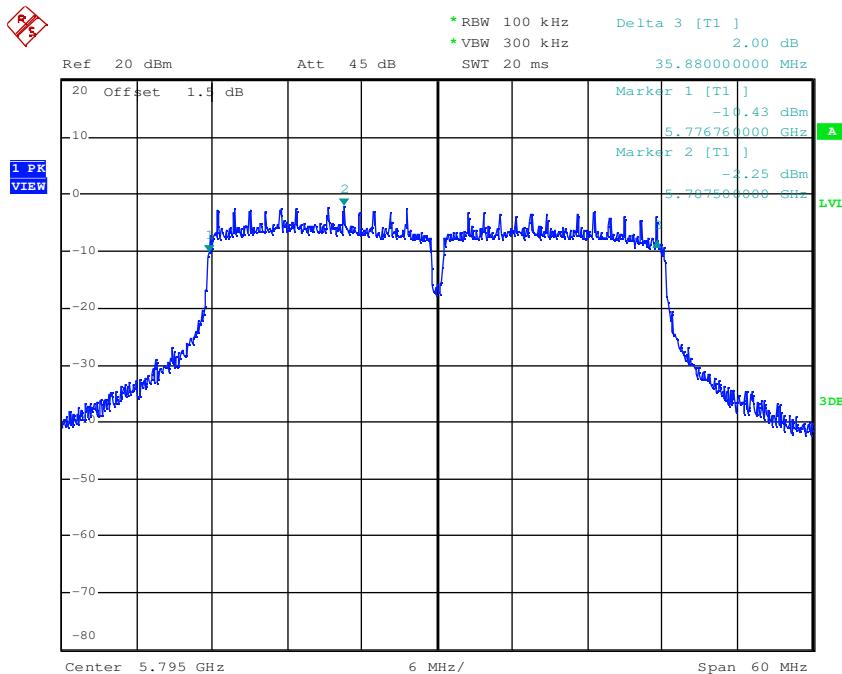


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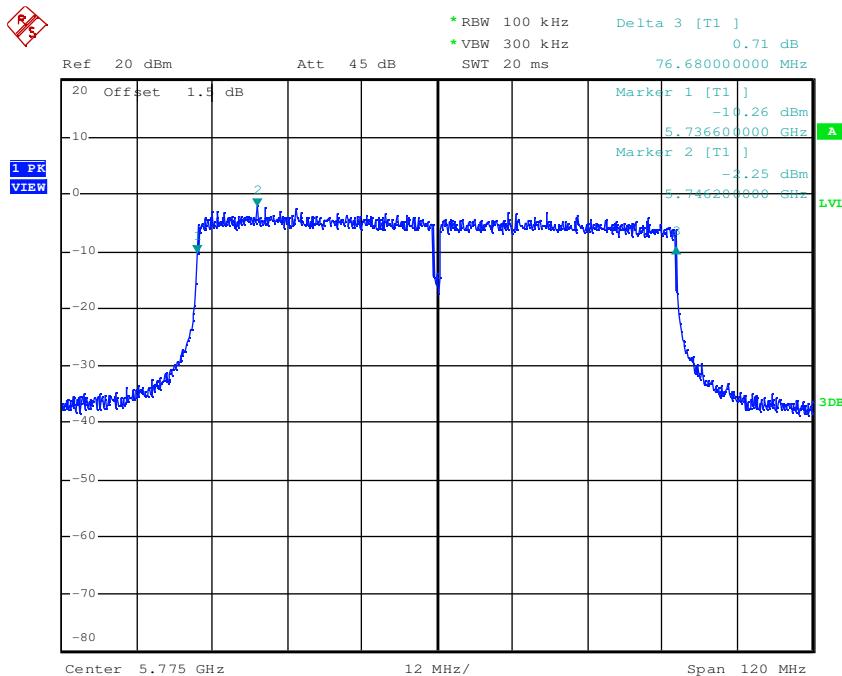


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Test mode:	802.11 ac40	Frequency(MHz):	5795
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Test mode:	802.11 ac80	Frequency(MHz):	5775
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## 6.7 Power Spectral Density

Test Requirement:	47 CFR Part 15 Section 15.407(a)	
Test Method:	ANSI C63.10: 2013, section 12.6, b	
Test Setup:	<p style="text-align: center;"><b>Spectrum Analyzer</b></p> <p style="text-align: center;">Non-Conducted Table</p> <p style="text-align: center;">Ground Reference Plane</p>	
	<p><i>Remark:</i>  <i>Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.</i></p>	
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	<p>Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a;          MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)</p> <p>Only the worst case is recorded in the report.</p>	
Limit:	Frequency Band	Limit
	5150-5250MHz	<p>Antenna gain below 6dBi: 17dBm (802.11 a)</p> <p>Antenna gain greater than 6dBi :</p> <p>The power spectral density less than <math>17\text{dBm}/1\text{MHz} - 2.50(\text{directional gain}-6) = 14.5\text{dBm}</math>(802.11 n &amp; 802.11 ac)</p>
	5725-5850MHz	<p>Antenna gain below 6dBi: 30dBm (802.11 a)</p> <p>Antenna gain greater than 6dBi :</p> <p>The power spectral density less than <math>30\text{dBm}/500\text{kHz} - 3.00(\text{directional gain}-6) = 27.00\text{dBm}</math>(802.11 n &amp; 802.11 ac)</p>
		<p>Directional gain = <math>G_{ANT\ MAX} + 10 \log(N_{ANT}/N_{SS})</math> dBi</p> <p>(<math>N_{SS} = 1</math>, where NSS is the number of spatial streams)</p> <p>(<math>N_{ANT} = 2</math>, where NANT is the number of outputs)</p> <p>For band I: Directional Gain = 8.5dBi</p> <p>For band III: Directional Gain = 9dBi</p>
Test Results:	Pass	

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### Measurement Data (Conducted test data):

#### WiFi Module 1:

802.11a mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5180	-3.71	-3.52	≤17dBm/MHz	Pass	
5200	-3.63	-2.77	≤17dBm/MHz	Pass	
5240	-2.91	-2.48	≤17dBm/MHz	Pass	
5745	2.21	1.51	≤30dBm/500kHz	Pass	
5785	1.63	0.66	≤30dBm/500kHz	Pass	
5825	0.30	-0.10	≤30dBm/500kHz	Pass	
802.11 n20 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2	Total		
5180	-3.92	-3.69	-0.79	≤14.50dBm/MHz	Pass
5200	-4.05	-3.07	-0.52	≤14.50dBm/MHz	Pass
5240	-3.39	-2.60	0.03	≤14.50dBm/MHz	Pass
5745	1.41	1.24	4.34	≤27.00dBm/500kHz	Pass
5785	0.64	0.19	3.43	≤27.00dBm/500kHz	Pass
5825	0.18	-0.05	3.08	≤27.00dBm/500kHz	Pass
802.11ac 20 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2	Total		
5180	-3.86	-3.75	-0.79	≤14.50dBm/MHz	Pass
5200	-3.95	-3.19	-0.54	≤14.50dBm/MHz	Pass
5240	-3.34	-2.58	0.07	≤14.50dBm/MHz	Pass
5745	2.24	1.22	4.77	≤27.00dBm/500kHz	Pass
5785	1.57	0.70	4.17	≤27.00dBm/500kHz	Pass
5825	0.25	-0.13	3.07	≤27.00dBm/500kHz	Pass
802.11 n40 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2	Total		
5190	-7.42	-6.47	-3.91	≤14.50dBm/MHz	Pass
5230	-6.41	-5.29	-2.80	≤14.50dBm/MHz	Pass
5755	-2.17	-3.34	0.29	≤27.00dBm/500kHz	Pass
5795	-3.26	-4.11	-0.65	≤27.00dBm/500kHz	Pass
802.11ac 40 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2	Total		
5190	-6.98	-6.06	-3.49	≤14.50dBm/MHz	Pass
5230	-6.44	-5.51	-2.94	≤14.50dBm/MHz	Pass
5755	-2.23	-3.28	0.29	≤27.00dBm/500kHz	Pass
5795	-2.96	-3.97	-0.43	≤27.00dBm/500kHz	Pass
802.11ac 80 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2	Total		
5210	-6.66	-6.72	-3.68	≤14.50dBm/MHz	Pass
5775	0.28	-0.62	2.86	≤27.00dBm/500kHz	Pass

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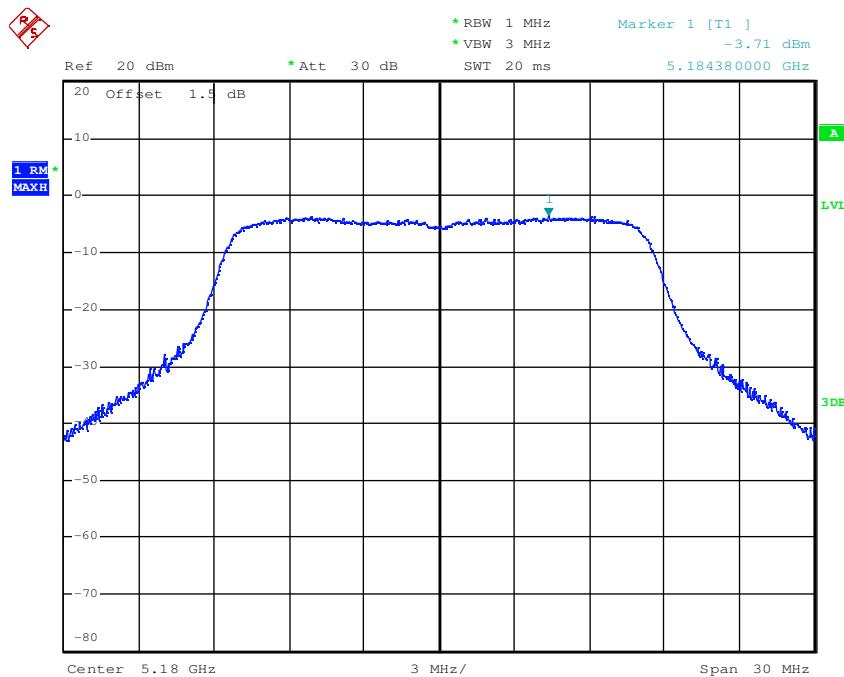
**WiFi Module 2:**

802.11a mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5180	-3.03	-3.33	≤17dBm/MHz	Pass	
5200	-2.98	-3.07	≤17dBm/MHz	Pass	
5240	-3.17	-3.38	≤17dBm/MHz	Pass	
5745	0.17	4.08	≤30dBm/500kHz	Pass	
5785	-0.56	2.93	≤30dBm/500kHz	Pass	
5825	-1.36	2.10	≤30dBm/500kHz	Pass	
802.11n20 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5180	-3.17	-3.74	-0.44	≤14.50dBm/MHz	Pass
5200	-3.28	-3.90	-0.57	≤14.50dBm/MHz	Pass
5240	-3.25	-3.51	-0.37	≤14.50dBm/MHz	Pass
5745	0.65	3.69	5.44	≤27.00dBm/500kHz	Pass
5785	0.48	3.14	5.02	≤27.00dBm/500kHz	Pass
5825	-0.78	1.76	3.68	≤27.00dBm/500kHz	Pass
802.11ac 20 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5180	-3.16	-3.75	-0.43	≤14.50dBm/MHz	Pass
5200	-3.32	-3.74	-0.51	≤14.50dBm/MHz	Pass
5240	-3.36	-3.79	-0.56	≤14.50dBm/MHz	Pass
5745	0.37	3.92	5.51	≤27.00dBm/500kHz	Pass
5785	-0.69	3.10	4.62	≤27.00dBm/500kHz	Pass
5825	-1.99	1.66	3.22	≤27.00dBm/500kHz	Pass
802.11n40 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5190	-6.52	-7.11	-3.79	≤14.50dBm/MHz	Pass
5230	-6.73	-7.41	-4.05	≤14.50dBm/MHz	Pass
5755	-3.27	1.61	2.83	≤27.00dBm/500kHz	Pass
5795	-2.74	0.54	2.21	≤27.00dBm/500kHz	Pass
802.11ac 40 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5190	-6.72	-7.11	-3.90	≤14.50dBm/MHz	Pass
5230	-6.92	-7.34	-4.11	≤14.50dBm/MHz	Pass
5755	-1.88	1.70	3.28	≤27.00dBm/500kHz	Pass
5795	-3.14	0.70	2.20	≤27.00dBm/500kHz	Pass
802.11ac 80 mode					
Frequency (MHz)	Power Spectral Density		Limit	Result	
	Ant.1	Ant.2			
5210	-6.69	-6.48	-3.57	≤14.50dBm/MHz	Pass
5775	-0.21	-0.08	2.87	≤27.00dBm/500kHz	Pass

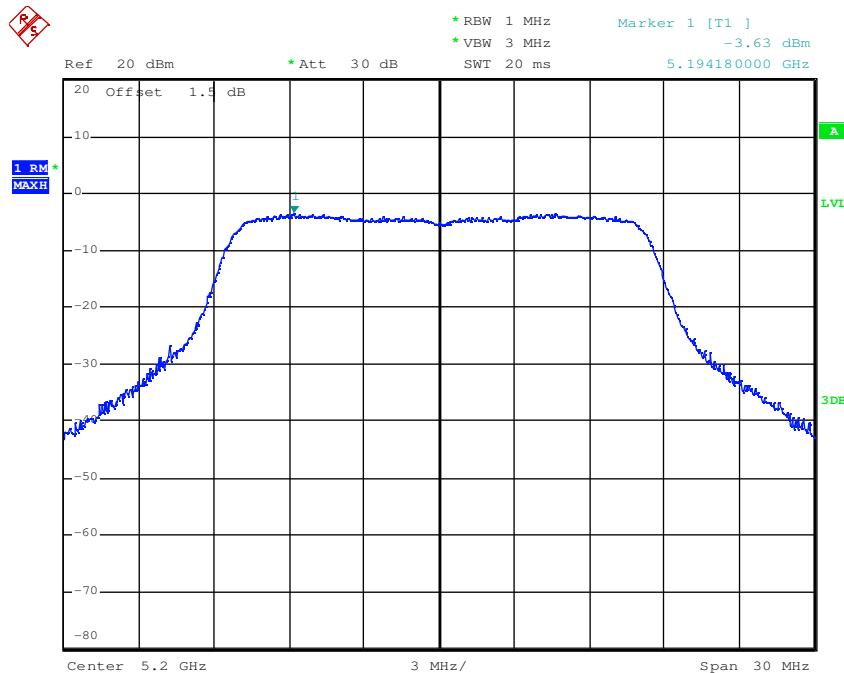


**WiFi Module 1\_Antenna 1:**

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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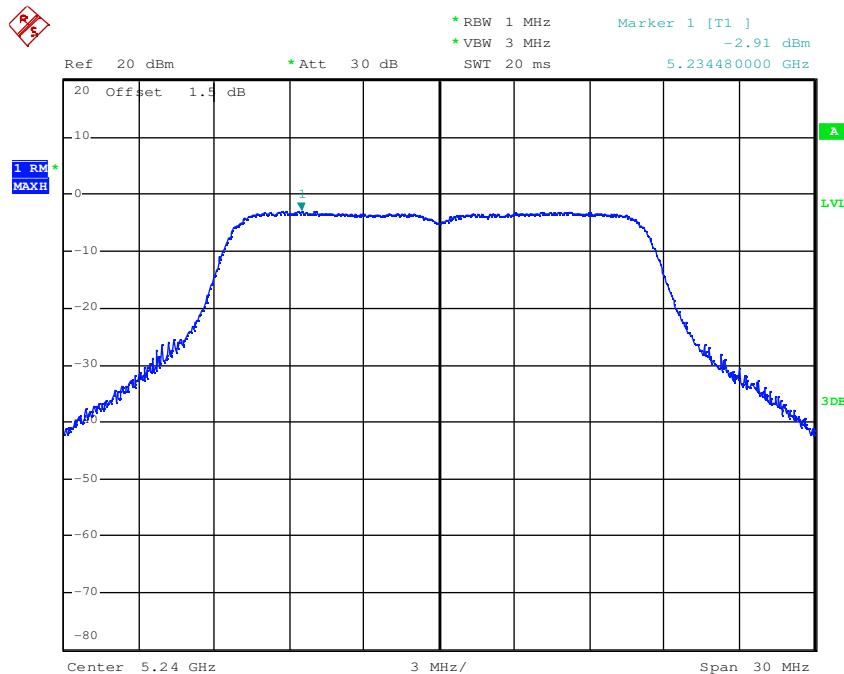


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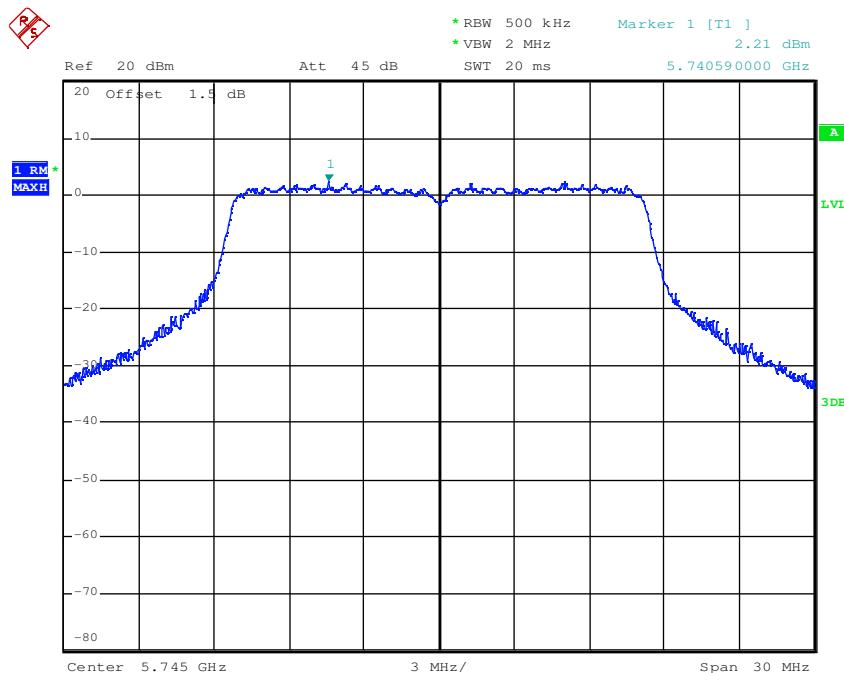


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5745
------------	---------	-----------------	------

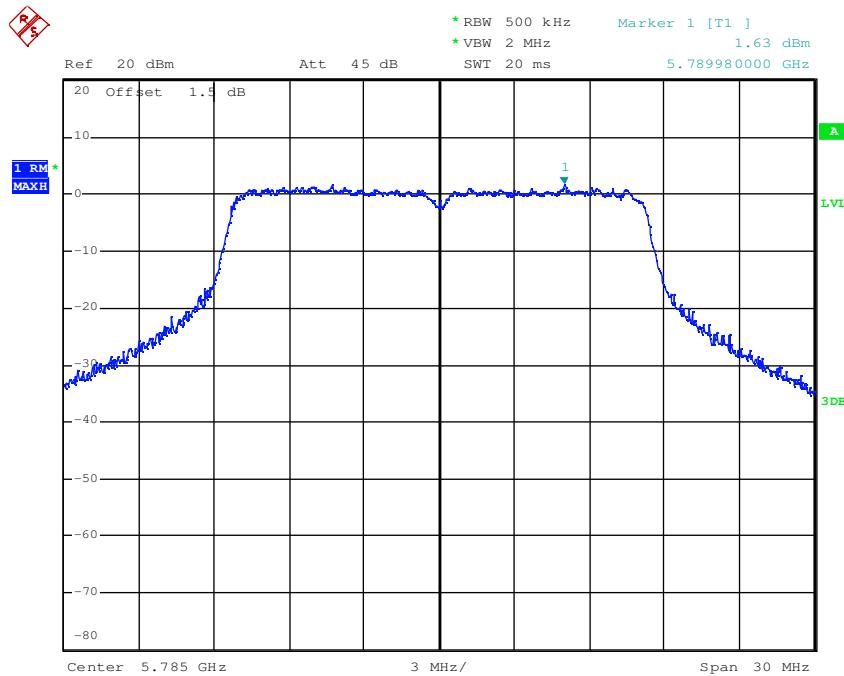


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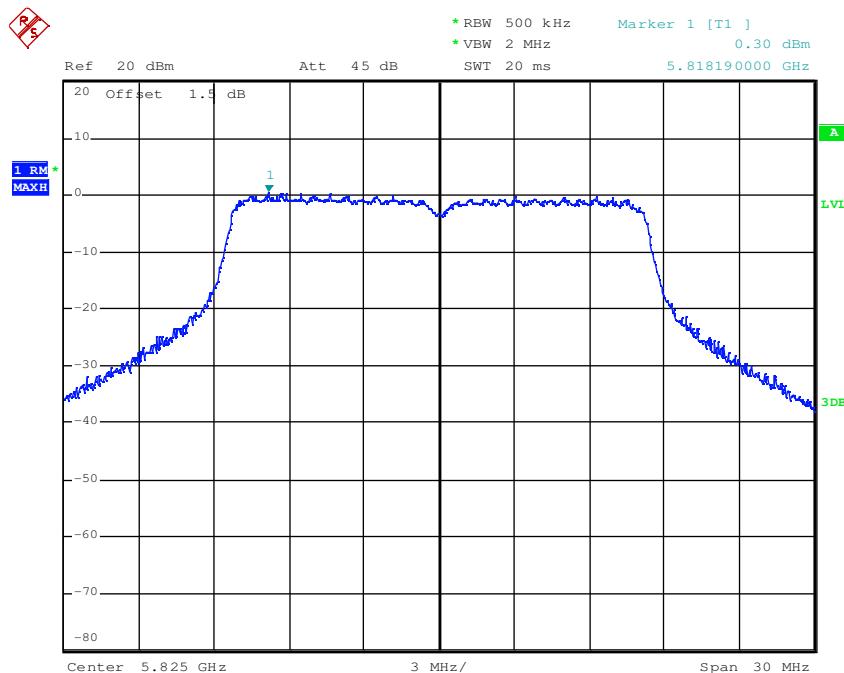


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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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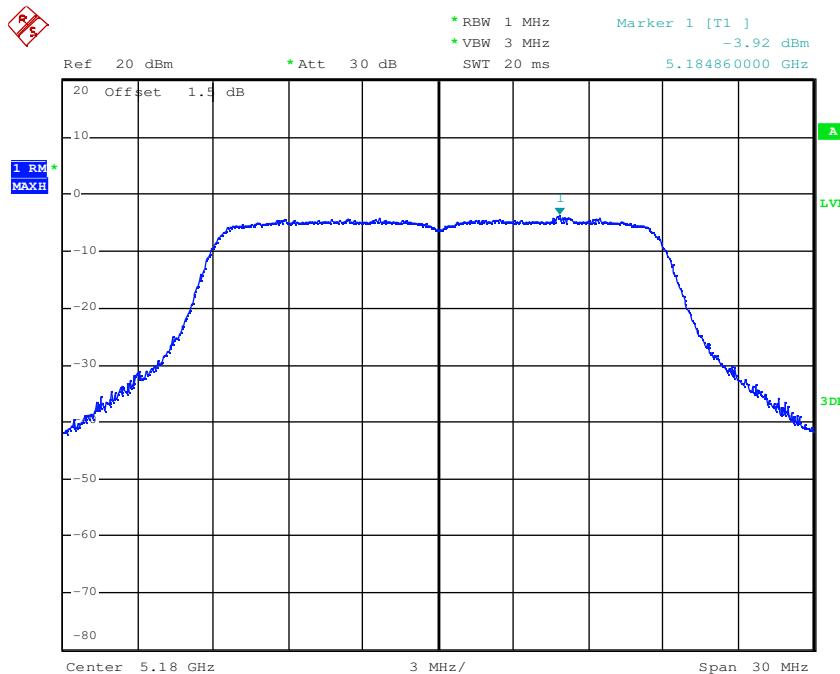


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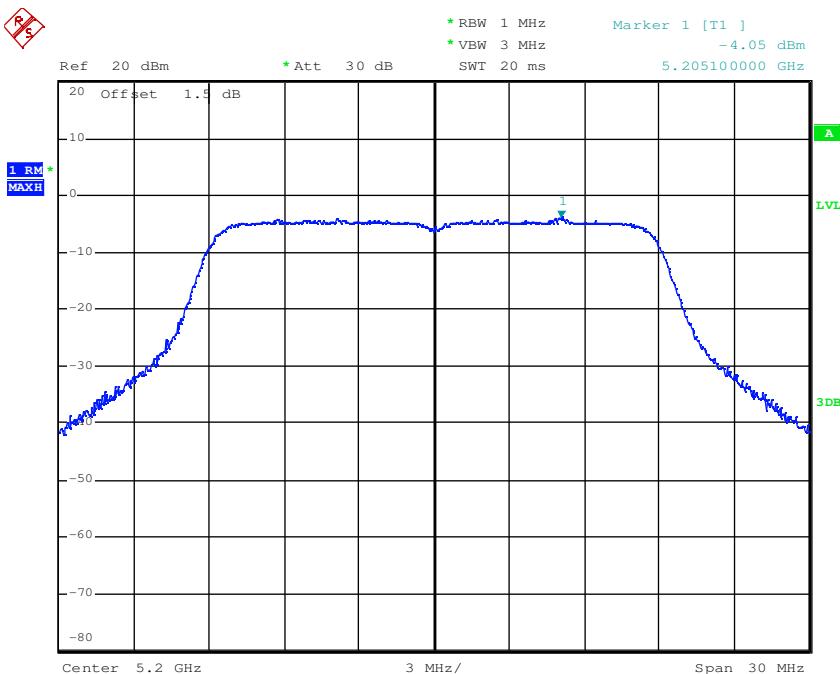


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Test mode:	802.11 n20	Frequency(MHz):	5180
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Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

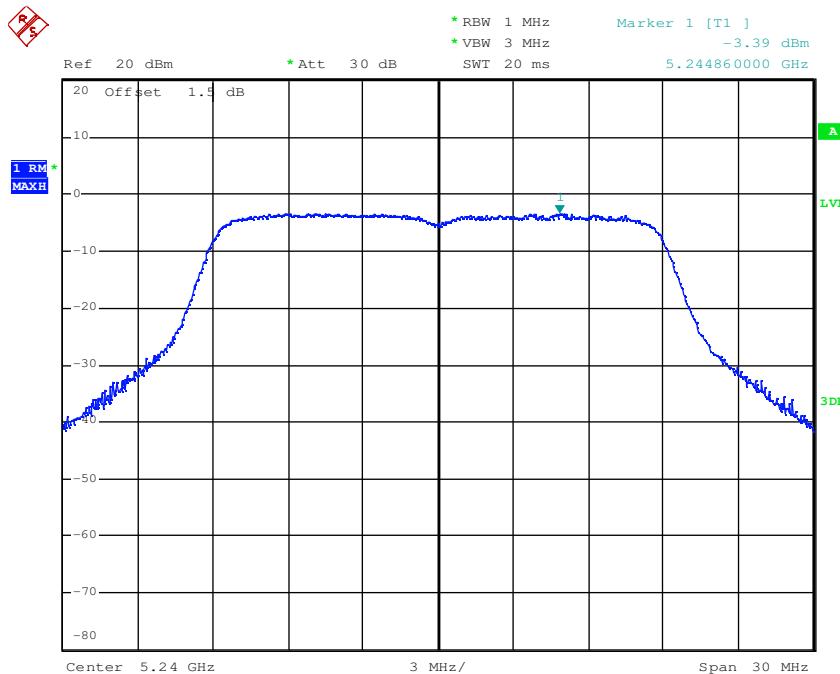


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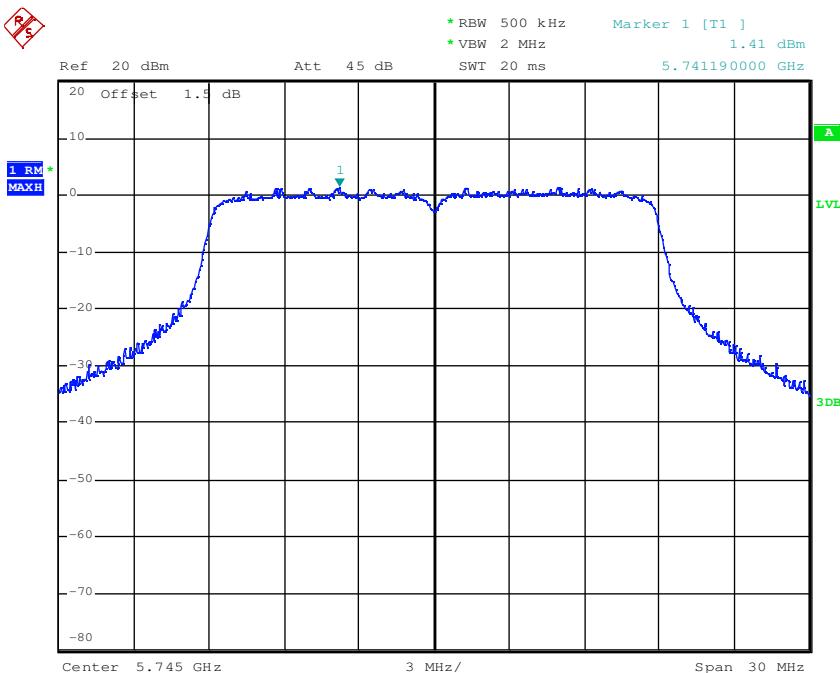


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Test mode:	802.11 n20	Frequency(MHz):	5240
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Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

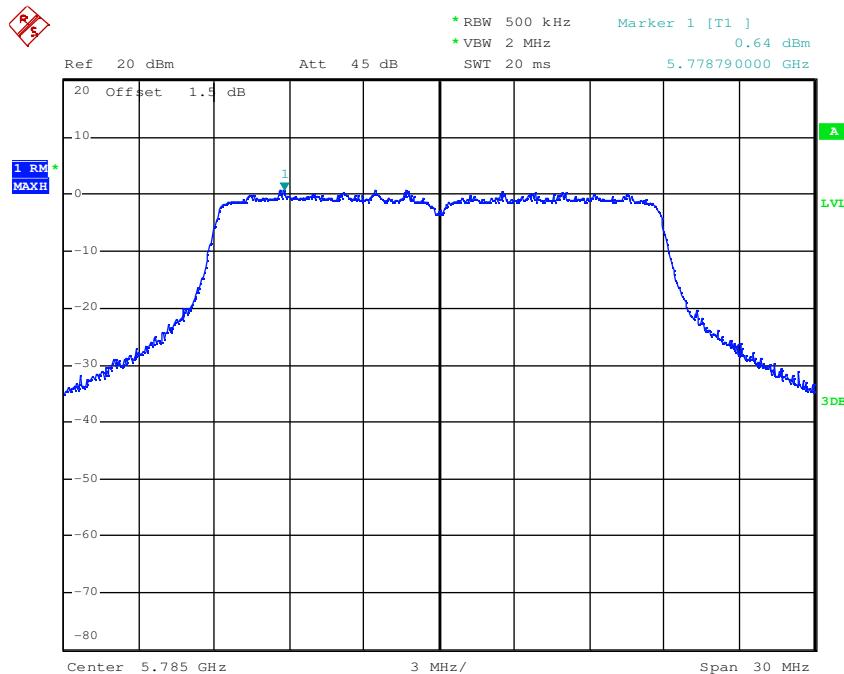


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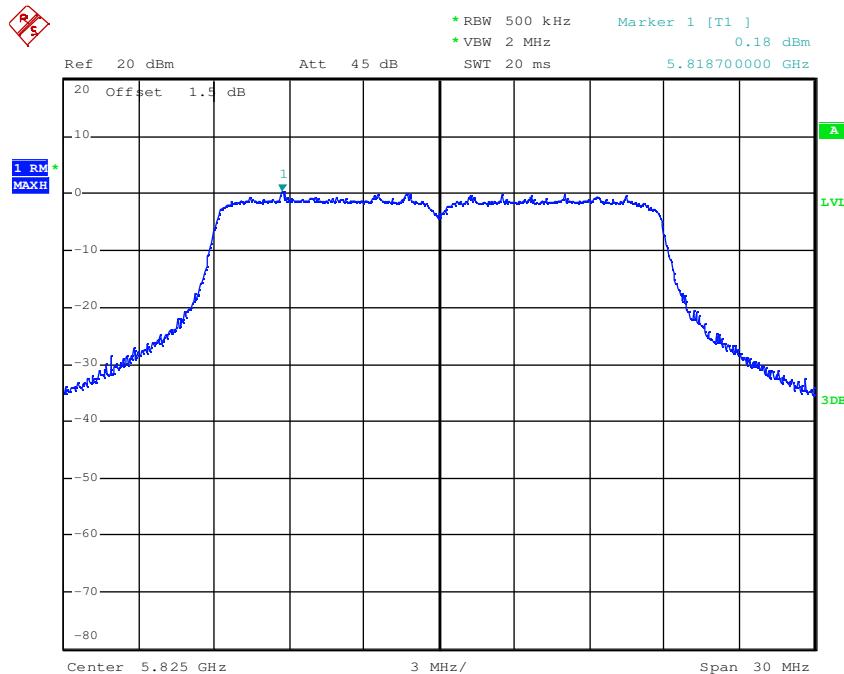


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Test mode:	802.11 n20	Frequency(MHz):	5785
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Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

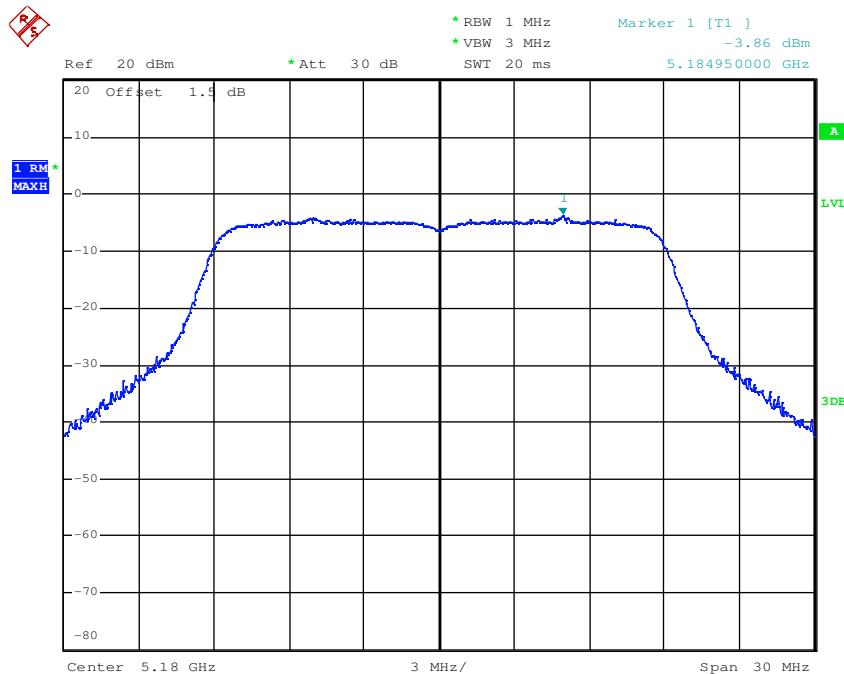


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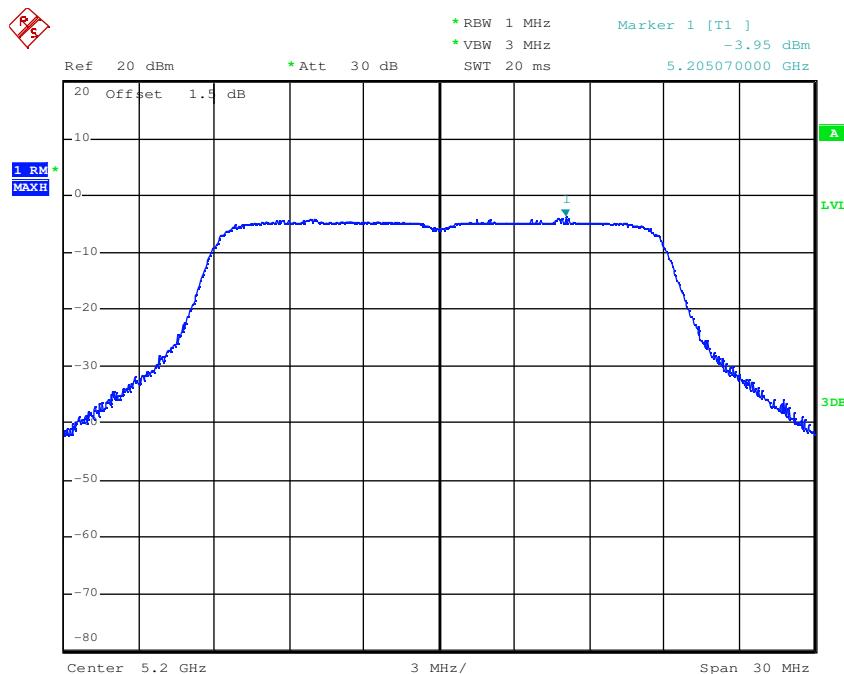


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Test mode:	802.11 ac20	Frequency(MHz):	5180
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Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

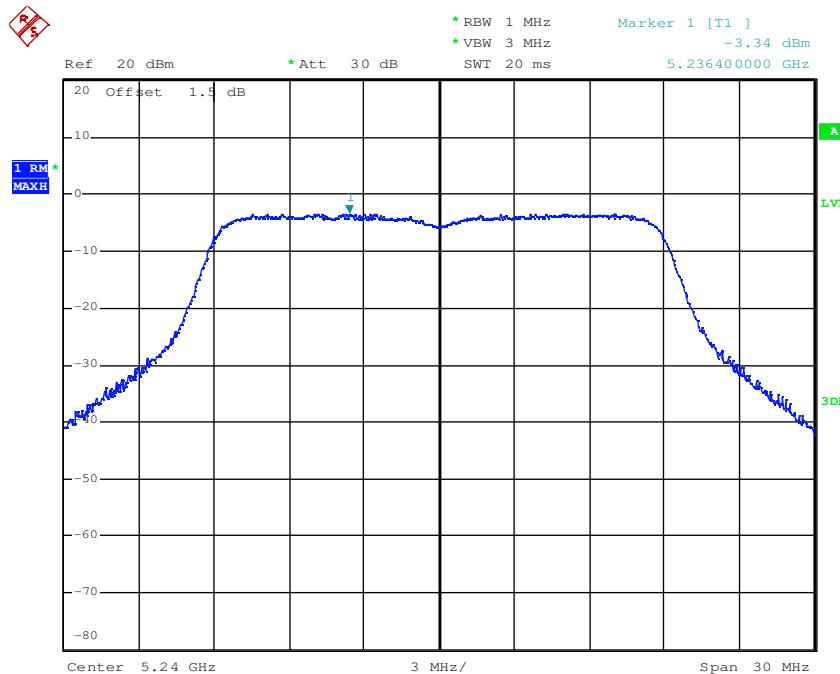


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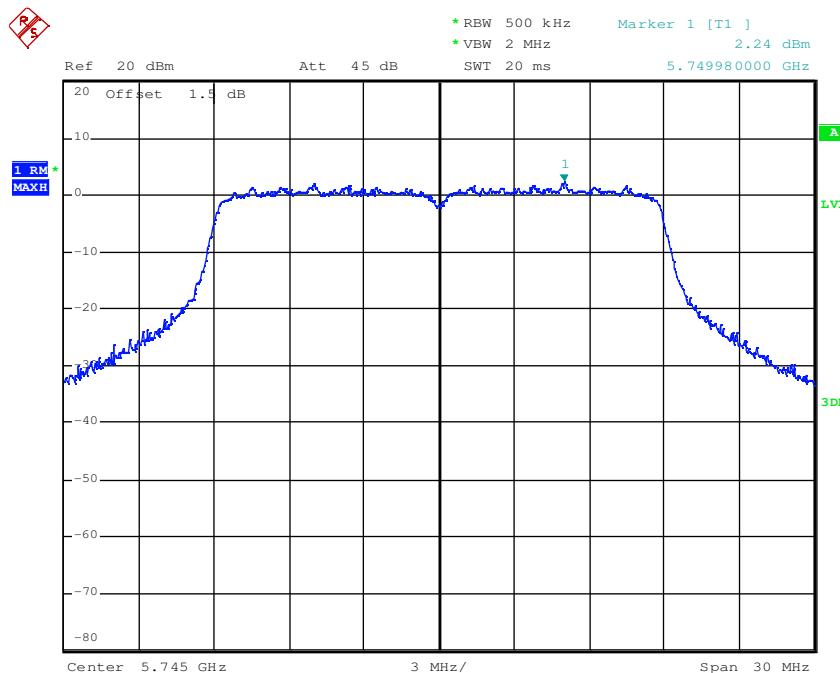


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Test mode:	802.11 ac20	Frequency(MHz):	5240
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Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

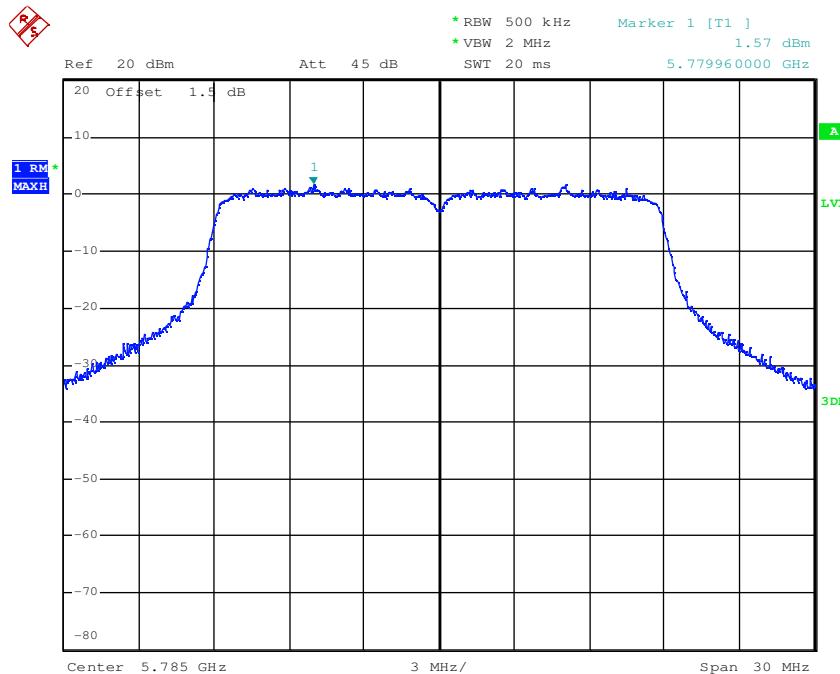


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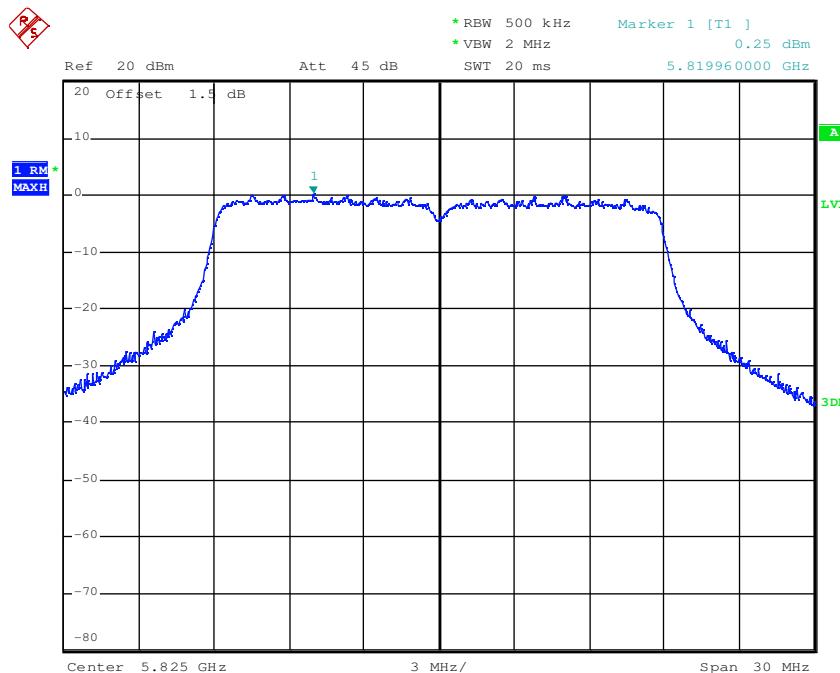


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Test mode:	802.11 ac20	Frequency(MHz):	5785
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Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

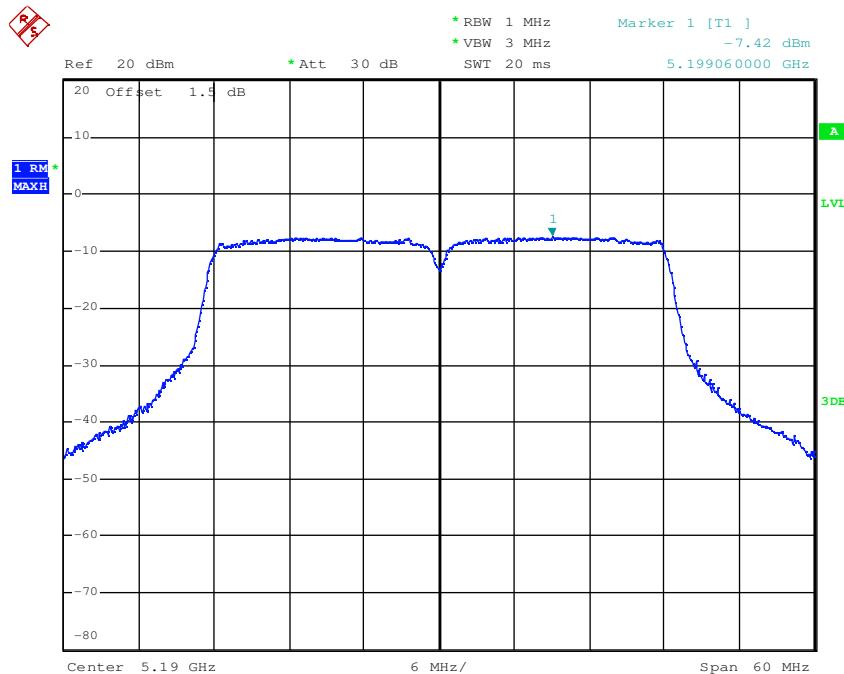


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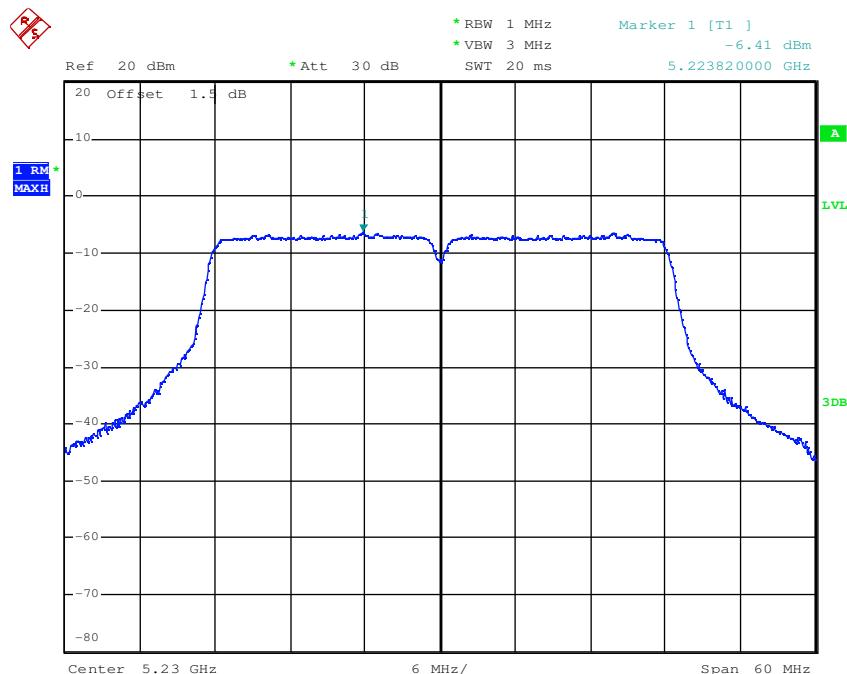


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

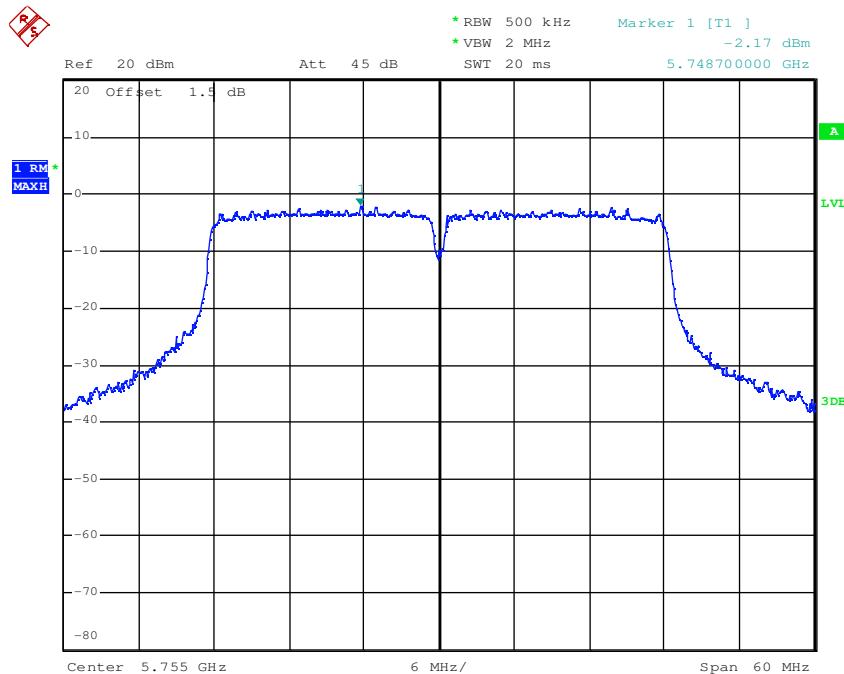


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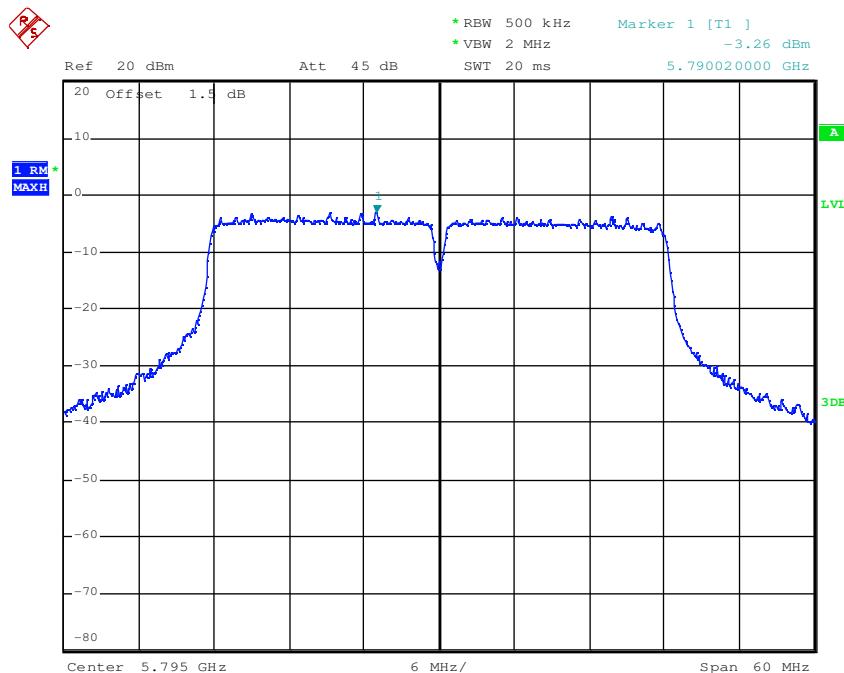


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Test mode:	802.11 n40	Frequency(MHz):	5755
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Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

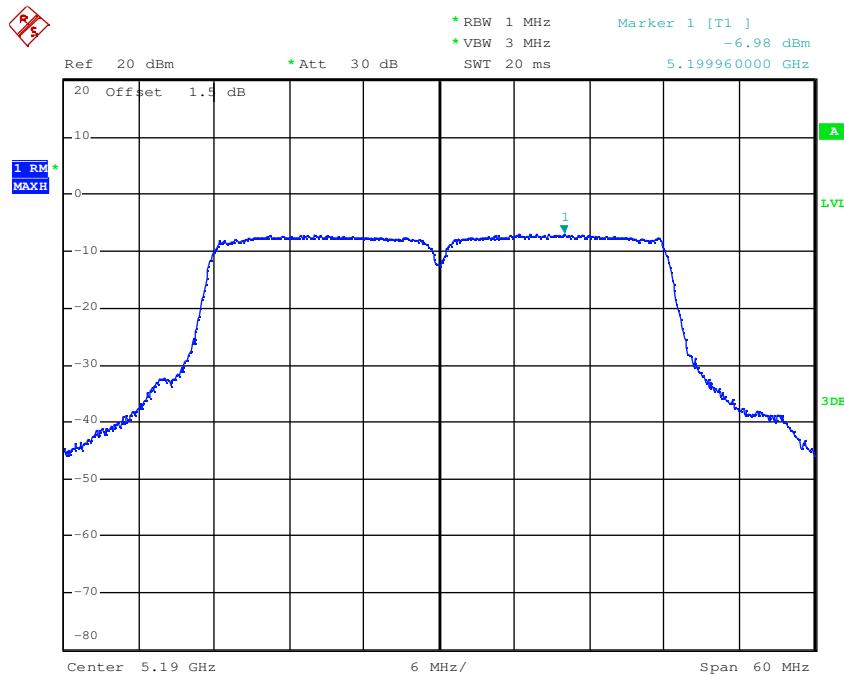


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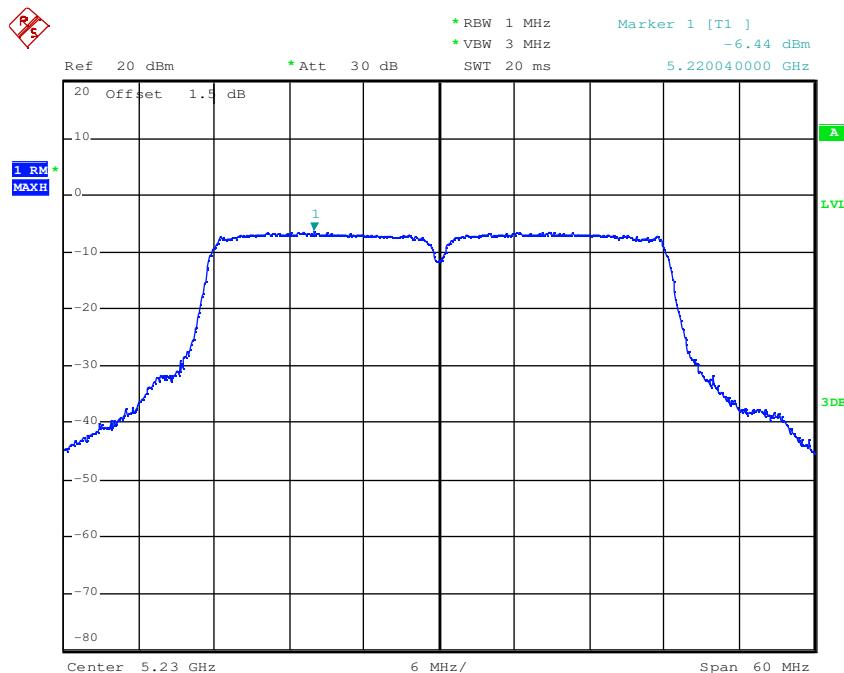


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Test mode:	802.11 ac40	Frequency(MHz):	5190
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

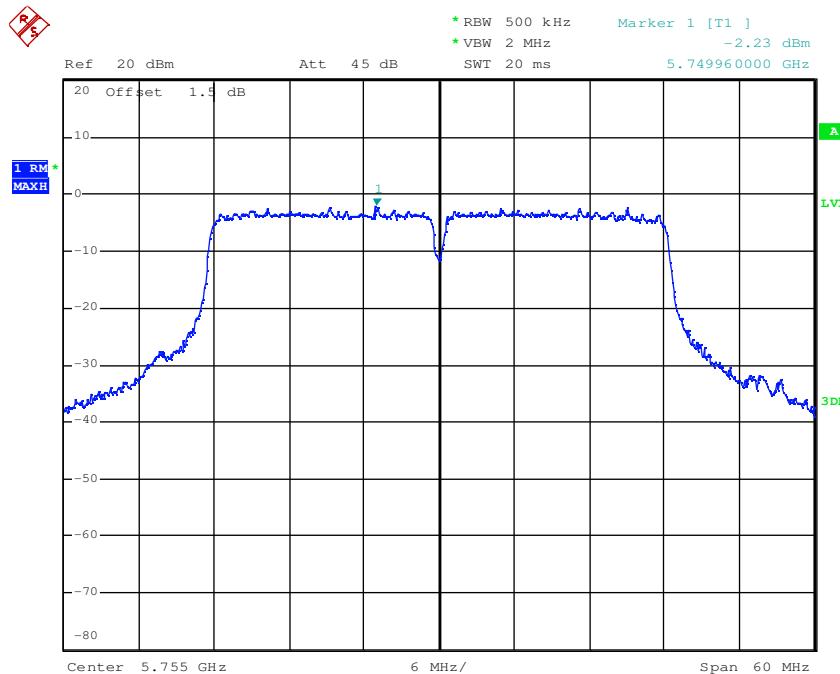


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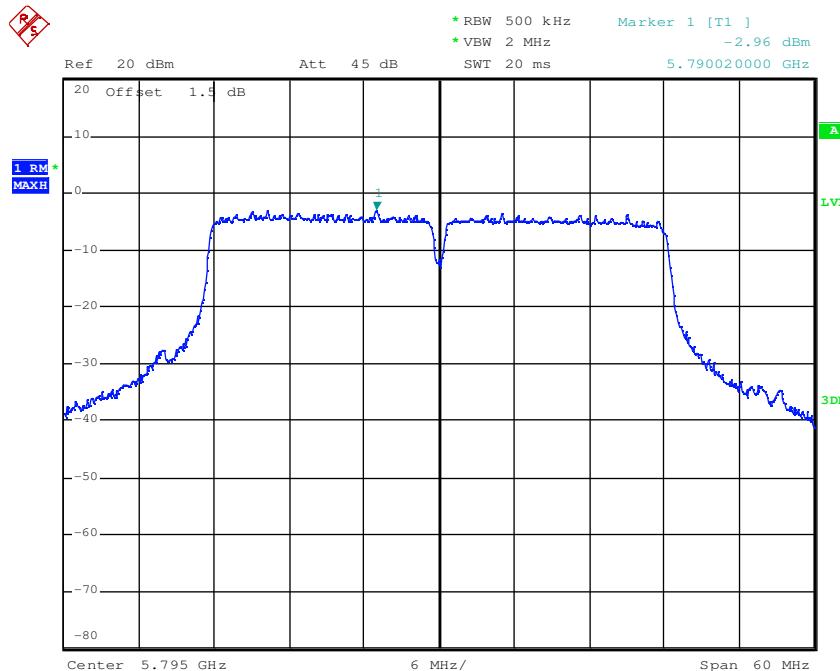


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

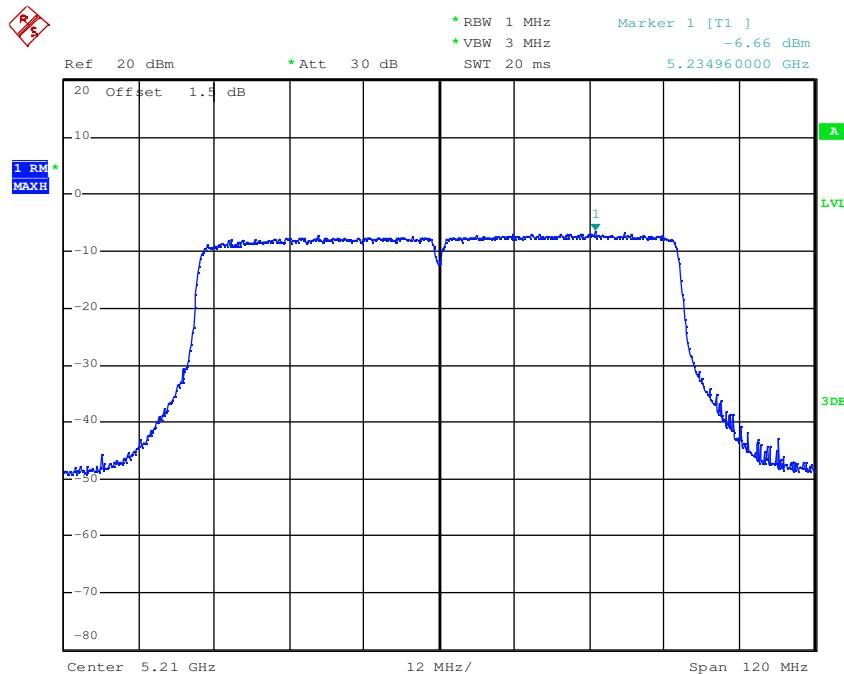


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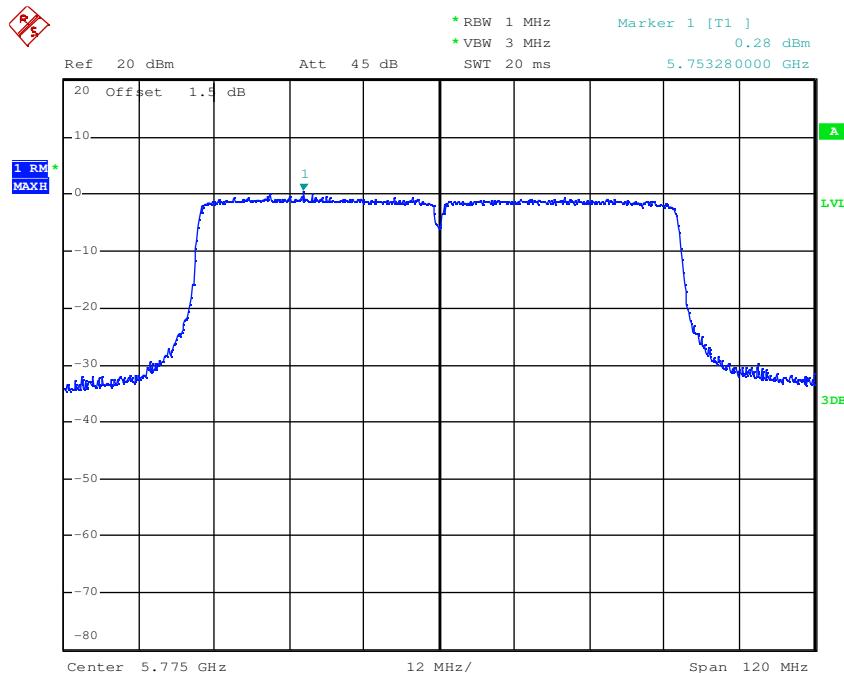


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Test mode:	802.11 ac80	Frequency(MHz):	5210
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Test mode:	802.11 ac80	Frequency(MHz):	5775
------------	-------------	-----------------	------



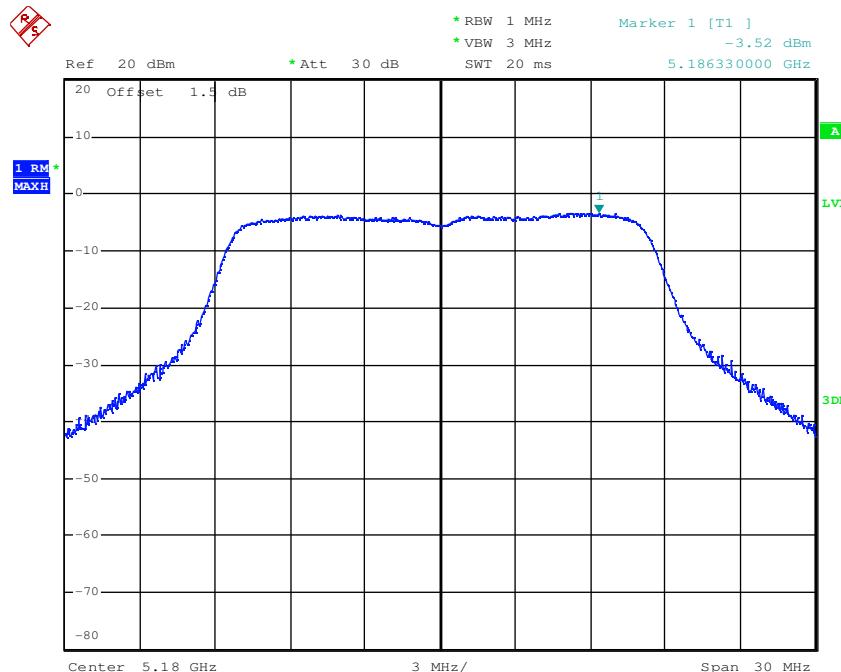
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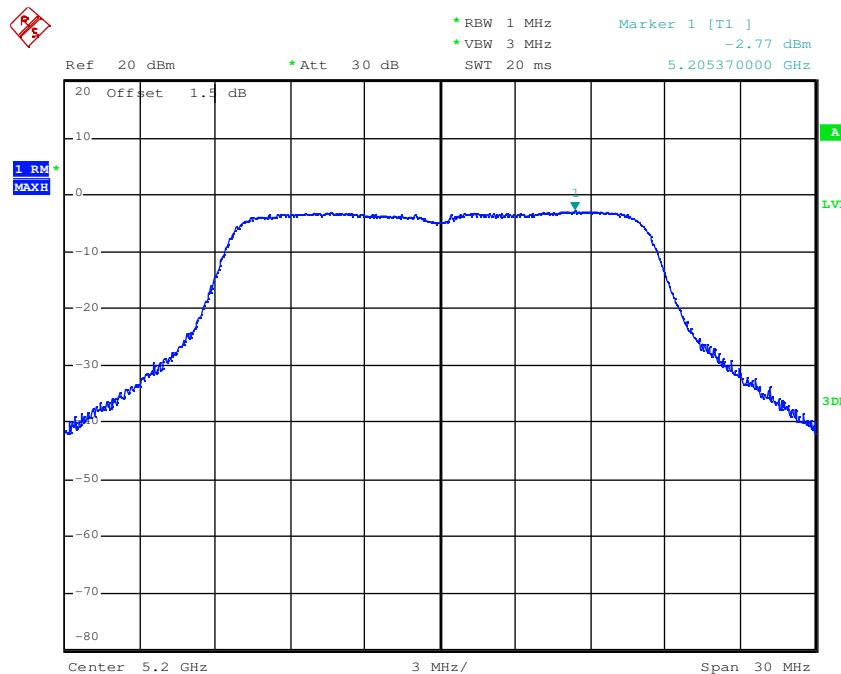
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## WiFi Module 1\_Antenna 2

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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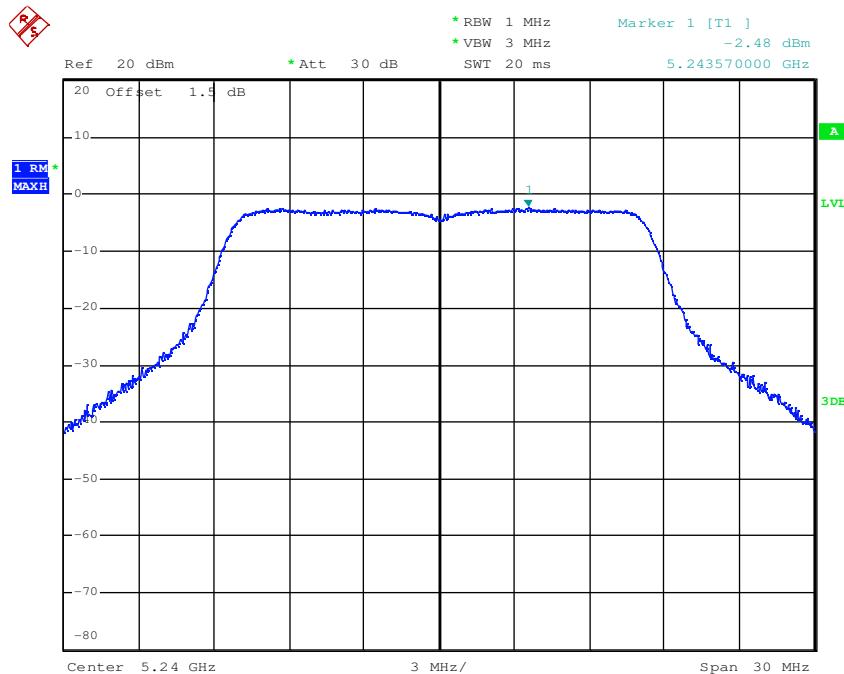


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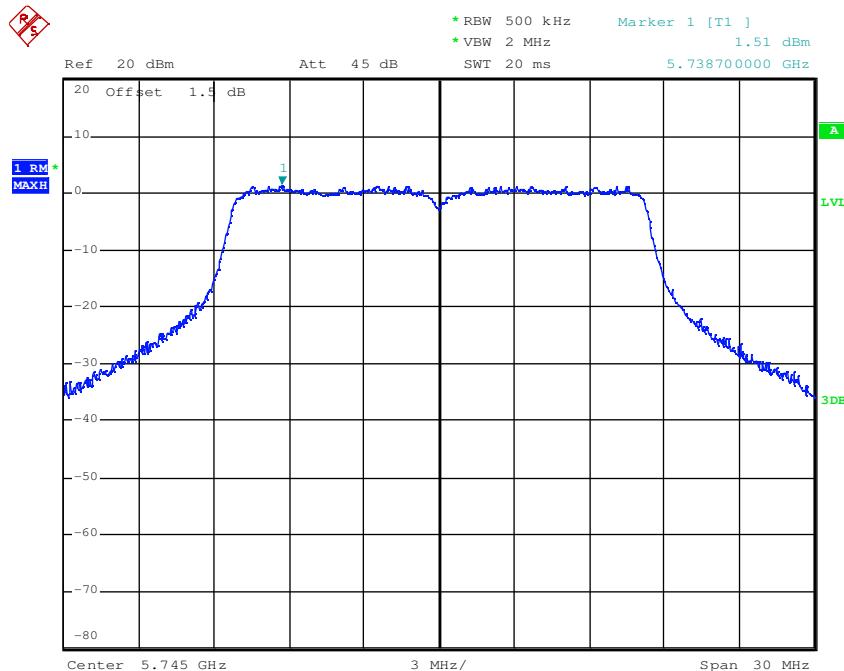


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5745
------------	---------	-----------------	------

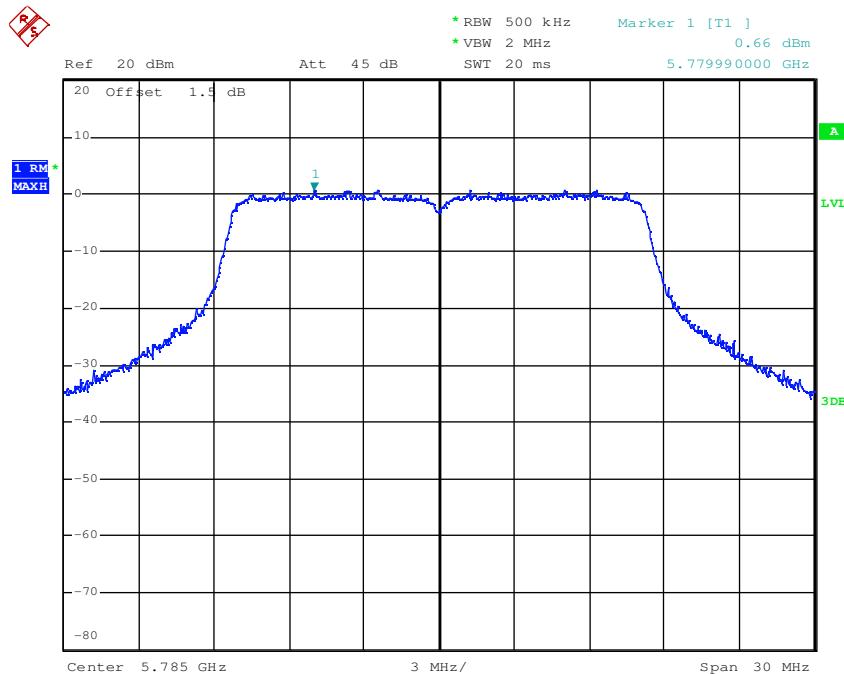


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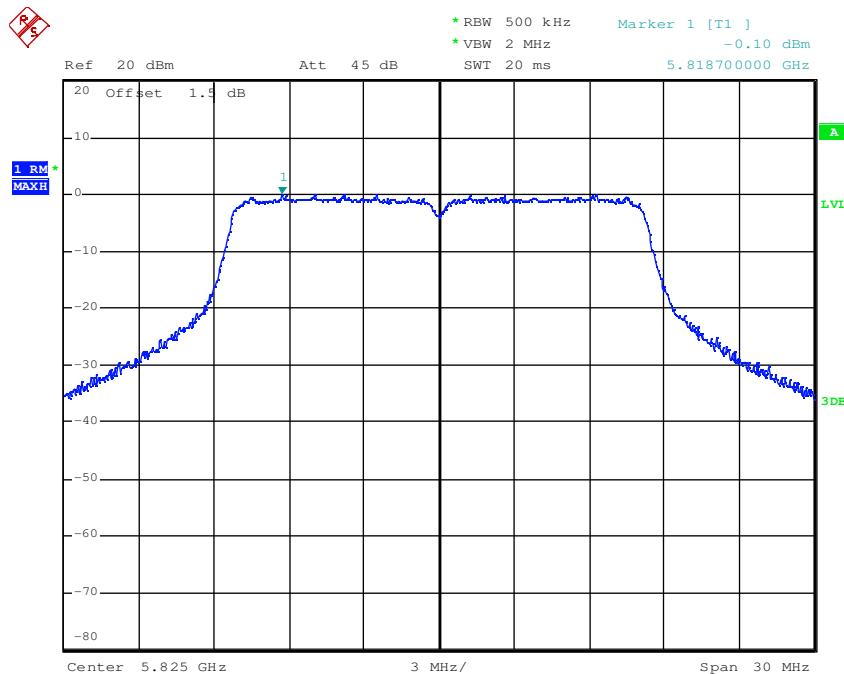


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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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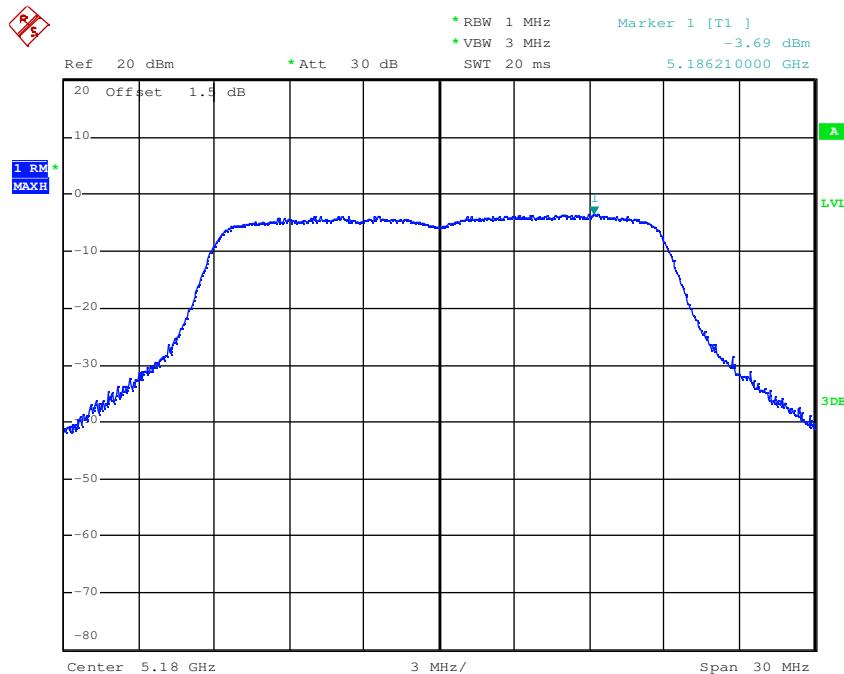


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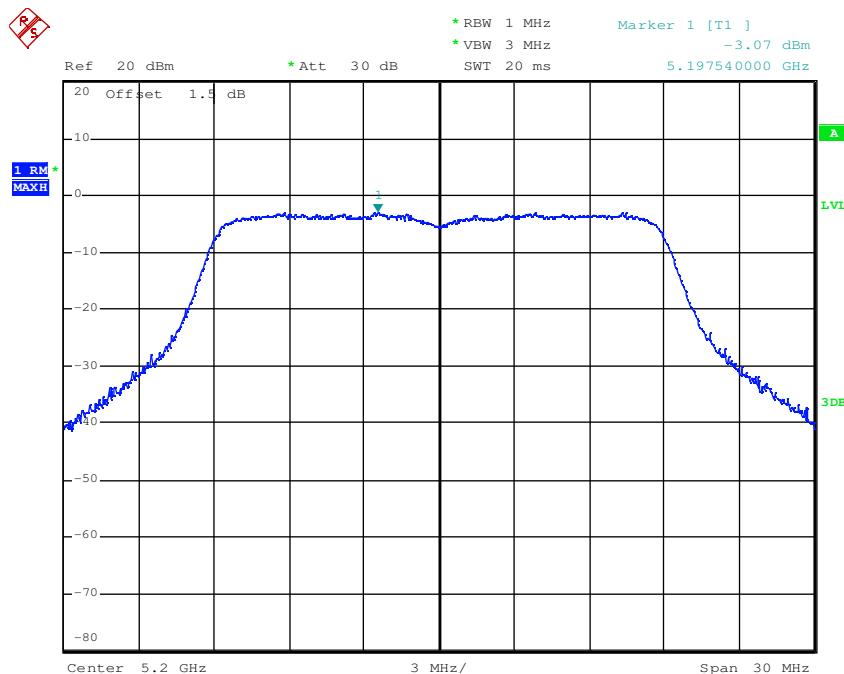


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Test mode:	802.11 n20	Frequency(MHz):	5180
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Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

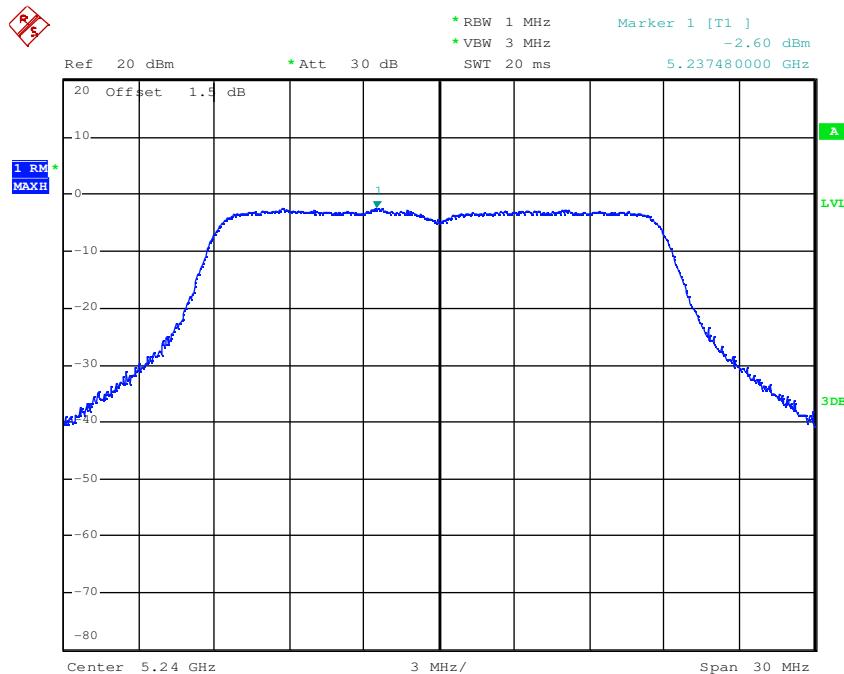


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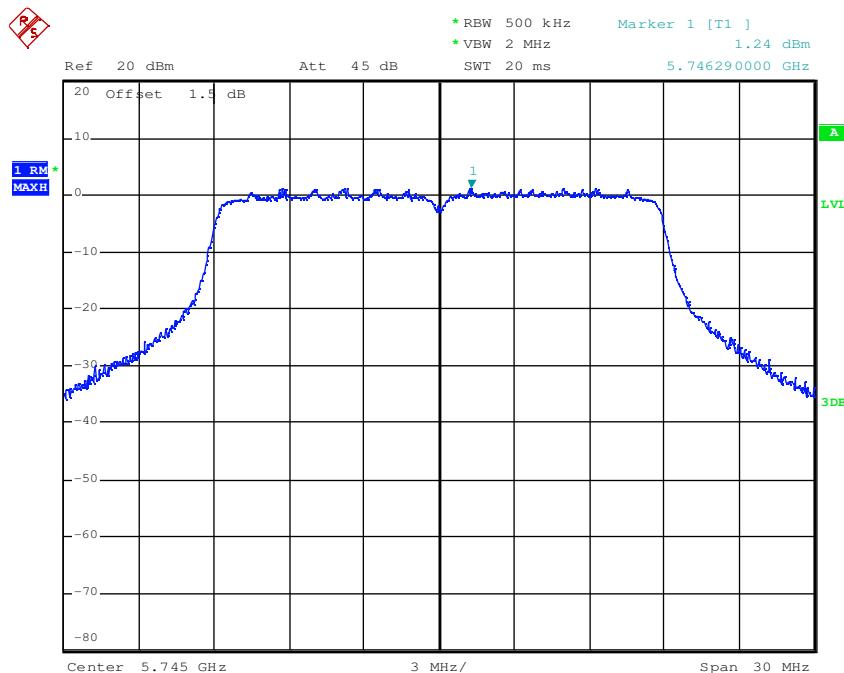


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Test mode:	802.11 n20	Frequency(MHz):	5240
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

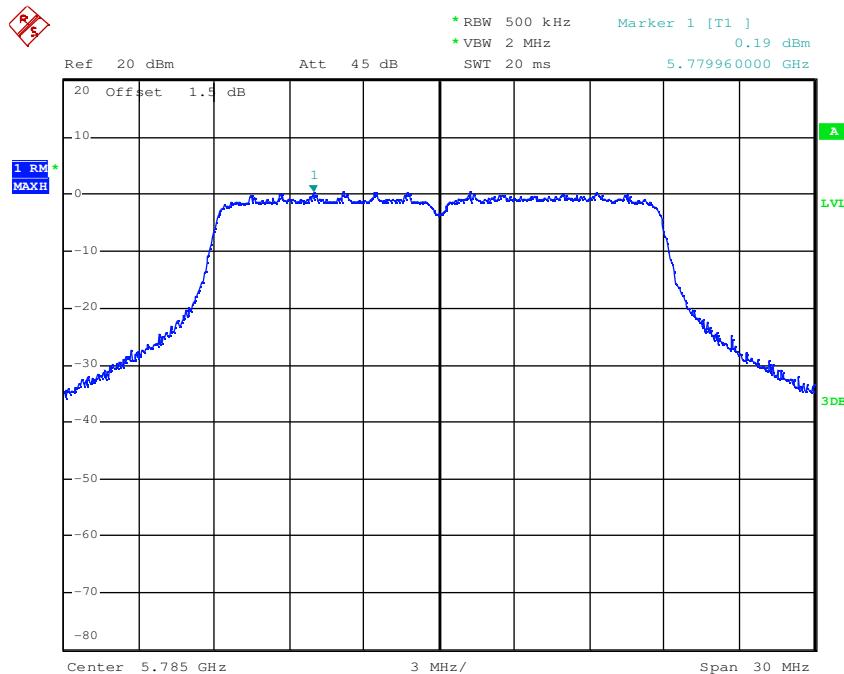


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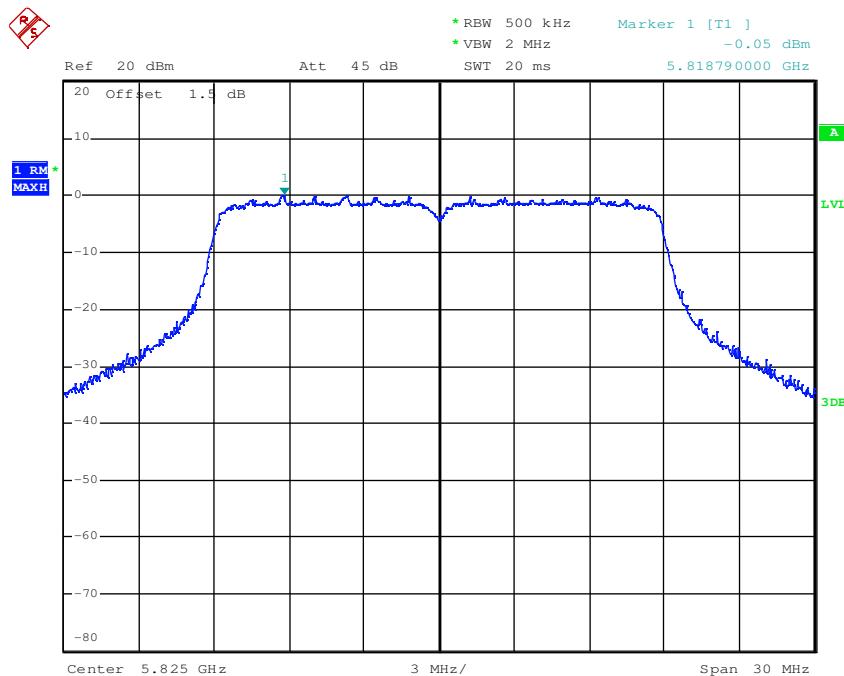


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Test mode:	802.11 n20	Frequency(MHz):	5785
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

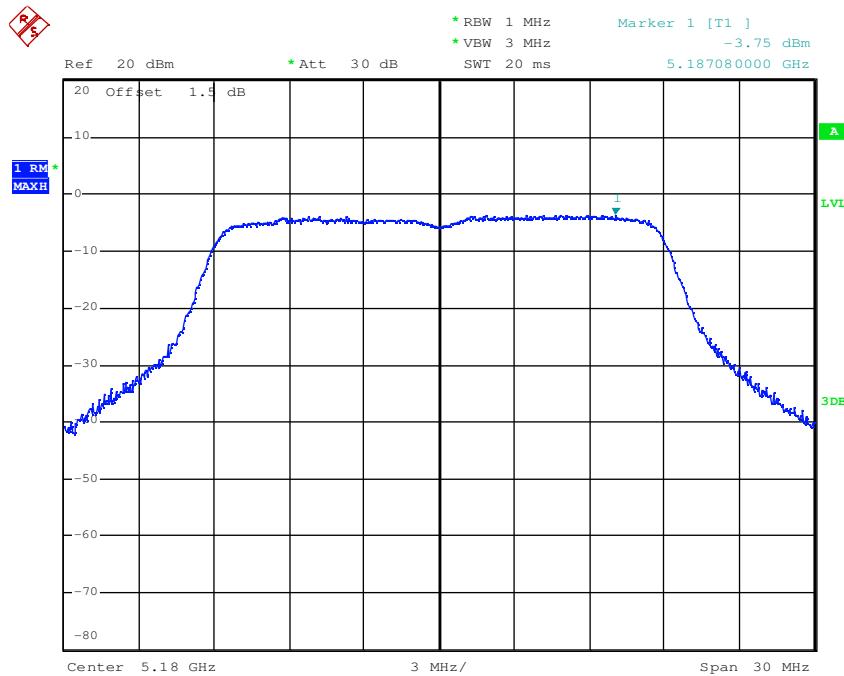


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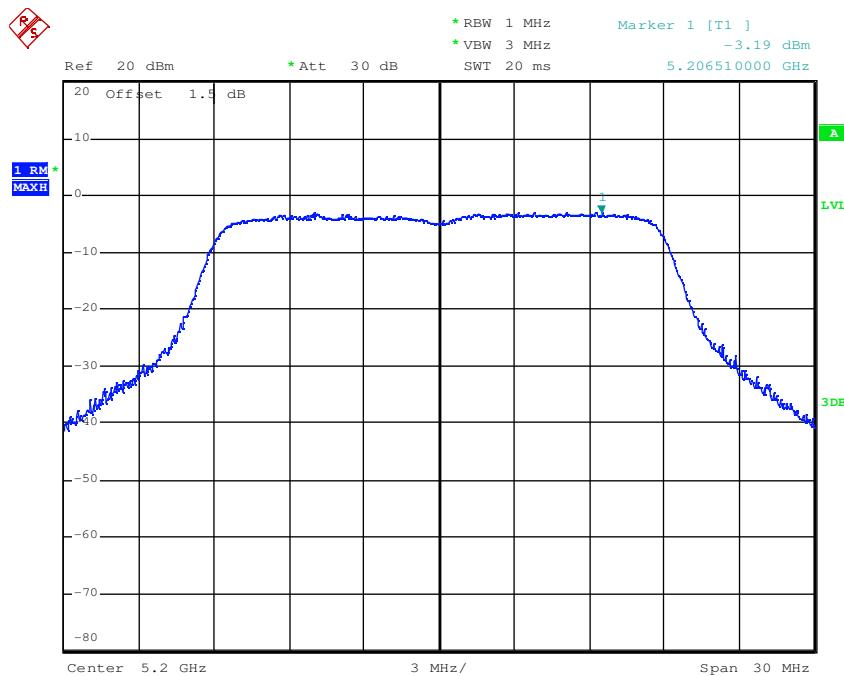


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Test mode:	802.11 ac20	Frequency(MHz):	5180
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

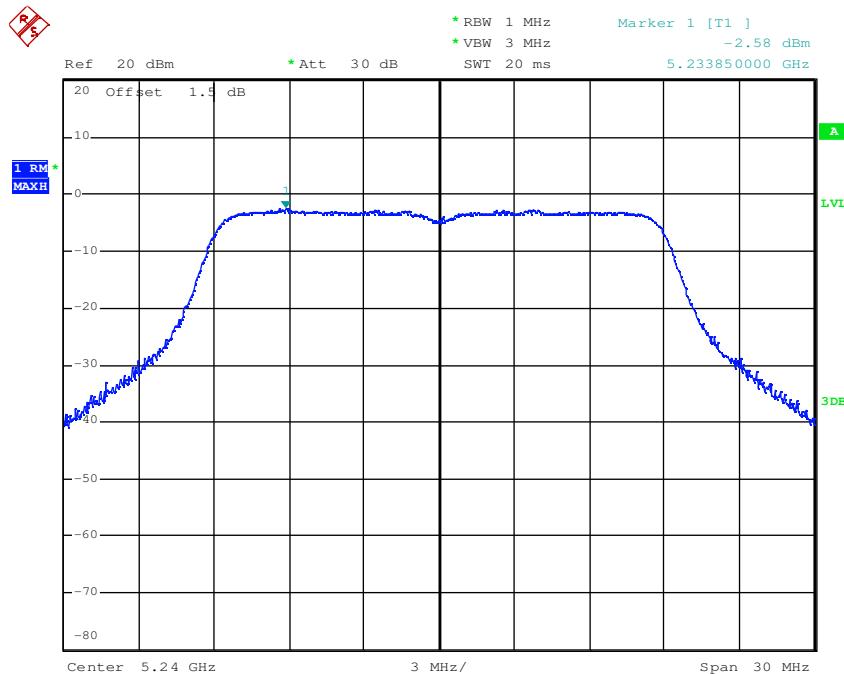


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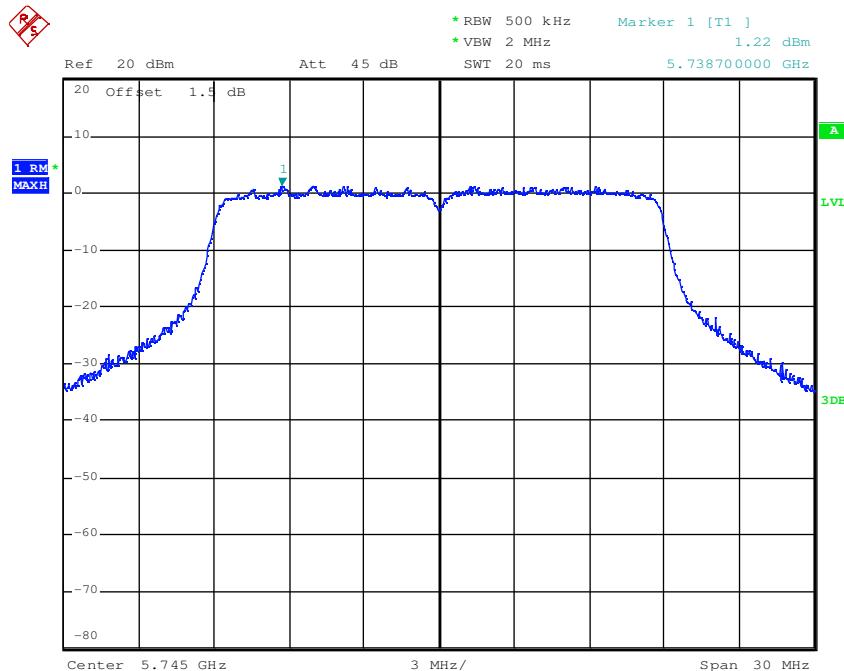


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Test mode:	802.11 ac20	Frequency(MHz):	5240
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

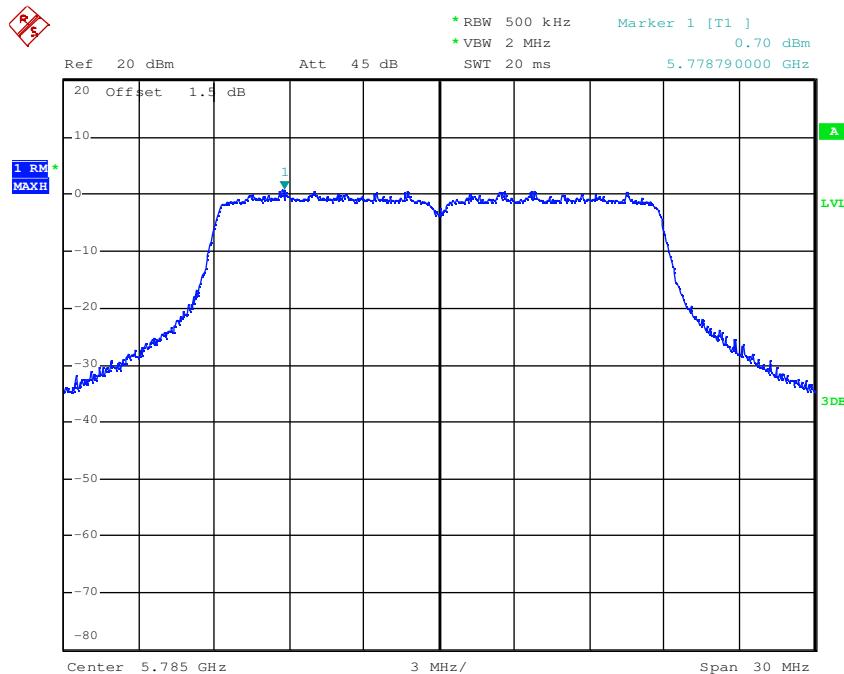


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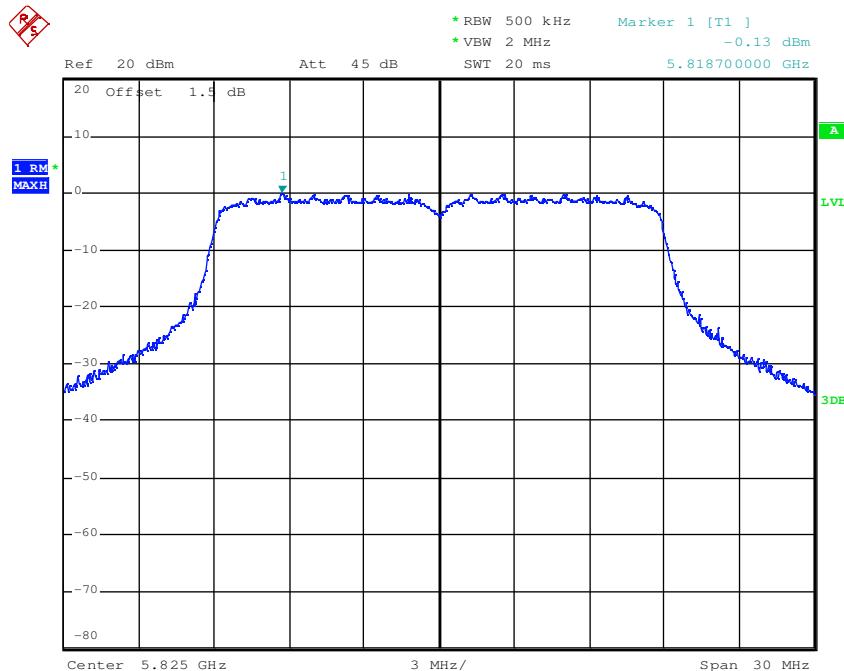


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Test mode:	802.11 ac20	Frequency(MHz):	5785
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Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

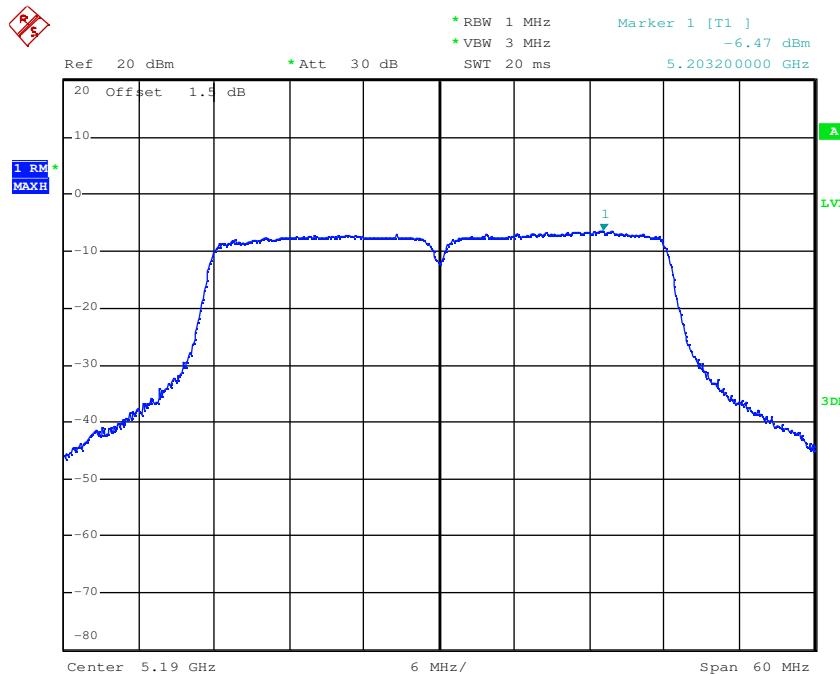


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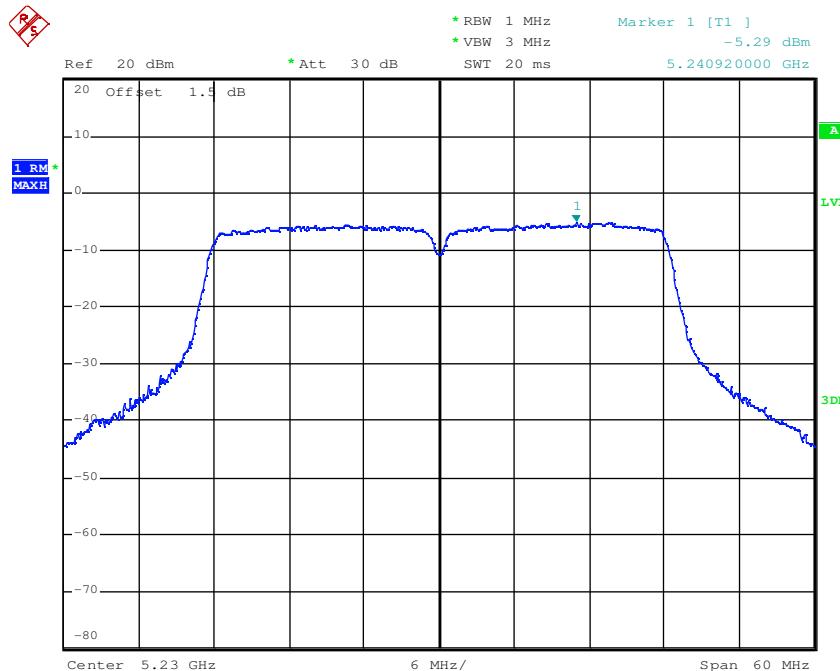


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

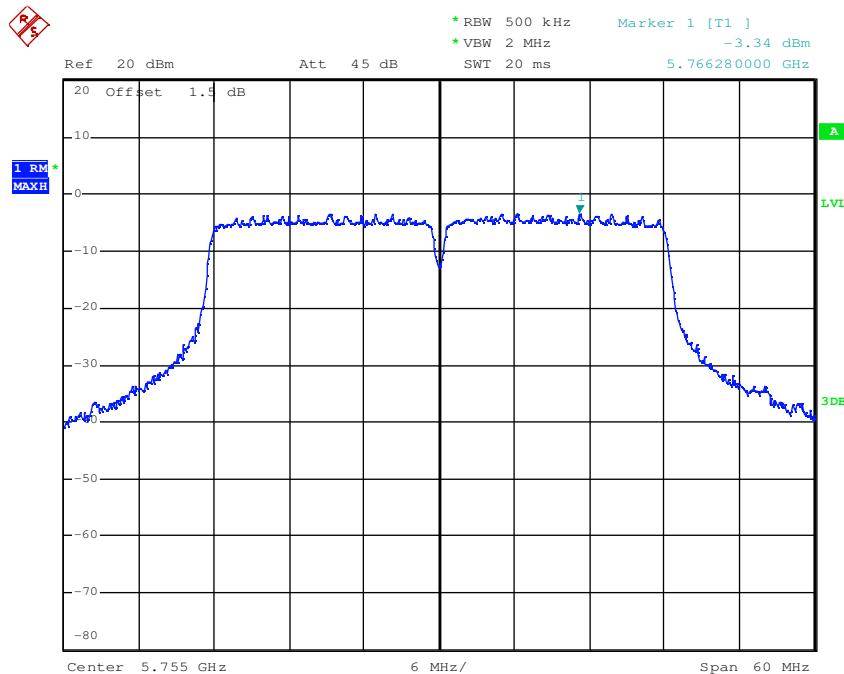


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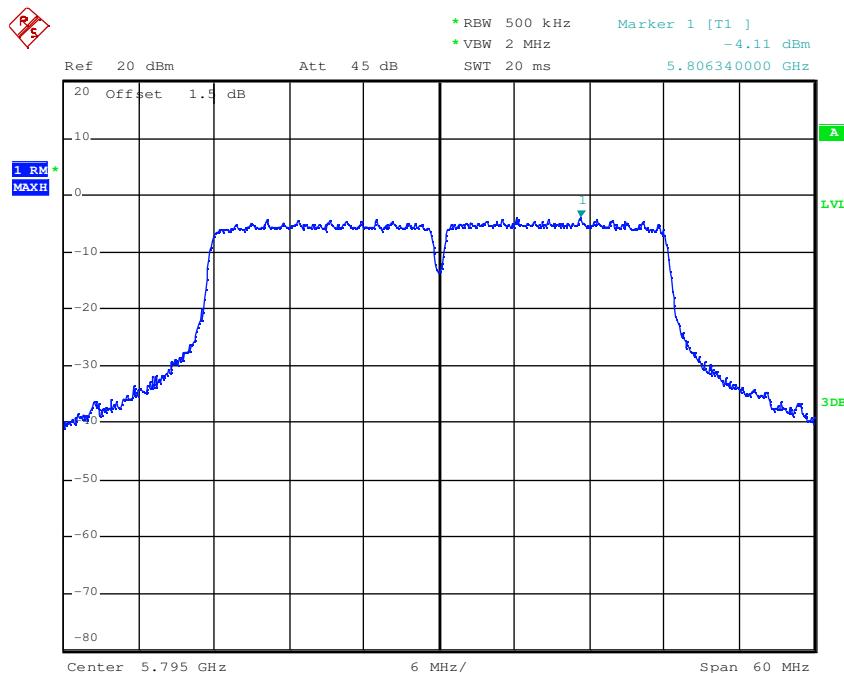


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Test mode:	802.11 n40	Frequency(MHz):	5755
------------	------------	-----------------	------



Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

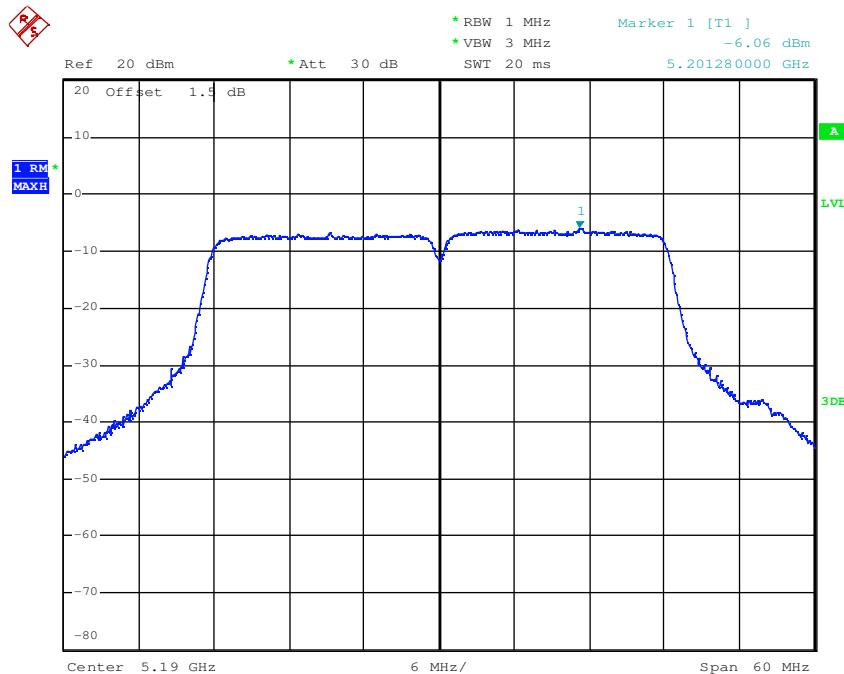


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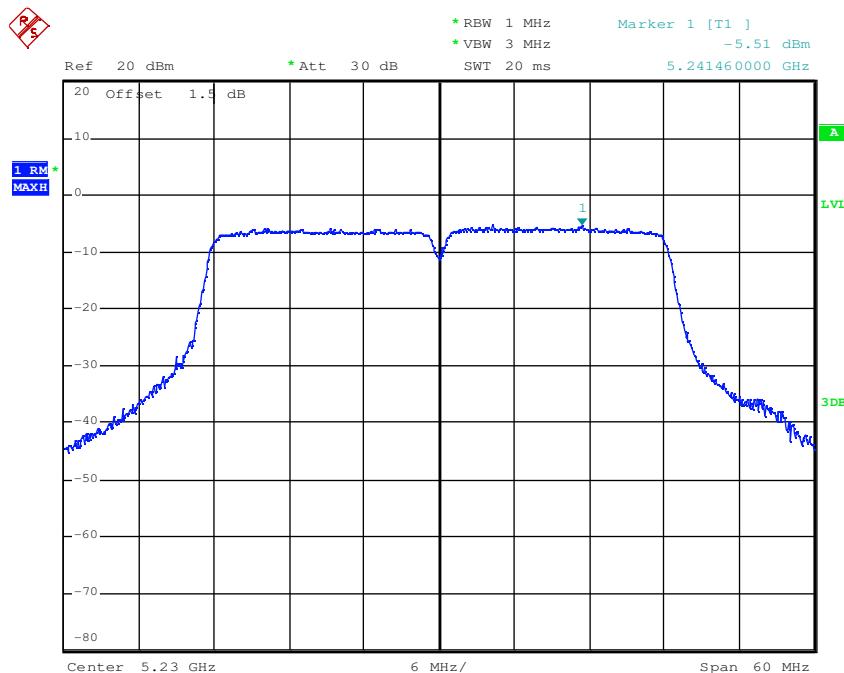


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Test mode:	802.11 ac40	Frequency(MHz):	5190
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

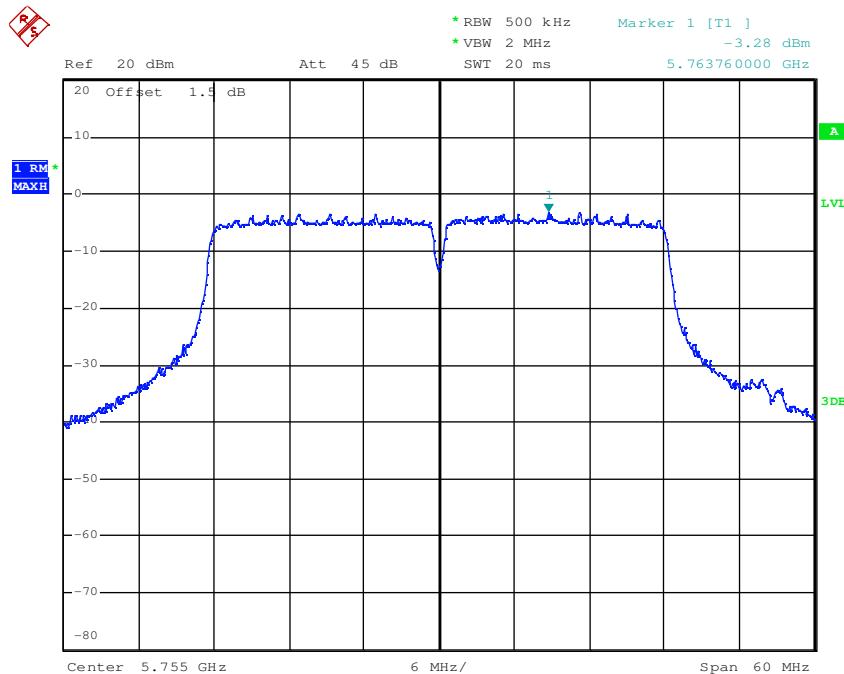


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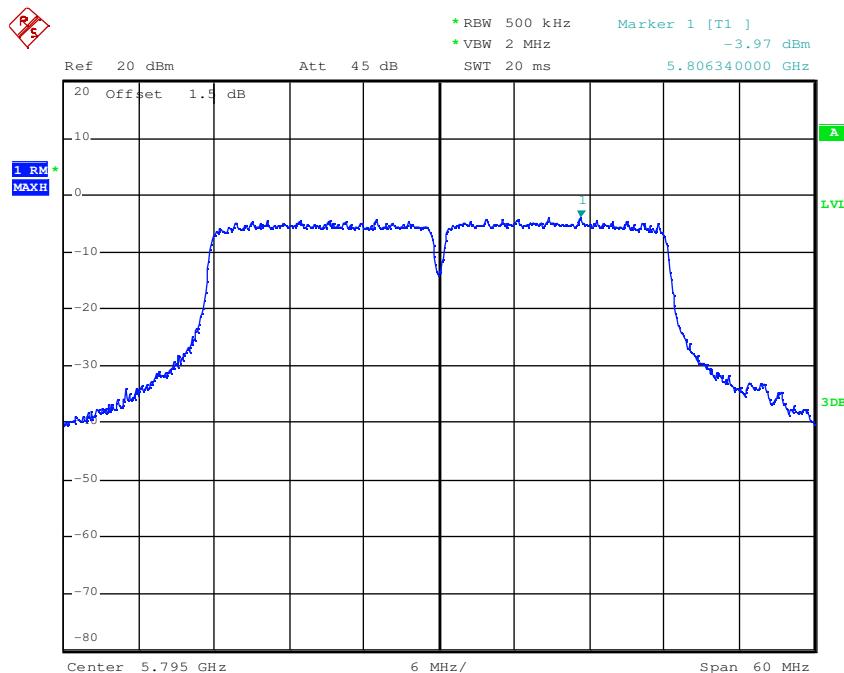


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

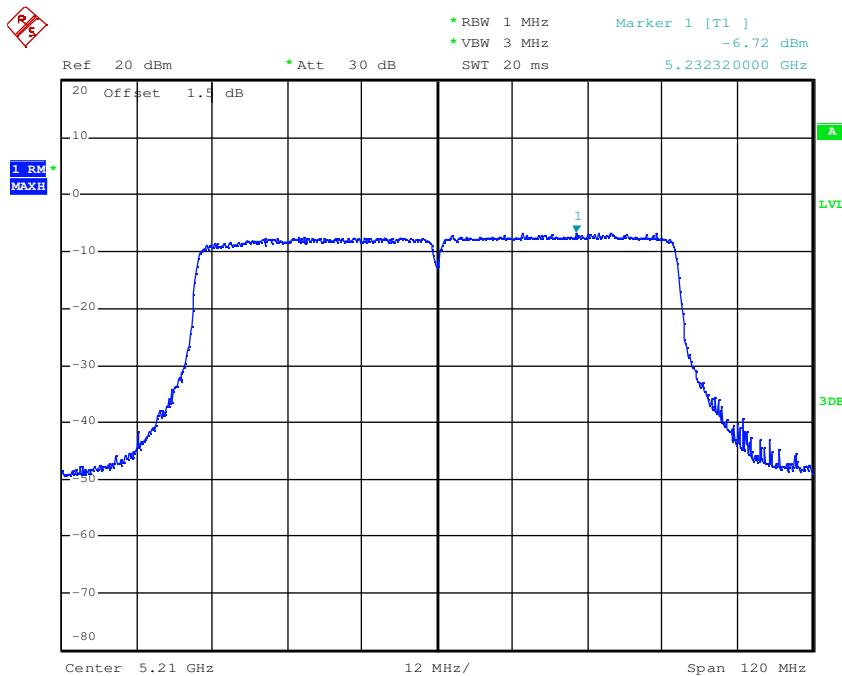


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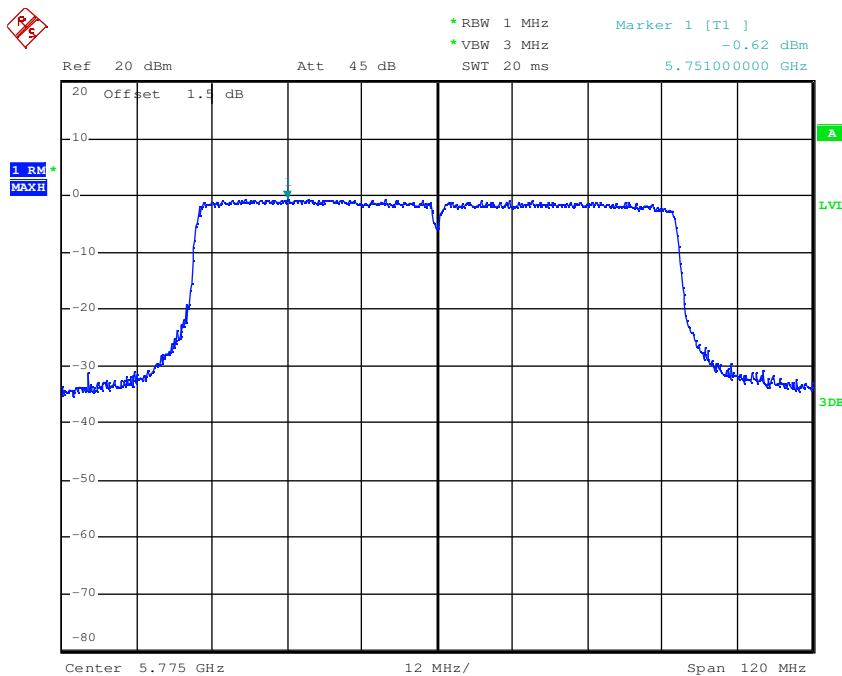


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Test mode:	802.11 ac80	Frequency(MHz):	5210
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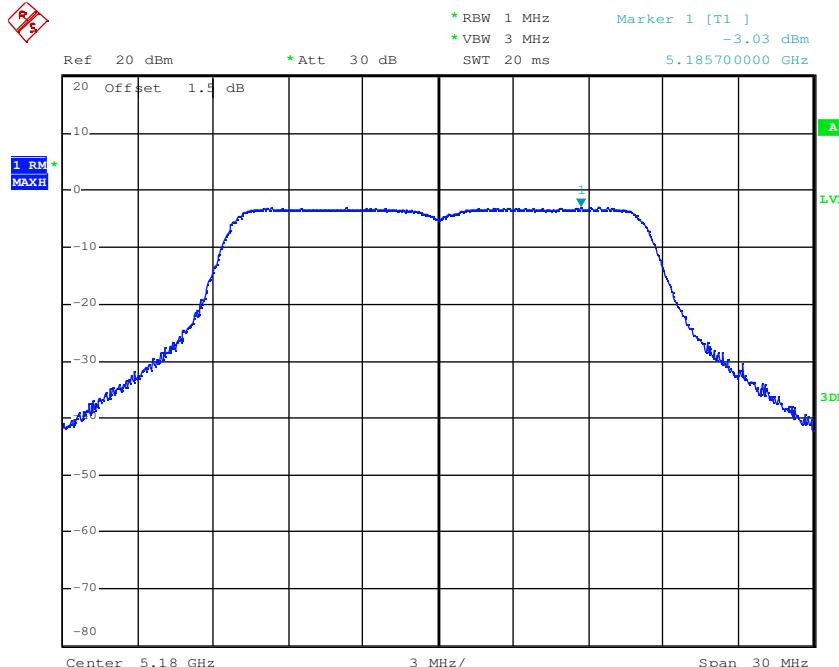
Test mode:	802.11 ac80	Frequency(MHz):	5775
------------	-------------	-----------------	------



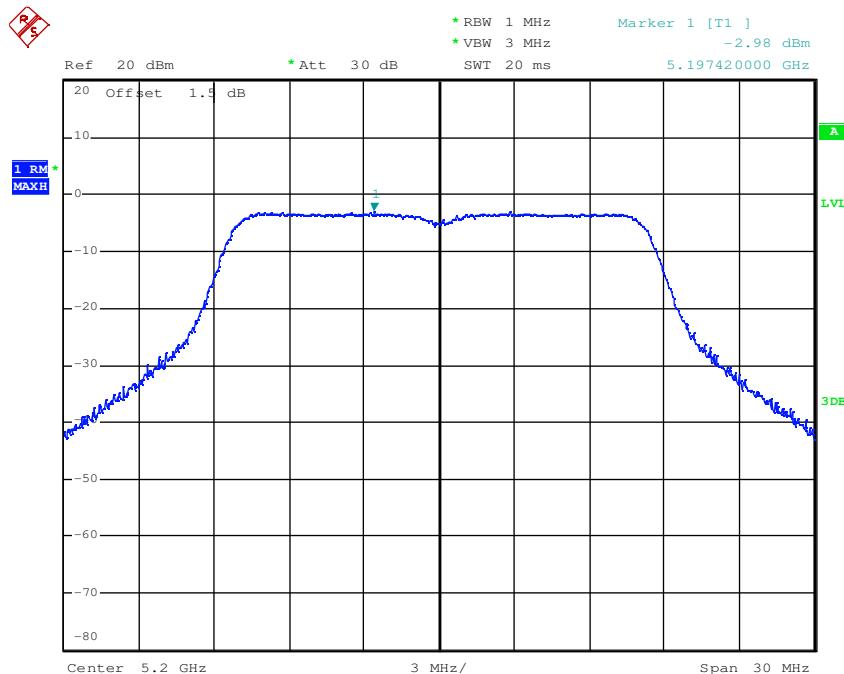


**WiFi Module 2\_Antenna 1**

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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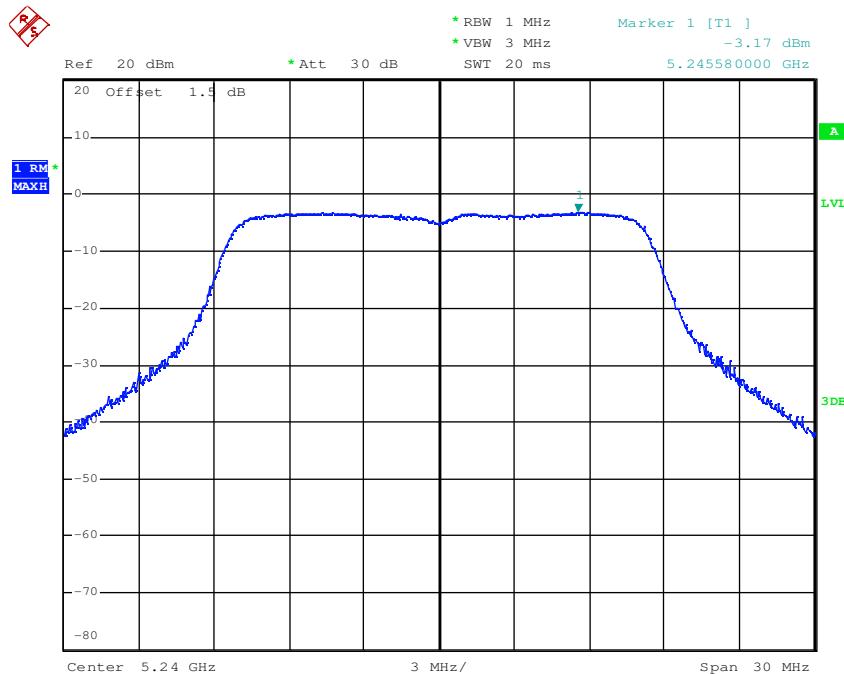


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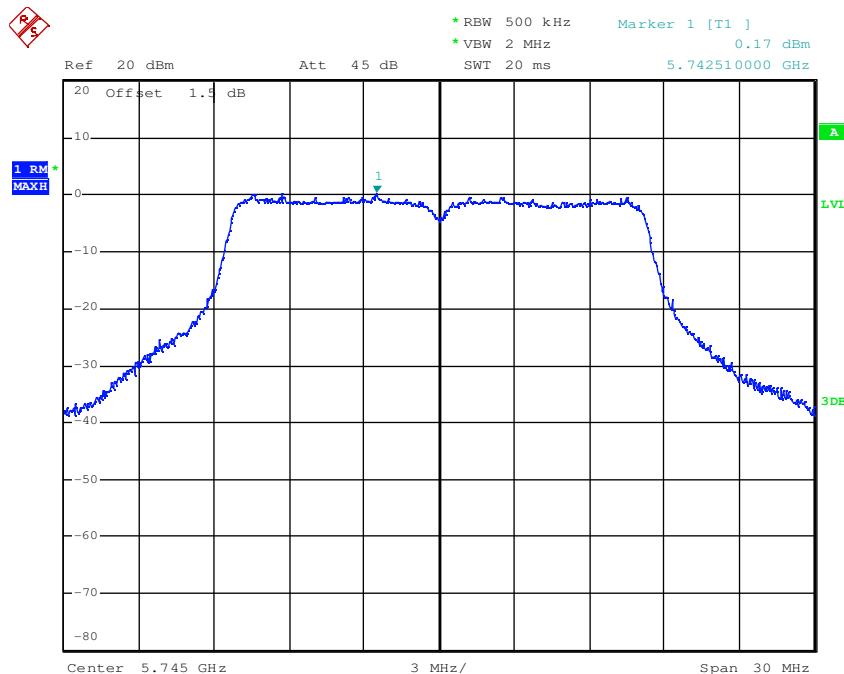


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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5745
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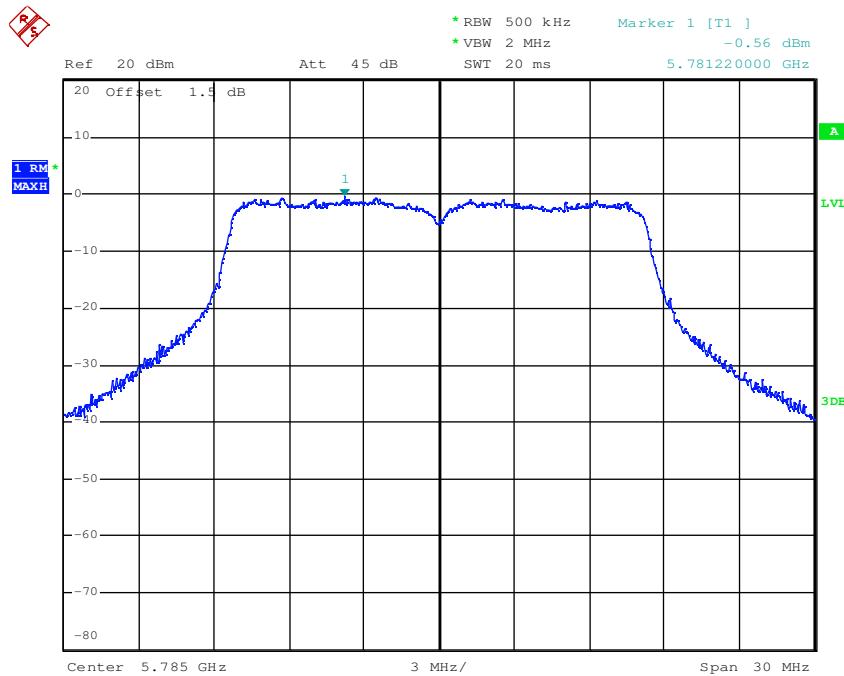


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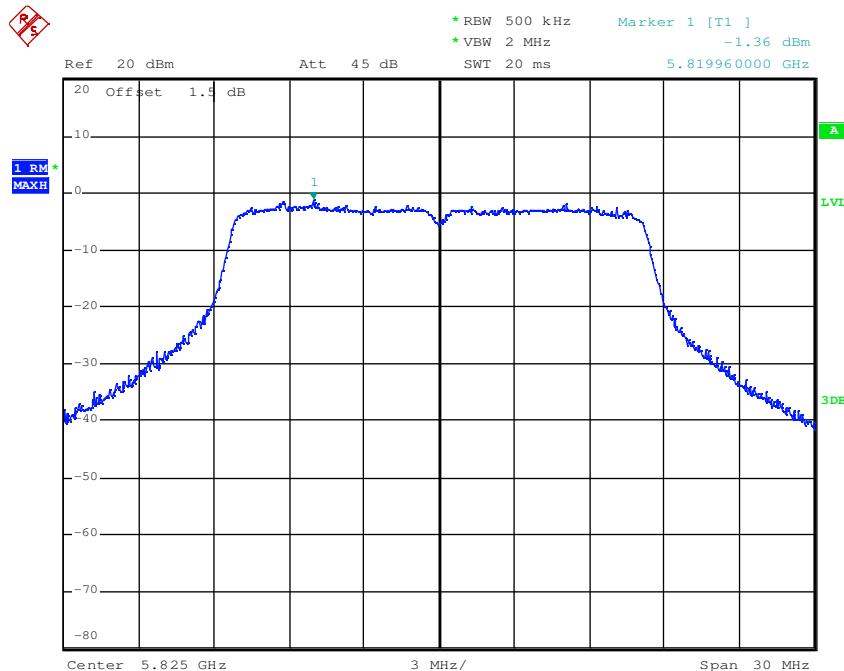


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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
------------	---------	-----------------	------

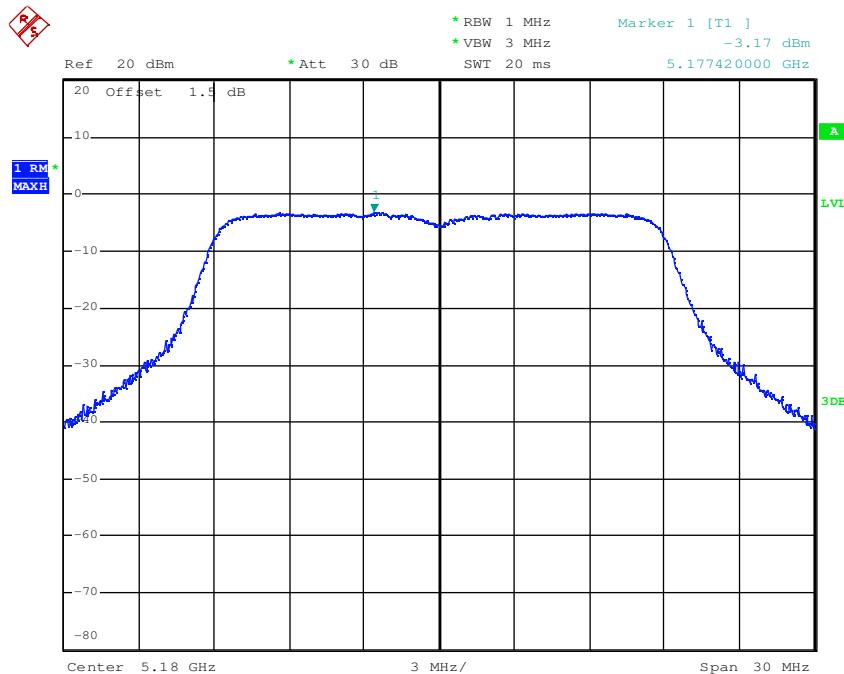


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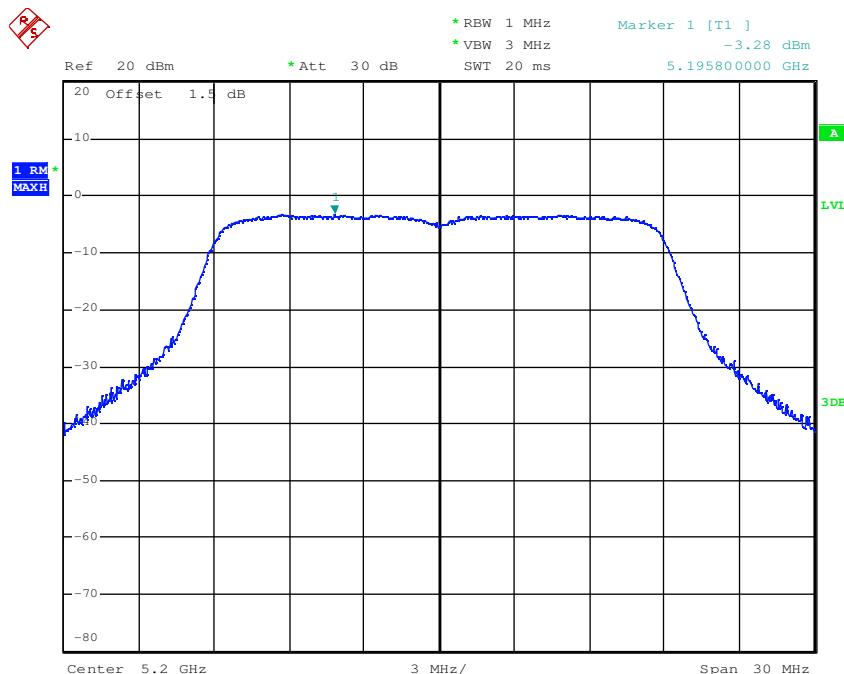


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Test mode:	802.11 n20	Frequency(MHz):	5180
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

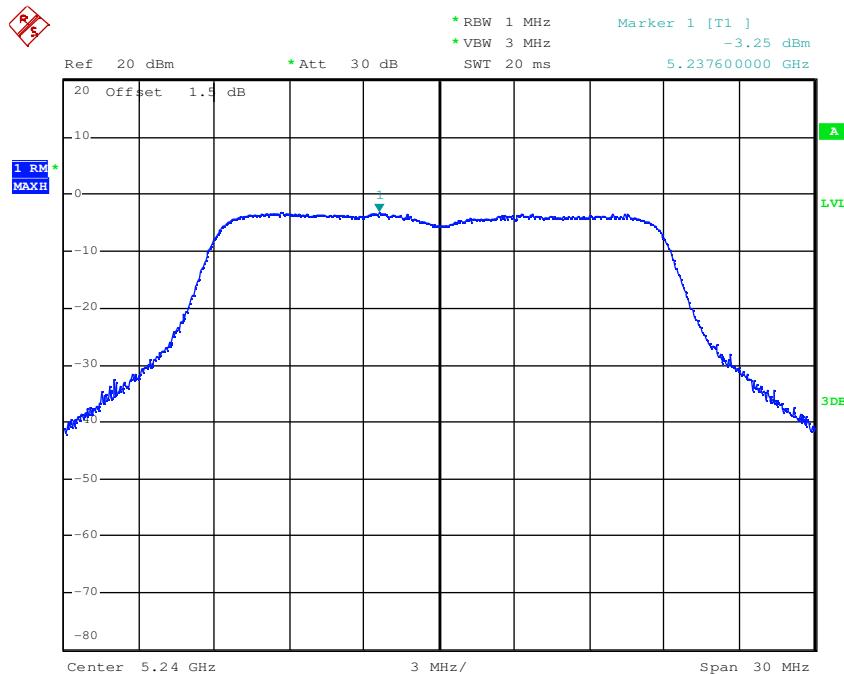


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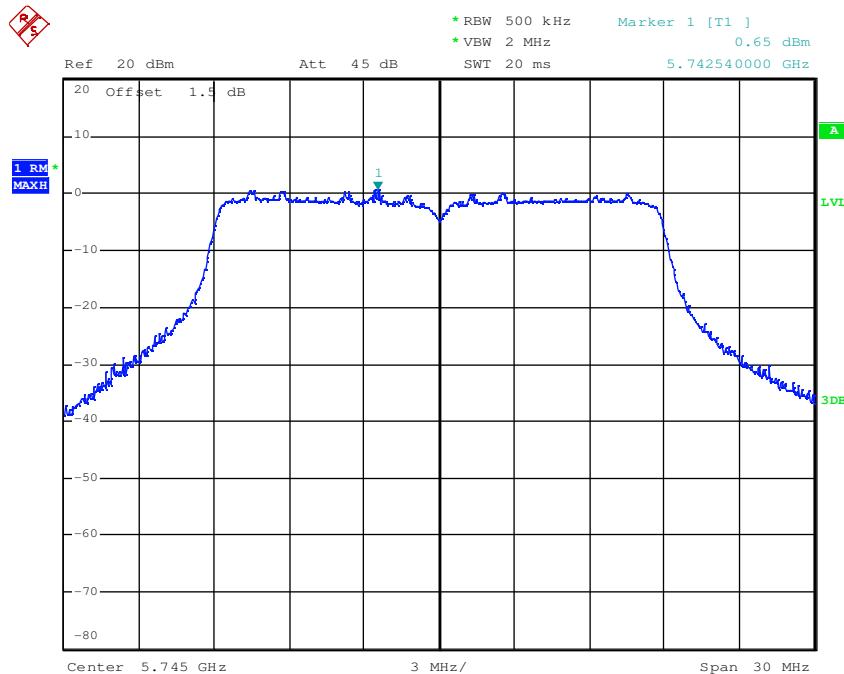


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Test mode:	802.11 n20	Frequency(MHz):	5240
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Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

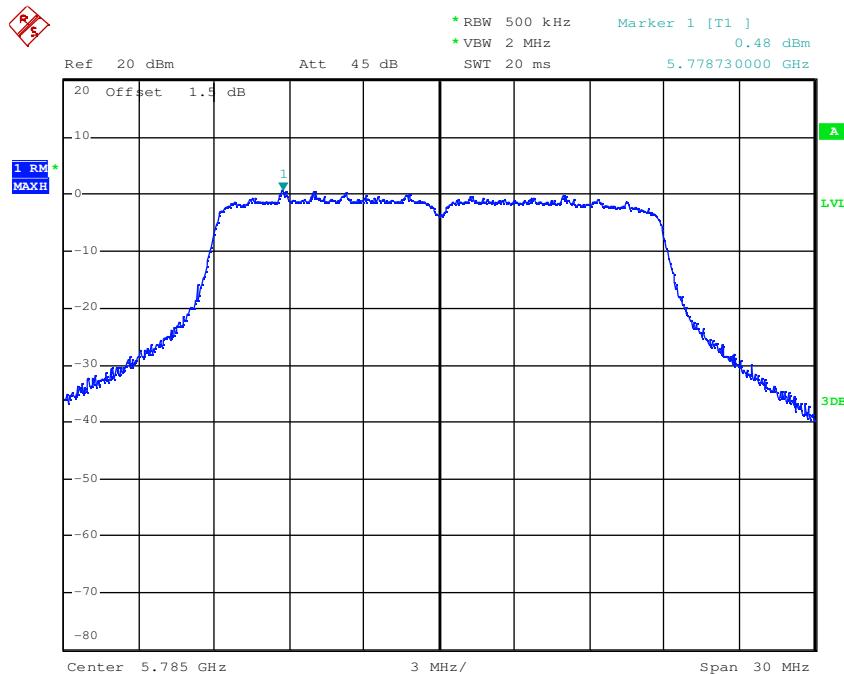


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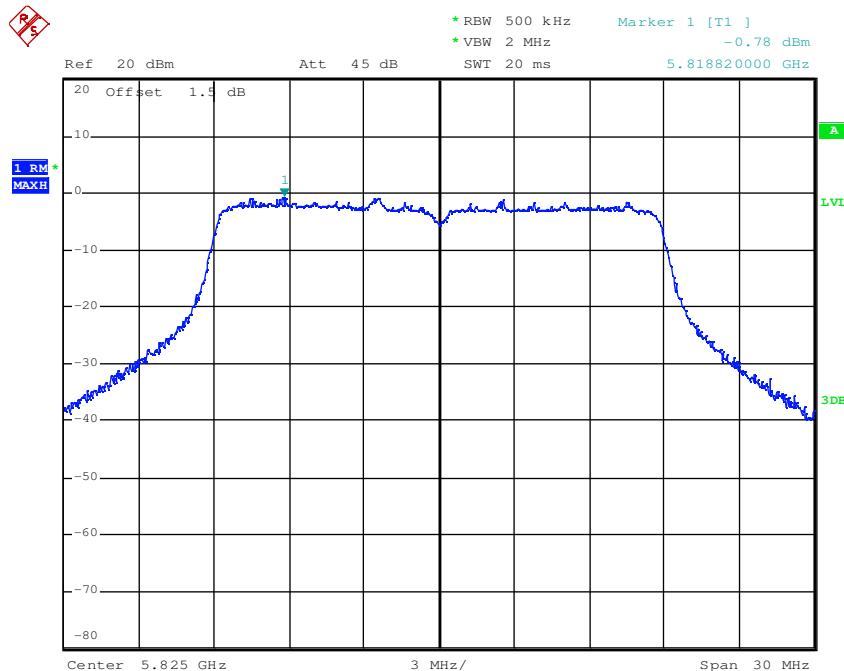


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Test mode:	802.11 n20	Frequency(MHz):	5785
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

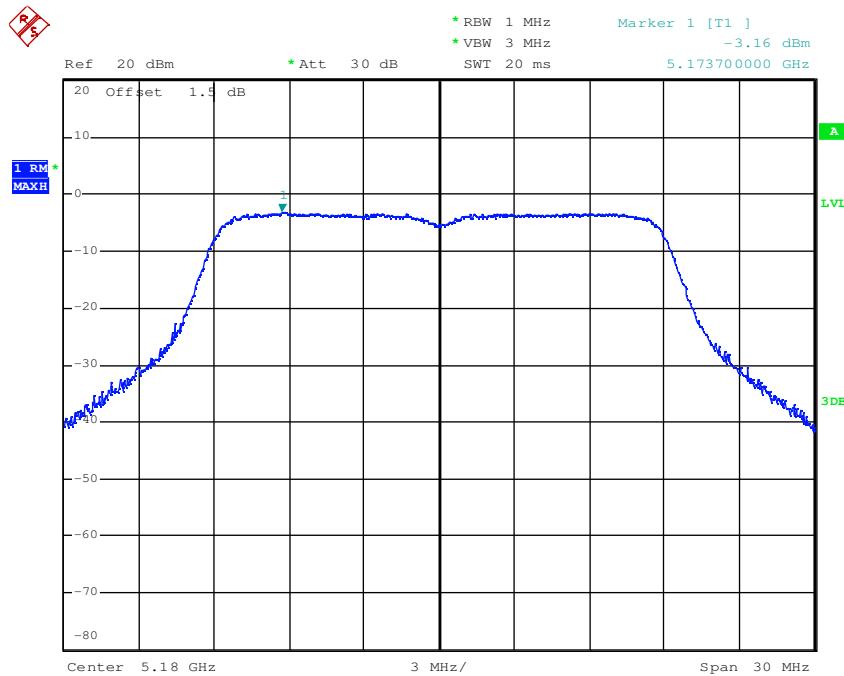


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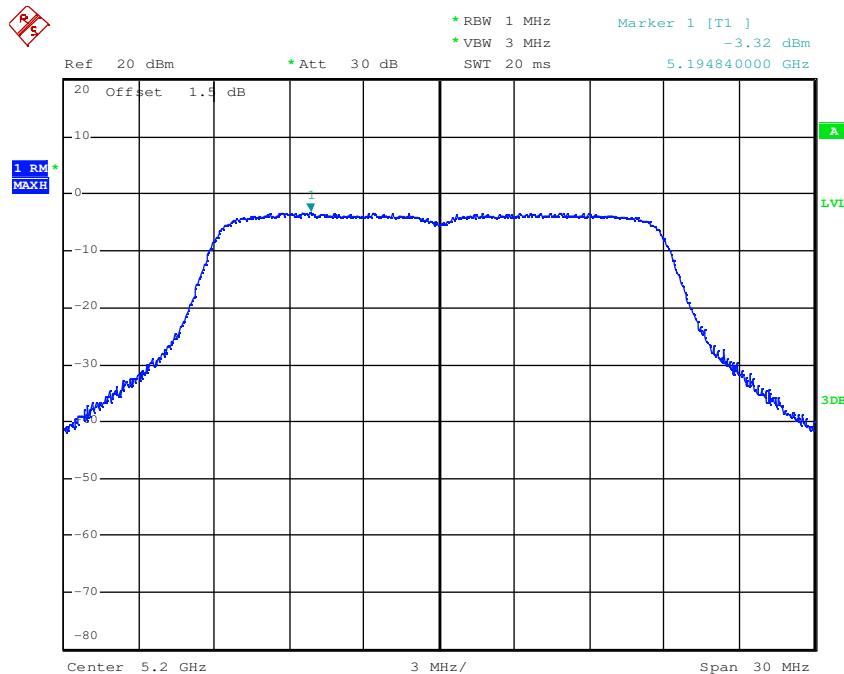


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Page: 122 of 303

Test mode:	802.11 ac20	Frequency(MHz):	5180
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Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

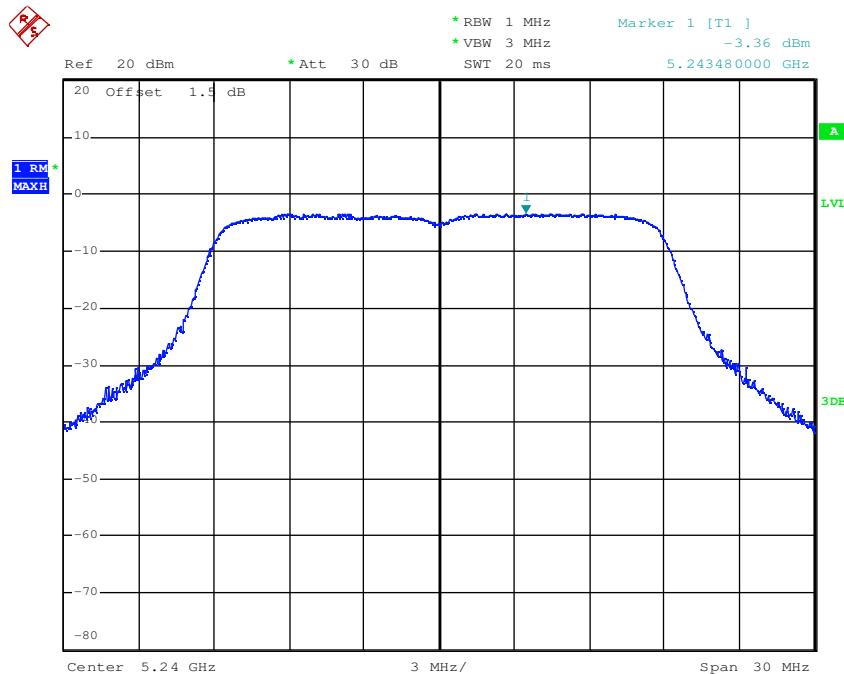


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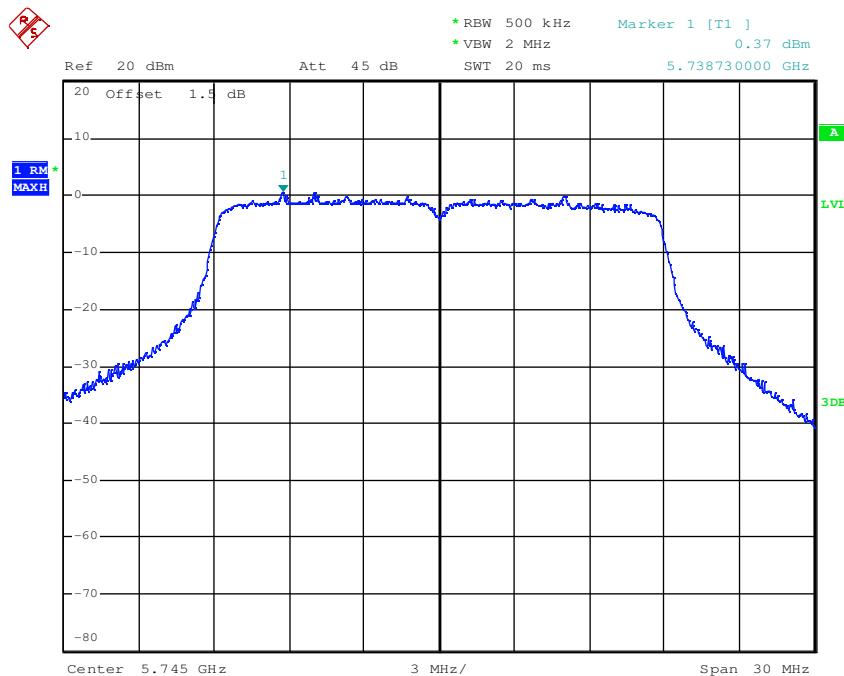


Report No.: HKES170100014203  
 Page: 123 of 303

Test mode:	802.11 ac20	Frequency(MHz):	5240
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Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

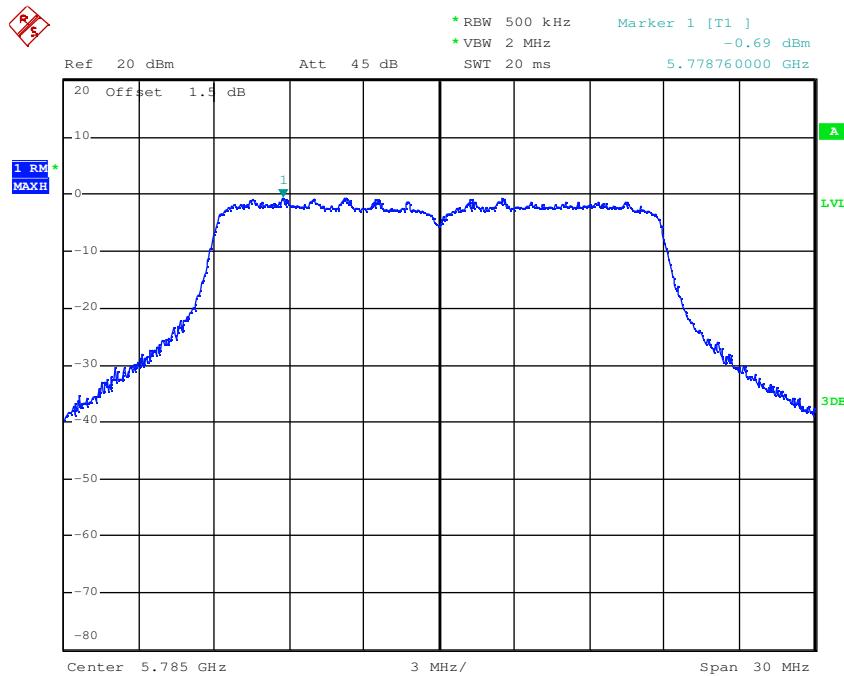


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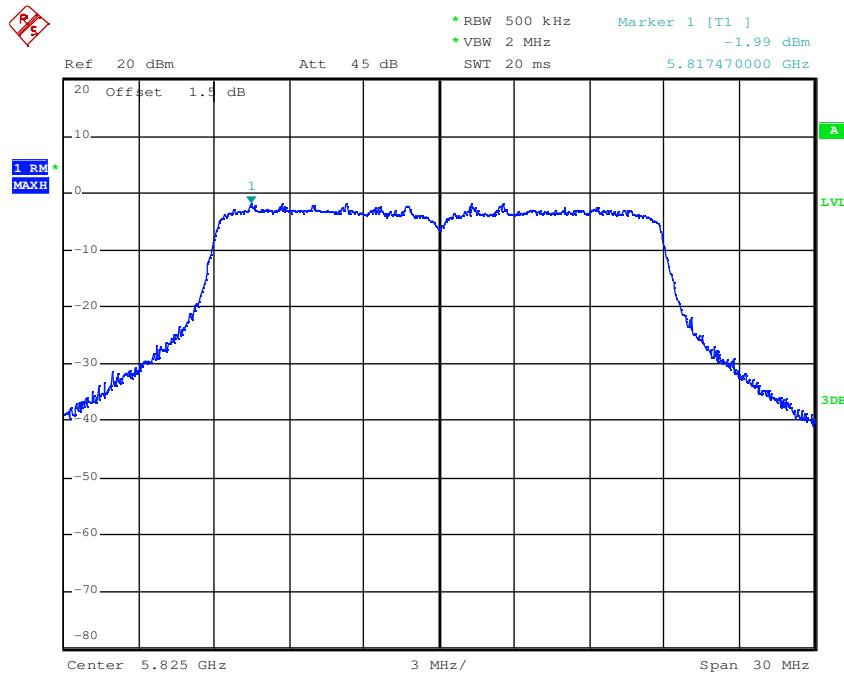


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Test mode:	802.11 ac20	Frequency(MHz):	5785
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

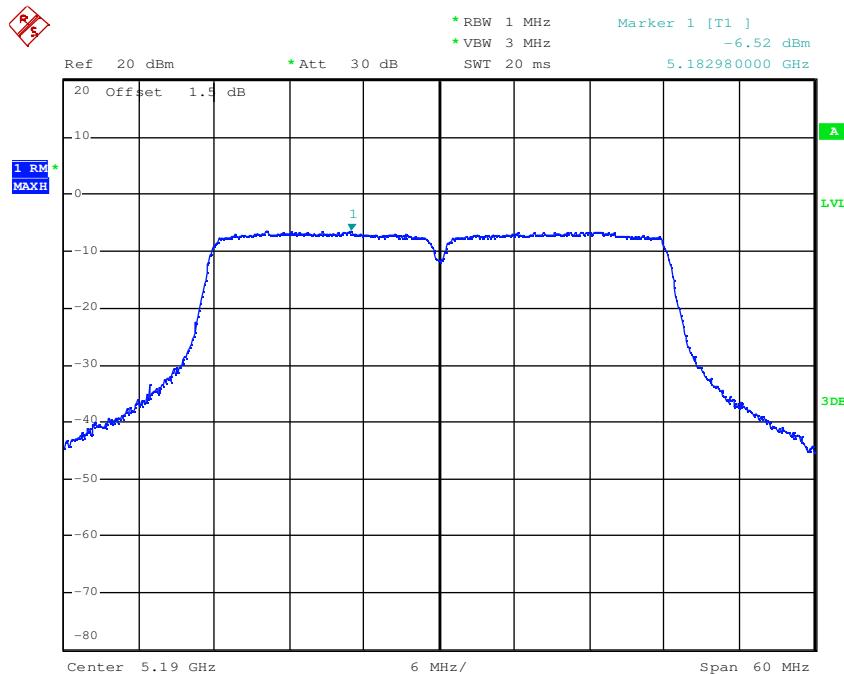


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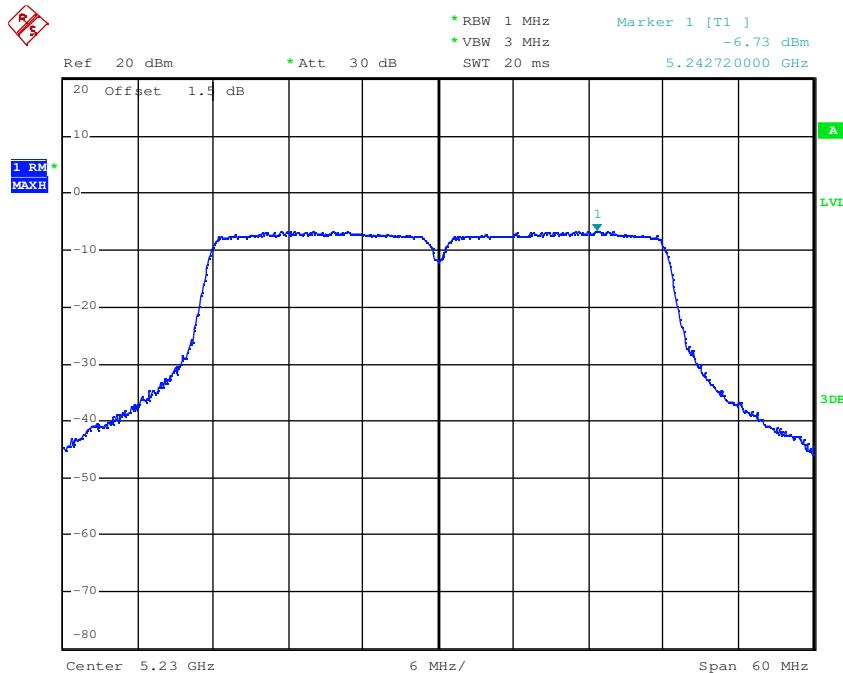


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

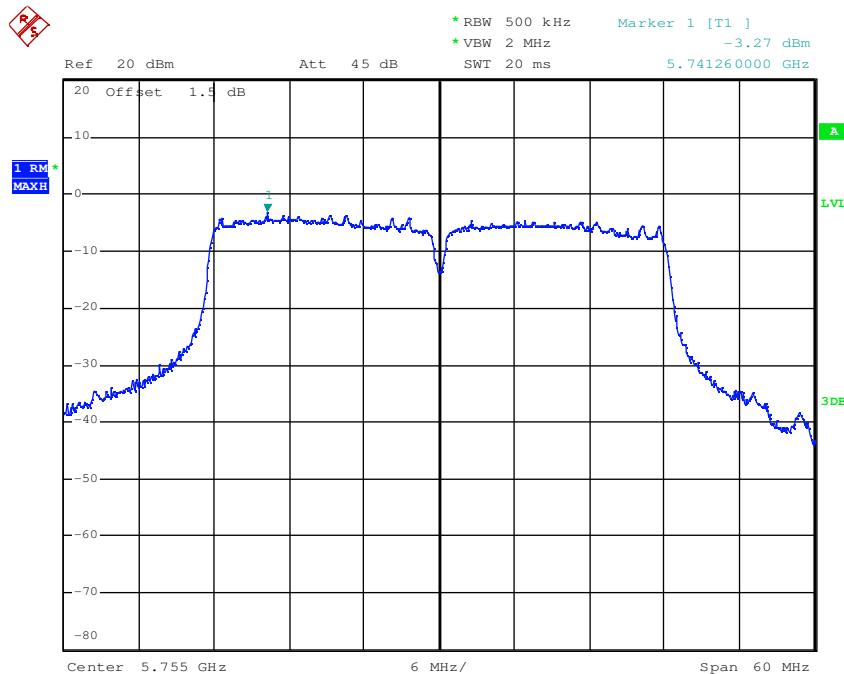


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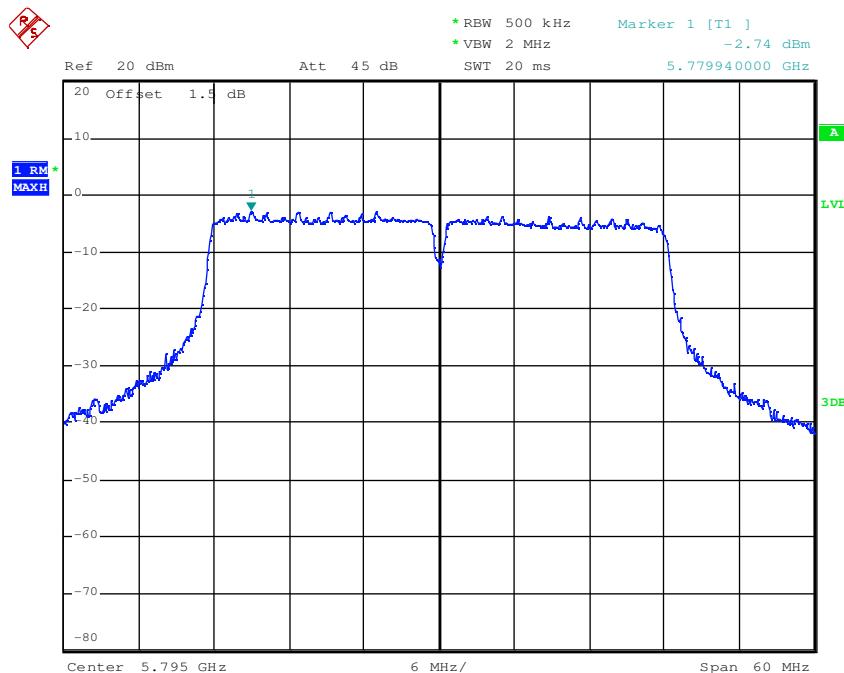


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Test mode:	802.11 n40	Frequency(MHz):	5755
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Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

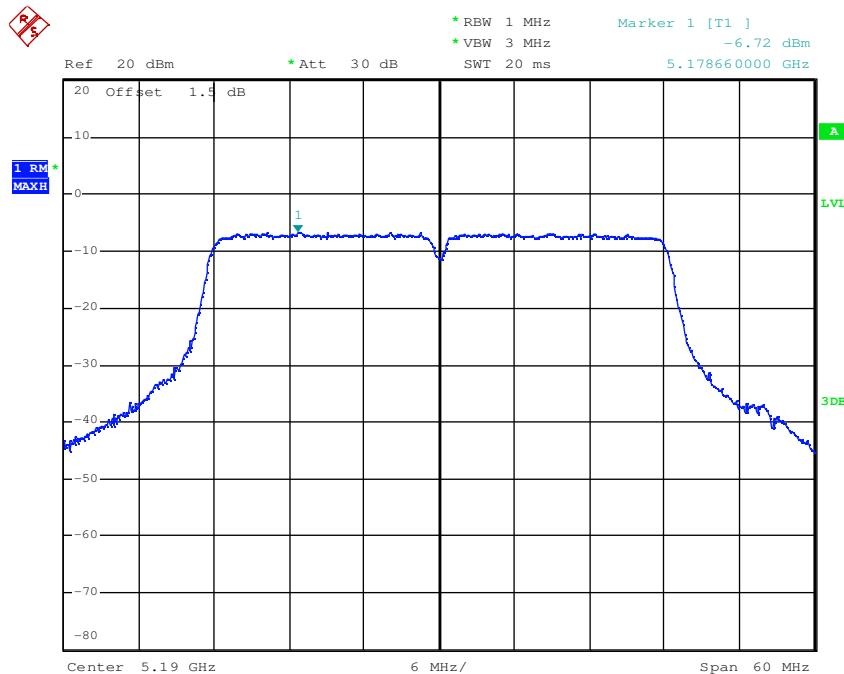


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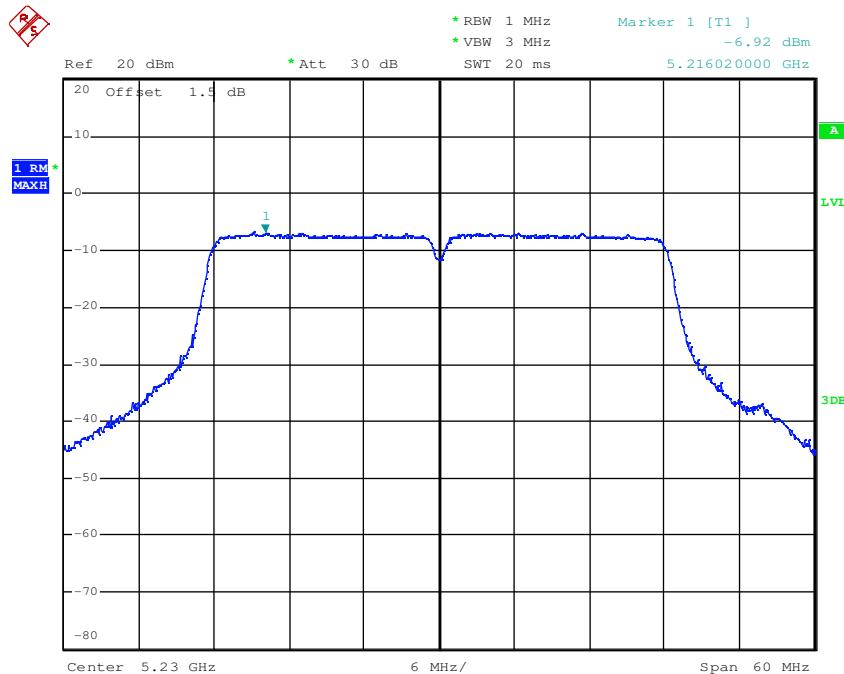


Report No.: HKES170100014203  
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Test mode:	802.11 ac40	Frequency(MHz):	5190
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

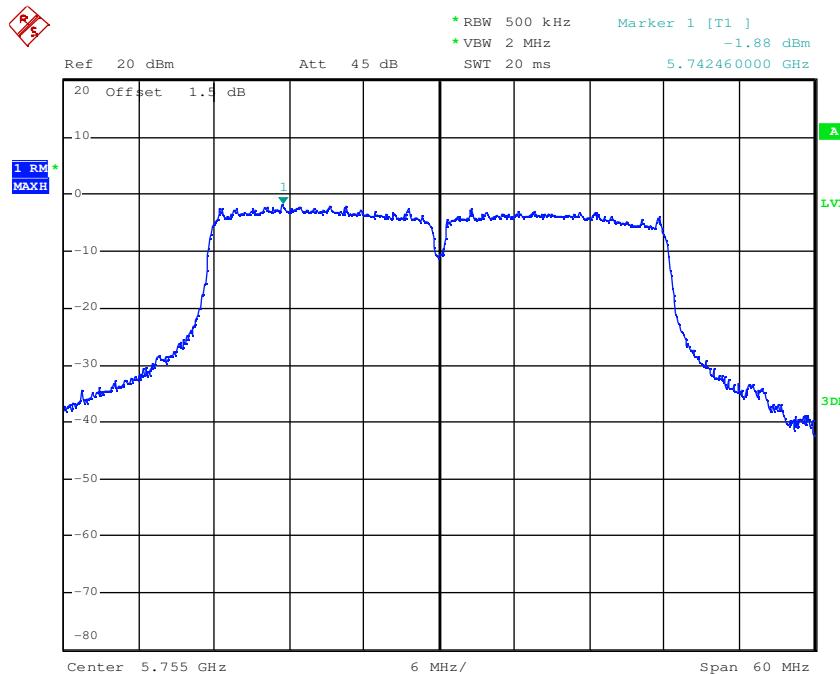


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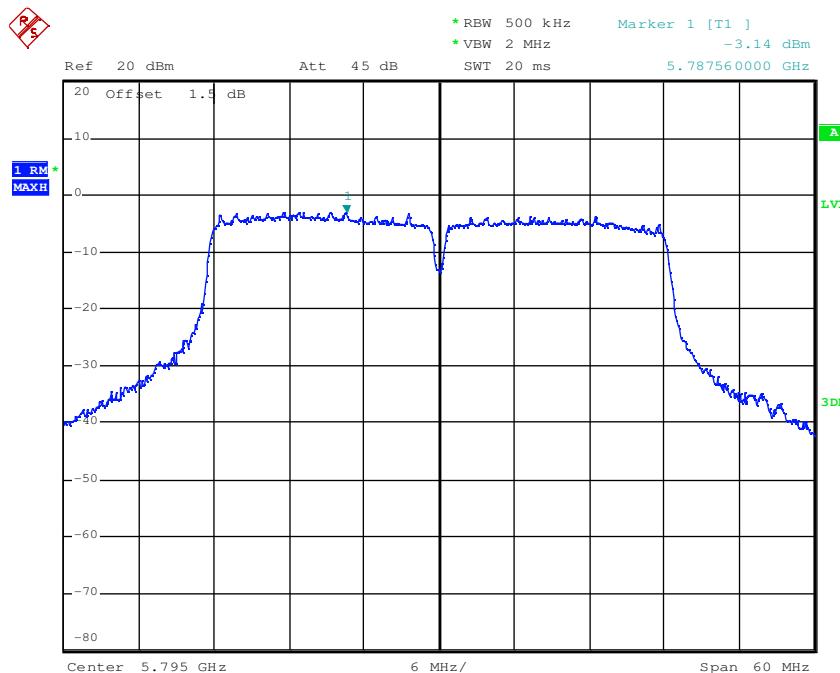


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

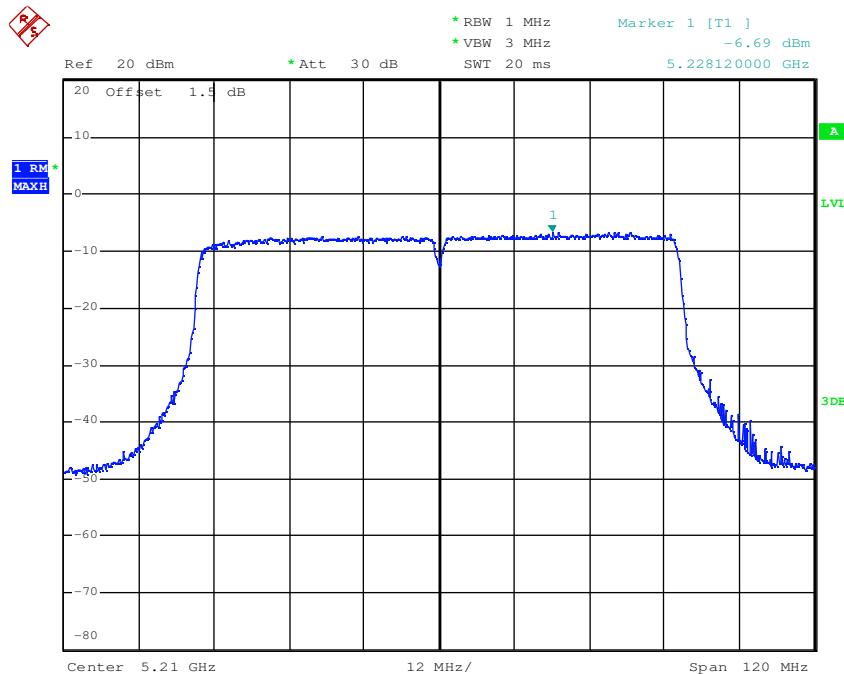


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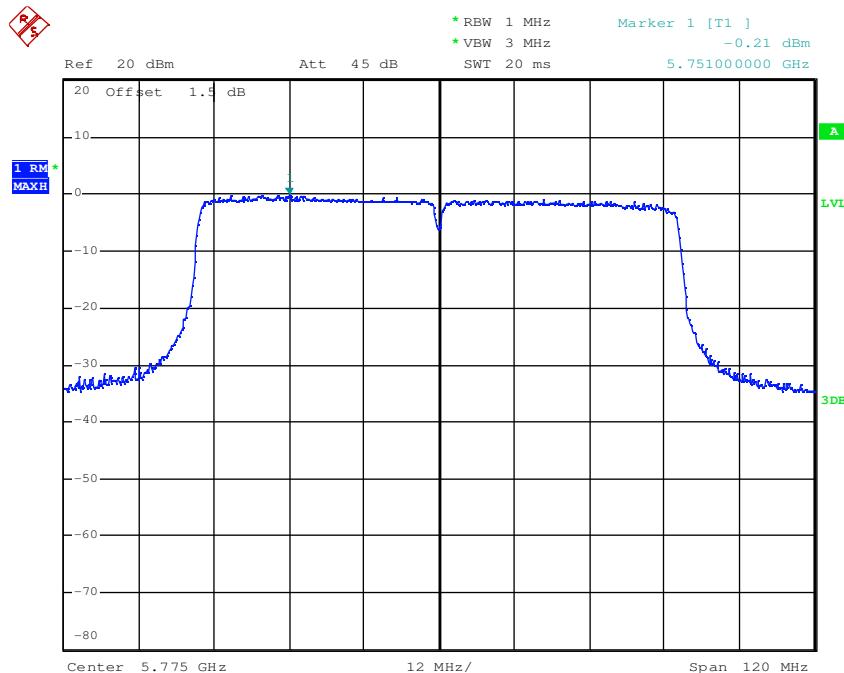


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Test mode:	802.11 ac80	Frequency(MHz):	5210
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Test mode:	802.11 ac80	Frequency(MHz):	5775
------------	-------------	-----------------	------



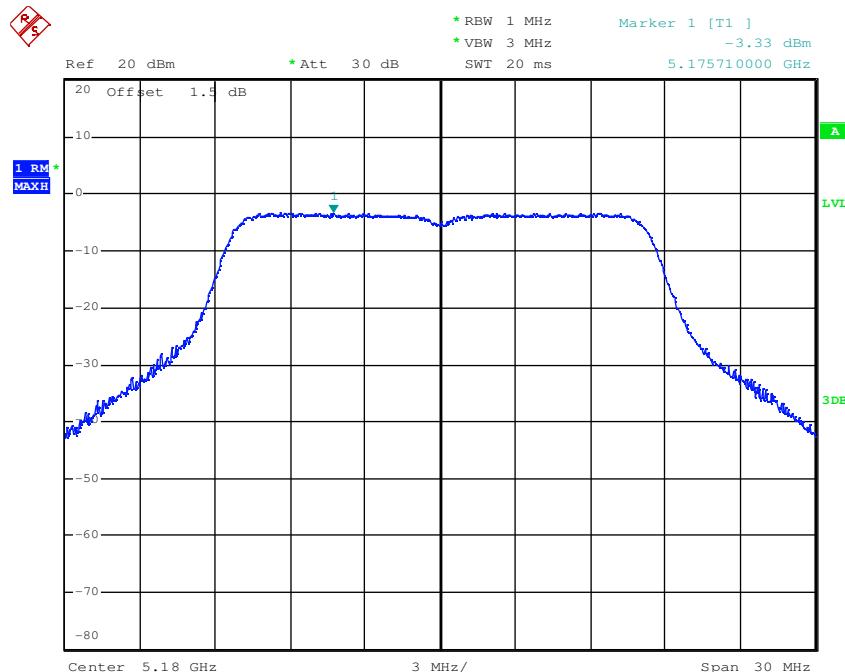
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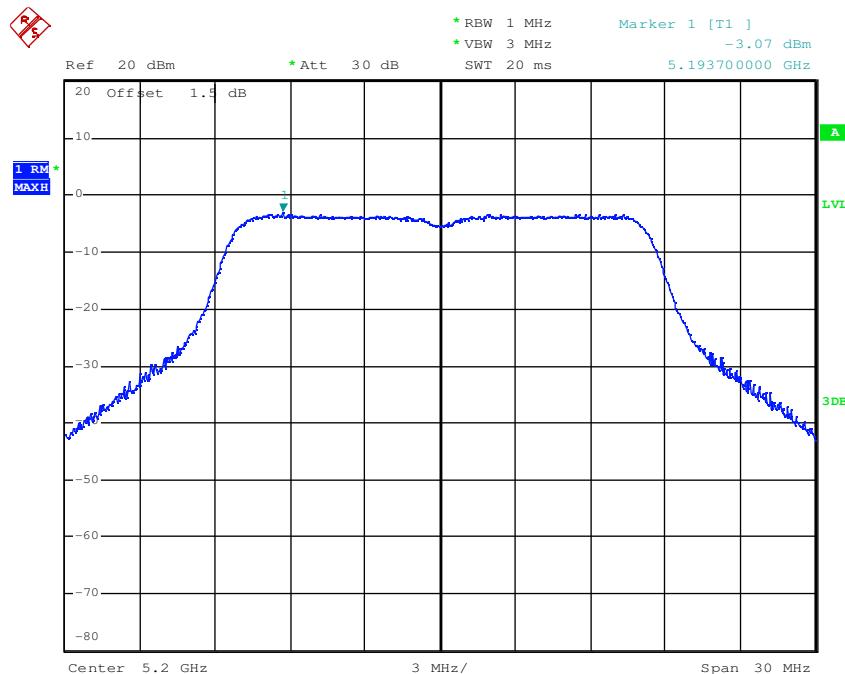
Report No.: HKES170100014203  
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**WiFi Module 2\_Antenna 2:**

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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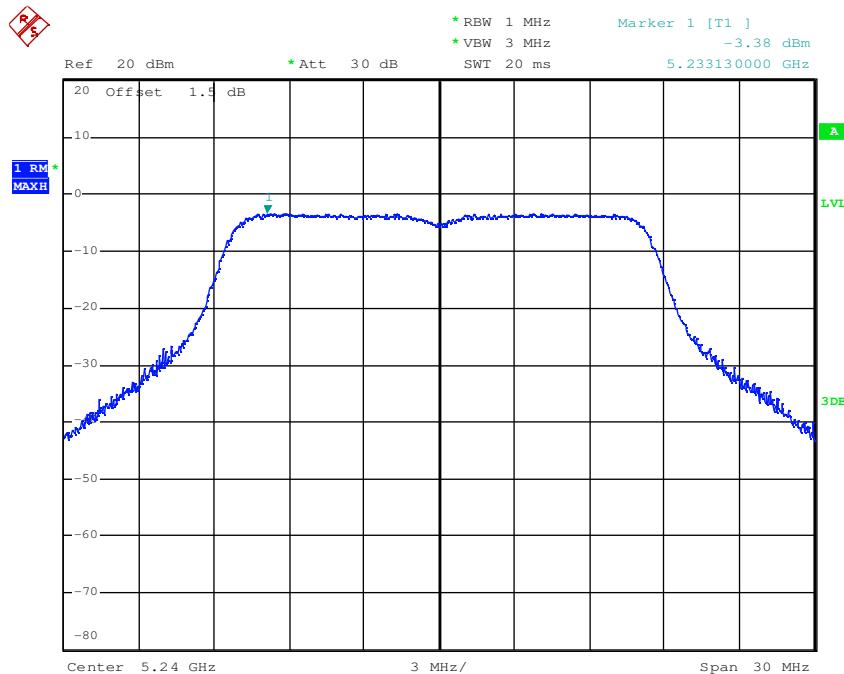


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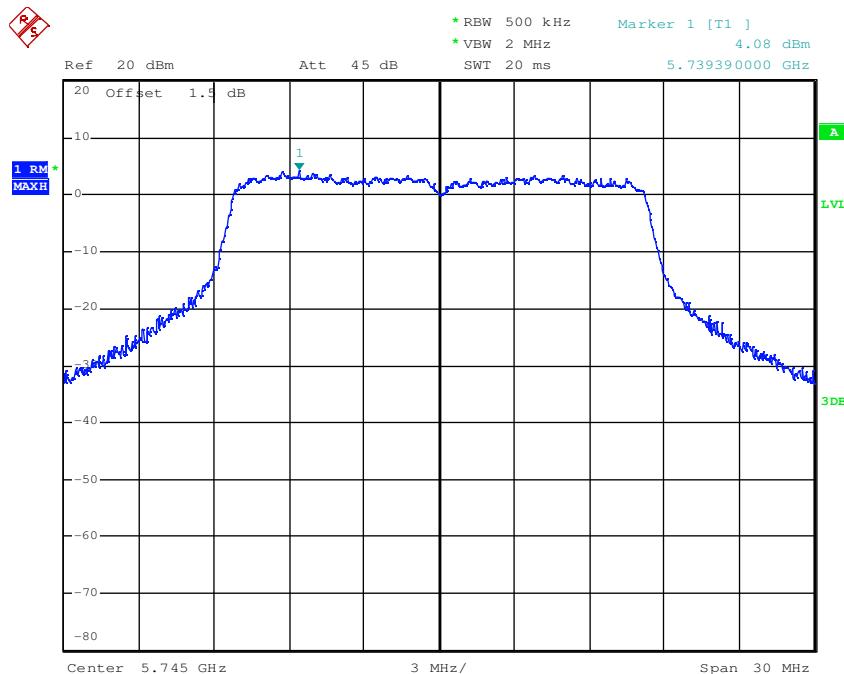


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Test mode:	802.11a	Frequency(MHz):	5240
------------	---------	-----------------	------



Test mode:	802.11a	Frequency(MHz):	5745
------------	---------	-----------------	------

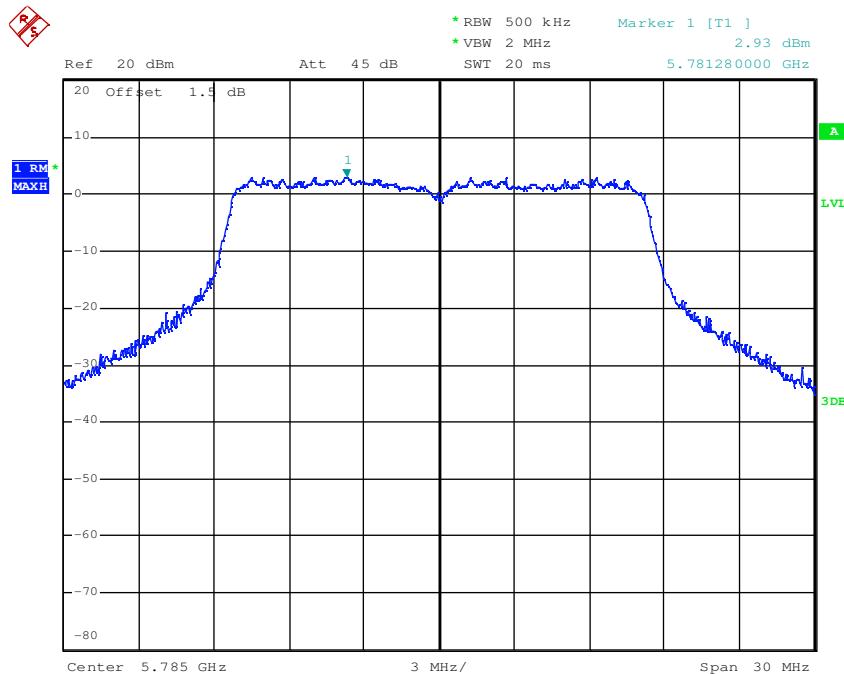


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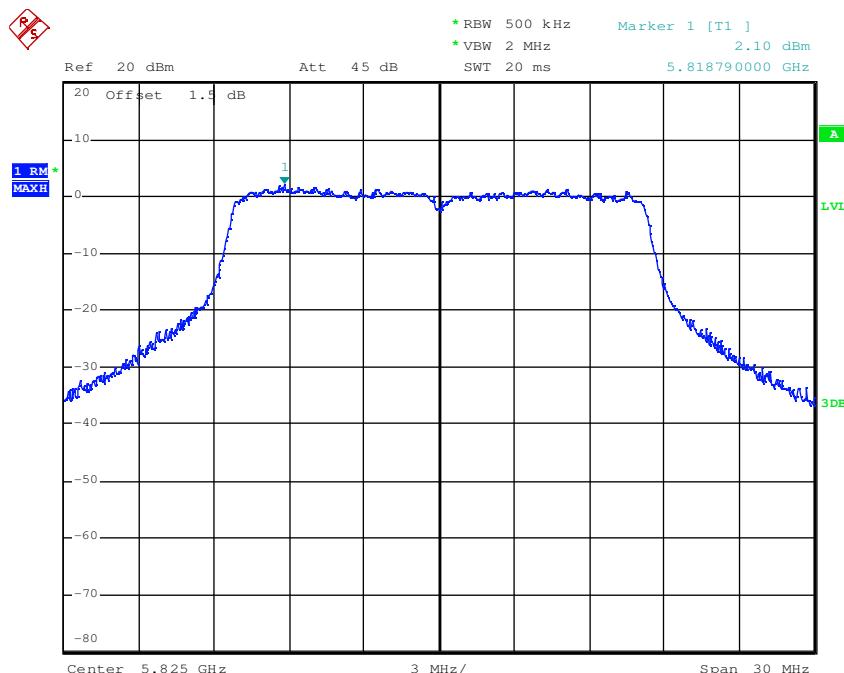


Report No.: HKES170100014203  
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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
------------	---------	-----------------	------

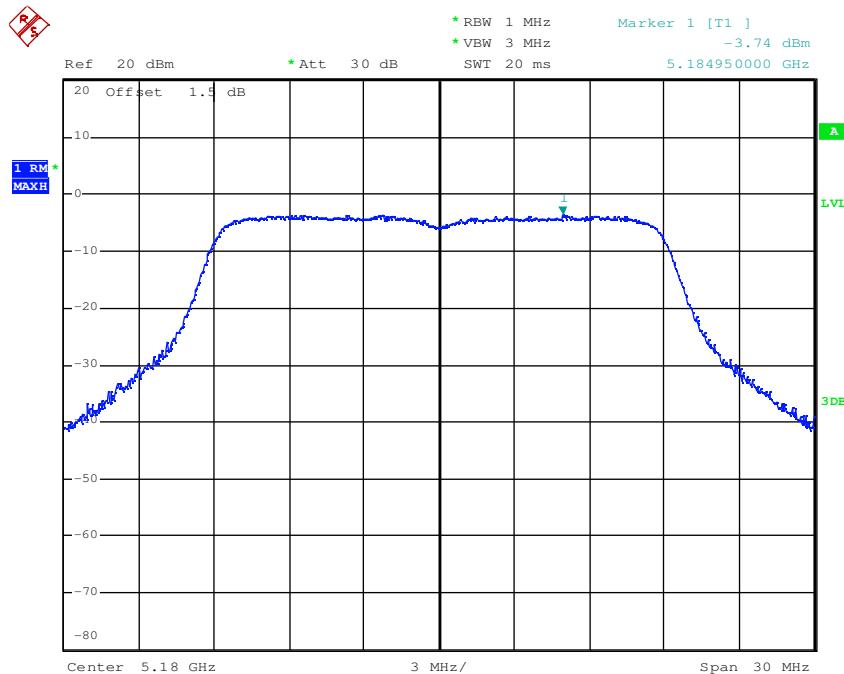


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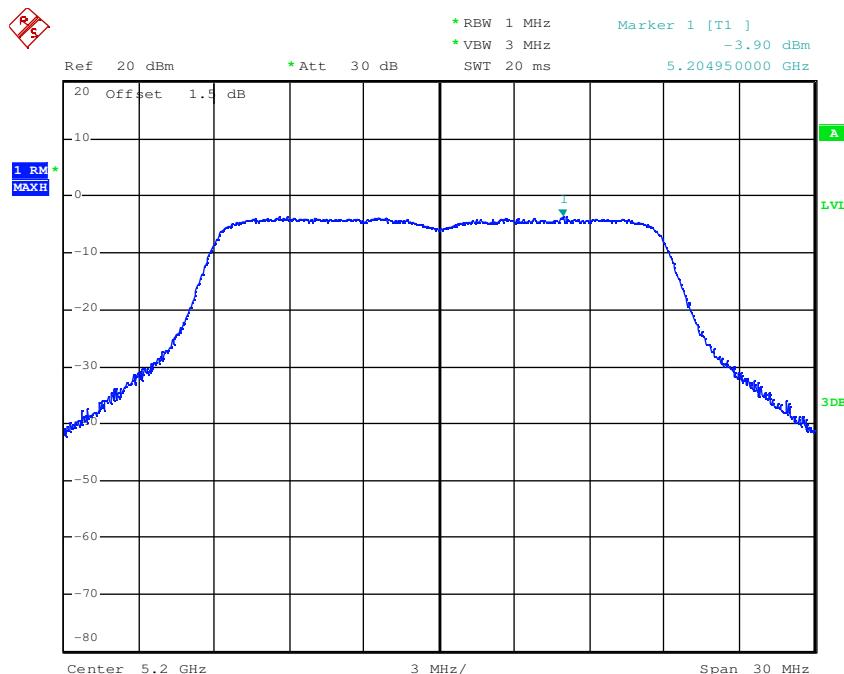


Report No.: HKES170100014203  
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Test mode:	802.11 n20	Frequency(MHz):	5180
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Test mode:	802.11 n20	Frequency(MHz):	5200
------------	------------	-----------------	------

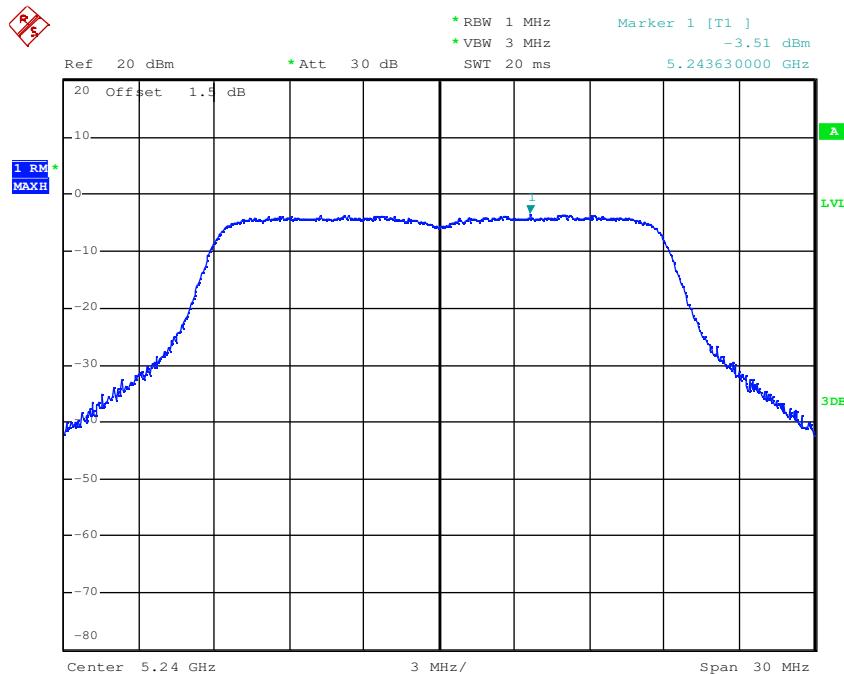


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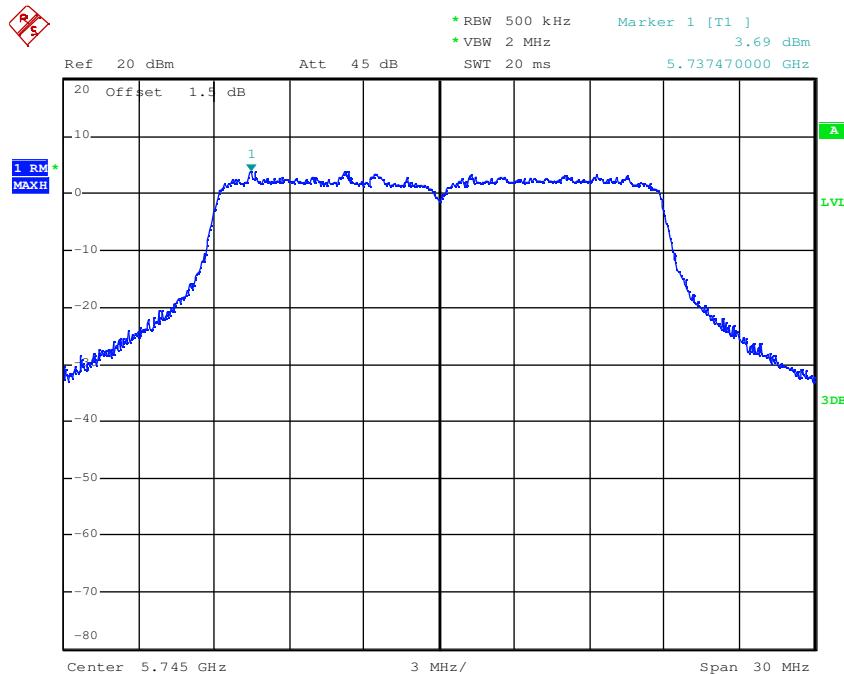


Report No.: HKES170100014203  
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Test mode:	802.11 n20	Frequency(MHz):	5240
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5745
------------	------------	-----------------	------

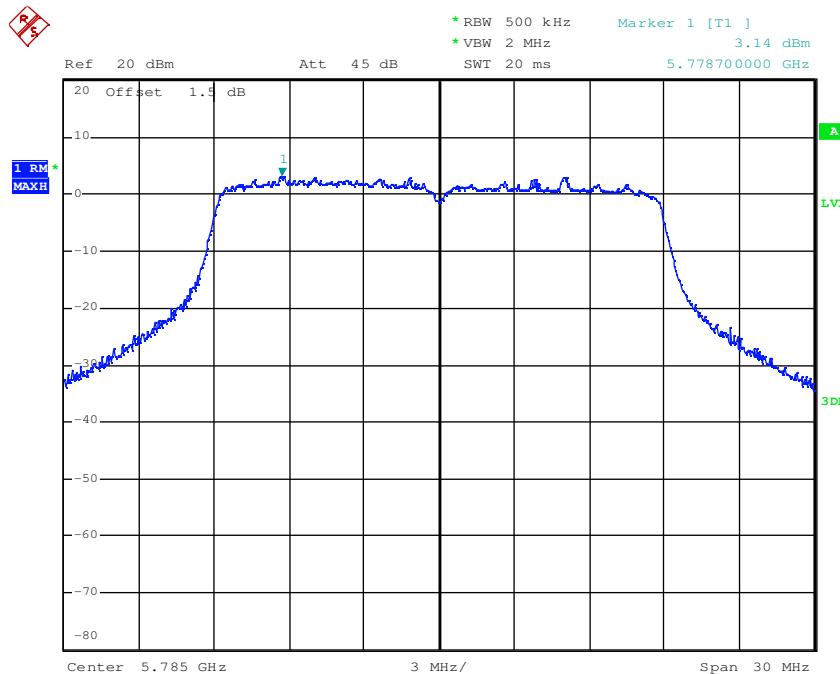


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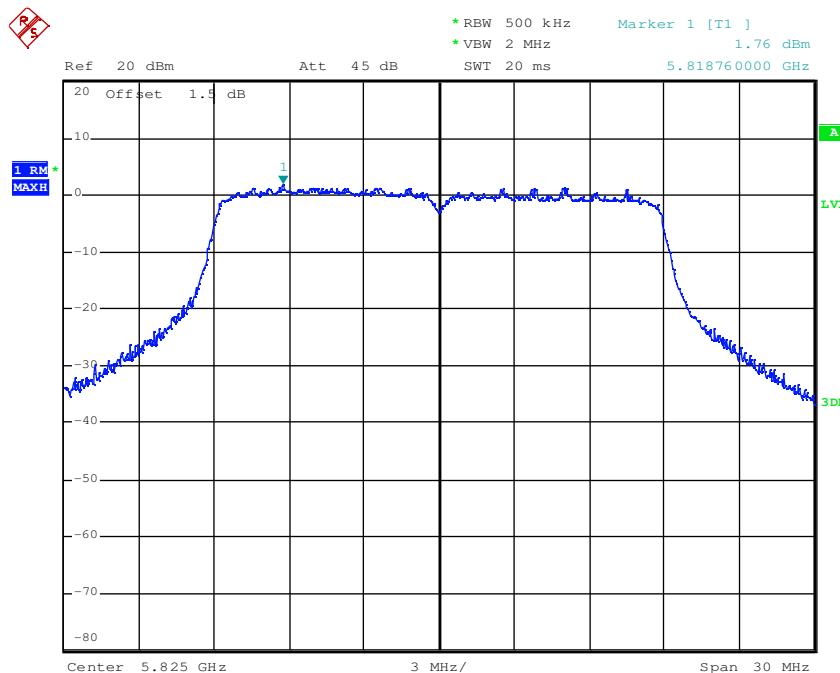


Report No.: HKES170100014203  
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Test mode:	802.11 n20	Frequency(MHz):	5785
------------	------------	-----------------	------



Test mode:	802.11 n20	Frequency(MHz):	5825
------------	------------	-----------------	------

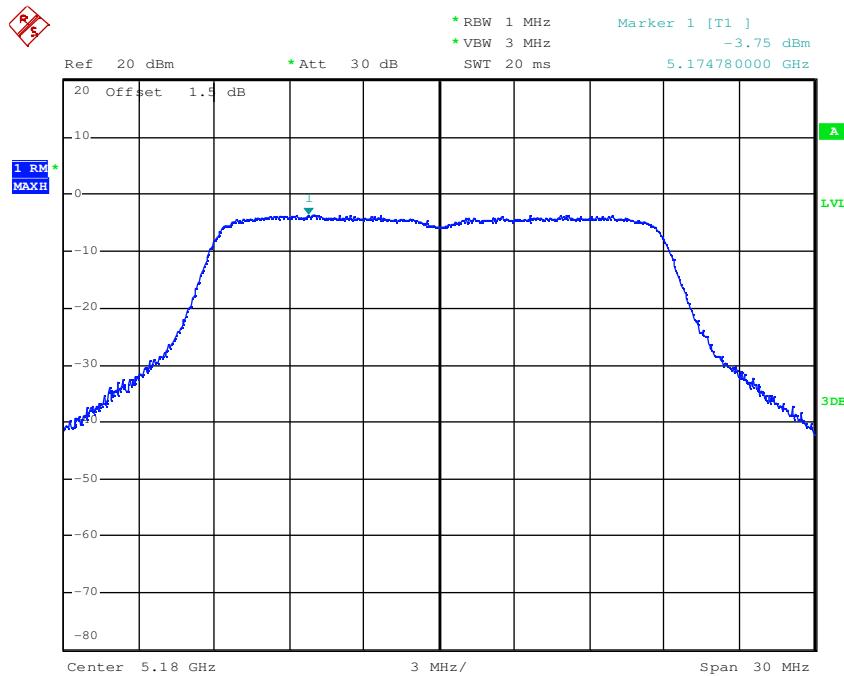


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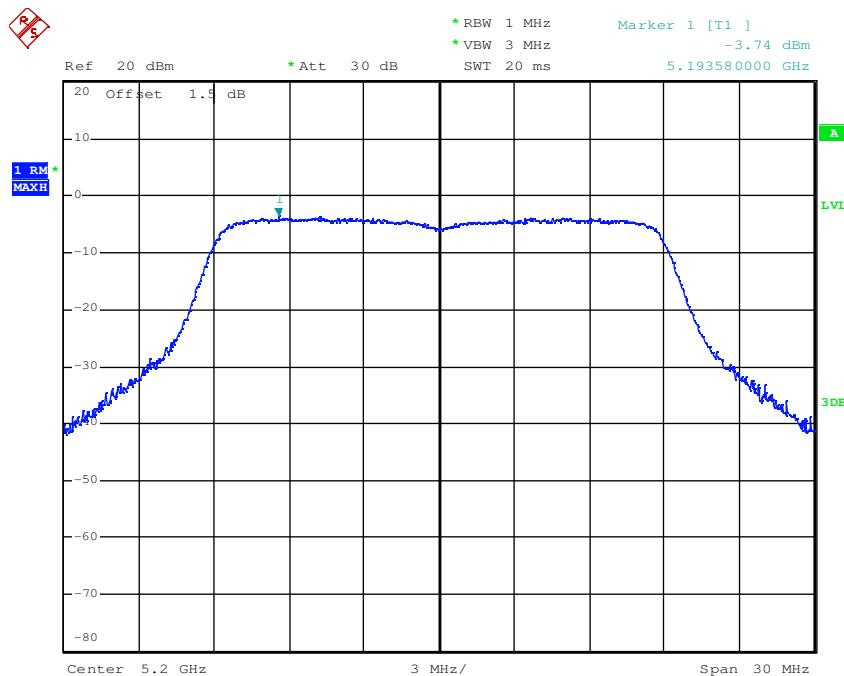


Report No.: HKES170100014203  
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Test mode:	802.11 ac20	Frequency(MHz):	5180
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5200
------------	-------------	-----------------	------

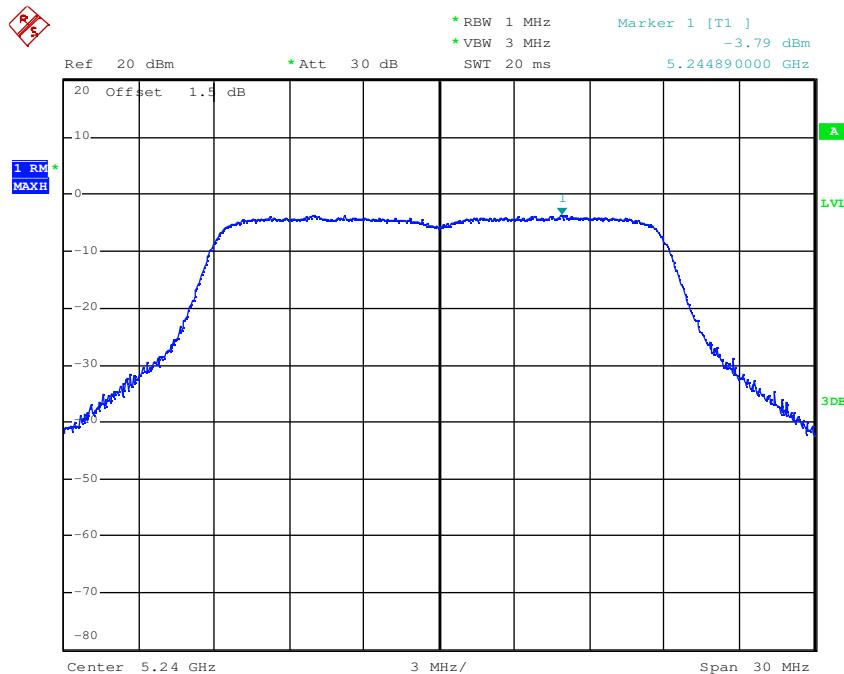


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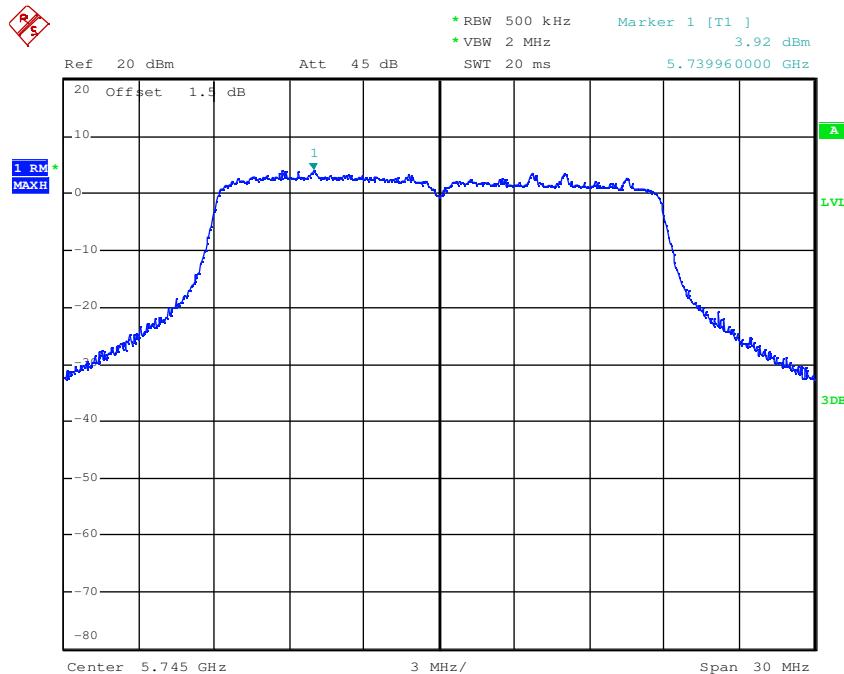


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Test mode:	802.11 ac20	Frequency(MHz):	5240
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5745
------------	-------------	-----------------	------

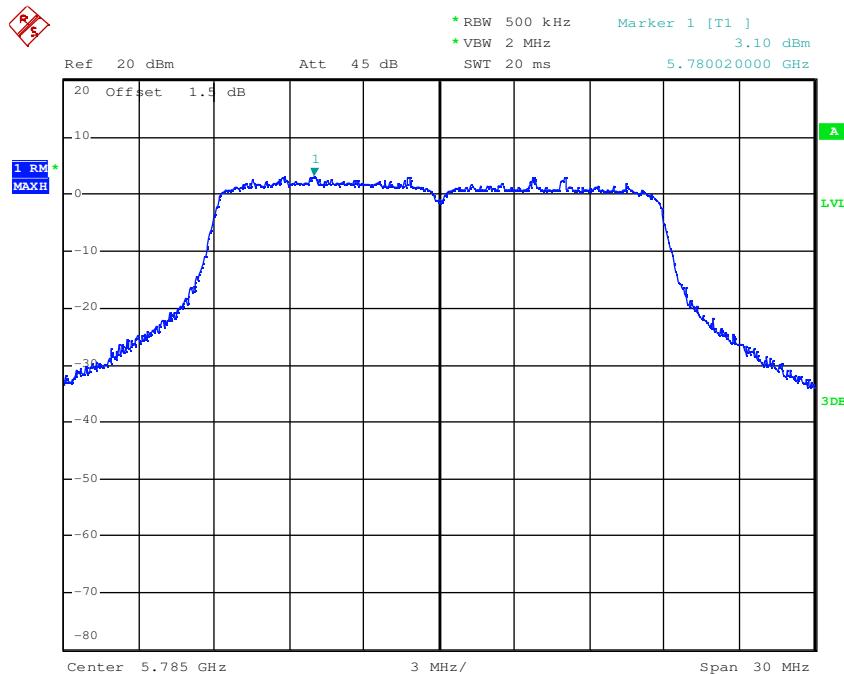


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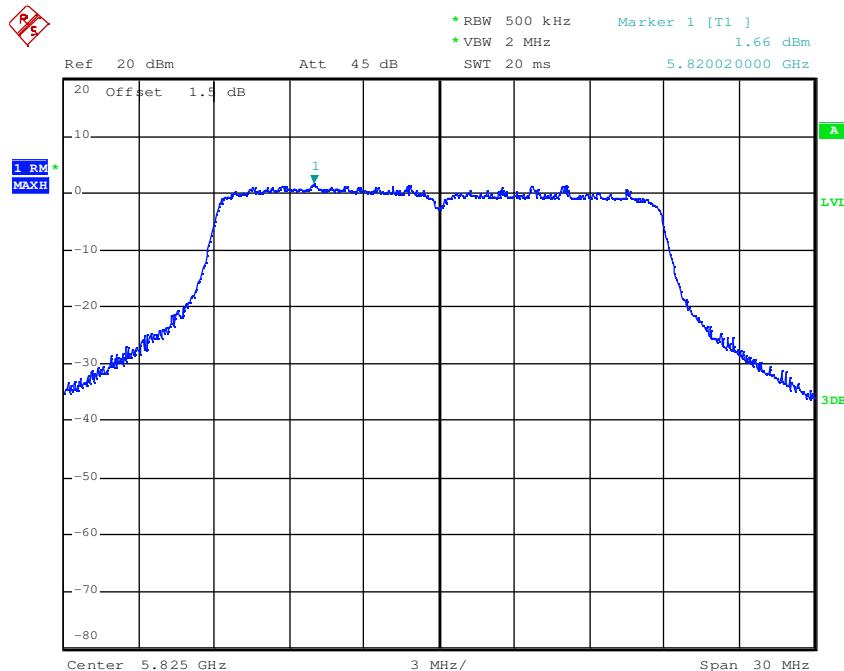


Report No.: HKES170100014203  
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Test mode:	802.11 ac20	Frequency(MHz):	5785
------------	-------------	-----------------	------



Test mode:	802.11 ac20	Frequency(MHz):	5825
------------	-------------	-----------------	------

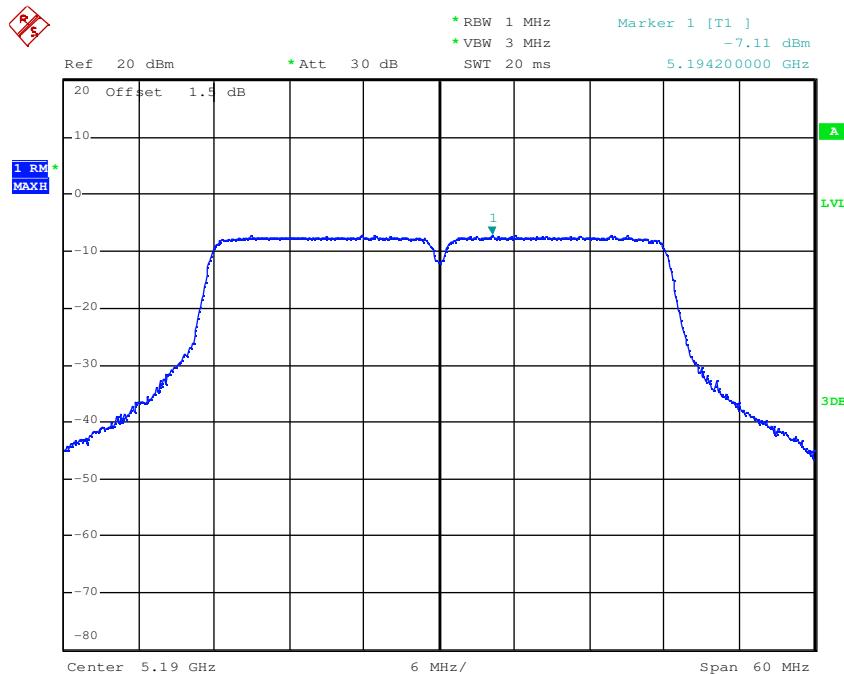


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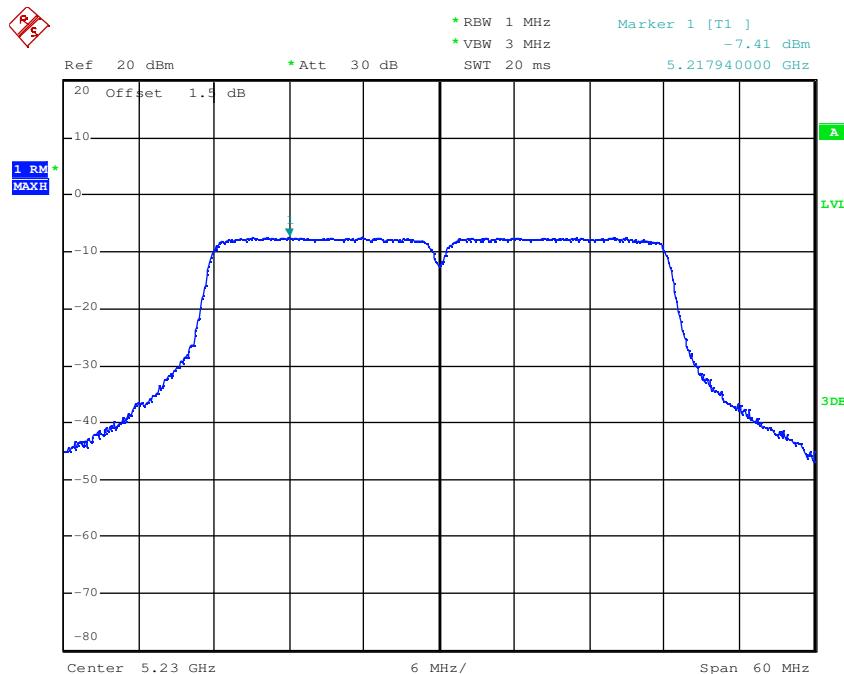


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Test mode:	802.11 n40	Frequency(MHz):	5190
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Test mode:	802.11 n40	Frequency(MHz):	5230
------------	------------	-----------------	------

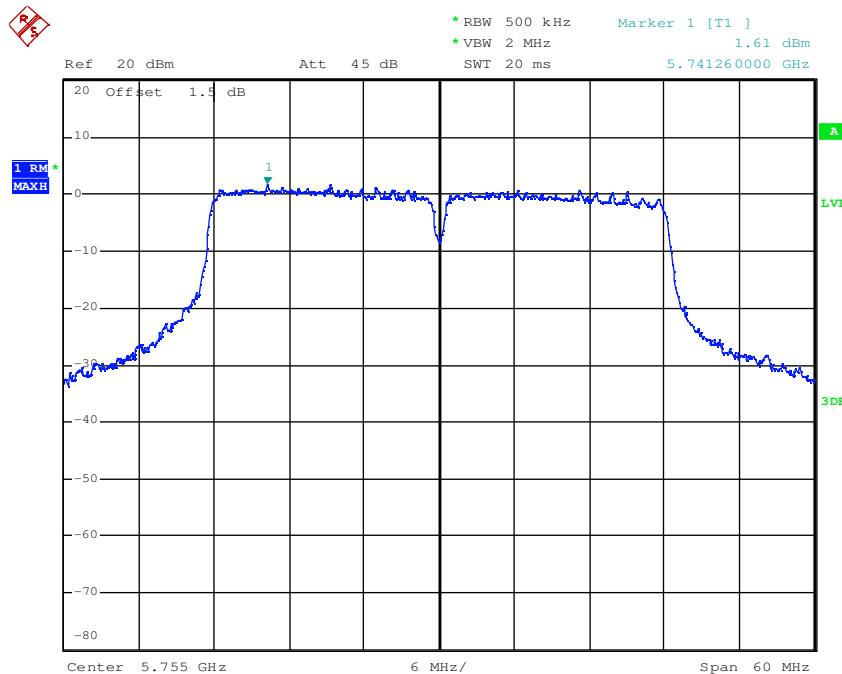


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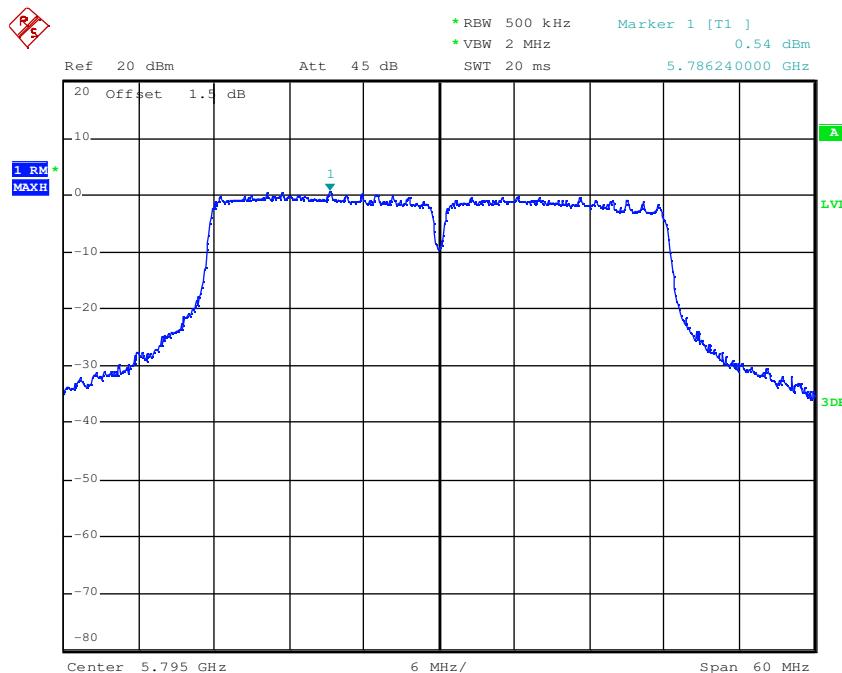


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Test mode:	802.11 n40	Frequency(MHz):	5755
------------	------------	-----------------	------



Test mode:	802.11 n40	Frequency(MHz):	5795
------------	------------	-----------------	------

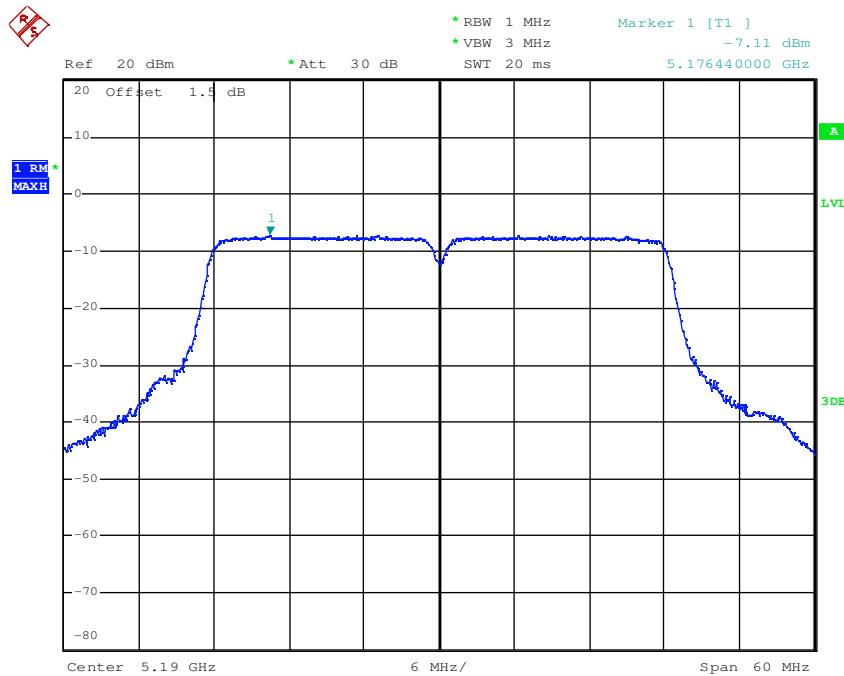


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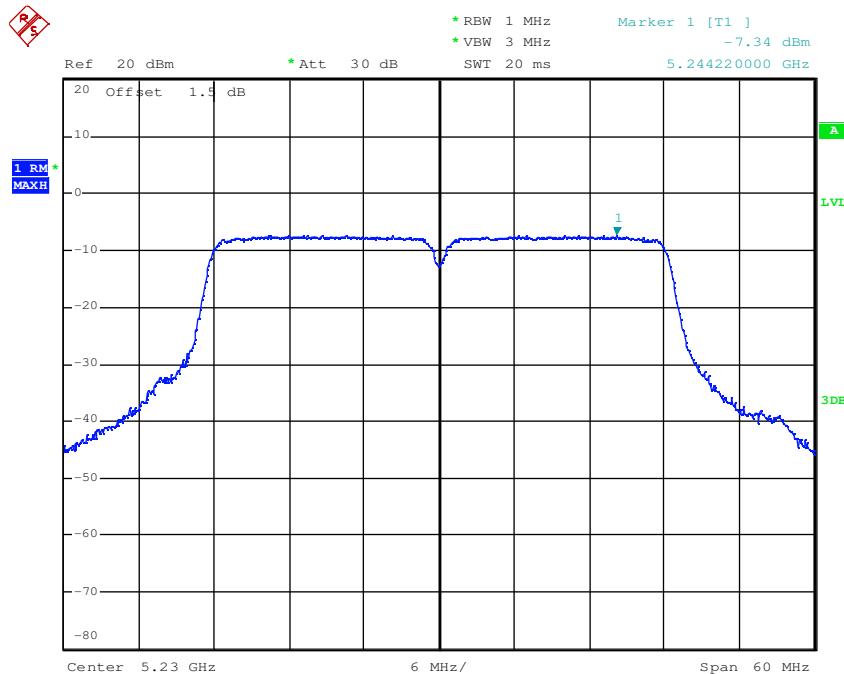


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Test mode:	802.11 ac40	Frequency(MHz):	5190
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Test mode:	802.11 ac40	Frequency(MHz):	5230
------------	-------------	-----------------	------

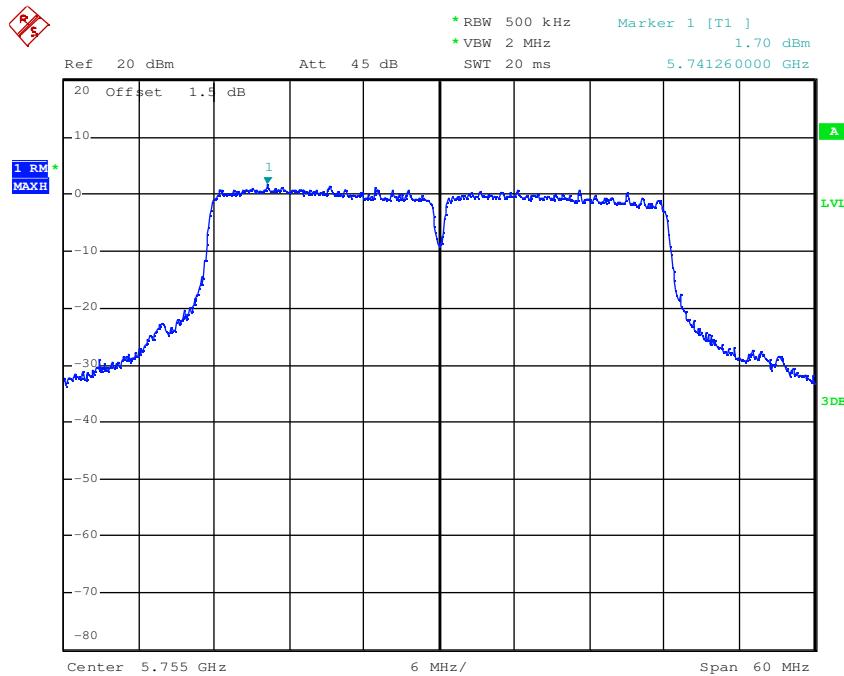


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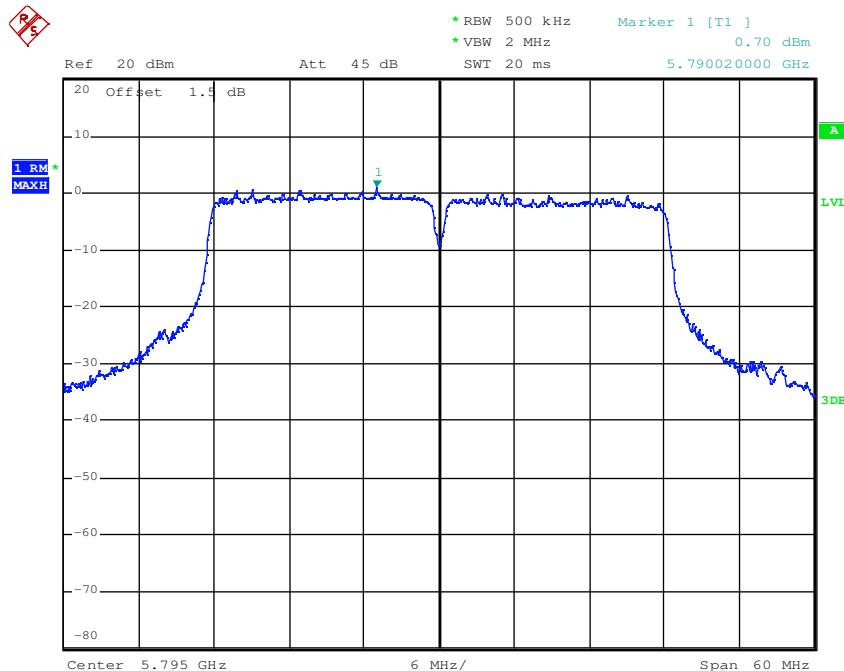


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Test mode:	802.11 ac40	Frequency(MHz):	5755
------------	-------------	-----------------	------



Test mode:	802.11 ac40	Frequency(MHz):	5795
------------	-------------	-----------------	------

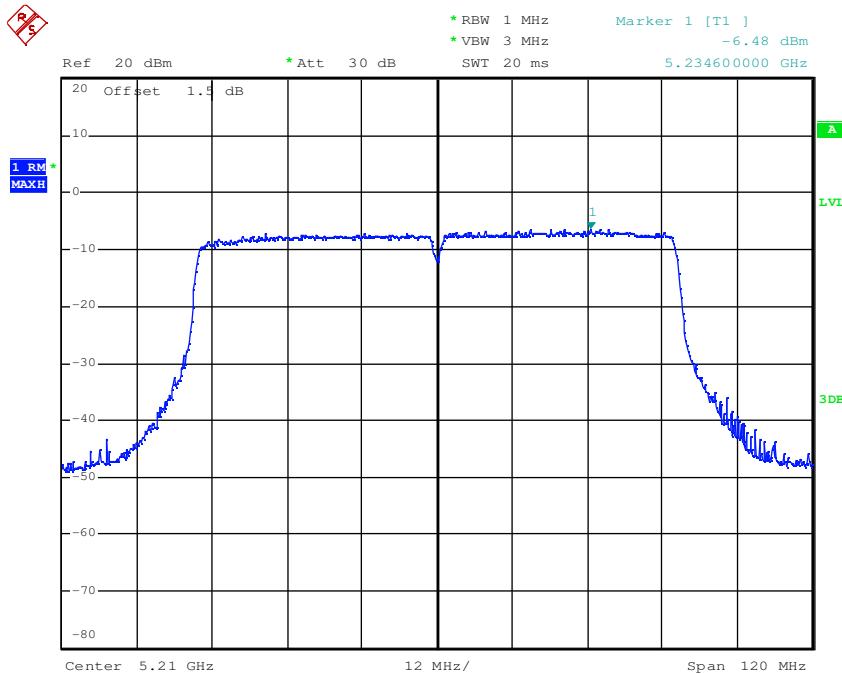


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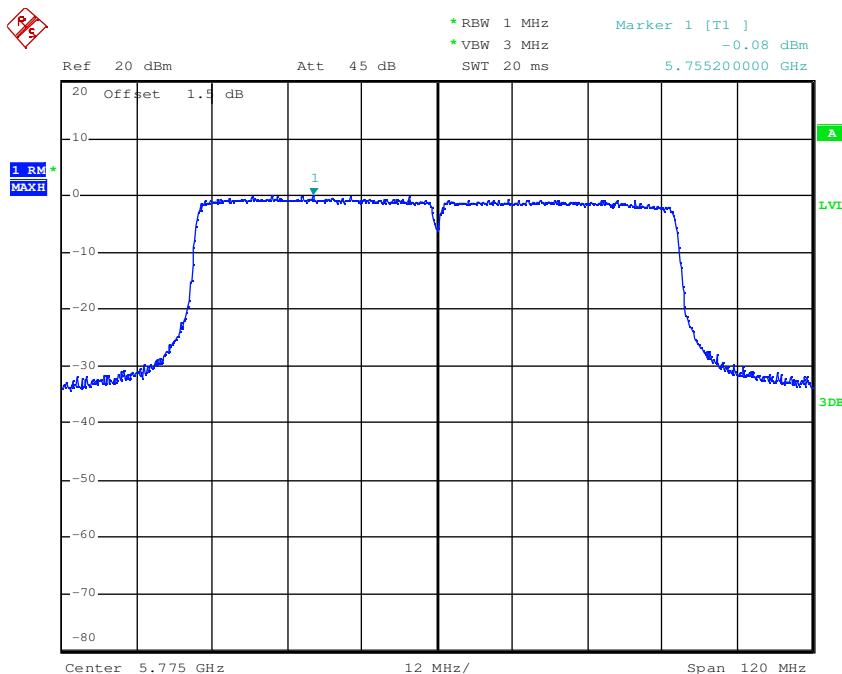


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Test mode:	802.11 ac80	Frequency(MHz):	5210
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Test mode:	802.11 ac80	Frequency(MHz):	5775
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## 6.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)
Test Method:	ANSI C63.10: 2013, section 12.7.5, 12.7.6, 12.7.7.3
Test Site:	Measurement Distance: 3m
Test Setup:	

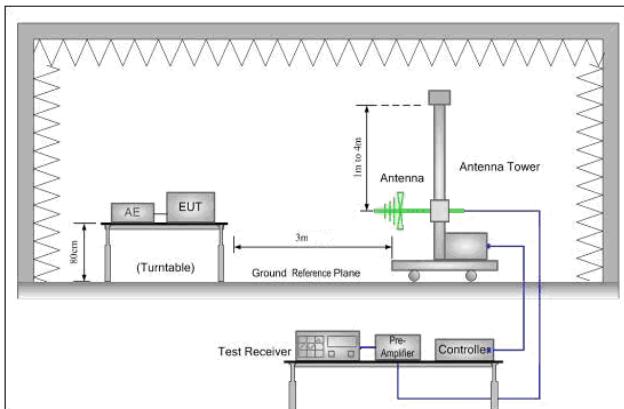


Figure 1. 30MHz to 1GHz

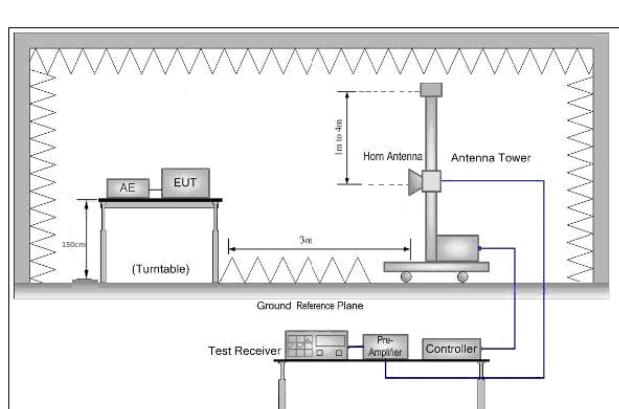


Figure 2. Above 1 GHz

Test Procedure:	<ul style="list-style-type: none"> <li>a. For below 1GHz test, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>b. For above 1GHz test, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> <li>e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>g. Test the EUT in the outermost channels.</li> </ul>
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	<p>Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)</p> <p>For below 1GHz, after Pre-scan, find the 1Mbps of rate of 802.11a at lowest channel is the worst case for 5G WIFI and 1Mbps of rate of 802.11b at lowest</p>

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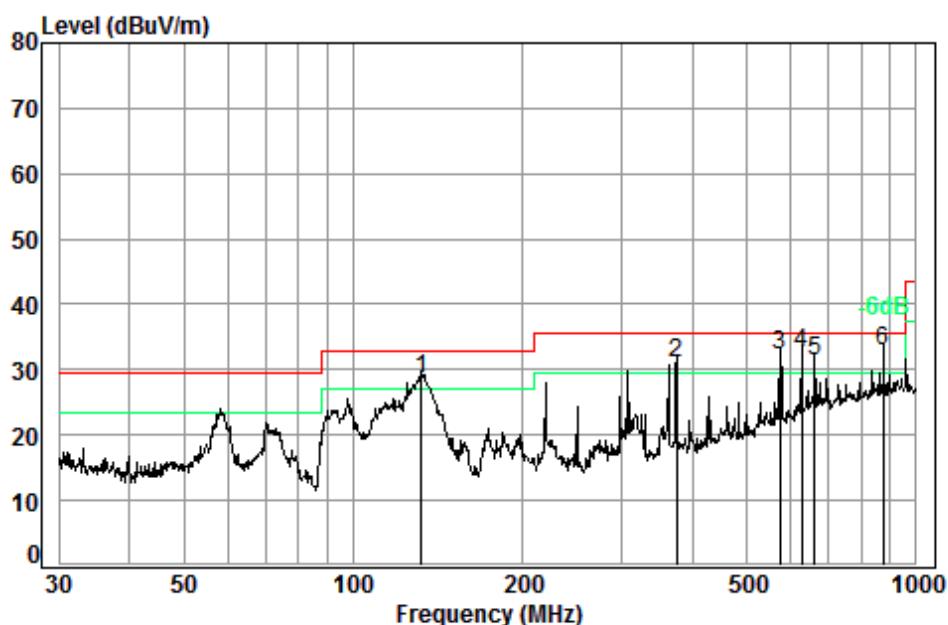
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	channel is the worst case for 2.4G WIFI, so the final test was carried out at simultaneous transmission operations under the worst case of 2.4G & 5G WIFI.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass



### 6.8.1 Radiated emission below 1GHz

30MHz~1GHz (QP)		
Test mode:	Transmitting mode	Vertical



Condition: 10m VERTICAL

Job No. : 00142IT

Test Mode: TX mode

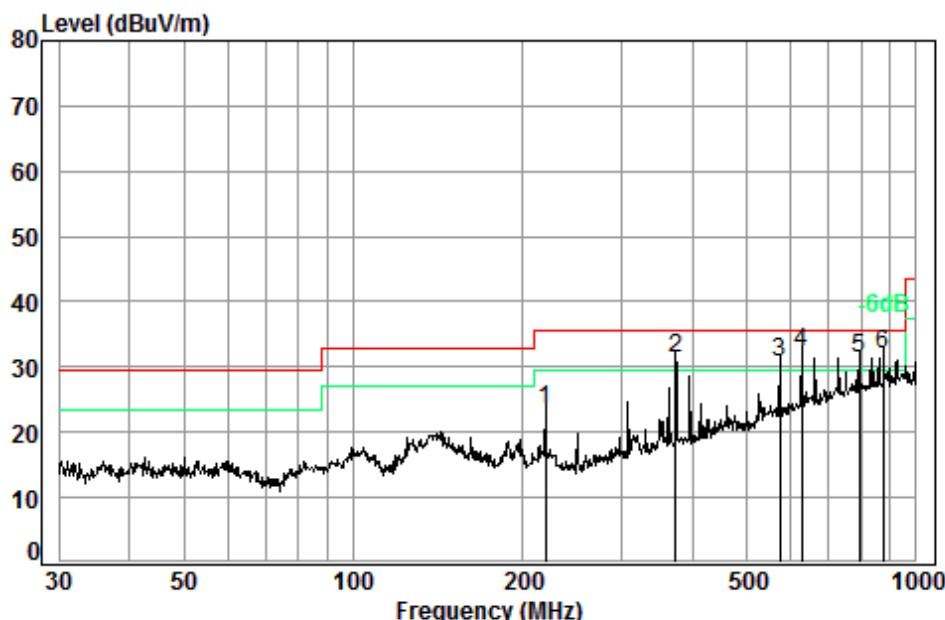
Freq	Cable	Ant	Preamp	Read	Limit	Over		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	132.22	7.36	12.20	32.76	41.94	28.74	33.00	-4.26
2	375.94	8.30	14.41	32.60	40.84	30.95	35.60	-4.65
3	572.61	8.83	18.14	32.60	37.78	32.15	35.60	-3.45
4	625.08	8.96	19.22	32.60	37.03	32.61	35.60	-2.99
5	661.15	9.05	19.67	32.60	35.18	31.30	35.60	-4.30
6 pp	875.25	9.48	21.89	32.52	33.87	32.72	35.60	-2.88

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Test mode:	Transmitting mode	Horizontal
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Condition: 10m HORIZONTAL

Job No. : 00142IT

Test Mode: TX mode

Freq	Cable	Ant	Preamp	Read	Limit	Over		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	219.84	7.70	10.15	32.68	38.29	23.46	35.60	-12.14
2	374.62	8.30	14.38	32.60	41.34	31.42	35.60	-4.18
3	572.61	8.83	18.14	32.60	36.28	30.65	35.60	-4.95
4 pp	625.08	8.96	19.22	32.60	36.54	32.12	35.60	-3.48
5	793.40	9.28	21.19	32.60	33.34	31.21	35.60	-4.39
6	875.25	9.48	21.89	32.52	32.99	31.84	35.60	-3.76

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For frequencies below 1GHz, the test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

$L_3$ : Level @ 3m distance. Unit: uV/m;

$L_{10}$ : Level @ 10m distance. Unit: uV/m;

$D_3$ : 3m distance. Unit: m

$D_{10}$ : 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
132.22	28.74	27.35	91.18	39.20	43.50	-4.30	V
375.94	30.95	35.28	117.59	41.41	46.00	-4.59	V
572.61	32.15	40.50	135.01	42.61	46.00	-3.39	V
625.08	32.61	42.71	142.36	43.07	46.00	-2.93	V
661.15	31.30	36.73	122.43	41.76	46.00	-4.24	V
875.25	32.72	43.25	144.17	43.18	46.00	-2.82	V
219.84	23.46	14.89	49.65	33.92	46.00	-12.08	H
374.62	31.42	37.24	124.13	41.88	46.00	-4.12	H
572.61	30.65	34.08	113.60	41.11	46.00	-4.89	H
625.08	32.12	40.36	134.55	42.58	46.00	-3.42	H
793.40	31.21	36.35	121.17	41.67	46.00	-4.33	H
875.25	31.84	39.08	130.28	42.30	46.00	-3.70	H



### 6.8.2 Transmitter emission above 1GHz

**Test plot as follows:**

**WiFi Module 1:**

Test mode:		802.11a		Frequency(MHz):		5180	Remark:		Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
7093.172	36.46	10.64	38.30	41.79	50.59	74.00	-23.41	Vertical	
8990.716	36.59	11.79	37.30	39.61	50.69	74.00	-23.31	Vertical	
10360.000	37.24	12.98	36.99	35.14	48.37	74.00	-25.63	Vertical	
11734.470	38.34	14.27	38.04	36.25	50.82	74.00	-23.18	Vertical	
15540.000	41.38	17.07	39.95	33.53	52.03	74.00	-21.97	Vertical	
17596.580	43.58	20.75	37.66	26.28	52.95	74.00	-21.05	Vertical	
7678.832	36.41	10.89	37.71	41.25	50.84	74.00	-23.16	Horizontal	
8990.716	36.59	11.79	37.30	39.29	50.37	74.00	-23.63	Horizontal	
10360.000	37.24	12.98	36.99	35.58	48.81	74.00	-25.19	Horizontal	
12751.430	38.85	14.86	39.06	37.01	51.66	74.00	-22.34	Horizontal	
15540.000	41.38	17.07	39.95	32.76	51.26	74.00	-22.74	Horizontal	
17830.800	44.00	21.55	37.45	24.79	52.89	74.00	-21.11	Horizontal	

Test mode:		802.11a		Frequency(MHz):		5220	Remark:		Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
7664.340	36.40	10.88	37.72	40.50	50.06	74.00	-23.94	Vertical	
8328.564	36.20	11.58	37.37	41.15	51.56	74.00	-22.44	Vertical	
10440.000	37.16	13.04	37.03	34.11	47.28	74.00	-26.72	Vertical	
12751.430	38.85	14.86	39.06	36.64	51.29	74.00	-22.71	Vertical	
15660.000	41.34	17.18	39.83	34.04	52.73	74.00	-21.27	Vertical	
17464.130	43.36	20.30	37.78	27.12	53.00	74.00	-21.00	Vertical	
7678.832	36.41	10.89	37.71	42.22	51.81	74.00	-22.19	Horizontal	
9659.786	37.53	12.53	36.96	40.03	53.13	74.00	-20.87	Horizontal	
10440.000	37.16	13.04	37.03	33.42	46.59	74.00	-27.41	Horizontal	
12751.430	38.85	14.86	39.06	37.35	52.00	74.00	-22.00	Horizontal	
15660.000	41.34	17.18	39.83	33.14	51.83	74.00	-22.17	Horizontal	
17830.800	44.00	21.55	37.45	25.28	53.38	74.00	-20.62	Horizontal	

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Test mode:		802.11a		Frequency(MHz):		5240	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7120.020	36.45	10.65	38.27	41.57	50.40	74.00	-23.60	Vertical
8990.716	36.59	11.79	37.30	39.55	50.63	74.00	-23.37	Vertical
10480.000	37.12	13.07	37.05	33.25	46.39	74.00	-27.61	Vertical
13192.440	38.72	15.60	39.54	35.41	50.19	74.00	-23.81	Vertical
15720.000	41.31	17.24	39.77	33.48	52.26	74.00	-21.74	Vertical
17864.510	44.06	21.66	37.42	25.34	53.64	74.00	-20.36	Vertical
7079.786	36.47	10.63	38.32	41.38	50.16	74.00	-23.84	Horizontal
8328.564	36.20	11.58	37.37	42.93	53.34	74.00	-20.66	Horizontal
10480.000	37.12	13.07	37.05	34.08	47.22	74.00	-26.78	Horizontal
12775.540	38.84	14.93	39.08	38.23	52.92	74.00	-21.08	Horizontal
15720.000	41.31	17.24	39.77	33.89	52.67	74.00	-21.33	Horizontal
17830.800	44.00	21.55	37.45	25.35	53.45	74.00	-20.55	Horizontal

Test mode:		802.11a		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7079.786	36.47	10.63	38.32	41.98	50.76	74.00	-23.24	Vertical
9007.715	36.61	11.80	37.30	39.37	50.48	74.00	-23.52	Vertical
11490.000	38.09	14.01	37.80	34.65	48.95	74.00	-25.05	Vertical
13882.720	39.06	16.12	40.36	36.24	51.06	74.00	-22.94	Vertical
15800.410	41.28	17.31	39.69	33.75	52.65	74.00	-21.35	Vertical
17235.000	43.08	19.50	37.98	28.15	52.75	74.00	-21.25	Vertical
7678.832	36.41	10.89	37.71	40.66	50.25	74.00	-23.75	Horizontal
8990.716	36.59	11.79	37.30	38.98	50.06	74.00	-23.94	Horizontal
11490.000	38.09	14.01	37.80	32.43	46.73	74.00	-27.27	Horizontal
13167.540	38.73	15.59	39.51	34.77	49.58	74.00	-24.42	Horizontal
14512.850	40.42	16.40	40.50	36.72	53.04	74.00	-20.96	Horizontal
17235.000	43.08	19.50	37.98	28.35	52.95	74.00	-21.05	Horizontal

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Test mode:		802.11a		Frequency(MHz):		5785	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8328.564	36.20	11.58	37.37	41.47	51.88	74.00	-22.12	Vertical
10069.670	37.53	12.76	36.84	39.61	53.06	74.00	-20.94	Vertical
11570.000	38.17	14.09	37.88	33.53	47.91	74.00	-26.09	Vertical
13804.270	38.97	16.03	40.27	37.42	52.15	74.00	-21.85	Vertical
16010.720	41.23	17.50	39.49	33.44	52.68	74.00	-21.32	Vertical
17355.000	43.23	19.92	37.87	28.03	53.31	74.00	-20.69	Vertical
7106.583	36.46	10.64	38.29	41.04	49.85	74.00	-24.15	Horizontal
8344.312	36.18	11.61	37.36	42.02	52.45	74.00	-21.55	Horizontal
11570.000	38.17	14.09	37.88	33.35	47.73	74.00	-26.27	Horizontal
12775.540	38.84	14.93	39.08	36.69	51.38	74.00	-22.62	Horizontal
14929.940	41.18	16.52	40.50	36.08	53.28	74.00	-20.72	Horizontal
17355.000	43.23	19.92	37.87	28.26	53.54	74.00	-20.46	Horizontal

Test mode:		802.11a		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7093.172	36.46	10.64	38.30	40.81	49.61	74.00	-24.39	Vertical
9659.786	37.53	12.53	36.96	39.39	52.49	74.00	-21.51	Vertical
11650.000	38.25	14.18	37.96	32.75	47.22	74.00	-26.78	Vertical
13830.370	39.00	16.06	40.30	35.78	50.54	74.00	-23.46	Vertical
16040.990	41.32	17.51	39.45	33.82	53.20	74.00	-20.80	Vertical
17475.000	43.37	20.33	37.77	27.45	53.38	74.00	-20.62	Vertical
7093.172	36.46	10.64	38.30	41.47	50.27	74.00	-23.73	Horizontal
8328.564	36.20	11.58	37.37	41.50	51.91	74.00	-22.09	Horizontal
9993.873	37.60	12.71	36.80	39.00	52.50	74.00	-21.49	Horizontal
11650.000	38.25	14.18	37.96	33.25	47.72	74.00	-26.28	Horizontal
14845.570	41.03	16.50	40.50	36.17	53.20	74.00	-20.80	Horizontal
17475.000	43.37	20.33	37.77	26.71	52.64	74.00	-21.36	Horizontal

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Test mode:		802.11 n20		Frequency(MHz):		5180	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8328.564	36.20	11.58	37.37	41.79	52.20	74.00	-21.80	Vertical
10360.000	37.24	12.98	36.99	35.97	49.20	74.00	-24.80	Vertical
11756.660	38.36	14.30	38.06	36.91	51.51	74.00	-22.49	Vertical
13217.380	38.71	15.61	39.57	36.00	50.75	74.00	-23.25	Vertical
15540.000	41.38	17.07	39.95	34.59	53.09	74.00	-20.91	Vertical
17830.800	44.00	21.55	37.45	24.79	52.89	74.00	-21.11	Vertical
7678.832	36.41	10.89	37.71	41.46	51.05	74.00	-22.95	Horizontal
8328.564	36.20	11.58	37.37	42.30	52.71	74.00	-21.29	Horizontal
10360.000	37.24	12.98	36.99	35.99	49.22	74.00	-24.78	Horizontal
12775.540	38.84	14.93	39.08	36.56	51.25	74.00	-22.75	Horizontal
15540.000	41.38	17.07	39.95	34.10	52.60	74.00	-21.40	Horizontal
17830.800	44.00	21.55	37.45	24.52	52.62	74.00	-21.38	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5220	Remark:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	40.60	50.19	74.00	-23.81	Vertical
9007.715	36.61	11.80	37.30	38.83	49.94	74.00	-24.06	Vertical
10440.000	37.16	13.04	37.03	33.12	46.29	74.00	-27.71	Vertical
13192.440	38.72	15.60	39.54	35.68	50.46	74.00	-23.54	Vertical
15660.000	41.34	17.18	39.83	34.10	52.79	74.00	-21.21	Vertical
17864.510	44.06	21.66	37.42	24.65	52.95	74.00	-21.05	Vertical
7693.350	36.42	10.90	37.69	40.52	50.15	74.00	-23.85	Horizontal
10440.000	37.16	13.04	37.03	33.50	46.67	74.00	-27.33	Horizontal
11734.470	38.34	14.27	38.04	36.22	50.79	74.00	-23.21	Horizontal
13804.270	38.97	16.03	40.27	38.31	53.04	74.00	-20.96	Horizontal
15660.000	41.34	17.18	39.83	34.21	52.90	74.00	-21.10	Horizontal
17830.800	44.00	21.55	37.45	25.26	53.36	74.00	-20.64	Horizontal

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Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	41.18	50.77	74.00	-23.23	Vertical
10480.000	37.12	13.07	37.05	34.60	47.74	74.00	-26.26	Vertical
11823.470	38.43	14.37	38.13	37.68	52.35	74.00	-21.65	Vertical
13804.270	38.97	16.03	40.27	36.78	51.51	74.00	-22.49	Vertical
15720.000	41.31	17.24	39.77	34.24	53.02	74.00	-20.98	Vertical
17830.800	44.00	21.55	37.45	25.22	53.32	74.00	-20.68	Vertical
8328.564	36.20	11.58	37.37	42.56	52.97	74.00	-21.03	Horizontal
10480.000	37.12	13.07	37.05	34.35	47.49	74.00	-26.51	Horizontal
11734.470	38.34	14.27	38.04	37.78	52.35	74.00	-21.65	Horizontal
13093.140	38.76	15.57	39.42	35.28	50.19	74.00	-23.81	Horizontal
15720.000	41.31	17.24	39.77	34.24	53.02	74.00	-20.98	Horizontal
17830.800	44.00	21.55	37.45	24.72	52.82	74.00	-21.18	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7079.786	36.47	10.63	38.32	42.55	51.33	74.00	-22.67	Vertical
8990.716	36.59	11.79	37.30	40.22	51.30	74.00	-22.70	Vertical
11490.000	38.09	14.01	37.80	33.54	47.84	74.00	-26.16	Vertical
13804.270	38.97	16.03	40.27	36.50	51.23	74.00	-22.77	Vertical
16010.720	41.23	17.50	39.49	33.80	53.04	74.00	-20.96	Vertical
17235.000	43.08	19.50	37.98	28.46	53.06	74.00	-20.94	Vertical
7678.832	36.41	10.89	37.71	40.95	50.54	74.00	-23.46	Horizontal
9659.786	37.53	12.53	36.96	39.68	52.78	74.00	-21.22	Horizontal
11490.000	38.09	14.01	37.80	34.20	48.50	74.00	-25.50	Horizontal
13217.380	38.71	15.61	39.57	35.94	50.69	74.00	-23.31	Horizontal
14650.570	40.67	16.44	40.50	35.36	51.97	74.00	-22.03	Horizontal
17235.000	43.08	19.50	37.98	28.37	52.97	74.00	-21.03	Horizontal

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Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7106.583	36.46	10.64	38.29	41.67	50.48	74.00	-23.52	Vertical
8328.564	36.20	11.58	37.37	41.19	51.60	74.00	-22.40	Vertical
11570.000	38.17	14.09	37.88	33.45	47.83	74.00	-26.17	Vertical
13167.540	38.73	15.59	39.51	36.35	51.16	74.00	-22.84	Vertical
14512.850	40.42	16.40	40.50	36.92	53.24	74.00	-20.76	Vertical
17355.000	43.23	19.92	37.87	27.47	52.75	74.00	-21.25	Vertical
7678.832	36.41	10.89	37.71	41.10	50.69	74.00	-23.31	Horizontal
9678.051	37.54	12.54	36.96	40.43	53.55	74.00	-20.45	Horizontal
11570.000	38.17	14.09	37.88	33.81	48.19	74.00	-25.81	Horizontal
13117.890	38.75	15.58	39.45	35.77	50.65	74.00	-23.35	Horizontal
15157.260	41.33	16.70	40.34	34.80	52.49	74.00	-21.51	Horizontal
17355.000	43.23	19.92	37.87	27.87	53.15	74.00	-20.85	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7086.476	36.46	10.63	38.31	41.42	50.20	74.00	-23.80	Vertical
8344.312	36.18	11.61	37.36	41.36	51.79	74.00	-22.21	Vertical
11650.000	38.25	14.18	37.96	33.83	48.30	74.00	-25.70	Vertical
13093.140	38.76	15.57	39.42	35.49	50.40	74.00	-23.60	Vertical
15800.410	41.28	17.31	39.69	33.86	52.76	74.00	-21.24	Vertical
17475.000	43.37	20.33	37.77	27.24	53.17	74.00	-20.83	Vertical
7678.832	36.41	10.89	37.71	40.25	49.84	74.00	-24.16	Horizontal
9862.599	37.57	12.64	36.87	39.60	52.94	74.00	-21.06	Horizontal
11650.000	38.25	14.18	37.96	33.29	47.76	74.00	-26.24	Horizontal
13804.270	38.97	16.03	40.27	36.62	51.35	74.00	-22.65	Horizontal
16010.720	41.23	17.50	39.49	34.09	53.33	74.00	-20.67	Horizontal
17475.000	43.37	20.33	37.77	26.77	52.70	74.00	-21.30	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5180	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7093.172	36.46	10.64	38.30	42.28	51.08	74.00	-22.92	Vertical
9007.715	36.61	11.80	37.30	39.84	50.95	74.00	-23.05	Vertical
10360.000	37.24	12.98	36.99	36.42	49.65	74.00	-24.35	Vertical
13217.380	38.71	15.61	39.57	35.55	50.30	74.00	-23.70	Vertical
15540.000	41.38	17.07	39.95	33.34	51.84	74.00	-22.16	Vertical
17830.800	44.00	21.55	37.45	24.82	52.92	74.00	-21.08	Vertical
7678.832	36.41	10.89	37.71	41.13	50.72	74.00	-23.28	Horizontal
9007.715	36.61	11.80	37.30	39.44	50.55	74.00	-23.45	Horizontal
10360.000	37.24	12.98	36.99	35.20	48.43	74.00	-25.57	Horizontal
12775.540	38.84	14.93	39.08	36.96	51.65	74.00	-22.35	Horizontal
15540.000	41.38	17.07	39.95	33.92	52.42	74.00	-21.58	Horizontal
17629.850	43.64	20.87	37.63	26.30	53.18	74.00	-20.82	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5220	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7079.786	36.47	10.63	38.32	41.68	50.46	74.00	-23.54	Vertical
8344.312	36.18	11.61	37.36	41.52	51.95	74.00	-22.05	Vertical
10440.000	37.16	13.04	37.03	33.25	46.42	74.00	-27.58	Vertical
12775.540	38.84	14.93	39.08	35.69	50.38	74.00	-23.62	Vertical
15660.000	41.34	17.18	39.83	34.00	52.69	74.00	-21.31	Vertical
17464.130	43.36	20.30	37.78	26.97	52.85	74.00	-21.15	Vertical
7678.832	36.41	10.89	37.71	41.23	50.82	74.00	-23.18	Horizontal
10440.000	37.16	13.04	37.03	34.23	47.40	74.00	-26.60	Horizontal
11756.660	38.36	14.30	38.06	37.17	51.77	74.00	-22.23	Horizontal
13778.220	38.94	16.00	40.24	37.57	52.27	74.00	-21.73	Horizontal
15660.000	41.34	17.18	39.83	33.96	52.65	74.00	-21.35	Horizontal
17830.800	44.00	21.55	37.45	25.52	53.62	74.00	-20.38	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5240	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7160.481	36.43	10.66	38.23	39.51	48.37	74.00	-25.63	Vertical
9007.715	36.61	11.80	37.30	38.12	49.23	74.00	-24.77	Vertical
10480.000	37.12	13.07	37.05	33.29	46.43	74.00	-27.57	Vertical
12775.540	38.84	14.93	39.08	35.86	50.55	74.00	-23.45	Vertical
15720.000	41.31	17.24	39.77	32.83	51.61	74.00	-22.39	Vertical
17530.230	43.46	20.52	37.72	27.14	53.40	74.00	-20.60	Vertical
7678.832	36.41	10.89	37.71	39.93	49.52	74.00	-24.48	Horizontal
9678.051	37.54	12.54	36.96	39.68	52.80	74.00	-21.20	Horizontal
10480.000	37.12	13.07	37.05	33.66	46.80	74.00	-27.20	Horizontal
13242.370	38.70	15.61	39.60	35.33	50.04	74.00	-23.96	Horizontal
15720.000	41.31	17.24	39.77	33.76	52.54	74.00	-21.46	Horizontal
17464.130	43.36	20.30	37.78	27.51	53.39	74.00	-20.61	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7093.172	36.46	10.64	38.30	41.09	49.89	74.00	-24.11	Vertical
9007.715	36.61	11.80	37.30	38.92	50.03	74.00	-23.97	Vertical
11490.000	38.09	14.01	37.80	32.75	47.05	74.00	-26.95	Vertical
12775.540	38.84	14.93	39.08	35.07	49.76	74.00	-24.24	Vertical
16010.720	41.23	17.50	39.49	32.73	51.97	74.00	-22.03	Vertical
17235.000	43.08	19.50	37.98	28.01	52.61	74.00	-21.39	Vertical
7664.340	36.40	10.88	37.72	40.30	49.86	74.00	-24.14	Horizontal
9937.399	37.59	12.68	36.83	39.27	52.71	74.00	-21.29	Horizontal
11490.000	38.09	14.01	37.80	33.17	47.47	74.00	-26.53	Horizontal
13804.270	38.97	16.03	40.27	36.74	51.47	74.00	-22.53	Horizontal
16010.720	41.23	17.50	39.49	34.33	53.57	74.00	-20.43	Horizontal
17235.000	43.08	19.50	37.98	28.61	53.21	74.00	-20.79	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5785	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7120.020	36.45	10.65	38.27	41.13	49.96	74.00	-24.04	Vertical
9007.715	36.61	11.80	37.30	38.83	49.94	74.00	-24.06	Vertical
11570.000	38.17	14.09	37.88	32.80	47.18	74.00	-26.82	Vertical
12751.430	38.85	14.86	39.06	35.86	50.51	74.00	-23.49	Vertical
15830.290	41.27	17.34	39.67	33.93	52.87	74.00	-21.13	Vertical
17355.000	43.23	19.92	37.87	27.29	52.57	74.00	-21.43	Vertical
7678.832	36.41	10.89	37.71	41.71	51.30	74.00	-22.70	Horizontal
9659.786	37.53	12.53	36.96	39.37	52.47	74.00	-21.53	Horizontal
11570.000	38.17	14.09	37.88	32.78	47.16	74.00	-26.84	Horizontal
13217.380	38.71	15.61	39.57	36.71	51.46	74.00	-22.54	Horizontal
15800.410	41.28	17.31	39.69	34.21	53.11	74.00	-20.89	Horizontal
17355.000	43.23	19.92	37.87	27.59	52.87	74.00	-21.13	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7106.583	36.46	10.64	38.29	41.94	50.75	74.00	-23.25	Vertical
8328.564	36.20	11.58	37.37	40.53	50.94	74.00	-23.06	Vertical
11650.000	38.25	14.18	37.96	32.54	47.01	74.00	-27.00	Vertical
13830.370	39.00	16.06	40.30	36.98	51.74	74.00	-22.26	Vertical
16627.150	42.73	17.87	38.68	30.88	52.80	74.00	-21.20	Vertical
17475.000	43.37	20.33	37.77	27.40	53.33	74.00	-20.67	Vertical
7106.583	36.46	10.64	38.29	41.34	50.15	74.00	-23.85	Horizontal
8990.716	36.59	11.79	37.30	39.16	50.24	74.00	-23.76	Horizontal
11650.000	38.25	14.18	37.96	34.13	48.60	74.00	-25.40	Horizontal
13778.220	38.94	16.00	40.24	37.09	51.79	74.00	-22.21	Horizontal
16010.720	41.23	17.50	39.49	32.37	51.61	74.00	-22.39	Horizontal
17475.000	43.37	20.33	37.77	27.72	53.65	74.00	-20.35	Horizontal

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Test mode:		802.11 n40		Frequency(MHz):		5190	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7664.340	36.40	10.88	37.72	40.98	50.54	74.00	-23.46	Vertical
10380.000	37.22	13.00	37.00	36.66	49.88	74.00	-24.12	Vertical
11734.470	38.34	14.27	38.04	36.22	50.79	74.00	-23.21	Vertical
13830.370	39.00	16.06	40.30	36.76	51.52	74.00	-22.48	Vertical
15570.000	41.37	17.09	39.92	34.31	52.85	74.00	-21.15	Vertical
17830.800	44.00	21.55	37.45	24.53	52.63	74.00	-21.37	Vertical
7678.832	36.41	10.89	37.71	41.50	51.09	74.00	-22.91	Horizontal
10380.000	37.22	13.00	37.00	36.75	49.97	74.00	-24.03	Horizontal
11734.470	38.34	14.27	38.04	37.19	51.76	74.00	-22.24	Horizontal
13167.540	38.73	15.59	39.51	34.51	49.32	74.00	-24.68	Horizontal
15570.000	41.37	17.09	39.92	33.43	51.97	74.00	-22.03	Horizontal
17830.800	44.00	21.55	37.45	24.95	53.05	74.00	-20.95	Horizontal

Test mode:		802.11 n40		Frequency(MHz):		5230	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7079.786	36.47	10.63	38.32	42.81	51.59	74.00	-22.41	Vertical
8344.312	36.18	11.61	37.36	42.29	52.72	74.00	-21.28	Vertical
10460.000	37.14	13.06	37.04	34.77	47.93	74.00	-26.07	Vertical
12751.430	38.85	14.86	39.06	37.51	52.16	74.00	-21.84	Vertical
15690.000	41.32	17.21	39.80	33.97	52.70	74.00	-21.30	Vertical
17830.800	44.00	21.55	37.45	25.24	53.34	74.00	-20.66	Vertical
7693.350	36.42	10.90	37.69	40.74	50.37	74.00	-23.63	Horizontal
8328.564	36.20	11.58	37.37	41.70	52.11	74.00	-21.89	Horizontal
10460.000	37.14	13.06	37.04	34.21	47.37	74.00	-26.63	Horizontal
13242.370	38.70	15.61	39.60	35.38	50.09	74.00	-23.91	Horizontal
15690.000	41.32	17.21	39.80	34.28	53.00	74.00	-20.99	Horizontal
17830.800	44.00	21.55	37.45	24.96	53.06	74.00	-20.94	Horizontal

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Test mode:		802.11 n40		Frequency(MHz):		5755	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7120.020	36.45	10.65	38.27	41.05	49.88	74.00	-24.12	Vertical
8328.564	36.20	11.58	37.37	41.77	52.18	74.00	-21.82	Vertical
11340.000	37.97	13.84	37.65	35.17	49.33	74.00	-24.67	Vertical
13217.380	38.71	15.61	39.57	35.45	50.20	74.00	-23.80	Vertical
15157.260	41.33	16.70	40.34	35.84	53.53	74.00	-20.47	Vertical
17010.000	42.81	18.71	38.19	28.97	52.30	74.00	-21.70	Vertical
7678.832	36.41	10.89	37.71	41.19	50.78	74.00	-23.22	Horizontal
9659.786	37.53	12.53	36.96	40.05	53.15	74.00	-20.85	Horizontal
11340.000	37.97	13.84	37.65	35.42	49.58	74.00	-24.42	Horizontal
12775.540	38.84	14.93	39.08	35.97	50.66	74.00	-23.34	Horizontal
14512.850	40.42	16.40	40.50	36.36	52.68	74.00	-21.32	Horizontal
17010.000	42.81	18.71	38.19	29.79	53.12	74.00	-20.88	Horizontal

Test mode:		802.11 n40		Frequency(MHz):		5795	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	41.88	51.47	74.00	-22.53	Vertical
9993.873	37.60	12.71	36.80	38.66	52.17	74.00	-21.83	Vertical
11510.000	38.11	14.03	37.82	33.98	48.30	74.00	-25.70	Vertical
13217.380	38.71	15.61	39.57	35.23	49.98	74.00	-24.02	Vertical
15417.140	41.38	16.95	40.07	35.04	53.30	74.00	-20.70	Vertical
17265.000	43.12	19.60	37.96	28.75	53.51	74.00	-20.49	Vertical
7160.481	36.43	10.66	38.23	40.74	49.60	74.00	-24.40	Horizontal
9007.715	36.61	11.80	37.30	38.23	49.34	74.00	-24.66	Horizontal
11510.000	38.11	14.03	37.82	33.07	47.39	74.00	-26.61	Horizontal
13217.380	38.71	15.61	39.57	34.47	49.22	74.00	-24.78	Horizontal
15157.260	41.33	16.70	40.34	35.23	52.92	74.00	-21.08	Horizontal
17265.000	43.12	19.60	37.96	28.50	53.26	74.00	-20.74	Horizontal

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Test mode:		802.11 ac40		Frequency(MHz):		5190	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
9007.715	36.61	11.80	37.30	39.06	50.17	74.00	-23.83	Vertical
10380.000	37.22	13.00	37.00	36.89	50.11	74.00	-23.89	Vertical
11712.330	38.31	14.25	38.02	37.10	51.64	74.00	-22.36	Vertical
13778.220	38.94	16.00	40.24	38.02	52.72	74.00	-21.28	Vertical
15570.000	41.37	17.09	39.92	33.94	52.48	74.00	-21.52	Vertical
17763.560	43.88	21.32	37.51	25.56	53.25	74.00	-20.75	Vertical
7678.832	36.41	10.89	37.71	41.57	51.16	74.00	-22.84	Horizontal
10380.000	37.22	13.00	37.00	36.22	49.44	74.00	-24.56	Horizontal
11067.070	37.75	13.53	37.37	37.39	51.30	74.00	-22.70	Horizontal
12751.430	38.85	14.86	39.06	36.69	51.34	74.00	-22.66	Horizontal
15570.000	41.37	17.09	39.92	33.09	51.63	74.00	-22.37	Horizontal
17830.800	44.00	21.55	37.45	25.50	53.60	74.00	-20.40	Horizontal

Test mode:		802.11 ac40		Frequency(MHz):		5230	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	41.29	50.88	74.00	-23.12	Vertical
10460.000	37.14	13.06	37.04	35.09	48.25	74.00	-25.75	Vertical
11734.470	38.34	14.27	38.04	36.15	50.72	74.00	-23.28	Vertical
13804.270	38.97	16.03	40.27	37.59	52.32	74.00	-21.68	Vertical
15690.000	41.32	17.21	39.80	33.97	52.70	74.00	-21.30	Vertical
17797.150	43.94	21.44	37.48	25.48	53.38	74.00	-20.62	Vertical
7093.172	36.46	10.64	38.30	41.87	50.67	74.00	-23.33	Horizontal
10460.000	37.14	13.06	37.04	34.08	47.24	74.00	-26.76	Horizontal
11734.470	38.34	14.27	38.04	37.15	51.72	74.00	-22.28	Horizontal
13217.380	38.71	15.61	39.57	34.54	49.29	74.00	-24.71	Horizontal
15690.000	41.32	17.21	39.80	33.89	52.62	74.00	-21.38	Horizontal
17797.150	43.94	21.44	37.48	25.48	53.38	74.00	-20.62	Horizontal

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Test mode:		802.11 ac40		Frequency(MHz):		5755	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7019.862	36.49	10.61	38.38	41.82	50.54	74.00	-23.46	Vertical
8344.312	36.18	11.61	37.36	41.89	52.32	74.00	-21.68	Vertical
11510.000	38.11	14.03	37.82	33.70	48.02	74.00	-25.98	Vertical
14567.780	40.52	16.42	40.50	36.34	52.78	74.00	-21.22	Vertical
16223.830	41.88	17.54	39.20	32.50	52.72	74.00	-21.28	Vertical
17265.000	43.12	19.60	37.96	28.59	53.35	74.00	-20.65	Vertical
7678.832	36.41	10.89	37.71	41.10	50.69	74.00	-23.31	Horizontal
9659.786	37.53	12.53	36.96	39.98	53.08	74.00	-20.92	Horizontal
11510.000	38.11	14.03	37.82	34.22	48.54	74.00	-25.46	Horizontal
12751.430	38.85	14.86	39.06	35.73	50.38	74.00	-23.62	Horizontal
14485.460	40.37	16.39	40.50	36.37	52.63	74.00	-21.37	Horizontal
17265.000	43.12	19.60	37.96	28.62	53.38	74.00	-20.62	Horizontal

Test mode:		802.11 ac40		Frequency(MHz):		5795	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	41.16	50.75	74.00	-23.25	Vertical
9881.246	37.58	12.65	36.86	39.68	53.05	74.00	-20.95	Vertical
11590.000	38.19	14.12	37.90	33.91	48.32	74.00	-25.68	Vertical
12775.540	38.84	14.93	39.08	35.65	50.34	74.00	-23.66	Vertical
14512.850	40.42	16.40	40.50	36.43	52.75	74.00	-21.25	Vertical
17385.000	43.26	20.02	37.85	27.64	53.07	74.00	-20.93	Vertical
7664.340	36.40	10.88	37.72	40.29	49.85	74.00	-24.15	Horizontal
9659.786	37.53	12.53	36.96	39.70	52.80	74.00	-21.20	Horizontal
11590.000	38.19	14.12	37.90	32.96	47.37	74.00	-26.63	Horizontal
13778.220	38.94	16.00	40.24	37.13	51.83	74.00	-22.17	Horizontal
16040.990	41.32	17.51	39.45	33.50	52.88	74.00	-21.12	Horizontal
17385.000	43.26	20.02	37.85	27.33	52.76	74.00	-21.24	Horizontal

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Test mode:		802.11 ac80		Frequency(MHz):		5210	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.41	10.89	37.71	40.38	49.97	74.00	-24.03	Vertical
9659.786	37.53	12.53	36.96	39.91	53.00	74.00	-20.99	Vertical
10420.000	37.18	13.03	37.02	36.47	49.66	74.00	-24.34	Vertical
12751.430	38.85	14.86	39.06	36.72	51.37	74.00	-22.63	Vertical
15630.000	41.35	17.15	39.86	34.23	52.87	74.00	-21.13	Vertical
17830.800	44.00	21.55	37.45	24.67	52.77	74.00	-21.23	Vertical
7093.172	36.46	10.64	38.30	41.77	50.57	74.00	-23.43	Horizontal
8990.716	36.59	11.79	37.30	39.78	50.86	74.00	-23.14	Horizontal
10420.000	37.18	13.03	37.02	36.25	49.44	74.00	-24.56	Horizontal
12775.540	38.84	14.93	39.08	38.31	53.00	74.00	-21.00	Horizontal
15630.000	41.35	17.15	39.86	34.14	52.78	74.00	-21.22	Horizontal
17797.150	43.94	21.44	37.48	25.45	53.35	74.00	-20.65	Horizontal

Test mode:		802.11 ac80		Frequency(MHz):		5775	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7664.340	36.40	10.88	37.72	41.74	51.30	74.00	-22.70	Vertical
8990.716	36.59	11.79	37.30	39.03	50.11	74.00	-23.89	Vertical
11550.000	38.15	14.07	37.86	35.11	49.47	74.00	-24.53	Vertical
13117.890	38.75	15.58	39.45	36.17	51.05	74.00	-22.95	Vertical
14929.940	41.18	16.52	40.50	35.98	53.18	74.00	-20.82	Vertical
17325.000	43.19	19.81	37.90	27.51	52.61	74.00	-21.39	Vertical
7106.583	36.46	10.64	38.29	41.36	50.17	74.00	-23.83	Horizontal
9007.715	36.61	11.80	37.30	38.81	49.92	74.00	-24.08	Horizontal
11550.000	38.15	14.07	37.86	34.85	49.21	74.00	-24.79	Horizontal
13192.440	38.72	15.60	39.54	35.97	50.75	74.00	-23.25	Horizontal
14929.940	41.18	16.52	40.50	35.92	53.12	74.00	-20.88	Horizontal
17325.000	43.19	19.81	37.90	26.54	51.64	74.00	-22.36	Horizontal

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**WiFi Module 2:**

Test mode:		802.11a		Frequency(MHz):		5180	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7101.029	36.46	10.64	38.30	41.67	50.47	74.00	-23.53	Vertical
8997.055	36.59	11.79	37.30	39.85	50.93	74.00	-23.07	Vertical
10360.000	37.24	12.98	36.99	35.26	48.49	74.00	-25.51	Vertical
11726.881	38.34	14.27	38.04	36.01	50.58	74.00	-23.42	Vertical
15540.000	41.38	17.07	39.95	33.41	51.91	74.00	-22.09	Vertical
17595.330	43.58	20.75	37.66	25.50	52.17	74.00	-21.83	Vertical
7677.403	36.41	10.89	37.71	41.01	50.60	74.00	-23.40	Horizontal
8982.145	36.59	11.79	37.30	38.27	49.35	74.00	-24.65	Horizontal
10360.000	37.24	12.98	36.99	35.88	49.11	74.00	-24.89	Horizontal
12759.555	38.85	14.86	39.06	35.99	50.64	74.00	-23.36	Horizontal
15540.000	41.38	17.07	39.95	31.86	50.36	74.00	-23.64	Horizontal
17836.961	44.00	21.55	37.45	23.65	51.75	74.00	-22.25	Horizontal

Test mode:		802.11a		Frequency(MHz):		5220	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7664.519	36.40	10.88	37.72	40.68	50.24	74.00	-23.76	Vertical
8326.510	36.20	11.58	37.37	41.27	51.68	74.00	-22.32	Vertical
10440.000	37.16	13.04	37.03	34.29	47.46	74.00	-26.54	Vertical
12754.555	38.85	14.86	39.06	35.50	50.15	74.00	-23.85	Vertical
15660.000	41.34	17.18	39.83	33.56	52.25	74.00	-21.75	Vertical
17472.434	43.36	20.30	37.78	27.18	53.06	74.00	-20.94	Vertical
7680.171	36.41	10.89	37.71	41.26	50.85	74.00	-23.15	Horizontal
9659.250	37.53	12.53	36.96	39.85	52.95	74.00	-21.05	Horizontal
10440.000	37.16	13.04	37.03	32.94	46.11	74.00	-27.89	Horizontal
12758.930	38.85	14.86	39.06	37.53	52.18	74.00	-21.82	Horizontal
15660.000	41.34	17.18	39.83	32.66	51.35	74.00	-22.65	Horizontal
17827.229	44.00	21.55	37.45	25.46	53.56	74.00	-20.44	Horizontal

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Test mode:		802.11a		Frequency(MHz):		5240	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7121.627	36.45	10.65	38.27	40.55	49.38	74.00	-24.62	Vertical
8995.002	36.59	11.79	37.30	38.71	49.79	74.00	-24.21	Vertical
10480.000	37.12	13.07	37.05	33.00	46.15	74.00	-27.85	Vertical
13198.154	38.72	15.60	39.54	34.51	49.29	74.00	-24.71	Vertical
15720.000	41.31	17.24	39.77	33.06	51.84	74.00	-22.16	Vertical
17868.617	44.06	21.66	37.42	25.16	53.46	74.00	-20.54	Vertical
7079.697	36.47	10.63	38.32	40.54	49.32	74.00	-24.68	Horizontal
8329.457	36.20	11.58	37.37	42.15	52.56	74.00	-21.44	Horizontal
10480.000	37.12	13.07	37.05	33.54	46.68	74.00	-27.32	Horizontal
12775.808	38.84	14.93	39.08	37.87	52.56	74.00	-21.44	Horizontal
15720.000	41.31	17.24	39.77	33.29	52.07	74.00	-21.93	Horizontal
17828.746	44.00	21.55	37.45	25.47	53.57	74.00	-20.43	Horizontal

Test mode:		802.11a		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7082.554	36.47	10.63	38.32	40.96	49.74	74.00	-24.26	Vertical
9001.822	36.61	11.80	37.30	39.55	50.66	74.00	-23.34	Vertical
11490.000	38.09	14.01	37.80	34.35	48.65	74.00	-25.35	Vertical
13881.024	39.06	16.12	40.36	35.22	50.04	74.00	-23.96	Vertical
15798.356	41.28	17.31	39.69	33.33	52.23	74.00	-21.77	Vertical
17235.000	43.08	19.50	37.98	27.37	51.97	74.00	-22.03	Vertical
7676.868	36.41	10.89	37.71	40.48	50.07	74.00	-23.93	Horizontal
8984.645	36.59	11.79	37.30	37.90	48.98	74.00	-25.02	Horizontal
11490.000	38.09	14.01	37.80	32.19	46.49	74.00	-27.51	Horizontal
13167.986	38.73	15.59	39.51	34.17	48.98	74.00	-25.02	Horizontal
14519.279	40.42	16.40	40.50	36.42	52.74	74.00	-21.26	Horizontal
17235.000	43.08	19.50	37.98	28.35	52.95	74.00	-21.05	Horizontal

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Test mode:		802.11a		Frequency(MHz):		5785	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8334.725	36.20	11.58	37.37	40.57	50.98	74.00	-23.02	Vertical
10064.402	37.53	12.76	36.84	39.55	53.00	74.00	-21.00	Vertical
11570.000	38.17	14.09	37.88	33.29	47.67	74.00	-26.33	Vertical
13795.341	38.97	16.03	40.27	37.30	52.03	74.00	-21.97	Vertical
16012.684	41.23	17.50	39.49	33.56	52.80	74.00	-21.20	Vertical
17355.000	43.23	19.92	37.87	27.13	52.41	74.00	-21.59	Vertical
7106.137	36.46	10.64	38.29	40.68	49.49	74.00	-24.51	Horizontal
8335.651	36.18	11.61	37.36	42.32	52.75	74.00	-21.25	Horizontal
11570.000	38.17	14.09	37.88	32.63	47.01	74.00	-27.00	Horizontal
12773.308	38.84	14.93	39.08	35.49	50.18	74.00	-23.82	Horizontal
14931.369	41.18	16.52	40.50	35.30	52.50	74.00	-21.50	Horizontal
17355.000	43.23	19.92	37.87	27.12	52.40	74.00	-21.60	Horizontal

Test mode:		802.11a		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7099.868	36.46	10.64	38.30	40.51	49.31	74.00	-24.69	Vertical
9667.465	37.53	12.53	36.96	39.63	52.73	74.00	-21.27	Vertical
11650.000	38.25	14.18	37.96	32.63	47.10	74.00	-26.90	Vertical
13821.799	39.00	16.06	40.30	34.64	49.40	74.00	-24.60	Vertical
16046.704	41.32	17.51	39.45	34.12	53.50	74.00	-20.50	Vertical
17475.000	43.37	20.33	37.77	26.97	52.90	74.00	-21.10	Vertical
7097.904	36.46	10.64	38.30	41.35	50.15	74.00	-23.85	Horizontal
8328.653	36.20	11.58	37.37	40.84	51.25	74.00	-22.75	Horizontal
10000.391	37.60	12.71	36.80	38.52	52.03	74.00	-21.97	Horizontal
11650.000	38.25	14.18	37.96	33.43	47.90	74.00	-26.10	Horizontal
14845.213	41.03	16.50	40.50	36.17	53.20	74.00	-20.80	Horizontal
17475.000	43.37	20.33	37.77	26.29	52.22	74.00	-21.78	Horizontal

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Test mode:		802.11 n20		Frequency(MHz):		5180	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8330.975	36.20	11.58	37.37	41.01	51.42	74.00	-22.58	Vertical
10360.000	37.24	12.98	36.99	36.21	49.44	74.00	-24.56	Vertical
11753.892	38.36	14.30	38.06	36.61	51.21	74.00	-22.79	Vertical
13210.505	38.71	15.61	39.57	36.30	51.05	74.00	-22.95	Vertical
15540.000	41.38	17.07	39.95	33.93	52.43	74.00	-21.57	Vertical
17830.800	44.00	21.55	37.45	24.25	52.35	74.00	-21.65	Vertical
7677.314	36.41	10.89	37.71	41.28	50.87	74.00	-23.13	Horizontal
8334.546	36.20	11.58	37.37	41.52	51.93	74.00	-22.07	Horizontal
10360.000	37.24	12.98	36.99	35.99	49.22	74.00	-24.78	Horizontal
12780.897	38.84	14.93	39.08	35.72	50.41	74.00	-23.59	Horizontal
15540.000	41.38	17.07	39.95	33.50	52.00	74.00	-22.00	Horizontal
17835.532	44.00	21.55	37.45	23.62	51.72	74.00	-22.28	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5220	Remark:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7684.368	36.41	10.89	37.71	39.82	49.41	74.00	-24.59	Vertical
9013.608	36.61	11.80	37.30	38.29	49.40	74.00	-24.60	Vertical
10440.000	37.16	13.04	37.03	33.36	46.53	74.00	-27.47	Vertical
13192.261	38.72	15.60	39.54	34.54	49.32	74.00	-24.68	Vertical
15660.000	41.34	17.18	39.83	33.32	52.01	74.00	-21.99	Vertical
17873.171	44.06	21.66	37.42	23.51	51.81	74.00	-22.19	Vertical
7697.725	36.42	10.90	37.69	40.40	50.03	74.00	-23.97	Horizontal
10440.000	37.16	13.04	37.03	33.68	46.85	74.00	-27.15	Horizontal
11735.720	38.34	14.27	38.04	35.38	49.95	74.00	-24.05	Horizontal
13796.681	38.97	16.03	40.27	37.65	52.38	74.00	-21.62	Horizontal
15660.000	41.34	17.18	39.83	34.21	52.90	74.00	-21.10	Horizontal
17837.586	44.00	21.55	37.45	24.66	52.76	74.00	-21.24	Horizontal

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Test mode:		802.11 n20		Frequency(MHz):		5240	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7676.332	36.41	10.89	37.71	41.00	50.59	74.00	-23.41	Vertical
10480.000	37.12	13.07	37.05	33.88	47.02	74.00	-26.98	Vertical
11815.702	38.43	14.37	38.13	37.38	52.05	74.00	-21.95	Vertical
13796.145	38.97	16.03	40.27	36.36	51.09	74.00	-22.91	Vertical
15720.000	41.31	17.24	39.77	33.58	52.36	74.00	-21.64	Vertical
17826.068	44.00	21.55	37.45	24.02	52.12	74.00	-21.88	Vertical
8329.368	36.20	11.58	37.37	42.08	52.49	74.00	-21.51	Horizontal
10480.000	37.12	13.07	37.05	34.59	47.73	74.00	-26.27	Horizontal
11742.952	38.34	14.27	38.04	37.00	51.57	74.00	-22.43	Horizontal
13091.265	38.76	15.57	39.42	35.40	50.31	74.00	-23.69	Horizontal
15720.000	41.31	17.24	39.77	33.64	52.42	74.00	-21.58	Horizontal
17827.675	44.00	21.55	37.45	24.00	52.10	74.00	-21.90	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7083.893	36.47	10.63	38.32	42.19	50.97	74.00	-23.03	Vertical
8988.305	36.59	11.79	37.30	39.56	50.64	74.00	-23.36	Vertical
11490.000	38.09	14.01	37.80	32.34	46.64	74.00	-27.36	Vertical
13811.145	38.97	16.03	40.27	35.36	50.09	74.00	-23.91	Vertical
16007.774	41.23	17.50	39.49	32.84	52.08	74.00	-21.92	Vertical
17235.000	43.08	19.50	37.98	27.50	52.10	74.00	-21.90	Vertical
7672.493	36.41	10.89	37.71	40.71	50.30	74.00	-23.70	Horizontal
9654.786	37.53	12.53	36.96	39.50	52.60	74.00	-21.40	Horizontal
11490.000	38.09	14.01	37.80	34.02	48.32	74.00	-25.68	Horizontal
13209.612	38.71	15.61	39.57	34.92	49.67	74.00	-24.33	Horizontal
14649.320	40.67	16.44	40.50	34.34	50.95	74.00	-23.05	Horizontal
17235.000	43.08	19.50	37.98	27.59	52.19	74.00	-21.81	Horizontal

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Test mode:		802.11 n20		Frequency(MHz):		5785	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7674.457	36.41	10.89	37.71	40.44	50.03	74.00	-23.97	Vertical
9674.212	37.54	12.54	36.96	40.31	53.43	74.00	-20.57	Vertical
11570.000	38.17	14.09	37.88	32.85	47.23	74.00	-26.77	Vertical
13110.926	38.75	15.58	39.45	35.35	50.23	74.00	-23.77	Vertical
15161.814	41.33	16.70	40.34	33.60	51.29	74.00	-22.71	Vertical
17355.000	43.23	19.92	37.87	27.99	53.27	74.00	-20.73	Vertical
7105.154	36.46	10.64	38.29	41.25	50.06	74.00	-23.94	Horizontal
8334.814	36.20	11.58	37.37	41.37	51.78	74.00	-22.22	Horizontal
11570.000	38.17	14.09	37.88	33.03	47.41	74.00	-26.59	Horizontal
13174.861	38.73	15.59	39.51	36.35	51.16	74.00	-22.84	Horizontal
14519.457	40.42	16.40	40.50	36.14	52.46	74.00	-21.54	Horizontal
17355.000	43.23	19.92	37.87	27.65	52.93	74.00	-21.07	Horizontal

Test mode:		802.11 n20		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7088.797	36.46	10.63	38.31	41.36	50.14	74.00	-23.86	Vertical
8344.223	36.18	11.61	37.36	40.64	51.07	74.00	-22.93	Vertical
11650.000	38.25	14.18	37.96	33.35	47.82	74.00	-26.18	Vertical
13092.872	38.76	15.57	39.42	34.29	49.20	74.00	-24.80	Vertical
15793.535	41.28	17.31	39.69	33.50	52.40	74.00	-21.60	Vertical
17475.000	43.37	20.33	37.77	27.48	53.41	74.00	-20.59	Vertical
7679.457	36.41	10.89	37.71	39.41	49.00	74.00	-25.00	Horizontal
9861.170	37.57	12.64	36.87	38.64	51.98	74.00	-22.02	Horizontal
11650.000	38.25	14.18	37.96	32.50	46.98	74.00	-27.02	Horizontal
13810.877	38.97	16.03	40.27	36.32	51.05	74.00	-22.95	Horizontal
16007.238	41.23	17.50	39.49	33.07	52.31	74.00	-21.69	Horizontal
17475.000	43.37	20.33	37.77	26.05	51.98	74.00	-22.02	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5180	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7090.672	36.46	10.64	38.30	41.50	50.30	74.00	-23.70	Vertical
9006.108	36.61	11.80	37.30	40.08	51.19	74.00	-22.81	Vertical
10360.000	37.24	12.98	36.99	36.48	49.71	74.00	-24.29	Vertical
13224.434	38.71	15.61	39.57	35.13	49.88	74.00	-24.12	Vertical
15540.000	41.38	17.07	39.95	32.74	51.24	74.00	-22.76	Vertical
17836.246	44.00	21.55	37.45	24.94	53.04	74.00	-20.96	Vertical
7670.082	36.41	10.89	37.71	40.35	49.94	74.00	-24.06	Horizontal
9001.108	36.61	11.80	37.30	38.78	49.89	74.00	-24.11	Horizontal
10360.000	37.24	12.98	36.99	34.12	47.35	74.00	-26.65	Horizontal
12781.433	38.84	14.93	39.08	36.60	51.29	74.00	-22.71	Horizontal
15540.000	41.38	17.07	39.95	32.84	51.34	74.00	-22.66	Horizontal
17632.707	43.64	20.87	37.63	25.76	52.64	74.00	-21.36	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5220	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7084.875	36.47	10.63	38.32	41.02	49.80	74.00	-24.20	Vertical
8347.169	36.18	11.61	37.36	40.74	51.17	74.00	-22.83	Vertical
10440.000	37.16	13.04	37.03	33.49	46.66	74.00	-27.34	Vertical
12766.701	38.84	14.93	39.08	35.03	49.72	74.00	-24.28	Vertical
15660.000	41.34	17.18	39.83	33.22	51.91	74.00	-22.09	Vertical
17455.648	43.36	20.30	37.78	26.19	52.07	74.00	-21.93	Vertical
7673.386	36.41	10.89	37.71	40.27	49.86	74.00	-24.14	Horizontal
10440.000	37.16	13.04	37.03	34.11	47.28	74.00	-26.72	Horizontal
11762.910	38.36	14.30	38.06	37.47	52.07	74.00	-21.93	Horizontal
13769.470	38.94	16.00	40.24	36.73	51.43	74.00	-22.57	Horizontal
15660.000	41.34	17.18	39.83	33.90	52.59	74.00	-21.41	Horizontal
17833.032	44.00	21.55	37.45	25.34	53.44	74.00	-20.56	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5240	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7167.177	36.43	10.66	38.23	39.57	48.43	74.00	-25.57	Vertical
9012.358	36.61	11.80	37.30	36.92	48.03	74.00	-25.97	Vertical
10480.000	37.12	13.07	37.05	32.69	45.83	74.00	-28.17	Vertical
12783.040	38.84	14.93	39.08	35.02	49.71	74.00	-24.29	Vertical
15720.000	41.31	17.24	39.77	32.17	50.95	74.00	-23.05	Vertical
17524.426	43.46	20.52	37.72	27.38	53.64	74.00	-20.36	Vertical
7684.546	36.41	10.89	37.71	40.05	49.64	74.00	-24.36	Horizontal
9672.962	37.54	12.54	36.96	39.20	52.32	74.00	-21.68	Horizontal
10480.000	37.12	13.07	37.05	33.36	46.50	74.00	-27.50	Horizontal
13237.191	38.70	15.61	39.60	34.91	49.62	74.00	-24.38	Horizontal
15720.000	41.31	17.24	39.77	33.70	52.48	74.00	-21.52	Horizontal
17471.362	43.36	20.30	37.78	26.43	52.31	74.00	-21.69	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5745	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7097.190	36.46	10.64	38.30	39.89	48.69	74.00	-25.31	Vertical
9009.322	36.61	11.80	37.30	39.16	50.27	74.00	-23.73	Vertical
11490.000	38.09	14.01	37.80	32.39	46.69	74.00	-27.31	Vertical
12771.433	38.84	14.93	39.08	34.71	49.40	74.00	-24.60	Vertical
16019.381	41.23	17.50	39.49	32.85	52.09	74.00	-21.91	Vertical
17235.000	43.08	19.50	37.98	26.87	51.47	74.00	-22.53	Vertical
7656.304	36.40	10.88	37.72	40.54	50.10	74.00	-23.90	Horizontal
9932.220	37.59	12.68	36.83	39.57	53.00	74.00	-20.99	Horizontal
11490.000	38.09	14.01	37.80	32.33	46.63	74.00	-27.37	Horizontal
13795.609	38.97	16.03	40.27	36.62	51.35	74.00	-22.65	Horizontal
16001.791	41.23	17.50	39.49	34.03	53.27	74.00	-20.73	Horizontal
17235.000	43.08	19.50	37.98	28.85	53.45	74.00	-20.55	Horizontal

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Test mode:		802.11 ac20		Frequency(MHz):		5785	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7126.806	36.45	10.65	38.27	40.77	49.60	74.00	-24.40	Vertical
8999.054	36.61	11.80	37.30	37.63	48.74	74.00	-25.26	Vertical
11570.000	38.17	14.09	37.88	32.44	46.82	74.00	-27.18	Vertical
12758.484	38.85	14.86	39.06	35.62	50.27	74.00	-23.73	Vertical
15829.129	41.27	17.34	39.67	32.73	51.67	74.00	-22.33	Vertical
17355.000	43.23	19.92	37.87	26.21	51.49	74.00	-22.50	Vertical
7683.386	36.41	10.89	37.71	40.75	50.34	74.00	-23.66	Horizontal
9654.965	37.53	12.53	36.96	39.00	52.11	74.00	-21.89	Horizontal
11570.000	38.17	14.09	37.88	31.88	46.26	74.00	-27.74	Horizontal
13211.398	38.71	15.61	39.57	35.93	50.68	74.00	-23.32	Horizontal
15801.749	41.28	17.31	39.69	34.21	53.11	74.00	-20.89	Horizontal
17355.000	43.23	19.92	37.87	26.39	51.67	74.00	-22.33	Horizontal

Test mode:		802.11 ac20		Frequency(MHz):		5825	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7104.887	36.46	10.64	38.29	41.64	50.45	74.00	-23.55	Vertical
8336.868	36.20	11.58	37.37	39.99	50.40	74.00	-23.60	Vertical
11650.000	38.25	14.18	37.96	31.40	45.87	74.00	-28.13	Vertical
13824.031	39.00	16.06	40.30	37.10	51.86	74.00	-22.14	Vertical
16626.168	42.73	17.87	38.68	29.92	51.84	74.00	-22.16	Vertical
17475.000	43.37	20.33	37.77	27.46	53.39	74.00	-20.61	Vertical
7100.512	36.46	10.64	38.29	41.64	50.45	74.00	-23.55	Horizontal
8982.323	36.59	11.79	37.30	39.34	50.42	74.00	-23.58	Horizontal
11650.000	38.25	14.18	37.96	33.23	47.70	74.00	-26.30	Horizontal
13771.256	38.94	16.00	40.24	37.33	52.03	74.00	-21.97	Horizontal
16019.649	41.23	17.50	39.49	32.61	51.85	74.00	-22.15	Horizontal
17475.000	43.37	20.33	37.77	27.60	53.53	74.00	-20.47	Horizontal

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Test mode:		802.11 n40		Frequency(MHz):		5190	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
9009.233	36.61	11.80	37.30	39.12	50.23	74.00	-23.77	Vertical
10380.000	37.22	13.00	37.00	37.13	50.35	74.00	-23.65	Vertical
11710.812	38.31	14.25	38.02	36.68	51.22	74.00	-22.78	Vertical
13775.363	38.94	16.00	40.24	37.24	51.94	74.00	-22.06	Vertical
15570.000	41.37	17.09	39.92	33.64	52.18	74.00	-21.82	Vertical
17771.417	43.88	21.32	37.51	25.50	53.19	74.00	-20.81	Vertical
7672.761	36.41	10.89	37.71	41.81	51.40	74.00	-22.60	Horizontal
10380.000	37.22	13.00	37.00	35.62	48.84	74.00	-25.16	Horizontal
11059.034	37.75	13.53	37.37	36.67	50.58	74.00	-23.42	Horizontal
12756.876	38.85	14.86	39.06	35.79	50.44	74.00	-23.56	Horizontal
15570.000	41.37	17.09	39.92	32.91	51.45	74.00	-22.55	Horizontal
17823.032	44.00	21.55	37.45	24.36	52.46	74.00	-21.54	Horizontal

Test mode:		802.11 n40		Frequency(MHz):		5230	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7684.725	36.41	10.89	37.71	40.81	50.40	74.00	-23.60	Vertical
10460.000	37.14	13.06	37.04	34.25	47.41	74.00	-26.59	Vertical
11729.202	38.34	14.27	38.04	35.43	50.00	74.00	-24.00	Vertical
13807.574	38.97	16.03	40.27	36.69	51.42	74.00	-22.58	Vertical
15690.000	41.32	17.21	39.80	33.13	51.86	74.00	-22.14	Vertical
17795.096	43.94	21.44	37.48	24.40	52.30	74.00	-21.70	Vertical
7089.154	36.46	10.64	38.30	41.03	49.83	74.00	-24.17	Horizontal
10460.000	37.14	13.06	37.04	33.54	46.70	74.00	-27.30	Horizontal
11738.309	38.34	14.27	38.04	36.01	50.58	74.00	-23.42	Horizontal
13214.255	38.71	15.61	39.57	33.88	48.63	74.00	-25.37	Horizontal
15690.000	41.32	17.21	39.80	33.29	52.02	74.00	-21.98	Horizontal
17790.007	43.94	21.44	37.48	25.30	53.20	74.00	-20.80	Horizontal

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Test mode:		802.11 n40		Frequency(MHz):		5755	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7014.237	36.49	10.61	38.38	40.62	49.34	74.00	-24.66	Vertical
8336.098	36.18	11.61	37.36	41.77	52.20	74.00	-21.80	Vertical
11510.000	38.11	14.03	37.82	32.74	47.06	74.00	-26.94	Vertical
14559.387	40.52	16.42	40.50	36.22	52.66	74.00	-21.34	Vertical
16226.062	41.88	17.54	39.20	31.48	51.70	74.00	-22.30	Vertical
17265.000	43.12	19.60	37.96	27.45	52.21	74.00	-21.79	Vertical
7671.511	36.41	10.89	37.71	40.62	50.21	74.00	-23.79	Horizontal
9664.518	37.53	12.53	36.96	39.80	52.90	74.00	-21.10	Horizontal
11510.000	38.11	14.03	37.82	34.04	48.36	74.00	-25.64	Horizontal
12751.519	38.85	14.86	39.06	34.95	49.60	74.00	-24.40	Horizontal
14491.799	40.37	16.39	40.50	36.19	52.45	74.00	-21.55	Horizontal
17265.000	43.12	19.60	37.96	27.60	52.36	74.00	-21.64	Horizontal

Test mode:		802.11 n40		Frequency(MHz):		5795	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7674.368	36.41	10.89	37.71	40.98	50.57	74.00	-23.43	Vertical
9880.800	37.58	12.65	36.86	39.14	52.50	74.00	-21.49	Vertical
11590.000	38.19	14.12	37.90	33.19	47.60	74.00	-26.40	Vertical
12773.665	38.84	14.93	39.08	34.63	49.32	74.00	-24.68	Vertical
14506.243	40.42	16.40	40.50	36.73	53.05	74.00	-20.95	Vertical
17385.000	43.26	20.02	37.85	26.50	51.93	74.00	-22.07	Vertical
7660.233	36.40	10.88	37.72	40.17	49.73	74.00	-24.27	Horizontal
9654.072	37.53	12.53	36.96	39.22	52.32	74.00	-21.68	Horizontal
11590.000	38.19	14.12	37.90	33.20	47.61	74.00	-26.39	Horizontal
13774.827	38.94	16.00	40.24	36.23	50.93	74.00	-23.07	Horizontal
16035.811	41.32	17.51	39.45	33.68	53.06	74.00	-20.94	Horizontal
17385.000	43.26	20.02	37.85	26.85	52.28	74.00	-21.72	Horizontal

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Test mode:		802.11 ac40		Frequency(MHz):		5190	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7666.036	36.40	10.88	37.72	40.50	50.06	74.00	-23.94	Vertical
10380.000	37.22	13.00	37.00	36.48	49.70	74.00	-24.30	Vertical
11741.524	38.34	14.27	38.04	35.44	50.01	74.00	-23.99	Vertical
13827.691	39.00	16.06	40.30	37.00	51.76	74.00	-22.24	Vertical
15570.000	41.37	17.09	39.92	34.25	52.79	74.00	-21.21	Vertical
17836.604	44.00	21.55	37.45	24.59	52.69	74.00	-21.31	Vertical
7686.689	36.41	10.89	37.71	40.84	50.43	74.00	-23.57	Horizontal
10380.000	37.22	13.00	37.00	36.75	49.97	74.00	-24.03	Horizontal
11726.166	38.34	14.27	38.04	36.29	50.86	74.00	-23.14	Horizontal
13162.094	38.73	15.59	39.51	34.09	48.90	74.00	-25.10	Horizontal
15570.000	41.37	17.09	39.92	33.37	51.91	74.00	-22.09	Horizontal
17839.282	44.00	21.55	37.45	23.93	52.03	74.00	-21.97	Horizontal

Test mode:		802.11 ac40		Frequency(MHz):		5230	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7080.679	36.47	10.63	38.32	41.97	50.75	74.00	-23.25	Vertical
8336.633	36.18	11.61	37.36	42.17	52.60	74.00	-21.40	Vertical
10460.000	37.14	13.06	37.04	34.53	47.69	74.00	-26.31	Vertical
12748.841	38.85	14.86	39.06	37.57	52.22	74.00	-21.78	Vertical
15690.000	41.32	17.21	39.80	34.09	52.82	74.00	-21.18	Vertical
17825.443	44.00	21.55	37.45	24.40	52.50	74.00	-21.50	Vertical
7693.618	36.42	10.90	37.69	41.04	50.67	74.00	-23.33	Horizontal
8326.778	36.20	11.58	37.37	40.98	51.39	74.00	-22.61	Horizontal
10460.000	37.14	13.06	37.04	33.85	47.01	74.00	-27.00	Horizontal
13237.102	38.70	15.61	39.60	34.36	49.07	74.00	-24.93	Horizontal
15690.000	41.32	17.21	39.80	33.80	52.53	74.00	-21.47	Horizontal
17828.300	44.00	21.55	37.45	24.12	52.22	74.00	-21.78	Horizontal

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Test mode:		802.11 ac40		Frequency(MHz):		5755	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7670.171	36.41	10.89	37.71	40.98	50.57	74.00	-23.43	Vertical
9992.980	37.60	12.71	36.80	37.64	51.15	74.00	-22.85	Vertical
11510.000	38.11	14.03	37.82	33.86	48.18	74.00	-25.82	Vertical
13217.112	38.71	15.61	39.57	35.29	50.04	74.00	-23.96	Vertical
15417.140	41.38	16.95	40.07	35.10	53.36	74.00	-20.64	Vertical
17265.000	43.12	19.60	37.96	27.73	52.49	74.00	-21.51	Vertical
7157.802	36.43	10.66	38.23	39.90	48.76	74.00	-25.24	Horizontal
9003.429	36.61	11.80	37.30	37.51	48.62	74.00	-25.38	Horizontal
11510.000	38.11	14.03	37.82	33.13	47.45	74.00	-26.55	Horizontal
13216.487	38.71	15.61	39.57	34.59	49.34	74.00	-24.66	Horizontal
15153.064	41.33	16.70	40.34	34.63	52.32	74.00	-21.68	Horizontal
17265.000	43.12	19.60	37.96	28.74	53.50	74.00	-20.50	Horizontal

Test mode:		802.11 ac40		Frequency(MHz):		5795	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7084.333	36.46	10.64	38.30	40.24	49.04	74.00	-24.96	Vertical
8337.225	36.20	11.58	37.37	41.39	51.80	74.00	-22.20	Vertical
11590.000	38.19	14.12	37.90	32.15	46.56	74.00	-27.44	Vertical
12756.162	38.85	14.86	39.06	35.82	50.47	74.00	-23.53	Vertical
15210.076	41.34	16.75	40.28	35.40	53.21	74.00	-20.79	Vertical
17385.000	43.26	20.02	37.85	26.87	52.30	74.00	-21.70	Vertical
7099.779	36.46	10.64	38.30	40.85	49.65	74.00	-24.35	Horizontal
9664.072	37.53	12.53	36.96	38.80	51.90	74.00	-22.10	Horizontal
11590.000	38.19	14.12	37.90	33.52	47.93	74.00	-26.07	Horizontal
13831.352	39.00	16.06	40.30	35.29	50.05	74.00	-23.95	Horizontal
15741.098	41.30	17.26	39.75	34.16	52.97	74.00	-21.03	Horizontal
17385.000	43.26	20.02	37.85	27.90	53.33	74.00	-20.67	Horizontal

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Test mode:		802.11 ac80		Frequency(MHz):		5210	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7677.671	36.41	10.89	37.71	39.24	48.83	74.00	-25.17	Vertical
9660.947	37.53	12.53	36.96	40.03	53.13	74.00	-20.87	Vertical
10420.000	37.18	13.03	37.02	35.39	48.58	74.00	-25.42	Vertical
12754.198	38.85	14.86	39.06	35.76	50.41	74.00	-23.59	Vertical
15630.000	41.35	17.15	39.86	33.69	52.33	74.00	-21.67	Vertical
17823.211	44.00	21.55	37.45	24.67	52.77	74.00	-21.23	Vertical
7100.136	36.46	10.64	38.30	41.65	50.45	74.00	-23.55	Horizontal
8988.573	36.59	11.79	37.30	38.70	49.78	74.00	-24.22	Horizontal
10420.000	37.18	13.03	37.02	36.49	49.68	74.00	-24.32	Horizontal
12766.701	38.84	14.93	39.08	38.49	53.18	74.00	-20.82	Horizontal
15630.000	41.35	17.15	39.86	33.96	52.60	74.00	-21.40	Horizontal
17788.400	43.94	21.44	37.48	24.55	52.45	74.00	-21.55	Horizontal

Test mode:		802.11 ac80		Frequency(MHz):		5775	Remark:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7663.894	36.40	10.88	37.72	40.66	50.22	74.00	-23.78	Vertical
8989.020	36.59	11.79	37.30	38.67	49.75	74.00	-24.25	Vertical
11550.000	38.15	14.07	37.86	34.57	48.93	74.00	-25.07	Vertical
13118.505	38.75	15.58	39.45	34.97	49.85	74.00	-24.15	Vertical
14936.369	41.18	16.52	40.50	36.04	53.24	74.00	-20.76	Vertical
17325.000	43.19	19.81	37.90	27.57	52.67	74.00	-21.33	Vertical
7108.994	36.46	10.64	38.29	41.12	49.93	74.00	-24.07	Horizontal
9002.090	36.61	11.80	37.30	38.33	49.44	74.00	-24.56	Horizontal
11550.000	38.15	14.07	37.86	34.19	48.55	74.00	-25.45	Horizontal
13193.065	38.72	15.60	39.54	36.15	50.93	74.00	-23.07	Horizontal
14923.958	41.18	16.52	40.50	35.56	52.76	74.00	-21.24	Horizontal
17325.000	43.19	19.81	37.90	25.52	50.62	74.00	-23.38	Horizontal

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As the worst case are 5240MHz of 802.11n(20) for 5G WIFI and 2452MHz of 802.11n(40) for 2.4G WIFI, so simultaneous transmission operations under the worst case of 2.4G & 5G WIFI were recorded in the below table.

Test mode:		802.11 n20 & 802.11n40		Frequency(MHz):		5240 & 2452	Remark:		Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
7678.854	36.04	10.89	37.44	42.25	51.74	74	-22.26	Vertical	
9659.779	37.10	12.53	36.28	40.43	53.78	74	-20.22	Vertical	
10480.063	37.10	13.07	36.00	35.31	49.48	74	-24.52	Vertical	
12775.535	37.99	14.93	37.91	37.78	52.79	74	-21.21	Vertical	
15720.028	41.12	17.24	38.63	33.77	53.50	74	-20.50	Vertical	
17830.803	43.98	21.55	36.94	25.25	53.84	74	-20.16	Vertical	
7093.175	35.49	10.64	37.69	43.11	51.55	74	-22.45	Horizontal	
8990.711	37.00	11.79	37.19	40.32	51.92	74	-22.08	Horizontal	
10480.056	37.10	13.07	36.00	35.35	49.52	74	-24.48	Horizontal	
12751.429	37.98	14.86	37.89	36.47	51.42	74	-22.58	Horizontal	
15720.039	41.12	17.24	38.63	34.21	53.94	74	-20.06	Horizontal	
17464.127	43.43	20.30	36.99	26.75	53.49	74	-20.51	Horizontal	

#### Remark:

1) 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

2) Scan from 9kHz to 40GHz, The disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported .

3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. 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. So, only the peak measurements were shown in the report.

## 6.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15 Section 15.407(b)		
Test Method:	ANSI C63.10: 2013, section 12.7.6, 12.7.7.3		
Test Site:	Measurement Distance: 3m		
Limit:	Frequency	Limit (dBuV/m)	Remark
	30MHz-88MHz	40.0	Quasi-peak Value
	88MHz-216MHz	43.5	Quasi-peak Value
	216MHz-960MHz	46.0	Quasi-peak Value
	960MHz-1GHz	54.5	Quasi-peak Value
	Above 1GHz	54.0	Average Value
		74.0	Peak Value
Test Setup:			
	Figure 1. 30MHz to 1GHz	Figure 2. Above 1 GHz	

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Test Procedure:	<ul style="list-style-type: none"> <li>a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> <li>d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel</li> <li>g. Test the EUT in the outermost channels.</li> </ul>
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

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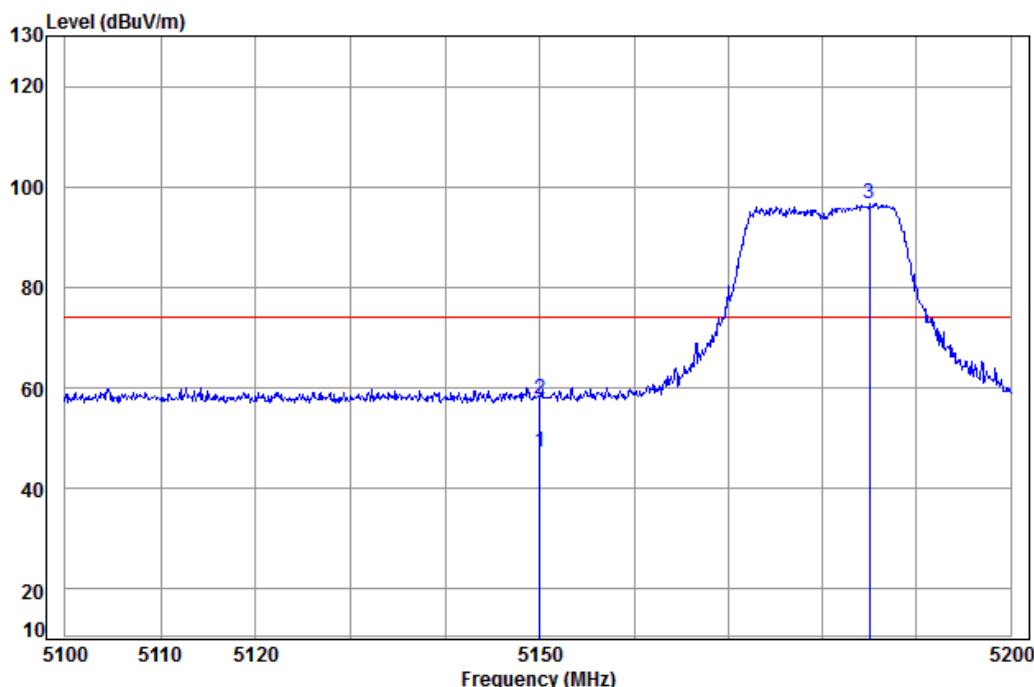


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**Test plot as follows:**

WiFi Module 1:

Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge

: 5G WIFI1-A20

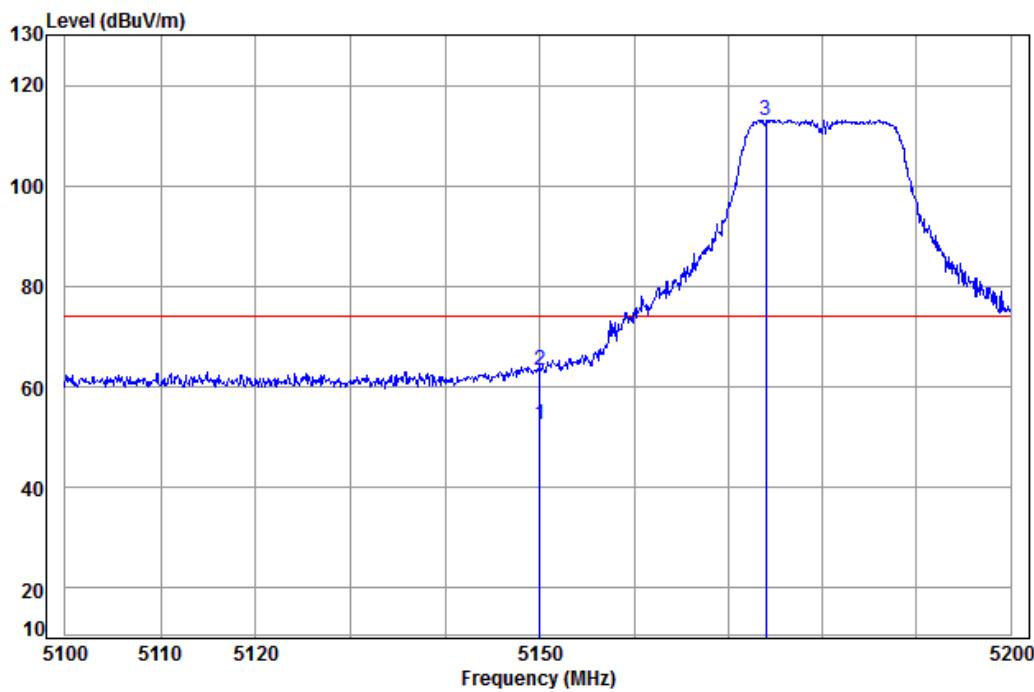
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 av 5150.000	8.08	34.47	38.47	43.11	47.19	54.00	-6.81	Average
2 pk 5150.000	8.08	34.47	38.47	53.59	57.67	74.00	-16.33	Peak
3 pp 5184.977	8.10	34.46	38.46	92.64	96.74	74.00	22.74	

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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI1-A20

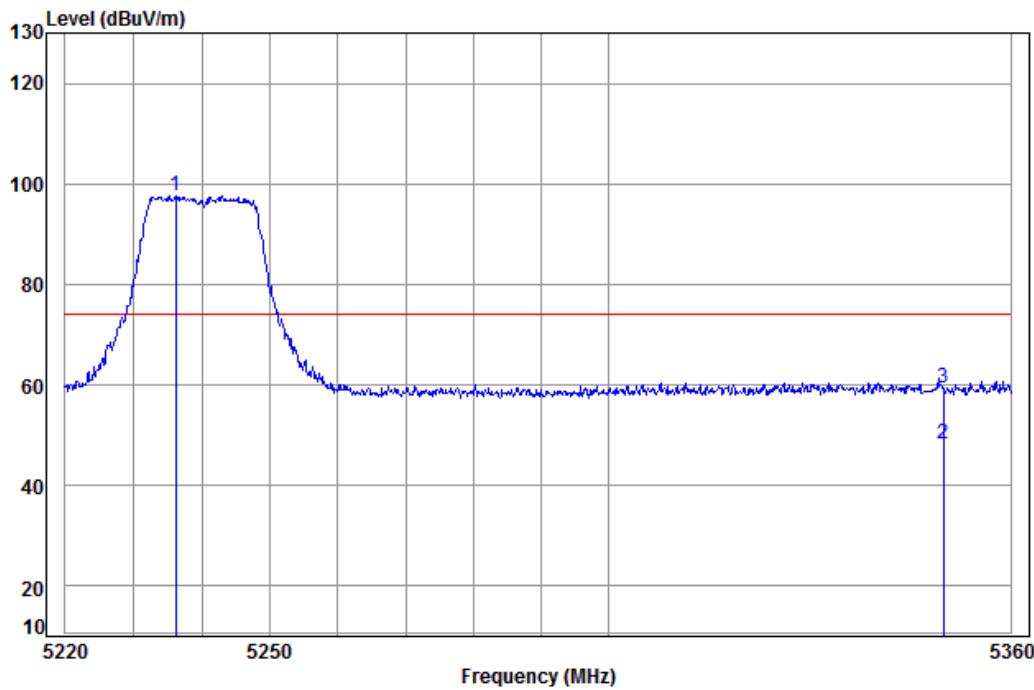
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	48.43	52.51	54.00	-1.49 Average
2 pk	5150.000	8.08	34.47	38.47	59.18	63.26	74.00	-10.74 Peak
3 pp	5173.914	8.09	34.46	38.47	109.02	113.10	74.00	39.10

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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-A20

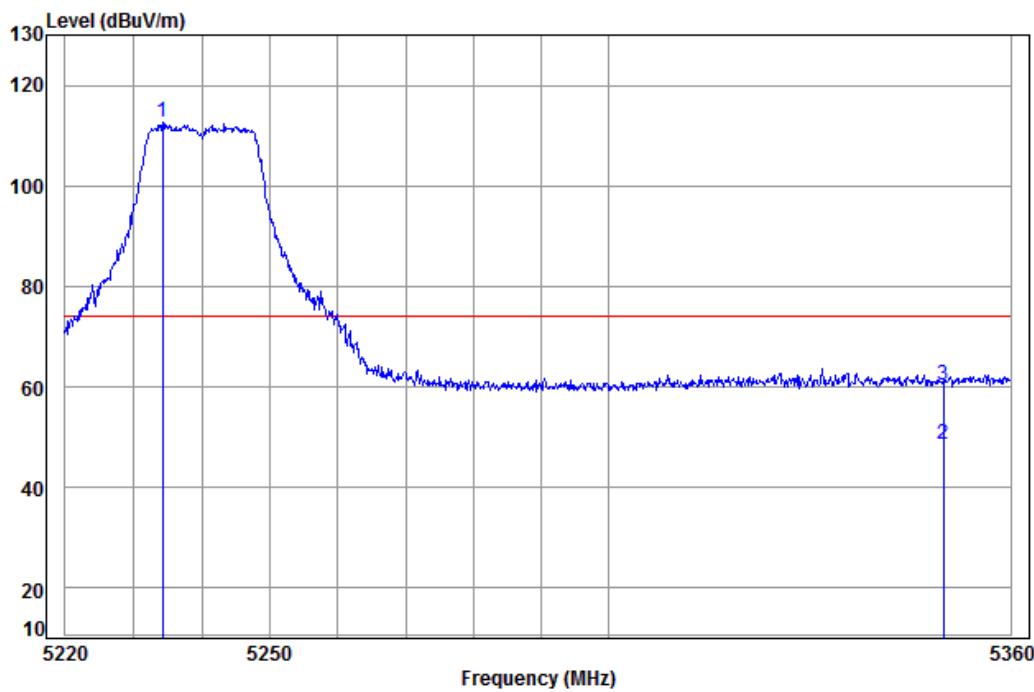
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	5236.189	8.12	34.45	38.45	93.47	97.59	74.00	23.59
2 av	5350.000	8.18	34.43	38.43	44.19	48.37	54.00	-5.63 Average
3 pk	5350.000	8.18	34.43	38.43	55.12	59.30	74.00	-14.70 Peak

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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-A20

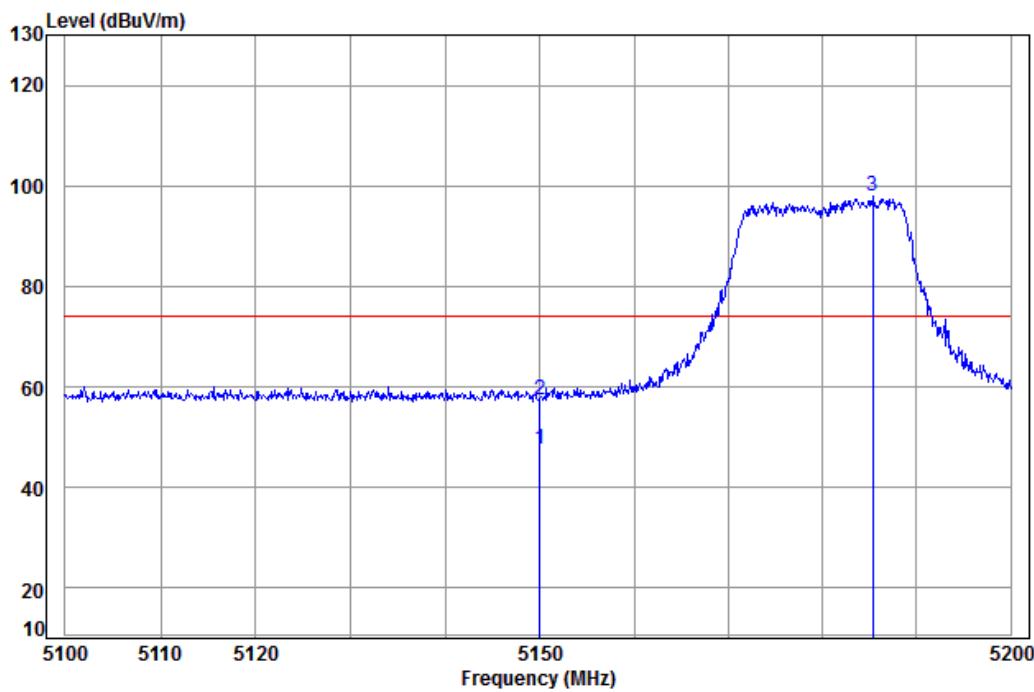
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5234.250	8.12	34.45	38.45	108.40	112.52	74.00	38.52
2 av	5350.000	8.18	34.43	38.43	44.51	48.69	54.00	-5.31 Average
3 pk	5350.000	8.18	34.43	38.43	56.15	60.33	74.00	-13.67 Peak

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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI1-N20

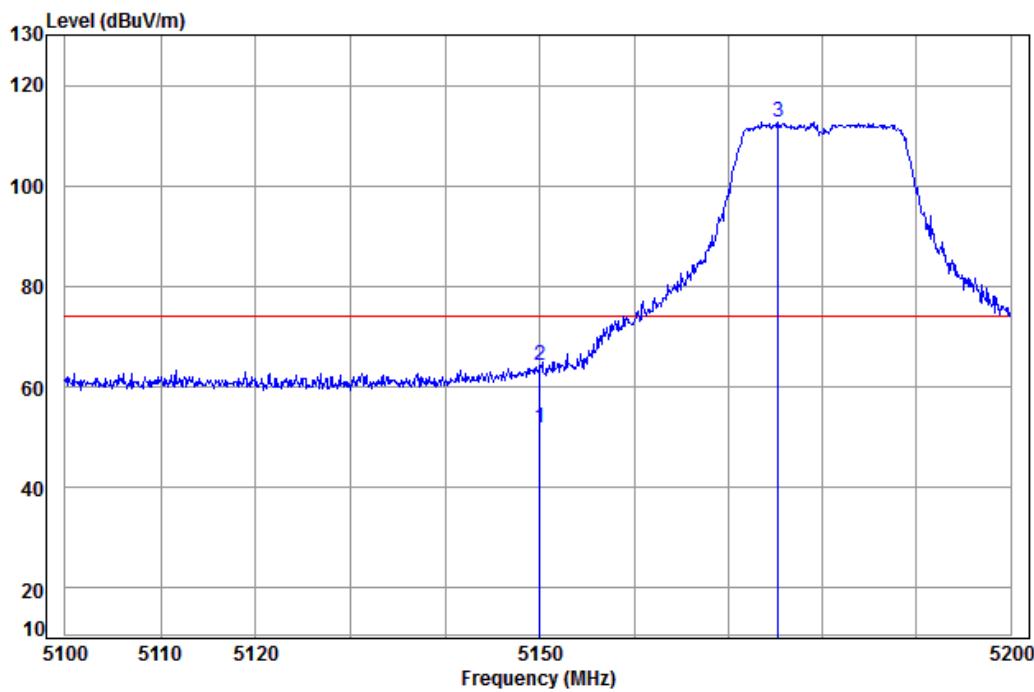
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 av 5150.000	8.08	34.47	38.47	43.59	47.67	54.00	-6.33	Average
2 pk 5150.000	8.08	34.47	38.47	53.31	57.39	74.00	-16.61	Peak
3 pp 5185.279	8.10	34.46	38.46	93.73	97.83	74.00	23.83	

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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI1-N20

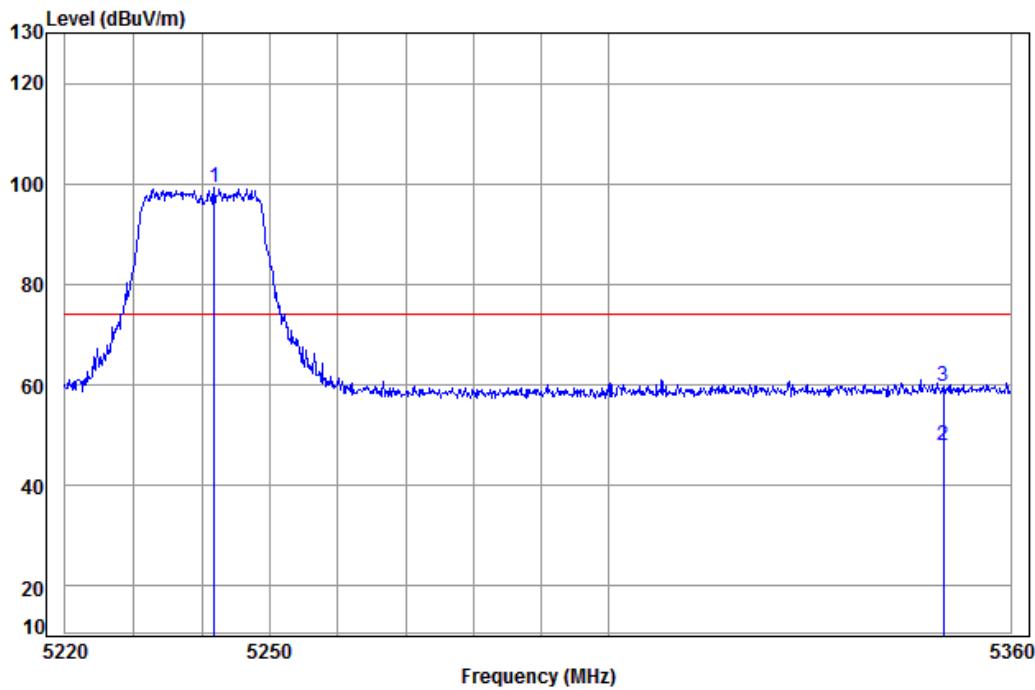
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	47.69	51.77	54.00	-2.23 Average
2 pk	5150.000	8.08	34.47	38.47	60.16	64.24	74.00	-9.76 Peak
3 pp	5175.220	8.09	34.46	38.46	108.58	112.67	74.00	38.67

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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-N20

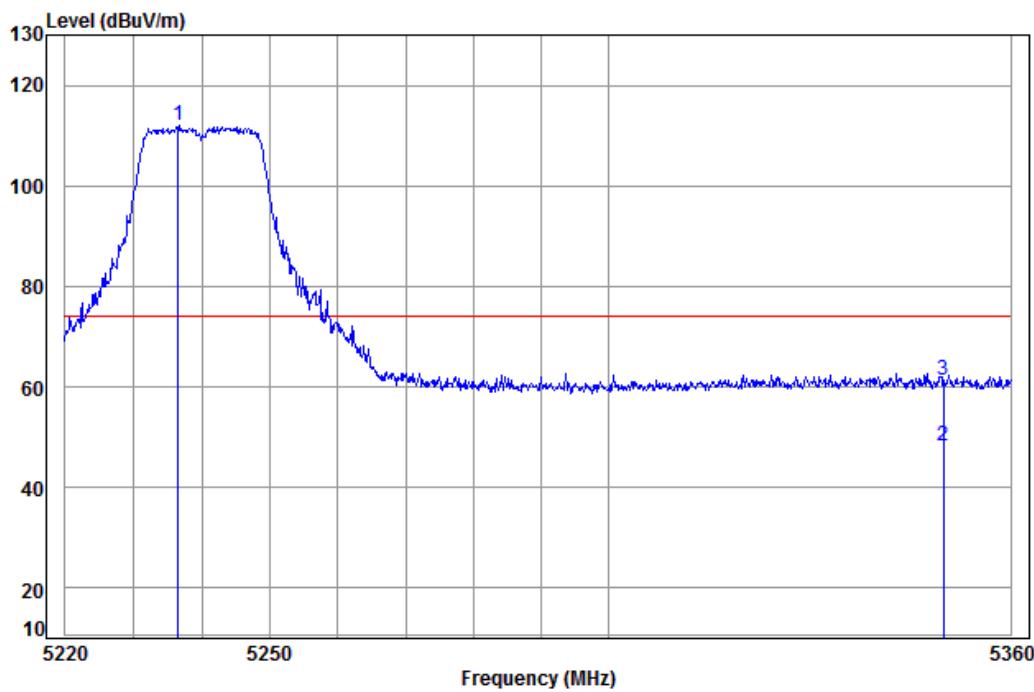
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Line	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5241.875	8.12	34.45	38.45	95.04	99.16	74.00	25.16
2 av	5350.000	8.18	34.43	38.43	43.61	47.79	54.00	-6.21 Average
3 pk	5350.000	8.18	34.43	38.43	55.62	59.80	74.00	-14.20 Peak

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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-N20

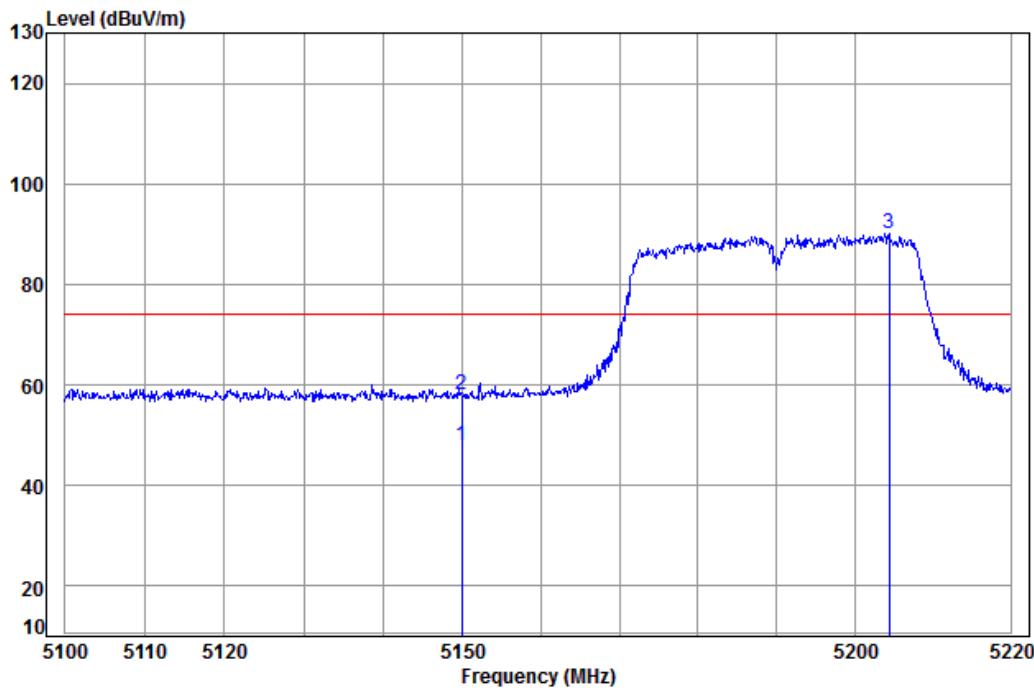
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5236.605	8.12	34.45	38.45	107.76	111.88	74.00	37.88
2 av	5350.000	8.18	34.43	38.43	44.05	48.23	54.00	-5.77 Average
3 pk	5350.000	8.18	34.43	38.43	57.05	61.23	74.00	-12.77 Peak

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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
 : 5G WIFI1-N40

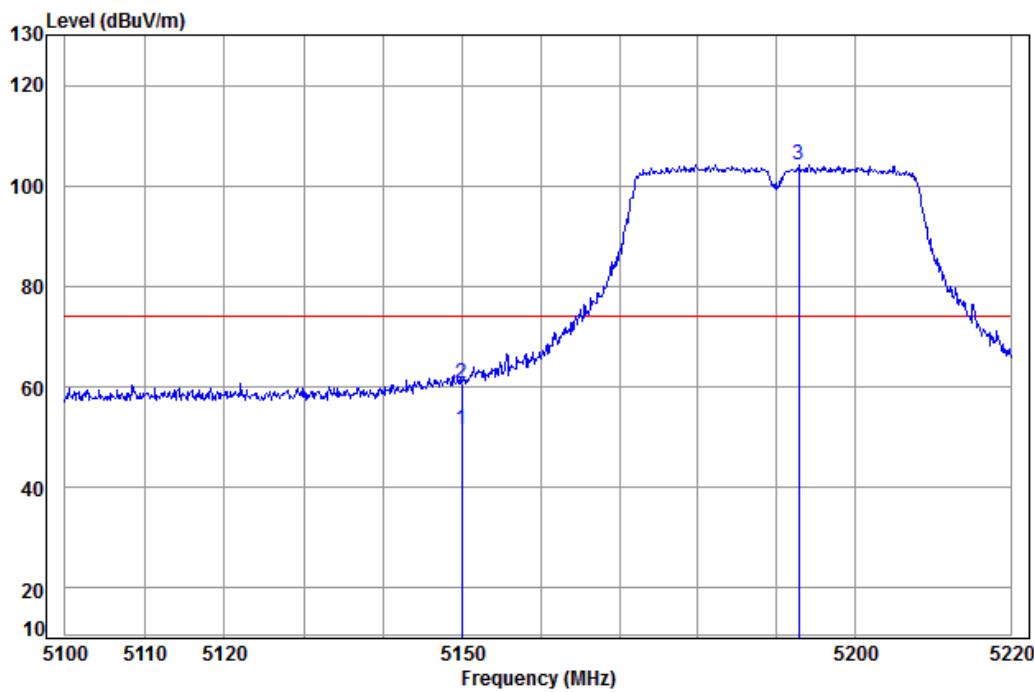
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av 5150.000	8.08	34.47	38.47	43.71	47.79	54.00	-6.21 Average
2 pk 5150.000	8.08	34.47	38.47	54.10	58.18	74.00	-15.82 Peak
3 pp 5204.484	8.11	34.46	38.46	85.89	90.00	74.00	16.00

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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
 : 5G WIFI1-N40

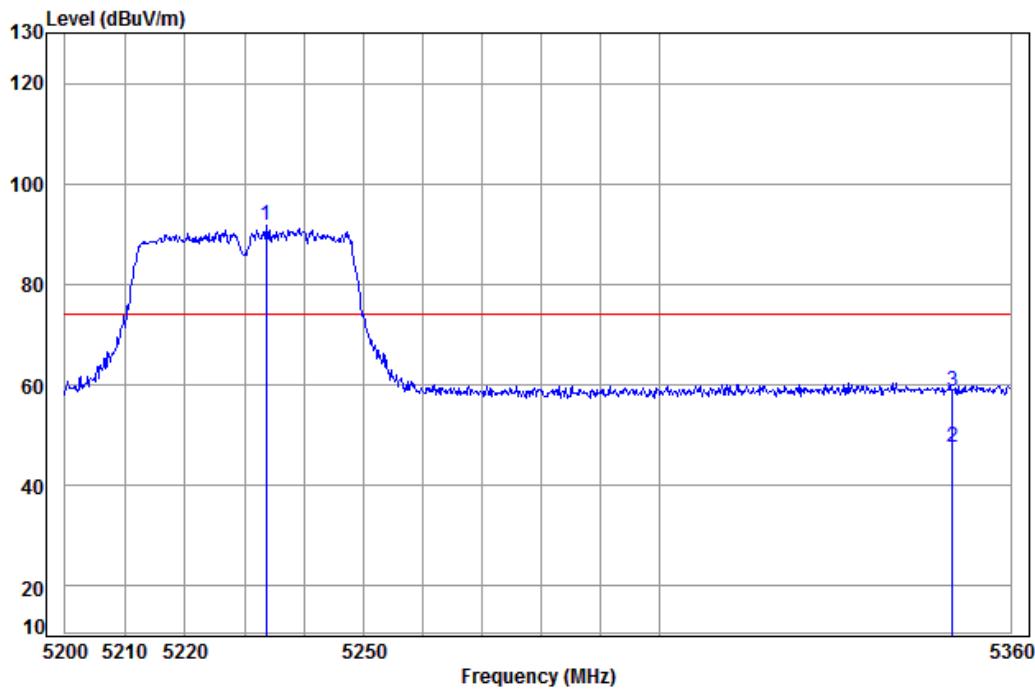
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	47.49	51.57	54.00	-2.43 Average
2 pk	5150.000	8.08	34.47	38.47	56.68	60.76	74.00	-13.24 Peak
3 pp	5192.877	8.10	34.46	38.46	100.04	104.14	74.00	30.14

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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI1-N40

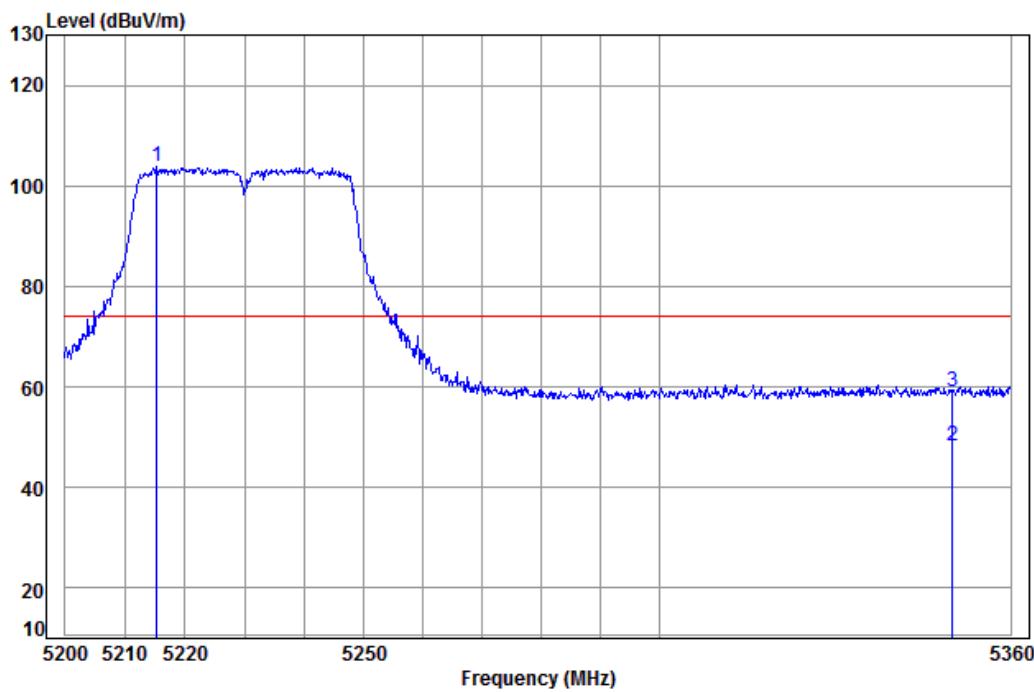
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5233.675	8.12	34.45	38.45	87.67	91.79	74.00	17.79
2 av	5350.000	8.18	34.43	38.43	43.56	47.74	54.00	-6.26 Average
3 pk	5350.000	8.18	34.43	38.43	54.45	58.63	74.00	-15.37 Peak

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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI1-N40

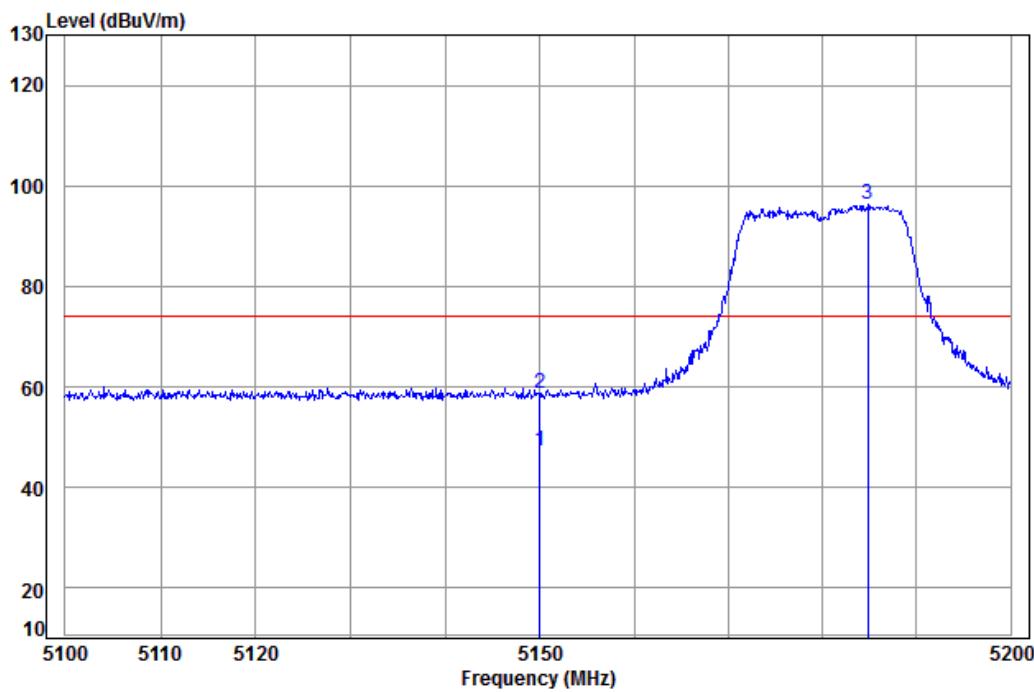
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5215.309	8.11	34.46	38.46	99.67	103.78	74.00	29.78
2 av	5350.000	8.18	34.43	38.43	44.11	48.29	54.00	-5.71 Average
3 pk	5350.000	8.18	34.43	38.43	54.79	58.97	74.00	-15.03 Peak

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI1-AC20

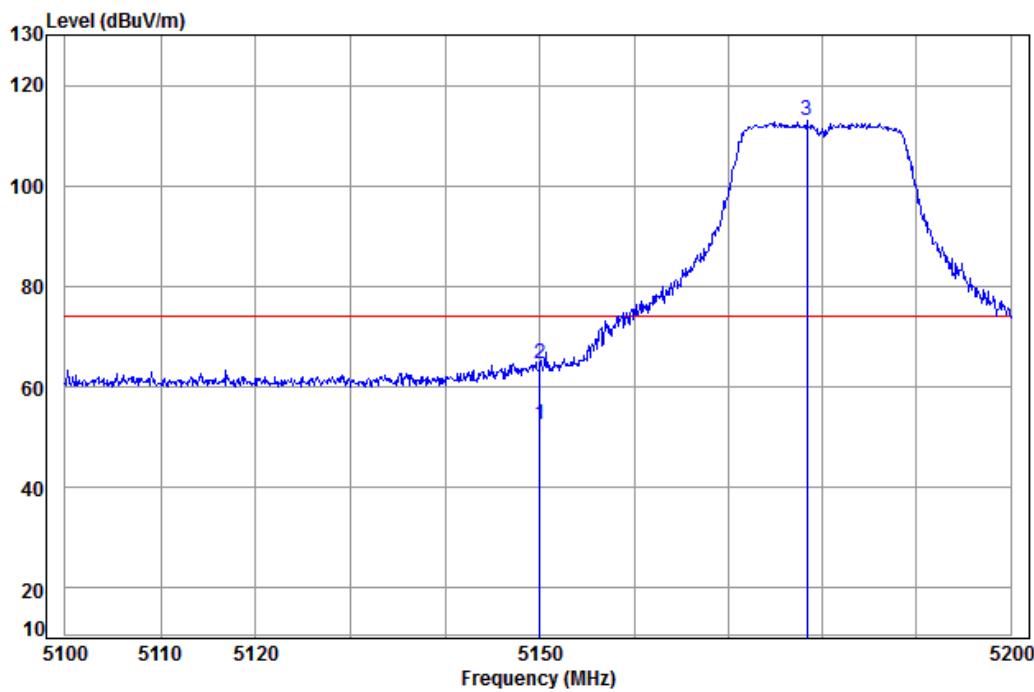
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	43.25	47.33	54.00	-6.67 Average
2 pk	5150.000	8.08	34.47	38.47	54.61	58.69	74.00	-15.31 Peak
3 pp	5184.775	8.10	34.46	38.46	92.37	96.47	74.00	22.47

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI1-AC20

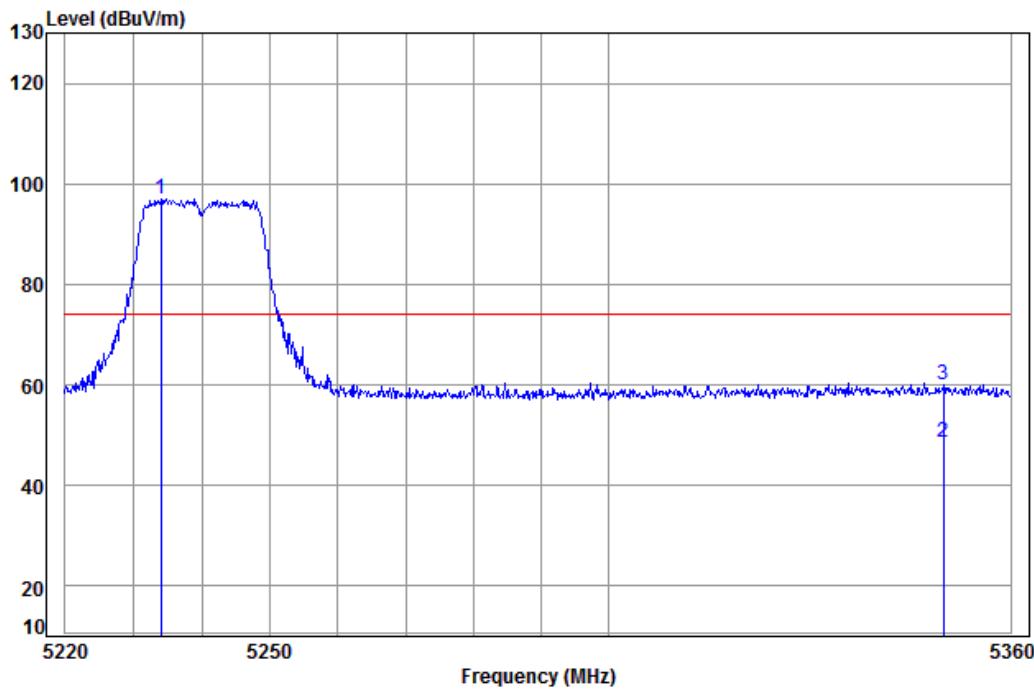
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	48.37	52.45	54.00	-1.55 Average
2 pk	5150.000	8.08	34.47	38.47	60.57	64.65	74.00	-9.35 Peak
3 pp	5178.336	8.09	34.46	38.46	109.05	113.14	74.00	39.14

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-AC20

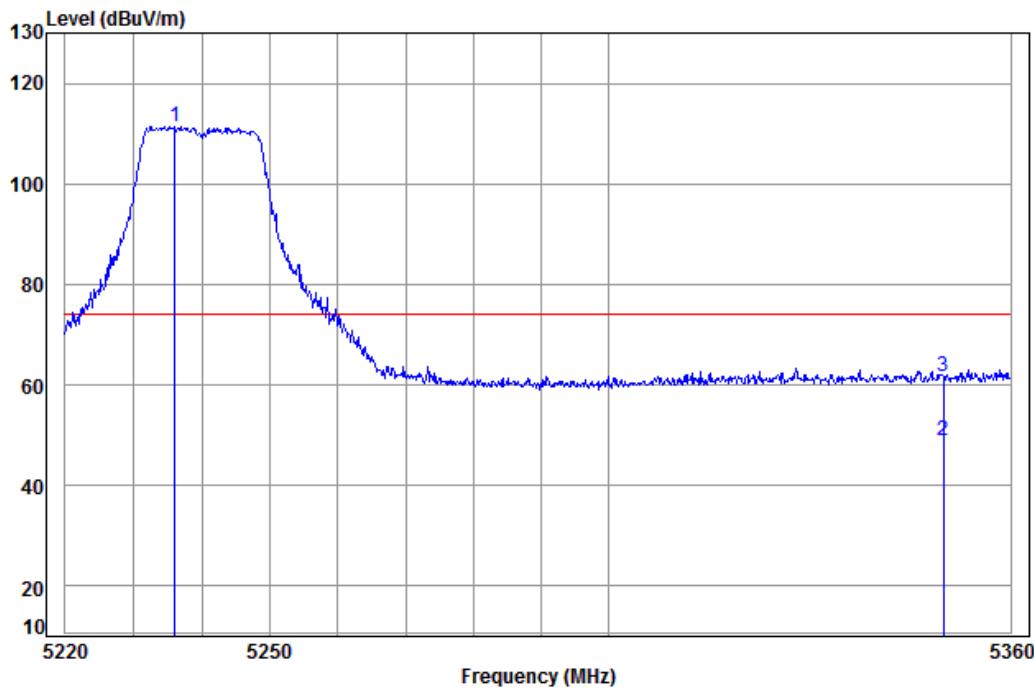
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5233.972	8.12	34.45	38.45	92.82	96.94	74.00	22.94
2 av	5350.000	8.18	34.43	38.43	44.51	48.69	54.00	-5.31 Average
3 pk	5350.000	8.18	34.43	38.43	55.71	59.89	74.00	-14.11 Peak

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI1-AC20

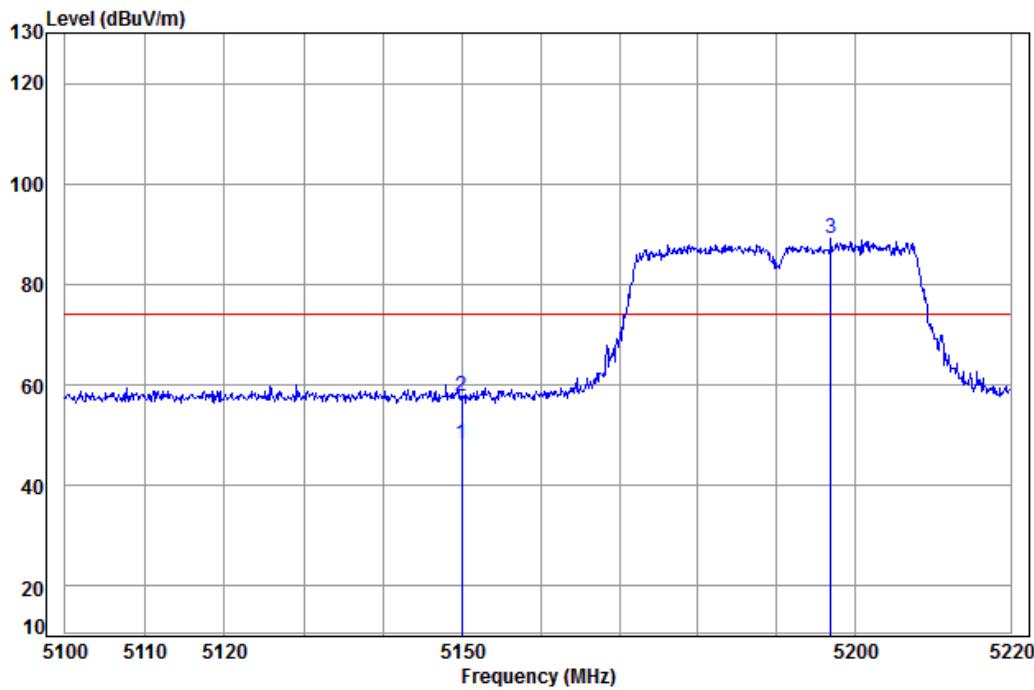
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5236.051	8.12	34.45	38.45	107.32	111.44	74.00	37.44
2 av	5350.000	8.18	34.43	38.43	44.67	48.85	54.00	-5.15 Average
3 pk	5350.000	8.18	34.43	38.43	57.39	61.57	74.00	-12.43 Peak

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
: 5G WIFI1-AC40

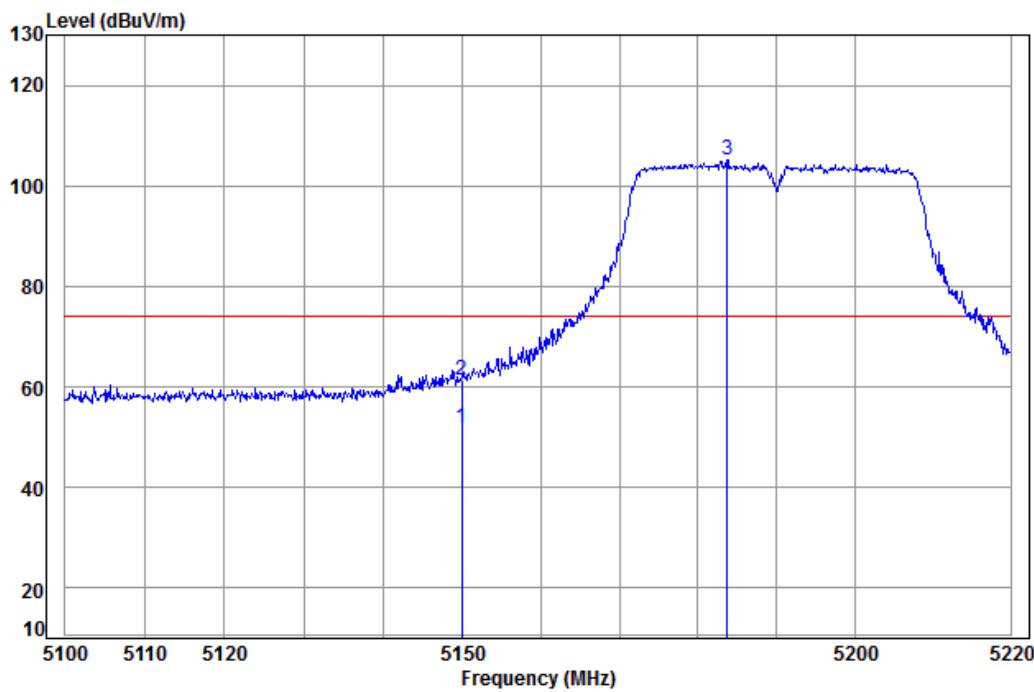
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 av	5150.000	8.08	34.47	38.47	44.17	48.25	54.00	-5.75	Average
2 pk	5150.000	8.08	34.47	38.47	53.78	57.86	74.00	-16.14	Peak
3 pp	5196.985	8.10	34.46	38.46	84.96	89.06	74.00	15.06	

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
: 5G WIFI1-AC40

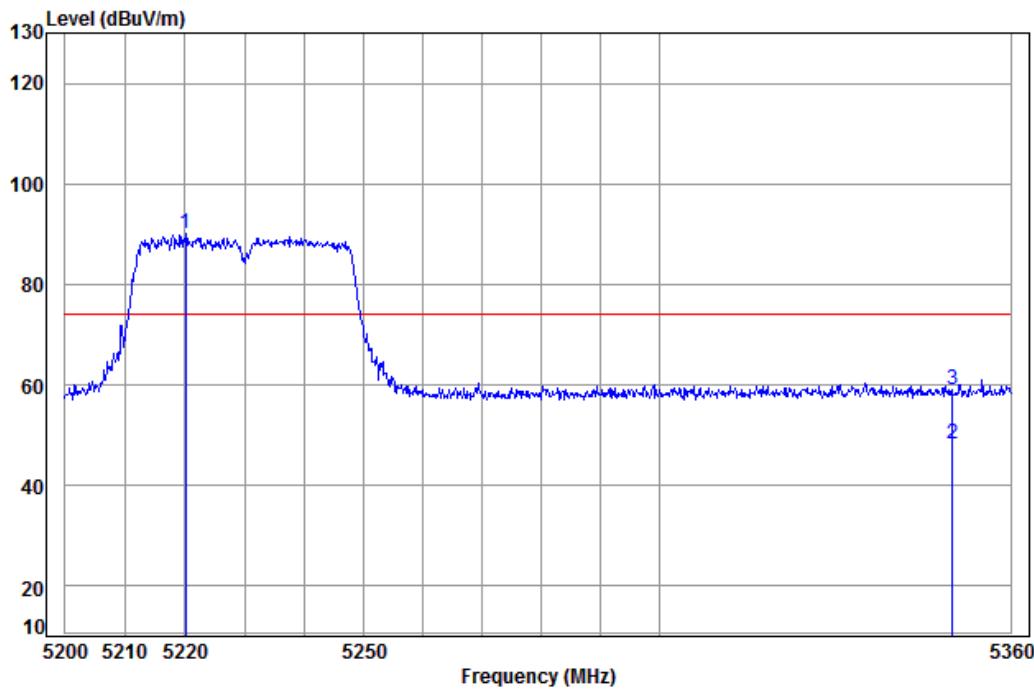
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	47.65	51.73	54.00	-2.27 Average
2 pk	5150.000	8.08	34.47	38.47	57.22	61.30	74.00	-12.70 Peak
3 pp	5183.707	8.09	34.46	38.46	100.92	105.01	74.00	31.01

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
: 5G WIFI1-AC40

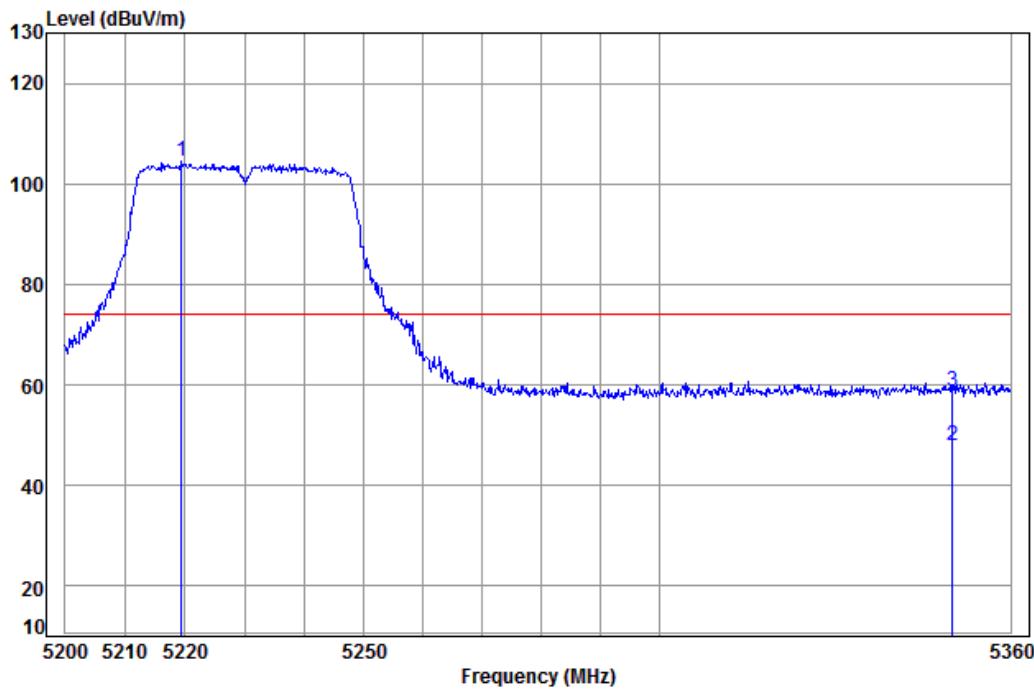
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5220.052	8.11	34.45	38.46	86.07	90.17	74.00	16.17
2 av	5350.000	8.18	34.43	38.43	43.96	48.14	54.00	-5.86 Average
3 pk	5350.000	8.18	34.43	38.43	54.78	58.96	74.00	-15.04 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI1-AC40

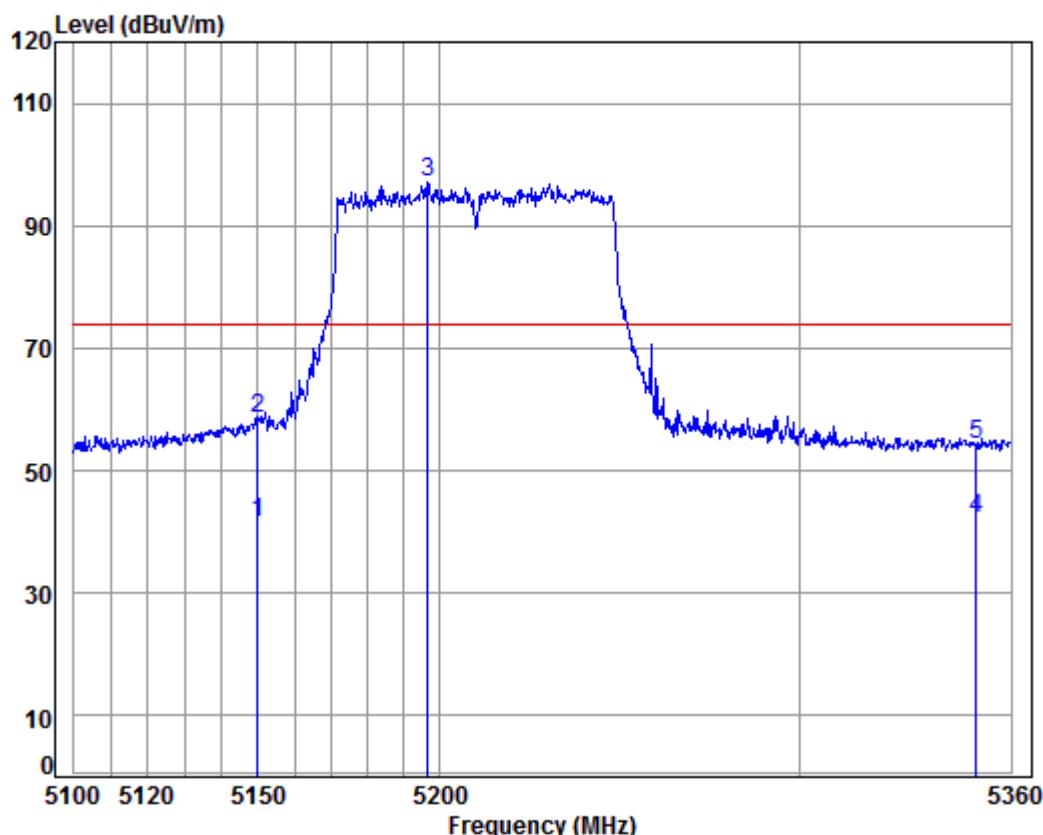
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5219.419	8.11	34.45	38.46	100.25	104.35	74.00	30.35
2 av	5350.000	8.18	34.43	38.43	43.67	47.85	54.00	-6.15 Average
3 pk	5350.000	8.18	34.43	38.43	54.57	58.75	74.00	-15.25 Peak

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Shenzhen Branch



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5210 Bandedge  
: 5G WIFI1-AC80

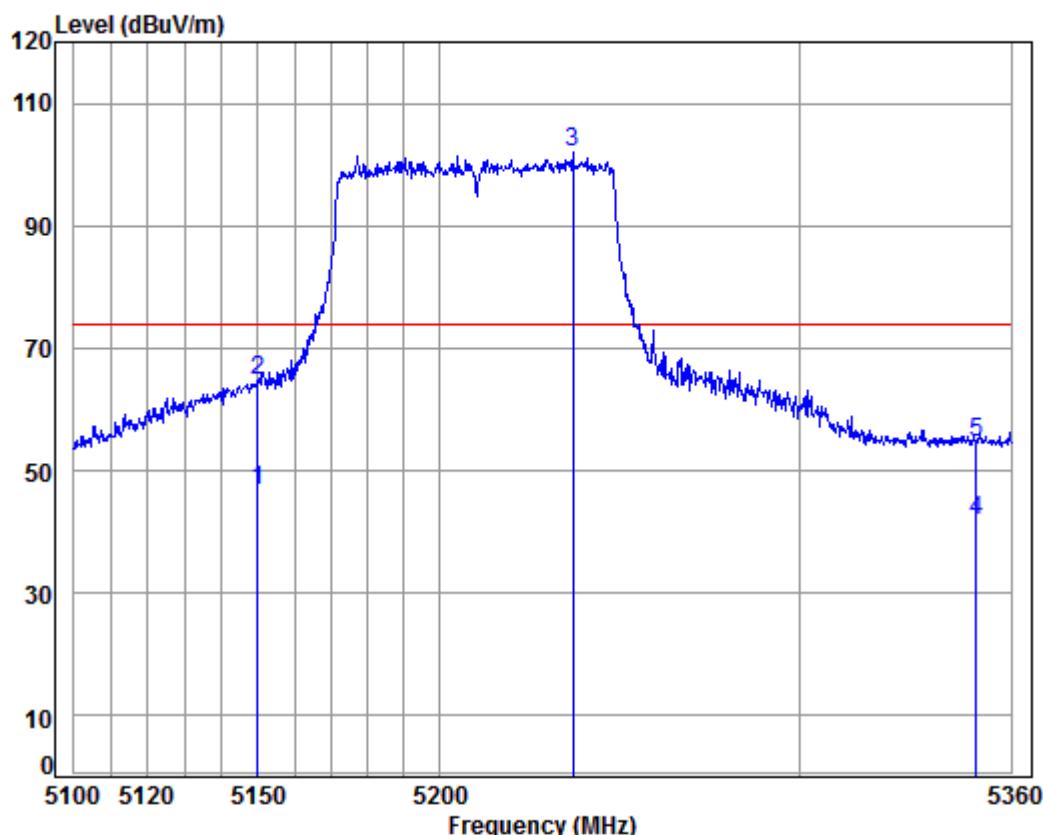
		Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5150.000	8.08	34.47	38.47	37.53	41.61	54.00	-12.39	Average
2	pk 5150.000	8.08	34.47	38.47	54.39	58.47	74.00	-15.53	Peak
3	pp 5196.763	8.10	34.46	38.46	93.00	97.10	74.00	23.10	
4	av 5350.000	8.18	34.43	38.43	37.85	42.03	54.00	-11.97	Average
5	5350.000	8.18	34.43	38.43	50.11	54.29	74.00	-19.71	Peak

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5210 Bandedge  
: 5G WIFI1-AC80

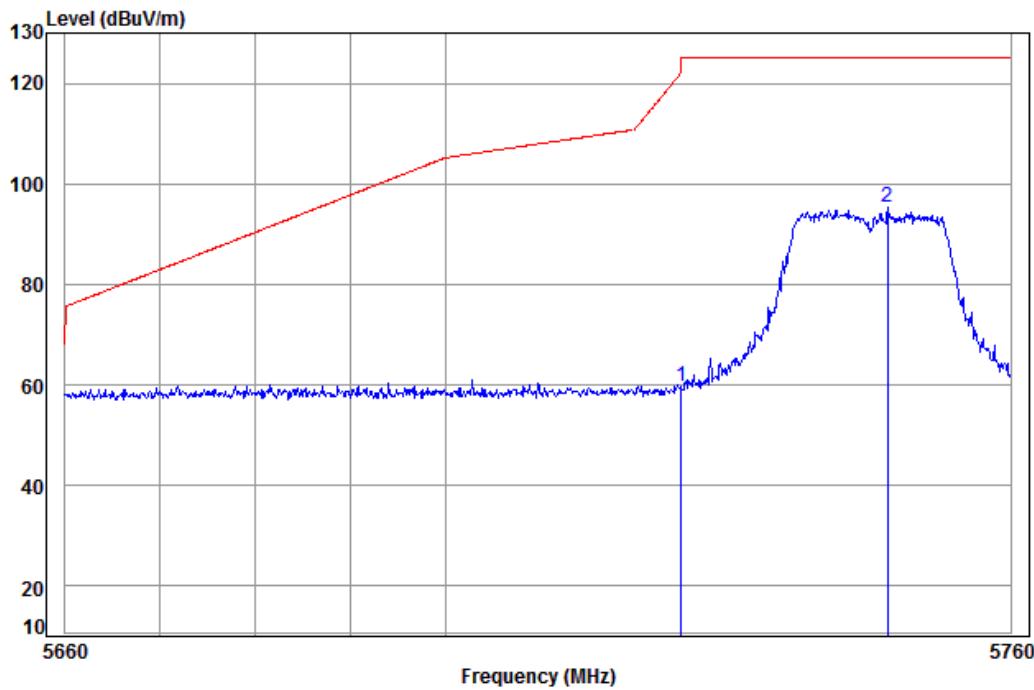
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	42.67	46.75	54.00	-7.25 Average
2 pk	5150.000	8.08	34.47	38.47	60.77	64.85	74.00	-9.15 Peak
3 pp	5236.970	8.12	34.45	38.45	97.83	101.95	74.00	27.95
4	5350.000	8.18	34.43	38.43	37.52	41.70	54.00	-12.30 Average
5	5350.000	8.18	34.43	38.43	50.38	54.56	74.00	-19.44 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI1-A20

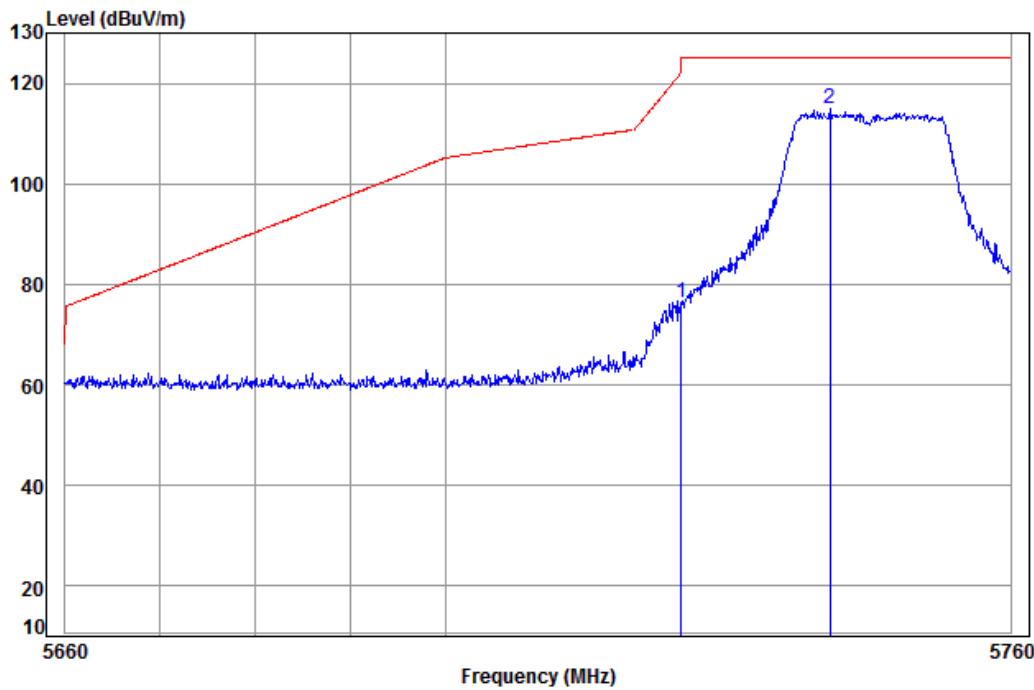
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	55.01	59.68	122.20	-62.52	
2 pp	5746.901	8.50	34.55	38.35	90.54	95.24	125.20	-29.96	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI1-A20

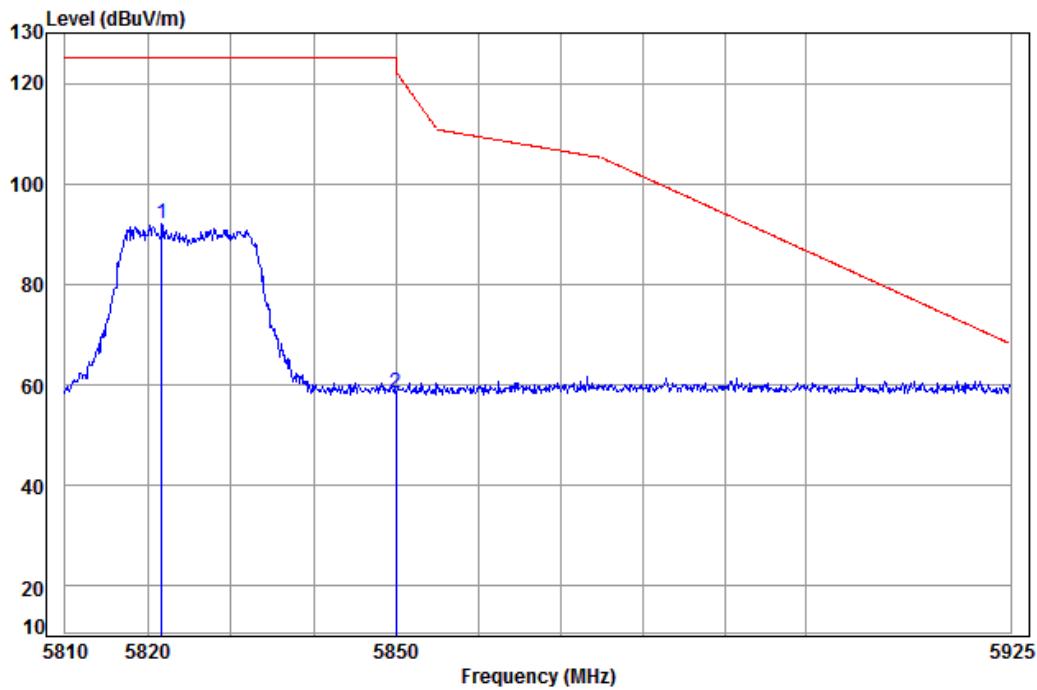
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	71.58	76.25	122.20	-45.95	
2 pp	5740.765	8.50	34.55	38.35	110.13	114.83	125.20	-10.37	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-A20

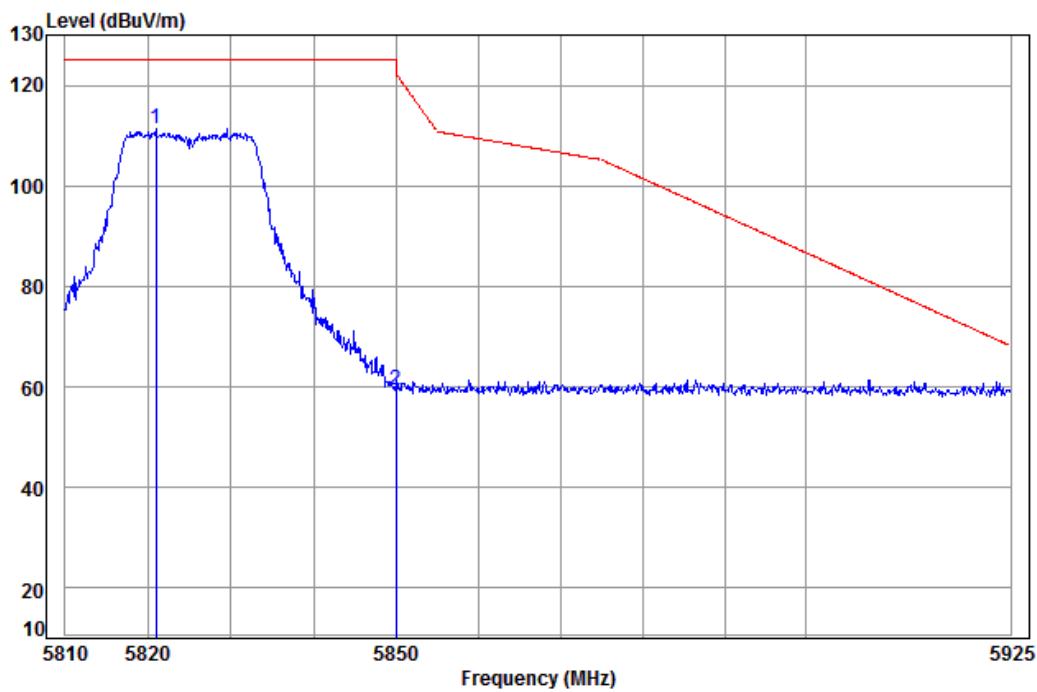
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Line	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5821.627	8.58	34.60	38.34	87.21	92.05	125.20	-33.15
2	5850.000	8.60	34.61	38.33	53.64	58.52	122.20	-63.68

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-A20

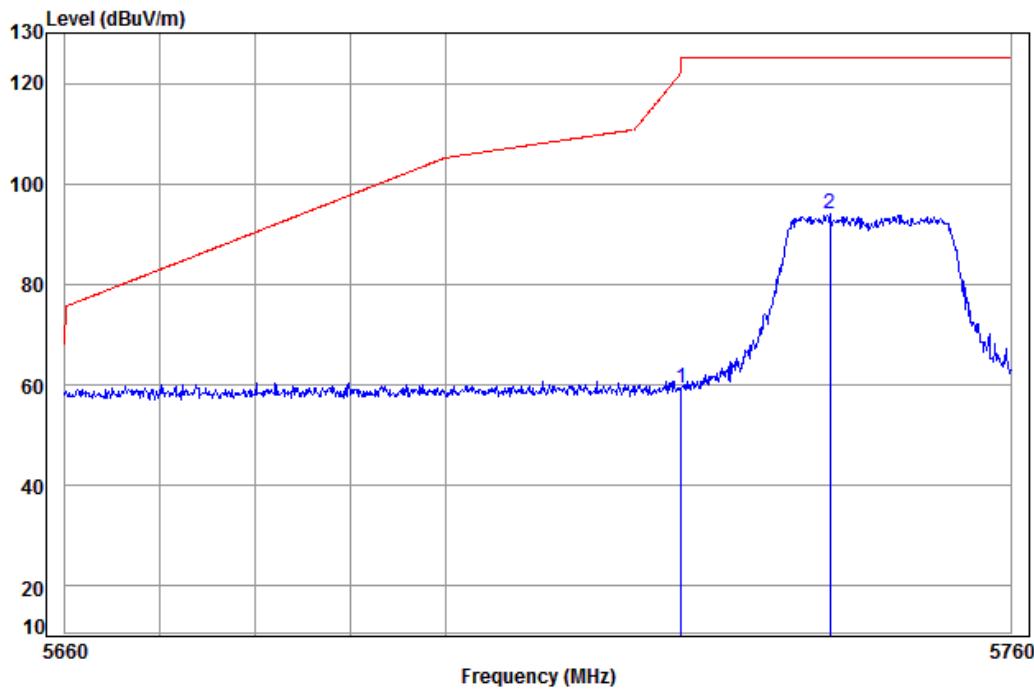
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5820.942	8.58	34.60	38.34	106.55	111.39	125.20	-13.81
2	5850.000	8.60	34.61	38.33	54.40	59.28	122.20	-62.92

**SGS-CSTC Standards Technical Services Ltd.  
Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
: 5G WIFI1-N20

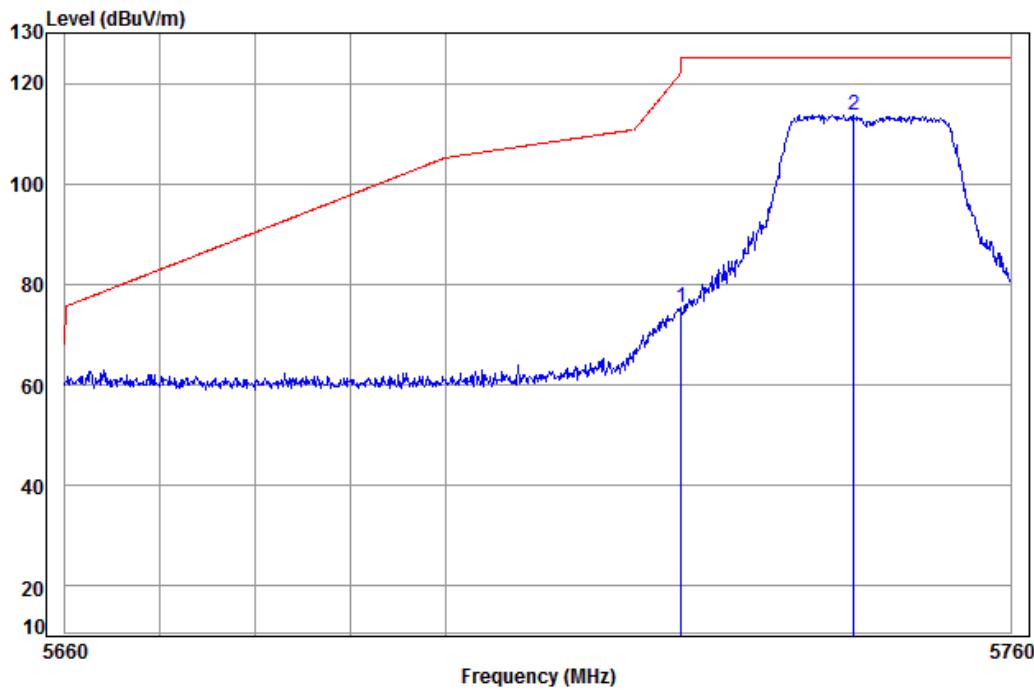
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	54.82	59.49	122.20	-62.71	
2 pp	5740.765	8.50	34.55	38.35	89.44	94.14	125.20	-31.06	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI1-N20

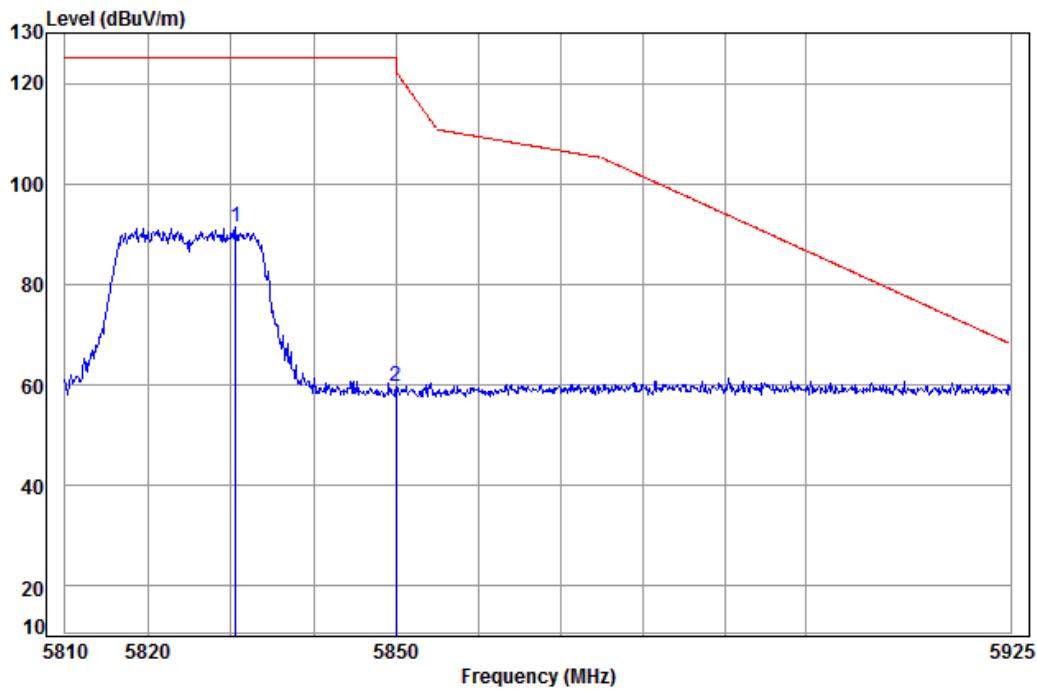
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	70.64	75.31	122.20	-46.89	
2 pp	5743.278	8.50	34.55	38.35	109.11	113.81	125.20	-11.39	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-N20

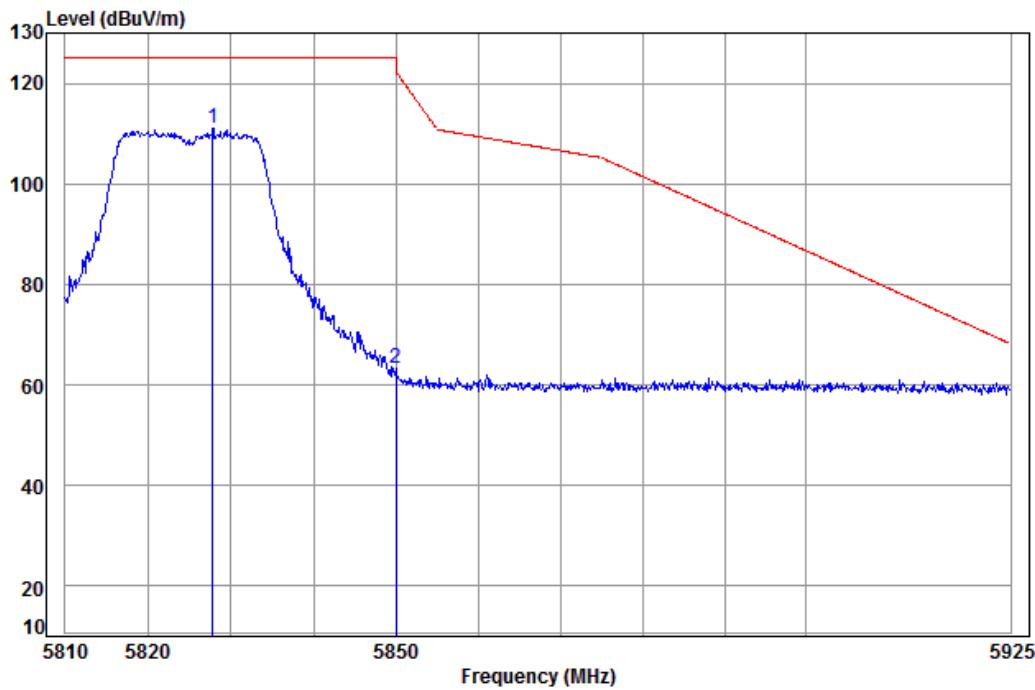
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5830.534	8.59	34.60	38.33	86.71	91.57	125.20	-33.63
2	5850.000	8.60	34.61	38.33	54.83	59.71	122.20	-62.49

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-N20

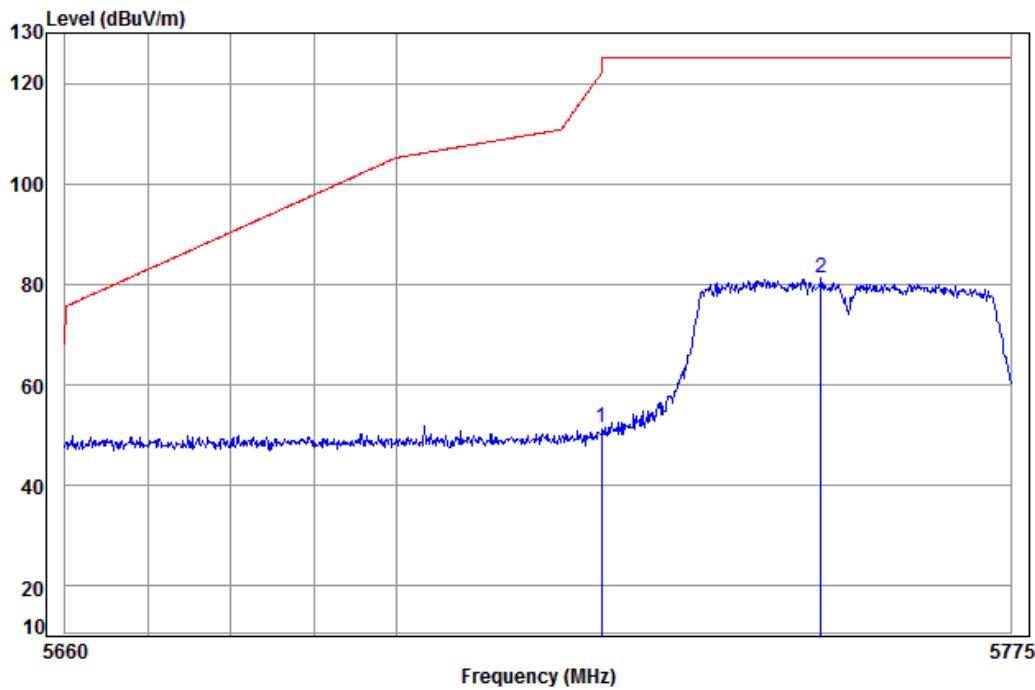
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5827.792	8.58	34.60	38.33	106.22	111.07	125.20	-14.13	
2	5850.000	8.60	34.61	38.33	58.36	63.24	122.20	-58.96	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI1-N40

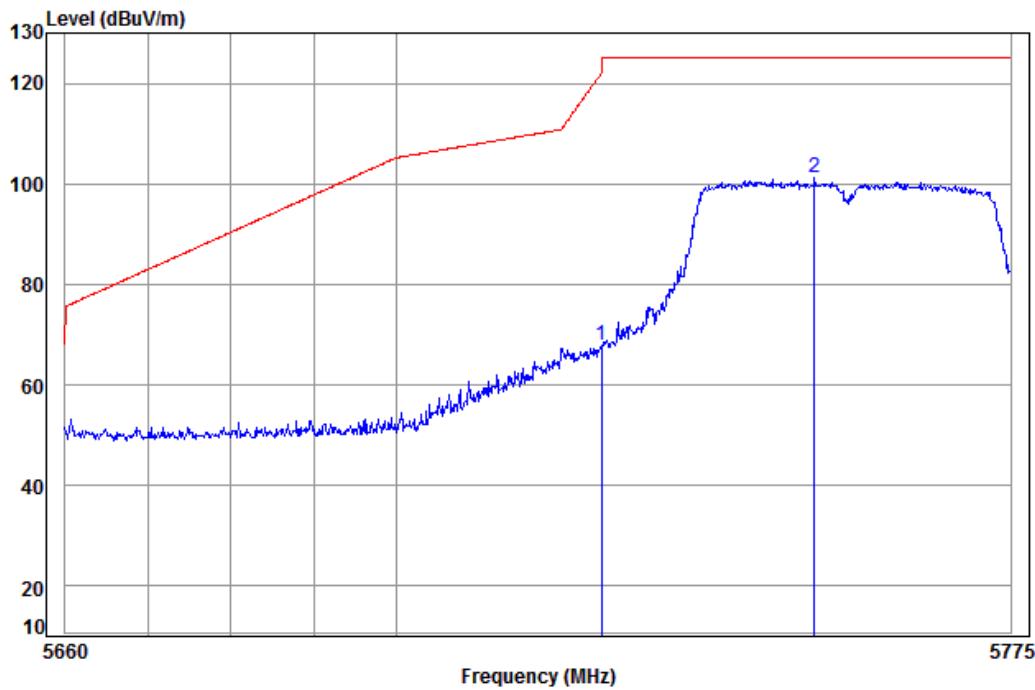
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	46.79	51.46	122.20	-70.74	
2 pp	5751.814	8.51	34.55	38.35	76.53	81.24	125.20	-43.96	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI1-N40

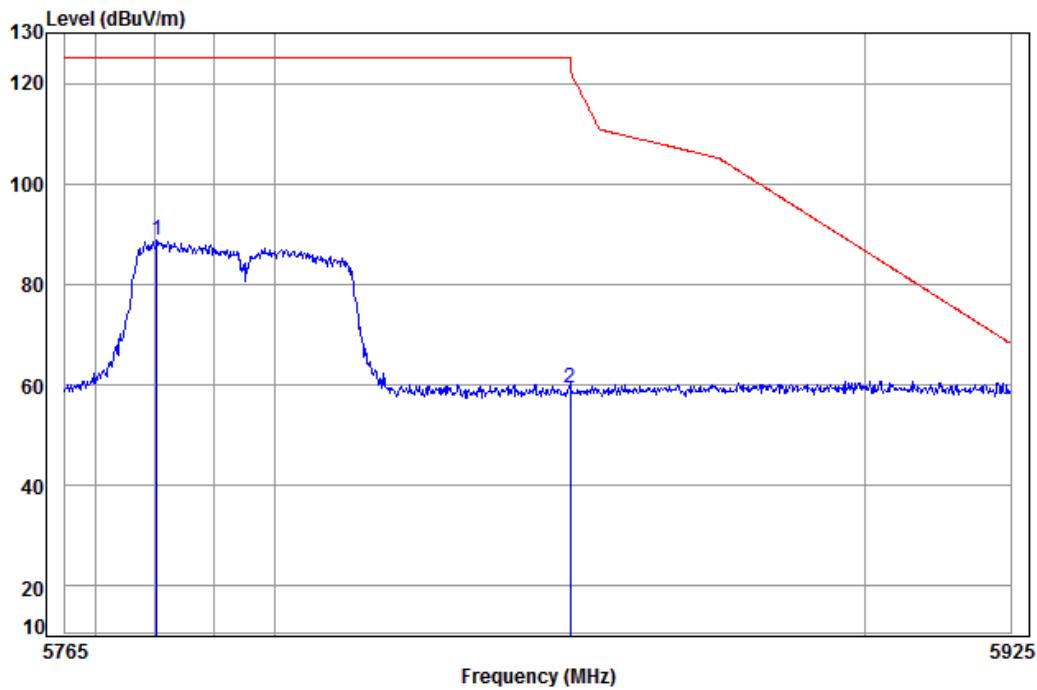
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	63.17	67.84	122.20	-54.36	
2 pp	5751.005	8.51	34.55	38.35	96.41	101.12	125.20	-24.08	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI1-N40

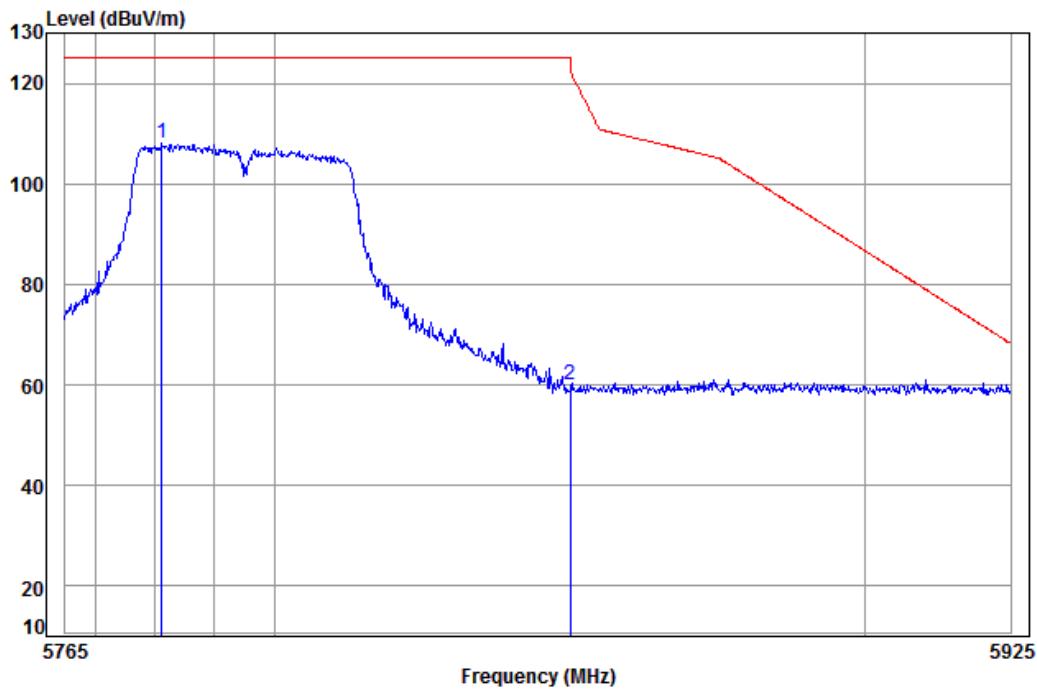
	Cable Freq	Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Over Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5780.329	8.54	34.57	38.34	83.87	88.64	125.20	-36.56	
2	5850.000	8.60	34.61	38.33	54.41	59.29	122.20	-62.91	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI1-N40

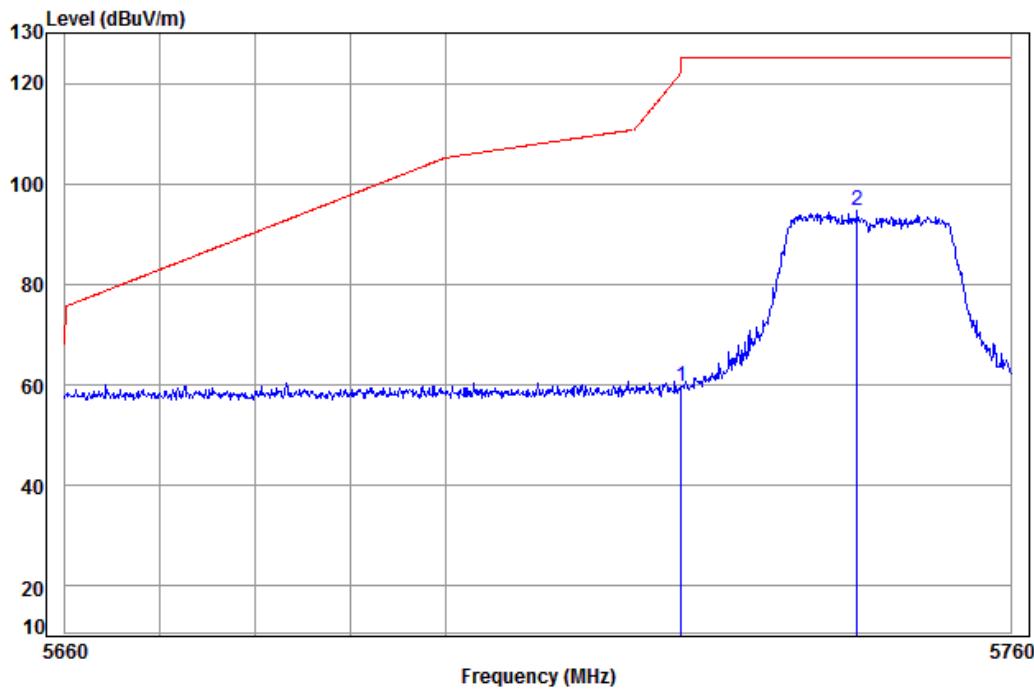
	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Line	Over Limit	Remark
Freq	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	5781.120	8.54	34.57	38.34	103.19	107.96	125.20	-17.24	
2	5850.000	8.60	34.61	38.33	55.07	59.95	122.20	-62.25	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI1-AC20

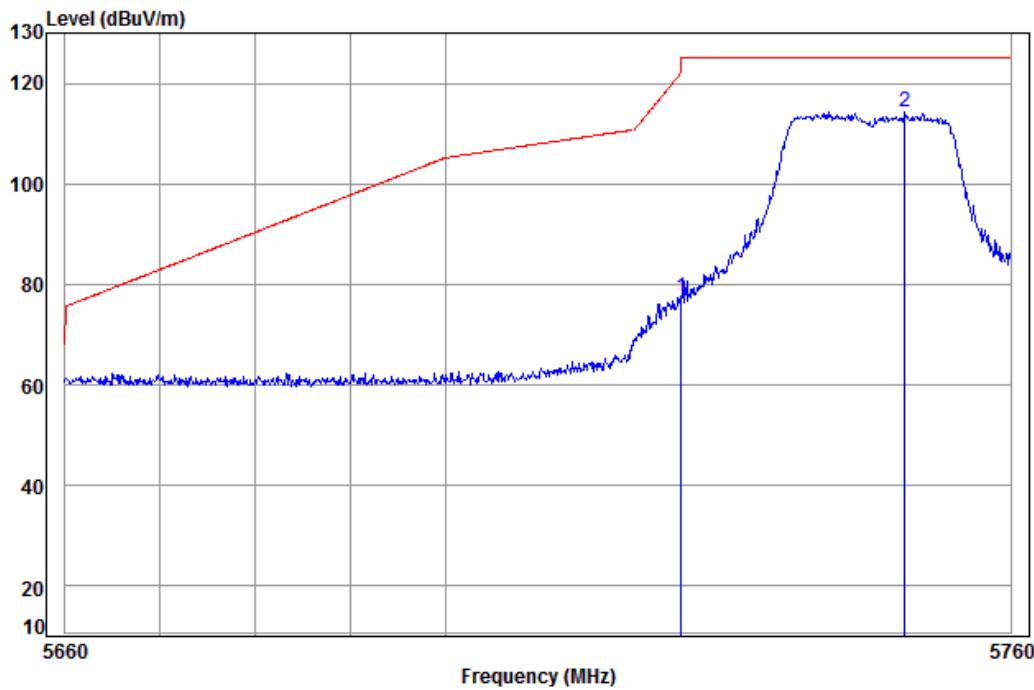
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	55.07	59.74	122.20	-62.46	
2 pp	5743.681	8.50	34.55	38.35	90.05	94.75	125.20	-30.45	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI1-AC20

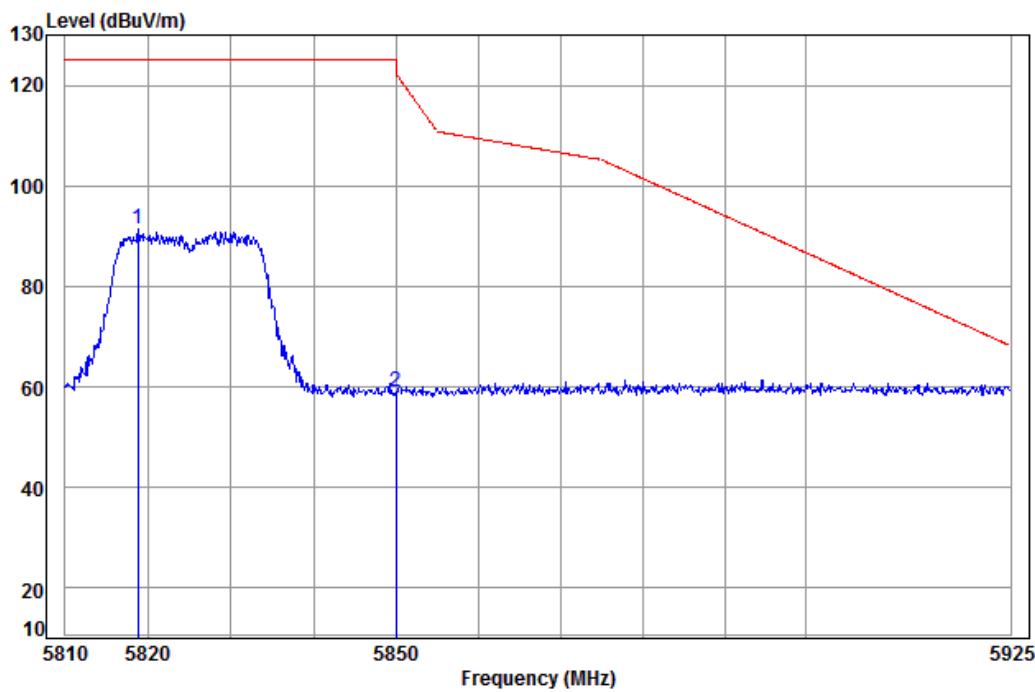
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	72.75	77.42	122.20	-44.78	
2 pp	5748.713	8.50	34.55	38.35	109.49	114.19	125.20	-11.01	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-AC20

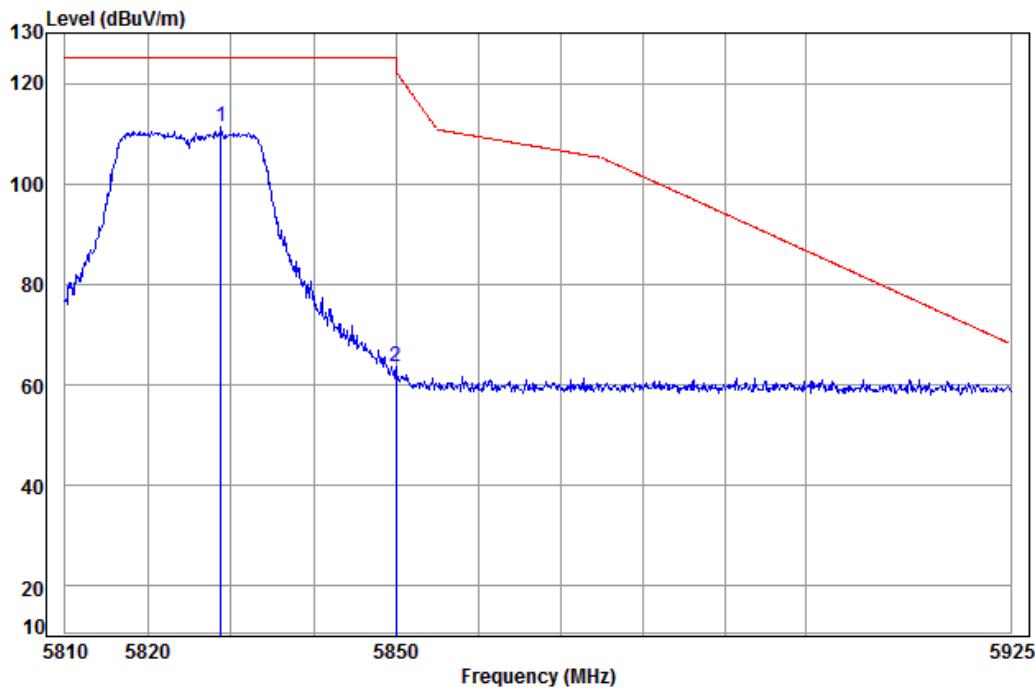
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5818.775	8.57	34.59	38.34	86.47	91.29	125.20	-33.91
2	5850.000	8.60	34.61	38.33	54.30	59.18	122.20	-63.02

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI1-AC20

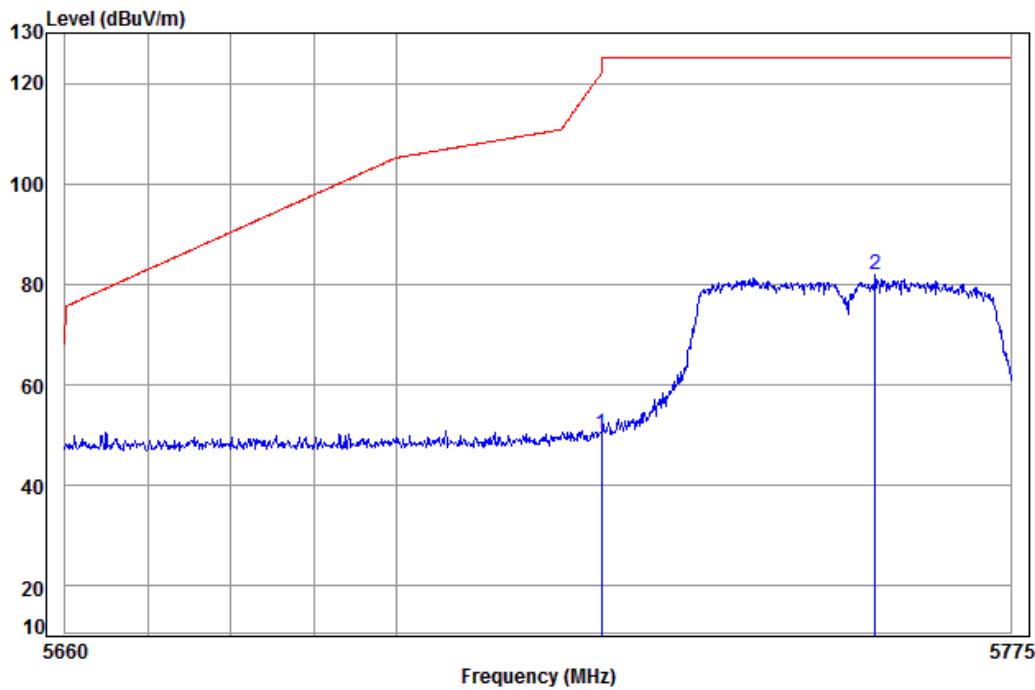
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5828.820	8.58	34.60	38.33	106.49	111.34	125.20	-13.86	
2	5850.000	8.60	34.61	38.33	58.60	63.48	122.20	-58.72	

**SGS-CSTC Standards Technical Services Ltd.**  
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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI1-AC40

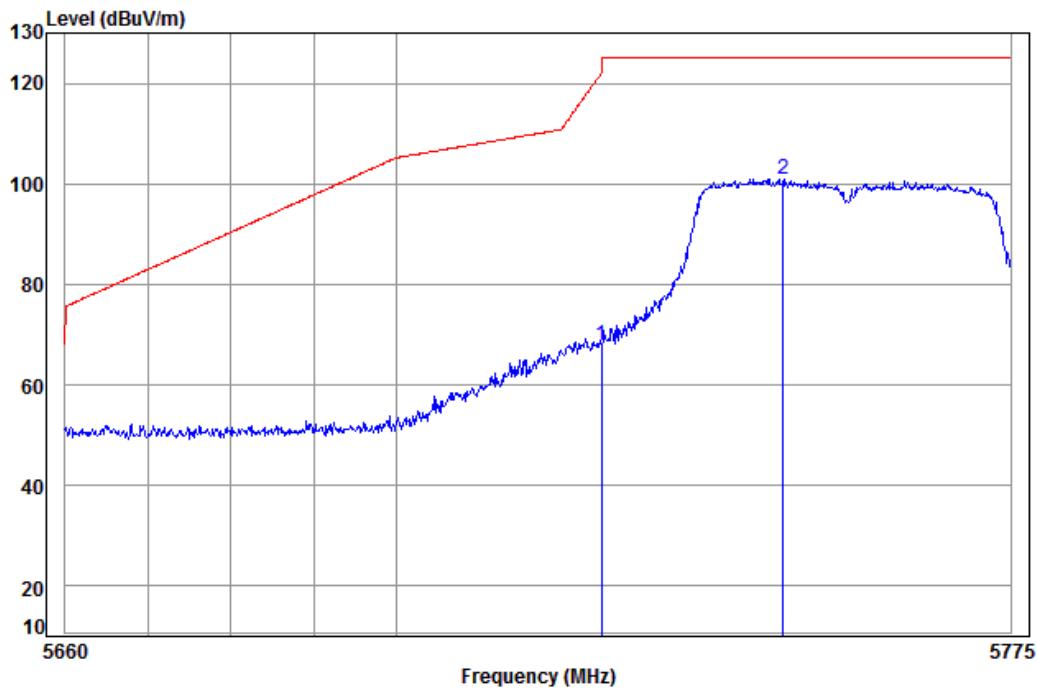
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1	5725.000	8.48	34.54	38.35	45.65	50.32	122.20	-71.88	
2 pp	5758.413	8.51	34.56	38.35	77.25	81.97	125.20	-43.23	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI1-AC40

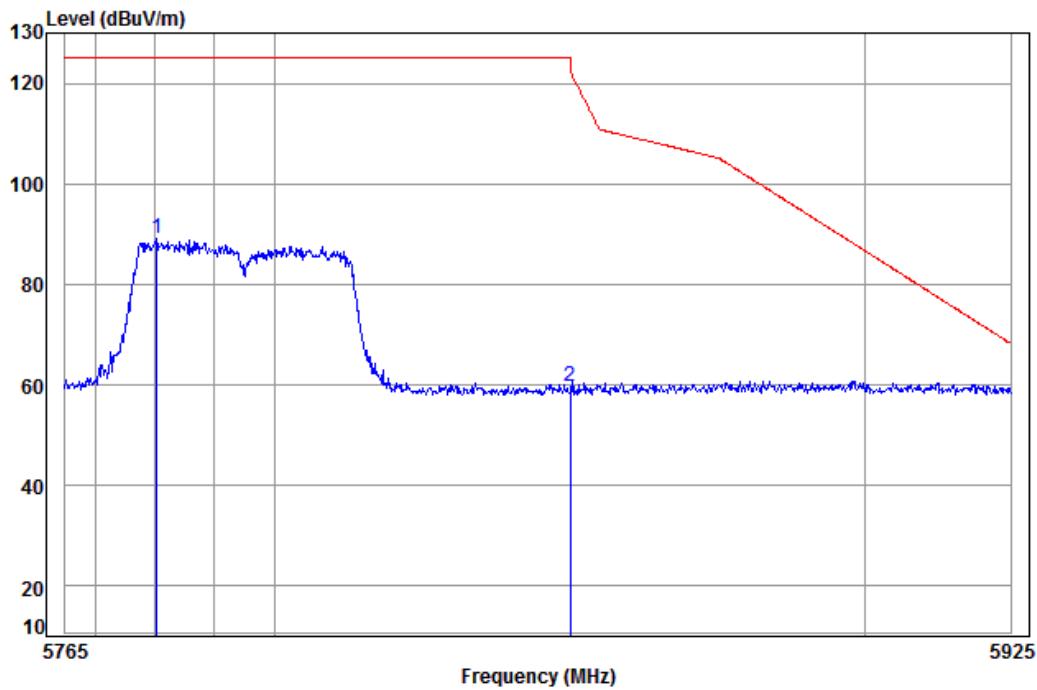
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	63.18	67.85	122.20	-54.35	
2 pp	5747.188	8.50	34.55	38.35	96.22	100.92	125.20	-24.28	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI1-AC40

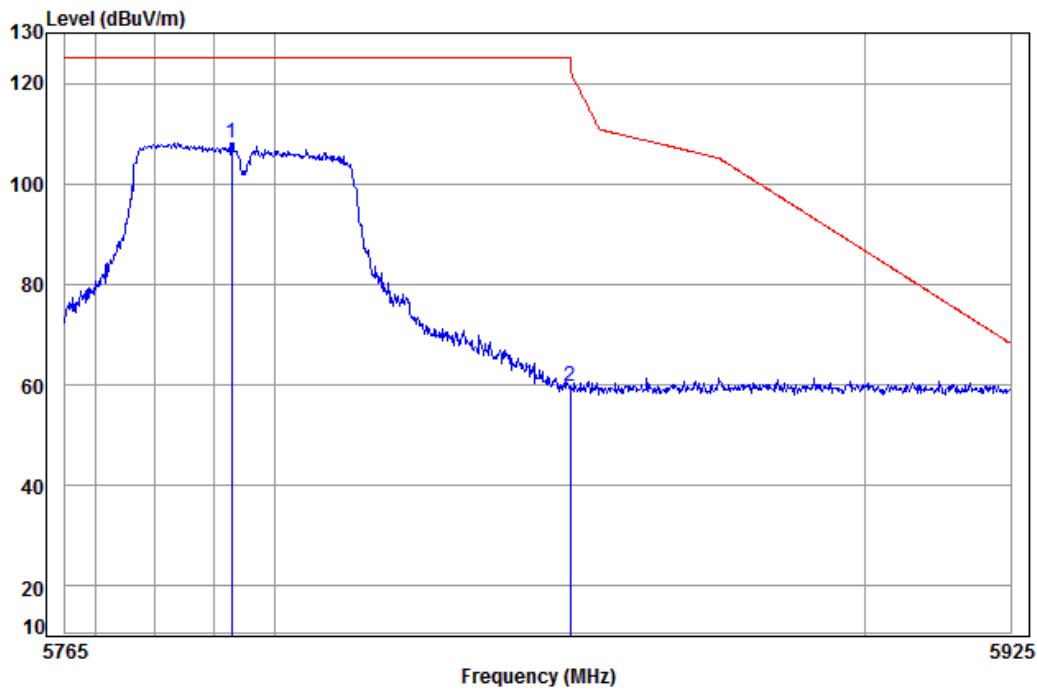
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5780.329	8.54	34.57	38.34	84.29	89.06	125.20	-36.14
2	5850.000	8.60	34.61	38.33	54.83	59.71	122.20	-62.49

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
: 5G WIFI1-AC40

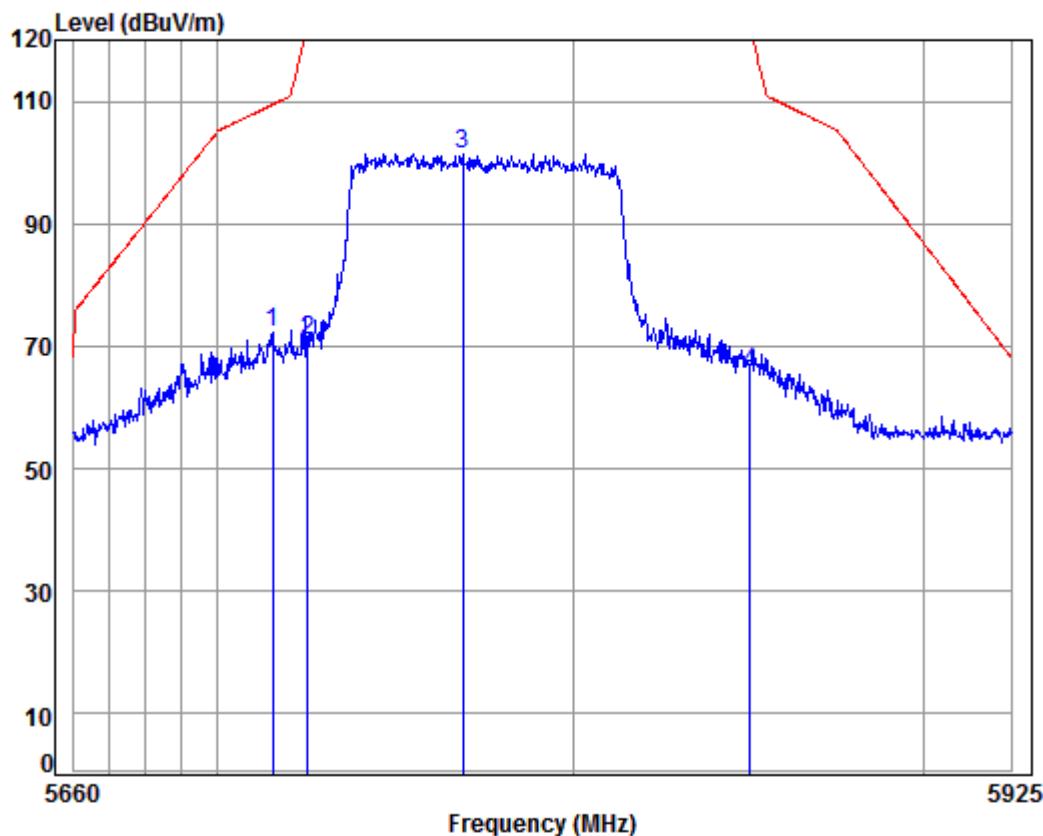
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5792.843	8.55	34.58	38.34	103.40	108.19	125.20	-17.01	
2	5850.000	8.60	34.61	38.33	54.94	59.82	122.20	-62.38	

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI1-AC80

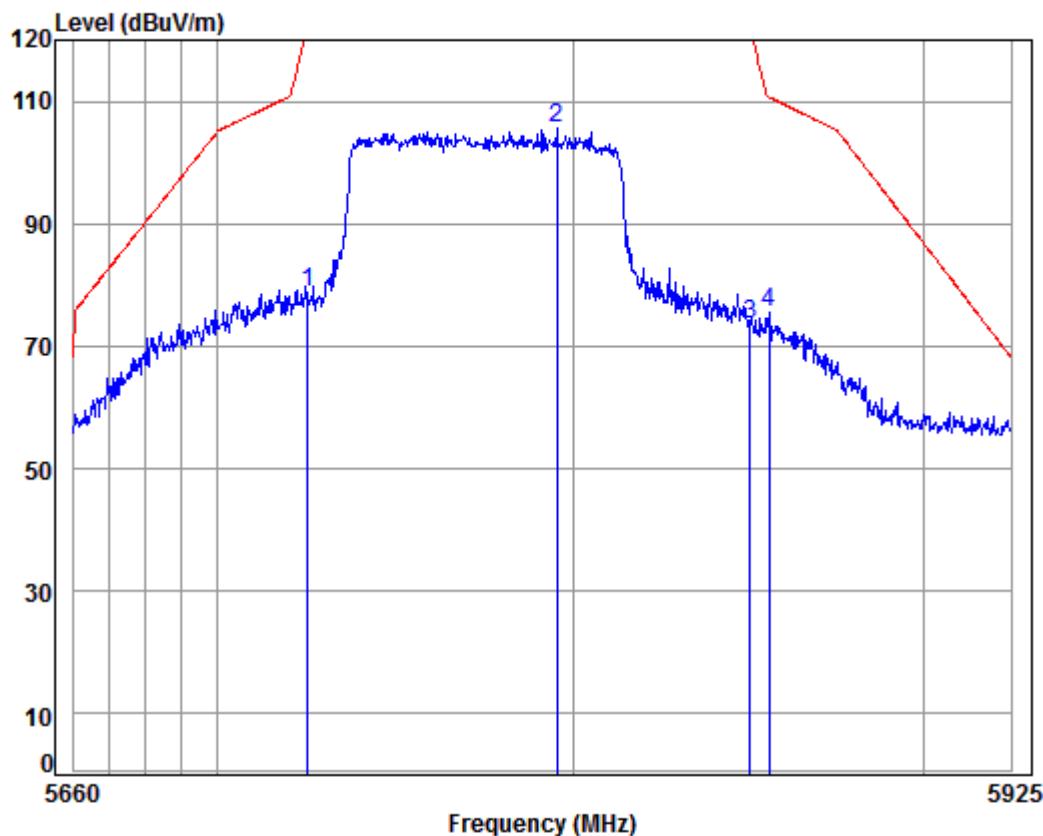
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5715.172	8.47	34.53	38.36	67.52	72.16	109.45	-37.29
2	5725.000	8.48	34.54	38.35	66.31	70.98	125.20	-54.22
3 pp	5768.505	8.52	34.56	38.35	96.79	101.52	125.20	-23.68
4	5850.000	8.60	34.61	38.33	60.74	65.62	121.95	-56.33

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI1-AC80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	74.02	78.69	125.20	-46.51	
2 pp	5794.960	8.55	34.58	38.34	100.73	105.52	125.20	-19.68	
3	5850.000	8.60	34.61	38.33	68.73	73.61	121.95	-48.34	
4	5855.465	8.61	34.62	38.33	70.79	75.69	110.67	-34.98	

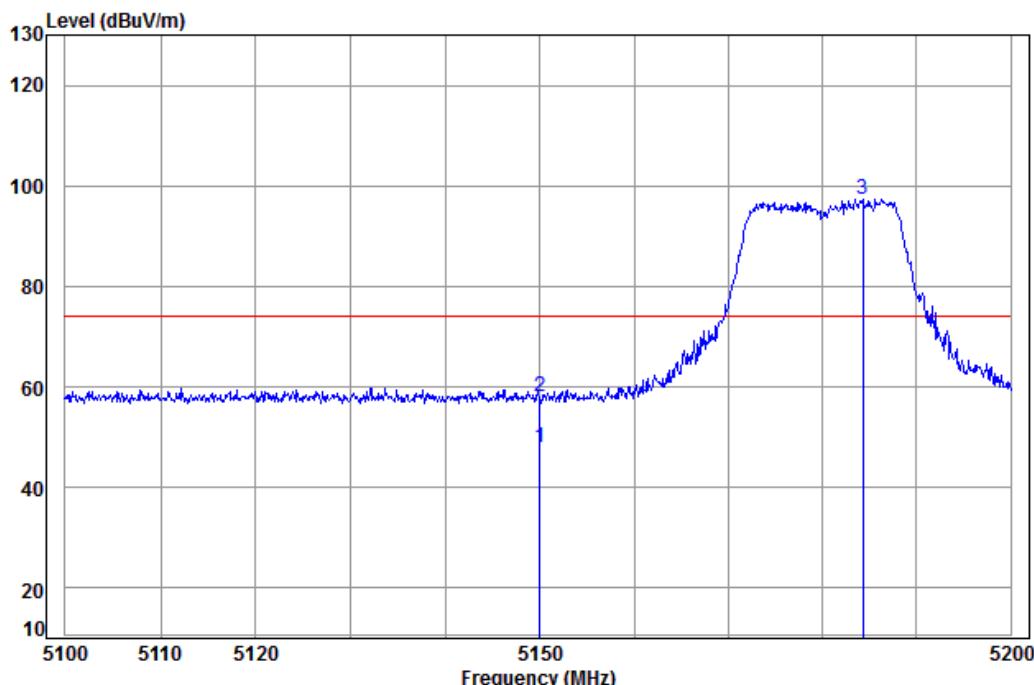
**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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WiFi Module 2:

Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-A20

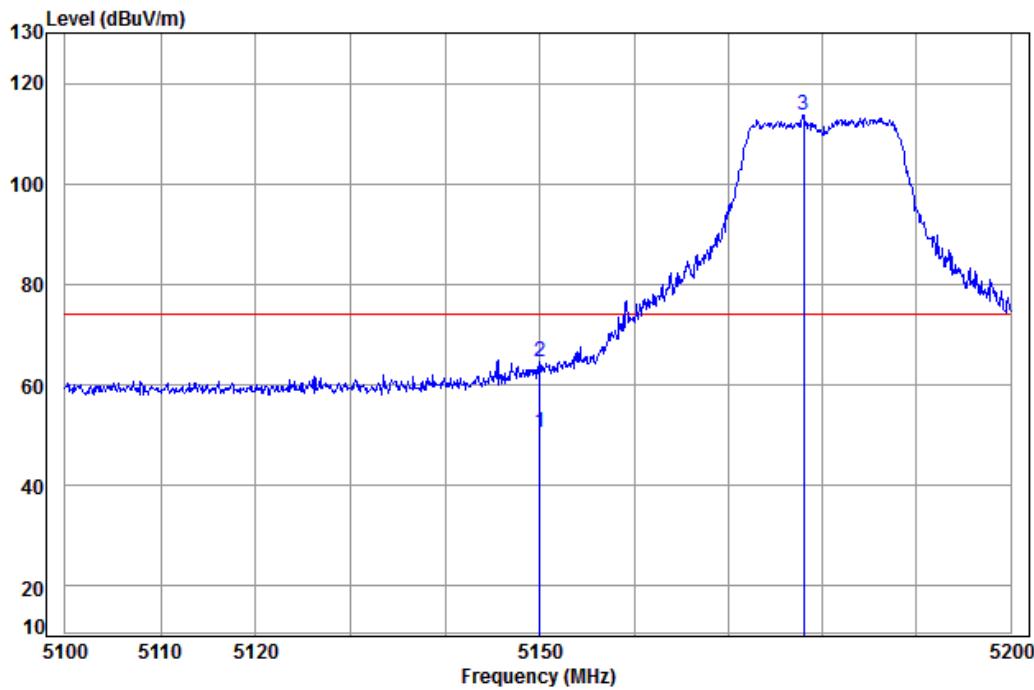
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	43.69	47.77	54.00	-6.23 Average
2 pk	5150.000	8.08	34.47	38.47	53.96	58.04	74.00	-15.96 Peak
3 pp	5184.272	8.09	34.46	38.46	93.33	97.42	74.00	23.42

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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-A20

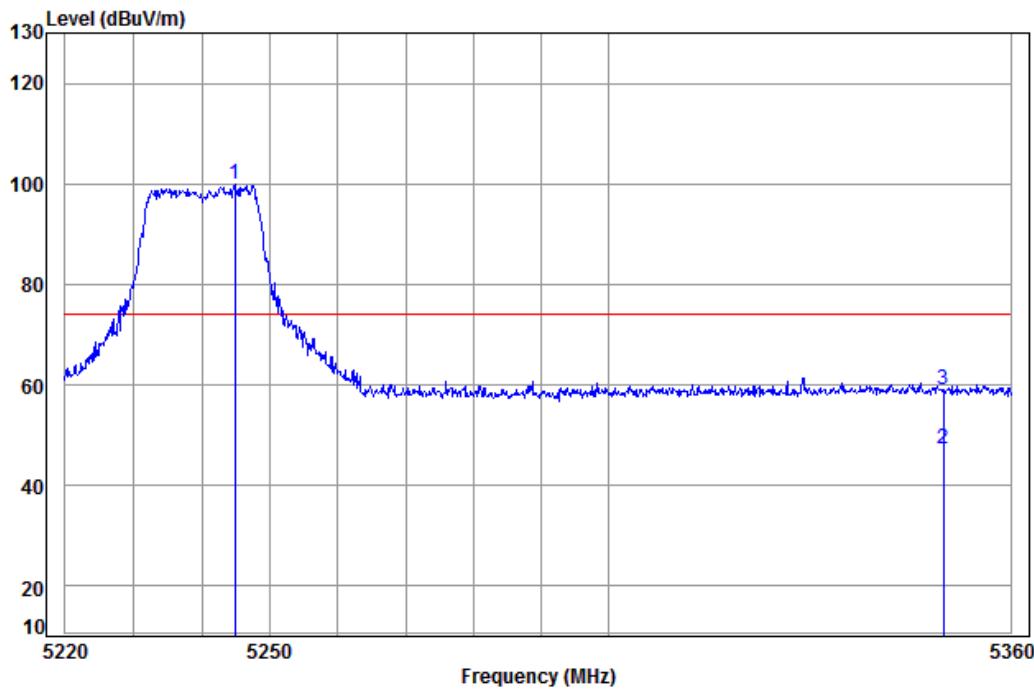
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	46.57	50.65	54.00	-3.35 Average
2 pk	5150.000	8.08	34.47	38.47	60.63	64.71	74.00	-9.29 Peak
3 pp	5177.934	8.09	34.46	38.46	109.54	113.63	74.00	39.63

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**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI2-A20

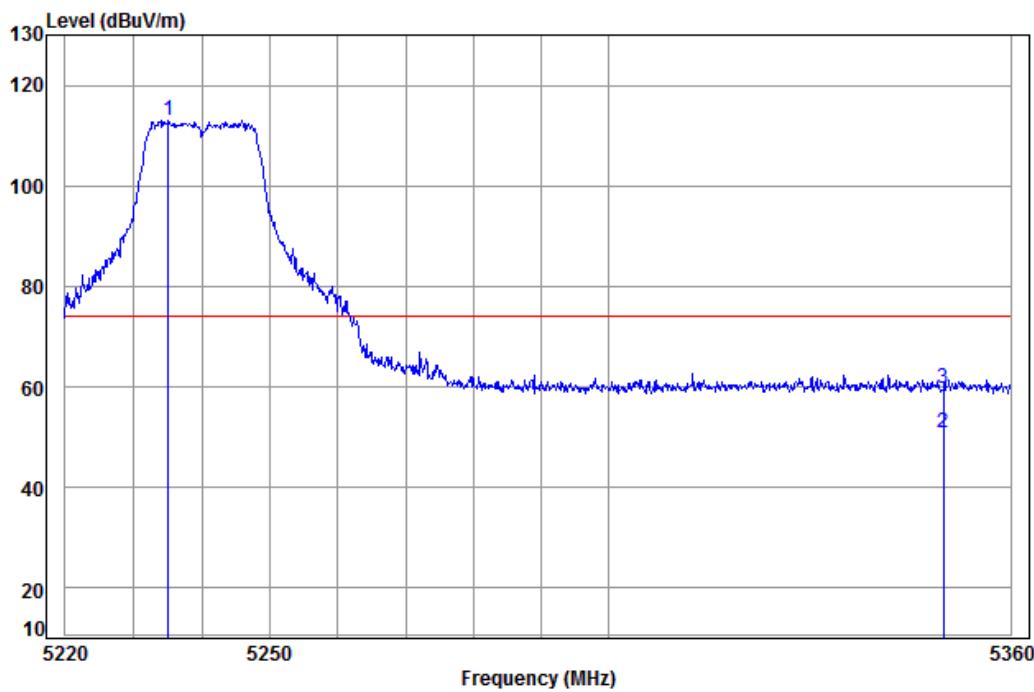
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp 5244.927	8.13	34.45	38.45	95.71	99.84	74.00	25.84	
2 av 5350.000	8.18	34.43	38.43	43.25	47.43	54.00	-6.57	Average
3 pk 5350.000	8.18	34.43	38.43	54.88	59.06	74.00	-14.94	Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL  
 Job No: : 0142IT  
 Mode: : 5240 Bandedge  
 : 5G WIFI2-A20

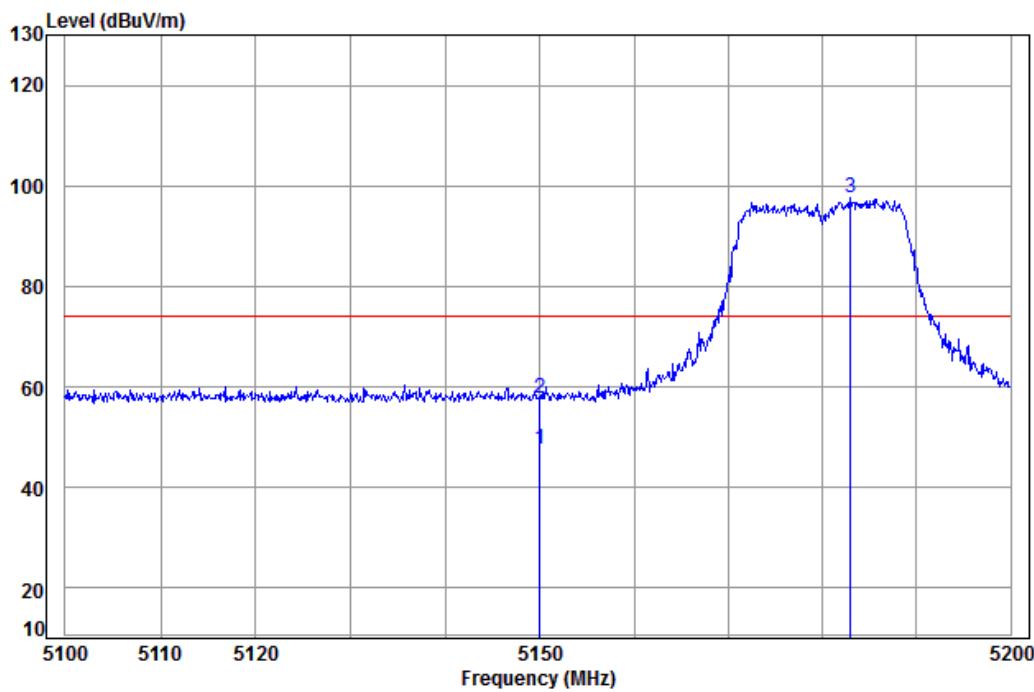
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5235.081	8.12	34.45	38.45	108.99	113.11	74.00	39.11
2 av	5350.000	8.18	34.43	38.43	46.79	50.97	54.00	-3.03 Average
3 pk	5350.000	8.18	34.43	38.43	55.54	59.72	74.00	-14.28 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-N20

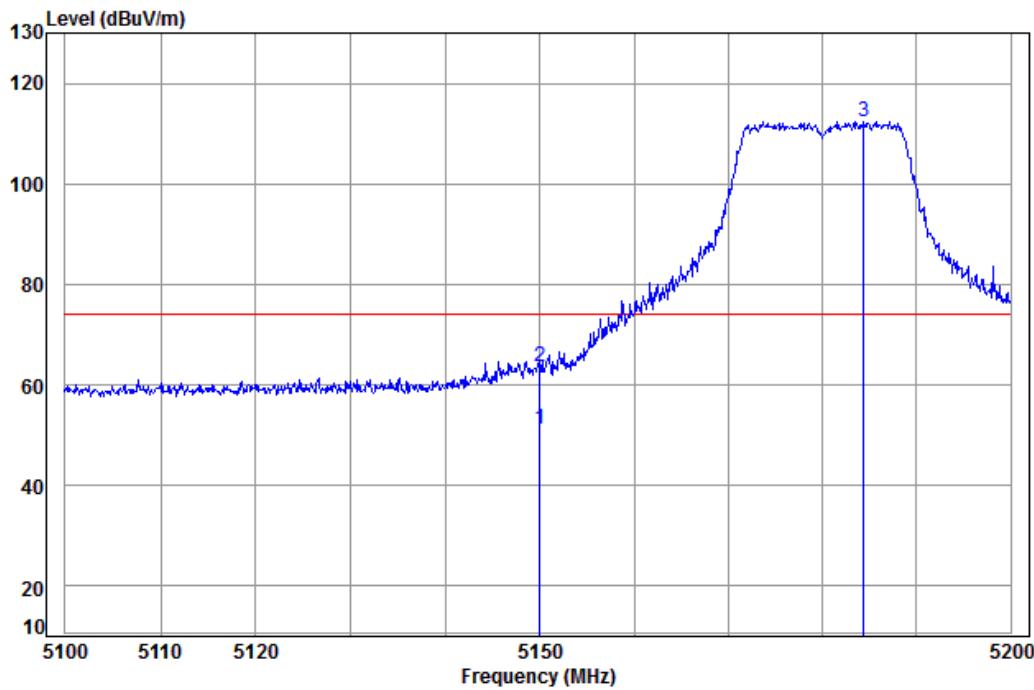
Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit	Remark
				Level	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 av 5150.000	8.08	34.47	38.47	43.55	47.63	54.00	-6.37	Average
2 pk 5150.000	8.08	34.47	38.47	53.76	57.84	74.00	-16.16	Peak
3 pp 5182.963	8.09	34.46	38.46	93.41	97.50	74.00	23.50	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-N20

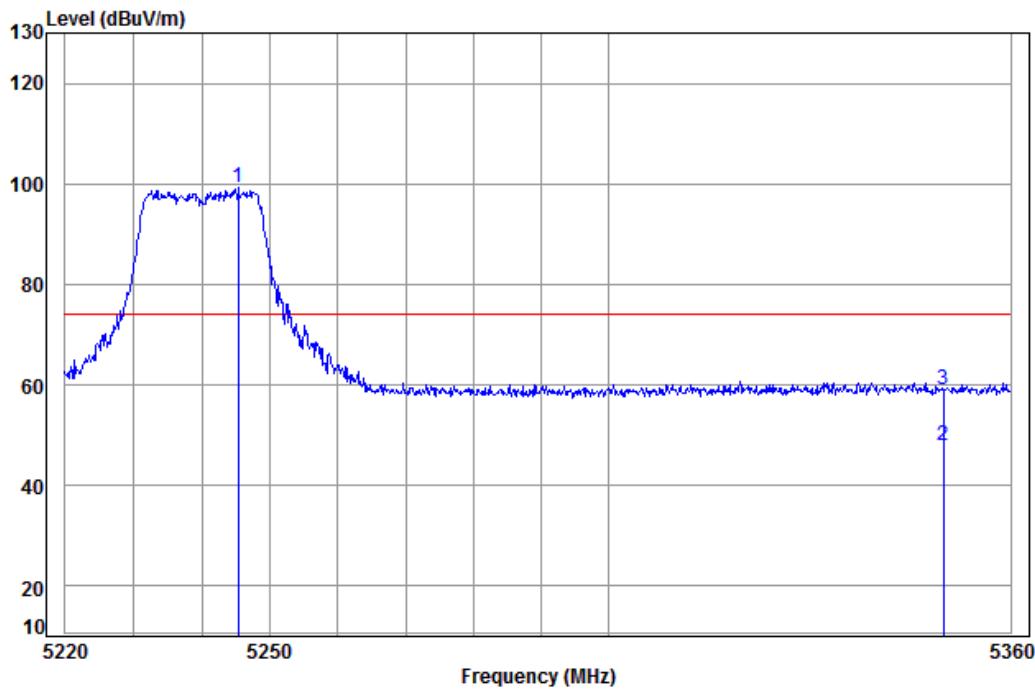
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	46.97	51.05	54.00	-2.95 Average
2 pk	5150.000	8.08	34.47	38.47	59.43	63.51	74.00	-10.49 Peak
3 pp	5184.373	8.09	34.46	38.46	108.23	112.32	74.00	38.32

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI2-N20

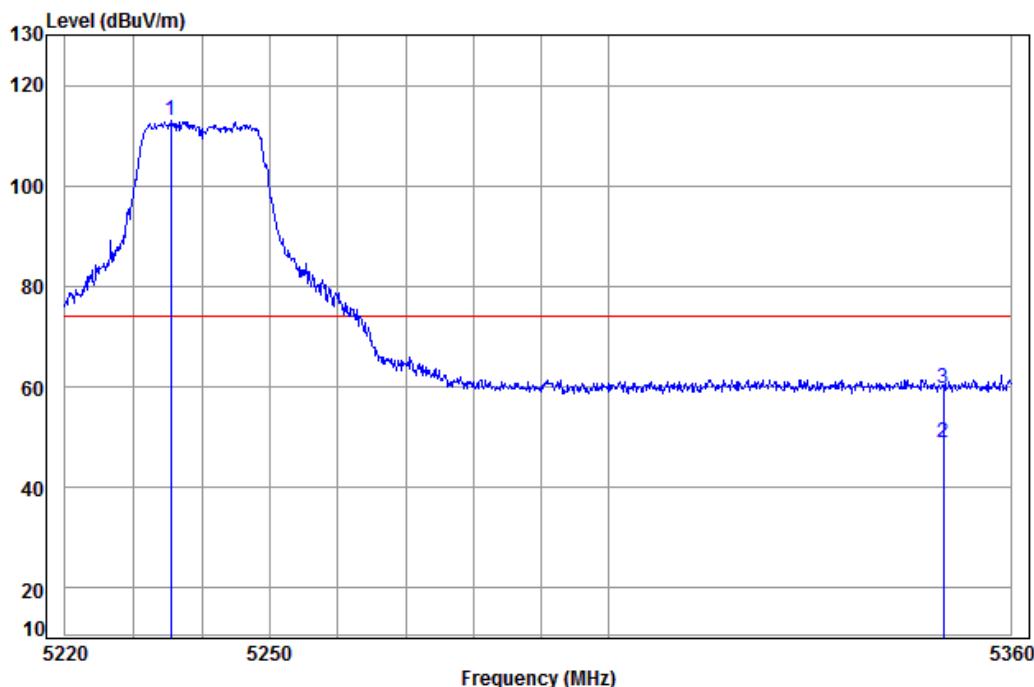
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5245.344	8.13	34.45	38.45	94.99	99.12	74.00	25.12
2 av	5350.000	8.18	34.43	38.43	43.66	47.84	54.00	-6.16 Average
3 pk	5350.000	8.18	34.43	38.43	54.94	59.12	74.00	-14.88 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI2-N20

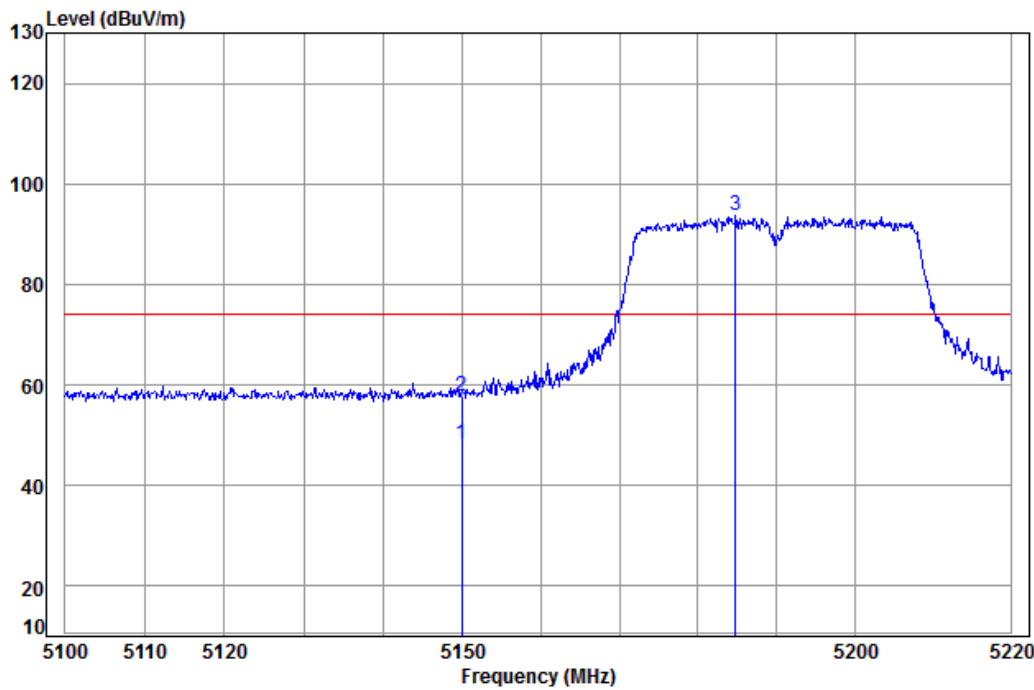
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	dB	
1 pp	5235.497	8.12	34.45	38.45	109.00	113.12	74.00	39.12		
2 av	5350.000	8.18	34.43	38.43	44.59	48.77	54.00	-5.23	Average	
3 pk	5350.000	8.18	34.43	38.43	55.66	59.84	74.00	-14.16	Peak	

**SGS-CSTC Standards Technical Services Ltd.**  
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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
 : 5G WIFI2-N40

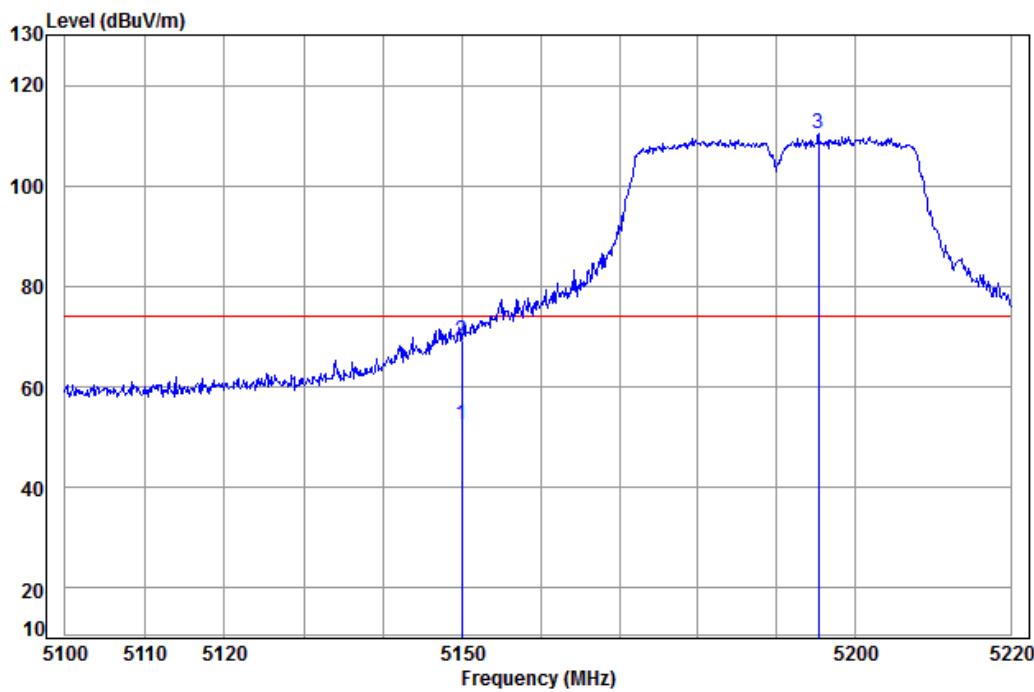
Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Loss	Factor	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av 5150.000	8.08	34.47	38.47	44.29	48.37	54.00	-5.63 Average
2 pk 5150.000	8.08	34.47	38.47	53.70	57.78	74.00	-16.22 Peak
3 pp 5184.792	8.10	34.46	38.46	89.52	93.62	74.00	19.62

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
 : 5G WIFI2-N40

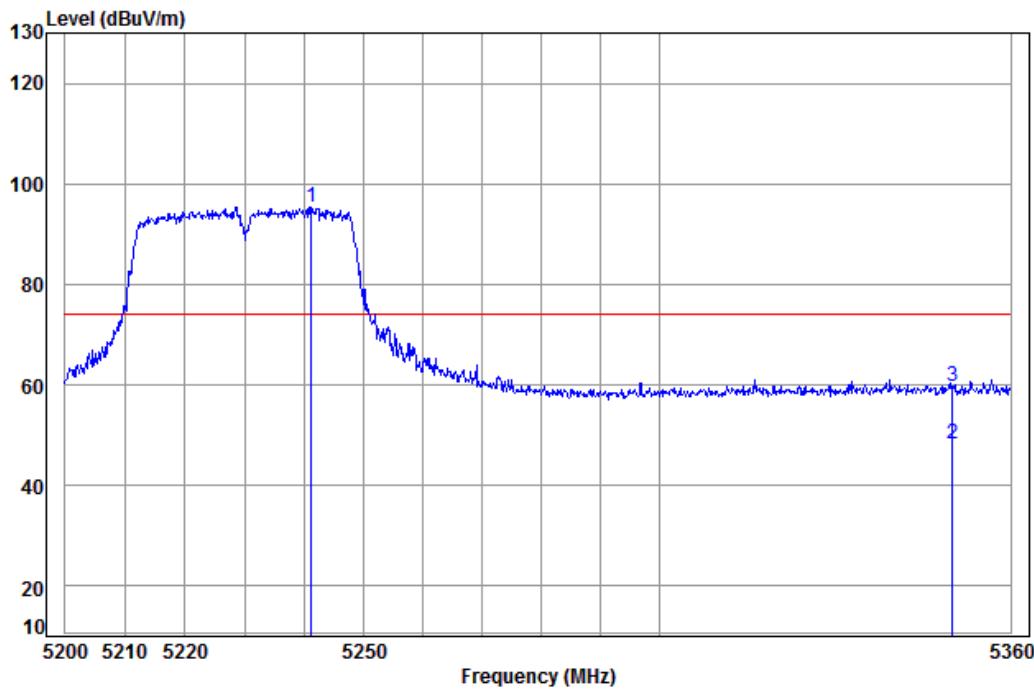
Freq	Cable	Ant	Preamp	Read	Limit	Over	Over
	Loss	Factor	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av 5150.000	8.08	34.47	38.47	48.31	52.39	54.00	-1.61 Average
2 pk 5150.000	8.08	34.47	38.47	65.09	69.17	74.00	-4.83 Peak
3 pp 5195.414	8.10	34.46	38.46	106.29	110.39	74.00	36.39

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI2-N40

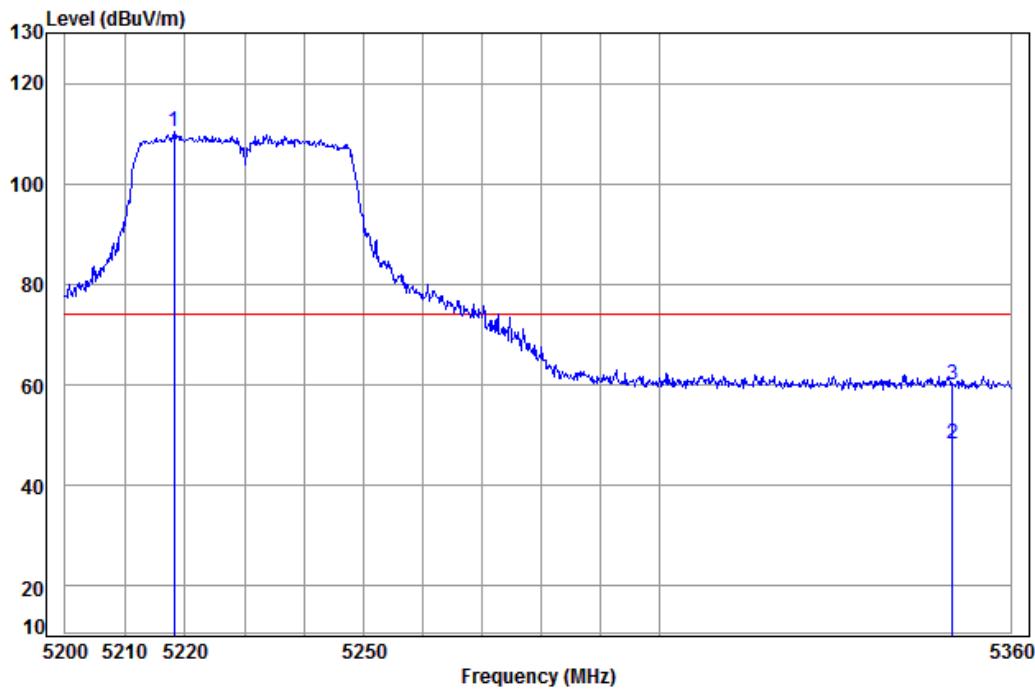
	Cable	Ant	Preamp	Read	Limit	Over		
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5241.135	8.12	34.45	38.45	91.19	95.31	74.00	21.31
2 av	5350.000	8.18	34.43	38.43	44.11	48.29	54.00	-5.71 Average
3 pk	5350.000	8.18	34.43	38.43	55.43	59.61	74.00	-14.39 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI2-N40

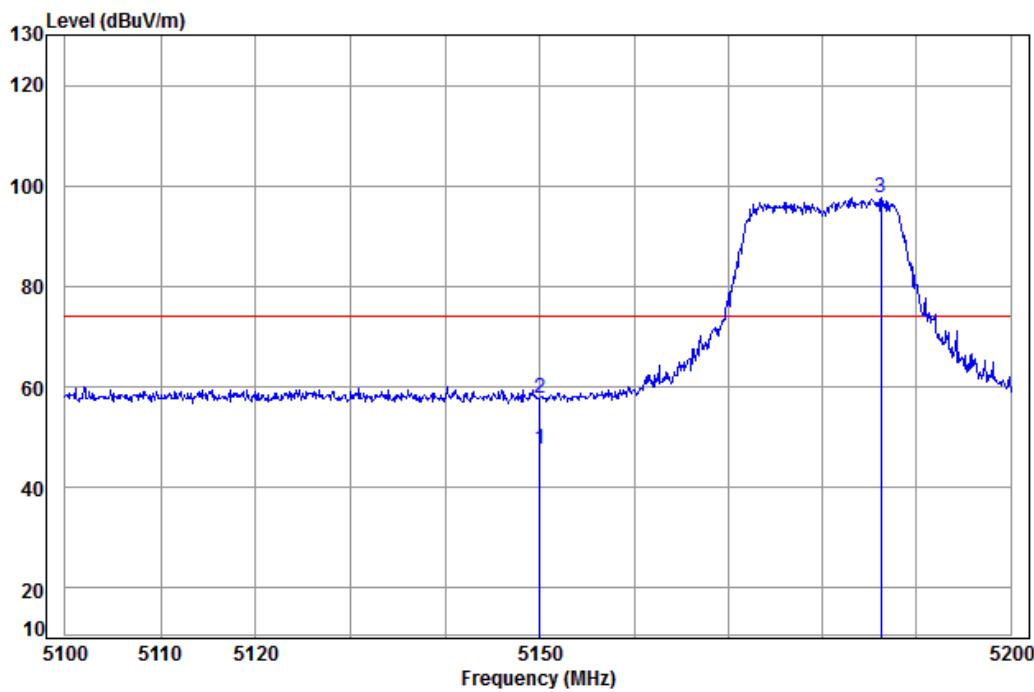
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5218.154	8.11	34.46	38.46	106.23	110.34	74.00	36.34
2 av	5350.000	8.18	34.43	38.43	44.23	48.41	54.00	-5.59 Average
3 pk	5350.000	8.18	34.43	38.43	55.85	60.03	74.00	-13.97 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-AC20

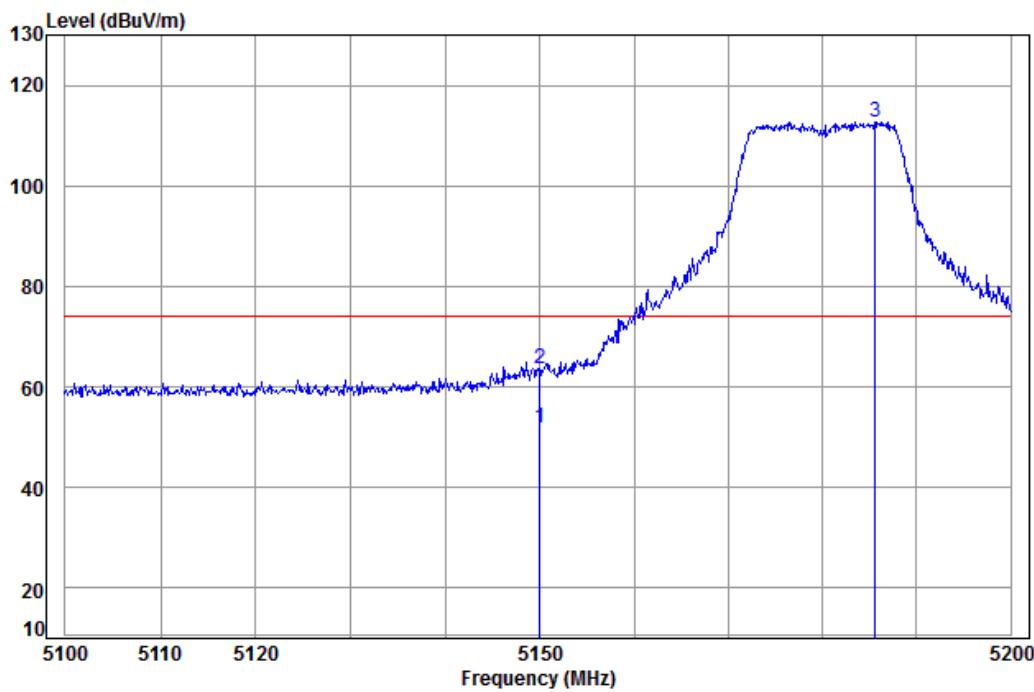
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	43.65	47.73	54.00	-6.27 Average
2 pk	5150.000	8.08	34.47	38.47	53.58	57.66	74.00	-16.34 Peak
3 pp	5186.185	8.10	34.46	38.46	93.50	97.60	74.00	23.60

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5180 Bandedge  
 : 5G WIFI2-AC20

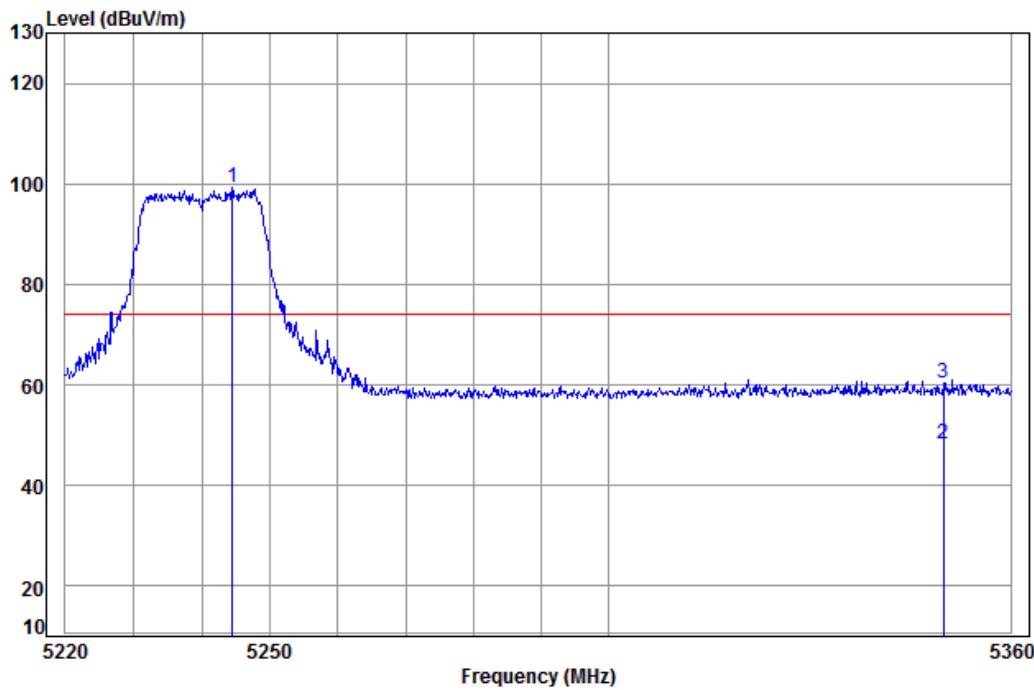
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	47.85	51.93	54.00	-2.07 Average
2 pk	5150.000	8.08	34.47	38.47	59.65	63.73	74.00	-10.27 Peak
3 pp	5185.581	8.10	34.46	38.46	108.67	112.77	74.00	38.77

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI2-AC20

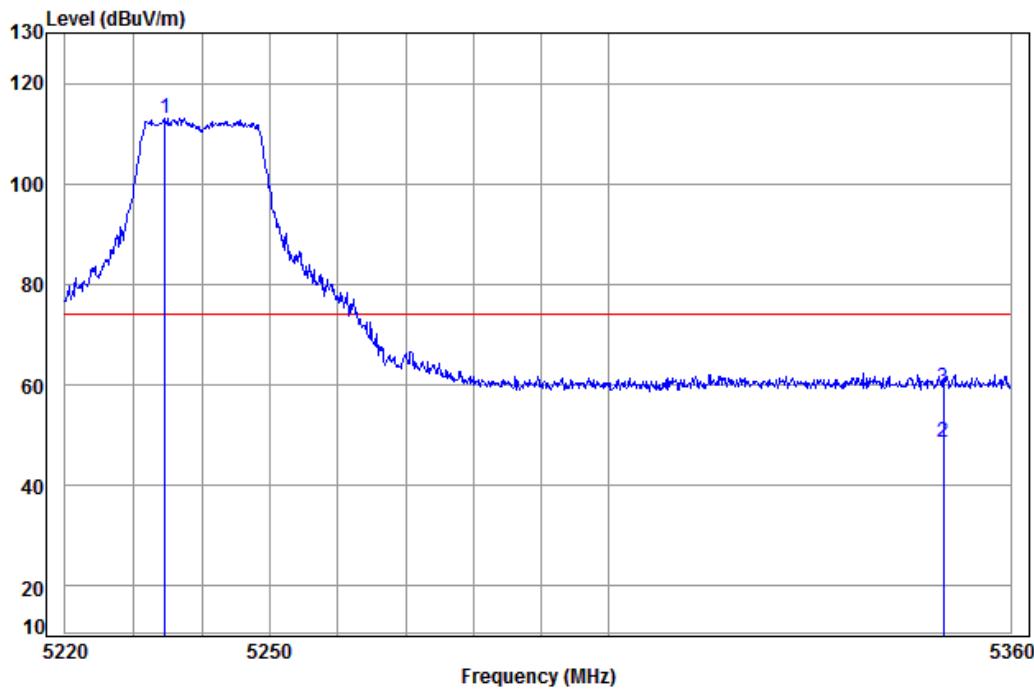
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5244.511	8.13	34.45	38.45	95.10	99.23	74.00	25.23
2 av	5350.000	8.18	34.43	38.43	44.21	48.39	54.00	-5.61 Average
3 pk	5350.000	8.18	34.43	38.43	56.13	60.31	74.00	-13.69 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5240 Bandedge  
 : 5G WIFI2-AC20

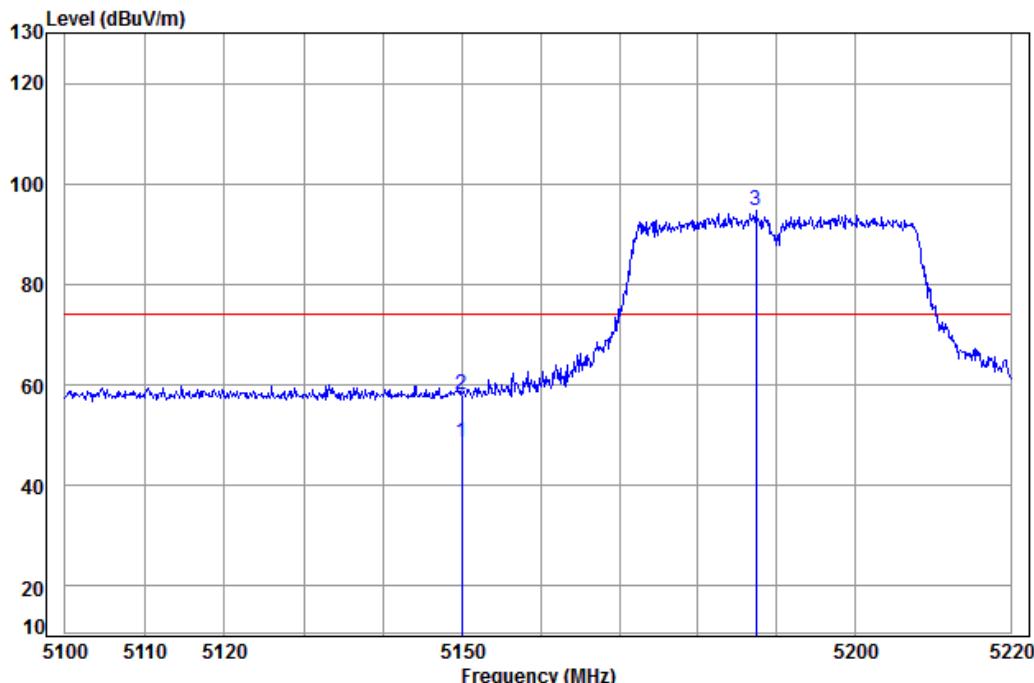
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	
1 pp	5234.665	8.12	34.45	38.45	108.95	113.07	74.00	74.00	39.07	
2 av	5350.000	8.18	34.43	38.43	44.39	48.57	54.00	54.00	-5.43	Average
3 pk	5350.000	8.18	34.43	38.43	55.30	59.48	74.00	74.00	-14.52	Peak

SGS-CSTC Standards Technical Services Ltd.  
Shenzhen Branch



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
: 5G WIFI2-AC40

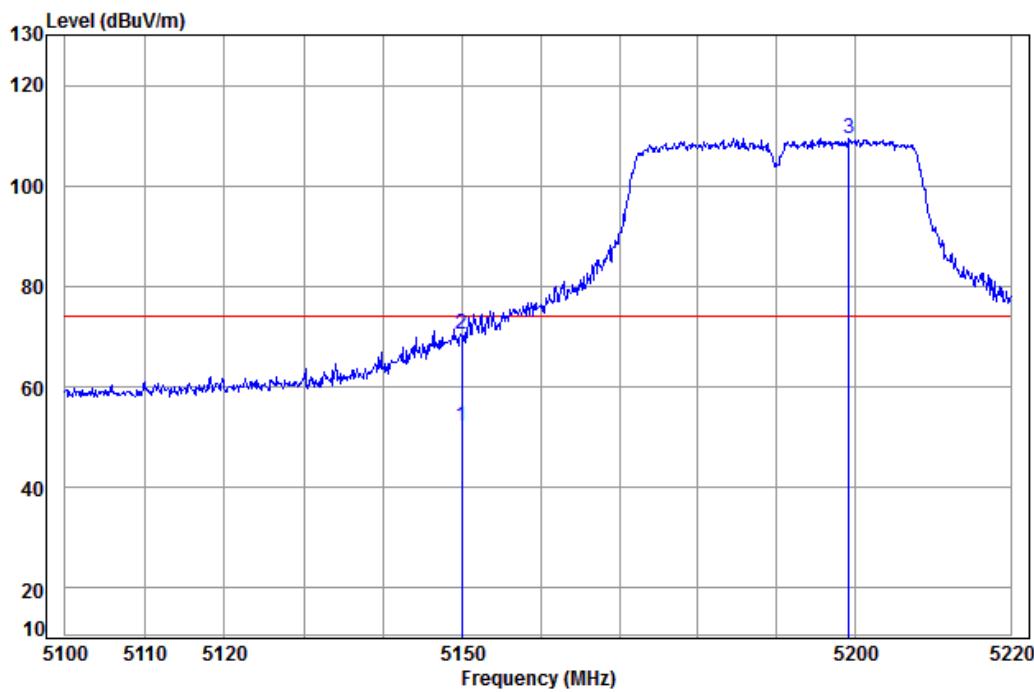
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line dBuV/m	Over Line dBuV/m	Over Limit dB	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 av	5150.000	8.08	34.47	38.47	44.61	48.69	54.00	-5.31	Average
2 pk	5150.000	8.08	34.47	38.47	54.05	58.13	74.00	-15.87	Peak
3 pp	5187.445	8.10	34.46	38.46	90.57	94.67	74.00	20.67	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5190 Bandedge  
 : 5G WIFI2-AC40

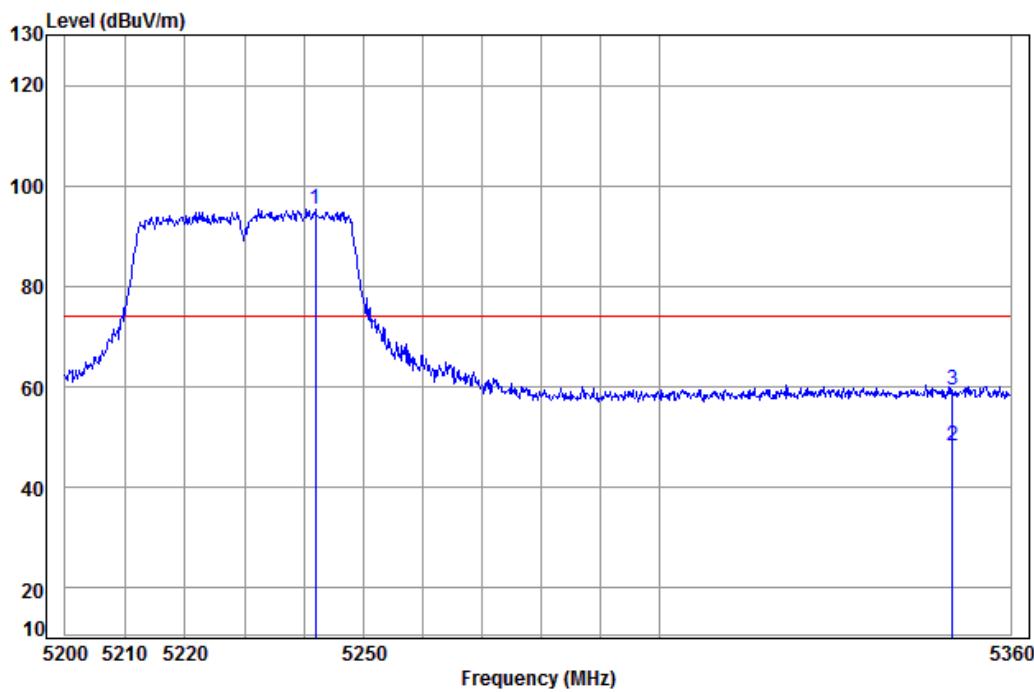
Freq	Cable	Ant	Preamp	Read	Limit	Over	Over
	Loss	Factor	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av 5150.000	8.08	34.47	38.47	48.21	52.29	54.00	-1.71 Average
2 pk 5150.000	8.08	34.47	38.47	66.28	70.36	74.00	-3.64 Peak
3 pp 5199.282	8.10	34.46	38.46	105.39	109.49	74.00	35.49

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5230 Bandedge  
 : 5G WIFI2-AC40

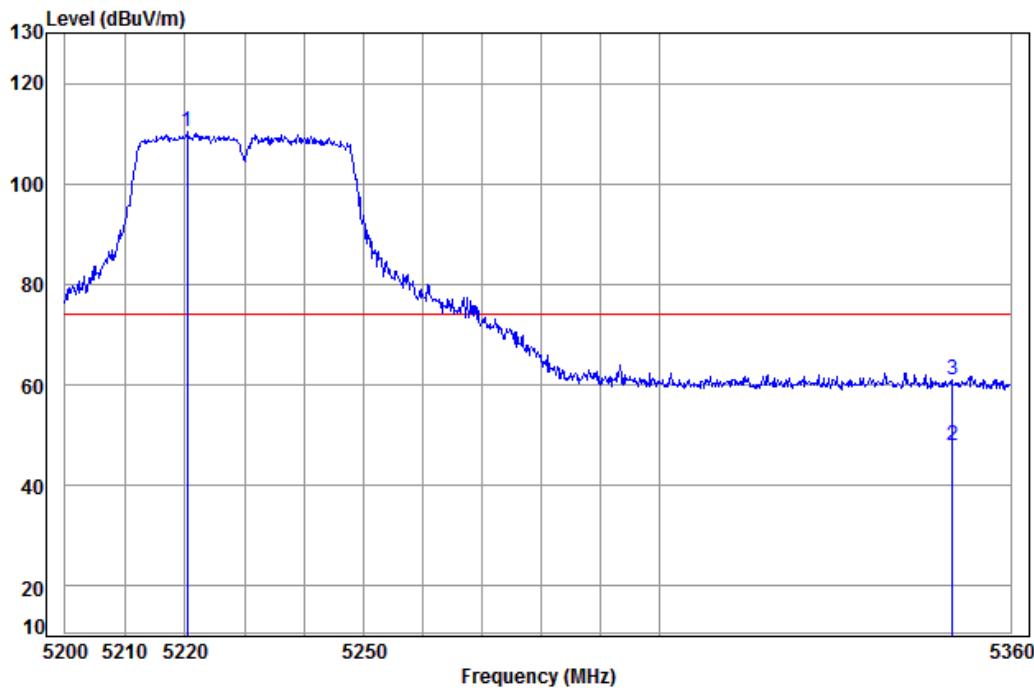
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5241.929	8.12	34.45	38.45	91.27	95.39	74.00	21.39
2 av	5350.000	8.18	34.43	38.43	43.95	48.13	54.00	-5.87 Average
3 pk	5350.000	8.18	34.43	38.43	55.17	59.35	74.00	-14.65 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL  
 Job No: : 0142IT  
 Mode: : 5230 Bandedge  
 : 5G WIFI2-AC40

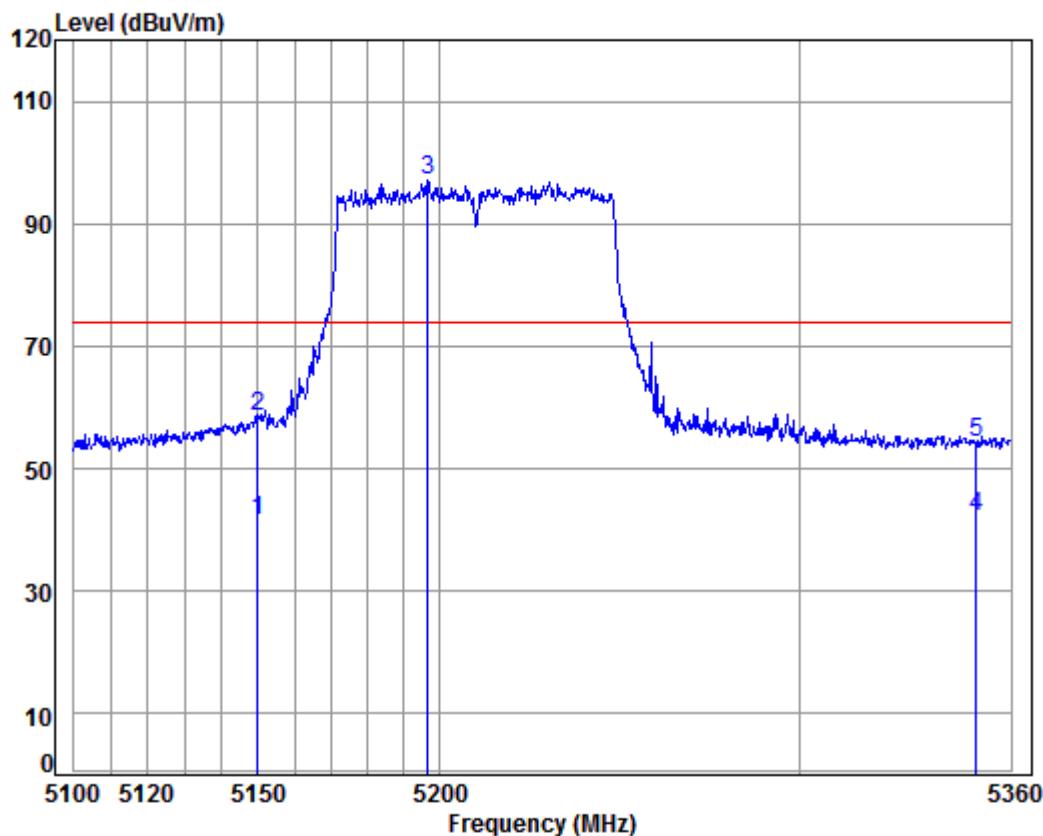
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5220.369	8.11	34.45	38.46	106.41	110.51	74.00	36.51
2 av	5350.000	8.18	34.43	38.43	43.67	47.85	54.00	-6.15 Average
3 pk	5350.000	8.18	34.43	38.43	56.71	60.89	74.00	-13.11 Peak

SGS-CSTC Standards Technical Services Ltd.  
Shenzhen Branch



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5210 Bandedge  
: 5G WIFI1-AC80

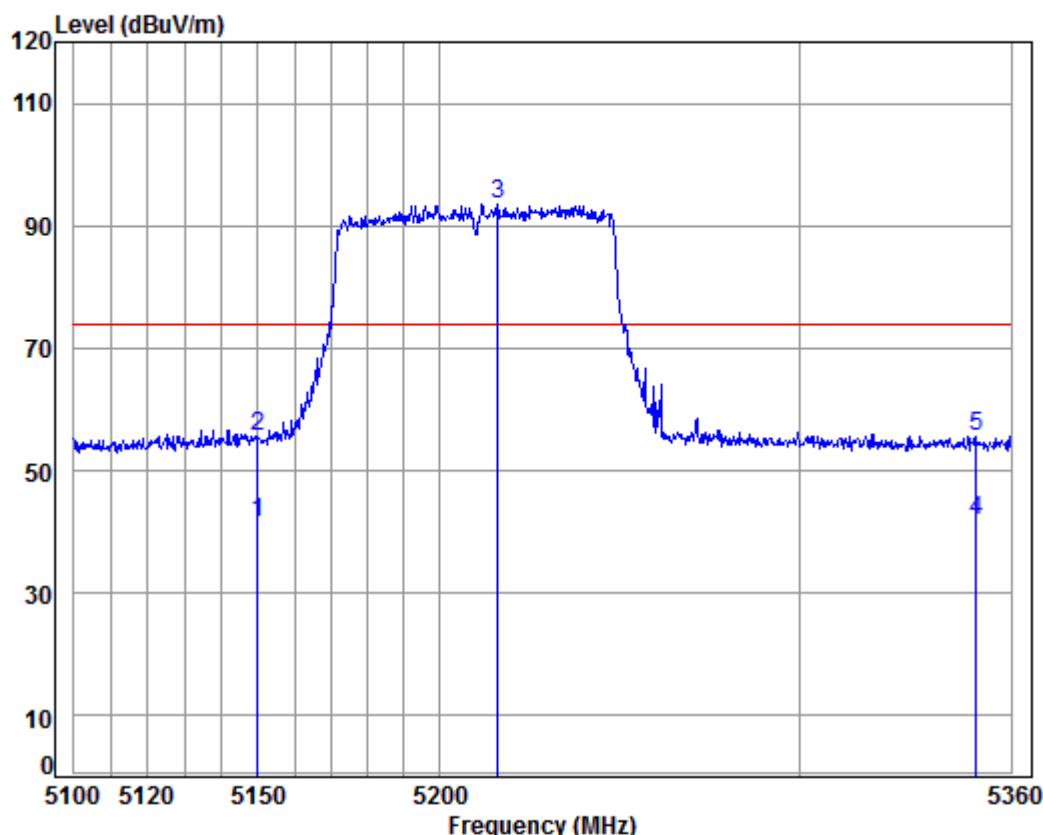
		Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5150.000	8.08	34.47	38.47	37.53	41.61	54.00	-12.39	Average
2	pk 5150.000	8.08	34.47	38.47	54.39	58.47	74.00	-15.53	Peak
3	pp 5196.763	8.10	34.46	38.46	93.00	97.10	74.00	23.10	
4	av 5350.000	8.18	34.43	38.43	37.85	42.03	54.00	-11.97	Average
5	5350.000	8.18	34.43	38.43	50.11	54.29	74.00	-19.71	Peak

SGS-CSTC Standards Technical Services Ltd.  
Shenzhen Branch



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5210 Bandedge  
: 5G WIFI2-AC80

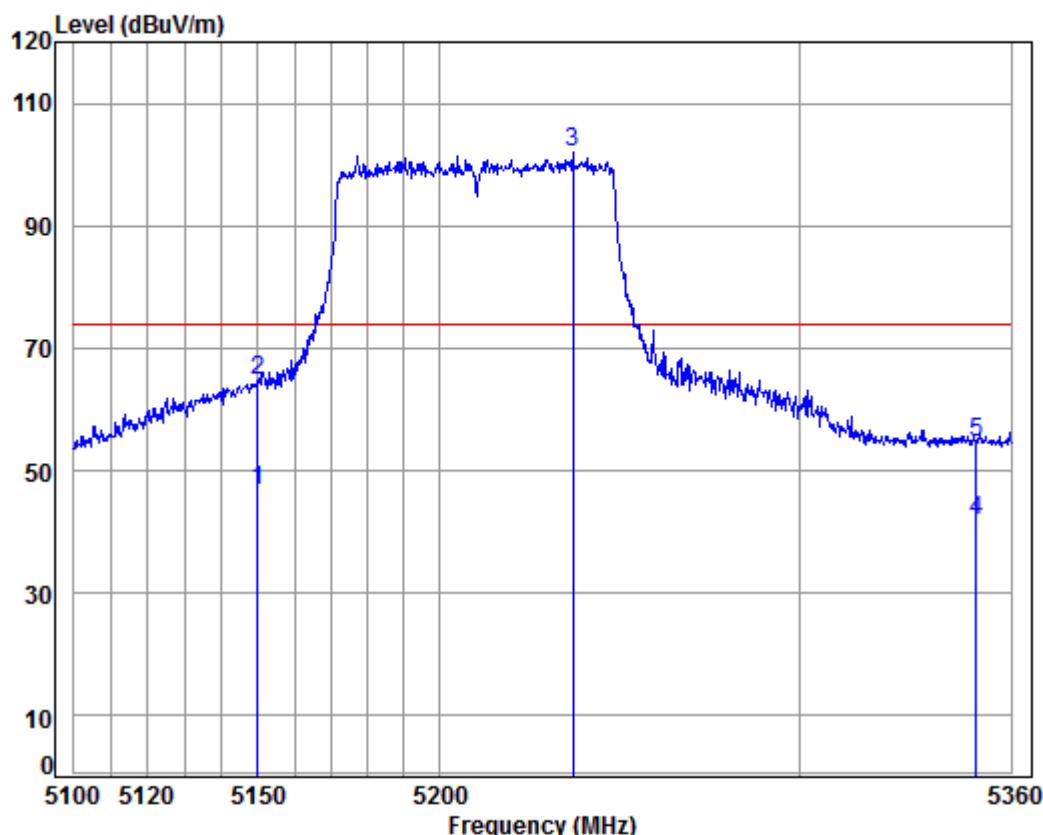
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5150.000	8.08	34.47	38.47	37.59	41.67	54.00	-12.33 Average
2	5150.000	8.08	34.47	38.47	51.45	55.53	74.00	-18.47 Peak
3 pp	5216.180	8.11	34.46	38.46	89.45	93.56	74.00	19.56
4 av	5350.000	8.18	34.43	38.43	37.71	41.89	54.00	-12.11 Average
5 pk	5350.000	8.18	34.43	38.43	51.53	55.71	74.00	-18.29 Peak

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Shenzhen Branch



Report No.: HKES170100014203  
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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5210 Bandedge

: 5G WIFI1-AC80

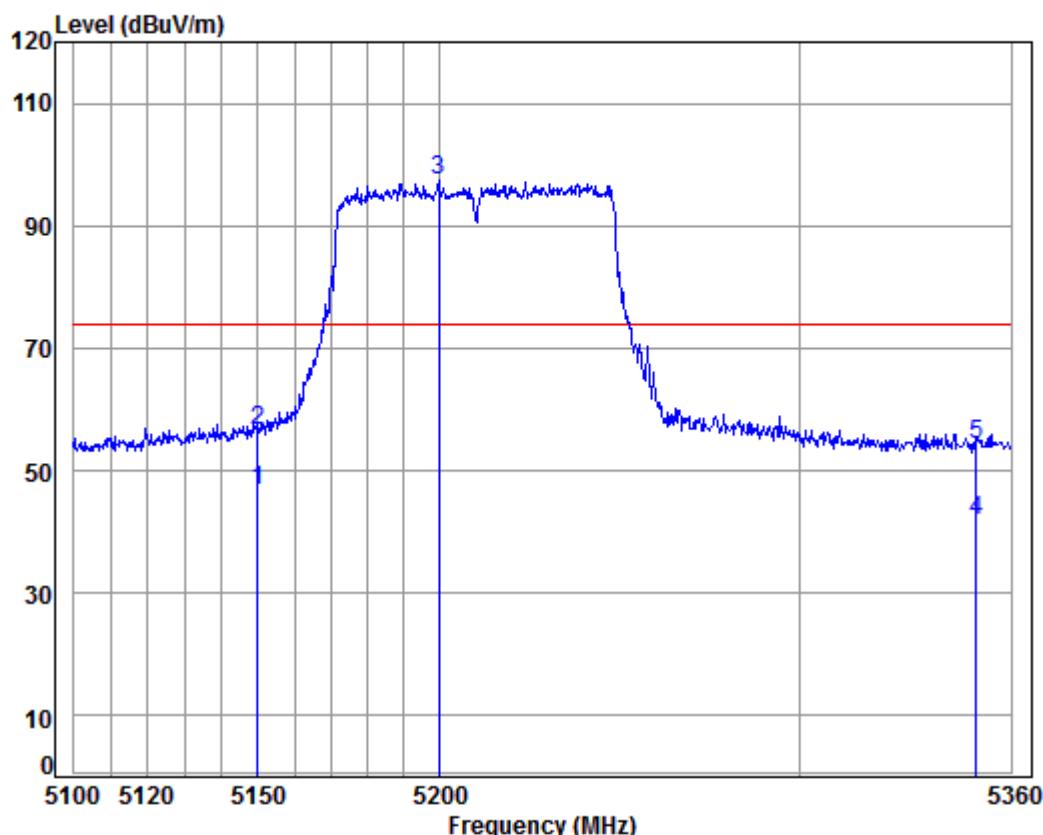
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	42.67	46.75	54.00	-7.25 Average
2 pk	5150.000	8.08	34.47	38.47	60.77	64.85	74.00	-9.15 Peak
3 pp	5236.970	8.12	34.45	38.45	97.83	101.95	74.00	27.95
4	5350.000	8.18	34.43	38.43	37.52	41.70	54.00	-12.30 Average
5	5350.000	8.18	34.43	38.43	50.38	54.56	74.00	-19.44 Peak

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:Low



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5210 Bandedge  
: 5G WIFI2-AC80

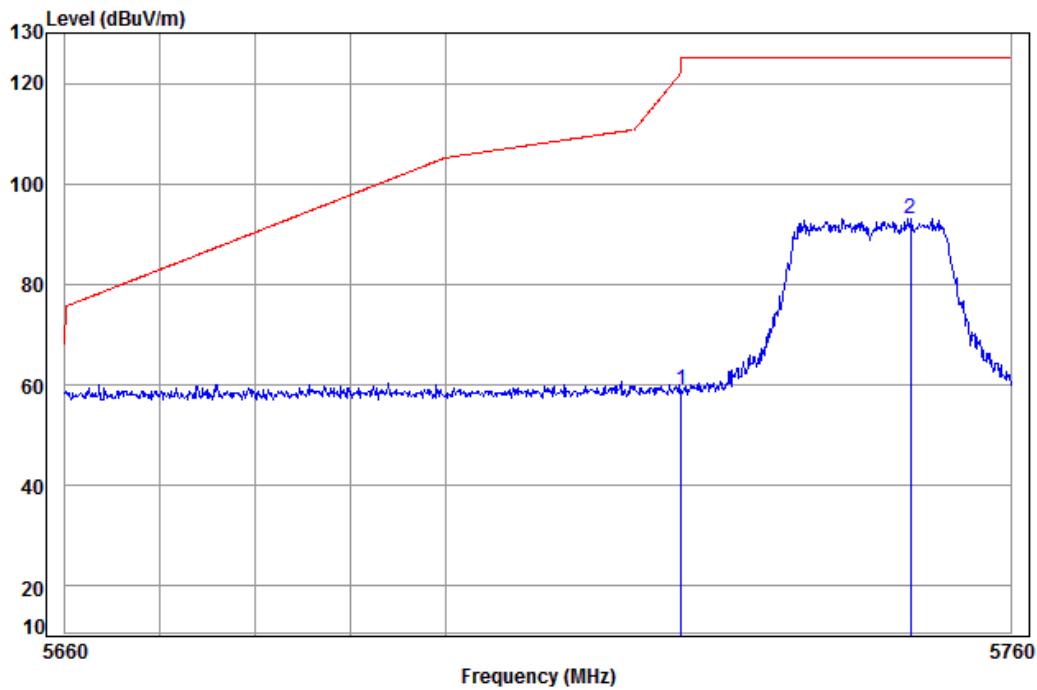
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	42.59	46.67	54.00	-7.33 Average
2 pk	5150.000	8.08	34.47	38.47	52.53	56.61	74.00	-17.39 Peak
3 pp	5199.606	8.10	34.46	38.46	93.35	97.45	74.00	23.45
4	5350.000	8.18	34.43	38.43	37.61	41.79	54.00	-12.21 Average
5	5350.000	8.18	34.43	38.43	50.25	54.43	74.00	-19.57 Peak

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-A20

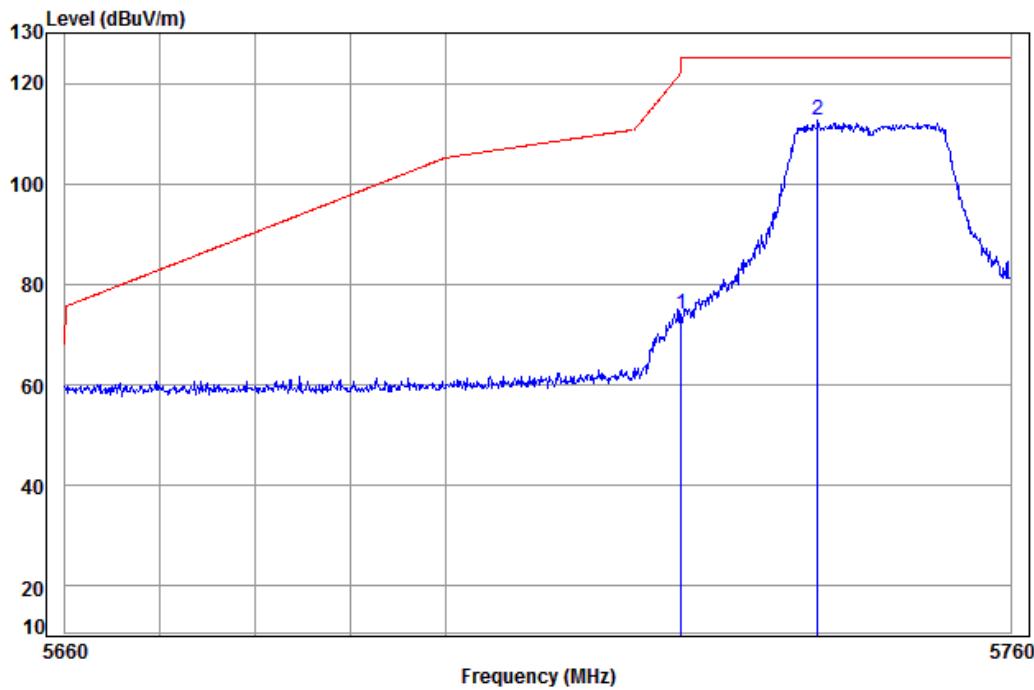
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	54.28	58.95	122.20	-63.25	
2 pp	5749.317	8.50	34.55	38.35	88.48	93.18	125.20	-32.02	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



Report No.: HKES170100014203  
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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-A20

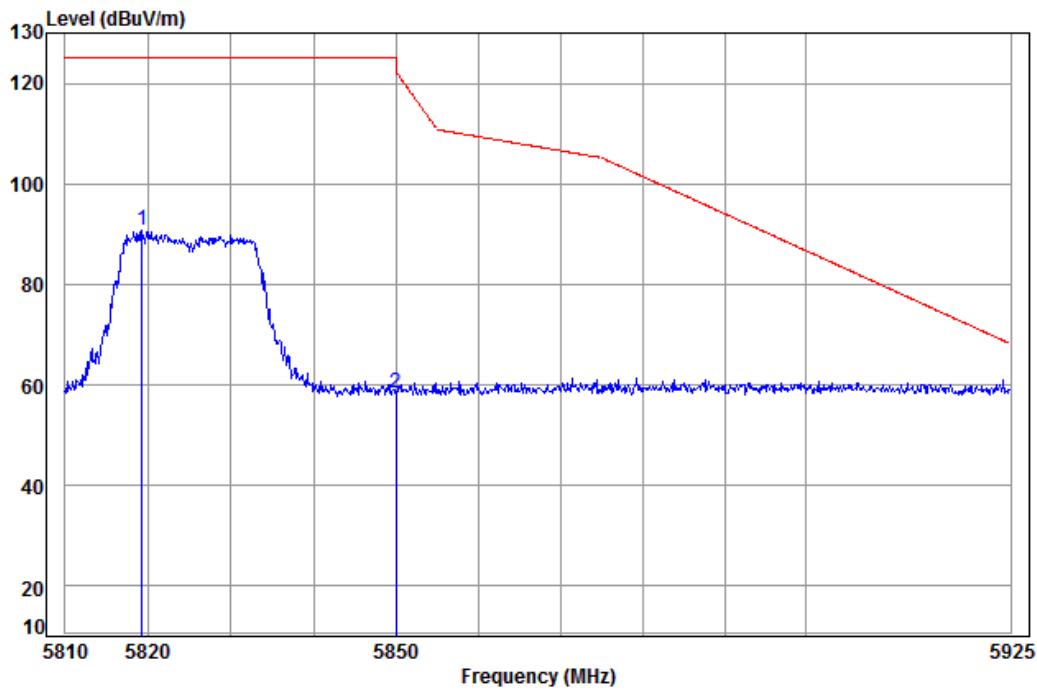
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	69.57	74.24	122.20	-47.96	
2 pp	5739.458	8.49	34.55	38.35	108.10	112.79	125.20	-12.41	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



Report No.: HKES170100014203  
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Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-A20

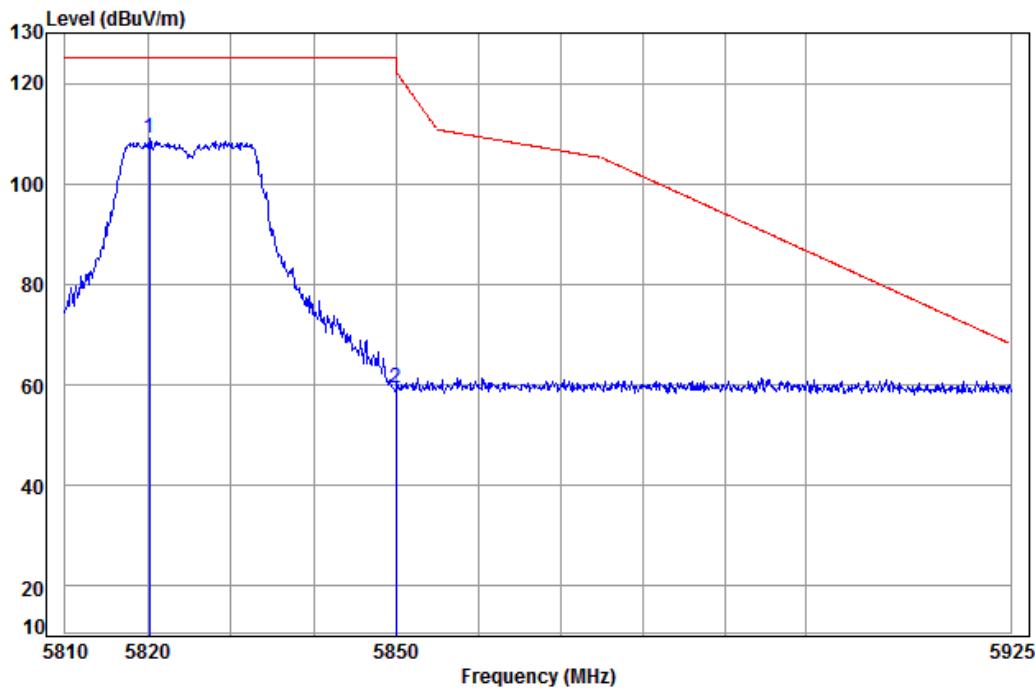
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5819.231	8.57	34.59	38.34	85.85	90.67	125.20	-34.53
2	5850.000	8.60	34.61	38.33	53.60	58.48	122.20	-63.72

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-A20

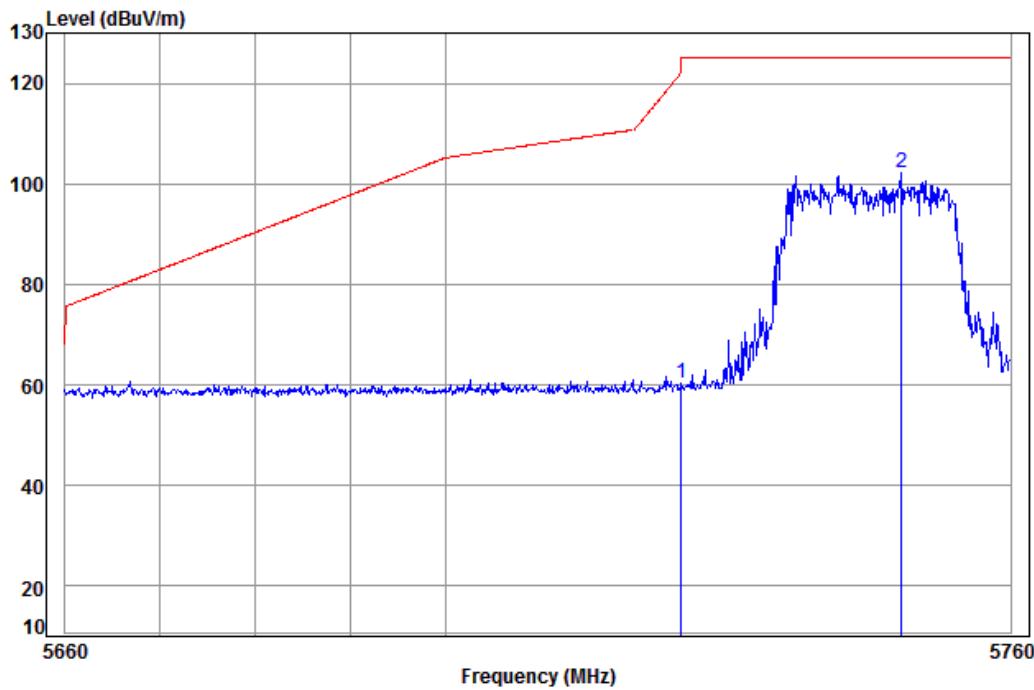
	Cable Freq	Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5820.144	8.58	34.60	38.34	104.28	109.12	125.20	-16.08	
2	5850.000	8.60	34.61	38.33	54.53	59.41	122.20	-62.79	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-N20

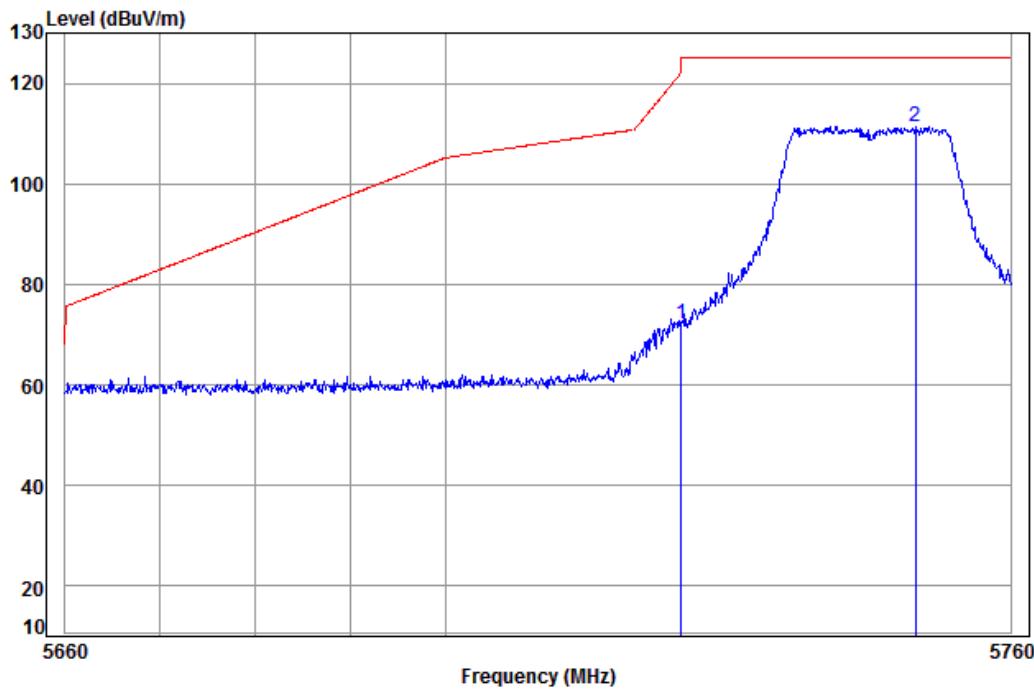
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	55.67	60.34	122.20	-61.86	
2 pp	5748.411	8.50	34.55	38.35	97.56	102.26	125.20	-22.94	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-N20

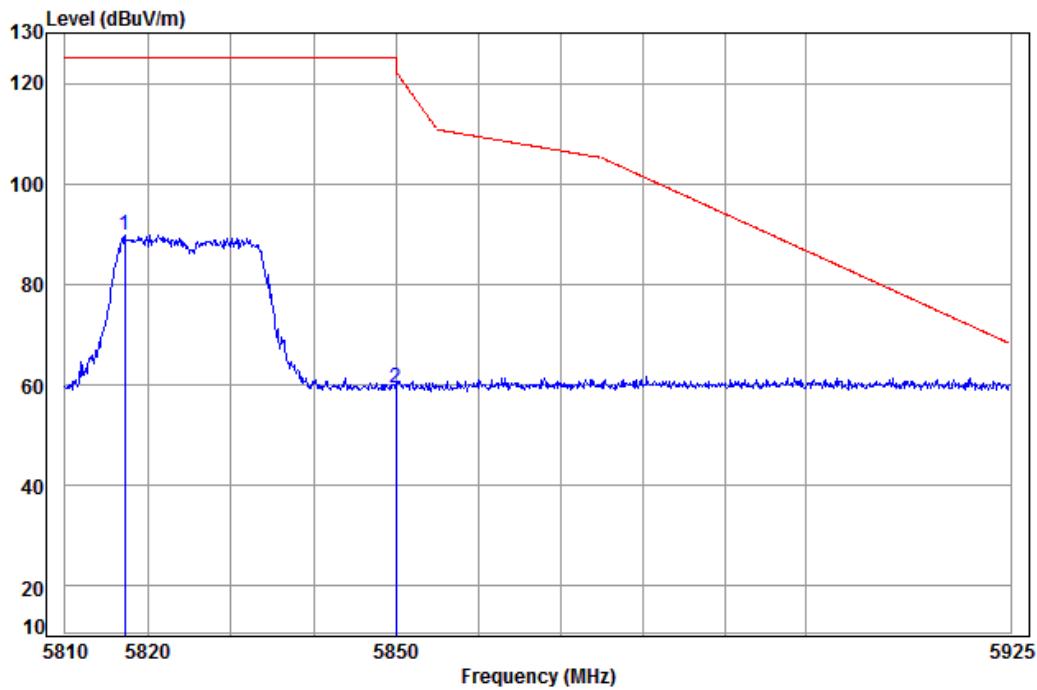
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	67.44	72.11	122.20	-50.09	
2 pp	5749.921	8.51	34.55	38.35	106.69	111.40	125.20	-13.80	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



Report No.: HKES170100014203  
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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-N20

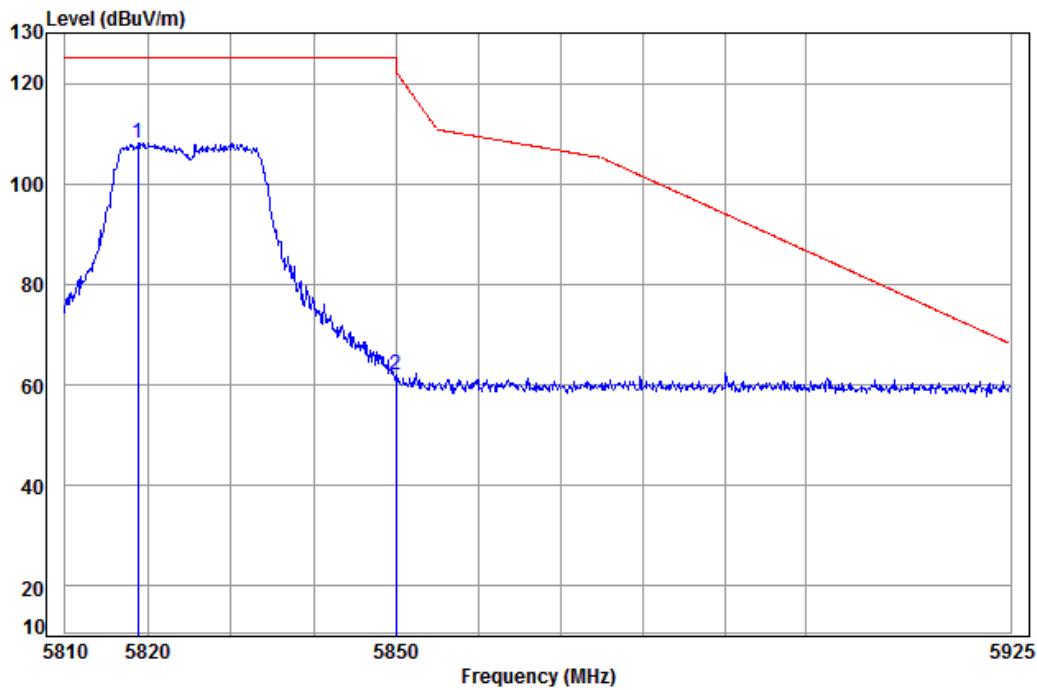
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5817.179	8.57	34.59	38.34	85.10	89.92	125.20	-35.28
2	5850.000	8.60	34.61	38.33	54.65	59.53	122.20	-62.67

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-N20

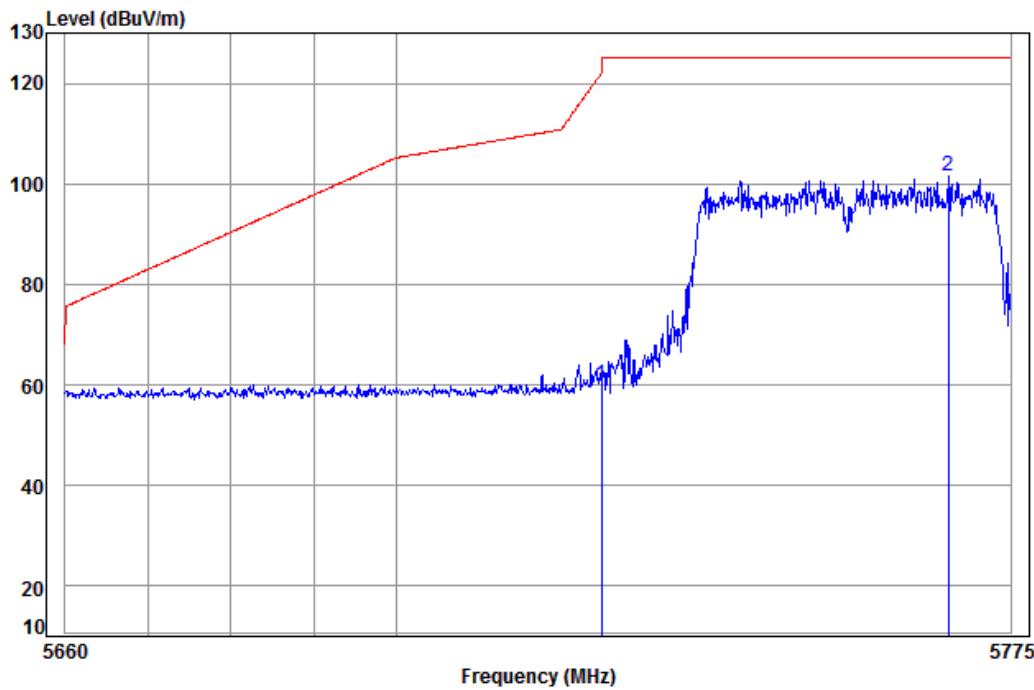
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5818.775	8.57	34.59	38.34	103.42	108.24	125.20	-16.96	
2	5850.000	8.60	34.61	38.33	57.05	61.93	122.20	-60.27	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI2-N40

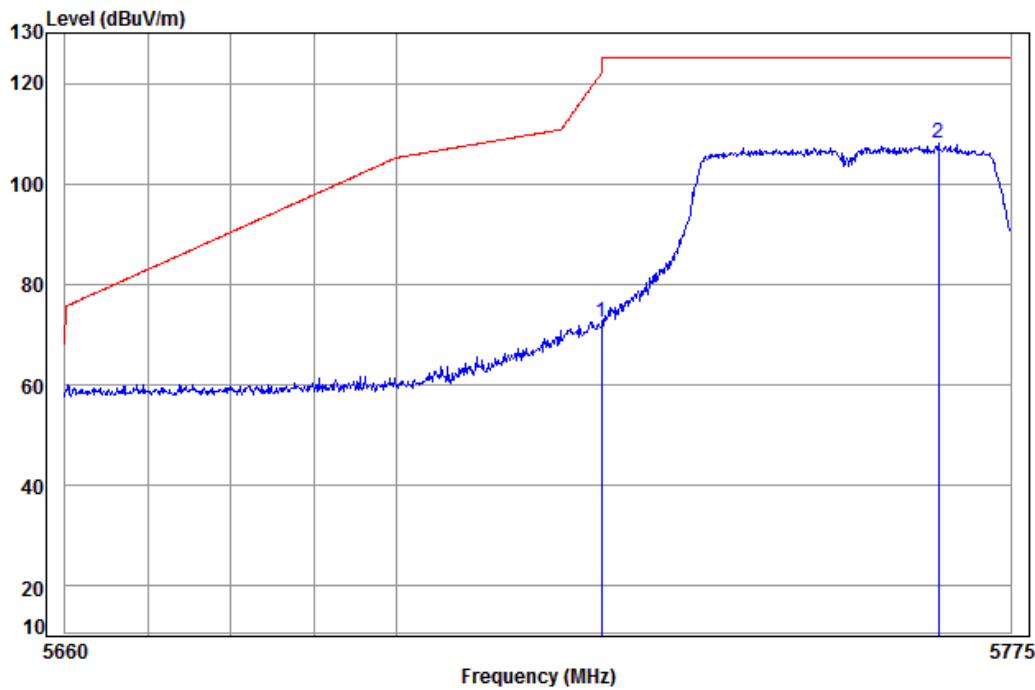
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	55.46	60.13	122.20	-62.07	
2 pp	5767.338	8.52	34.56	38.35	96.81	101.54	125.20	-23.66	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI2-N40

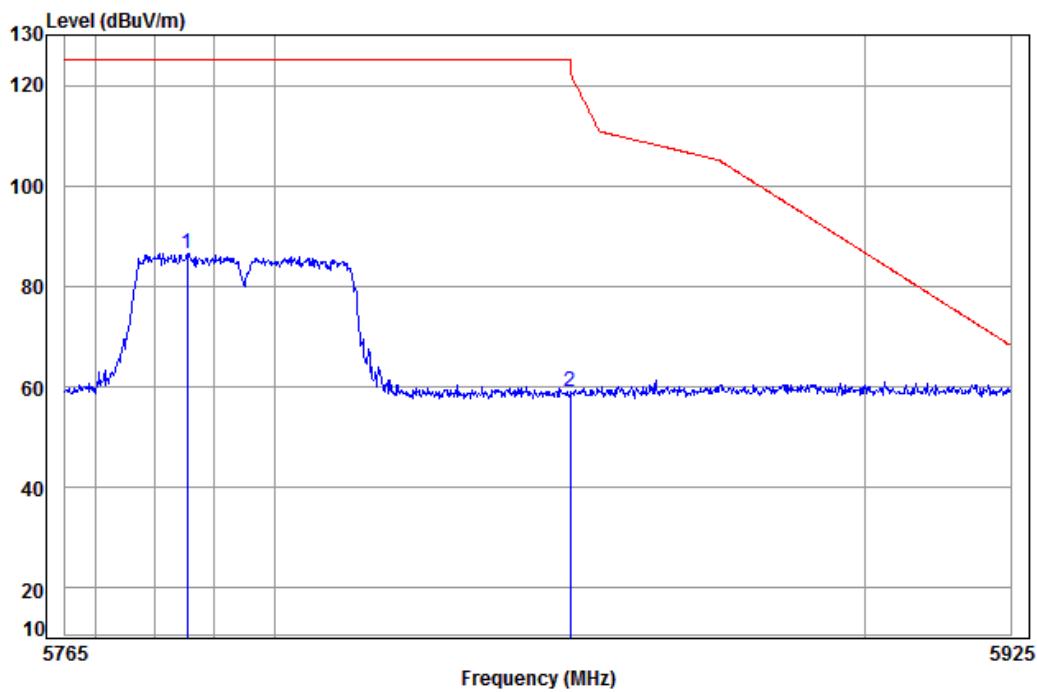
	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
Freq	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5725.000	8.48	34.54	38.35	67.81	72.48	122.20	-49.72
2 pp	5766.179	8.52	34.56	38.35	103.22	107.95	125.20	-17.25

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI2-N40

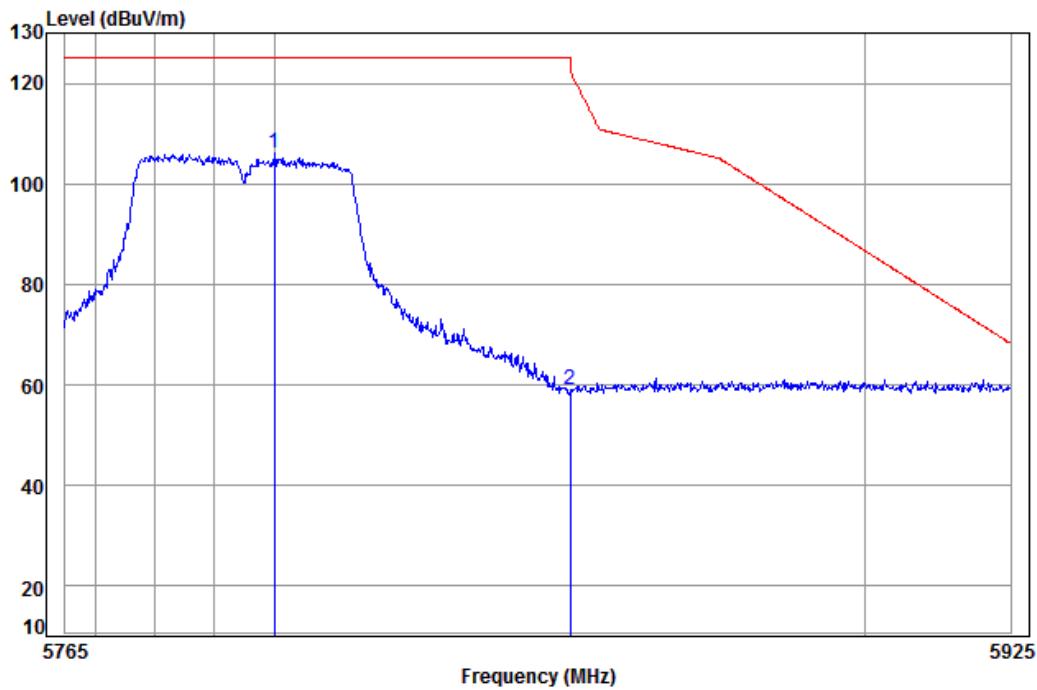
	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
Freq	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5785.395	8.54	34.57	38.34	81.90	86.67	125.20	-38.53
2	5850.000	8.60	34.61	38.33	54.22	59.10	122.20	-63.10

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI2-N40

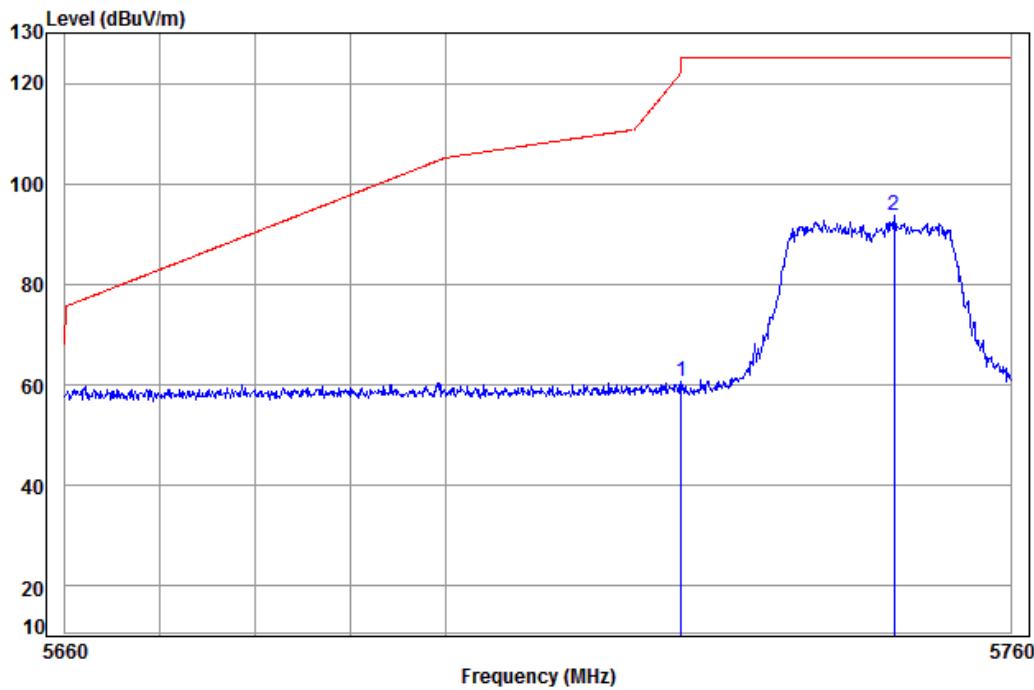
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5799.984	8.56	34.58	38.34	101.20	106.00	125.20	-19.20
2	5850.000	8.60	34.61	38.33	54.22	59.10	122.20	-63.10

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-AC20

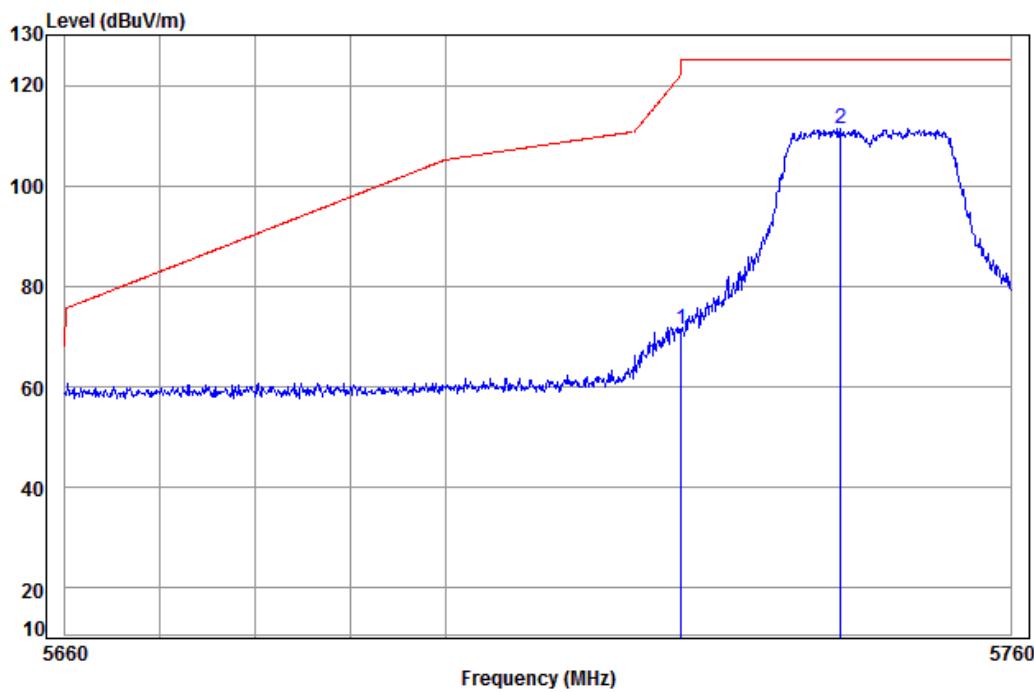
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	56.00	60.67	122.20	-61.53	
2 pp	5747.605	8.50	34.55	38.35	89.04	93.74	125.20	-31.46	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5745 Bandedge  
 : 5G WIFI2-AC20

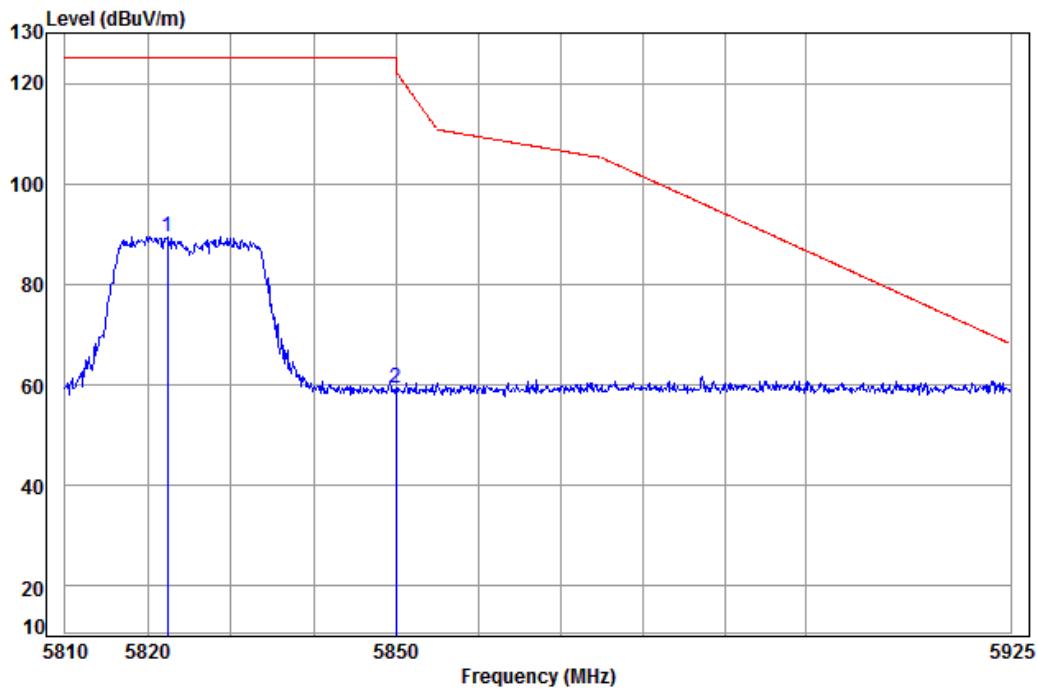
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	66.89	71.56	122.20	-50.64	
2 pp	5741.871	8.50	34.55	38.35	106.77	111.47	125.20	-13.73	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-AC20

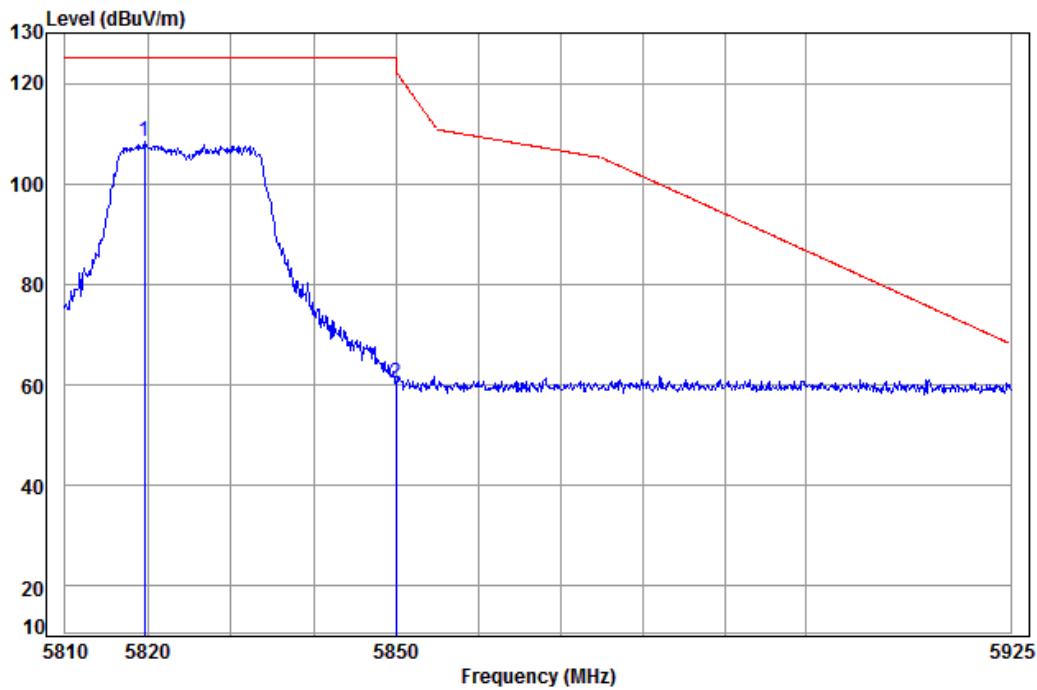
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5822.312	8.58	34.60	38.34	84.77	89.61	125.20	-35.59
2	5850.000	8.60	34.61	38.33	54.39	59.27	122.20	-62.93

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5825 Bandedge  
 : 5G WIFI2-AC20

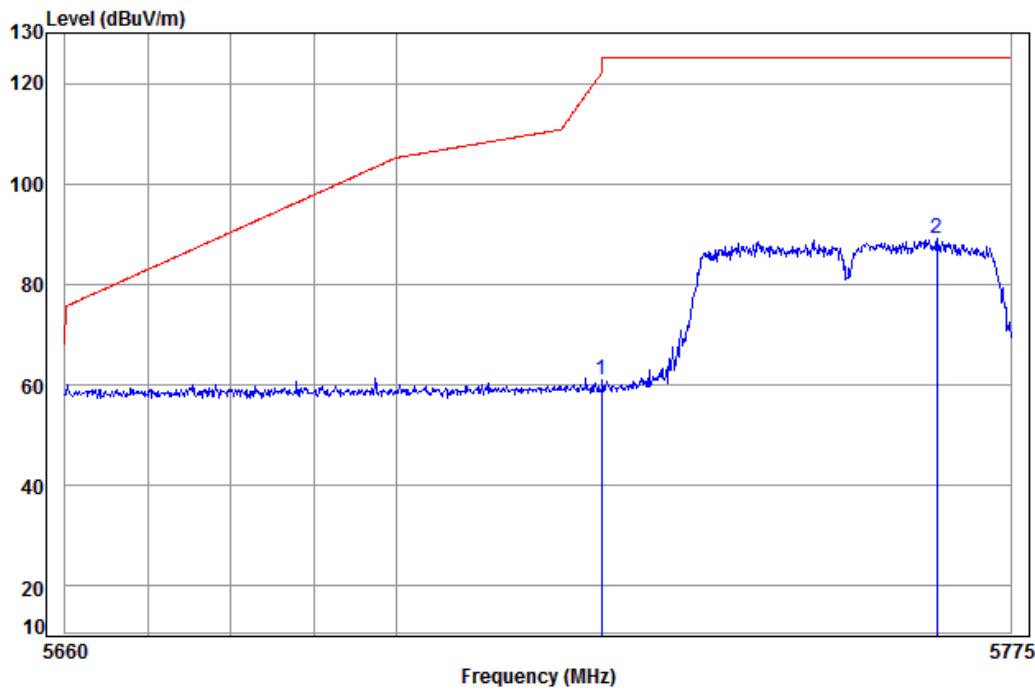
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m		dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5819.574	8.57	34.59	38.34	103.50	108.32	125.20	-16.88	
2	5850.000	8.60	34.61	38.33	55.62	60.50	122.20	-61.70	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



Report No.: HKES170100014203  
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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI2-AC40

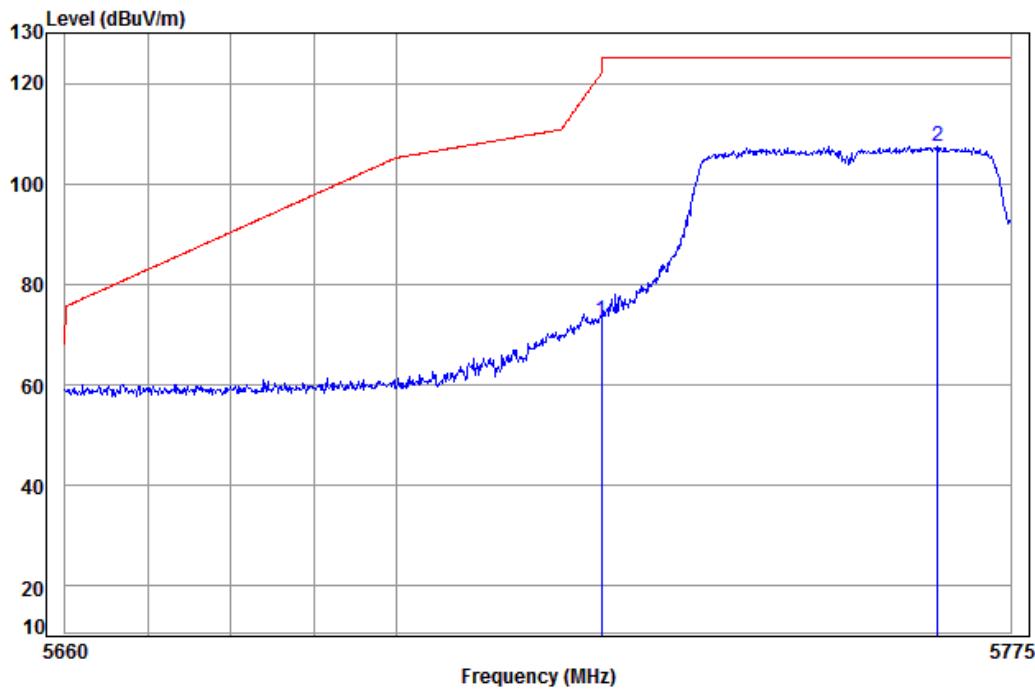
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	56.25	60.92	122.20	-61.28	
2 pp	5765.947	8.52	34.56	38.35	84.42	89.15	125.20	-36.05	

**SGS-CSTC Standards Technical Services Ltd.**  
**Shenzhen Branch**



Report No.: HKES170100014203  
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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5755 Bandedge  
 : 5G WIFI2-AC40

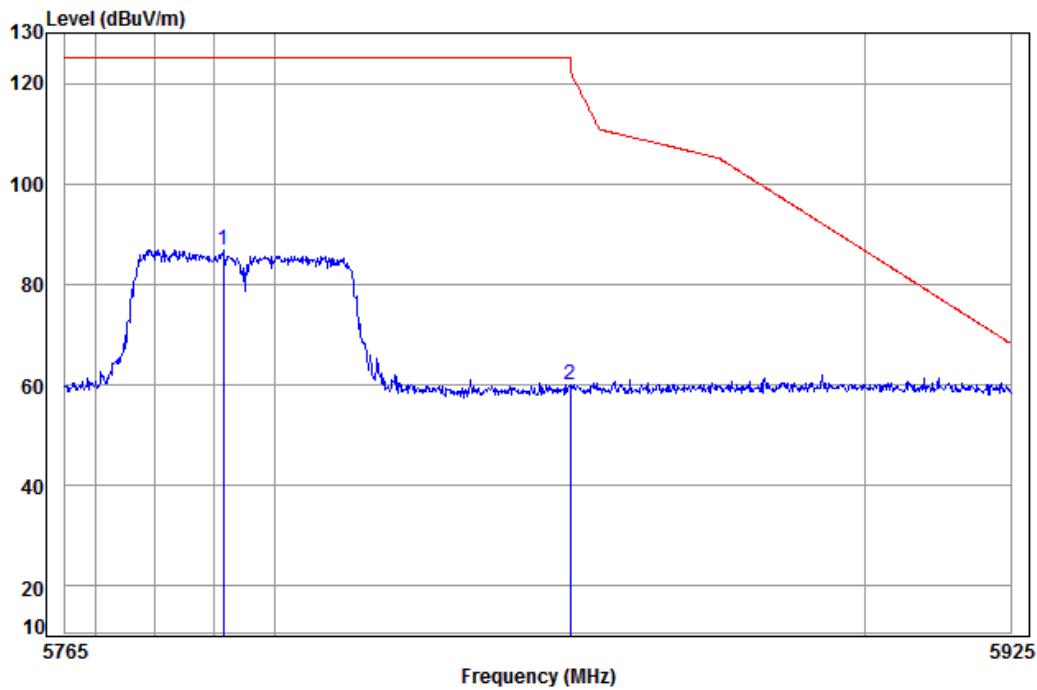
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	68.13	72.80	122.20	-49.40	
2 pp	5766.063	8.52	34.56	38.35	102.76	107.49	125.20	-17.71	

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI2-AC40

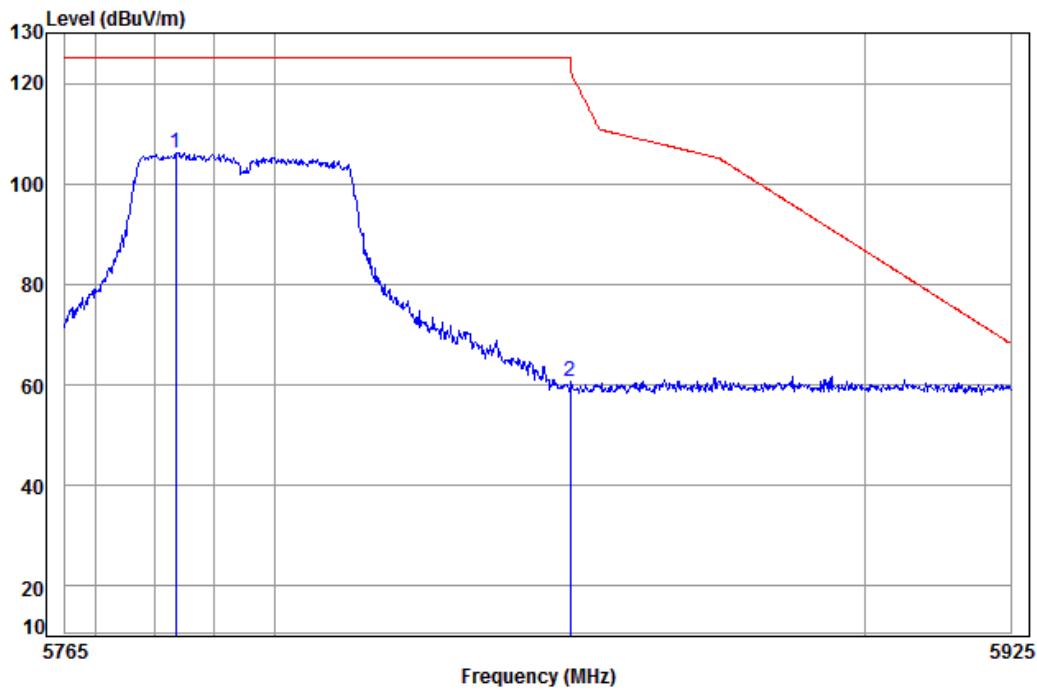
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Level	Over Line Limit	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5791.417	8.55	34.58	38.34	82.12	86.91	125.20	-38.29
2	5850.000	8.60	34.61	38.33	55.18	60.06	122.20	-62.14

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0142IT

Mode: : 5795 Bandedge  
 : 5G WIFI2-AC40

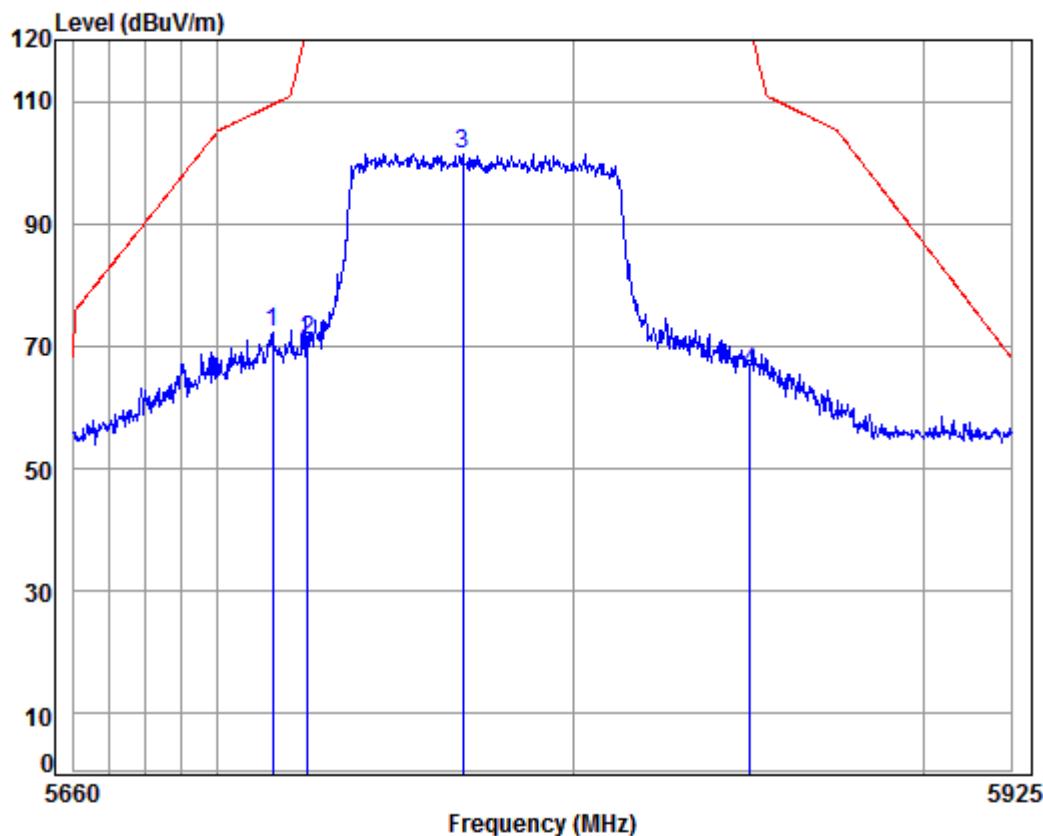
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5783.495	8.54	34.57	38.34	101.43	106.20	125.20	-19.00
2	5850.000	8.60	34.61	38.33	55.64	60.52	122.20	-61.68

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI1-AC80

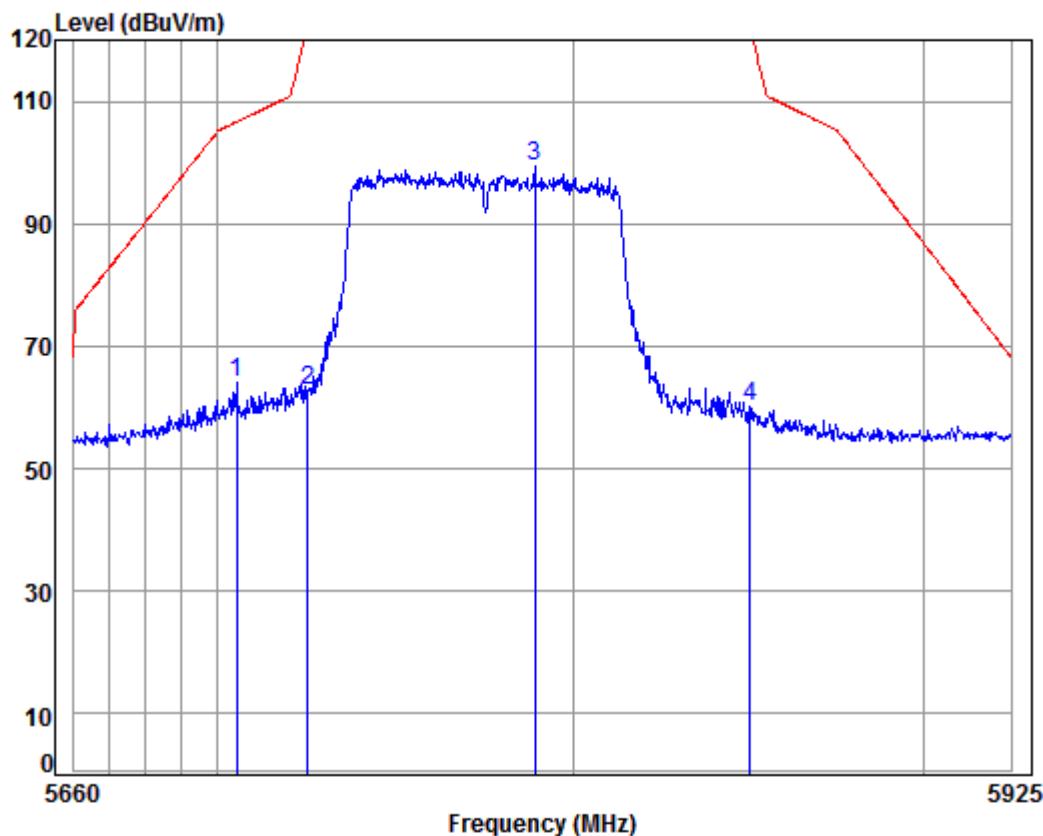
	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5715.172	8.47	34.53	38.36	67.52	72.16	109.45	-37.29
2	5725.000	8.48	34.54	38.35	66.31	70.98	125.20	-54.22
3 pp	5768.505	8.52	34.56	38.35	96.79	101.52	125.20	-23.68
4	5850.000	8.60	34.61	38.33	60.74	65.62	121.95	-56.33

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Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Horizontal

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI2-AC80

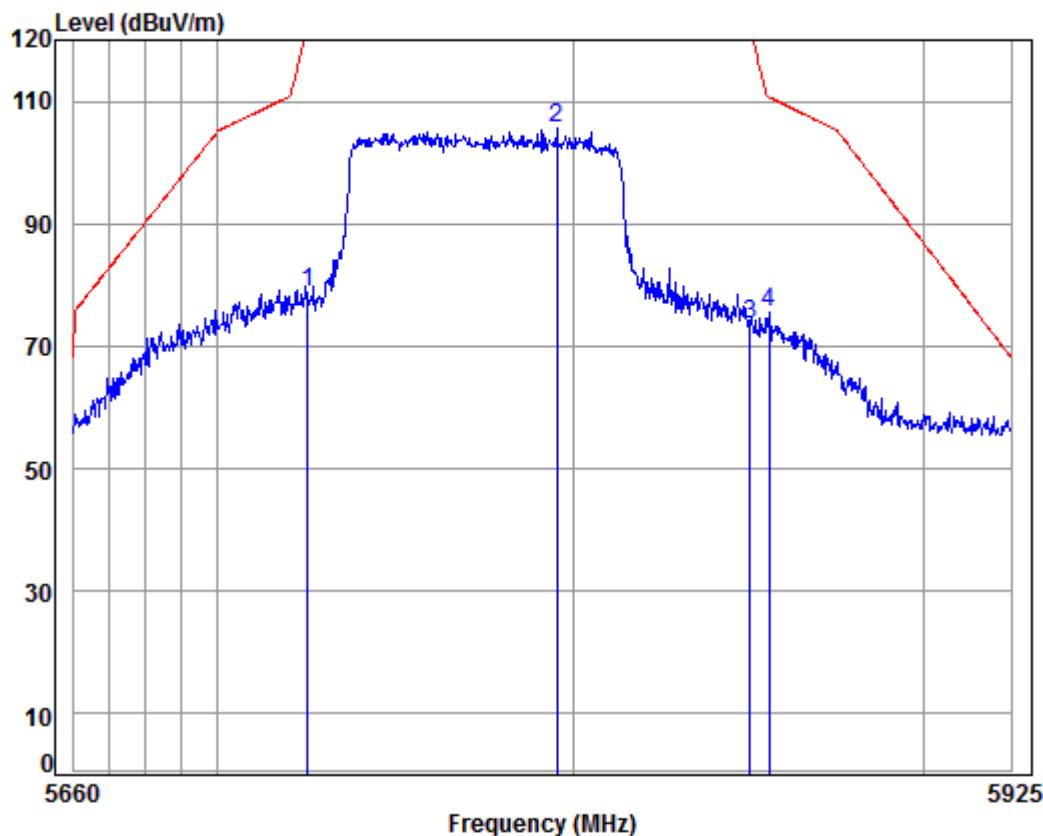
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5705.243	8.46	34.53	38.36	59.33	63.96	106.67	-42.71	
2	5725.000	8.48	34.54	38.35	58.12	62.79	125.20	-62.41	
3 pp	5788.865	8.54	34.58	38.34	94.65	99.43	125.20	-25.77	
4	5850.000	8.60	34.61	38.33	55.44	60.32	121.95	-61.63	

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI1-AC80

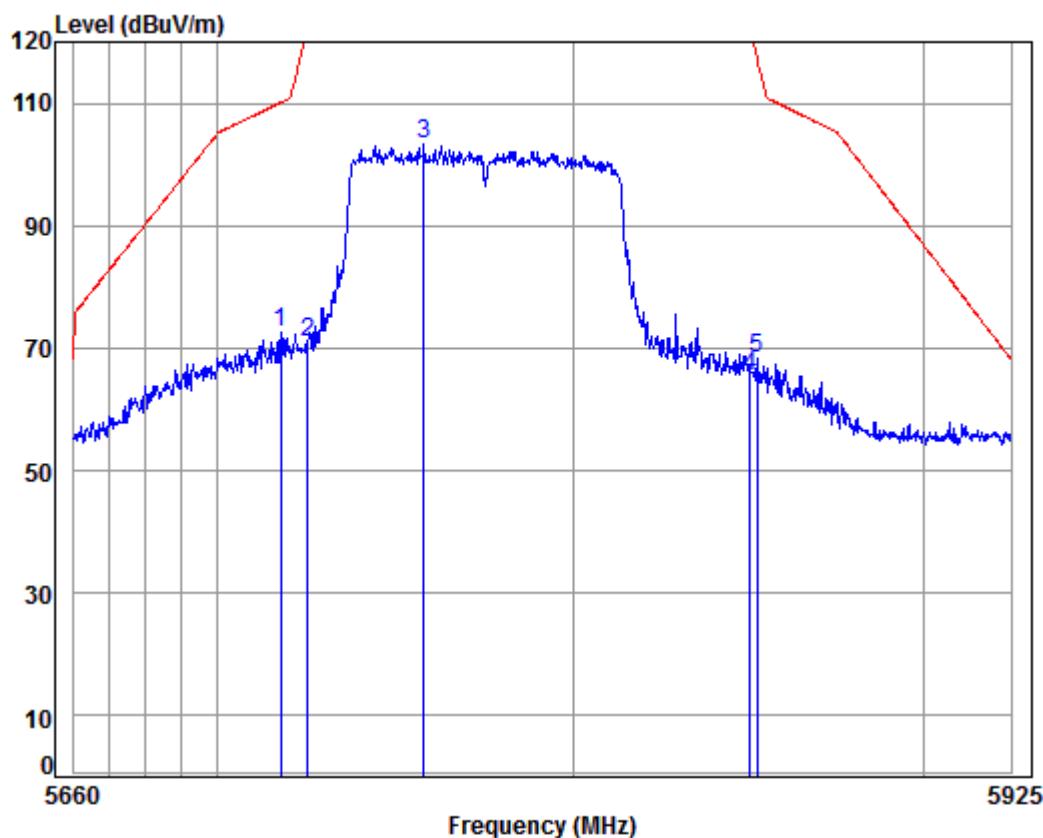
	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5725.000	8.48	34.54	38.35	74.02	78.69	125.20	-46.51	
2 pp	5794.960	8.55	34.58	38.34	100.73	105.52	125.20	-19.68	
3	5850.000	8.60	34.61	38.33	68.73	73.61	121.95	-48.34	
4	5855.465	8.61	34.62	38.33	70.79	75.69	110.67	-34.98	

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Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz; Channel:High



Condition: 3m Vertical

Job No: : 00142IT

Mode: : 5775 Bandedge  
: 5G WIFI2-AC80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Line Limit	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5717.526	8.47	34.53	38.36	67.88	72.52	110.11	-37.59
2	5725.000	8.48	34.54	38.35	66.19	70.86	125.20	-54.34
3 pp	5757.693	8.51	34.56	38.35	98.62	103.34	125.20	-21.86
4	5850.000	8.60	34.61	38.33	60.55	65.43	121.95	-56.52
5	5851.983	8.61	34.61	38.33	63.50	68.39	117.68	-49.29

Note:

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



## 6.10 Frequency Stability

Test Requirement:	47 CFR Part 15 Section 15.407(g)
Test Method:	ANSI C63.10: 2013, section 6.8
Test Setup:	<pre> graph TD     TA[Spectrum Analyzer] --- EUT[EUT]     AC[AC/DC Power supply] --- EUT     EUT --- TC[Temperature Chamber]     </pre>
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -5 degrees to 45 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 25 degrees C.
Test Procedure:	<ol style="list-style-type: none"> <li>The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage.</li> <li>Turn the EUT on and couple its output to a spectrum analyzer.</li> <li>Turn the EUT off and set the chamber to the highest temperature specified.</li> <li>Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.</li> <li>Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.</li> <li>The test chamber was allowed to stabilize at +25 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.</li> </ol>
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.

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**Test plot as follows:**

**WiFi Module 1:**

Test mode:	802.11a	Frequency(MHz):	5180
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5183.4698	Pass
35		5183.4700	Pass
25		5183.4704	Pass
15		5183.4696	Pass
5		5183.4695	Pass
-5		5183.4694	Pass
25	138	5183.4700	Pass
	120	5183.4704	Pass
	102	5183.4698	Pass

Test mode:	802.11a	Frequency(MHz):	5200
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5203.4696	Pass
35		5203.4700	Pass
25		5203.4709	Pass
15		5203.4701	Pass
5		5203.4695	Pass
-5		5203.4693	Pass
25	138	5203.4700	Pass
	120	5203.4710	Pass
	102	5203.4696	Pass

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Test mode:	802.11a	Frequency(MHz):	5240
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result	
45	120	5243.4091	Pass	
35		5243.4100	Pass	
25		5243.4105	Pass	
15		5243.4102	Pass	
5		5243.4100	Pass	
-5		5243.4092	Pass	
25		138	5243.4100	Pass
		120	5243.4109	Pass
		102	5243.4091	Pass

Test mode:	802.11a	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result	
45	120	5748.1496	Pass	
35		5748.1500	Pass	
25		5748.1508	Pass	
15		5748.1501	Pass	
5		5748.1494	Pass	
-5		5748.1493	Pass	
25		138	5748.1500	Pass
		120	5748.1508	Pass
		102	5748.1496	Pass

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Test mode:	802.11a	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5789.1296	Pass
35		5789.1300	Pass
25		5789.1306	Pass
15		5789.1302	Pass
5		5789.1297	Pass
-5		5789.1294	Pass
25	138	5789.1300	Pass
	120	5789.1305	Pass
	102	5789.1296	Pass

Test mode:	802.11a	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5827.9192	Pass
35		5827.9200	Pass
25		5827.9205	Pass
15		5827.9195	Pass
5		5827.9186	Pass
-5		5827.9191	Pass
25	138	5827.9200	Pass
	120	5827.9208	Pass
	102	5827.9192	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5185.1591	Pass
35		5185.1600	Pass
25		5185.1607	Pass
15		5185.1600	Pass
5		5185.1594	Pass
-5		5185.1597	Pass
25	138	5185.1600	Pass
	120	5185.1602	Pass
	102	5185.1591	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5200
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5205.2492	Pass
35		5205.2500	Pass
25		5205.2501	Pass
15		5205.2497	Pass
5		5205.2490	Pass
-5		5205.2498	Pass
25	138	5205.2500	Pass
	120	5205.2505	Pass
	102	5205.2492	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5233.1792	Pass
35		5233.1800	Pass
25		5233.1807	Pass
15		5233.1802	Pass
5		5233.1795	Pass
-5		5233.1797	Pass
25	138	5233.1800	Pass
	120	5233.1808	Pass
	102	5233.1792	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5747.3595	Pass
35		5747.3600	Pass
25		5747.3603	Pass
15		5747.3594	Pass
5		5747.3588	Pass
-5		5747.3593	Pass
25	138	5747.3600	Pass
	120	5747.3606	Pass
	102	5747.3595	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5788.2195	Pass
35		5788.2200	Pass
25		5788.2207	Pass
15		5788.2201	Pass
5		5788.2198	Pass
-5		5788.2193	Pass
25	138	5788.2200	Pass
	120	5788.2208	Pass
	102	5788.2195	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5827.3091	Pass
35		5827.3100	Pass
25		5827.3108	Pass
15		5827.3099	Pass
5		5827.3094	Pass
-5		5827.3095	Pass
25	138	5827.3100	Pass
	120	5827.3101	Pass
	102	5827.3091	Pass

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Test mode:	802.11n(HT40)	Frequency(MHz):	5190
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5194.4199	Pass
35		5194.4200	Pass
25		5194.4208	Pass
15		5194.4198	Pass
5		5194.4188	Pass
-5		5194.4192	Pass
25	138	5194.4200	Pass
	120	5194.4205	Pass
	102	5194.4199	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5230
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5234.1895	Pass
35		5234.1900	Pass
25		5234.1902	Pass
15		5234.1895	Pass
5		5234.1885	Pass
-5		5234.1892	Pass
25	138	5234.1900	Pass
	120	5234.1908	Pass
	102	5234.1895	Pass

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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5759.2392	Pass
35		5759.2400	Pass
25		5759.2407	Pass
15		5759.2404	Pass
5		5759.2400	Pass
-5		5759.2393	Pass
25	138	5759.2400	Pass
	120	5759.2408	Pass
	102	5759.2392	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5797.3494	Pass
35		5797.3500	Pass
25		5797.3502	Pass
15		5797.3499	Pass
5		5797.3491	Pass
-5		5797.3494	Pass
25	138	5797.3500	Pass
	120	5797.3509	Pass
	102	5797.3494	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5181.4693	Pass
35		5181.4700	Pass
25		5181.4710	Pass
15		5181.4702	Pass
5		5181.4699	Pass
-5		5181.4695	Pass
25	138	5181.4700	Pass
	120	5181.4708	Pass
	102	5181.4693	Pass

Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
------------	----------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5201.5495	Pass
35		5201.5500	Pass
25		5201.5506	Pass
15		5201.5498	Pass
5		5201.5495	Pass
-5		5201.5495	Pass
25	138	5201.5500	Pass
	120	5201.5502	Pass
	102	5201.5495	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5240
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5242.6395	Pass
35		5242.6400	Pass
25		5242.6402	Pass
15		5242.6396	Pass
5		5242.6387	Pass
-5		5242.6395	Pass
25	138	5242.6400	Pass
	120	5242.6408	Pass
	102	5242.6395	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5747.2096	Pass
35		5747.2100	Pass
25		5747.2103	Pass
15		5747.2097	Pass
5		5747.2096	Pass
-5		5747.2096	Pass
25	138	5747.2100	Pass
	120	5747.2104	Pass
	102	5747.2096	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5788.3395	Pass
35		5788.3400	Pass
25		5788.3407	Pass
15		5788.3403	Pass
5		5788.3395	Pass
-5		5788.3393	Pass
25	138	5788.3400	Pass
	120	5788.3406	Pass
	102	5788.3395	Pass

Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5826.6391	Pass
35		5826.6400	Pass
25		5826.6407	Pass
15		5826.6404	Pass
5		5826.6399	Pass
-5		5826.6395	Pass
25	138	5826.6400	Pass
	120	5826.6402	Pass
	102	5826.6391	Pass

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Test mode:	802.11ac(HT40)	Frequency(MHz):	5190
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5193.6192	Pass
35		5193.6200	Pass
25		5193.6209	Pass
15		5193.6202	Pass
5		5193.6193	Pass
-5		5193.6198	Pass
25	138	5193.6200	Pass
	120	5193.6207	Pass
	102	5193.6192	Pass

Test mode:	802.11ac(HT40)	Frequency(MHz):	5230
------------	----------------	-----------------	------

Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5234.1392	Pass
35		5234.1400	Pass
25		5234.1404	Pass
15		5234.1401	Pass
5		5234.1399	Pass
-5		5234.1396	Pass
25	138	5234.1400	Pass
	120	5234.1403	Pass
	102	5234.1392	Pass

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Test mode:	802.11ac(HT40)	Frequency(MHz):	5755
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5758.5298	Pass
35		5758.5300	Pass
25		5758.5303	Pass
15		5758.5301	Pass
5		5758.5296	Pass
-5		5758.5292	Pass
25	138	5758.5300	Pass
	120	5758.5304	Pass
	102	5758.5298	Pass

Test mode:	802.11ac(HT40)	Frequency(MHz):	5795
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5796.3694	Pass
35		5796.3700	Pass
25		5796.3705	Pass
15		5796.3701	Pass
5		5796.3694	Pass
-5		5796.3691	Pass
25	138	5796.3700	Pass
	120	5796.3706	Pass
	102	5796.3694	Pass

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Test mode:	802.11ac(HT80)	Frequency(MHz):	5210
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5218.8295	Pass
35		5218.8300	Pass
25		5218.8308	Pass
15		5218.8300	Pass
5		5218.8291	Pass
-5		5218.8293	Pass
25	138	5218.8300	Pass
	120	5218.8304	Pass
	102	5218.8295	Pass

Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5778.1491	Pass
35		5778.1500	Pass
25		5778.1503	Pass
15		5778.1496	Pass
5		5778.1492	Pass
-5		5778.1497	Pass
25	138	5778.1500	Pass
	120	5778.1510	Pass
	102	5778.1491	Pass

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**WiFi Module 2:**

Test mode:	802.11a	Frequency(MHz):	5180
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5181.8254	Pass
35		5181.8258	Pass
25		5181.8265	Pass
15		5181.8257	Pass
5		5181.8253	Pass
-5		5181.8251	Pass
25	138	5181.8258	Pass
	120	5181.8261	Pass
	102	5181.8254	Pass

Test mode:	802.11a	Frequency(MHz):	5200
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5202.2496	Pass
35		5202.2500	Pass
25		5202.2507	Pass
15		5202.2499	Pass
5		5202.2490	Pass
-5		5202.2498	Pass
25	138	5202.2500	Pass
	120	5202.2506	Pass
	102	5202.2496	Pass

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Test mode:	802.11a	Frequency(MHz):	5240
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5242.3402	Pass
35		5242.3409	Pass
25		5242.3413	Pass
15		5242.3406	Pass
5		5242.3399	Pass
-5		5242.3400	Pass
25		138	5242.3409
	120	5242.3411	Pass
	102	5242.3402	Pass

Test mode:	802.11a	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5746.8256	Pass
35		5746.8258	Pass
25		5746.8263	Pass
15		5746.8257	Pass
5		5746.8249	Pass
-5		5746.8255	Pass
25		138	5746.8258
	120	5746.8265	Pass
	102	5746.8256	Pass

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Test mode:	802.11a	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5787.1431	Pass
35		5787.1439	Pass
25		5787.1442	Pass
15		5787.1440	Pass
5		5787.1436	Pass
-5		5787.1431	Pass
25	138	5787.1439	Pass
	120	5787.1444	Pass
	102	5787.1431	Pass

Test mode:	802.11a	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5826.9391	Pass
35		5826.9394	Pass
25		5826.9396	Pass
15		5826.9390	Pass
5		5826.9387	Pass
-5		5826.9386	Pass
25	138	5826.9394	Pass
	120	5826.9401	Pass
	102	5826.9391	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5181.8933	Pass
35		5181.8939	Pass
25		5181.8946	Pass
15		5181.8941	Pass
5		5181.8934	Pass
-5		5181.8931	Pass
25	138	5181.8939	Pass
	120	5181.8944	Pass
	102	5181.8933	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5200
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5201.8931	Pass
35		5201.8939	Pass
25		5201.8949	Pass
15		5201.8941	Pass
5		5201.8934	Pass
-5		5201.8930	Pass
25	138	5201.8939	Pass
	120	5201.8942	Pass
	102	5201.8931	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5242.1210	Pass
35		5242.1212	Pass
25		5242.1222	Pass
15		5242.1217	Pass
5		5242.1213	Pass
-5		5242.1211	Pass
25	138	5242.1212	Pass
	120	5242.1216	Pass
	102	5242.1210	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5746.9236	Pass
35		5746.9242	Pass
25		5746.9250	Pass
15		5746.9247	Pass
5		5746.9240	Pass
-5		5746.9236	Pass
25	138	5746.9242	Pass
	120	5746.9246	Pass
	102	5746.9236	Pass

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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5787.0751	Pass
35		5787.0758	Pass
25		5787.0760	Pass
15		5787.0751	Pass
5		5787.0745	Pass
-5		5787.0751	Pass
25	138	5787.0758	Pass
	120	5787.0767	Pass
	102	5787.0751	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5827.2265	Pass
35		5827.2273	Pass
25		5827.2282	Pass
15		5827.2279	Pass
5		5827.2273	Pass
-5		5827.2269	Pass
25	138	5827.2273	Pass
	120	5827.2276	Pass
	102	5827.2265	Pass

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Test mode:	802.11n(HT40)	Frequency(MHz):	5190
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5192.3481	Pass
35		5192.3485	Pass
25		5192.3493	Pass
15		5192.3487	Pass
5		5192.3483	Pass
-5		5192.3476	Pass
25	138	5192.3485	Pass
	120	5192.3493	Pass
	102	5192.3481	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5230
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5232.2793	Pass
35		5232.2803	Pass
25		5232.2810	Pass
15		5232.2804	Pass
5		5232.2794	Pass
-5		5232.2802	Pass
25	138	5232.2803	Pass
	120	5232.2804	Pass
	102	5232.2793	Pass

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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5757.0450	Pass
35		5757.0455	Pass
25		5757.0465	Pass
15		5757.0463	Pass
5		5757.0461	Pass
-5		5757.0451	Pass
25	138	5757.0455	Pass
	120	5757.0456	Pass
	102	5757.0450	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5796.9163	Pass
35		5796.9167	Pass
25		5796.9174	Pass
15		5796.9170	Pass
5		5796.9164	Pass
-5		5796.9161	Pass
25	138	5796.9167	Pass
	120	5796.9175	Pass
	102	5796.9163	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5181.7721	Pass
35		5181.7727	Pass
25		5181.7732	Pass
15		5181.7728	Pass
5		5181.7719	Pass
-5		5181.7725	Pass
25	138	5181.7727	Pass
	120	5181.7730	Pass
	102	5181.7721	Pass

Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5201.7801	Pass
35		5201.7803	Pass
25		5201.7805	Pass
15		5201.7802	Pass
5		5201.7795	Pass
-5		5201.7797	Pass
25	138	5201.7803	Pass
	120	5201.7805	Pass
	102	5201.7801	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5240
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5242.0674	Pass
35		5242.0682	Pass
25		5242.0687	Pass
15		5242.0683	Pass
5		5242.0677	Pass
-5		5242.0678	Pass
25	138	5242.0682	Pass
	120	5242.0685	Pass
	102	5242.0674	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5747.0150	Pass
35		5747.0152	Pass
25		5747.0159	Pass
15		5747.0153	Pass
5		5747.0146	Pass
-5		5747.0145	Pass
25	138	5747.0152	Pass
	120	5747.0160	Pass
	102	5747.0150	Pass

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Test mode:	802.11ac(HT20)	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5787.1737	Pass
35		5787.1742	Pass
25		5787.1751	Pass
15		5787.1747	Pass
5		5787.1739	Pass
-5		5787.1736	Pass
25		138	5787.1742
	120	5787.1748	Pass
	102	5787.1737	Pass

Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5826.9235	Pass
35		5826.9242	Pass
25		5826.9248	Pass
15		5826.9239	Pass
5		5826.9238	Pass
-5		5826.9239	Pass
25		138	5826.9242
	120	5826.9245	Pass
	102	5826.9235	Pass

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Test mode:	802.11ac(HT40)	Frequency(MHz):	5190
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5192.1357	Pass
35		5192.1364	Pass
25		5192.1366	Pass
15		5192.1360	Pass
5		5192.1352	Pass
-5		5192.1358	Pass
25	138	5192.1364	Pass
	120	5192.1366	Pass
	102	5192.1357	Pass

Test mode:	802.11ac(HT40)	Frequency(MHz):	5230
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5232.1734	Pass
35		5232.1742	Pass
25		5232.1747	Pass
15		5232.1745	Pass
5		5232.1739	Pass
-5		5232.1736	Pass
25	138	5232.1742	Pass
	120	5232.1745	Pass
	102	5232.1734	Pass

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Test mode:	802.11ac(HT40)	Frequency(MHz):	5755
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5757.1205	Pass
35		5757.1212	Pass
25		5757.1221	Pass
15		5757.1212	Pass
5		5757.1202	Pass
-5		5757.1205	Pass
25	138	5757.1212	Pass
	120	5757.1218	Pass
	102	5757.1205	Pass

Test mode:	802.11ac(HT40)	Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5796.6736	Pass
35		5796.6742	Pass
25		5796.6745	Pass
15		5796.6742	Pass
5		5796.6737	Pass
-5		5796.6737	Pass
25	138	5796.6742	Pass
	120	5796.6750	Pass
	102	5796.6736	Pass

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Test mode:	802.11ac(HT80)	Frequency(MHz):	5210
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5211.7346	Pass
35		5211.7348	Pass
25		5211.7350	Pass
15		5211.7347	Pass
5		5211.7339	Pass
-5		5211.7341	Pass
25	138	5211.7348	Pass
	120	5211.7355	Pass
	102	5211.7346	Pass

Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Result
45	120	5777.2951	Pass
35		5777.2955	Pass
25		5777.2959	Pass
15		5777.2955	Pass
5		5777.2953	Pass
-5		5777.2950	Pass
25	138	5777.2955	Pass
	120	5777.2959	Pass
	102	5777.2951	Pass



## **6.11 Automatically Discontinue Transmission Requirement**

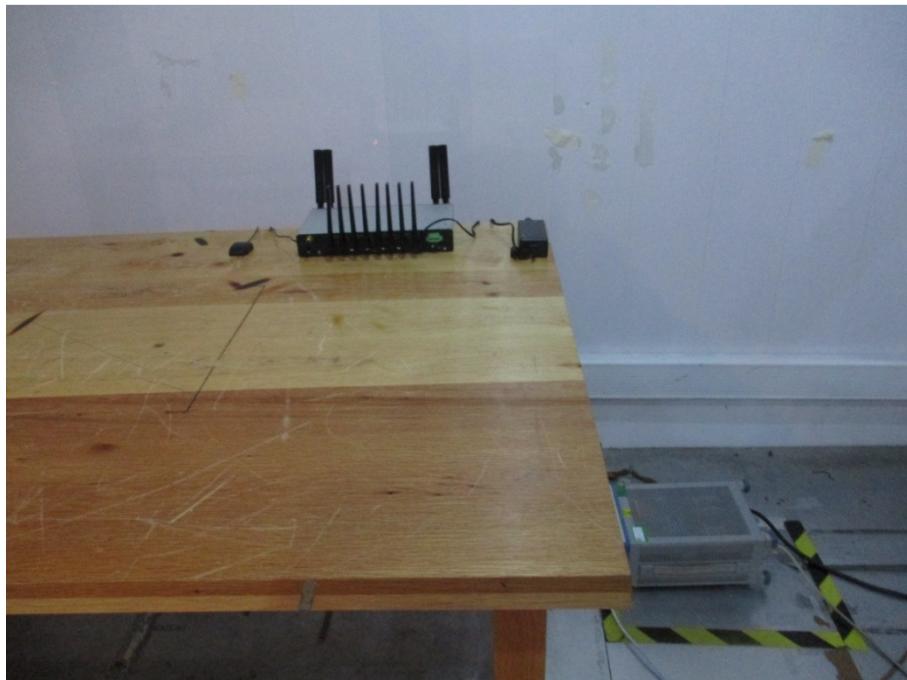
<b>Test Requirement:</b>	47 CFR Part 15 Section 15.407 (c)
<b>Declaration from applicant</b>	WIFI chip (QCA9882) support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



## 7 Photographs - EUT Test Setup

Test model No.: MAX HD4

### 7.1 Conducted Emission

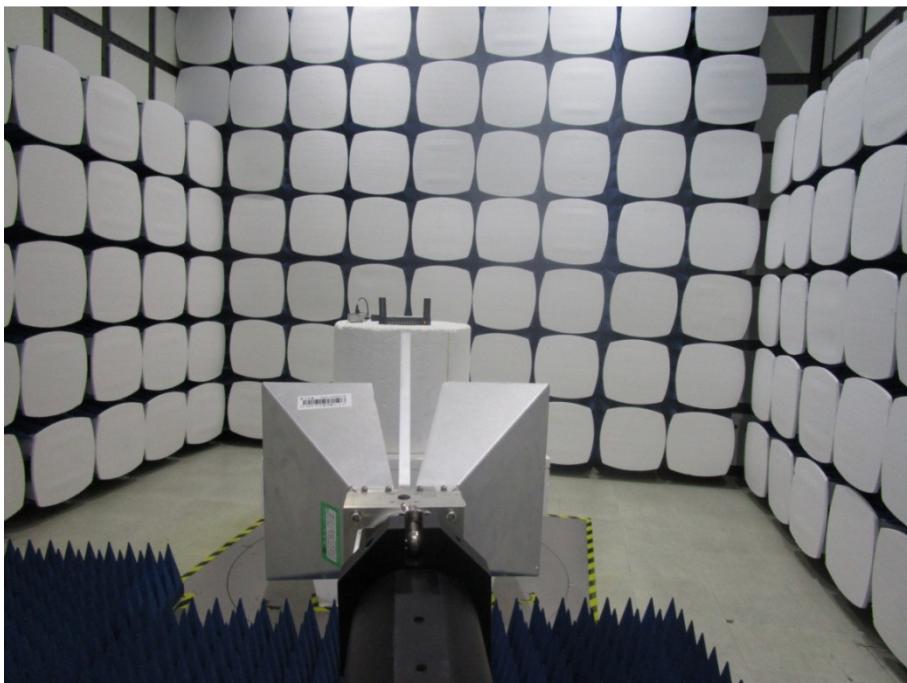


### 7.2 Radiated Emission





### 7.3 Radiated Spurious Emission



## 8 Photographs - EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for HKES1701000142IT.