



## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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Report No.: SZEM170200069605  
Page: 1 of 220

# TEST REPORT

**Application No.:** SZEM1702000696CR  
**Applicant:** New Audio LLC  
**Address of Applicant:** 132 W. 31st 7th Floor New York, NY 10001  
**Manufacturer:** New Audio LLC  
**Address of Manufacturer:** 132 W. 31st 7th Floor New York, NY 10001  
**Factory:** Eastech Elctronics (Hui Tang) Co., Ltd  
**Address of Factory:** Dong Feng District, XinXu, HuiYang Huizhou, Guangdong, P.R.China  
**Equipment Under Test (EUT):**  
**EUT Name:** Wireless Speaker  
**Model No.:** MA770  
**Trade mark:** Master&Dynamic  
**FCC ID:** 2AGA7MA770  
**Standards:** 47 CFR Part 15, Subpart E (2016)  
**Date of Receipt:** 2017-02-07  
**Date of Test:** 2017-02-27 to 2017-03-24  
**Date of Issue:** 2017-04-04

<b>Test Result :</b>	<b>Pass*</b>
----------------------	--------------

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



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.

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2017-04-04		Original

Authorized for issue by:			
Tested By		2017-03-24	
	Benson Wang /Project Engineer	Date	
Checked By		2017-04-04	
	Eric Fu /Reviewer	Date	

## 2 Test Summary

<b>Radio Spectrum Technical Requirement</b>				
<b>Item</b>	<b>Standard</b>	<b>Method</b>	<b>Requirement</b>	<b>Result</b>
Antenna Requirement	47 CFR Part 15, Subpart C 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass

<b>Radio Spectrum Matter Part</b>				
<b>Item</b>	<b>Standard</b>	<b>Method</b>	<b>Requirement</b>	<b>Result</b>
Conducted Disturbance at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	Pass
26dB Emission bandwidth	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II C 1	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band )	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II C 2	47 CFR Part 15, Subpart C 15.407 (e)	Pass
Maximum Conducted output power	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Peak Power spectrum density	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Frequency Stability	47 CFR Part 15, Subpart C 15.407	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass
Radiated Emissions	47 CFR Part 15, Subpart C 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
99% Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 II D	N/A	Pass

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## 4 General Information

### 4.1 Details of E.U.T.

Power supply: AC 120V/60Hz

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: Dipole  
Antenna gain: 6.67dBi

### 4.2 Description of Support Units

The EUT has been tested as an independent unit.

#### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.25 x 10-8
2	Duty cycle	0.37%
3	Occupied Bandwidth	3%
4	RF conducted power	0.75dB
5	RF power density	2.84dB
6	Conducted Spurious emissions	0.75dB
7	RF Radiated power	4.5dB (below 1GHz)
		4.8dB (above 1GHz)
8	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-18GHz)
9	Temperature test	1 °C
10	Humidity test	3%
11	Supply voltages	1.5%
12	Time	3%

#### **4.4 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.

#### **4.5 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.

#### **4.6 Deviation from Standards**

None

#### **4.7 Abnormalities from Standard Conditions**

None

## 5 Equipment List

Conducted Disturbance at AC Power Line(150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2016-05-13	2017-05-13
LISN	Rohde & Schwarz	ENV216	SEM007-01	2016-10-09	2017-10-09
LISN	ETS-LINDGREN	3816/2	SEM007-02	2016-04-25	2017-04-25
8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	EMC0120	2016-09-28	2017-09-28
4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	EMC0121	2016-09-28	2017-09-28
2 Line ISN	Fischer Custom	FCC-TLISN-T2-02	EMC0122	2016-09-28	2017-09-28

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2016-05-13	2017-05-13
EXA Spectrum Analyzer	Agilent Technologies Inc	N9010A	SEM004-09	2016-07-19	2017-07-19
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2016-10-09	2017-10-09
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
Horn Antenna(26GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEM003-13	2015-02-12	2018-02-12
Low Noise Amplifier	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2016-10-09	2017-10-09
Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A



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RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2016-05-13	2017-05-13
EMI Test Receiver (9k-7GHz)	Rohde & Schwarz	ESR	SEM004-03	2016-04-25	2017-04-25
Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-18	2016-06-29	2019-06-29
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-03	2016-07-06	2017-07-06
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2015-08-14	2018-08-14

RF Conducted					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2016-10-12	2017-10-12
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2016-10-12	2017-10-12
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2016-10-12	2017-10-12
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2016-05-18	2017-05-18

## 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15C Section 15.203

#### 6.1.2 Conclusion

Standard Requirment:

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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.



EUT Details:

The antenna uses a unique coupling to the intentional radiator and no consideration of replacement..  
The best case gain of the antenna is: 6.67dBi.

## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Disturbance at AC Power Line(150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dB $\mu$ V)	
	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.

### 7.1.1 E.U.T. Operation

Operating Environment:

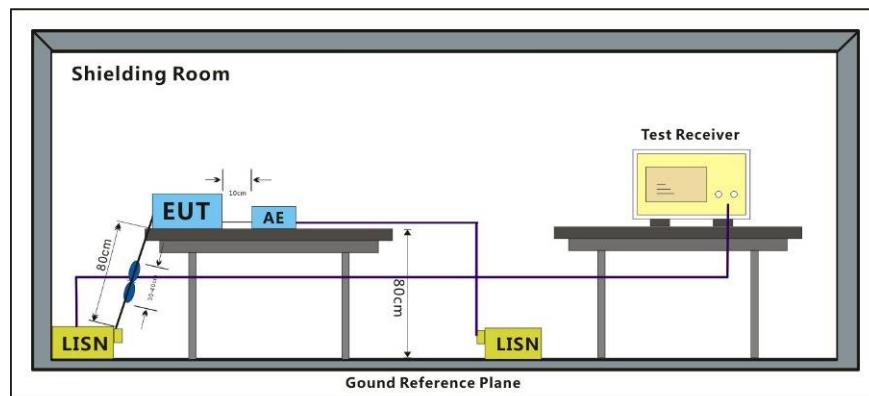
Temperature: 25.0 °C      Humidity: 55 % RH      Atmospheric Pressure: 1020 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.  
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.  
Through Pre-scan, find the 6Mbps of rate of 802.11a at lowest channel is the worst case.

Only the worst case is recorded in the report.

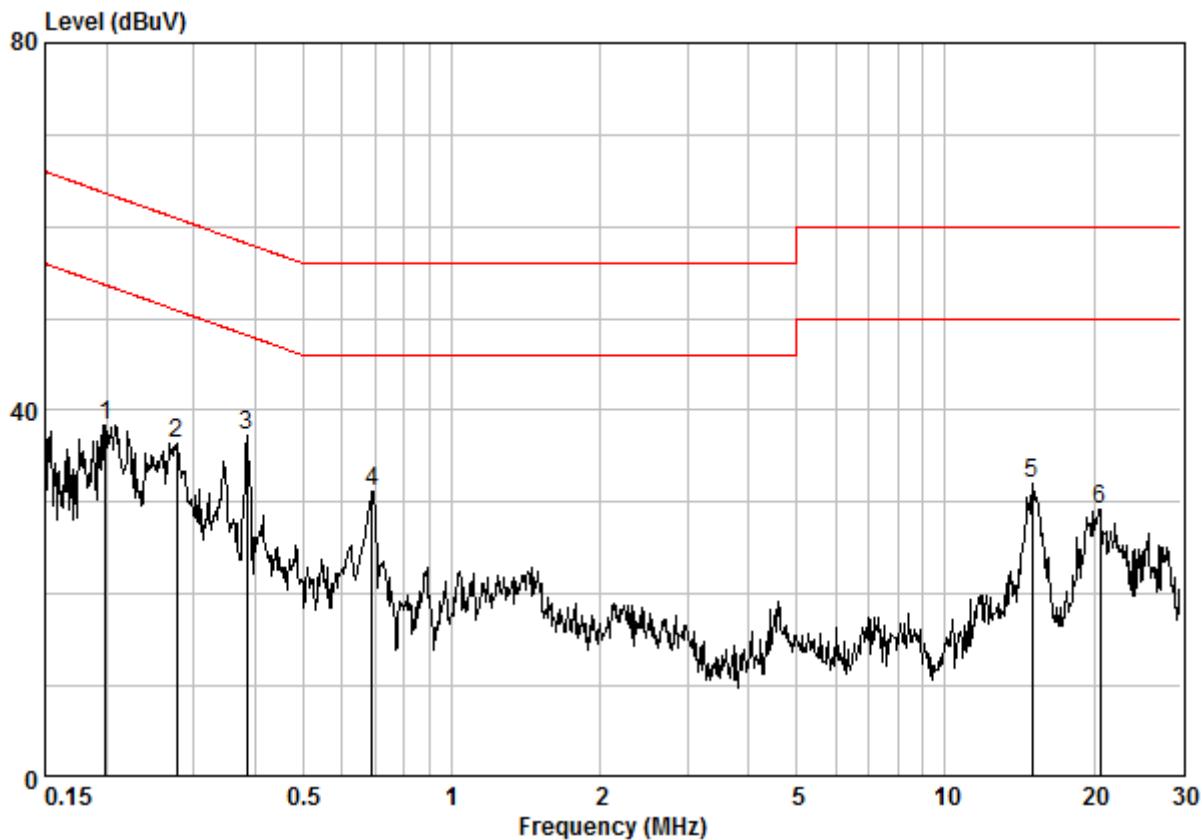
### 7.1.2 Test Setup Diagram



### 7.1.3 Measurement Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a  $50\text{ohm}/50\mu\text{H} + 5\text{ohm}$  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.
- 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,
- 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.
- 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 on conducted measurement.

Mode:f; Line:Live Line



Site : Shielding Room

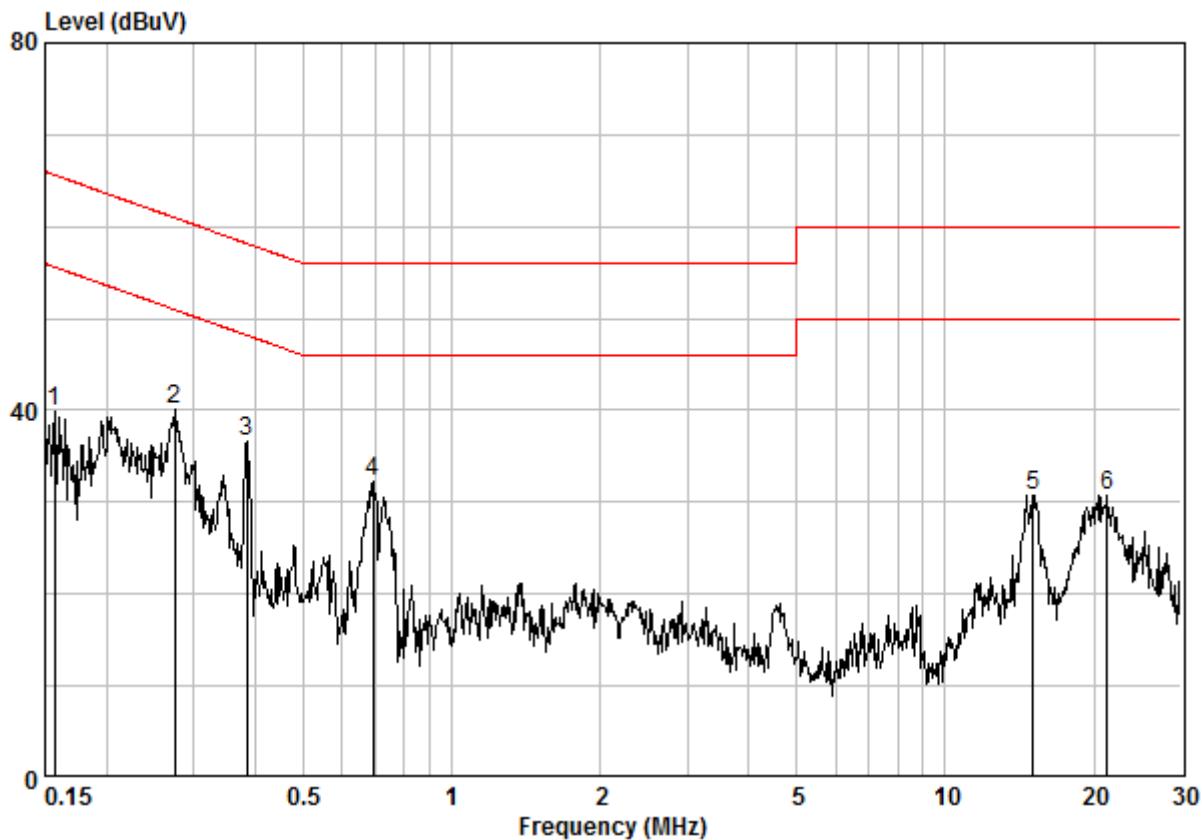
Condition : CE LINE

Job No. : 0696CR

Test Mode : f

	Freq	Cable	LISN	Read	Limit	Over	Remark
		Loss	Factor	Level			
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.19863	0.02	9.64	28.81	38.47	53.67	-15.19 Peak
2	0.27734	0.02	9.64	26.81	36.47	50.90	-14.42 Peak
3 @	0.38519	0.02	9.64	27.72	37.38	48.17	-10.78 Peak
4	0.68990	0.02	9.65	21.46	31.14	46.00	-14.86 Peak
5	14.986	0.16	9.96	21.96	32.08	50.00	-17.92 Peak
6	20.594	0.17	10.19	18.85	29.22	50.00	-20.78 Peak

Mode:f; Line:Neutral Line



Site : Shielding Room

Condition : CE NEUTRAL

Job No. : 0696CR

Test Mode : f

	Freq	Cable	LISN	Read	Limit	Over	Remark
		Loss	Factor	Level			
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.15649	0.02	9.64	30.17	39.83	55.65	-15.82 Peak
2 @	0.27442	0.02	9.63	30.40	40.05	50.98	-10.93 Peak
3	0.38519	0.02	9.63	26.92	36.57	48.17	-11.59 Peak
4	0.69357	0.02	9.64	22.70	32.36	46.00	-13.64 Peak
5	15.066	0.16	9.97	20.72	30.84	50.00	-19.16 Peak
6	21.260	0.17	10.25	20.23	30.65	50.00	-19.35 Peak

## 7.2 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)  
Test Method: KDB 789033 D02 II C 1  
Limit: N/A

### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 52 % RH Atmospheric Pressure: 1015 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

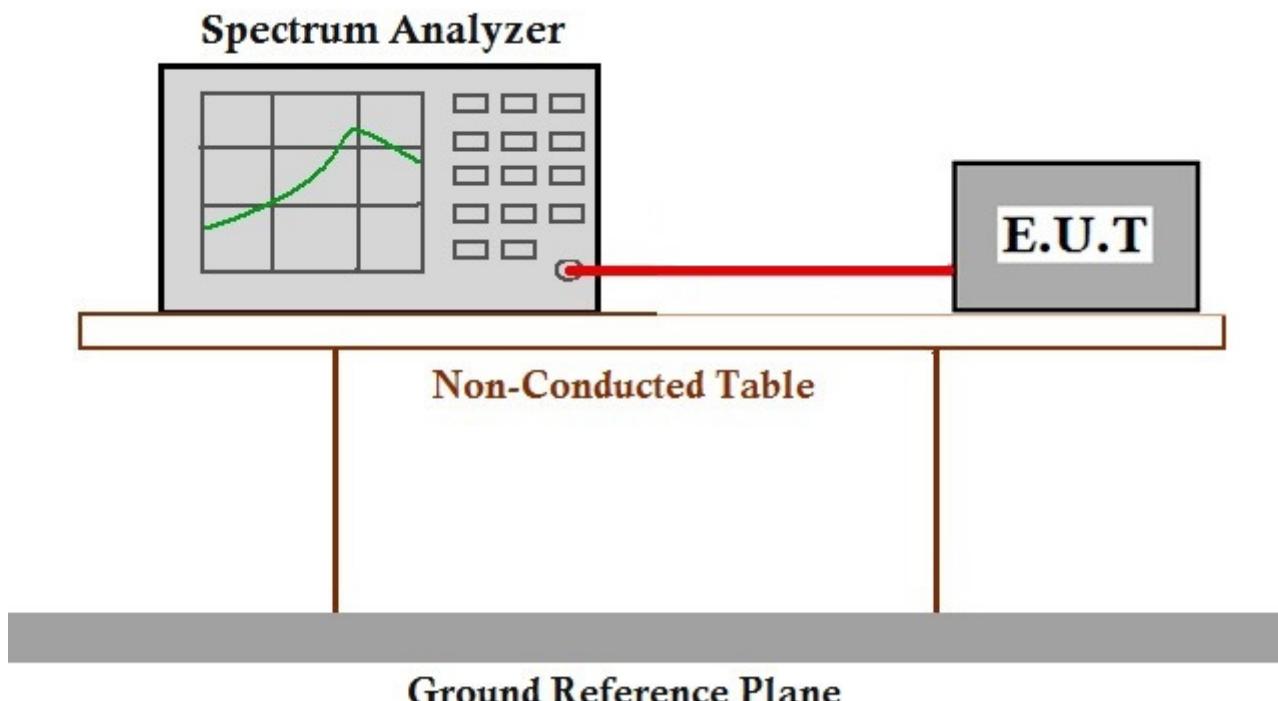
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

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); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80)

Only the worst case is recorded in the report.

### 7.2.2 Test Setup Diagram





### **7.2.3 Measurement Data**

The detailed test data see: Appendix 15.407

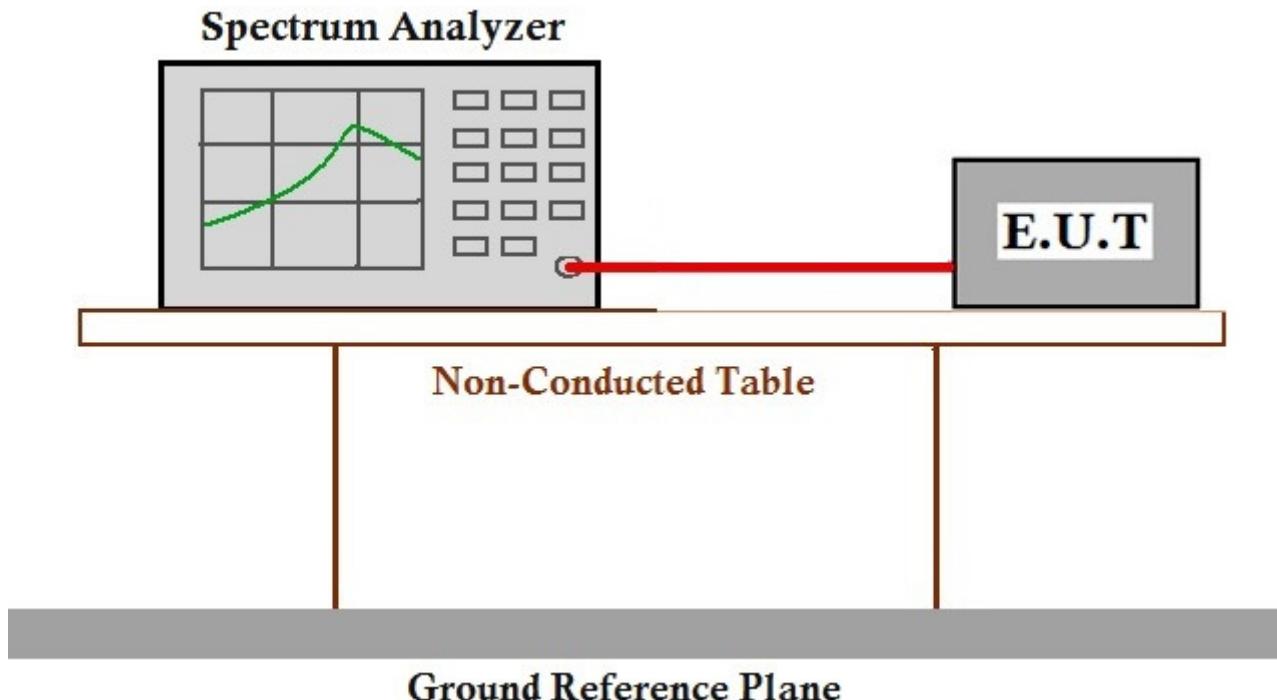
### 7.3 Minimum 6 dB bandwidth (5.725-5.85 GHz band )

Test Requirement 47 CFR Part 15, Subpart C 15.407 (e)  
Test Method: KDB 789033 D02 II C 2  
Limit:  $\geq 500$  kHz

#### 7.3.1 E.U.T. Operation

Operating Environment:  
Temperature: 25.0 °C      Humidity: 52 % RH      Atmospheric Pressure: 1015 mbar  
Pretest these mode to find the worst case:  
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.  
The worst case for final test:  
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.  
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.

#### 7.3.2 Test Setup Diagram



#### 7.3.3 Measurement Data

The detailed test data see: Appendix 15.407

## 7.4 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

5150-5250MHz	Antenna gain greater than 6dBi : Not exceed 23.98dBm – 0.67 (directional gain-6) = 23.31dBm
5725-5850MHz	Antenna gain greater than 6dBi : Not exceed 30dBm – 0.67 (directional gain-6) = 29.33dBm

#### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C      Humidity: 56 % RH      Atmospheric Pressure: 1020 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

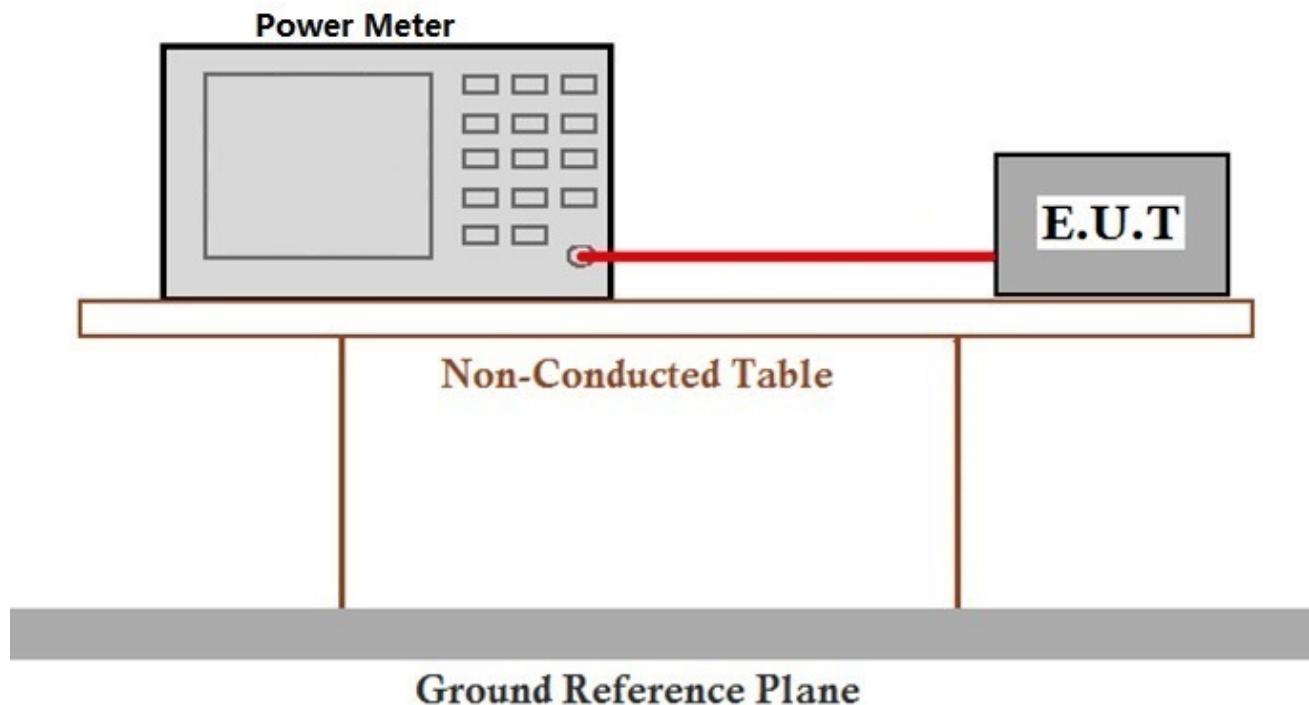
The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.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); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80)

Only the worst case is recorded in the report.

#### 7.4.2 Test Setup Diagram



#### 7.4.3 Measurement Data

The detailed test data see: Appendix 15.407

## 7.5 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart C 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

5150-5250MHz	Antenna gain greater than 6dBi : The power spectral density less than $11\text{dBm}/1\text{MHz} - 0.67(\text{directional gain}-6) = 10.33\text{dBm}$
5725-5850MHz	Antenna gain greater than 6dBi : The power spectral density less than $30\text{dBm}/500\text{kHz} - 0.67(\text{directional gain}-6) = 29.33\text{dBm}$

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C      Humidity: 52 % RH      Atmospheric Pressure: 1015 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

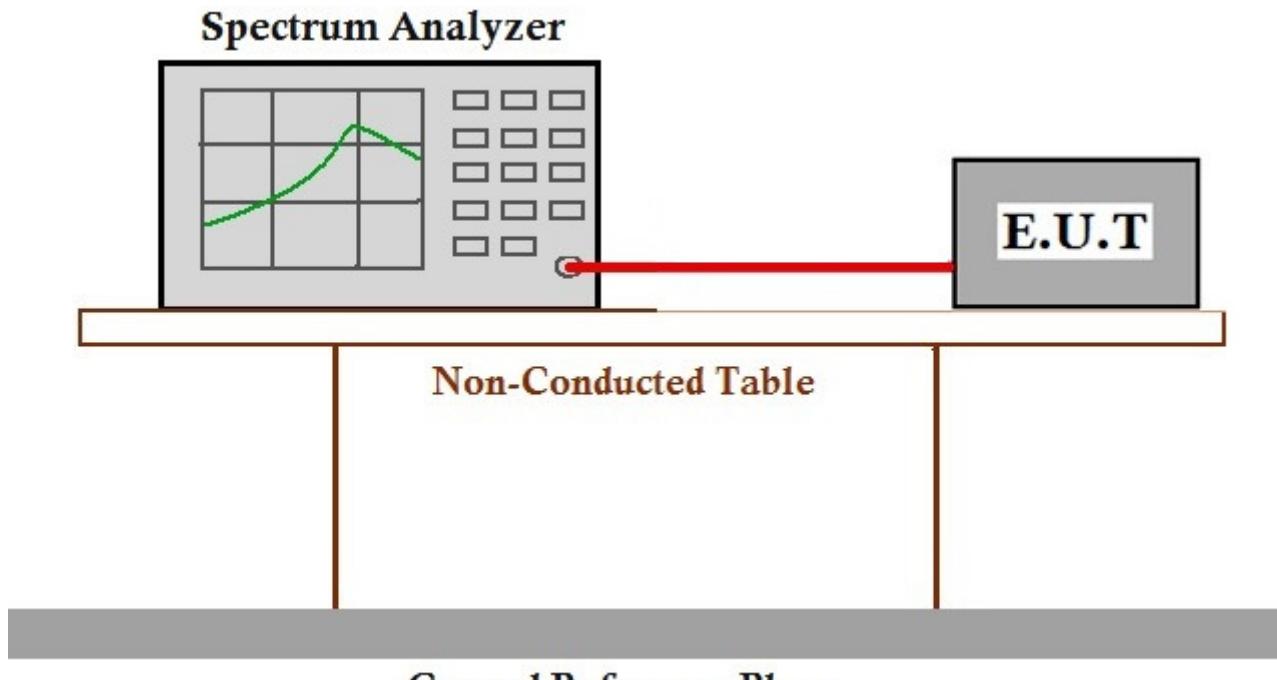
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

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); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80)

Only the worst case is recorded in the report.

### 7.5.2 Test Setup Diagram



### 7.5.3 Measurement Data

The detailed test data see: Appendix 15.407

**7.6 Restricted bands around fundamental frequency (Radiated Emission)**

Test Requirement 47 CFR Part 15, Subpart C 15.209 &amp; 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolt/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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.

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C      Humidity: 54 % RH      Atmospheric Pressure: 1020 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

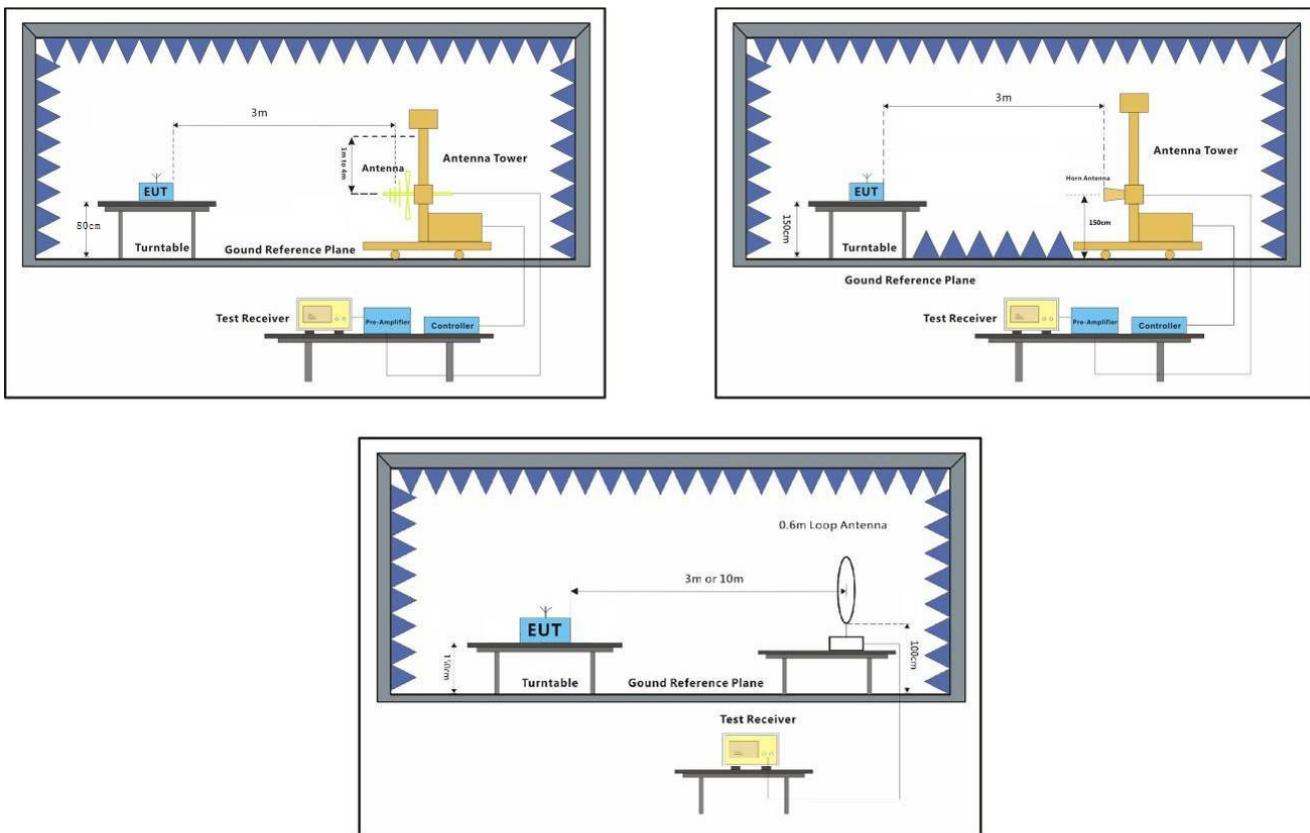
The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

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); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80), Only the worst case is recorded in the report.

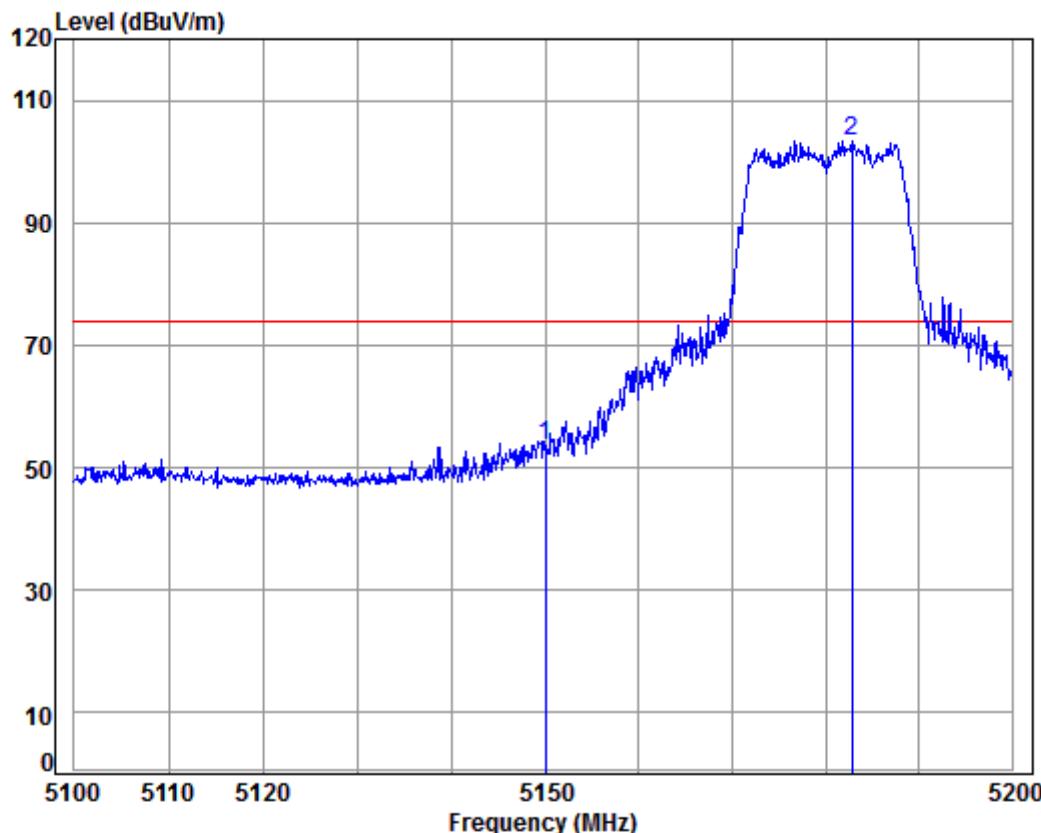
### 7.6.2 Test Setup Diagram



### **7.6.3 Measurement Data**

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

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



Condition: 3m HORIZONTAL

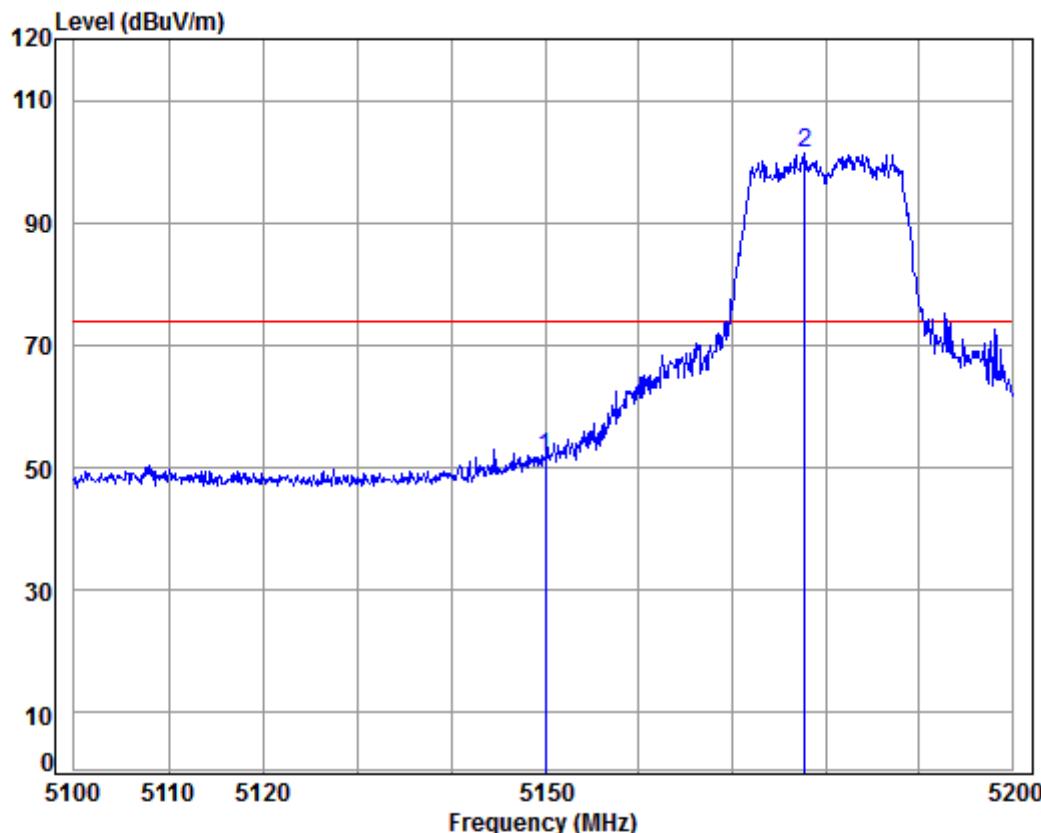
Job No: : 0696CR

Mode: : 5180 Bandedge

: WIFI-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	5150.000	8.08	34.47	38.47	49.67	53.75	74.00	-20.25	
2 pp	5182.762	8.09	34.46	38.46	99.20	103.29	74.00	29.29	

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



Condition: 3m VERTICAL

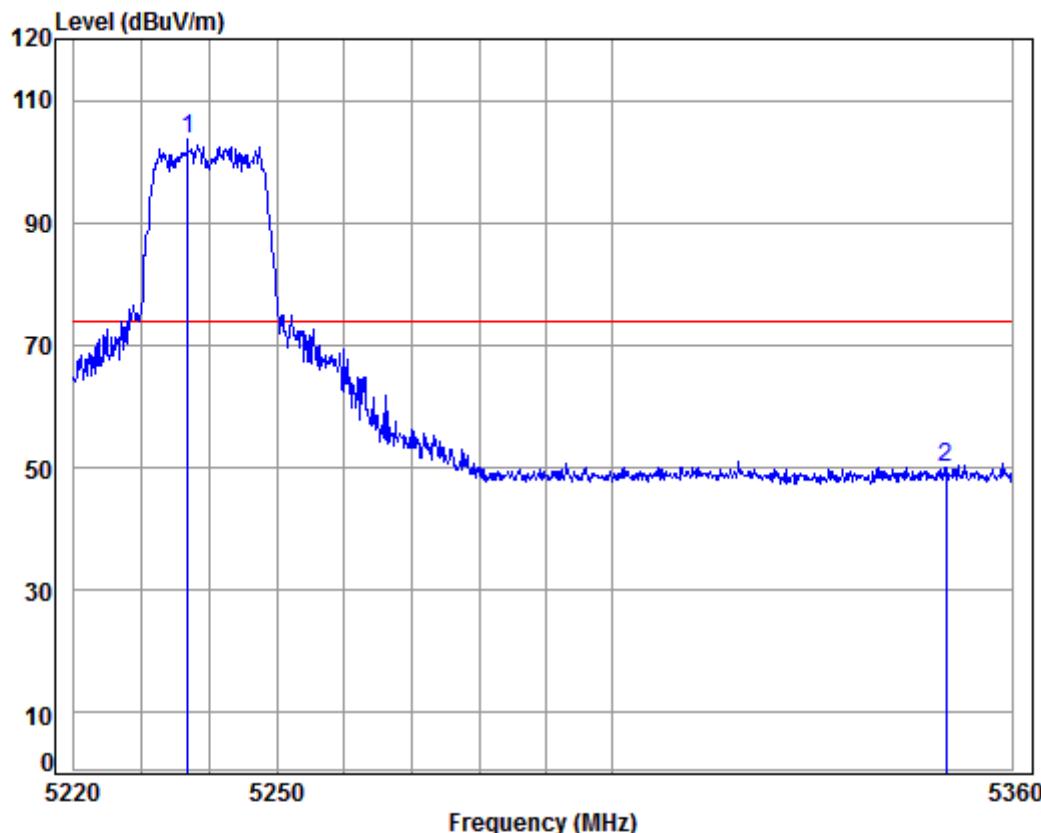
Job No: : 0696CR

Mode: : 5180 Bandedge

: WIFI-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	5150.000	8.08	34.47	38.47	47.60	51.68	74.00	-22.32	
2 pp	5177.732	8.09	34.46	38.46	97.15	101.24	74.00	27.24	

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



Condition: 3m HORIZONTAL

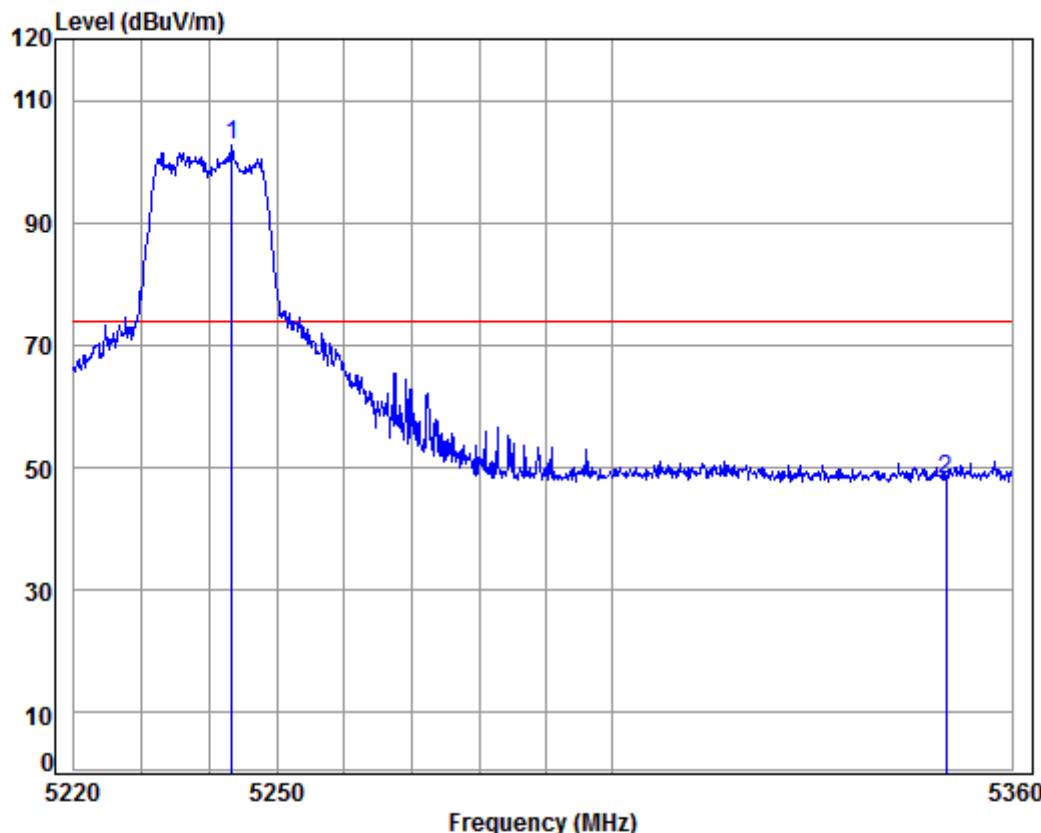
Job No: : 0696CR

Mode: : 5240 Bandedge

: WIFI-A20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5236.744	8.12	34.45	38.45	99.65	103.77	74.00 29.77
2	5350.000	8.18	34.43	38.43	45.99	50.17	74.00 -23.83

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



Condition: 3m VERTICAL

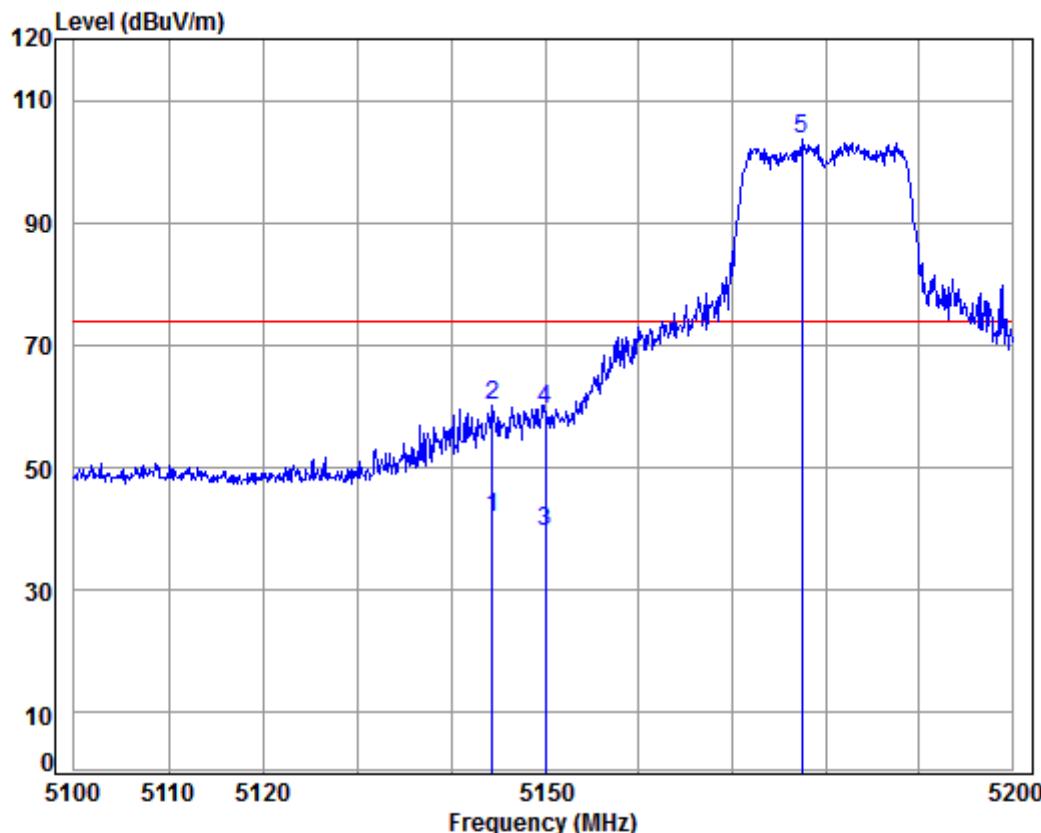
Job No: : 0696CR

Mode: : 5240 Bandedge

: WIFI-A20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5243.262	8.12	34.45	38.45	98.50	102.62	74.00 28.62
2	5350.000	8.18	34.43	38.43	44.01	48.19	74.00 -25.81

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



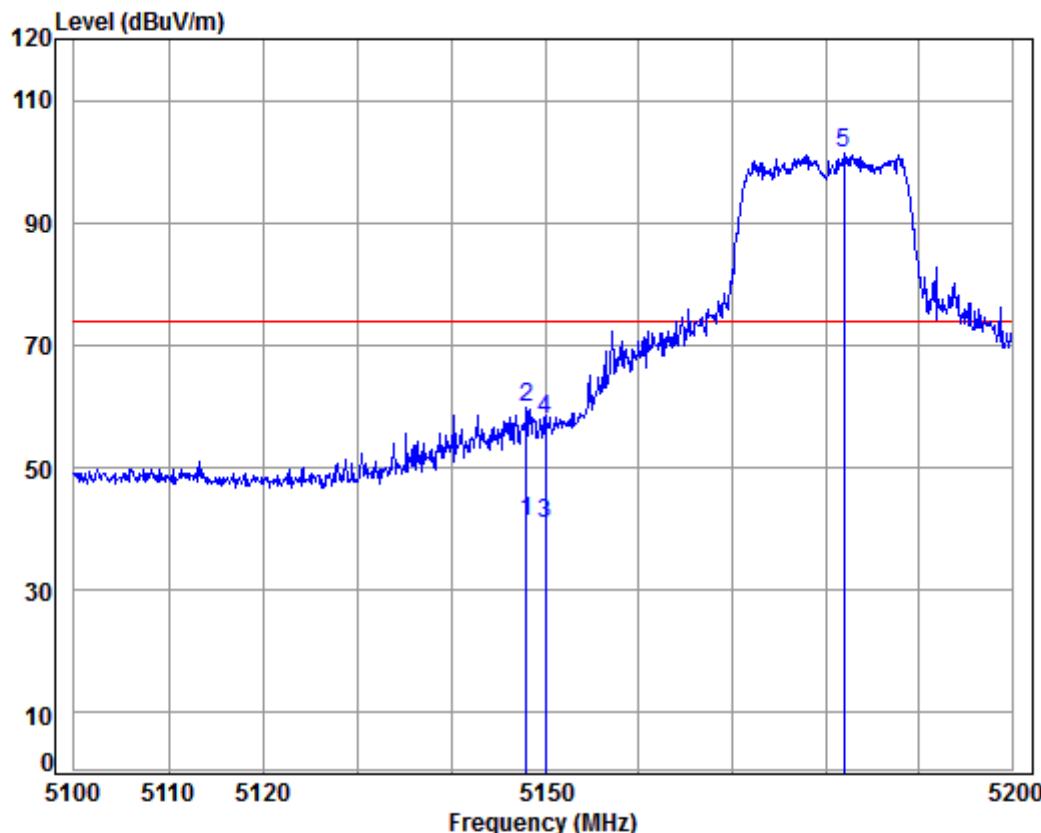
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5180 Bandedge  
: WIFI-N20

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5144.360	8.07	34.47	38.47	37.87	41.94	54.00 -12.06 Average
2 pk	5144.360	8.07	34.47	38.47	56.23	60.30	74.00 -13.70 Peak
3	5150.000	8.08	34.47	38.47	35.53	39.61	54.00 -14.39 Average
4	5150.000	8.08	34.47	38.47	55.55	59.63	74.00 -14.37 Peak
5 pp	5177.431	8.09	34.46	38.46	99.49	103.58	74.00 29.58

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



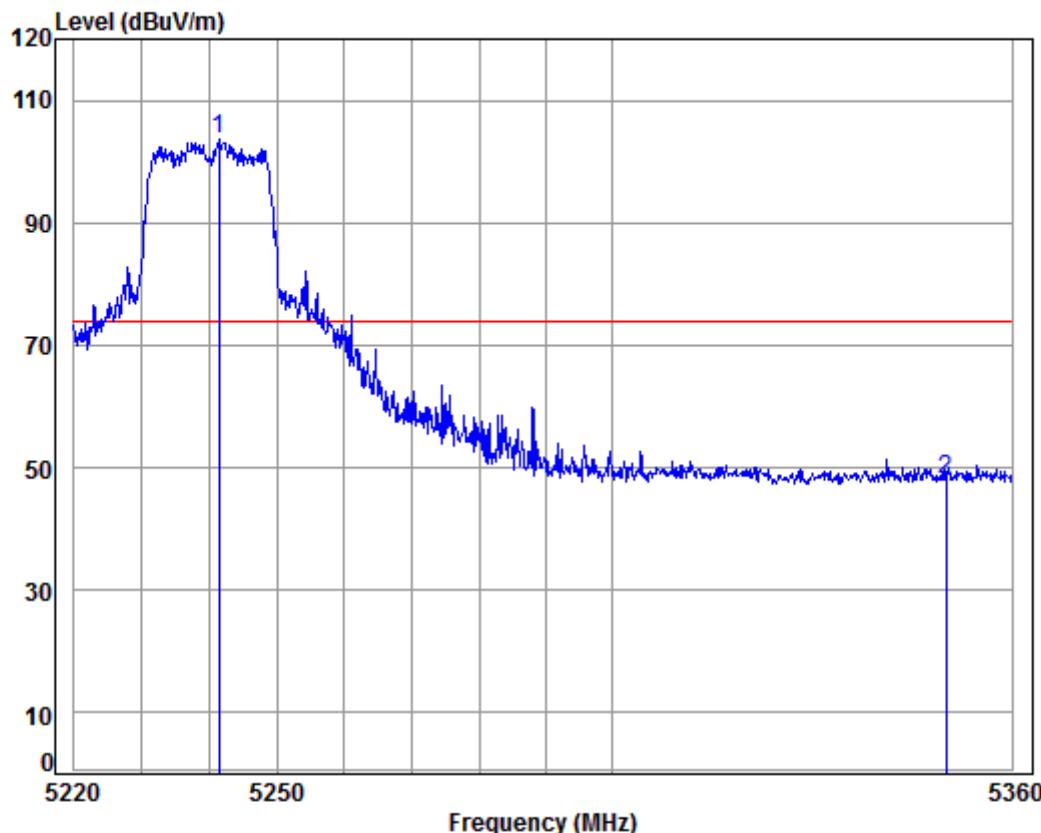
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5180 Bandedge  
: WIFI-N20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 av	5147.958	8.08	34.47	38.47	37.11	41.19	54.00 -12.81 Average
2 pk	5147.958	8.08	34.47	38.47	55.70	59.78	74.00 -14.22 Peak
3	5150.000	8.08	34.47	38.47	36.87	40.95	54.00 -13.05 Average
4	5150.000	8.08	34.47	38.47	53.65	57.73	74.00 -16.27 Peak
5 pp	5181.957	8.09	34.46	38.46	97.11	101.20	74.00 27.20

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



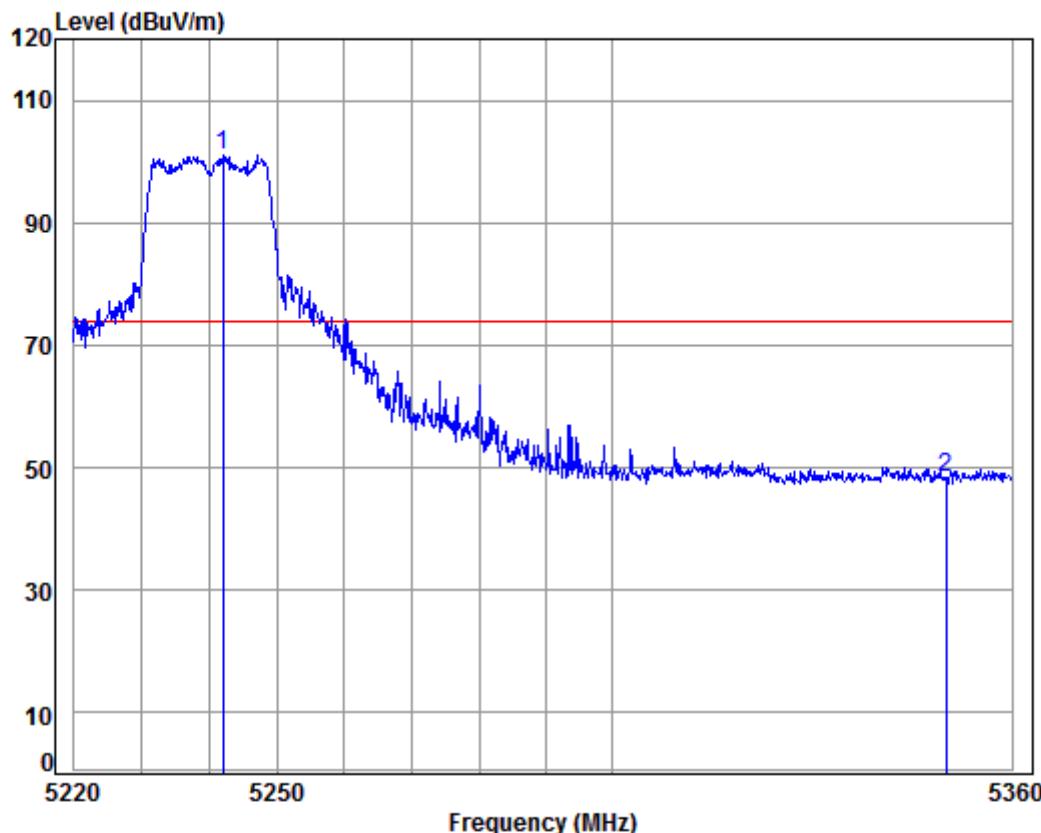
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5240 Bandedge  
: WIFI-N20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5241.458	8.12	34.45	38.45	99.59	103.71	74.00 29.71
2	5350.000	8.18	34.43	38.43	43.88	48.06	74.00 -25.94

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



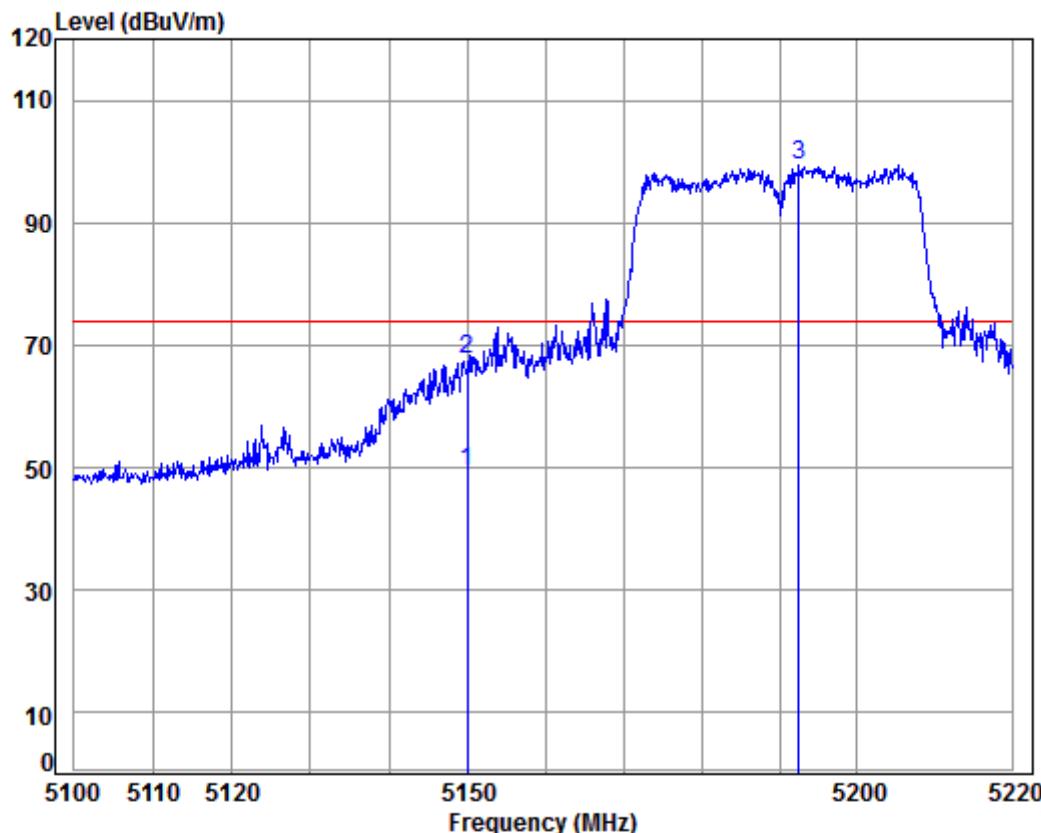
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5240 Bandedge  
: WIFI-N20

	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Level	Over Limit	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5242.013	8.12	34.45	38.45	97.02	101.14	74.00	27.14
2	5350.000	8.18	34.43	38.43	44.31	48.49	74.00	-25.51

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



Condition: 3m HORIZONTAL

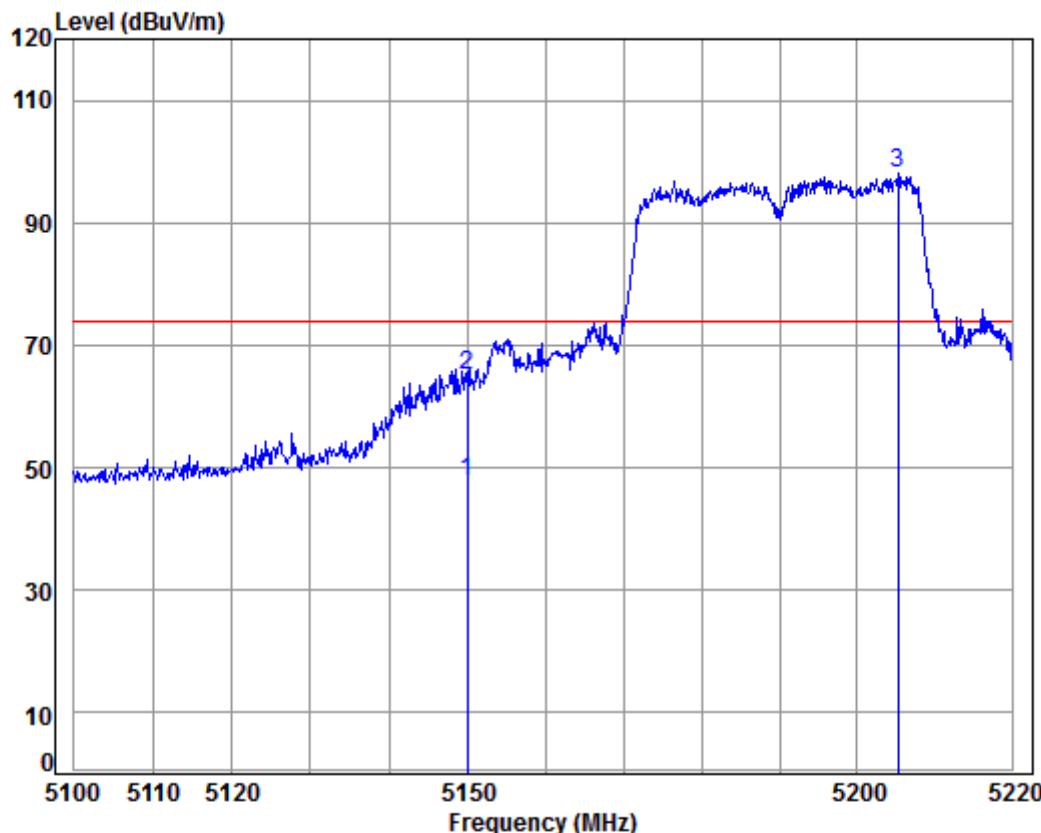
Job No: : 0696CR

Mode: : 5190 Bandedge

: WIFI-N40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	45.37	49.45	54.00
2 pk	5150.000	8.08	34.47	38.47	63.67	67.75	74.00
3 pp	5192.515	8.10	34.46	38.46	95.20	99.30	74.00
							25.30

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



Condition: 3m VERTICAL

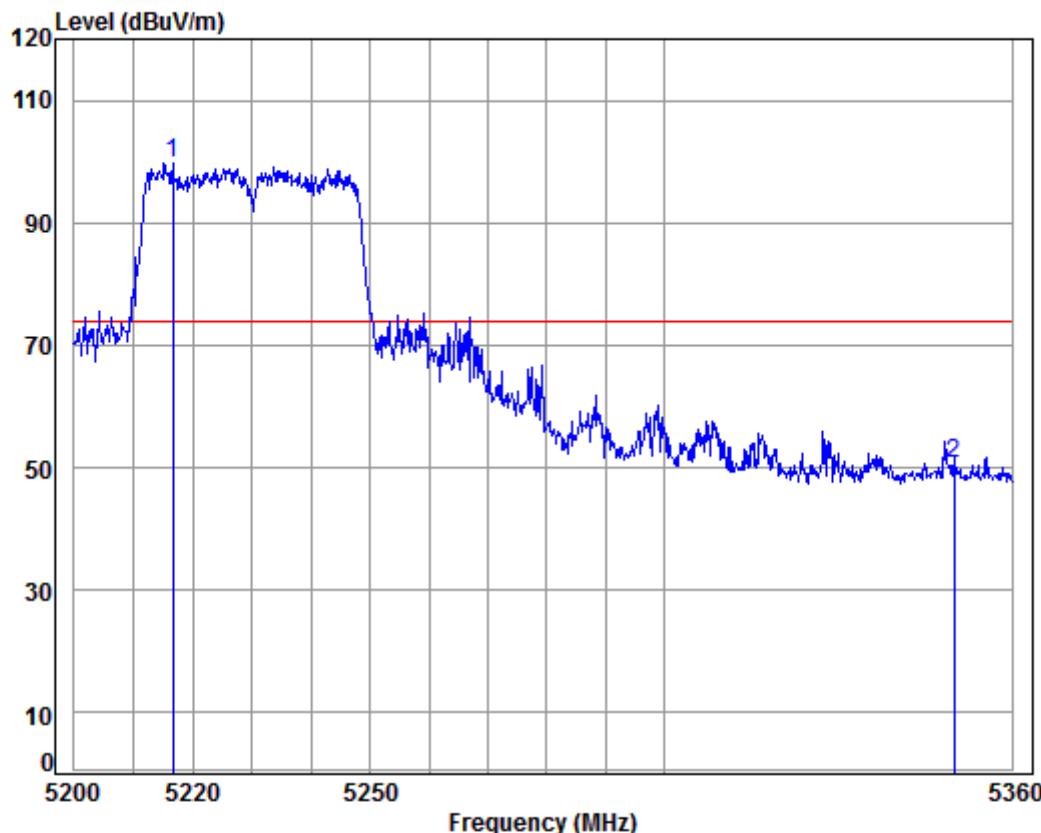
Job No: : 0696CR

Mode: : 5190 Bandedge

: WIFI-N40

	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 av	5150.000	8.08	34.47	38.47	43.51	47.59	54.00	-6.41 Average
2 pk	5150.000	8.08	34.47	38.47	60.94	65.02	74.00	-8.98 Peak
3 pp	5205.331	8.11	34.46	38.46	93.82	97.93	74.00	23.93

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



Condition: 3m HORIZONTAL

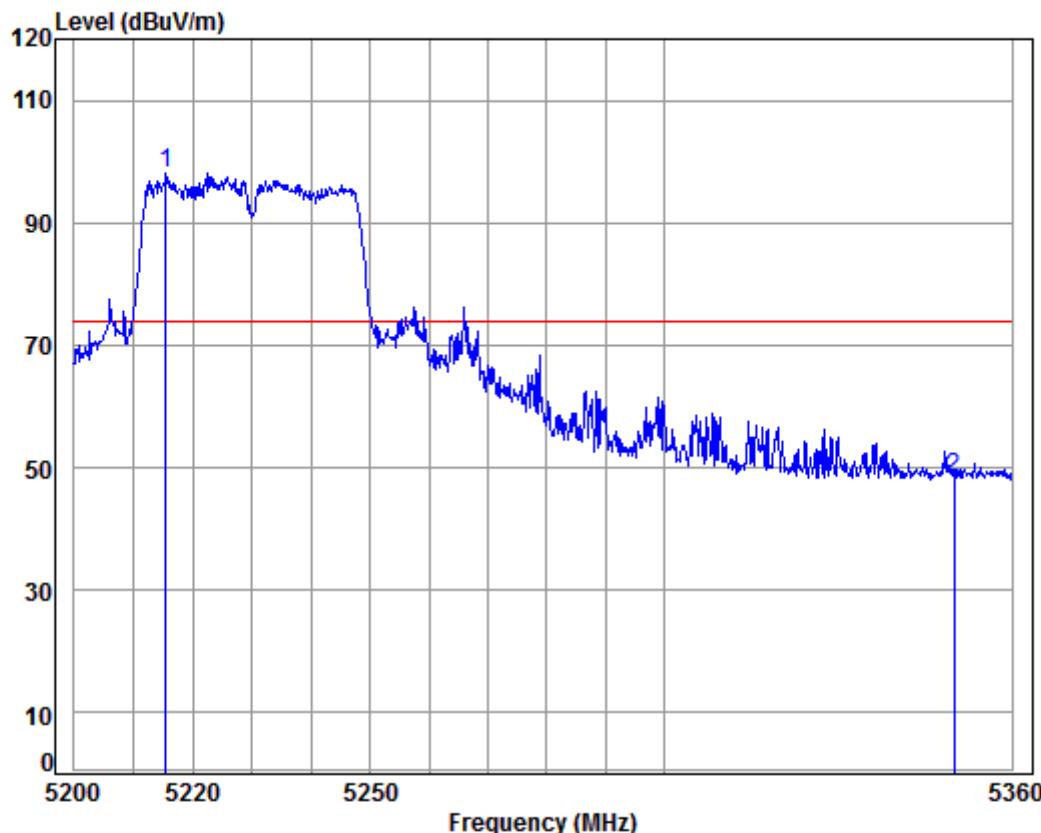
Job No: : 0696CR

Mode: : 5230 Bandedge

: WIFI-N40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5216.573	8.11	34.46	38.46	95.65	99.76	74.00 25.76
2	5350.000	8.18	34.43	38.43	46.61	50.79	74.00 -23.21

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



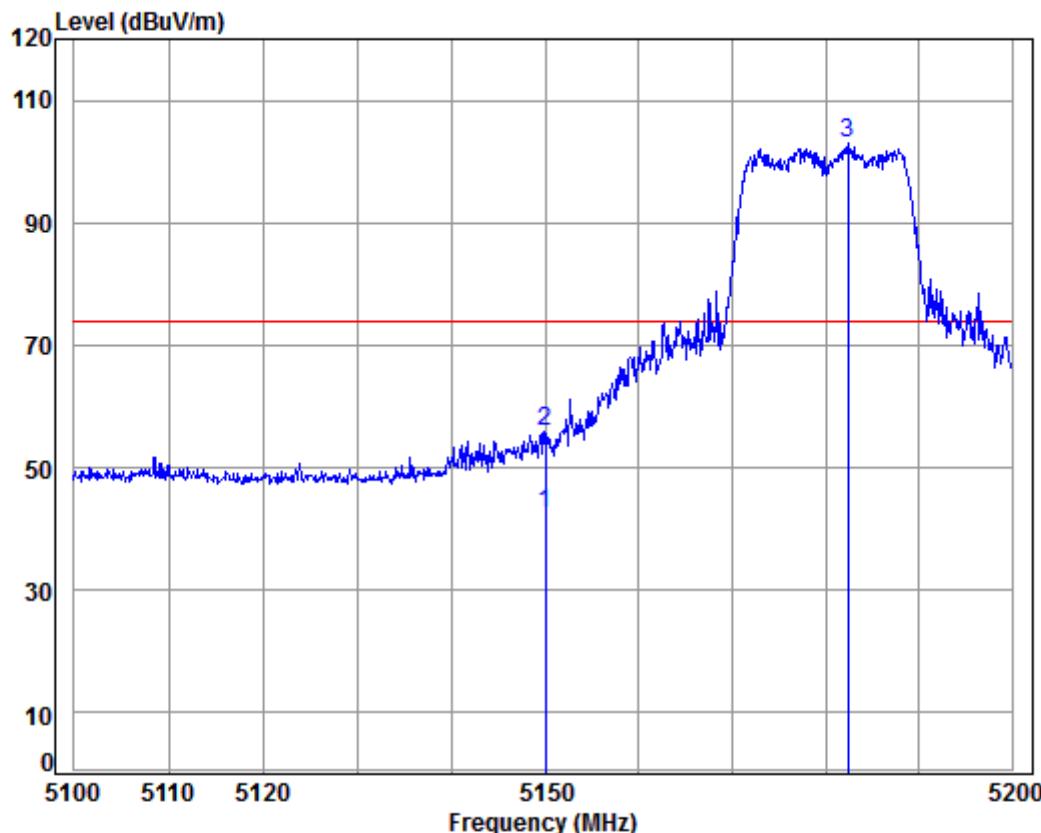
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5230 Bandedge  
: WIFI-N40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5215.467	8.11	34.46	38.46	93.88	97.99	74.00 23.99
2	5350.000	8.18	34.43	38.43	44.14	48.32	74.00 -25.68

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



Condition: 3m HORIZONTAL

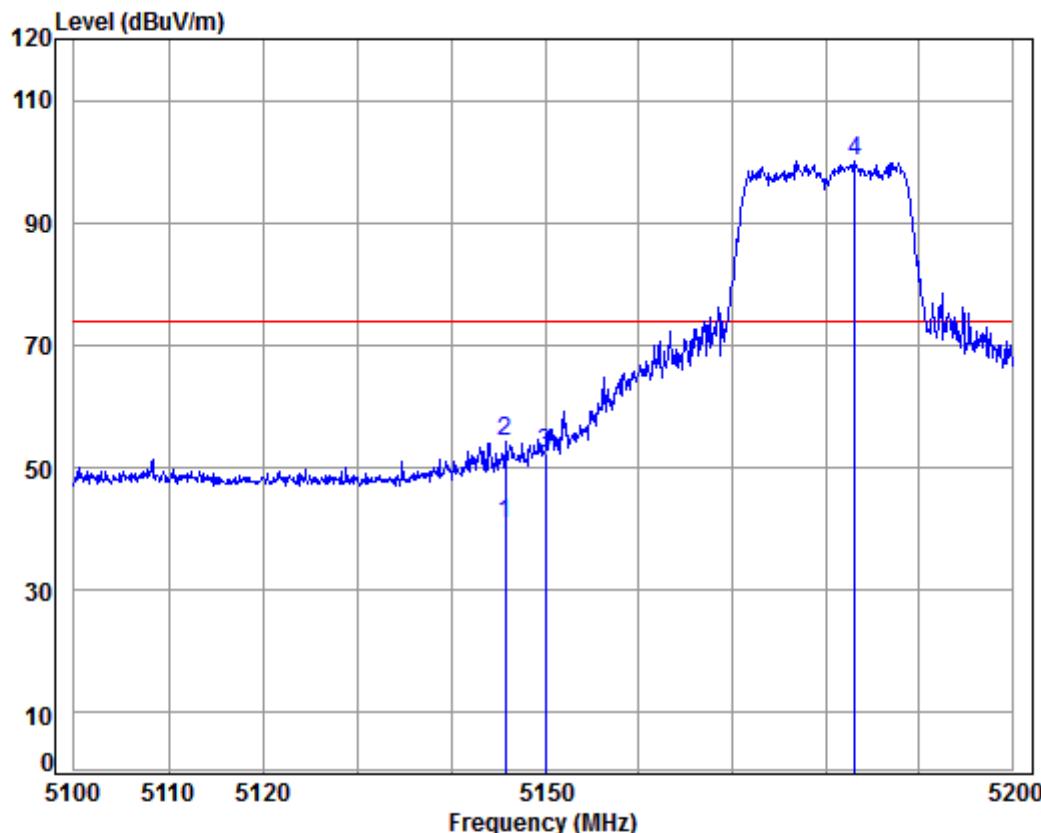
Job No: : 0696CR

Mode: : 5180 Bandedge

: WIFI-AC20

	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	38.55	42.63	54.00	-11.37 Average
2 pk	5150.000	8.08	34.47	38.47	51.87	55.95	74.00	-18.05 Peak
3 pp	5182.359	8.09	34.46	38.46	98.90	102.99	74.00	28.99

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



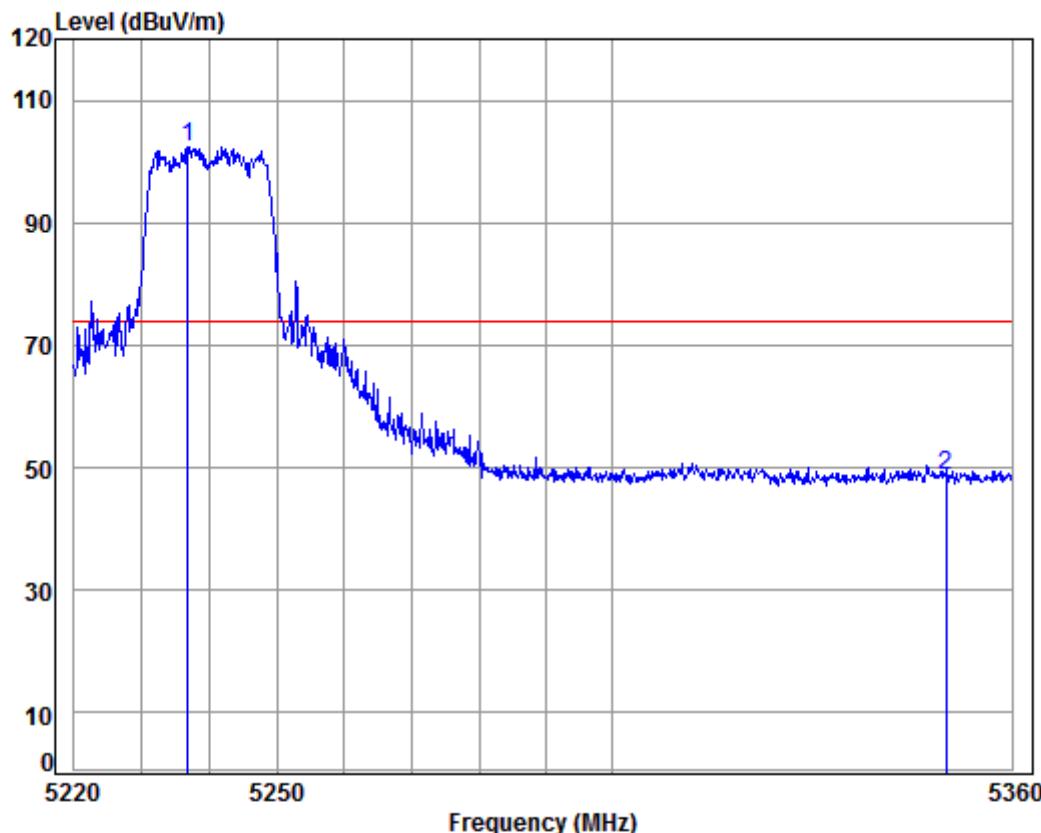
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5180 Bandedge  
: WIFI-AC20

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	5145.759	8.08	34.47	38.47	36.67	40.75	54.00 -13.25 Average
2 pk	5145.759	8.08	34.47	38.47	50.17	54.25	74.00 -19.75 Peak
3	5150.000	8.08	34.47	38.47	48.28	52.36	74.00 -21.64
4 pp	5183.165	8.09	34.46	38.46	95.98	100.07	74.00 26.07

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



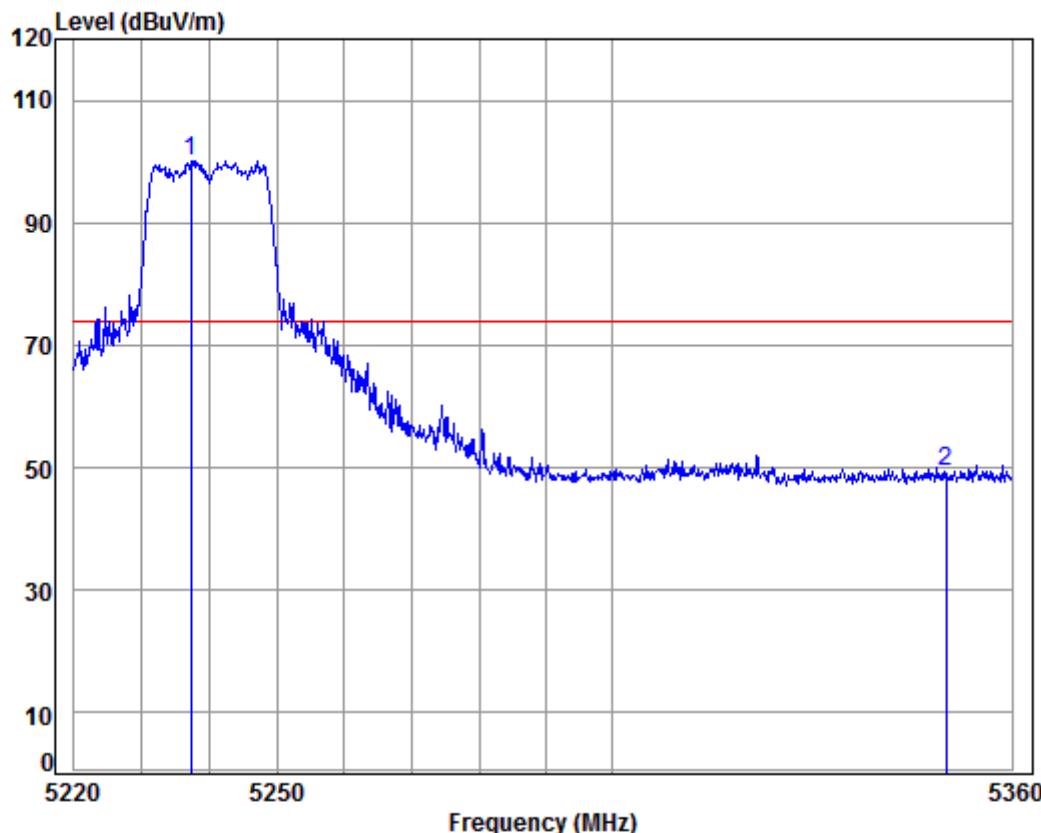
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5240 Bandedge  
: WIFI-AC20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5236.882	8.12	34.45	38.45	98.22	102.34	74.00 28.34
2	5350.000	8.18	34.43	38.43	44.57	48.75	74.00 -25.25

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



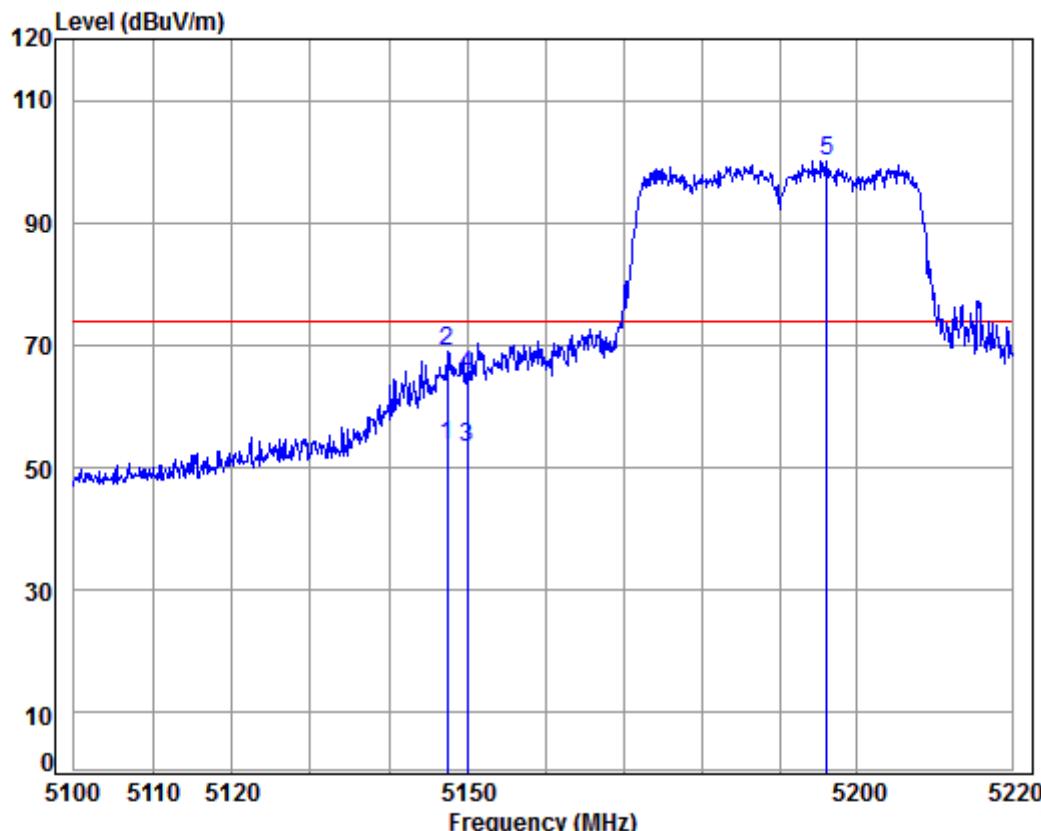
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5240 Bandedge  
: WIFI-AC20

	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Level	Over Limit	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5237.298	8.12	34.45	38.45	95.92	100.04	74.00	26.04
2	5350.000	8.18	34.43	38.43	45.13	49.31	74.00	-24.69

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



Condition: 3m HORIZONTAL

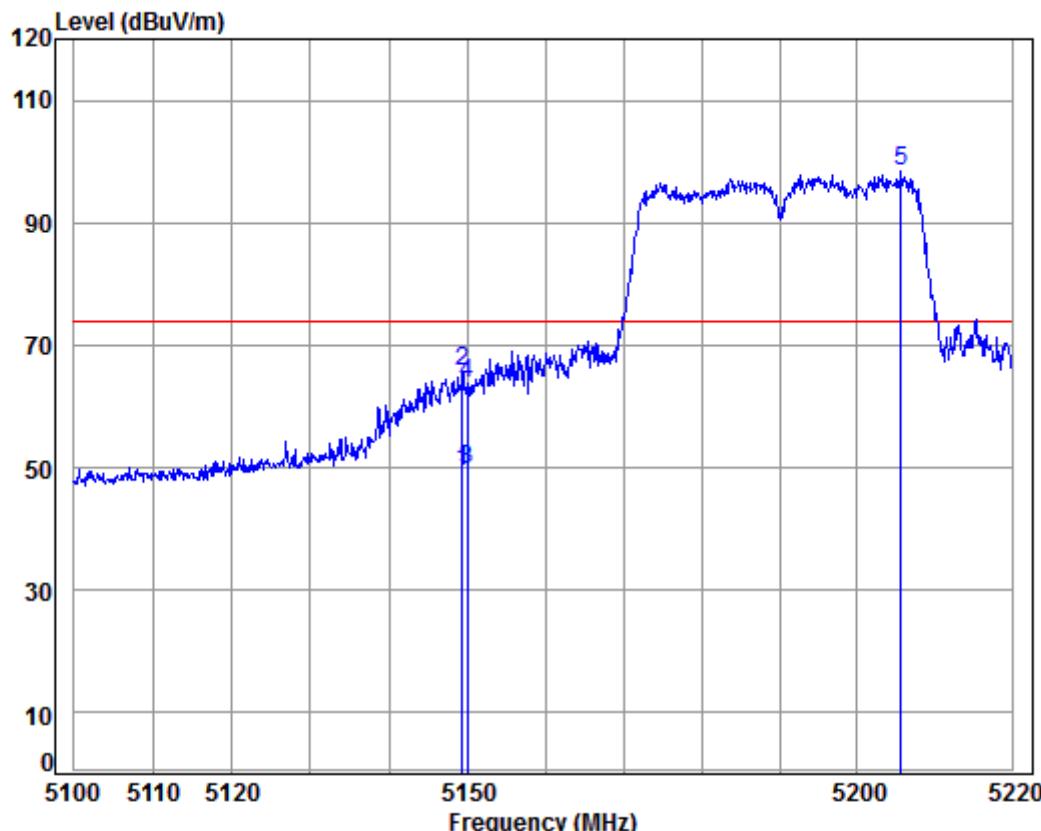
Job No: : 0696CR

Mode: : 5190 Bandedge

: WIFI-AC40

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	5147.426	8.08	34.47	38.47	49.53	53.61	54.00 -0.39 Average
2 pk	5147.426	8.08	34.47	38.47	64.84	68.92	74.00 -5.08 Peak
3	5150.000	8.08	34.47	38.47	49.26	53.34	54.00 -0.66 Average
4	5150.000	8.08	34.47	38.47	61.10	65.18	74.00 -8.82 Peak
5 pp	5196.139	8.10	34.46	38.46	95.83	99.93	74.00 25.93

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



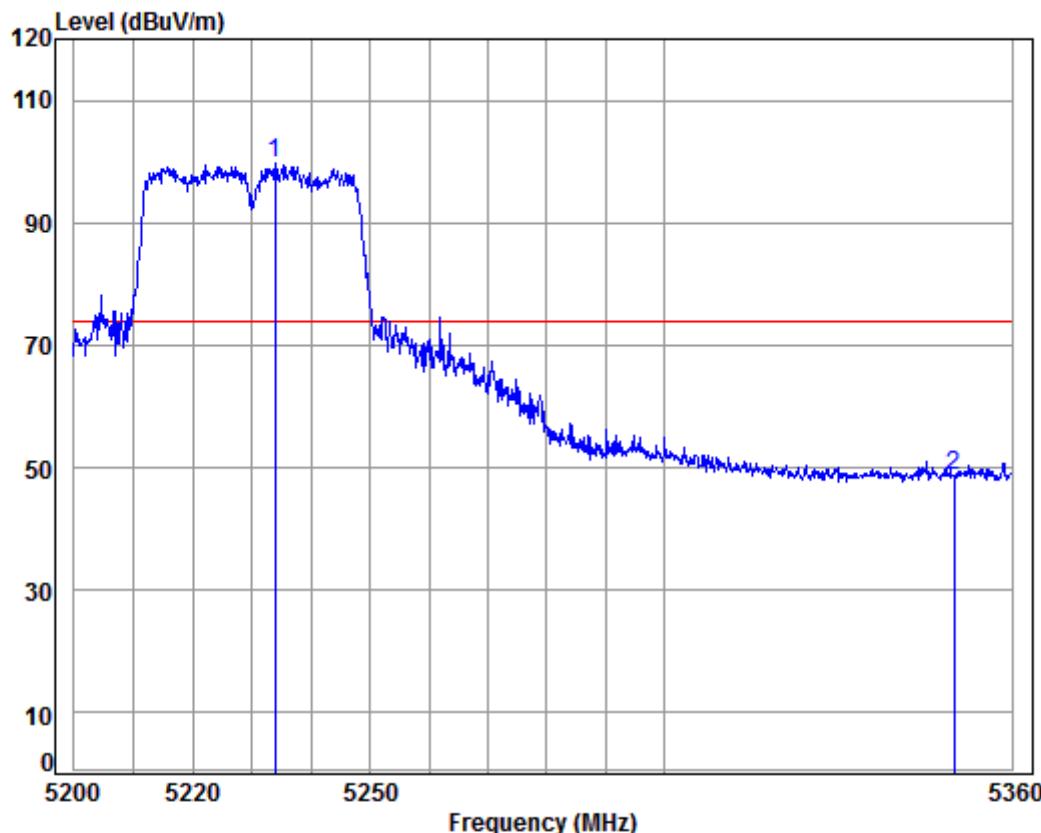
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5190 Bandedge  
: WIFI-AC40

	Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
		Loss	Factor	Factor	Level			
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5149.342	8.08	34.47	38.47	45.37	49.45	54.00	-4.55 Average
2	pk 5149.342	8.08	34.47	38.47	61.63	65.71	74.00	-8.29 Peak
3	av 5150.000	8.08	34.47	38.47	45.54	49.62	54.00	-4.38 Average
4	5150.000	8.08	34.47	38.47	59.74	63.82	74.00	-10.18 Peak
5	pp 5205.694	8.11	34.46	38.46	94.23	98.34	74.00	24.34

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



Condition: 3m HORIZONTAL

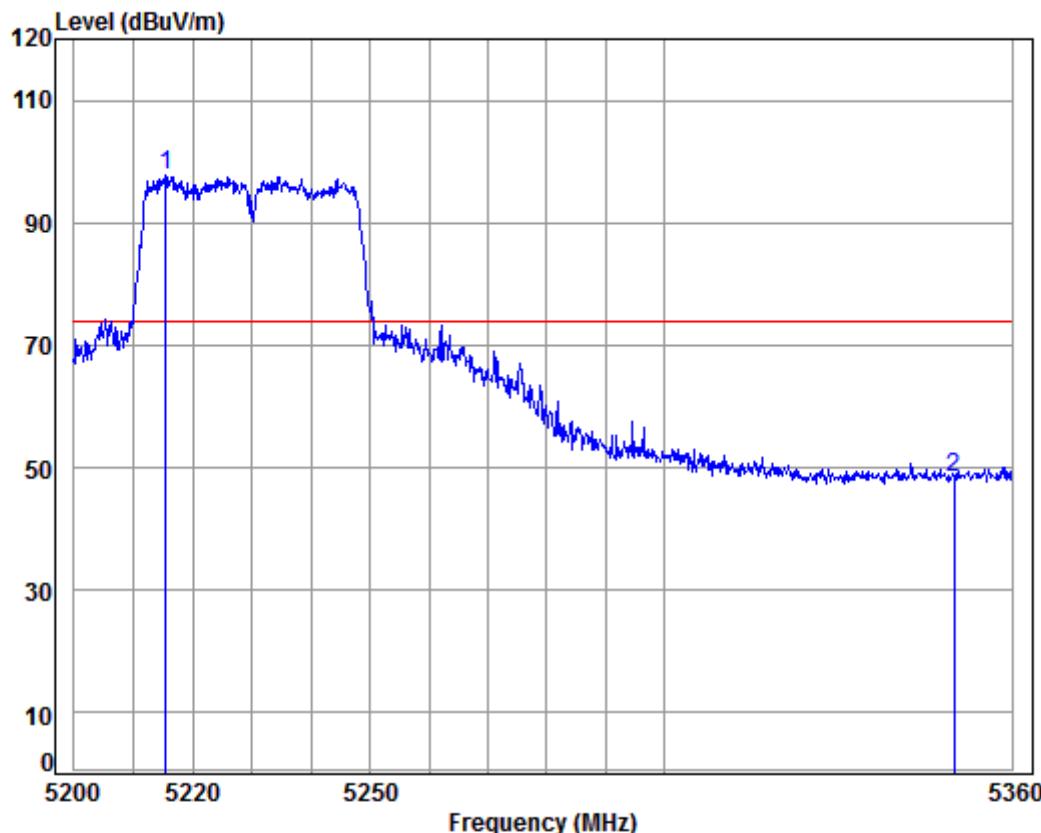
Job No: : 0696CR

Mode: : 5230 Bandedge

: WIFI-AC40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5233.833	8.12	34.45	38.45	95.46	99.58	74.00 25.58
2	5350.000	8.18	34.43	38.43	44.59	48.77	74.00 -25.23

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



Condition: 3m VERTICAL

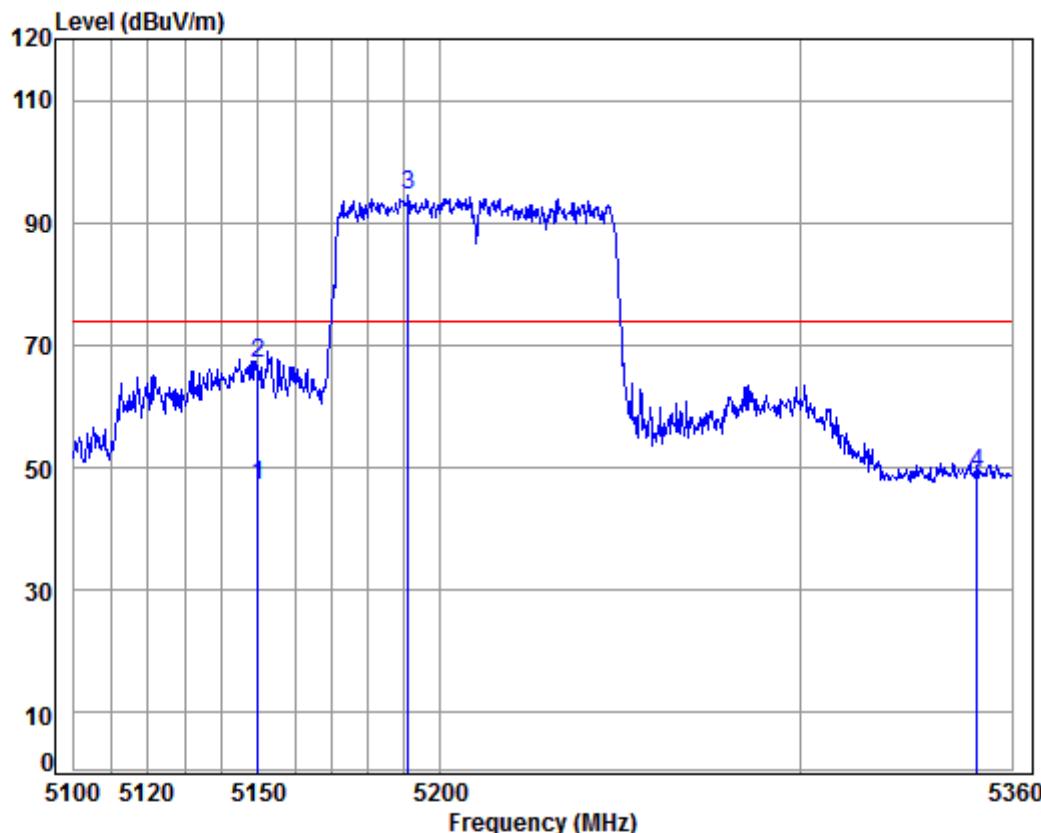
Job No: : 0696CR

Mode: : 5230 Bandedge

: WIFI-AC40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5215.467	8.11	34.46	38.46	93.57	97.68	74.00 23.68
2	5350.000	8.18	34.43	38.43	44.37	48.55	74.00 -25.45

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



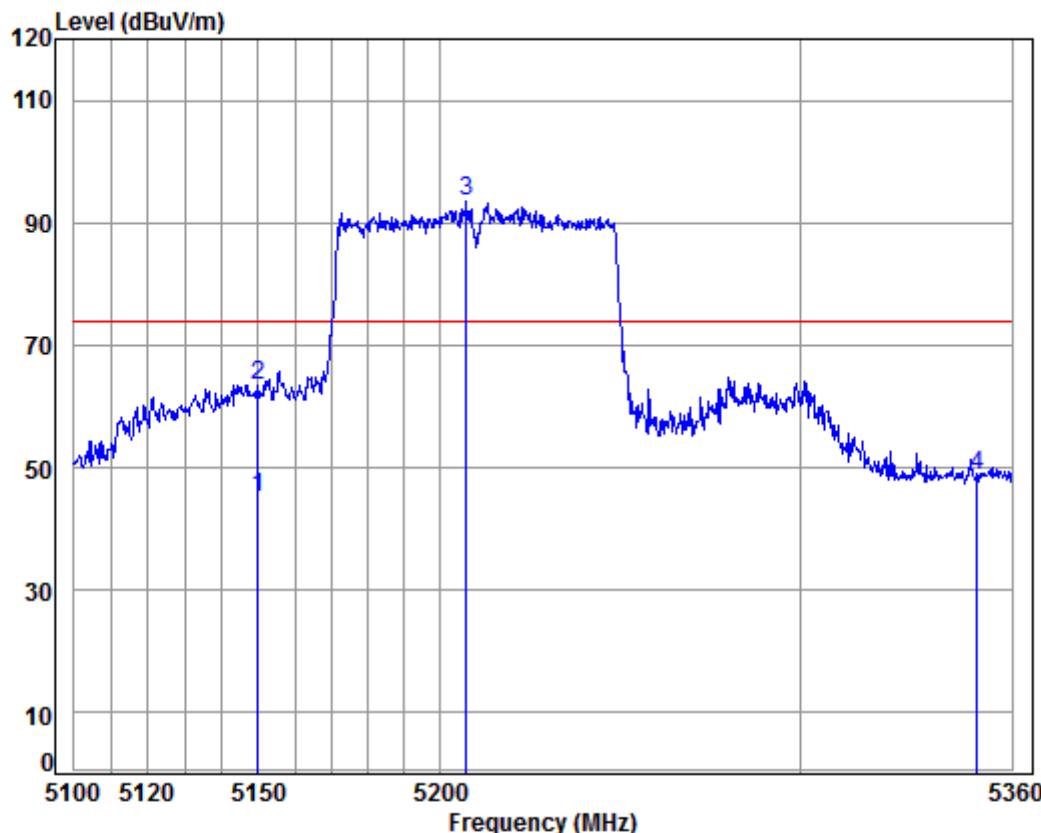
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5210 Bandedge  
: WIFI-AC80

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	42.97	47.05	54.00 -6.95 Average
2 pk	5150.000	8.08	34.47	38.47	63.05	67.13	74.00 -6.87 Peak
3 pp	5191.082	8.10	34.46	38.46	90.34	94.44	74.00 20.44
4	5350.000	8.18	34.43	38.43	45.02	49.20	74.00 -24.80

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



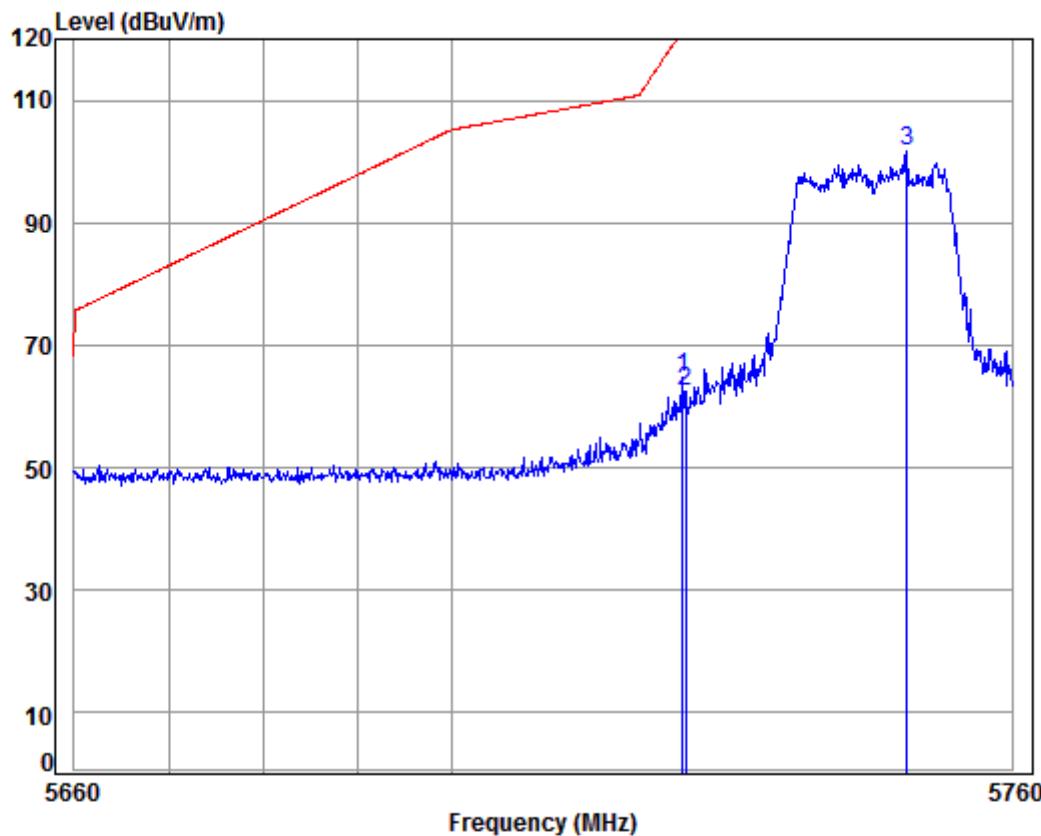
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5210 Bandedge  
: WIFI-AC80

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	40.95	45.03	54.00	-8.97 Average
2 pk 5150.000	8.08	34.47	38.47	59.33	63.41	74.00	-10.59 Peak
3 pp 5207.110	8.11	34.46	38.46	89.40	93.51	74.00	19.51
4 5350.000	8.18	34.43	38.43	44.51	48.69	74.00	-25.31

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



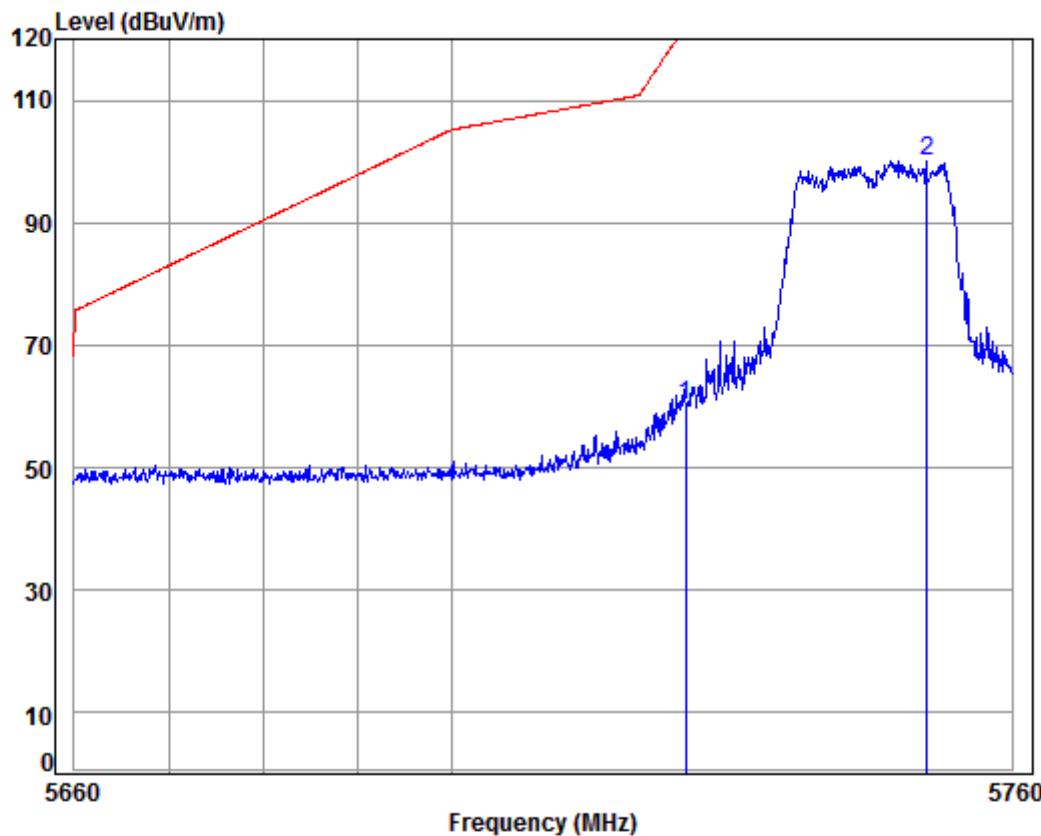
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5745 Bandedge  
: WIFI-A20

	Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
		Loss	Factor	Factor	Level			
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5724.700	8.48	34.54	38.36	60.00	64.66	121.52	-56.86
2	5725.000	8.48	34.54	38.35	57.82	62.49	122.20	-59.71
3 pp	5748.713	8.50	34.55	38.35	96.88	101.58	125.20	-23.62

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



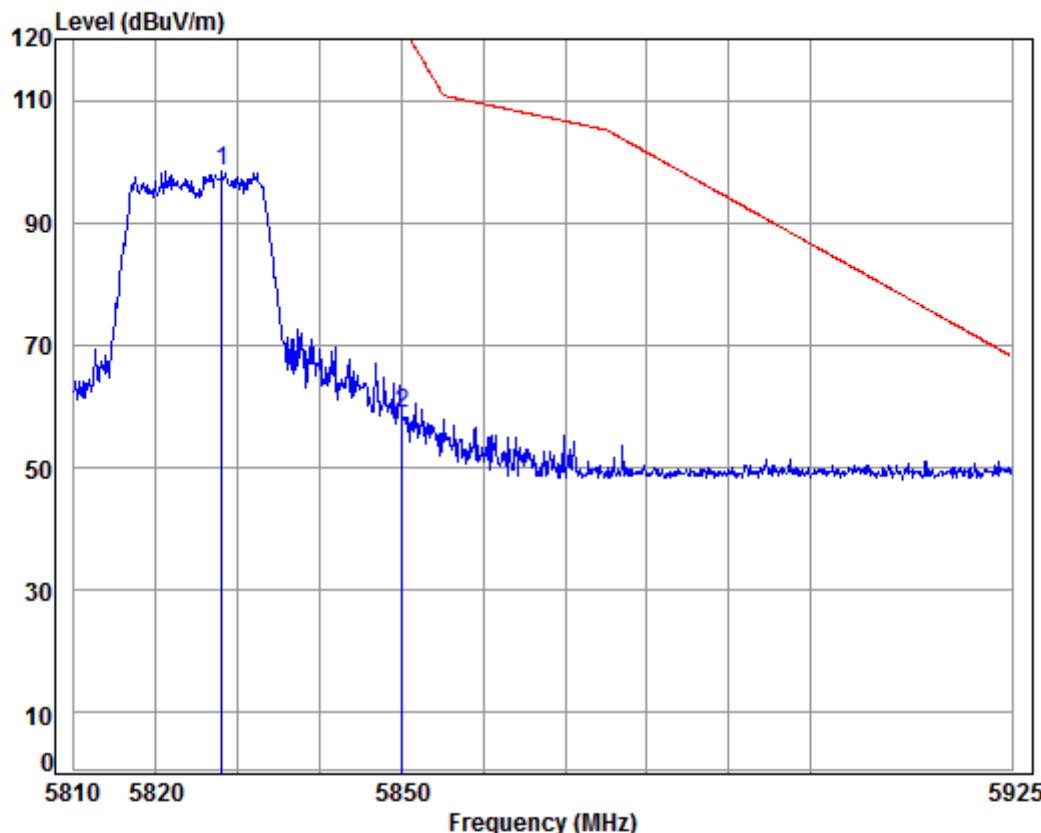
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5745 Bandedge  
: WIFI-A20

	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	55.54	60.21	122.20	-61.99	
2 pp	5750.827	8.51	34.55	38.35	95.35	100.06	125.20	-25.14	

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



Condition: 3m HORIZONTAL

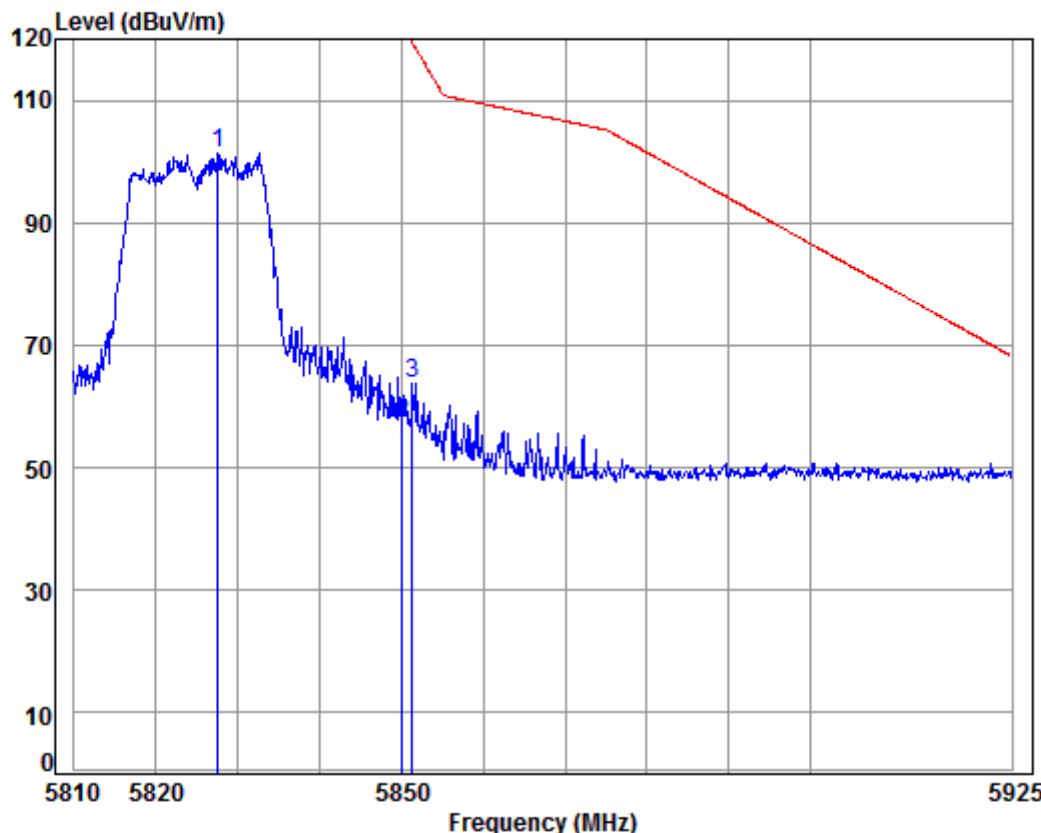
Job No: : 0696CR

Mode: : 5825 Bandedge

: WIFI-A20

		Cable Freq	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	pp	5828.021	8.58	34.60	38.33	93.63	98.48	125.20	-26.72	
2		5850.000	8.60	34.61	38.33	54.09	58.97	122.20	-63.23	

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



Condition: 3m VERTICAL

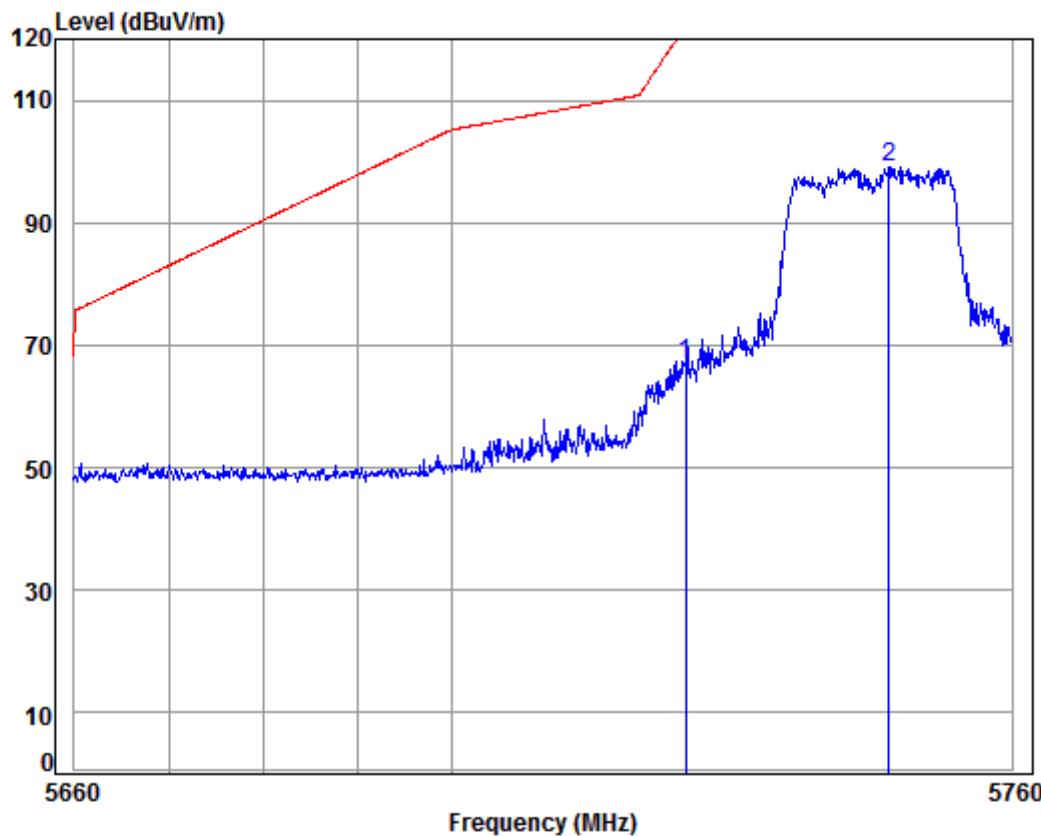
Job No: : 0696CR

Mode: : 5825 Bandedge

: WIFI-A20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5827.449	8.58	34.60	38.33	96.59	101.44	125.20 -23.76
2	5850.000	8.60	34.61	38.33	52.21	57.09	122.20 -65.11
3	5851.255	8.61	34.61	38.33	58.94	63.83	119.34 -55.51

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



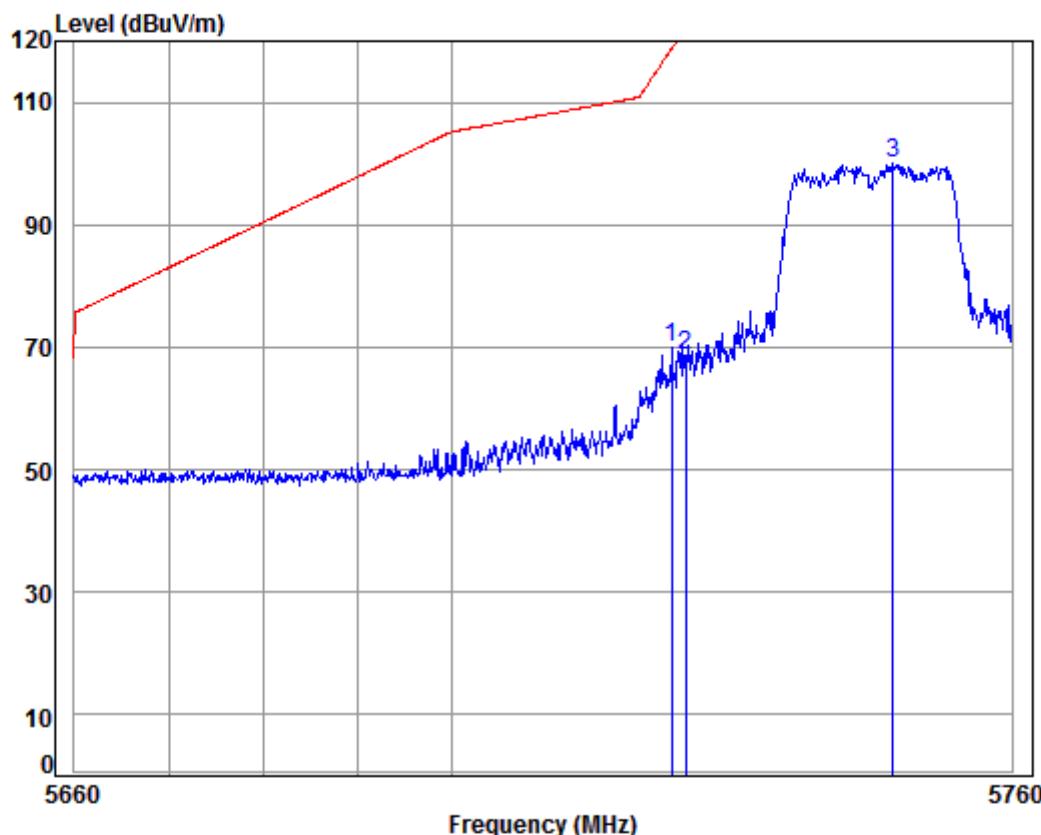
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5745 Bandedge  
: WIFI-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	5725.000	8.48	34.54	38.35	62.21	66.88	122.20	-55.32	
2 pp	5746.800	8.50	34.55	38.35	94.49	99.19	125.20	-26.01	

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



Condition: 3m VERTICAL

Job No: : 0696CR

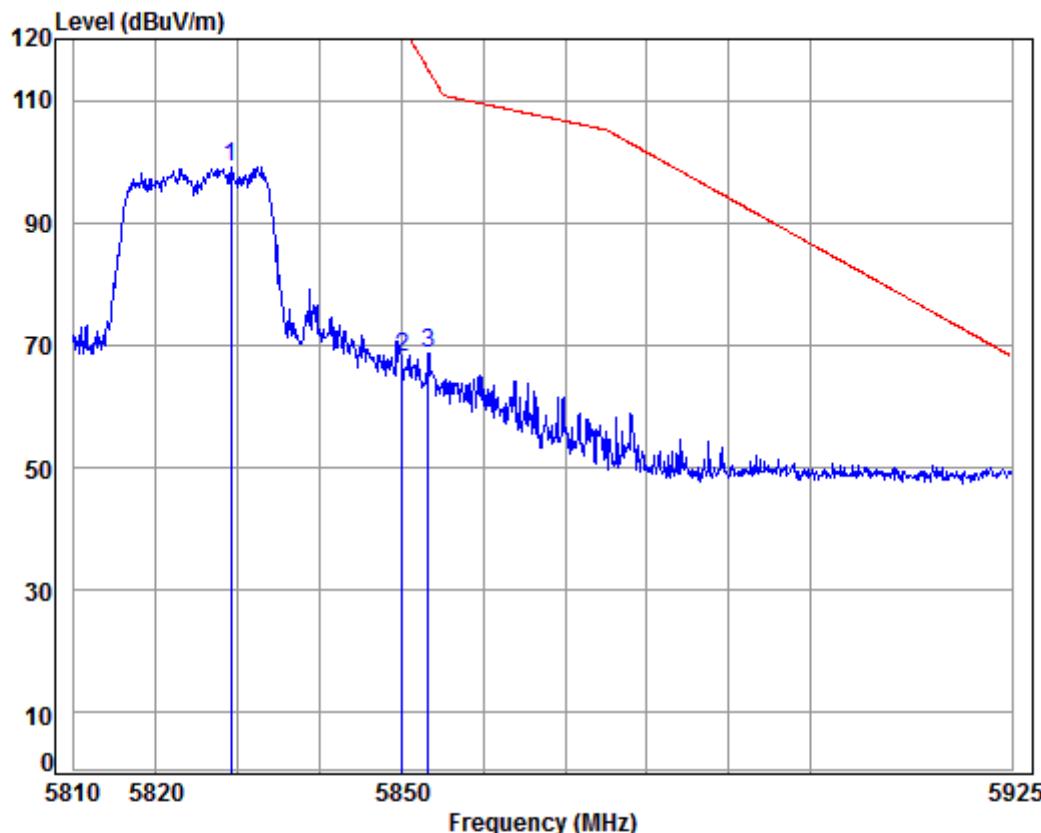
Mode: : 5745 Bandedge

: WIFI-N20

	Cable Freq	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	

	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5723.498	8.48	34.54	38.36	65.16	69.82	118.77	-48.95	
2	5725.000	8.48	34.54	38.35	63.85	68.52	122.20	-53.68	
3 pp	5747.203	8.50	34.55	38.35	95.33	100.03	125.20	-25.17	

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



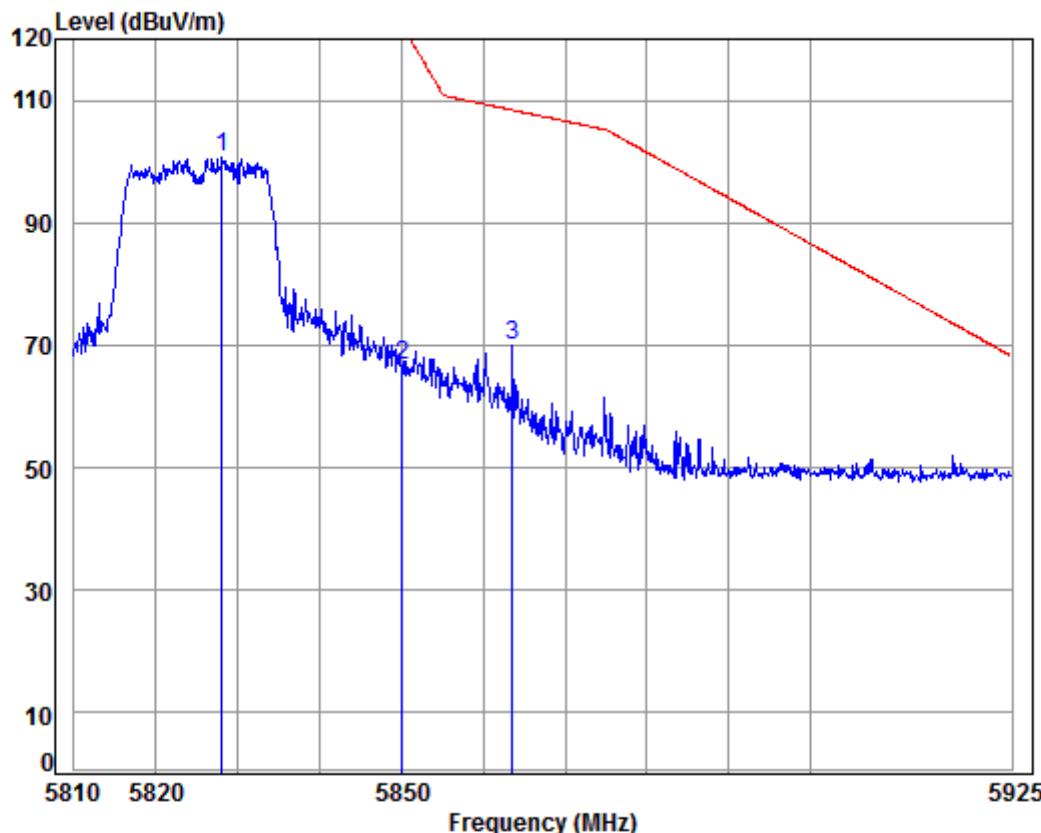
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5825 Bandedge  
: WIFI-N20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5829.048	8.58	34.60	38.33	94.35	99.20	125.20 -26.00
2	5850.000	8.60	34.61	38.33	63.06	67.94	122.20 -54.26
3	5853.205	8.61	34.61	38.33	63.76	68.65	114.89 -46.24

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



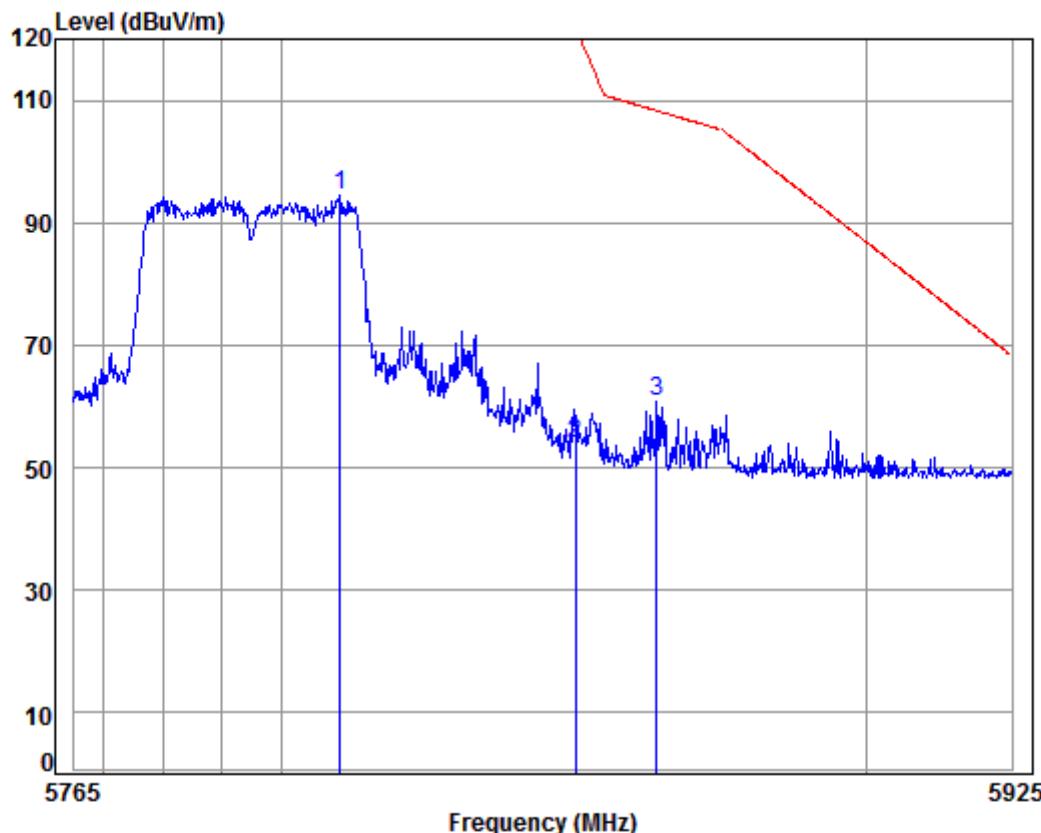
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5825 Bandedge  
: WIFI-N20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5828.021	8.58	34.60	38.33	95.90	100.75	125.20 -24.45
2	5850.000	8.60	34.61	38.33	61.68	66.56	122.20 -55.64
3	5863.424	8.62	34.62	38.33	64.98	69.89	108.44 -38.55

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



Condition: 3m HORIZONTAL

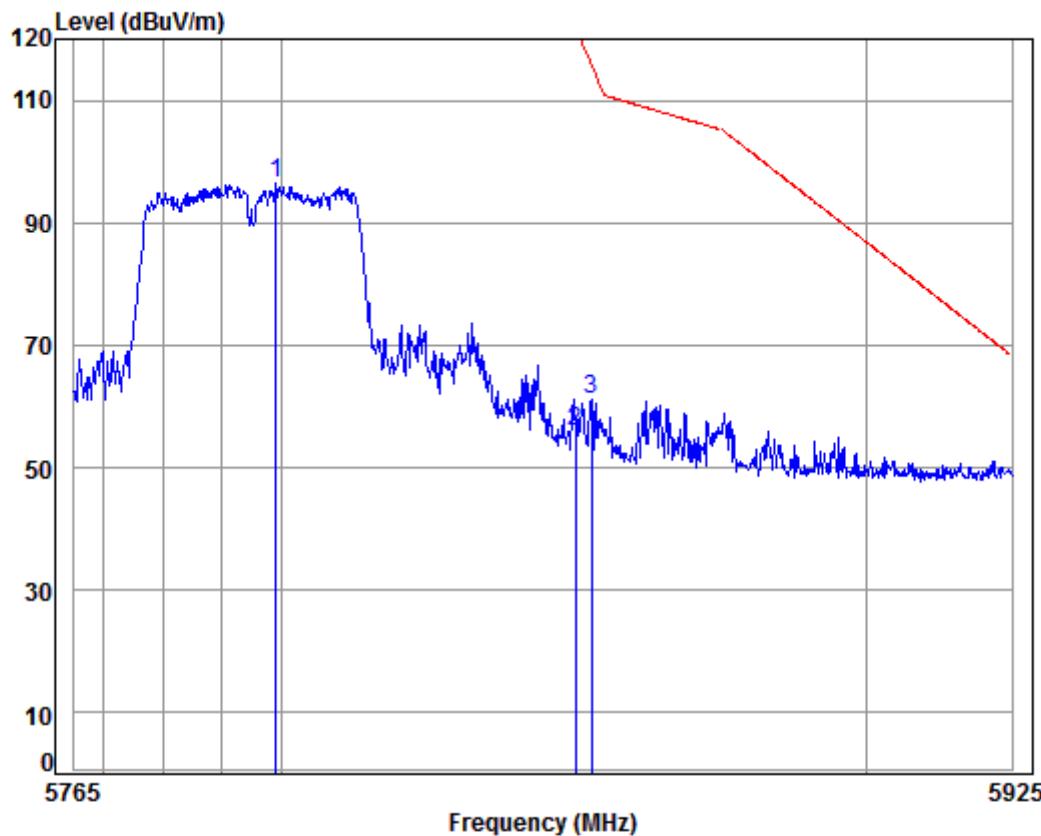
Job No: : 0696CR

Mode: : 5795 Bandedge

: WIFI-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 pp	5809.996	8.57	34.59	38.34	89.80	94.62	125.20
2	5850.000	8.60	34.61	38.33	49.14	54.02	122.07
3	5863.844	8.62	34.62	38.33	55.95	60.86	108.32
							-30.58
							-68.05
							-47.46

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



Condition: 3m VERTICAL

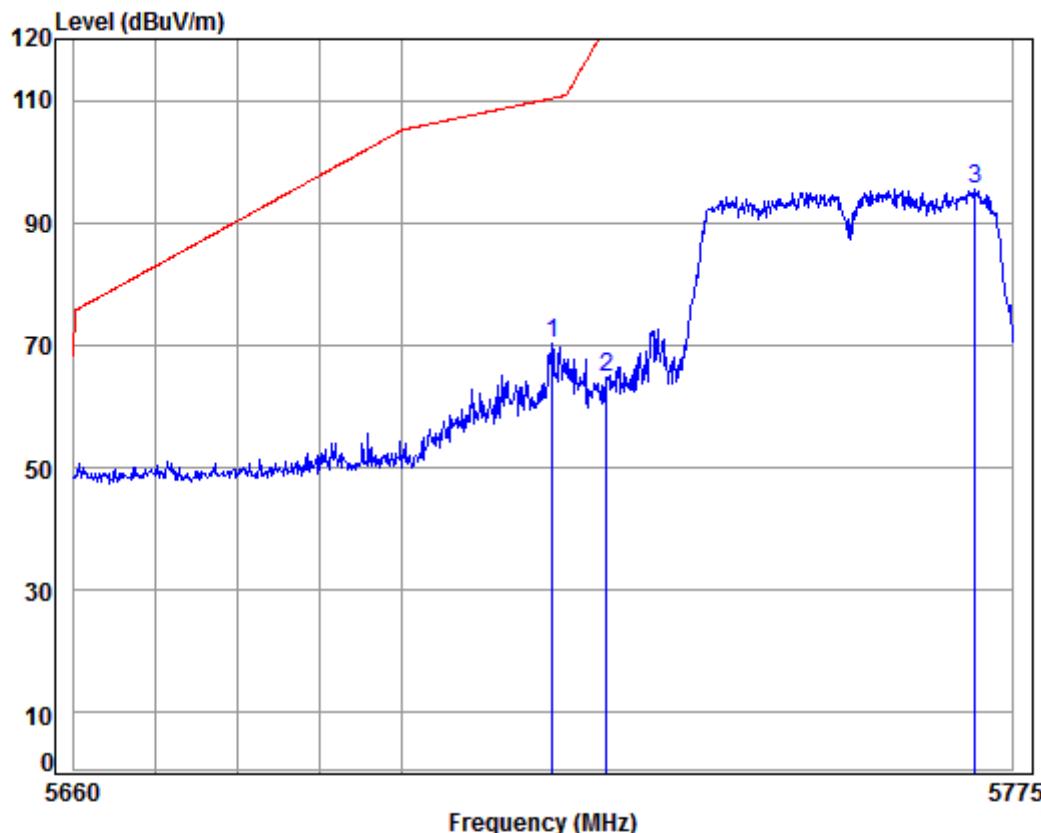
Job No: : 0696CR

Mode: : 5795 Bandedge

: WIFI-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	5799.031	8.55	34.58	38.34	91.66	96.45	125.20	-28.75
2	5850.000	8.60	34.61	38.33	50.92	55.80	122.20	-66.40
3	5852.778	8.61	34.61	38.33	56.20	61.09	115.87	-54.78

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



Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5745 Bandedge

: WIFI-N40

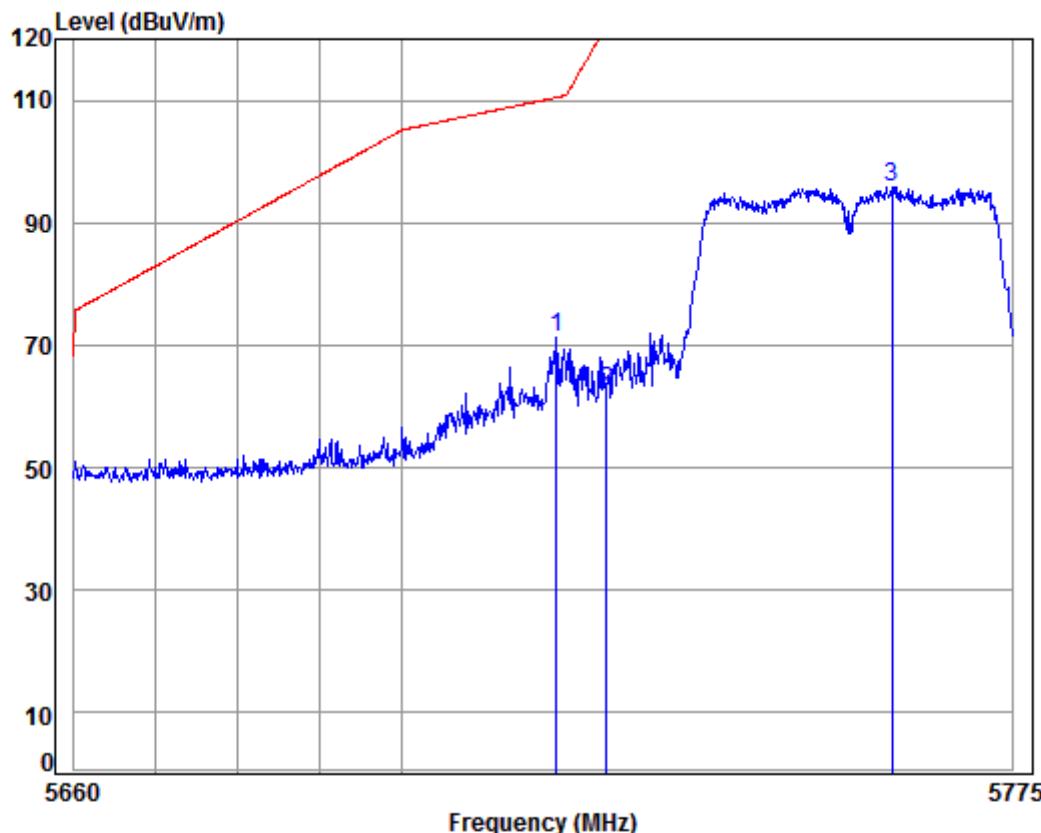
	Cable Freq	Loss	Ant Factor	Preamp Factor	Read Level dB	Level dBuV	Limit dBuV/m	Over Line dBuV/m	Limit dB	Over Remark
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1	5718.361	8.47	34.53	38.36	65.54	70.18	110.34	-40.16	
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2	5725.000	8.48	34.54	38.35	59.99	64.66	125.20	-60.54	
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3 pp	5770.472	8.53	34.57	38.35	90.75	95.50	125.20	-29.70	
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Mode:g; Polarization:Vertical; Modulation Type:802.11n; bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL

Job No: : 0696CR

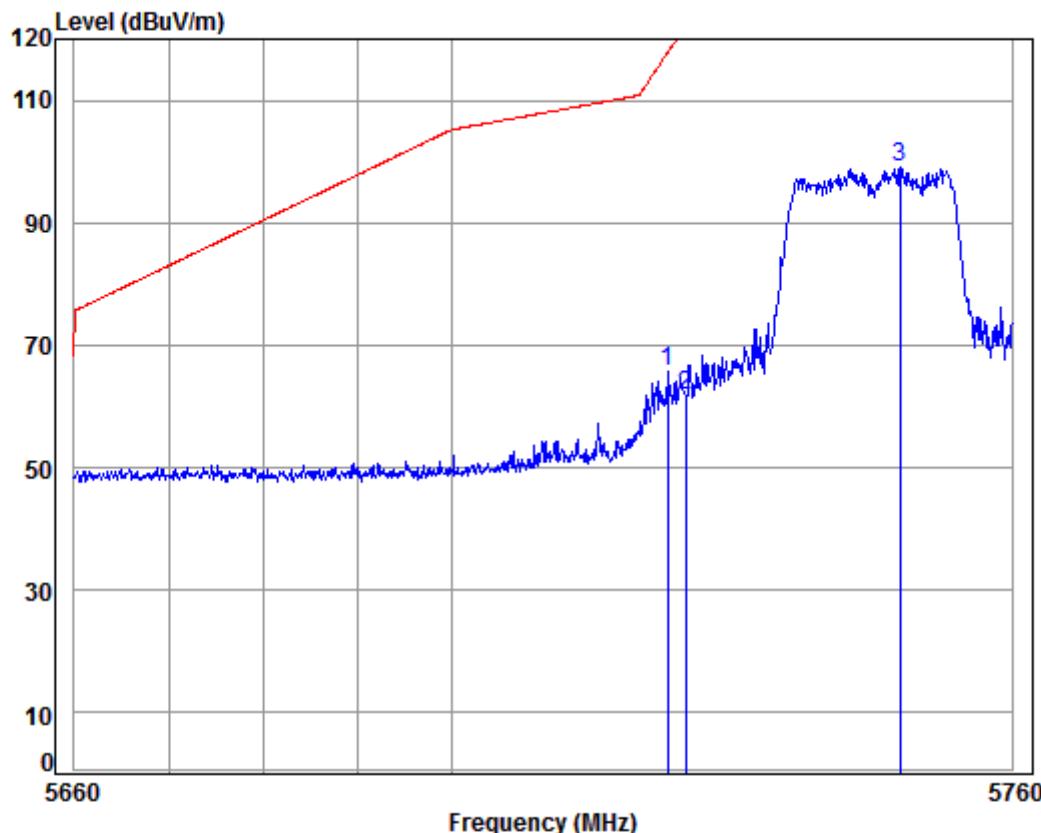
Mode: : 5745 Bandedge

: WIFI-N40

	Cable Freq	Loss	Ant Factor	Preamp Factor	Read Level dB	Level dBuV	Limit dBuV/m	Over Line dBuV/m	Over Limit dB	Remark
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1	5718.821	8.47	34.53	38.36	66.77	71.41	110.47	-39.06	
2	5725.000	8.48	34.54	38.35	57.89	62.56	125.20	-62.64	
3 pp	5760.150	8.52	34.56	38.35	90.98	95.71	125.20	-29.49	

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



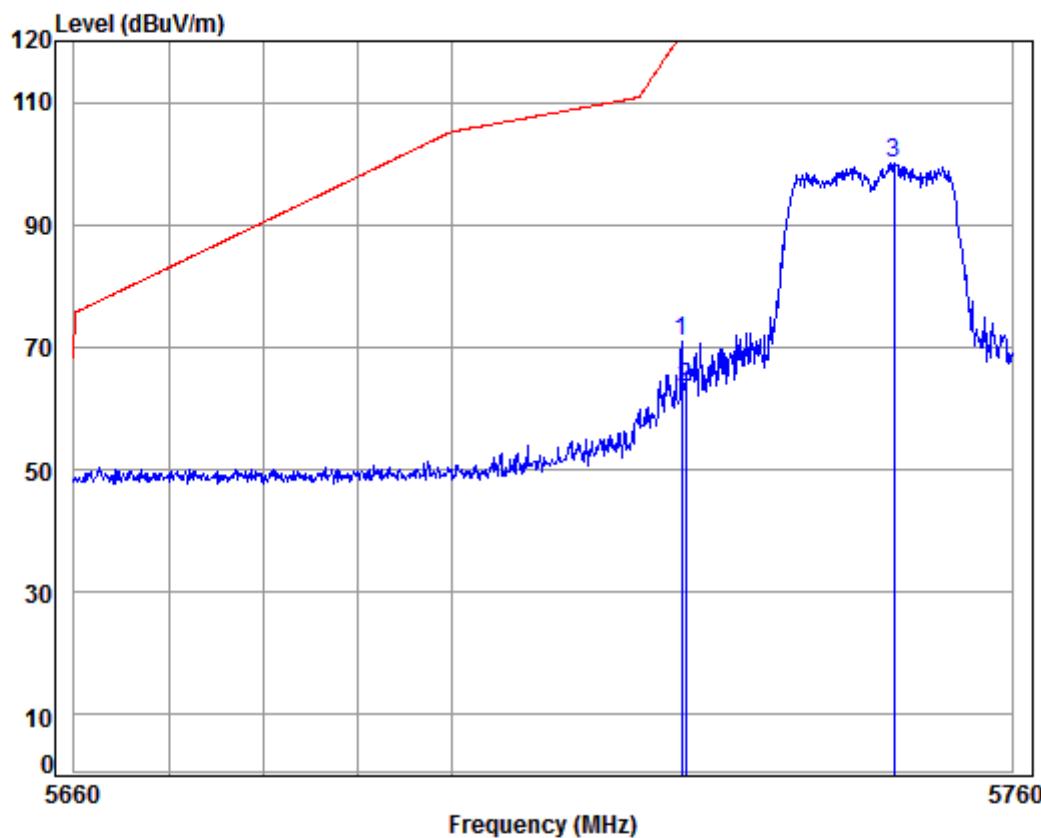
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5745 Bandedge  
: WIFI-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	5723.096	8.48	34.54	38.36	61.10	65.76	117.86	-52.10
2	5725.000	8.48	34.54	38.35	57.23	61.90	122.20	-60.30
3 pp	5748.008	8.50	34.55	38.35	94.22	98.92	125.20	-26.28

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



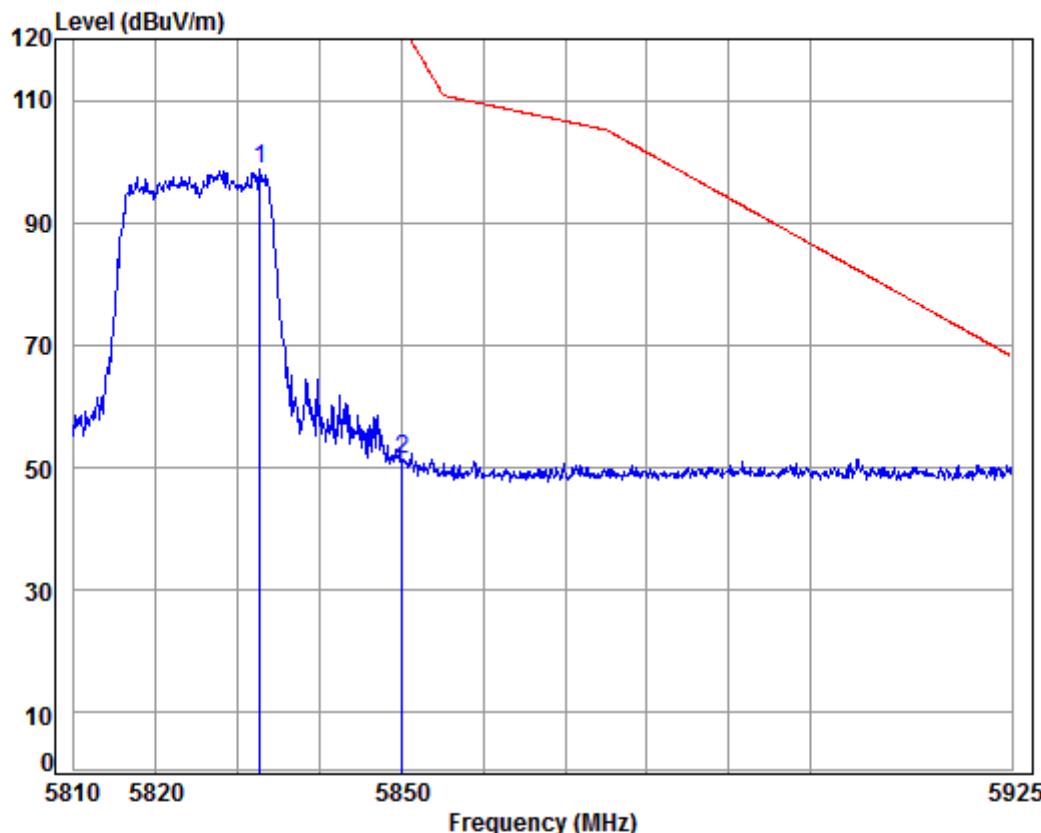
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5745 Bandedge  
: WIFI-AC20

	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	5724.600	8.48	34.54	38.36	66.32	70.98	121.29	-50.31	
2	5725.000	8.48	34.54	38.35	58.84	63.51	122.20	-58.69	
3 pp	5747.303	8.50	34.55	38.35	95.43	100.13	125.20	-25.07	

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



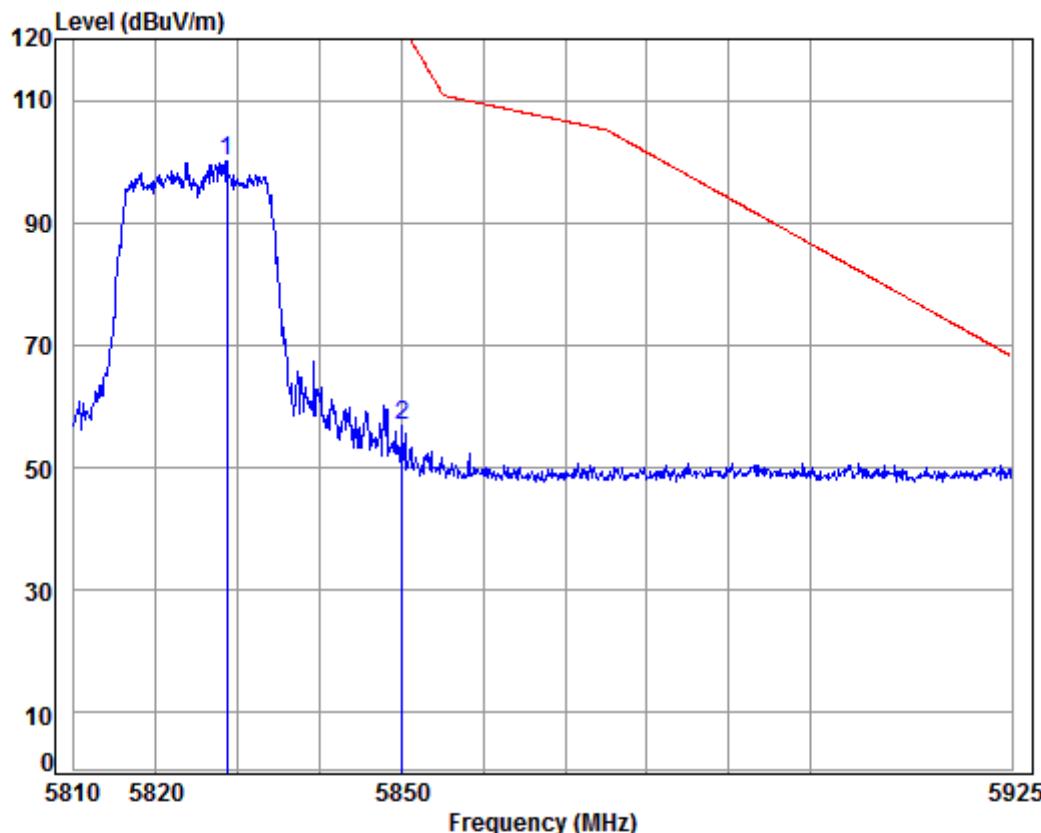
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5825 Bandedge  
: WIFI-AC20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5832.591	8.59	34.60	38.33	93.99	98.85	125.20 -26.35
2	5850.000	8.60	34.61	38.33	46.36	51.24	122.20 -70.96

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



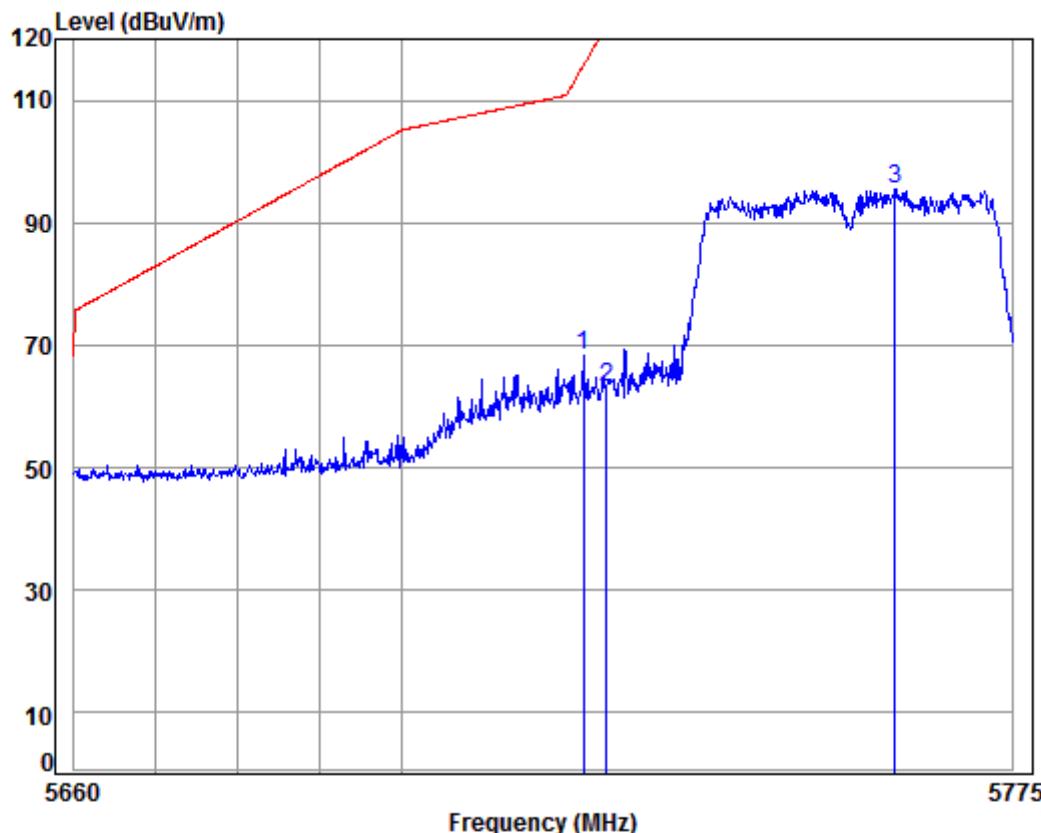
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5825 Bandedge  
: WIFI-AC20

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5828.592	8.58	34.60	38.33	95.19	100.04	125.20 -25.16
2	5850.000	8.60	34.61	38.33	52.07	56.95	122.20 -65.25

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



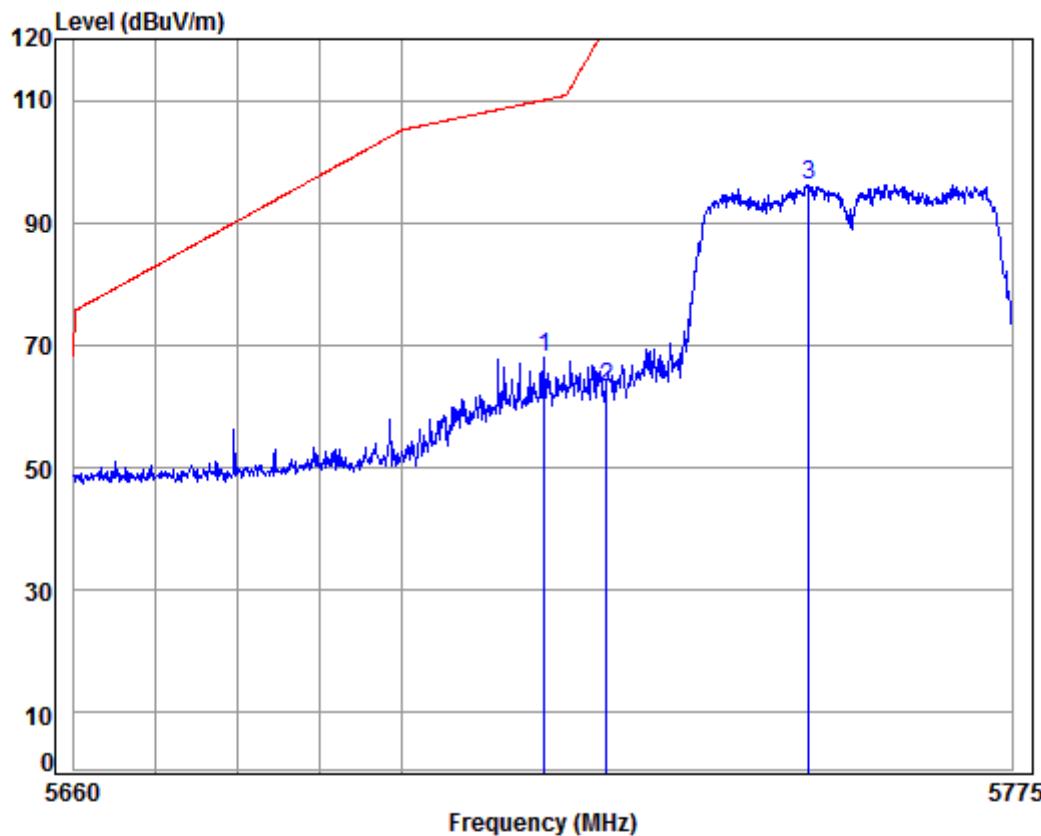
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5755 Bandedge  
: WIFI-AC40

	Cable Freq	Ant Loss	Preamp Factor	Read Level	Limit Level	Line Level	Over Limit	Over Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5722.158	8.48	34.54	38.36	63.84	68.50	115.72	-47.22
2	5725.000	8.48	34.54	38.35	58.48	63.15	122.20	-59.05
3 pp	5760.498	8.52	34.56	38.35	90.75	95.48	125.20	-29.72

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



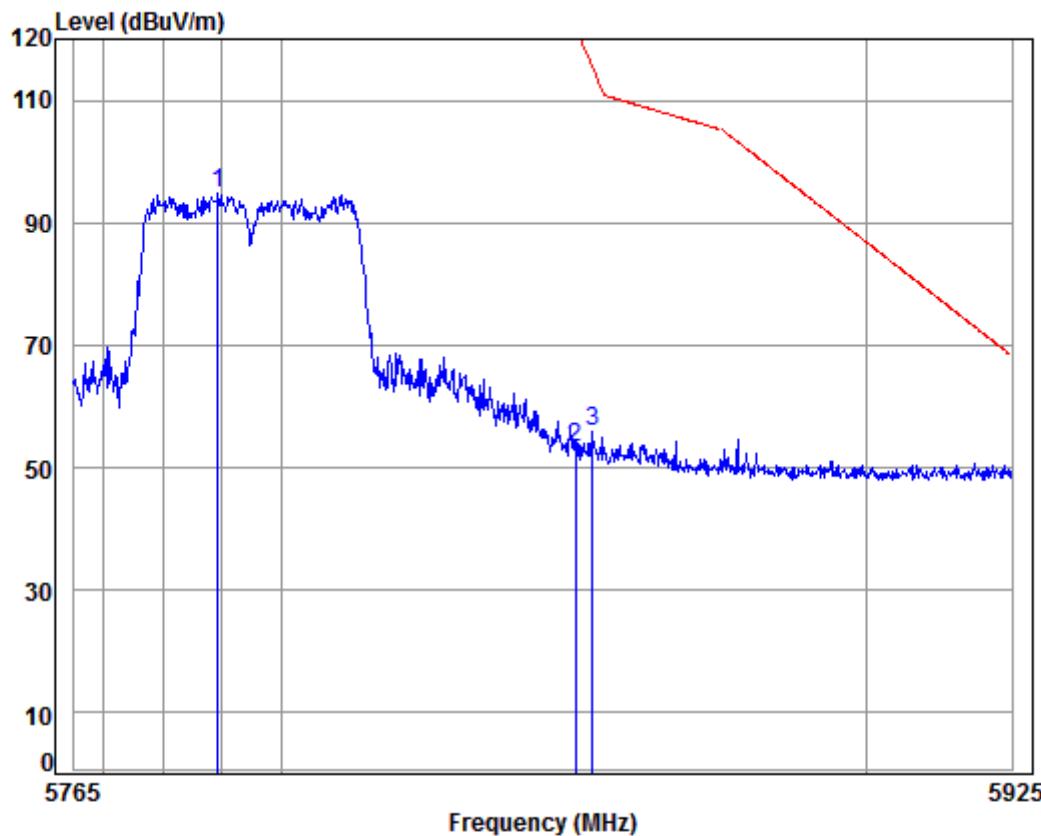
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5755 Bandedge  
: WIFI-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	5717.441	8.47	34.53	38.36	63.25	67.89	110.08	-42.19
2	5725.000	8.48	34.54	38.35	58.51	63.18	122.20	-59.02
3 pp	5749.848	8.51	34.55	38.35	91.56	96.27	125.20	-28.93

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



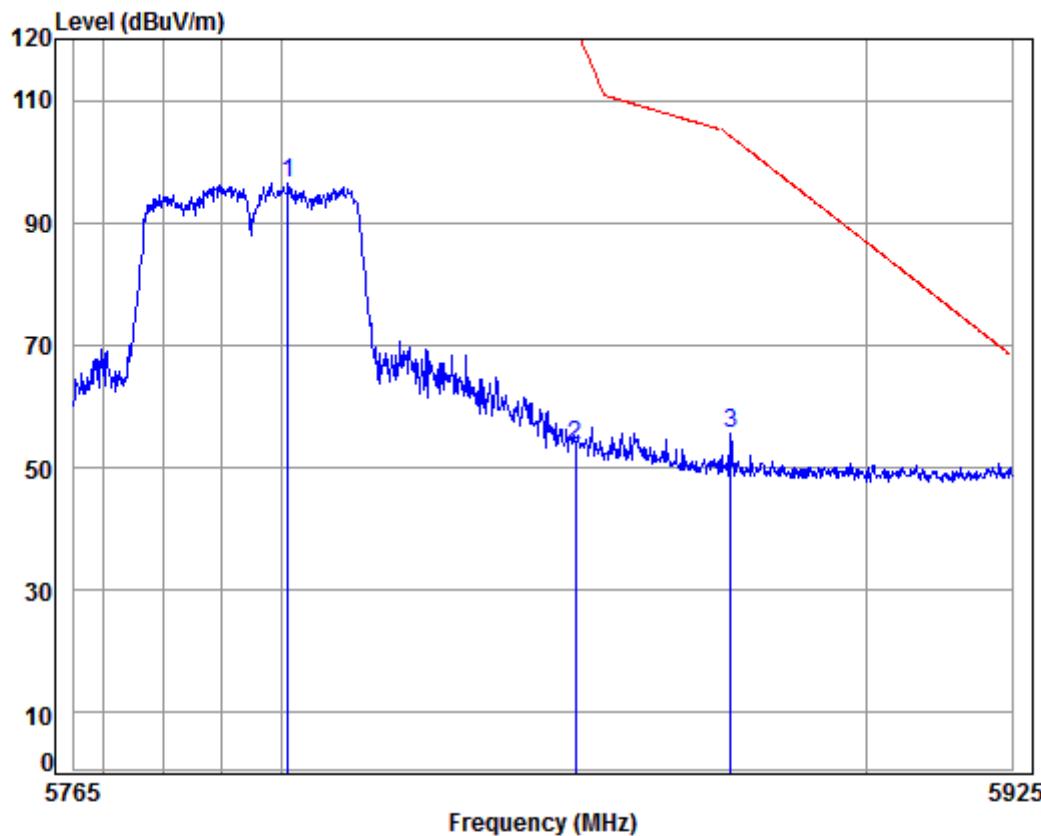
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5795 Bandedge  
: WIFI-AC40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
1 pp	5789.197	8.54	34.58	38.34	90.16	94.94	125.20 -30.26
2	5850.000	8.60	34.61	38.33	48.29	53.17	122.20 -69.03
3	5852.938	8.61	34.61	38.33	50.87	55.76	115.50 -59.74

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



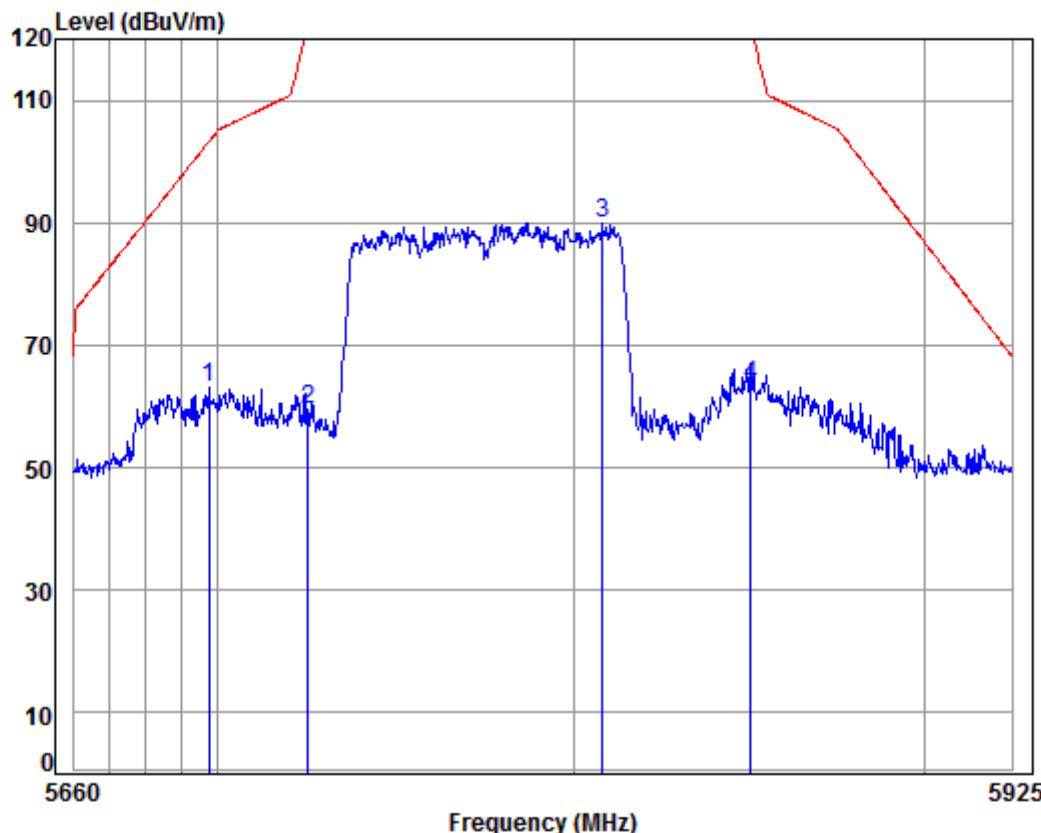
Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5795 Bandedge  
: WIFI-AC40

Freq	Cable	Ant	Preamp	Read	Limit	Over	Remark
	Freq	Loss	Factor	Level			
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5801.096	8.56	34.58	38.34	91.70	96.50	125.20
2	5850.000	8.60	34.61	38.33	48.72	53.60	122.20
3	5876.539	8.63	34.63	38.32	50.65	55.59	104.06
							-28.70
							-68.60
							-48.47

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



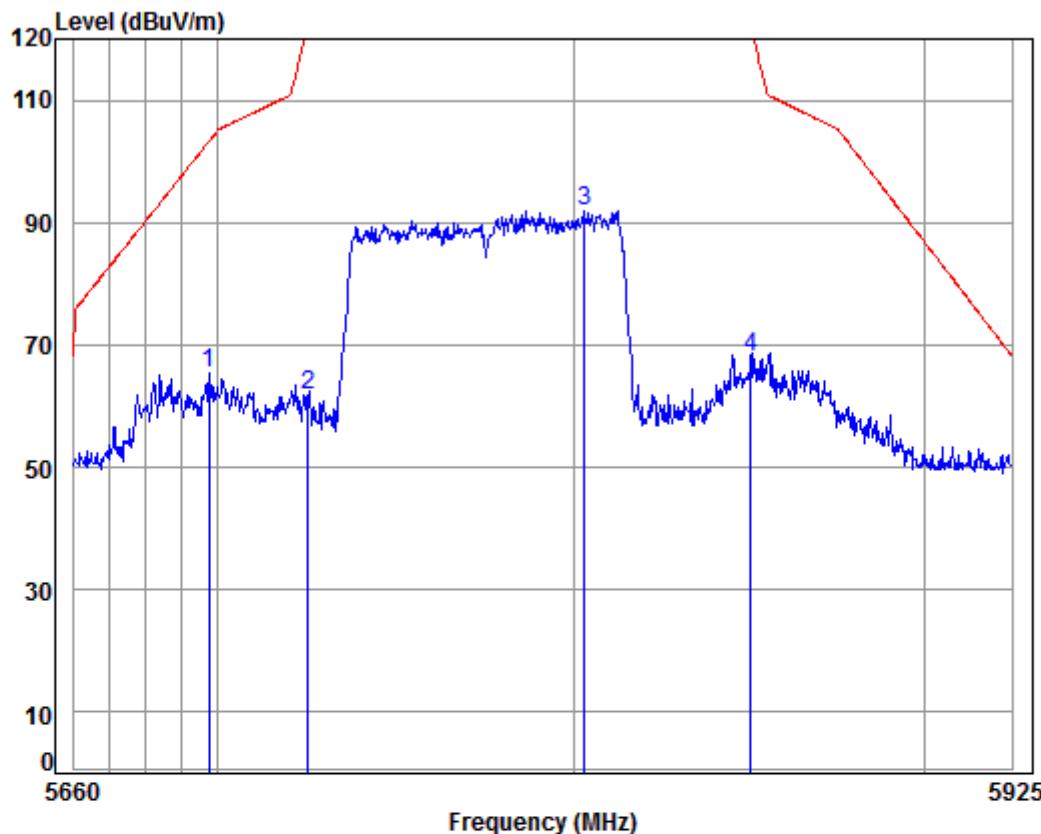
Condition: 3m HORIZONTAL

Job No: : 0696CR

Mode: : 5775 Bandedge  
: WIFI-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	5697.417	8.45	34.52	38.36	58.54	63.15	103.29	-40.14	
2	5725.000	8.48	34.54	38.35	54.91	59.58	122.20	-62.62	
3 pp	5807.968	8.56	34.59	38.34	85.12	89.93	125.20	-35.27	
4	5850.000	8.60	34.61	38.33	58.41	63.29	122.20	-58.91	

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



Condition: 3m VERTICAL

Job No: : 0696CR

Mode: : 5775 Bandedge  
: WIFI-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	5697.417	8.45	34.52	38.36	60.91	65.52	103.29	-37.77	
2	5725.000	8.48	34.54	38.35	57.25	61.92	122.20	-60.28	
3 pp	5802.655	8.56	34.58	38.34	87.11	91.91	125.20	-33.29	
4	5850.000	8.60	34.61	38.33	63.23	68.11	122.20	-54.09	

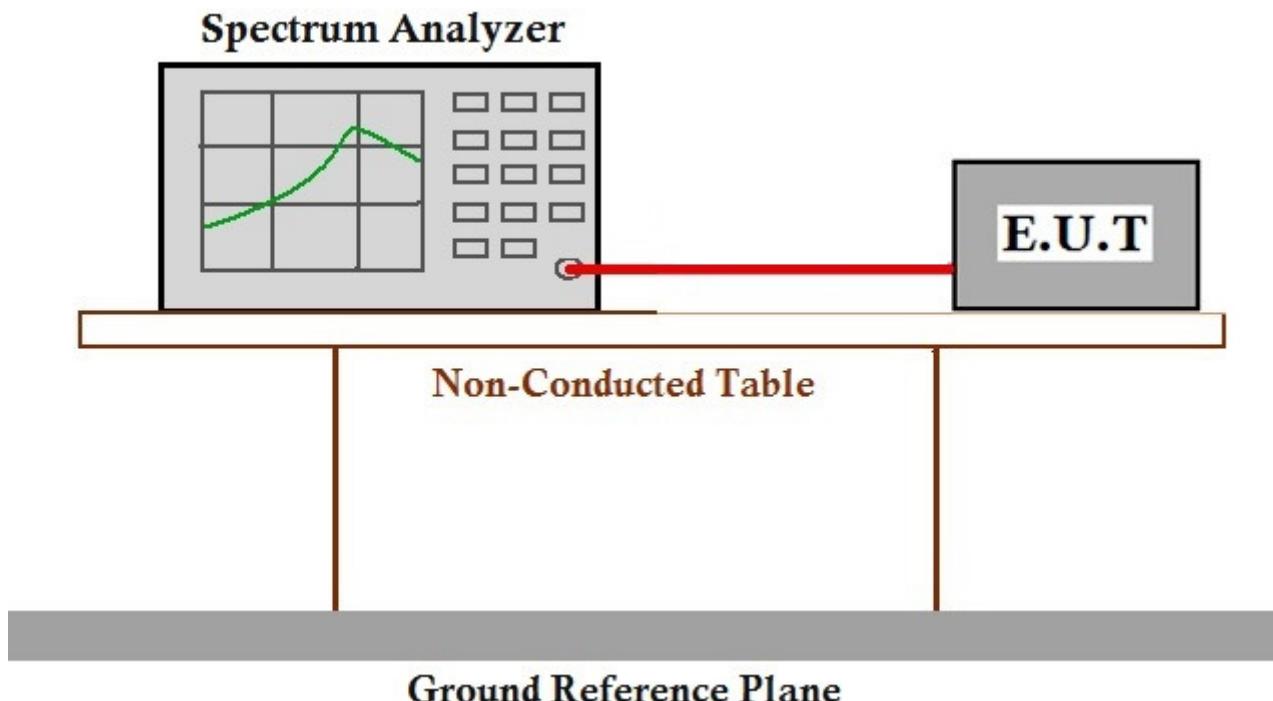
## 7.7 Frequency Stability

Test Requirement      47 CFR Part 15, Subpart C 15.407 (g)  
Test Method:            ANSI C63.10 (2013) Section 6.8  
Limit:                  The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 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 20 degrees C.

### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature:            25.0 °C              Humidity:    52 % RH              Atmospheric Pressure:    1015 mbar  
Pretest these mode to find the worst case:        f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.  
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.  
The worst case for final test:                        f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.  
g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.  
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); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80)  
Only the worst case is recorded in the report.

**7.7.2 Test Setup Diagram****7.7.3 Measurement Data**

The detailed test data see: Appendix 15.407

## 7.8 Radiated Emissions

Test Requirement      47 CFR Part 15, Subpart C 15.209 & 15.407(b)  
Test Method:            KDB 789033 D02 II G  
Measurement Distance: 10m

### 7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C      Humidity: 54 % RH      Atmospheric Pressure: 1020 mbar

Pretest these mode to find the worst case:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

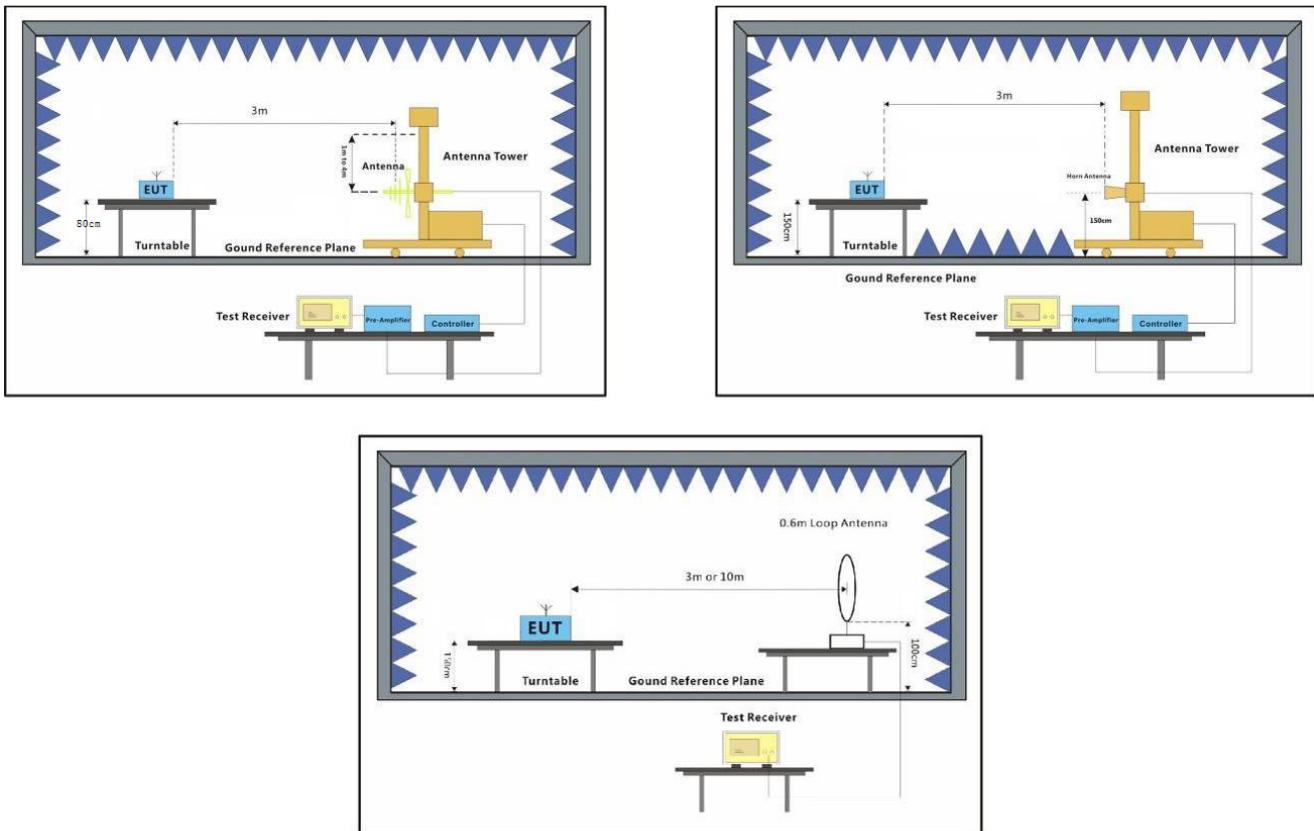
The worst case for final test:  
f:TX (5G Band I)\_Keep the EUT in continuously transmitting mode with modulation on Band I.

g:TX (5G Band III)\_Keep the EUT in continuously transmitting mode with modulation on Band III.

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)

For below 1GHz, after Pre-scan, find the 1Mbps of rate of 802.11a at lowest channel is the worst case for 5G WIF.

**7.8.2 Test Setup Diagram**

### **7.8.3 Measurement Data**

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

**Radiated Emission 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:

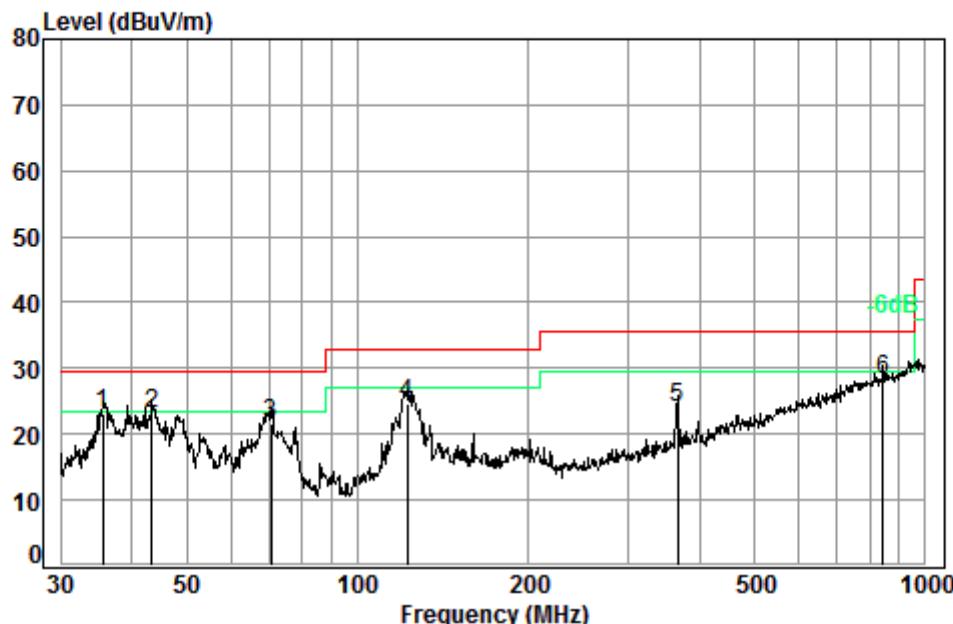
Mode f:

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
35.62	23.09	14.27	47.57	33.55	40.00	-6.45	V
43.51	23.10	14.29	47.63	33.56	40.00	-6.44	V
70.34	21.65	12.09	40.31	32.11	40.00	-7.89	V
122.40	24.63	17.04	56.80	35.09	43.50	-8.41	V
366.82	24.00	15.85	52.83	34.46	46.00	-11.54	V
842.13	28.40	26.30	87.68	38.86	46.00	-7.14	V
35.25	16.58	6.75	22.48	27.04	40.00	-12.96	H
53.32	14.56	5.35	17.82	25.02	40.00	-14.98	H
163.18	19.03	8.94	29.81	29.49	43.50	-14.01	H
279.04	27.12	22.70	75.66	37.58	46.00	-8.42	H
531.96	24.34	16.48	54.94	34.80	46.00	-11.20	H
851.04	28.81	27.57	91.91	39.27	46.00	-6.73	H

**Radiated Emission below 1GHz**

30MHz~1GHz (QP)

Test mode:	f	Vertical
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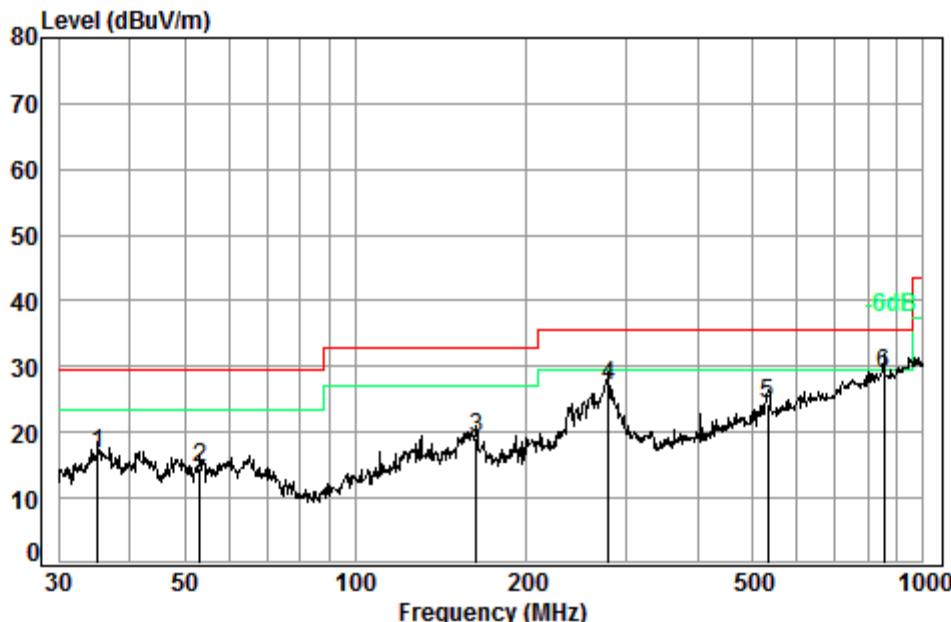
Condition: 10m VERTICAL

Job No. : 00696CR

Test Mode: f

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Freq	Loss	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	35.62	6.71	11.71	32.65	37.32	23.09	29.50	-6.41
2 pp	43.51	6.80	12.01	32.65	36.94	23.10	29.50	-6.40
3	70.34	6.91	10.18	32.64	37.20	21.65	29.50	-7.85
4	122.40	7.31	11.45	32.63	38.50	24.63	33.00	-8.37
5	366.82	8.30	14.62	32.54	33.62	24.00	35.60	-11.60
6	842.13	9.31	22.57	32.16	28.68	28.40	35.60	-7.20

Test mode:	f	Horizontal
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Condition: 10m HORIZONTAL

Job No. : 00696CR

Test Mode: f

Freq	Cable	Ant	Preamp	Read	Limit		Over	Remark
	Freq	Loss	Factor	Factor	Level	Level	Line	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	35.25	6.71	11.70	32.98	31.15	16.58	29.50	-12.92
2	53.32	6.97	11.73	32.98	28.84	14.56	29.50	-14.94
3	163.18	7.50	12.97	32.73	31.29	19.03	33.00	-13.97
4	279.04	8.00	12.59	32.62	39.15	27.12	35.60	-8.48
5	531.96	8.73	17.87	32.60	30.34	24.34	35.60	-11.26
6 pp	851.04	9.36	22.62	32.55	29.38	28.81	35.60	-6.79

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.13	50.72	74	-23.28
9007.715	36.61	11.80	37.30	39.44	50.55	74	-23.45
10360.000	37.24	12.98	36.99	35.20	48.43	74	-25.57
12775.540	38.84	14.93	39.08	36.96	51.65	74	-22.35
15540.000	41.38	17.07	39.95	33.92	52.42	74	-21.58
17629.850	43.64	20.87	37.63	26.30	53.18	74	-20.82

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	42.28	51.08	74	-22.92
9007.715	36.61	11.80	37.30	39.84	50.95	74	-23.05
10360.000	37.24	12.98	36.99	36.42	49.65	74	-24.35
13217.380	38.71	15.61	39.57	35.55	50.30	74	-23.70
15540.000	41.38	17.07	39.95	33.34	51.84	74	-22.16
17830.800	44.00	21.55	37.45	24.82	52.92	74	-21.08

Mode:f; Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.23	50.82	74	-23.18
10440.000	37.16	13.04	37.03	34.23	47.40	74	-26.60
11756.660	38.36	14.30	38.06	37.17	51.77	74	-22.23
13778.220	38.94	16.00	40.24	37.57	52.27	74	-21.73
15660.000	41.34	17.18	39.83	33.96	52.65	74	-21.35
17830.800	44.00	21.55	37.45	25.52	53.62	74	-20.38

Mode:f; Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7079.786	36.47	10.63	38.32	41.68	50.46	74	-23.54
8344.312	36.18	11.61	37.36	41.52	51.95	74	-22.05
10440.000	37.16	13.04	37.03	33.25	46.42	74	-27.58
12775.540	38.84	14.93	39.08	35.69	50.38	74	-23.62
15660.000	41.34	17.18	39.83	34.00	52.69	74	-21.31
17464.130	43.36	20.30	37.78	26.97	52.85	74	-21.15

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	39.93	49.52	74	-24.48
9678.051	37.54	12.54	36.96	39.68	52.80	74	-21.20
10480.000	37.12	13.07	37.05	33.66	46.80	74	-27.20
13242.370	38.70	15.61	39.60	35.33	50.04	74	-23.96
15720.000	41.31	17.24	39.77	33.76	52.54	74	-21.46
17464.130	43.36	20.30	37.78	27.51	53.39	74	-20.61

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7160.481	36.43	10.66	38.23	39.51	48.37	74	-25.63
9007.715	36.61	11.80	37.30	38.12	49.23	74	-24.77
10480.000	37.12	13.07	37.05	33.29	46.43	74	-27.57
12775.540	38.84	14.93	39.08	35.86	50.55	74	-23.45
15720.000	41.31	17.24	39.77	32.83	51.61	74	-22.39
17530.230	43.46	20.52	37.72	27.14	53.40	74	-20.60

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.46	51.05	74	-22.95
8328.564	36.20	11.58	37.37	42.30	52.71	74	-21.29
10360.000	37.24	12.98	36.99	35.99	49.22	74	-24.78
12775.540	38.84	14.93	39.08	36.56	51.25	74	-22.75
15540.000	41.38	17.07	39.95	34.10	52.60	74	-21.40
17830.800	44.00	21.55	37.45	24.52	52.62	74	-21.38

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
8328.564	36.20	11.58	37.37	41.79	52.20	74	-21.80
10360.000	37.24	12.98	36.99	35.97	49.20	74	-24.80
11756.660	38.36	14.30	38.06	36.91	51.51	74	-22.49
13217.380	38.71	15.61	39.57	36.00	50.75	74	-23.25
15540.000	41.38	17.07	39.95	34.59	53.09	74	-20.91
17830.800	44.00	21.55	37.45	24.79	52.89	74	-21.11

Mode:f; Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7693.350	36.42	10.90	37.69	40.52	50.15	74	-23.85
10440.000	37.16	13.04	37.03	33.50	46.67	74	-27.33
11734.470	38.34	14.27	38.04	36.22	50.79	74	-23.21
13804.270	38.97	16.03	40.27	38.31	53.04	74	-20.96
15660.000	41.34	17.18	39.83	34.21	52.90	74	-21.10
17830.800	44.00	21.55	37.45	25.26	53.36	74	-20.64

Mode:f; Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.60	50.19	74	-23.81
9007.715	36.61	11.80	37.30	38.83	49.94	74	-24.06
10440.000	37.16	13.04	37.03	33.12	46.29	74	-27.71
13192.440	38.72	15.60	39.54	35.68	50.46	74	-23.54
15660.000	41.34	17.18	39.83	34.10	52.79	74	-21.21
17864.510	44.06	21.66	37.42	24.65	52.95	74	-21.05

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
8328.564	36.20	11.58	37.37	42.56	52.97	74	-21.03
10480.000	37.12	13.07	37.05	34.35	47.49	74	-26.51
11734.470	38.34	14.27	38.04	37.78	52.35	74	-21.65
13093.140	38.76	15.57	39.42	35.28	50.19	74	-23.81
15720.000	41.31	17.24	39.77	34.24	53.02	74	-20.98
17830.800	44.00	21.55	37.45	24.72	52.82	74	-21.18

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.18	50.77	74	-23.23
10480.000	37.12	13.07	37.05	34.60	47.74	74	-26.26
11823.470	38.43	14.37	38.13	37.68	52.35	74	-21.65
13804.270	38.97	16.03	40.27	36.78	51.51	74	-22.49
15720.000	41.31	17.24	39.77	34.24	53.02	74	-20.98
17830.800	44.00	21.55	37.45	25.22	53.32	74	-20.68

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	41.77	50.57	74	-23.43
8990.716	36.59	11.79	37.30	39.78	50.86	74	-23.14
10420.000	37.18	13.03	37.02	36.25	49.44	74	-24.56
12775.540	38.84	14.93	39.08	38.31	53.00	74	-21.00
15630.000	41.35	17.15	39.86	34.14	52.78	74	-21.22
17797.150	43.94	21.44	37.48	25.45	53.35	74	-20.65

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.38	49.97	74	-24.03
9659.786	37.53	12.53	36.96	39.91	53.01	74	-20.99
10420.000	37.18	13.03	37.02	36.47	49.66	74	-24.34
12751.430	38.85	14.86	39.06	36.72	51.37	74	-22.63
15630.000	41.35	17.15	39.86	34.23	52.87	74	-21.13
17830.800	44.00	21.55	37.45	24.67	52.77	74	-21.23

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7693.350	36.42	10.90	37.69	40.74	50.37	74	-23.63
8328.564	36.20	11.58	37.37	41.70	52.11	74	-21.89
10460.000	37.14	13.06	37.04	34.21	47.37	74	-26.63
13242.370	38.70	15.61	39.60	35.38	50.09	74	-23.91
15690.000	41.32	17.21	39.80	34.28	53.01	74	-20.99
17830.800	44.00	21.55	37.45	24.96	53.06	74	-20.94

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7079.786	36.47	10.63	38.32	42.81	51.59	74	-22.41
8344.312	36.18	11.61	37.36	42.29	52.72	74	-21.28
10460.000	37.14	13.06	37.04	34.77	47.93	74	-26.07
12751.430	38.85	14.86	39.06	37.51	52.16	74	-21.84
15690.000	41.32	17.21	39.80	33.97	52.70	74	-21.30
17830.800	44.00	21.55	37.45	25.24	53.34	74	-20.66

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.25	50.84	74	-23.16
8990.716	36.59	11.79	37.30	39.29	50.37	74	-23.63
10360.000	37.24	12.98	36.99	35.58	48.81	74	-25.19
12751.430	38.85	14.86	39.06	37.01	51.66	74	-22.34
15540.000	41.38	17.07	39.95	32.76	51.26	74	-22.74
17830.800	44.00	21.55	37.45	24.79	52.89	74	-21.11

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	41.79	50.59	74	-23.41
8990.716	36.59	11.79	37.30	39.61	50.69	74	-23.31
10360.000	37.24	12.98	36.99	35.14	48.37	74	-25.63
11734.470	38.34	14.27	38.04	36.25	50.82	74	-23.18
15540.000	41.38	17.07	39.95	33.53	52.03	74	-21.97
17596.580	43.58	20.75	37.66	26.28	52.95	74	-21.05

Mode:f; Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	42.22	51.81	74	-22.19
9659.786	37.53	12.53	36.96	40.03	53.13	74	-20.87
10440.000	37.16	13.04	37.03	33.42	46.59	74	-27.41
12751.430	38.85	14.86	39.06	37.35	52.00	74	-22.00
15660.000	41.34	17.18	39.83	33.14	51.83	74	-22.17
17830.800	44.00	21.55	37.45	25.28	53.38	74	-20.62

Mode:f; Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7664.340	36.40	10.88	37.72	40.50	50.06	74	-23.94
8328.564	36.20	11.58	37.37	41.15	51.56	74	-22.44
10440.000	37.16	13.04	37.03	34.11	47.28	74	-26.72
12751.430	38.85	14.86	39.06	36.64	51.29	74	-22.71
15660.000	41.34	17.18	39.83	34.04	52.73	74	-21.27
17464.130	43.36	20.30	37.78	27.12	53.00	74	-21.00

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7079.786	36.47	10.63	38.32	41.38	50.16	74	-23.84
8328.564	36.20	11.58	37.37	42.93	53.34	74	-20.66
10480.000	37.12	13.07	37.05	34.08	47.22	74	-26.78
12775.540	38.84	14.93	39.08	38.23	52.92	74	-21.08
15720.000	41.31	17.24	39.77	33.89	52.67	74	-21.33
17830.800	44.00	21.55	37.45	25.35	53.45	74	-20.55

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7120.020	36.45	10.65	38.27	41.57	50.40	74	-23.60
8990.716	36.59	11.79	37.30	39.55	50.63	74	-23.37
10480.000	37.12	13.07	37.05	33.25	46.39	74	-27.61
13192.440	38.72	15.60	39.54	35.41	50.19	74	-23.81
15720.000	41.31	17.24	39.77	33.48	52.26	74	-21.74
17864.510	44.06	21.66	37.42	25.34	53.64	74	-20.36

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.57	51.16	74	-22.84
10380.000	37.22	13.00	37.00	36.22	49.44	74	-24.56
11067.070	37.75	13.53	37.37	37.39	51.30	74	-22.70
12751.430	38.85	14.86	39.06	36.69	51.34	74	-22.66
15570.000	41.37	17.09	39.92	33.09	51.63	74	-22.37
17830.800	44.00	21.55	37.45	25.50	53.60	74	-20.40

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
9007.715	36.61	11.80	37.30	39.06	50.17	74	-23.83
10380.000	37.22	13.00	37.00	36.89	50.11	74	-23.89
11712.330	38.31	14.25	38.02	37.10	51.64	74	-22.36
13778.220	38.94	16.00	40.24	38.02	52.72	74	-21.28
15570.000	41.37	17.09	39.92	33.94	52.48	74	-21.52
17763.560	43.88	21.32	37.51	25.56	53.25	74	-20.75

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	41.87	50.67	74	-23.33
10460.000	37.14	13.06	37.04	34.08	47.24	74	-26.76
11734.470	38.34	14.27	38.04	37.15	51.72	74	-22.28
13217.380	38.71	15.61	39.57	34.54	49.29	74	-24.71
15690.000	41.32	17.21	39.80	33.89	52.62	74	-21.38
17797.150	43.94	21.44	37.48	25.48	53.38	74	-20.62

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.29	50.88	74	-23.12
10460.000	37.14	13.06	37.04	35.09	48.25	74	-25.75
11734.470	38.34	14.27	38.04	36.15	50.72	74	-23.28
13804.270	38.97	16.03	40.27	37.59	52.32	74	-21.68
15690.000	41.32	17.21	39.80	33.97	52.70	74	-21.30
17797.150	43.94	21.44	37.48	25.48	53.38	74	-20.62

Mode:f; Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz;

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.3	41.77	50.57	74	-23.43
8990.716	36.59	11.79	37.3	39.78	50.86	74	-23.14
10420	37.18	13.03	37.02	36.25	49.44	74	-24.56
12775.54	38.84	14.93	39.08	38.31	53.00	74	-21.00
15630	41.35	17.15	39.86	34.14	52.78	74	-21.22
17797.15	43.94	21.44	37.48	25.45	53.35	74	-20.65

Mode:f; Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz;

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.38	49.97	74	-24.03
9659.786	37.53	12.53	36.96	39.91	53.01	74	-20.99
10420	37.18	13.03	37.02	36.47	49.66	74	-24.34
12751.43	38.85	14.86	39.06	36.72	51.37	74	-22.63
15630	41.35	17.15	39.86	34.23	52.87	74	-21.13
17830.8	44	21.55	37.45	24.67	52.77	74	-21.23

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7664.340	36.40	10.88	37.72	40.30	49.86	74	-24.14
9937.399	37.59	12.68	36.83	39.27	52.71	74	-21.29
11490.000	38.09	14.01	37.80	33.17	47.47	74	-26.53
13804.270	38.97	16.03	40.27	36.74	51.47	74	-22.53
16010.720	41.23	17.50	39.49	34.33	53.57	74	-20.43
17235.000	43.08	19.50	37.98	28.61	53.21	74	-20.79

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	41.09	49.89	74	-24.11
9007.715	36.61	11.80	37.30	38.92	50.03	74	-23.97
11490.000	38.09	14.01	37.80	32.75	47.05	74	-26.95
12775.540	38.84	14.93	39.08	35.07	49.76	74	-24.24
16010.720	41.23	17.50	39.49	32.73	51.97	74	-22.03
17235.000	43.08	19.50	37.98	28.01	52.61	74	-21.39

Mode:g; Polarization:Horizontal; Modulation Type:802.11a; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.71	51.30	74	-22.70
9659.786	37.53	12.53	36.96	39.37	52.47	74	-21.53
11570.000	38.17	14.09	37.88	32.78	47.16	74	-26.84
13217.380	38.71	15.61	39.57	36.71	51.46	74	-22.54
15800.410	41.28	17.31	39.69	34.21	53.11	74	-20.89
17355.000	43.23	19.92	37.87	27.59	52.87	74	-21.13

Mode:g; Polarization:Vertical; Modulation Type:802.11a; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7120.020	36.45	10.65	38.27	41.13	49.96	74	-24.04
9007.715	36.61	11.80	37.30	38.83	49.94	74	-24.06
11570.000	38.17	14.09	37.88	32.80	47.18	74	-26.82
12751.430	38.85	14.86	39.06	35.86	50.51	74	-23.49
15830.290	41.27	17.34	39.67	33.93	52.87	74	-21.13
17355.000	43.23	19.92	37.87	27.29	52.57	74	-21.43

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.34	50.15	74	-23.85
8990.716	36.59	11.79	37.30	39.16	50.24	74	-23.76
11650.000	38.25	14.18	37.96	34.13	48.60	74	-25.40
13778.220	38.94	16.00	40.24	37.09	51.79	74	-22.21
16010.720	41.23	17.50	39.49	32.37	51.61	74	-22.39
17475.000	43.37	20.33	37.77	27.72	53.65	74	-20.35

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.94	50.75	74	-23.25
8328.564	36.20	11.58	37.37	40.53	50.94	74	-23.06
11650.000	38.25	14.18	37.96	32.54	47.01	74	-26.99
13830.370	39.00	16.06	40.30	36.98	51.74	74	-22.26
16627.150	42.73	17.87	38.68	30.88	52.80	74	-21.20
17475.000	43.37	20.33	37.77	27.40	53.33	74	-20.67

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.95	50.54	74	-23.46
9659.786	37.53	12.53	36.96	39.68	52.78	74	-21.22
11490.000	38.09	14.01	37.80	34.20	48.50	74	-25.50
13217.380	38.71	15.61	39.57	35.94	50.69	74	-23.31
14650.570	40.67	16.44	40.50	35.36	51.97	74	-22.03
17235.000	43.08	19.50	37.98	28.37	52.97	74	-21.03

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7079.786	36.47	10.63	38.32	42.55	51.33	74	-22.67
8990.716	36.59	11.79	37.30	40.22	51.30	74	-22.70
11490.000	38.09	14.01	37.80	33.54	47.84	74	-26.16
13804.270	38.97	16.03	40.27	36.50	51.23	74	-22.77
16010.720	41.23	17.50	39.49	33.80	53.04	74	-20.96
17235.000	43.08	19.50	37.98	28.46	53.06	74	-20.94

Mode:g; Polarization:Horizontal; Modulation Type:802.11n; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.67	50.48	74	-23.52
8328.564	36.20	11.58	37.37	41.19	51.60	74	-22.40
11570.000	38.17	14.09	37.88	33.45	47.83	74	-26.17
13167.540	38.73	15.59	39.51	36.35	51.16	74	-22.84
14512.850	40.42	16.40	40.50	36.92	53.24	74	-20.76
17355.000	43.23	19.92	37.87	27.47	52.75	74	-21.25

Mode:g; Polarization:Vertical; Modulation Type:802.11n; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.10	50.69	74	-23.31
9678.051	37.54	12.54	36.96	40.43	53.55	74	-20.45
11570.000	38.17	14.09	37.88	33.81	48.19	74	-25.81
13117.890	38.75	15.58	39.45	35.77	50.65	74	-23.35
15157.260	41.33	16.70	40.34	34.80	52.49	74	-21.51
17355.000	43.23	19.92	37.87	27.87	53.15	74	-20.85

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.25	49.84	74	-24.16
9862.599	37.57	12.64	36.87	39.60	52.94	74	-21.06
11650.000	38.25	14.18	37.96	33.29	47.76	74	-26.24
13804.270	38.97	16.03	40.27	36.62	51.35	74	-22.65
16010.720	41.23	17.50	39.49	34.09	53.33	74	-20.67
17475.000	43.37	20.33	37.77	26.77	52.70	74	-21.30

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7086.476	36.46	10.63	38.31	41.42	50.20	74	-23.80
8344.312	36.18	11.61	37.36	41.36	51.79	74	-22.21
11650.000	38.25	14.18	37.96	33.83	48.30	74	-25.70
13093.140	38.76	15.57	39.42	35.49	50.40	74	-23.60
15800.410	41.28	17.31	39.69	33.86	52.76	74	-21.24
17475.000	43.37	20.33	37.77	27.24	53.17	74	-20.83

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7160.481	36.43	10.66	38.23	40.74	49.60	74	-24.40
9007.715	36.61	11.80	37.30	38.23	49.34	74	-24.66
11510.000	38.11	14.03	37.82	33.07	47.39	74	-26.61
13217.380	38.71	15.61	39.57	34.47	49.22	74	-24.78
15157.260	41.33	16.70	40.34	35.23	52.92	74	-21.08
17265.000	43.12	19.60	37.96	28.50	53.26	74	-20.74

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.88	51.47	74	-22.53
9993.873	37.60	12.71	36.80	38.66	52.17	74	-21.83
11510.000	38.11	14.03	37.82	33.98	48.30	74	-25.70
13217.380	38.71	15.61	39.57	35.23	49.98	74	-24.02
15417.140	41.38	16.95	40.07	35.04	53.30	74	-20.70
17265.000	43.12	19.60	37.96	28.75	53.51	74	-20.49

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.36	50.17	74	-23.83
9007.715	36.61	11.80	37.30	38.81	49.92	74	-24.08
11550.000	38.15	14.07	37.86	34.85	49.21	74	-24.79
13192.440	38.72	15.60	39.54	35.97	50.75	74	-23.25
14929.940	41.18	16.52	40.50	35.92	53.12	74	-20.88
17325.000	43.19	19.81	37.90	26.54	51.64	74	-22.36

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7664.340	36.40	10.88	37.72	41.74	51.30	74	-22.70
8990.716	36.59	11.79	37.30	39.03	50.11	74	-23.89
11550.000	38.15	14.07	37.86	35.11	49.47	74	-24.53
13117.890	38.75	15.58	39.45	36.17	51.05	74	-22.95
14929.940	41.18	16.52	40.50	35.98	53.18	74	-20.82
17325.000	43.19	19.81	37.90	27.51	52.61	74	-21.39

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	40.66	50.25	74	-23.75
8990.716	36.59	11.79	37.30	38.98	50.06	74	-23.94
11490.000	38.09	14.01	37.80	32.43	46.73	74	-27.27
13167.540	38.73	15.59	39.51	34.77	49.58	74	-24.42
14512.850	40.42	16.40	40.50	36.72	53.04	74	-20.96
17235.000	43.08	19.50	37.98	28.35	52.95	74	-21.05

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7079.786	36.47	10.63	38.32	41.98	50.76	74	-23.24
9007.715	36.61	11.80	37.30	39.37	50.48	74	-23.52
11490.000	38.09	14.01	37.80	34.65	48.95	74	-25.05
13882.720	39.06	16.12	40.36	36.24	51.06	74	-22.94
15800.410	41.28	17.31	39.69	33.75	52.65	74	-21.35
17235.000	43.08	19.50	37.98	28.15	52.75	74	-21.25

Mode:g; Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.04	49.85	74	-24.15
8344.312	36.18	11.61	37.36	42.02	52.45	74	-21.55
11570.000	38.17	14.09	37.88	33.35	47.73	74	-26.27
12775.540	38.84	14.93	39.08	36.69	51.38	74	-22.62
14929.940	41.18	16.52	40.50	36.08	53.28	74	-20.72
17355.000	43.23	19.92	37.87	28.26	53.54	74	-20.46

Mode:g; Polarization:Vertical; Modulation Type:802.11ac; bandwidth:20MHz; Channel:middle

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
8328.564	36.20	11.58	37.37	41.47	51.88	74	-22.12
10069.670	37.53	12.76	36.84	39.61	53.06	74	-20.94
11570.000	38.17	14.09	37.88	33.53	47.91	74	-26.09
13804.270	38.97	16.03	40.27	37.42	52.15	74	-21.85
16010.720	41.23	17.50	39.49	33.44	52.68	74	-21.32
17797.15	43.94	21.44	37.48	25.45	53.35	74	-20.65

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	41.47	50.27	74	-23.73
8328.564	36.20	11.58	37.37	41.50	51.91	74	-22.09
9993.873	37.60	12.71	36.80	39.00	52.51	74	-21.49
11650.000	38.25	14.18	37.96	33.25	47.72	74	-26.28
14845.570	41.03	16.50	40.50	36.17	53.20	74	-20.80
17475.000	43.37	20.33	37.77	26.71	52.64	74	-21.36

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7093.172	36.46	10.64	38.30	40.81	49.61	74	-24.39
9659.786	37.53	12.53	36.96	39.39	52.49	74	-21.51
11650.000	38.25	14.18	37.96	32.75	47.22	74	-26.78
13830.370	39.00	16.06	40.30	35.78	50.54	74	-23.46
16040.990	41.32	17.51	39.45	33.82	53.20	74	-20.80
17797.15	43.94	21.44	37.48	25.45	53.35	74	-20.65

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.10	50.69	74	-23.31
9659.786	37.53	12.53	36.96	39.98	53.08	74	-20.92
11510.000	38.11	14.03	37.82	34.22	48.54	74	-25.46
12751.430	38.85	14.86	39.06	35.73	50.38	74	-23.62
14485.460	40.37	16.39	40.50	36.37	52.63	74	-21.37
17265.000	43.12	19.60	37.96	28.62	53.38	74	-20.62

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7019.862	36.49	10.61	38.38	41.82	50.54	74	-23.46
8344.312	36.18	11.61	37.36	41.89	52.32	74	-21.68
11510.000	38.11	14.03	37.82	33.70	48.02	74	-25.98
14567.780	40.52	16.42	40.50	36.34	52.78	74	-21.22
16223.830	41.88	17.54	39.20	32.50	52.72	74	-21.28
17265.000	43.12	19.60	37.96	28.59	53.35	74	-20.65

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7664.340	36.40	10.88	37.72	40.29	49.85	74	-24.15
9659.786	37.53	12.53	36.96	39.70	52.80	74	-21.20
11590.000	38.19	14.12	37.90	32.96	47.37	74	-26.63
13778.220	38.94	16.00	40.24	37.13	51.83	74	-22.17
16040.990	41.32	17.51	39.45	33.50	52.88	74	-21.12
17385.000	43.26	20.02	37.85	27.33	52.76	74	-21.24

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

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7678.832	36.41	10.89	37.71	41.16	50.75	74	-23.25
9881.246	37.58	12.65	36.86	39.68	53.05	74	-20.95
11590.000	38.19	14.12	37.9	33.91	48.32	74	-25.68
12775.540	38.84	14.93	39.08	35.65	50.34	74	-23.66
14512.850	40.42	16.4	40.5	36.43	52.75	74	-21.25
17797.15	43.94	21.44	37.48	25.45	53.35	74	-20.65

Mode: g; Polarization:Horizontal; Modulation Type:802.11ac; bandwidth:80MHz;

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7106.583	36.46	10.64	38.29	41.36	50.17	74	-23.83
9007.715	36.61	11.8	37.3	38.81	49.92	74	-24.08
11550	38.15	14.07	37.86	34.85	49.21	74	-24.79
13192.44	38.72	15.6	39.54	35.97	50.75	74	-23.25
14929.94	41.18	16.52	40.5	35.92	53.12	74	-20.88
17325	43.19	19.81	37.9	26.54	51.64	74	-22.36

Mode: g; Polarization:Vertical; Modulation Type:802.11ac; bandwidth:80MHz;

Frequency (MHz)	Antenna factors (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading Level (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over limit (dB)
7664.34	36.4	10.88	37.72	41.74	51.3	74	-22.7
8990.716	36.59	11.79	37.3	39.03	50.11	74	-23.89
11550	38.15	14.07	37.86	35.11	49.47	74	-24.53
13117.89	38.75	15.58	39.45	36.17	51.05	74	-22.95
14929.94	41.18	16.52	40.5	35.98	53.18	74	-20.82
17325	43.19	19.81	37.9	27.51	52.61	74	-21.39

## Remark:

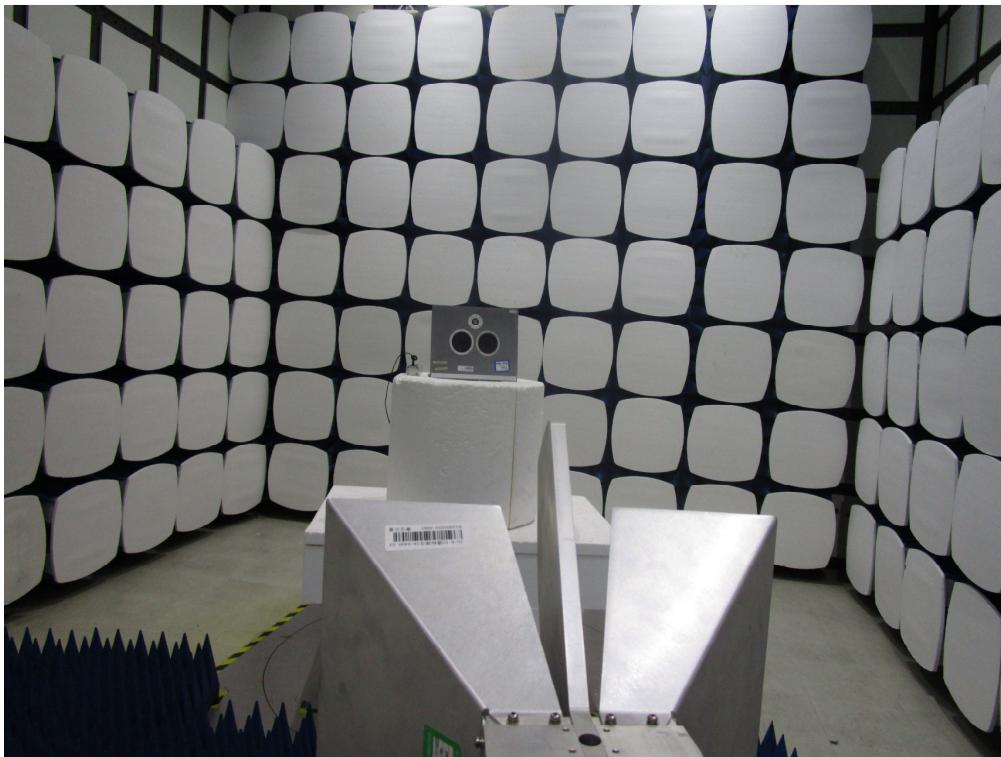
- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:  
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor
- 2) Scan from 9kHz to 25GHz, The disturbance above 13GHz 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.

## 8 Photographs

### 8.1 Conducted Disturbance at AC Power Line(150kHz-30MHz) Test Setup



## 8.2 Radiated Emissions Test Setup





### **8.3 EUT Constructional Details**

Refer to Appendix A - Photographs of EUT Constructional Details for SZEM1702000696CR.

## 9 Appendix

### 9.1 Appendix 15.407

#### 1. 26 dB Emission Bandwidth and Minimum 6 dB bandwidth (5.725-5.85 GHz band) Measurement

Test Mode	Test Channel	Ant	EBW[MHz]	Limit[MHz]	Verdict
11A	5180	Ant1	24.205	---	PASS
11A	5200	Ant1	21.848	---	PASS
11A	5240	Ant1	28.045	---	PASS
11A	5745	Ant1	16.500	>=0.5	PASS
11A	5785	Ant1	16.500	>=0.5	PASS
11A	5825	Ant1	16.500	>=0.5	PASS
11N20	5180	Ant1	25.670	---	PASS
11N20	5200	Ant1	24.890	---	PASS
11N20	5240	Ant1	24.923	---	PASS
11N20	5745	Ant1	17.670	>=0.5	PASS
11N20	5785	Ant1	17.670	>=0.5	PASS
11N20	5825	Ant1	17.640	>=0.5	PASS
11N40	5190	Ant1	45.674	---	PASS
11N40	5230	Ant1	45.372	---	PASS
11N40	5755	Ant1	36.060	>=0.5	PASS
11N40	5795	Ant1	36.180	>=0.5	PASS
11AC20	5180	Ant1	25.929	---	PASS
11AC20	5200	Ant1	25.612	---	PASS
11AC20	5240	Ant1	26.301	---	PASS
11AC20	5745	Ant1	17.610	>=0.5	PASS
11AC20	5785	Ant1	17.700	>=0.5	PASS

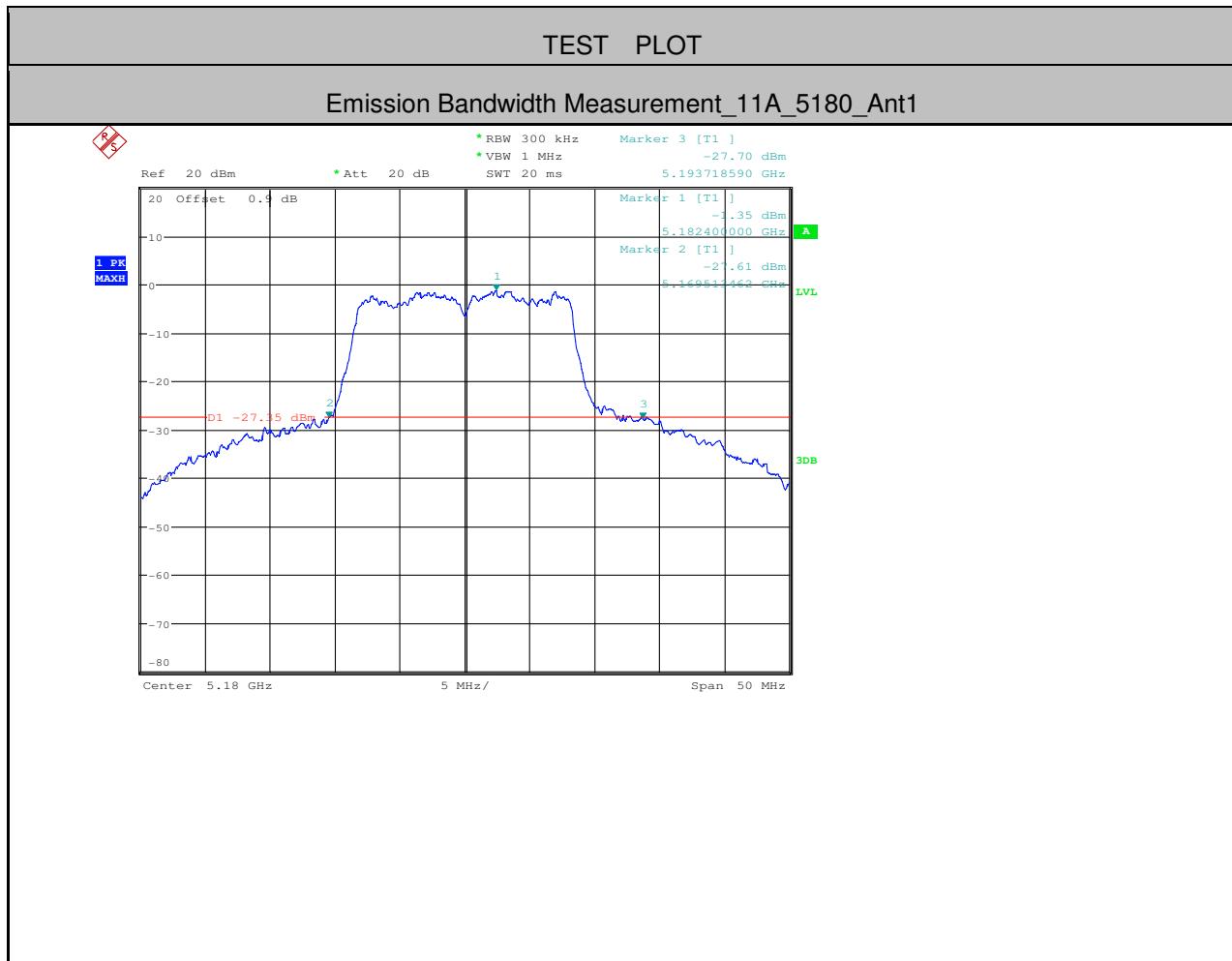


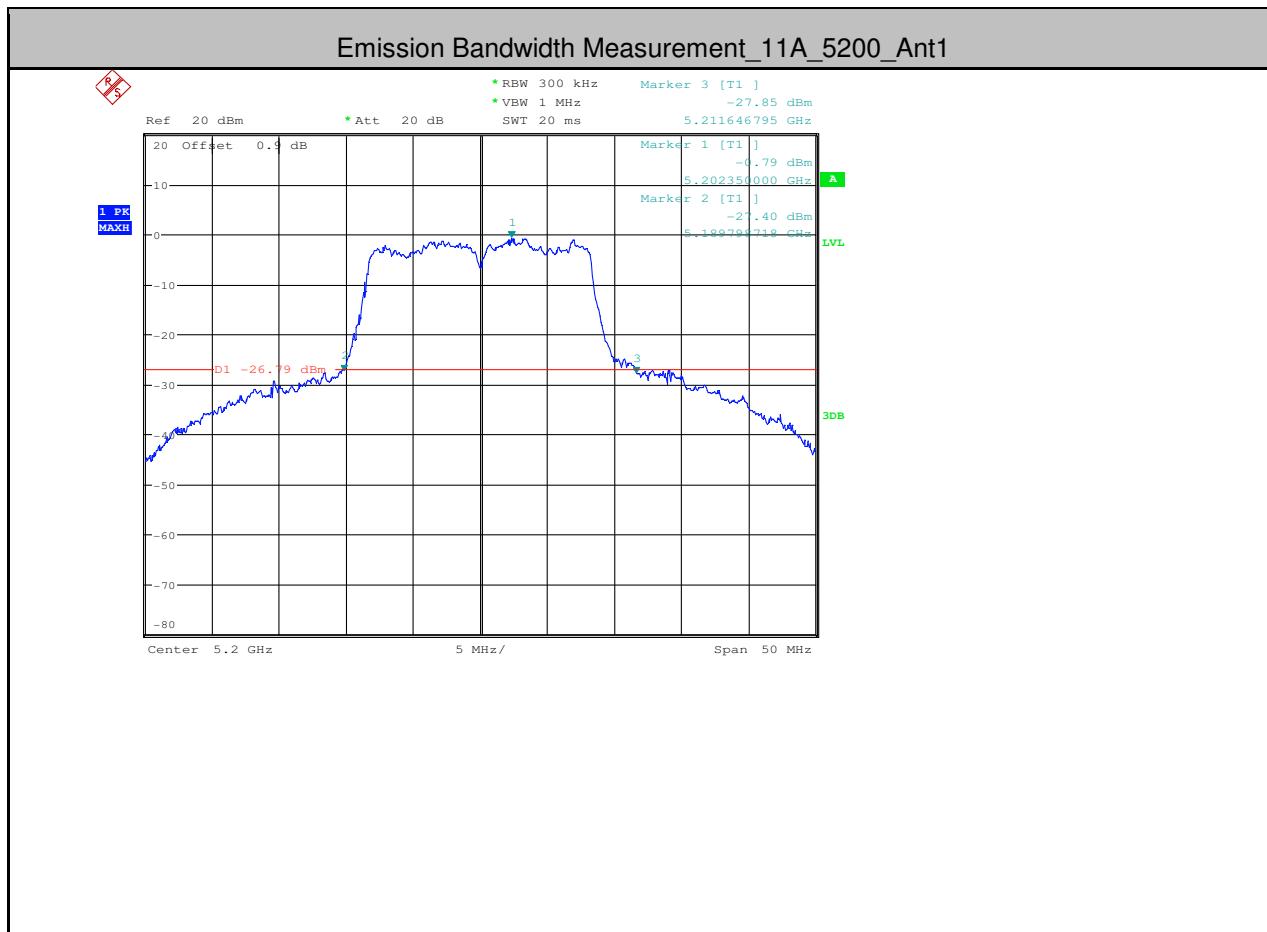
# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

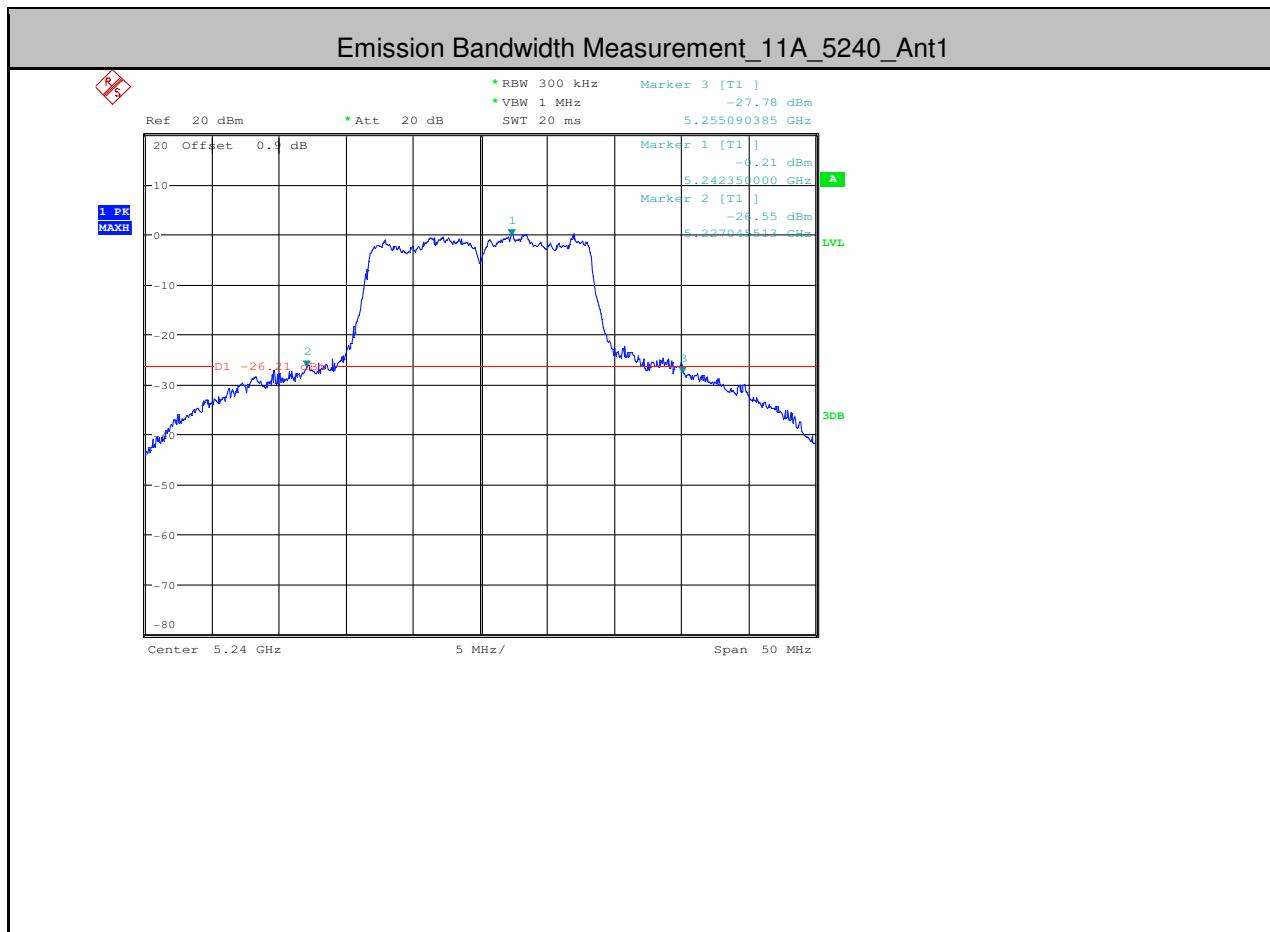
Report No.: SZEM170200069605  
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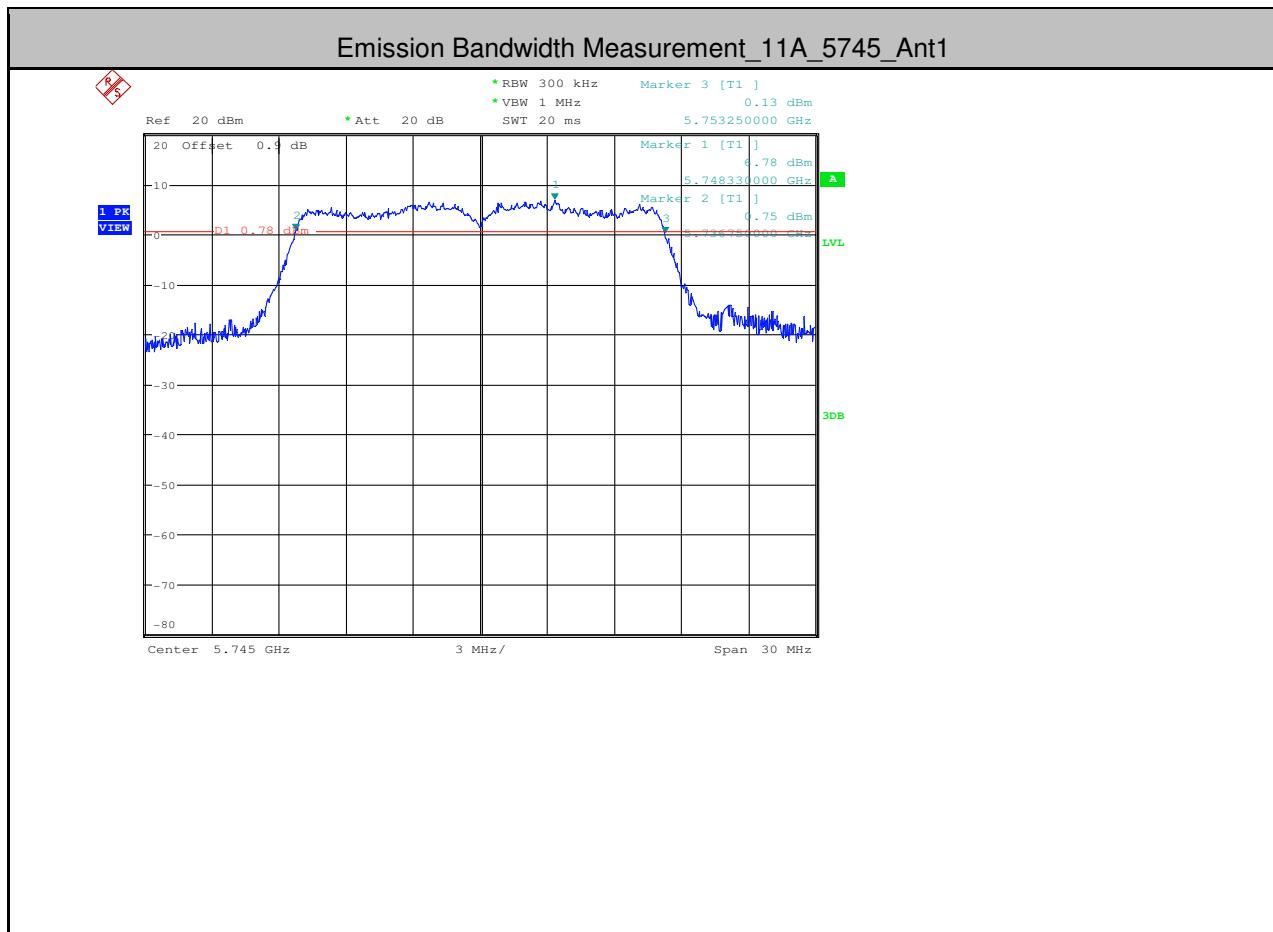
11AC20	5825	Ant1	17.700	>=0.5	PASS
11AC40	5190	Ant1	43.747	---	PASS
11AC40	5230	Ant1	46.763	---	PASS
11AC40	5755	Ant1	36.300	>=0.5	PASS
11AC40	5795	Ant1	36.180	>=0.5	PASS
11AC80	5210	Ant1	85.640	---	PASS
11AC80	5775	Ant1	77.040	>=0.5	PASS

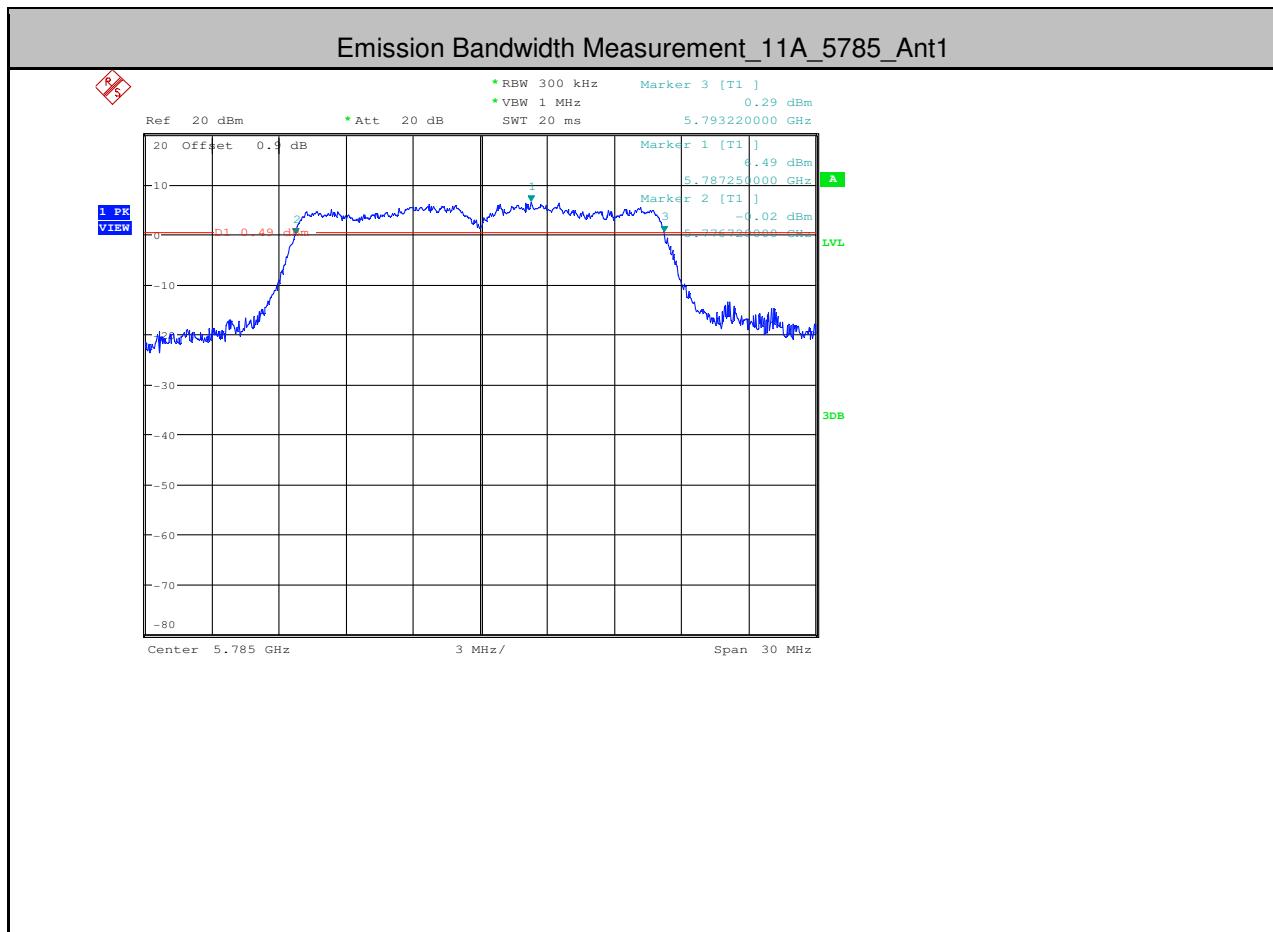
Below are the golden test data for reference.

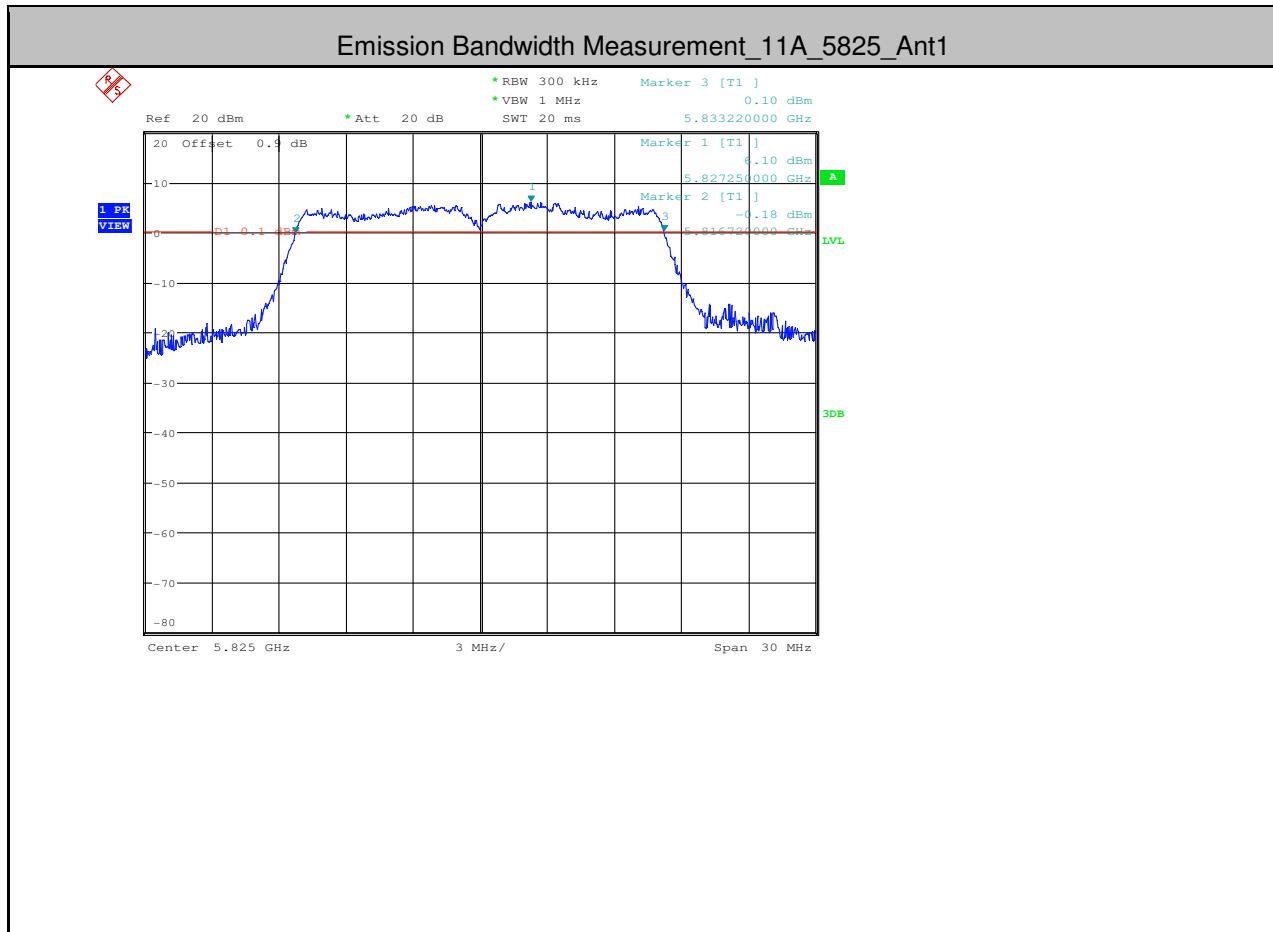












**2. 99% Occupied Bandwidth Measurement**

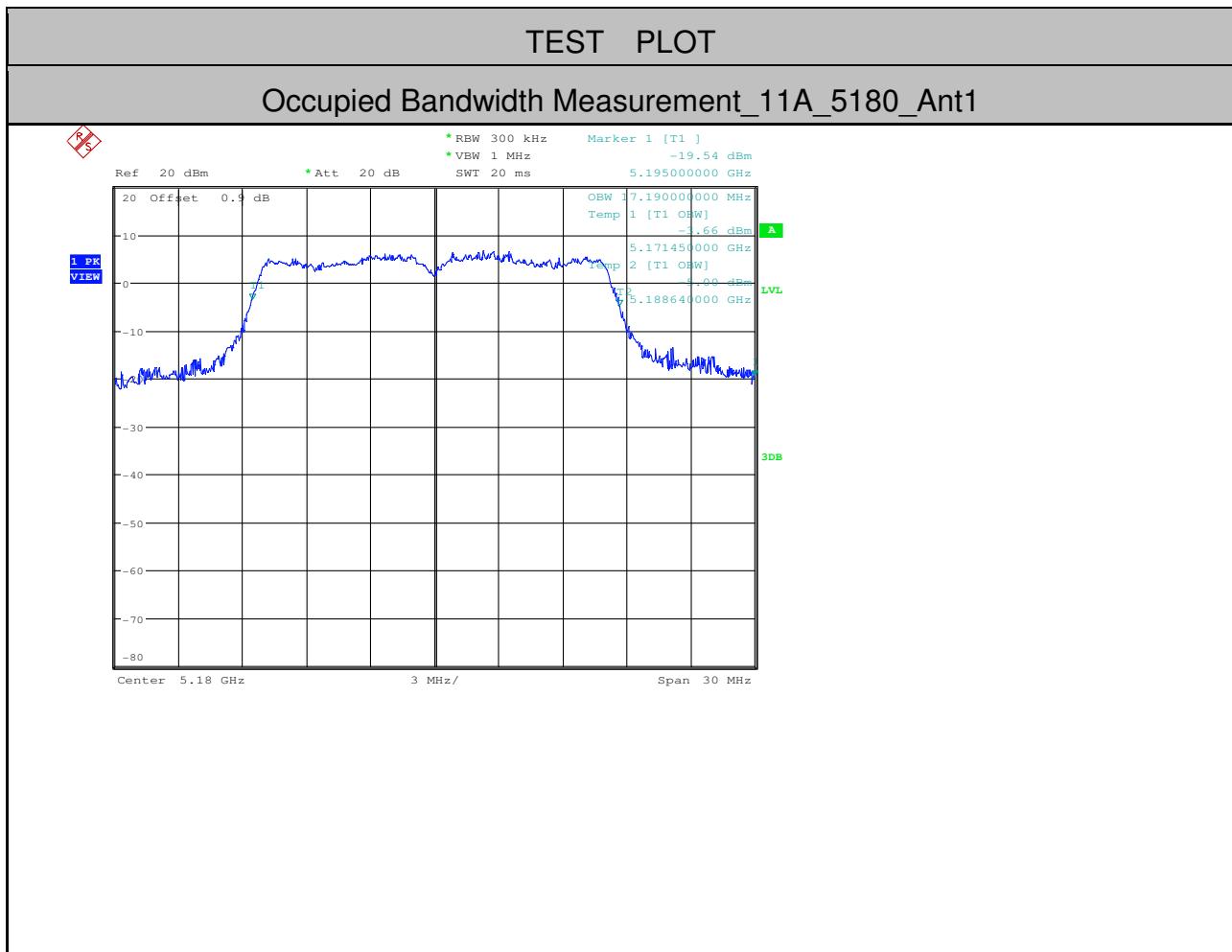
Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
11A	5180	Ant1	17.190	---	PASS
11A	5200	Ant1	17.280	---	PASS
11A	5240	Ant1	17.340	---	PASS
11A	5745	Ant1	17.100	---	PASS
11A	5785	Ant1	17.130	---	PASS
11A	5825	Ant1	17.070	---	PASS
11N20	5180	Ant1	18.900	---	PASS
11N20	5200	Ant1	19.050	---	PASS
11N20	5240	Ant1	18.330	---	PASS
11N20	5745	Ant1	18.630	---	PASS
11N20	5785	Ant1	18.900	---	PASS
11N20	5825	Ant1	18.630	---	PASS
11N40	5190	Ant1	37.200	---	PASS
11N40	5230	Ant1	37.440	---	PASS
11N40	5755	Ant1	36.720	---	PASS
11N40	5795	Ant1	36.900	---	PASS
11AC20	5180	Ant1	18.030	---	PASS
11AC20	5200	Ant1	18.120	---	PASS
11AC20	5240	Ant1	18.390	---	PASS
11AC20	5745	Ant1	18.030	---	PASS
11AC20	5785	Ant1	18.030	---	PASS
11AC20	5825	Ant1	18.030	---	PASS
11AC40	5190	Ant1	36.780	---	PASS
11AC40	5230	Ant1	37.080	---	PASS
11AC40	5755	Ant1	36.660	---	PASS

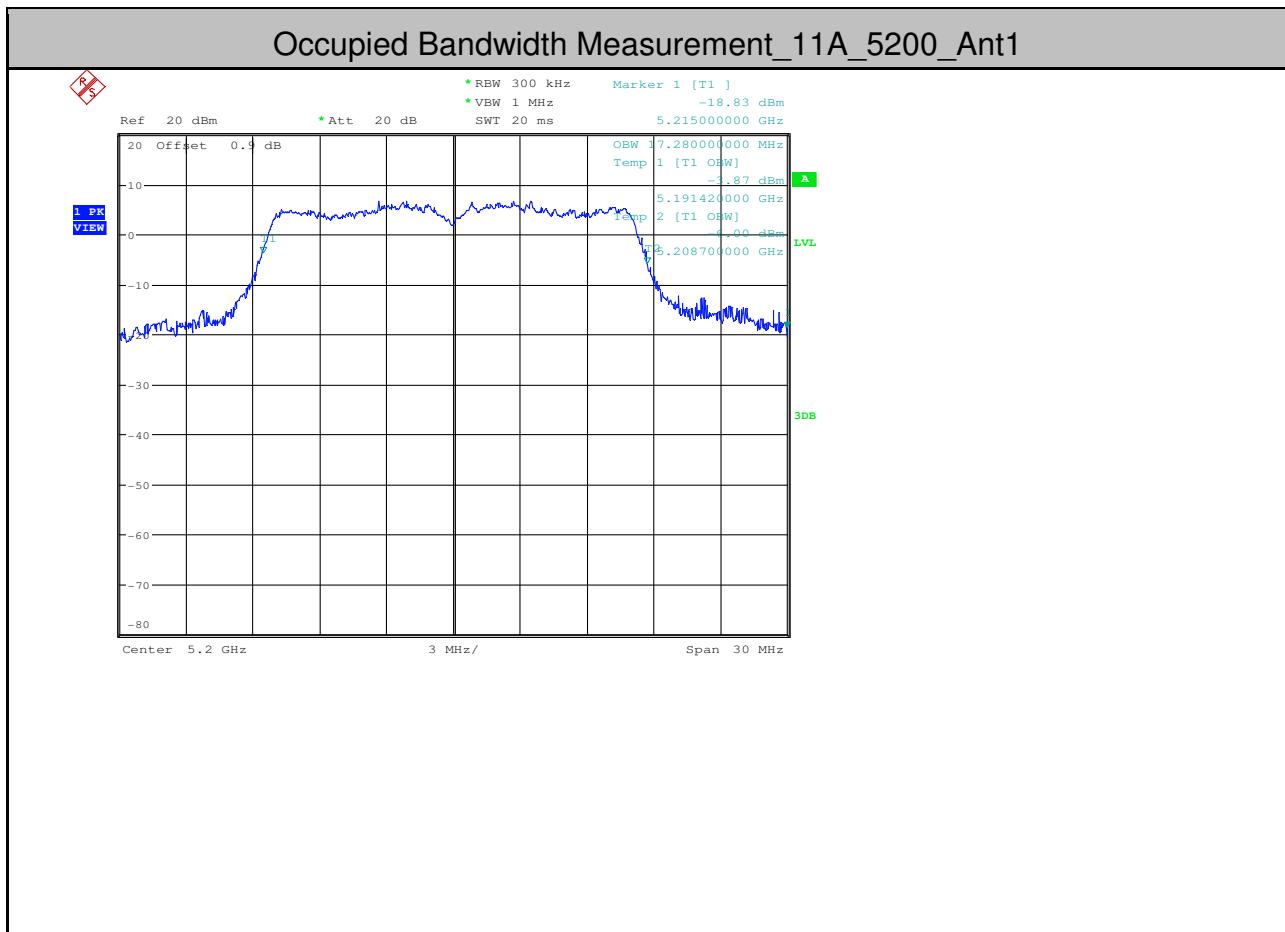


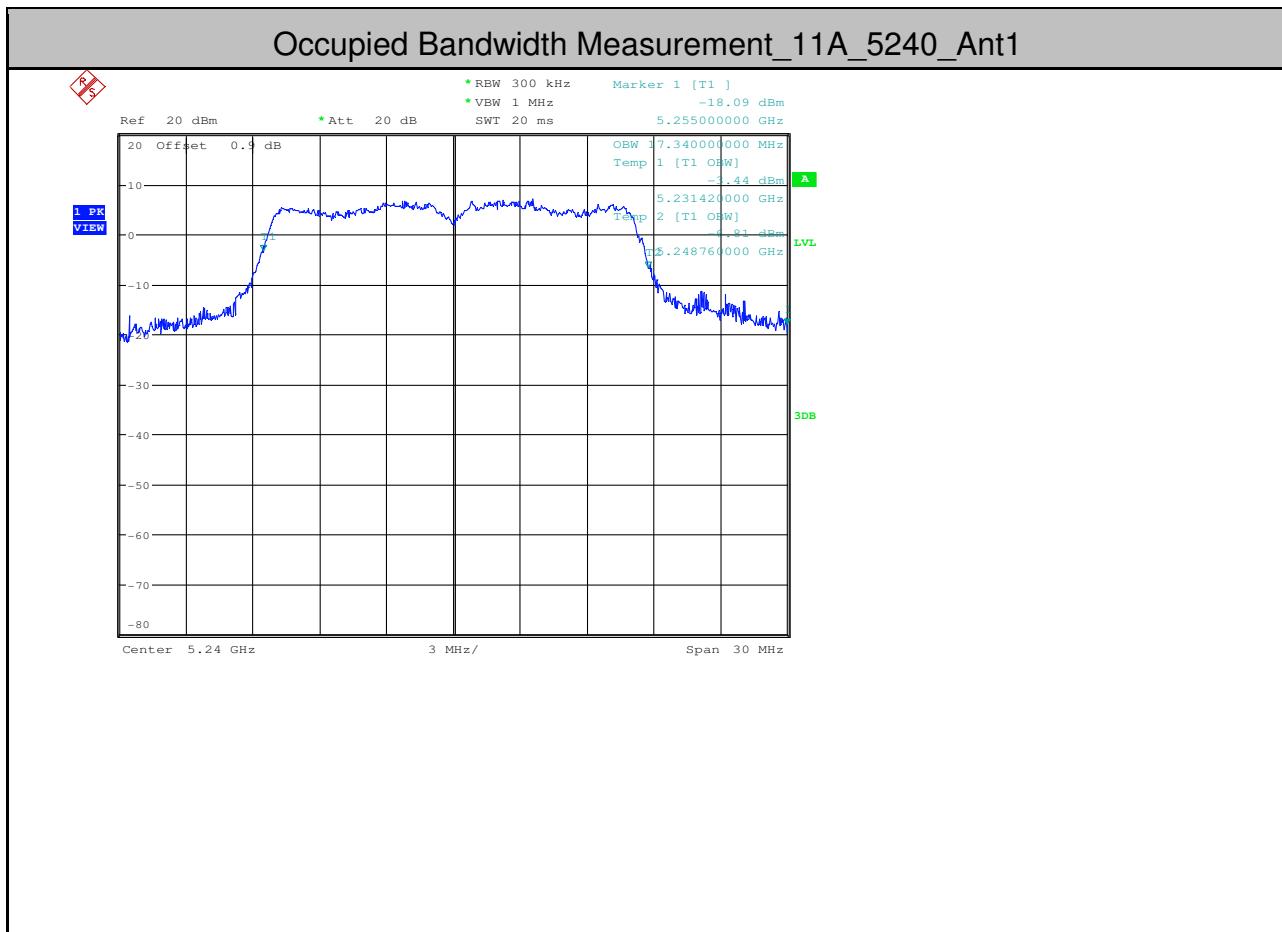
# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

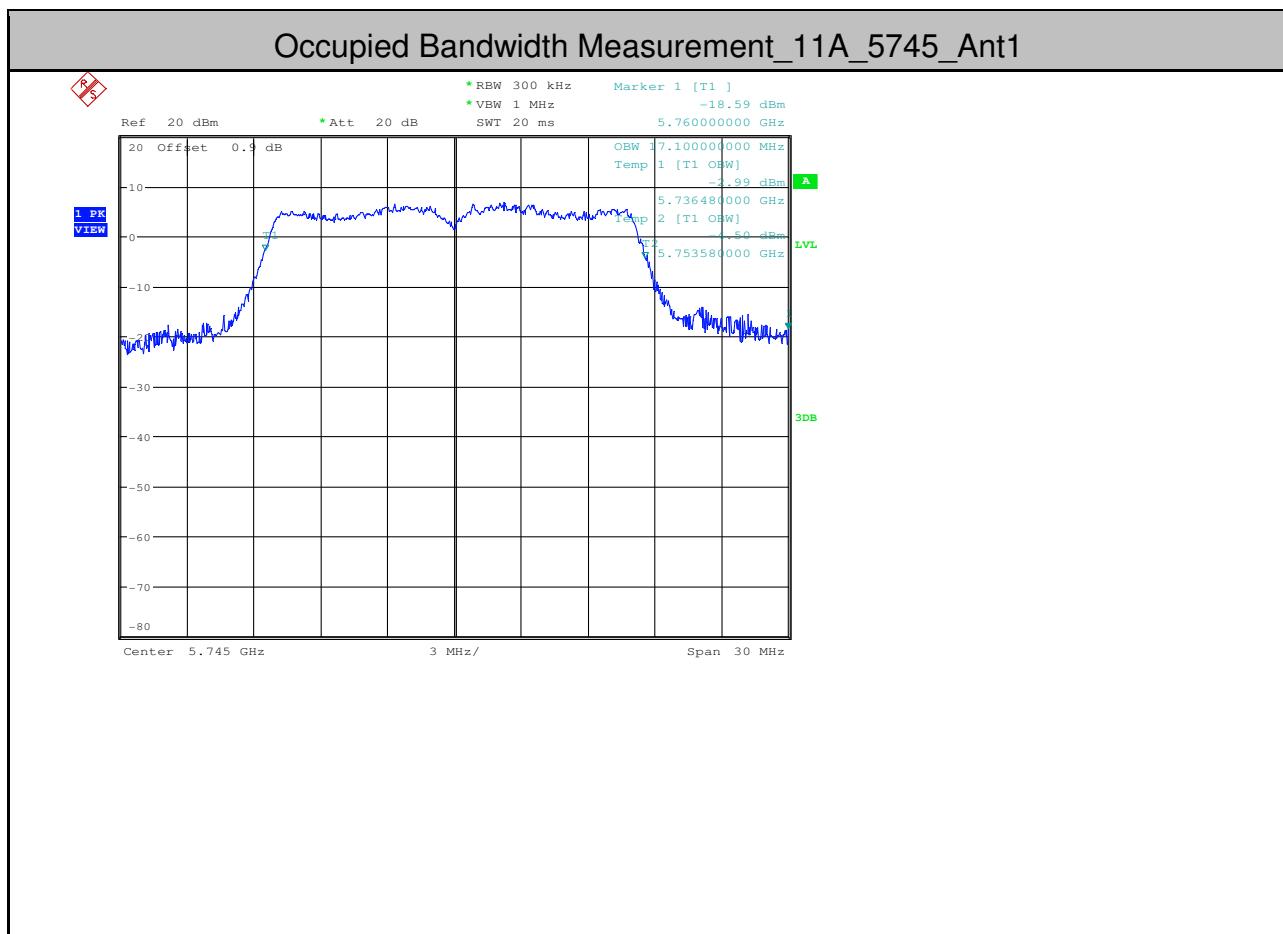
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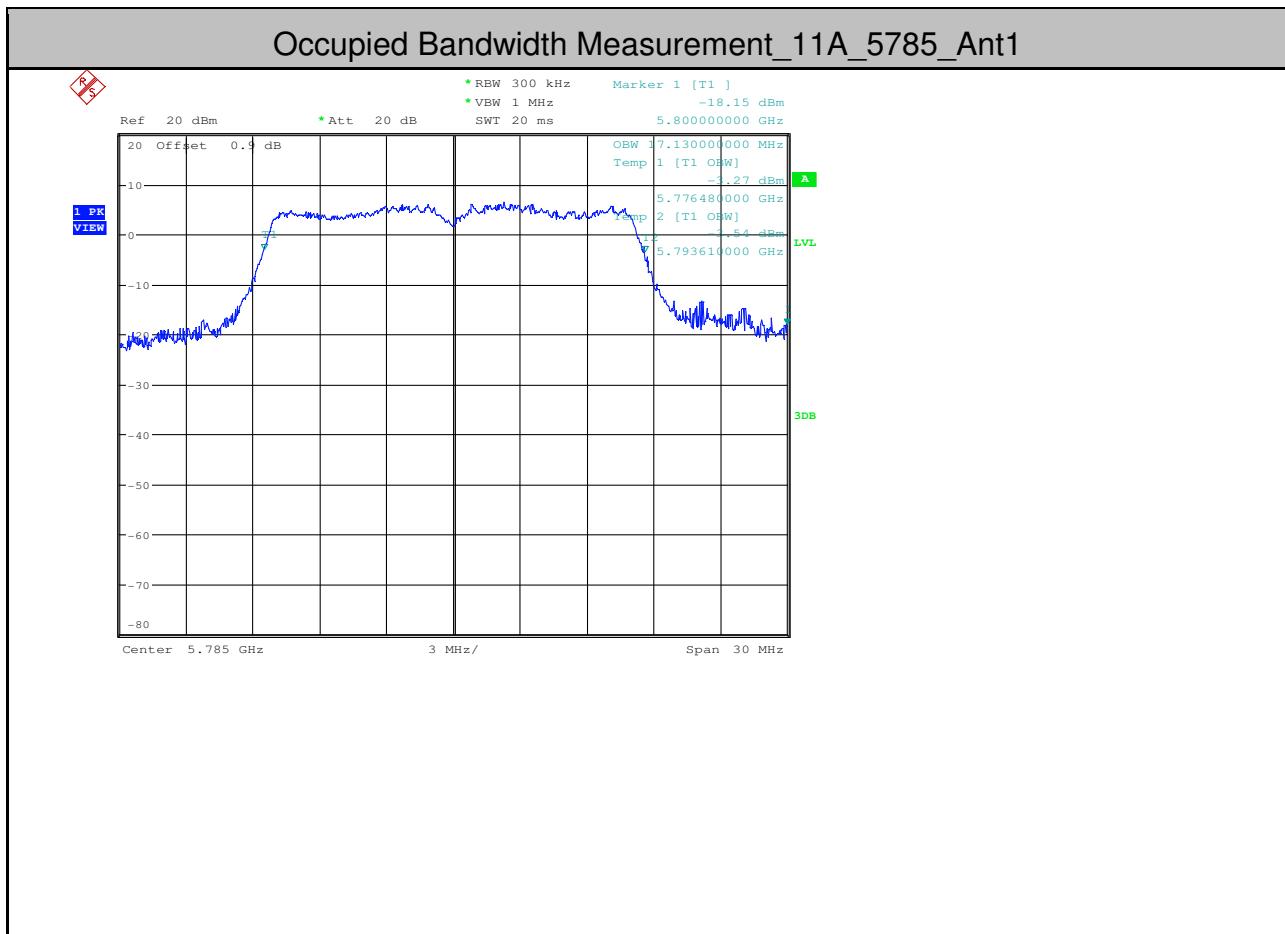
11AC40	5795	Ant1	36.720	---	PASS
11AC80	5210	Ant1	77.280	---	PASS
11AC80	5775	Ant1	77.640	---	PASS

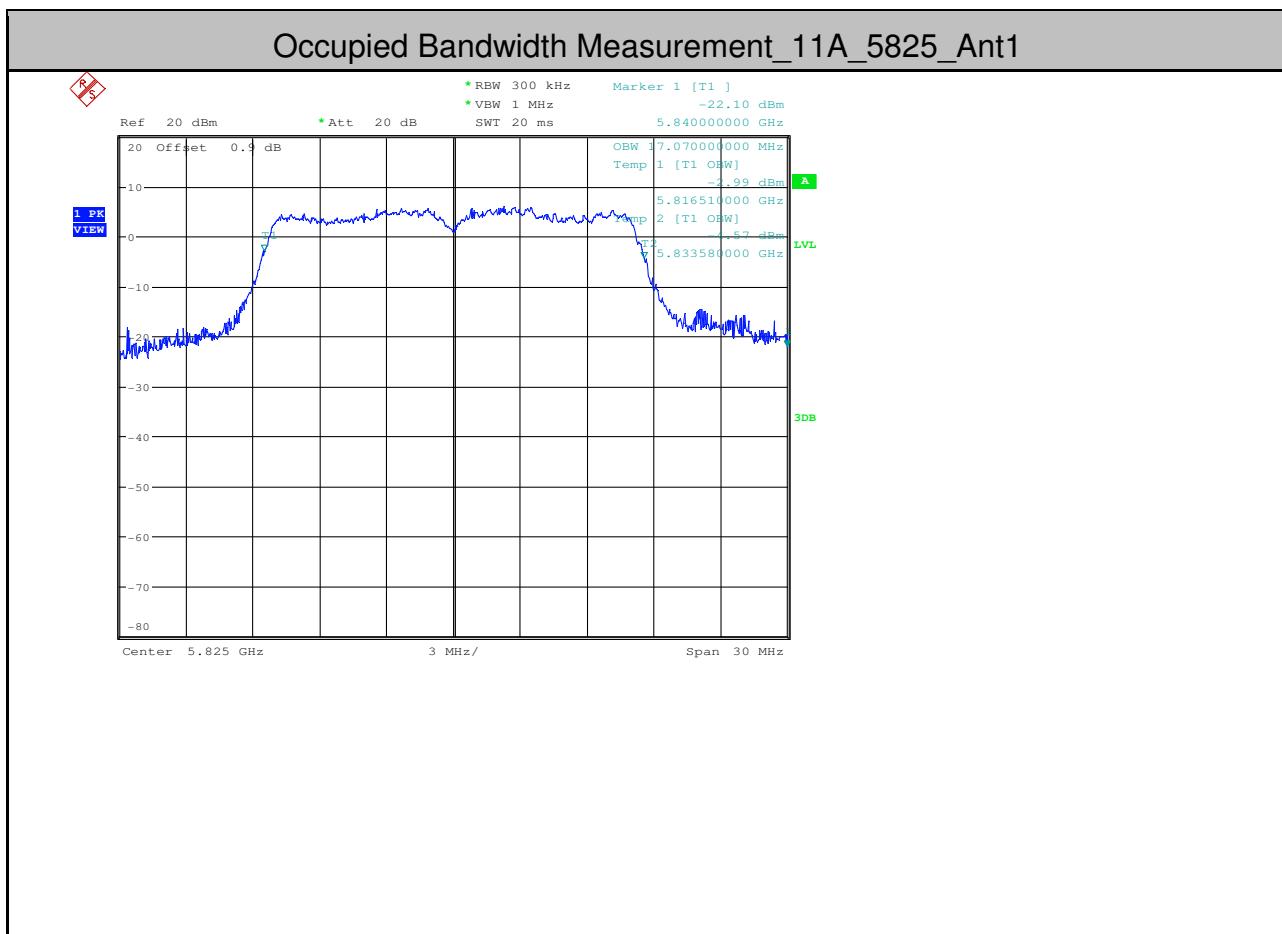


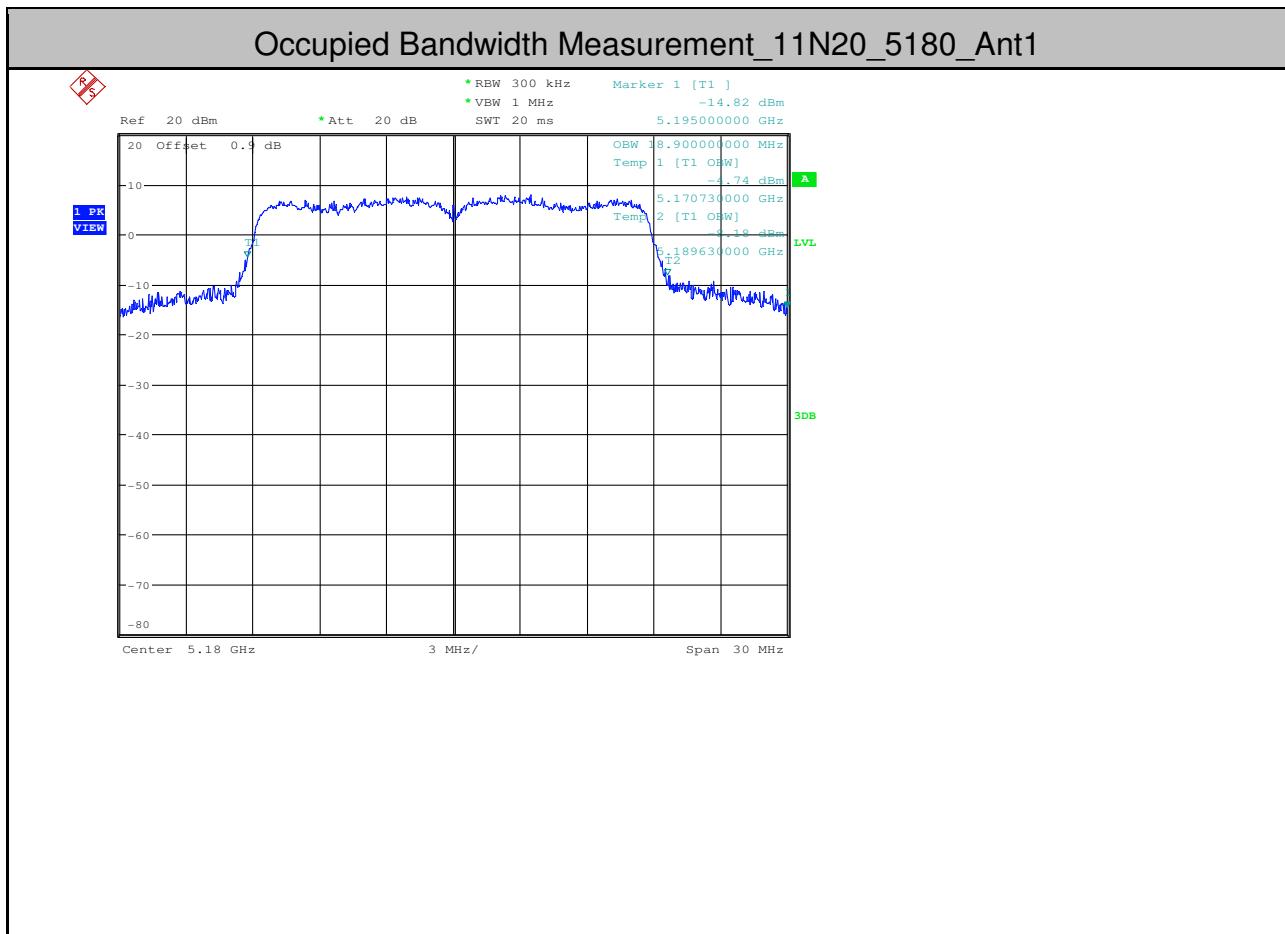


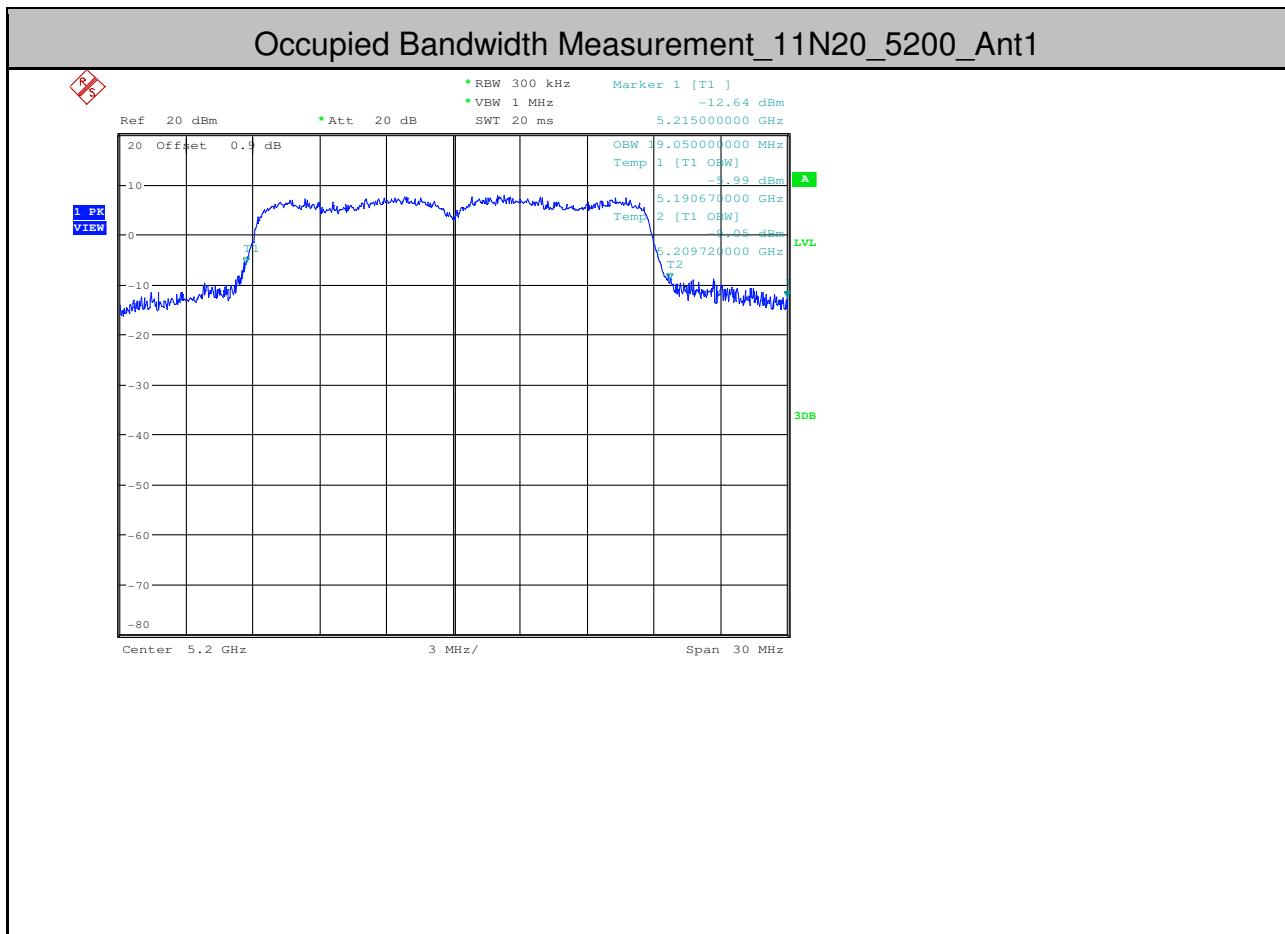


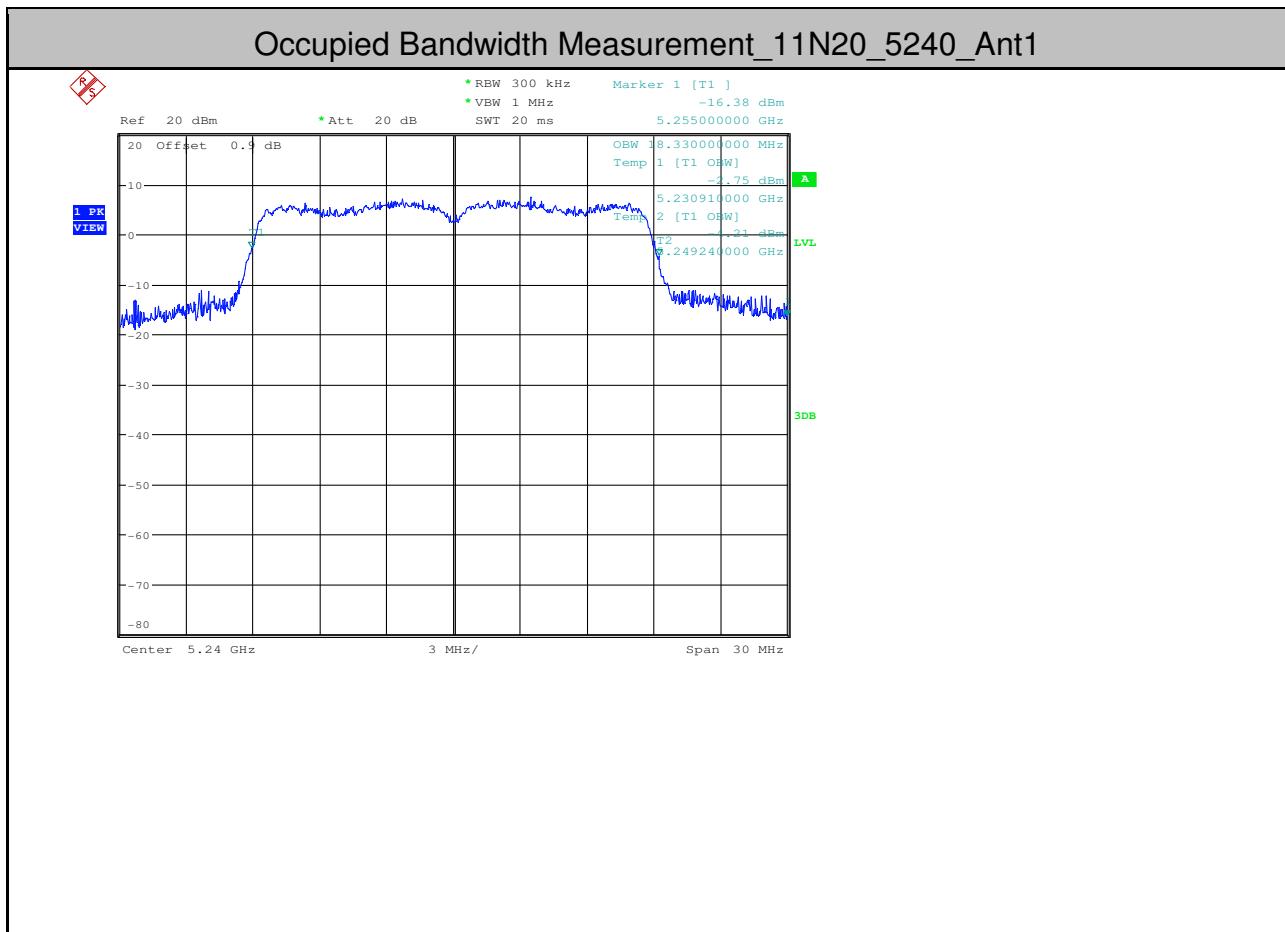


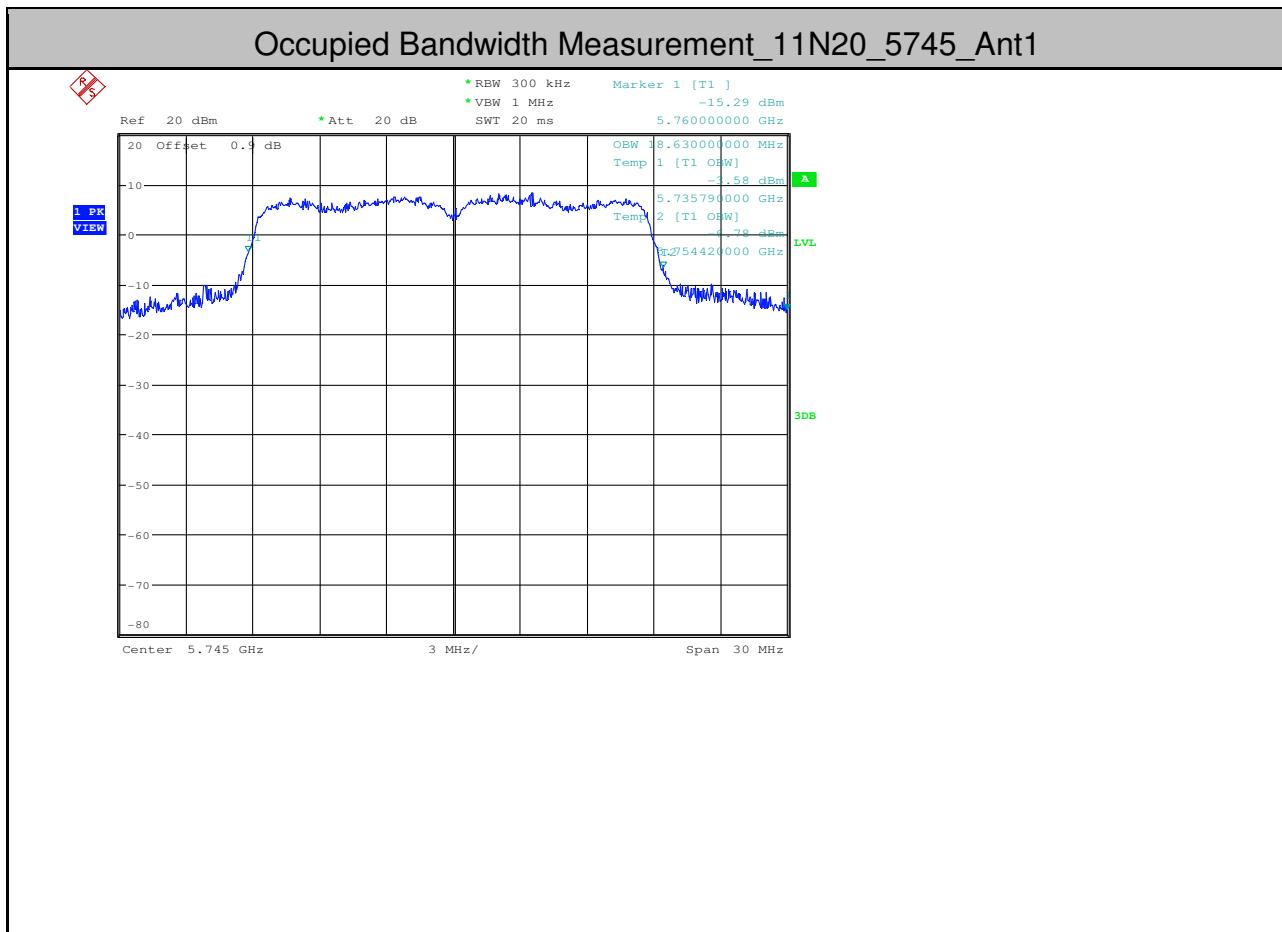


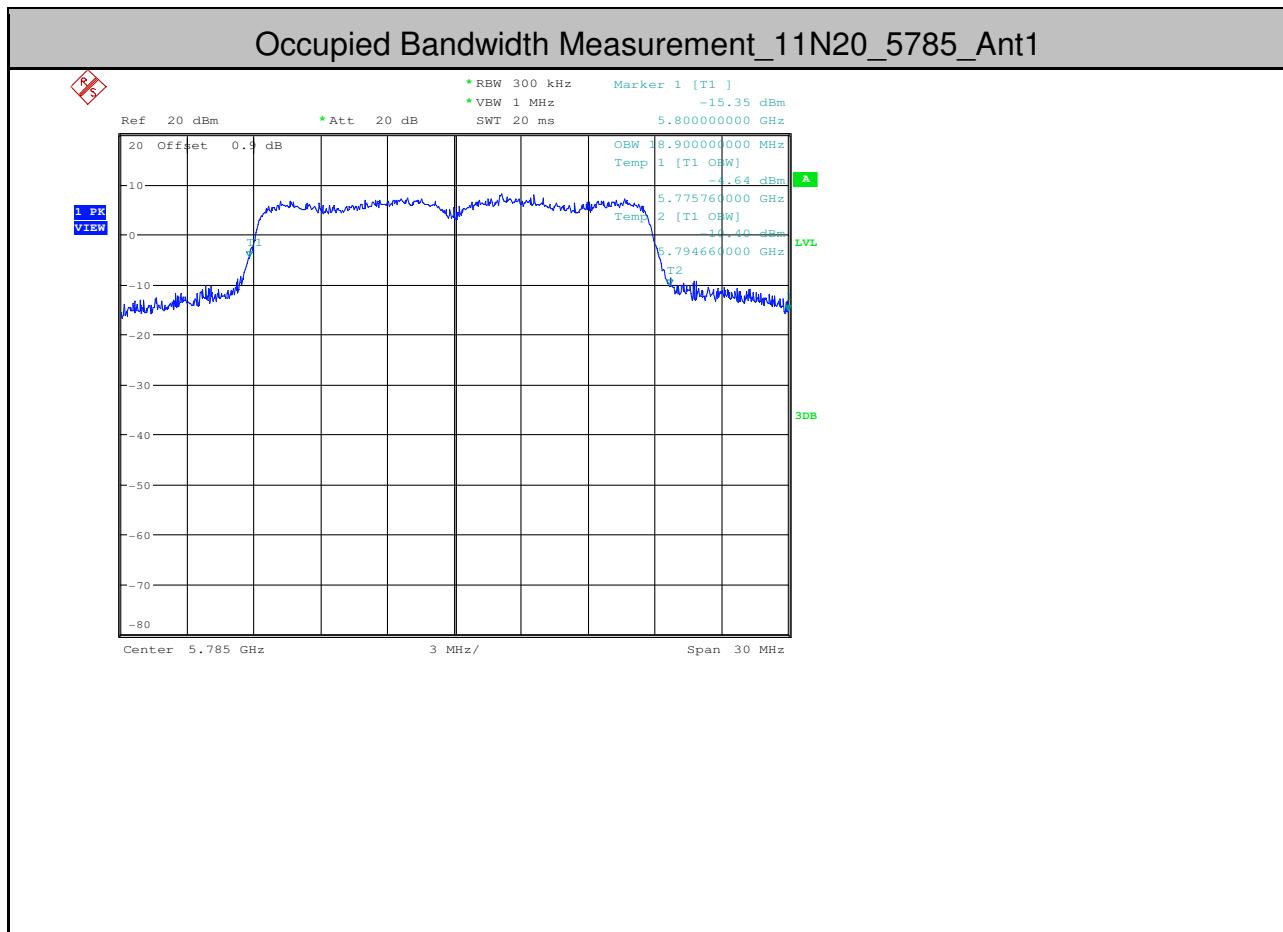


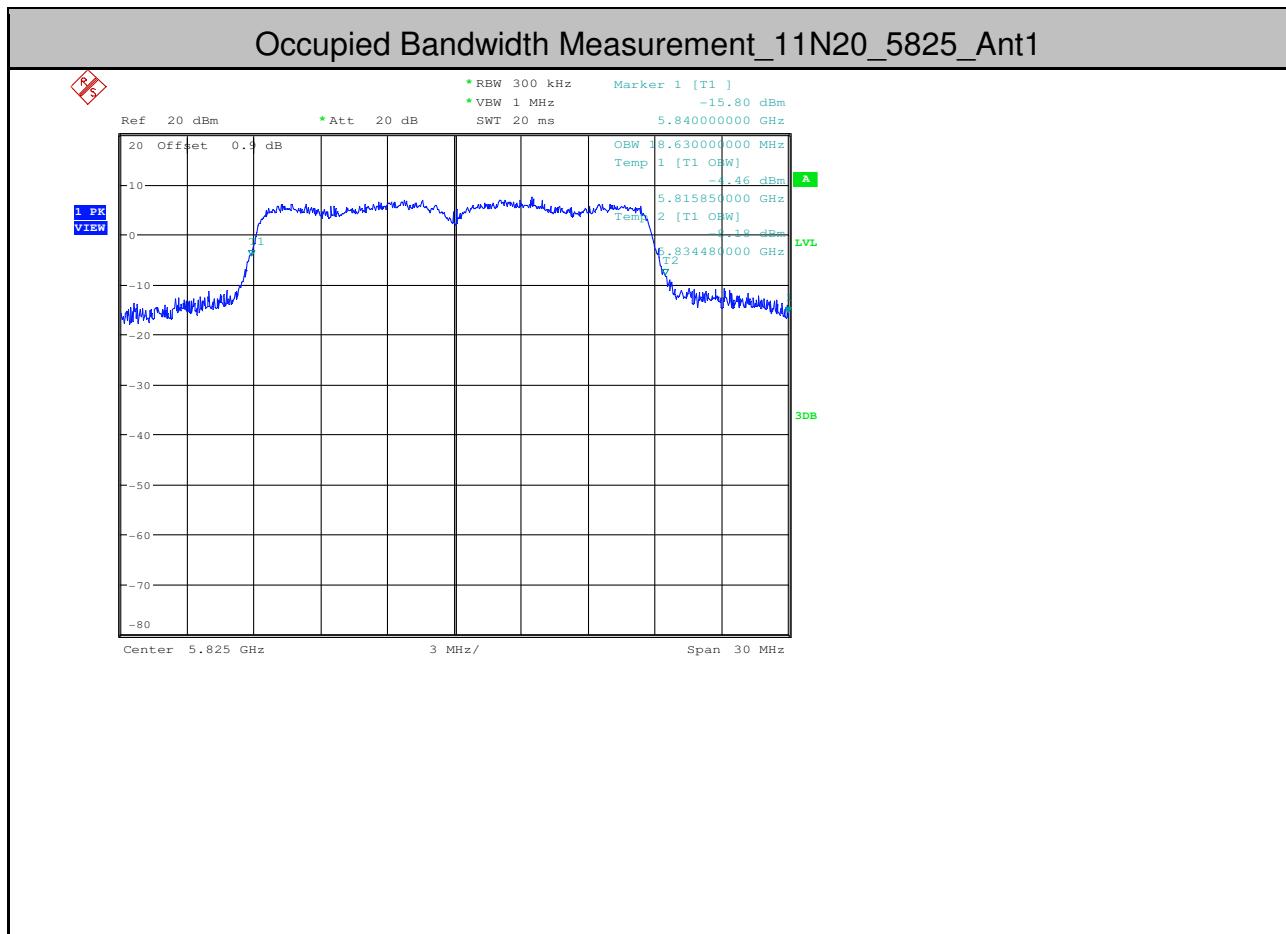


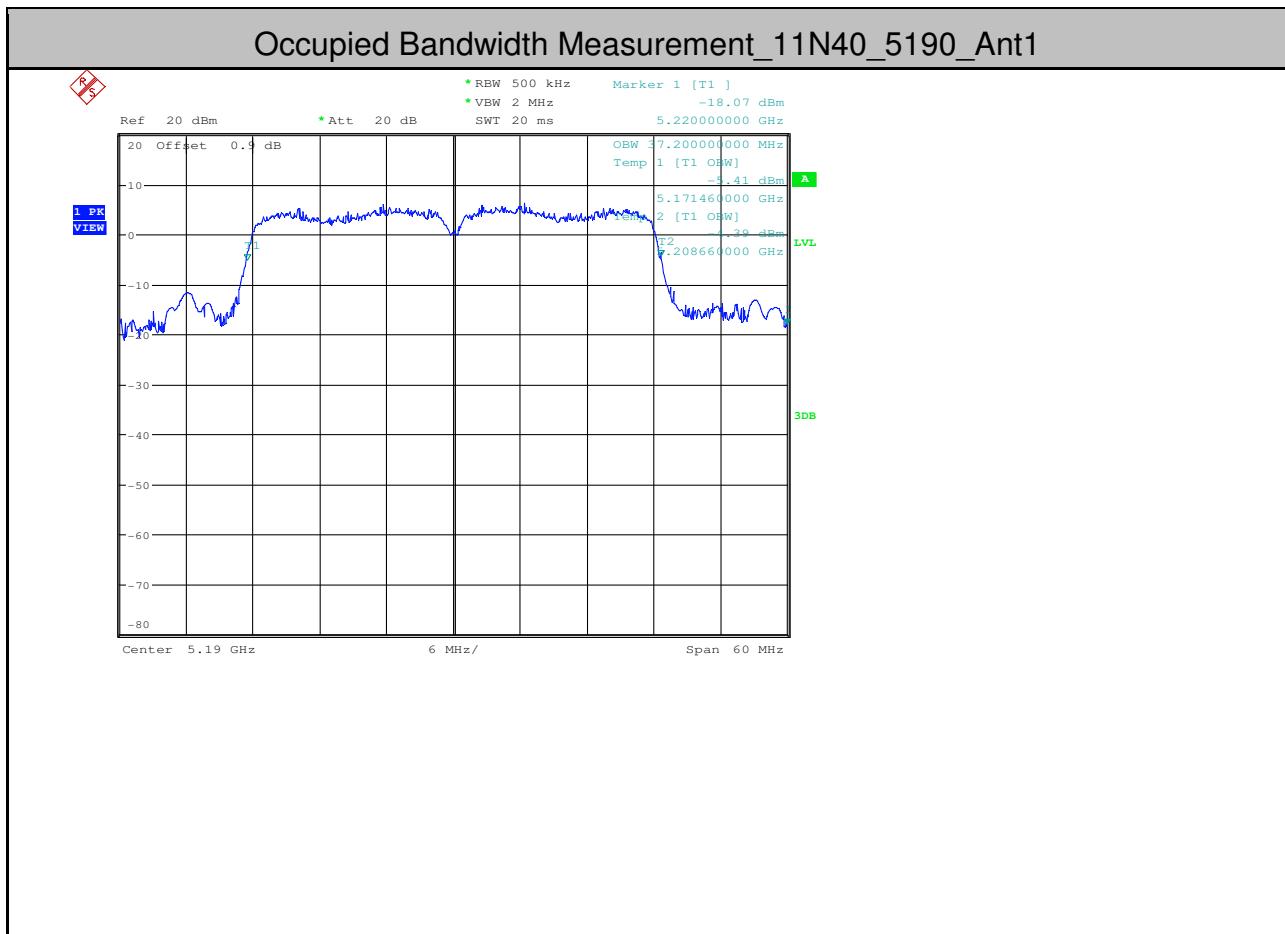


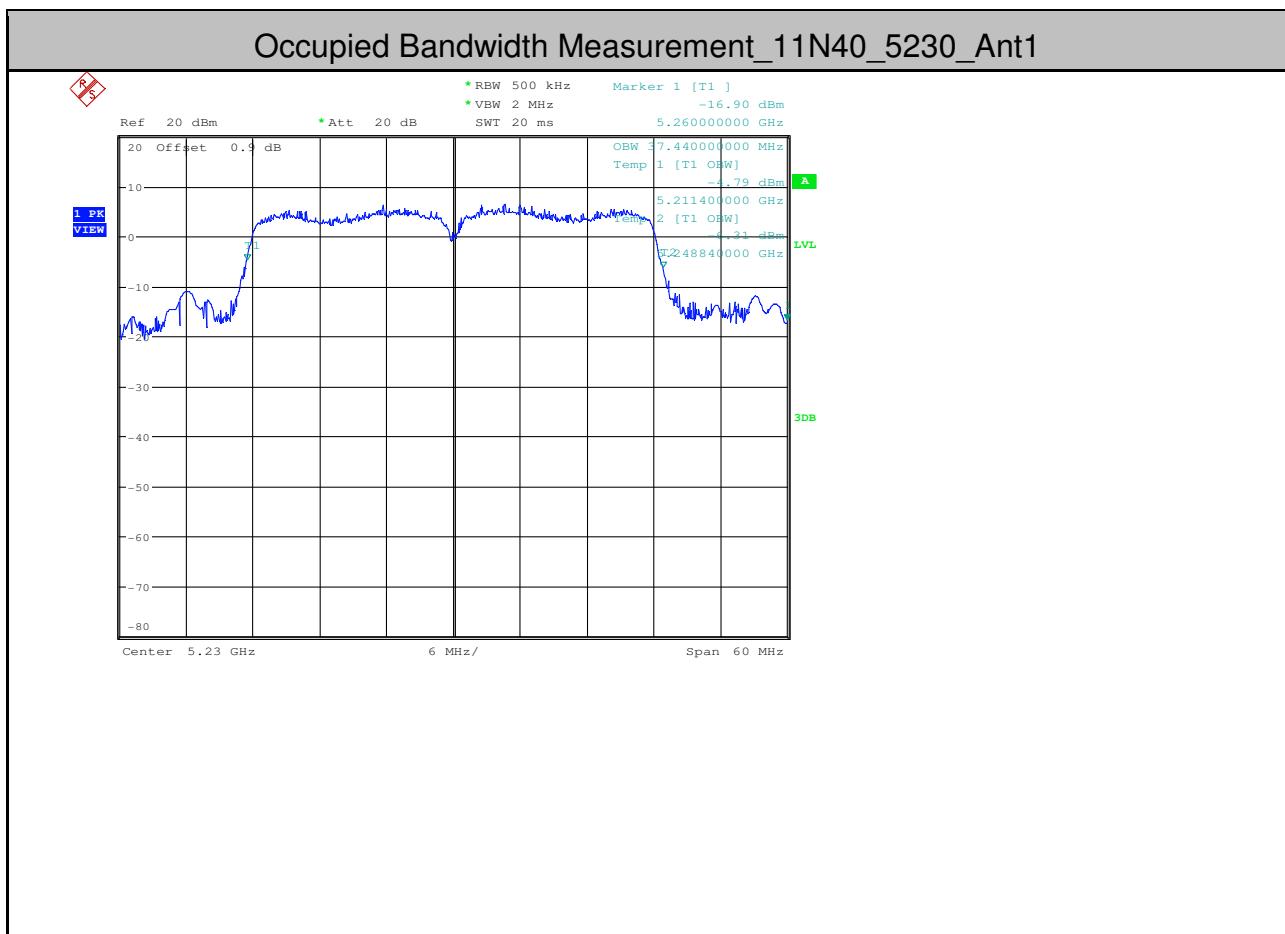


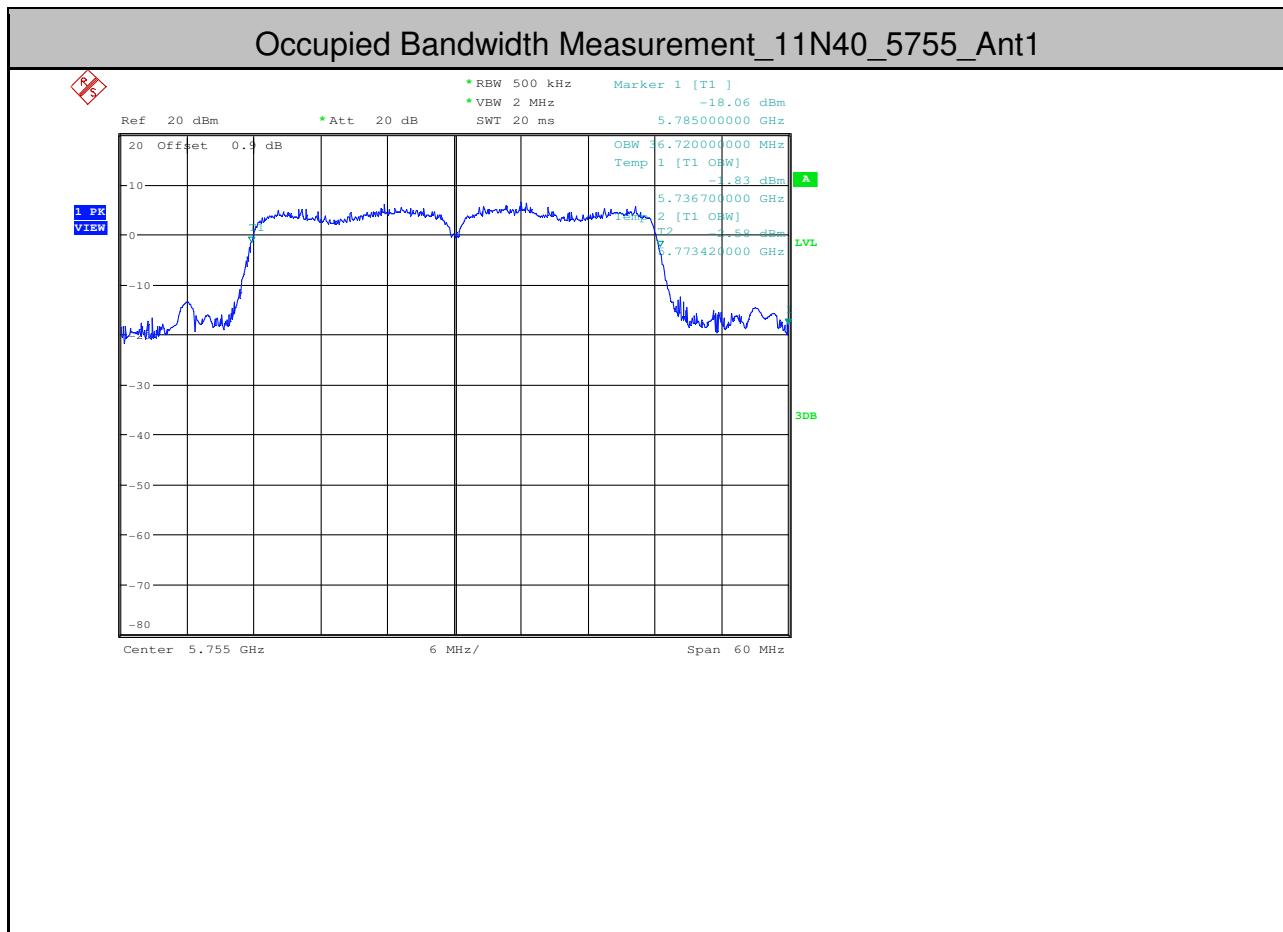


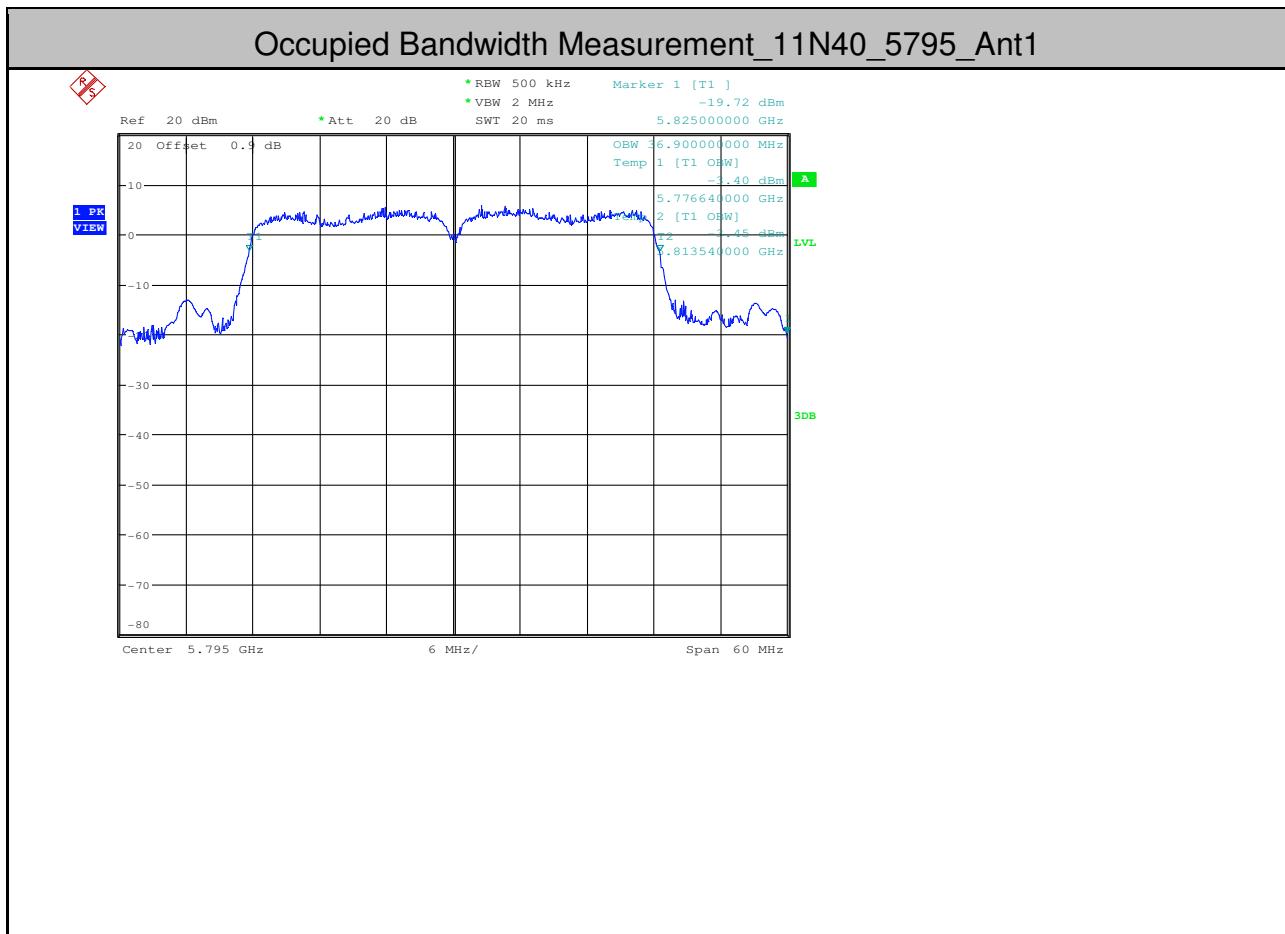


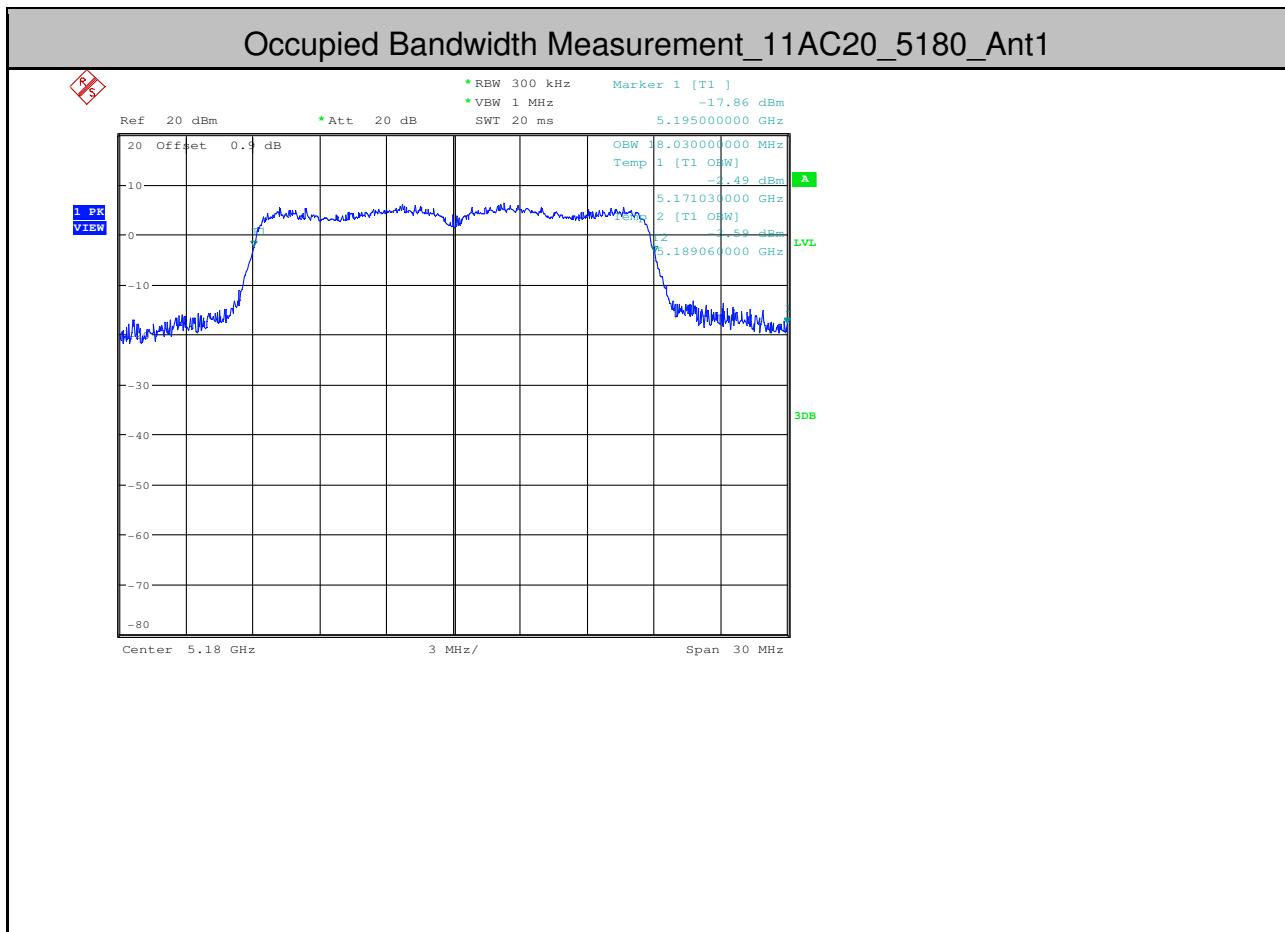


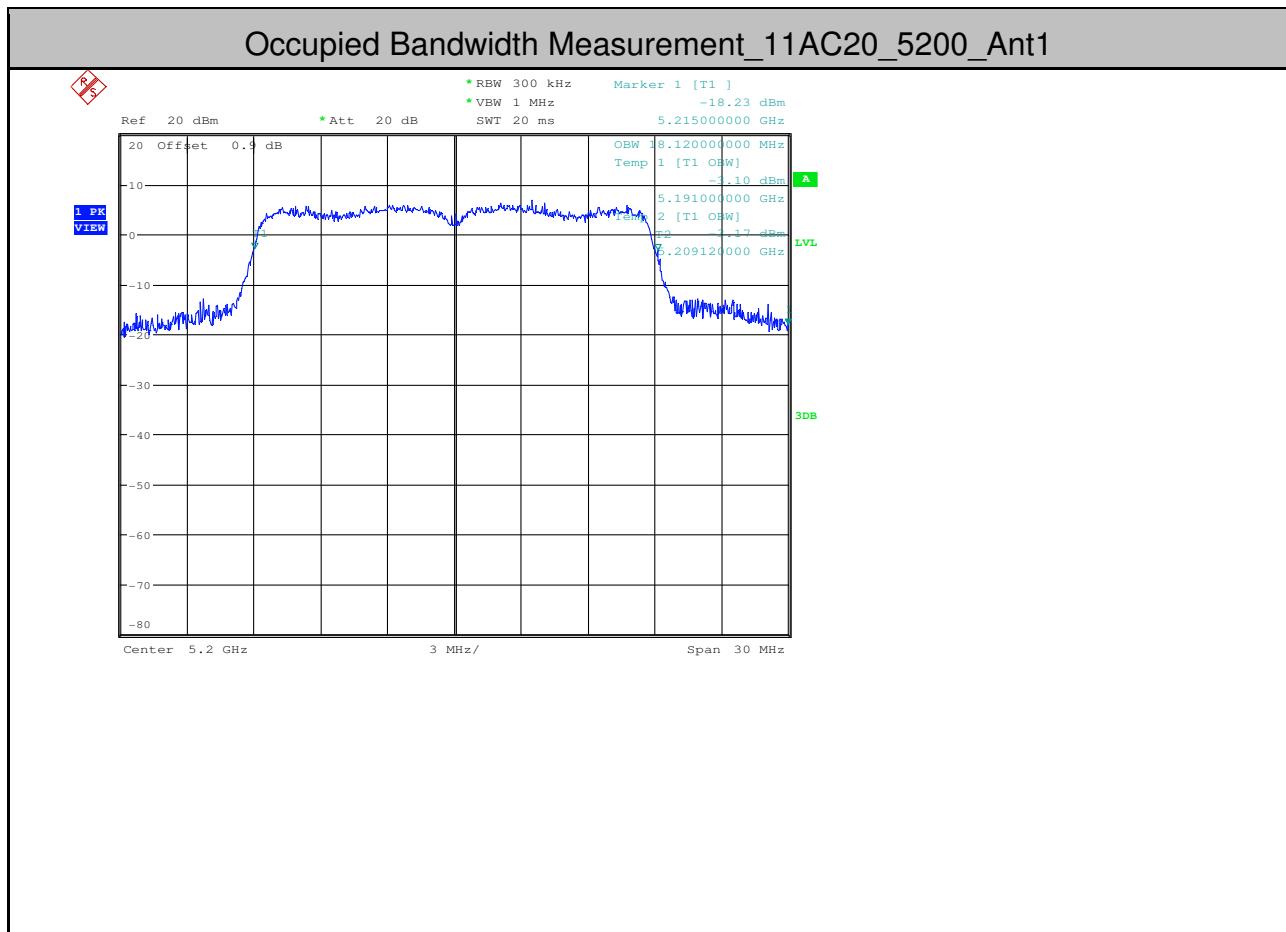


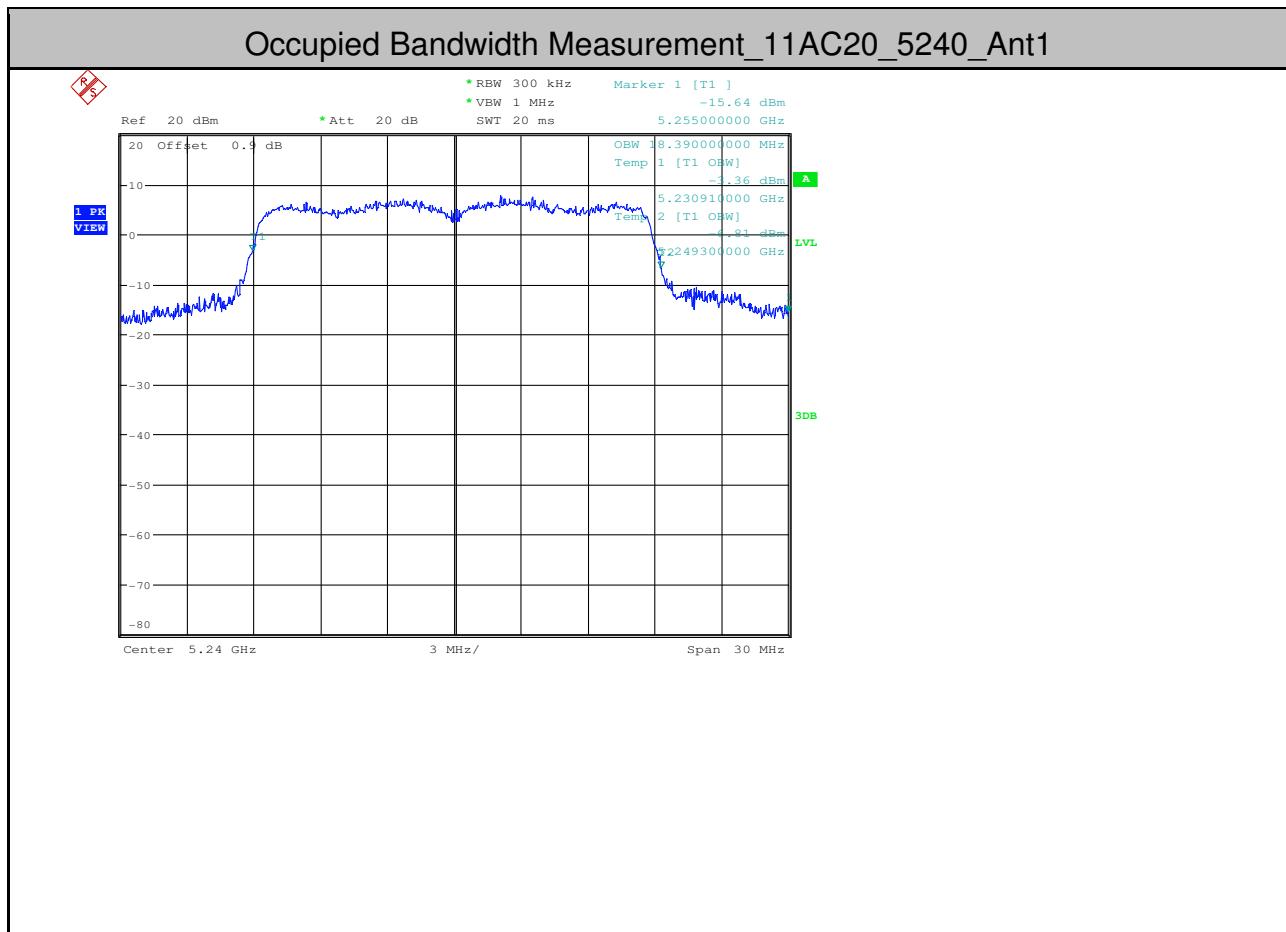


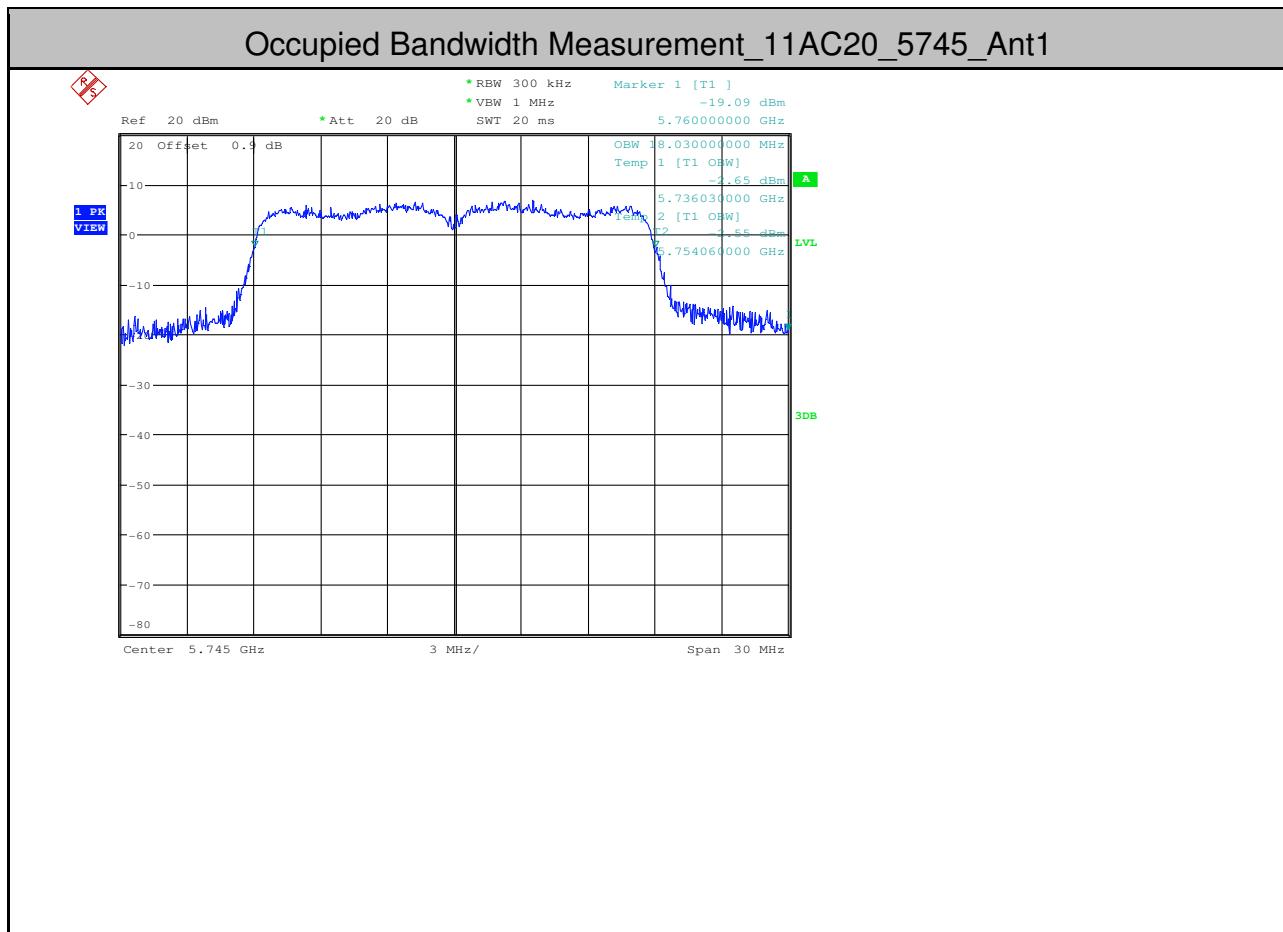


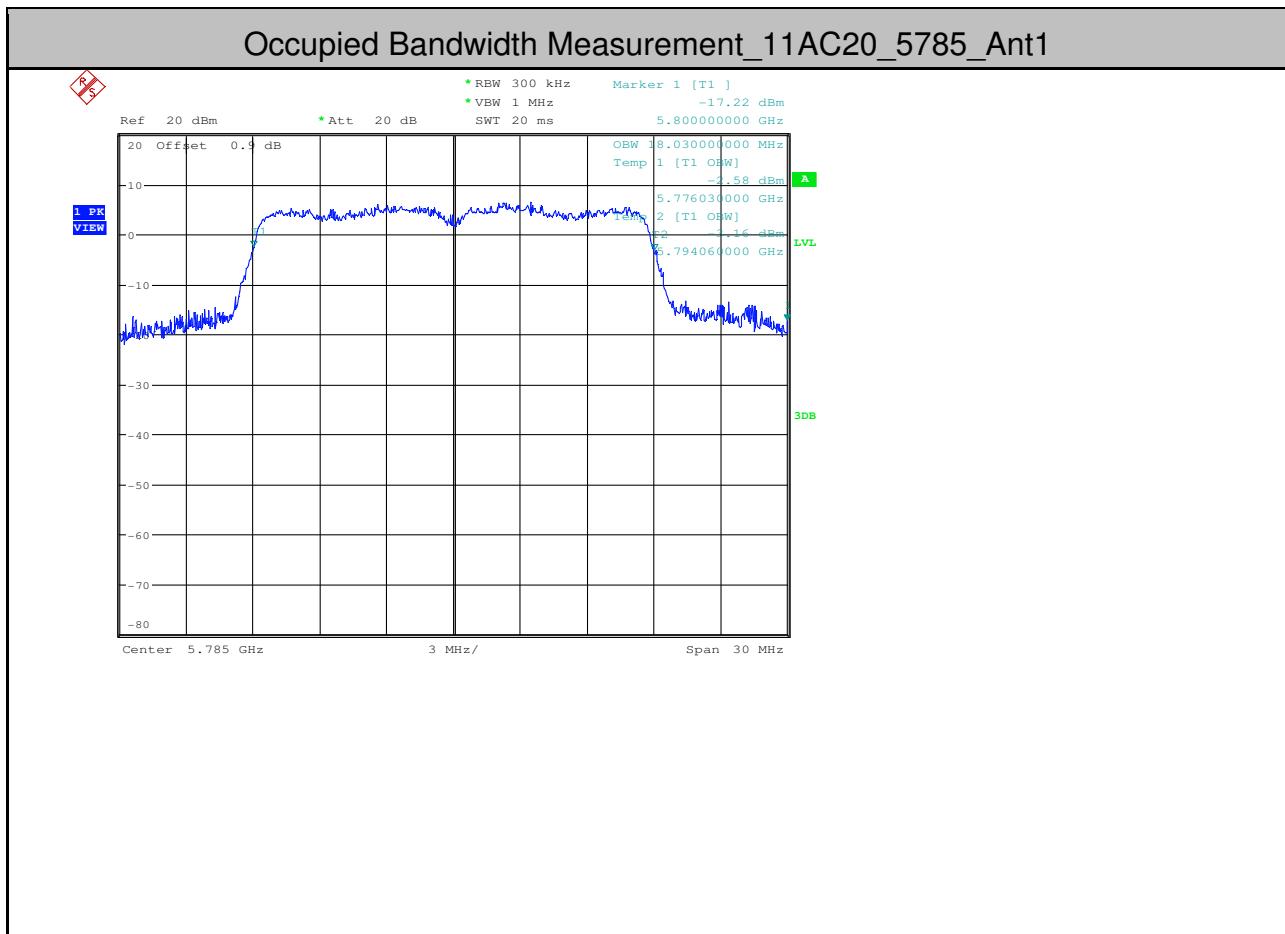


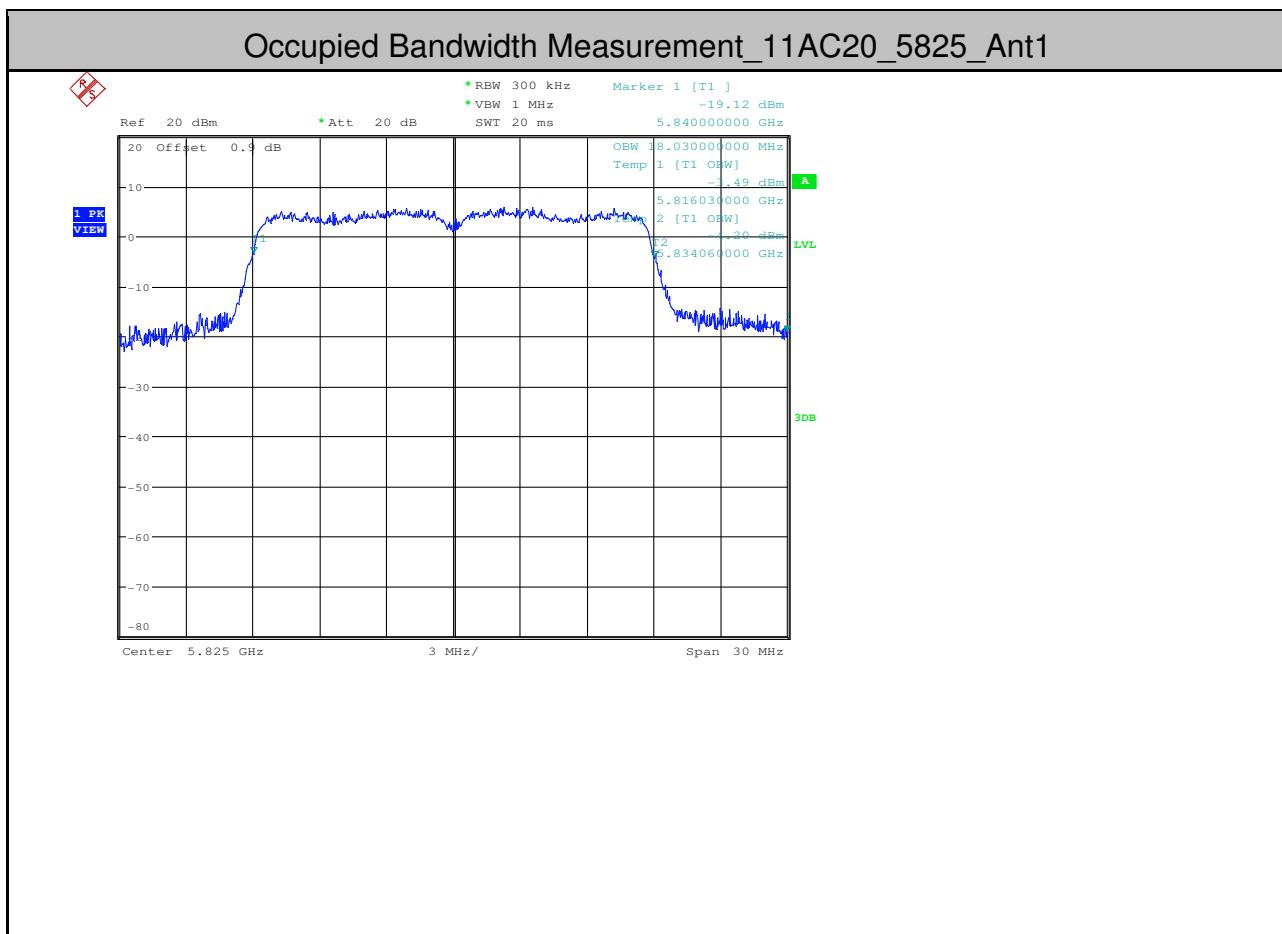


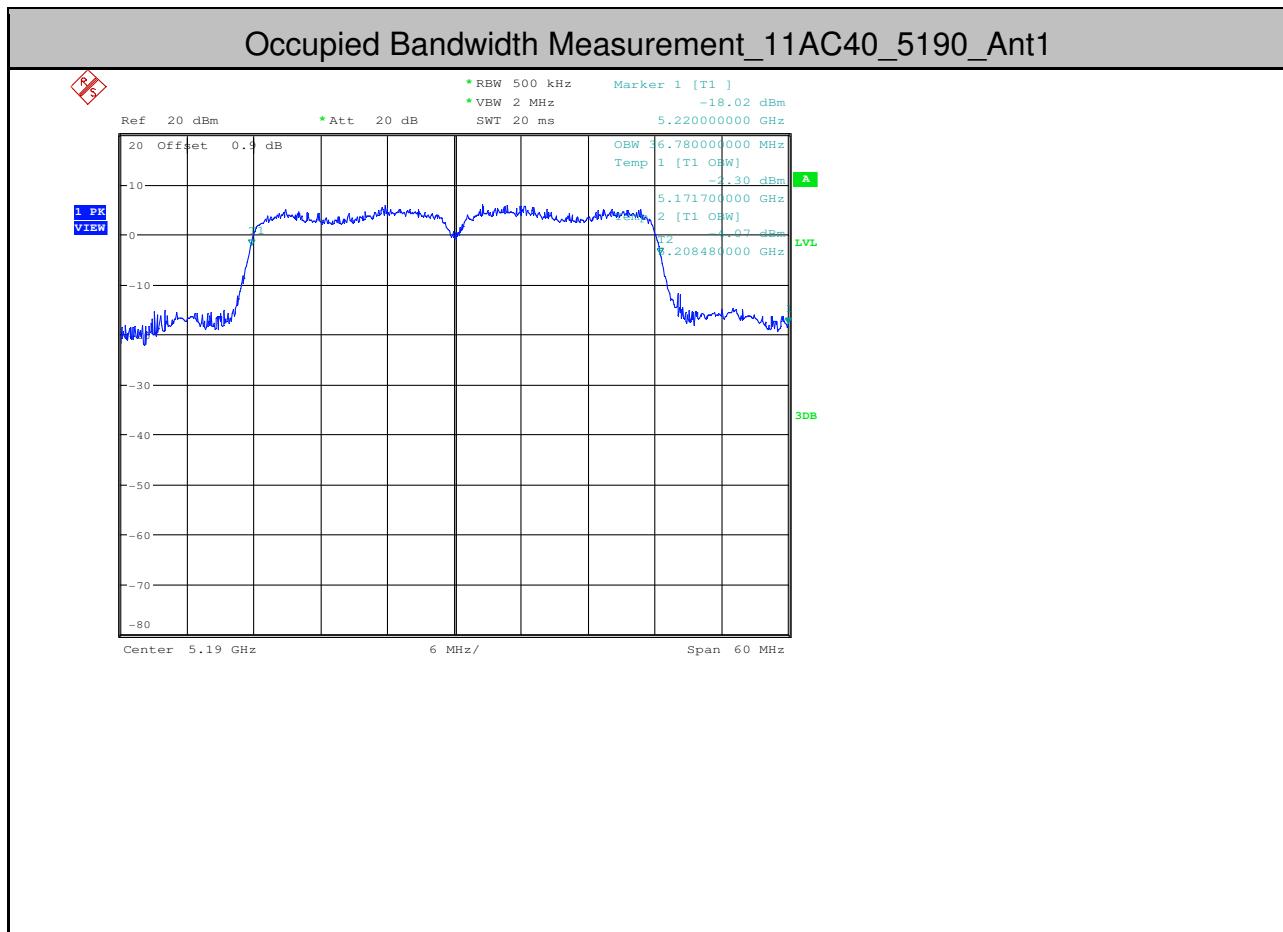


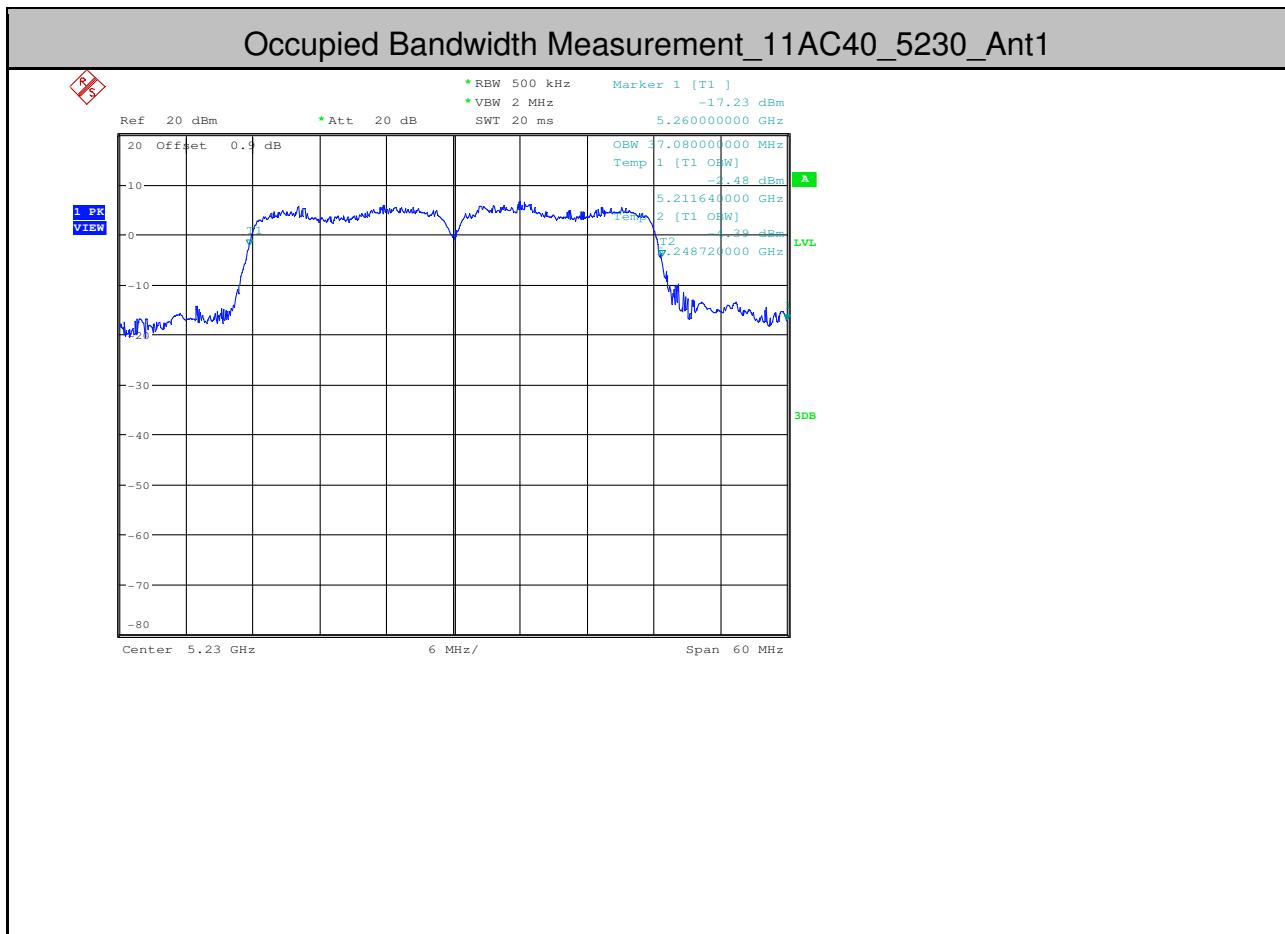


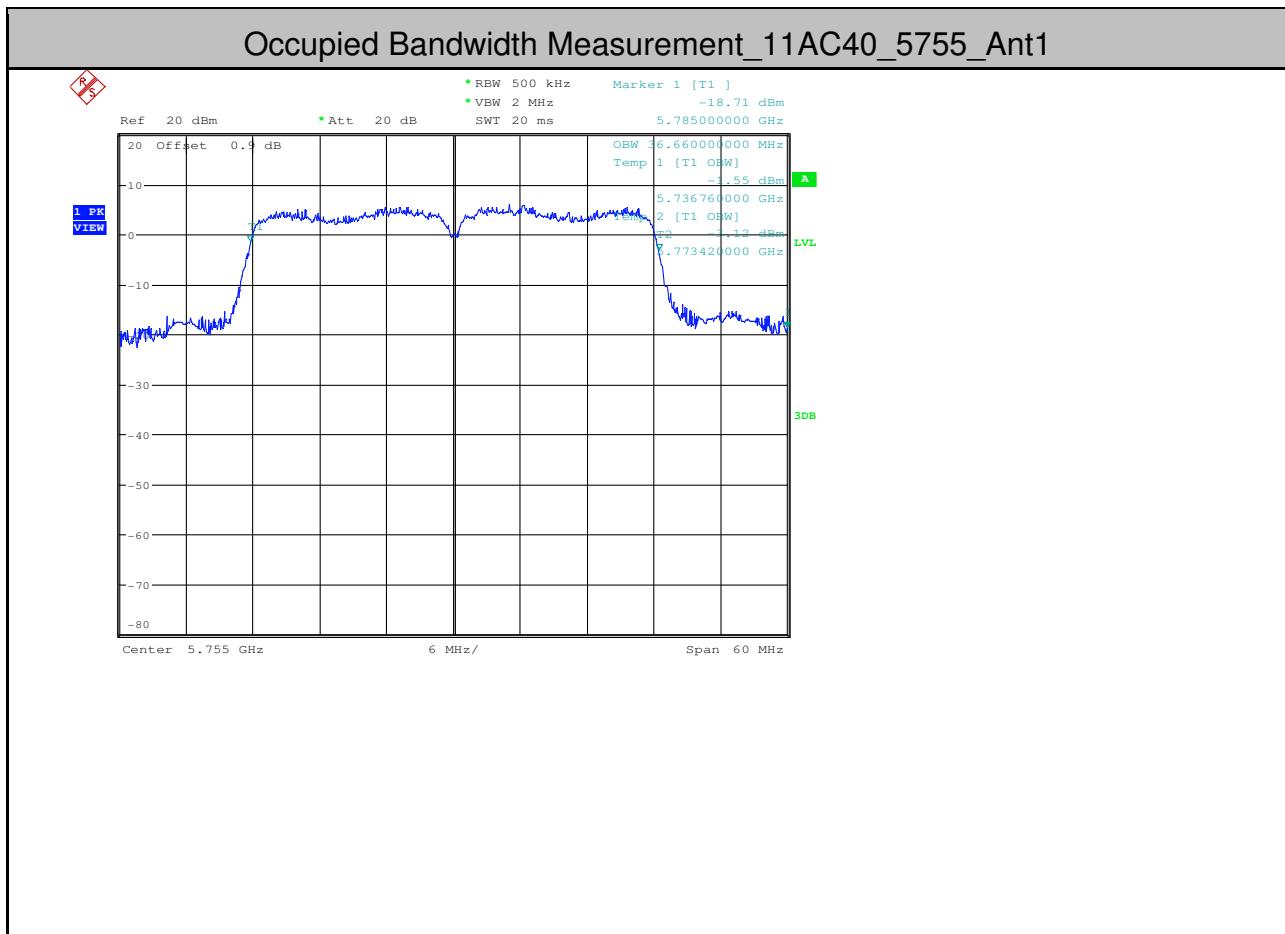


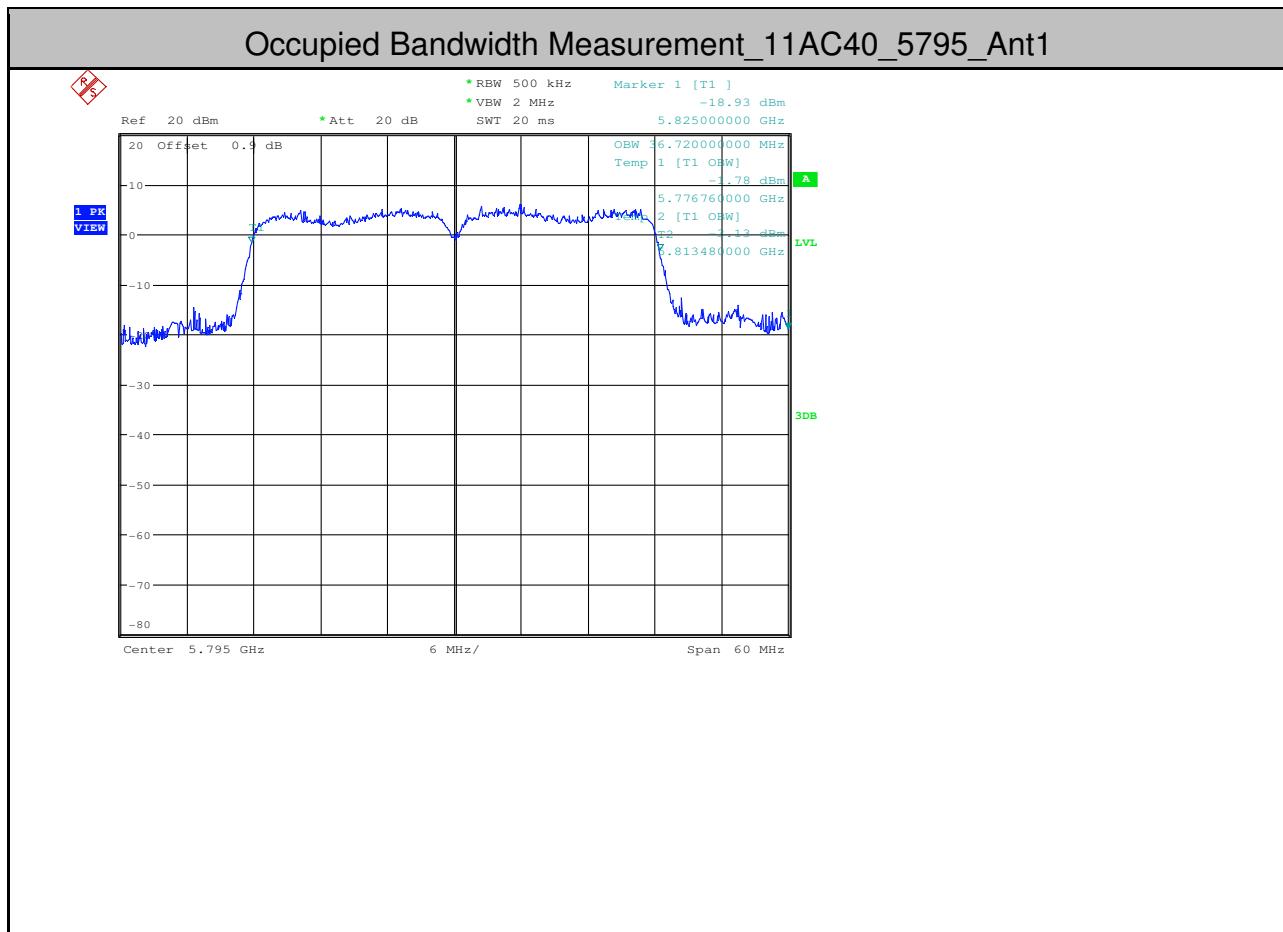


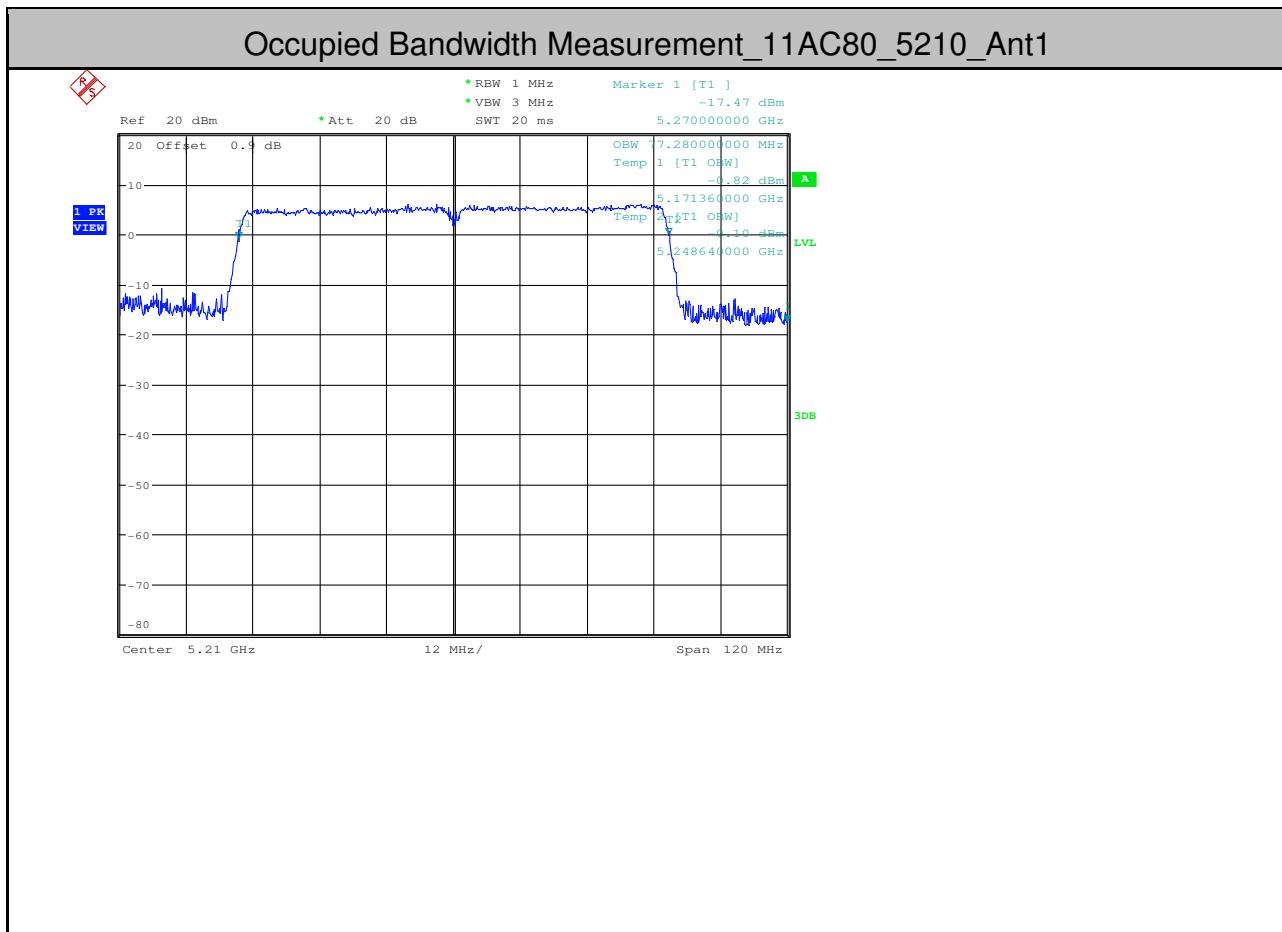


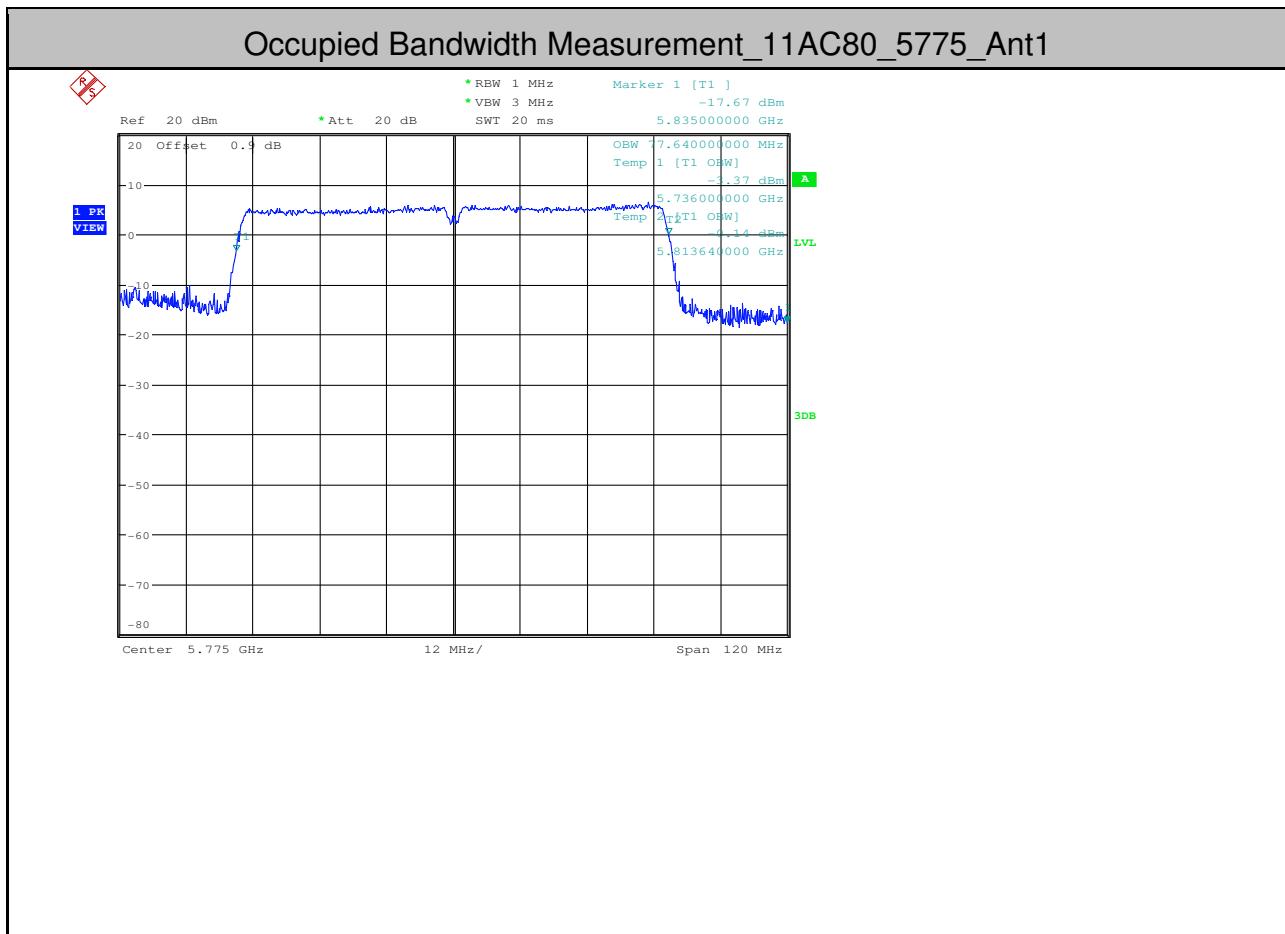












**3. Maximum Conduct Output Power**

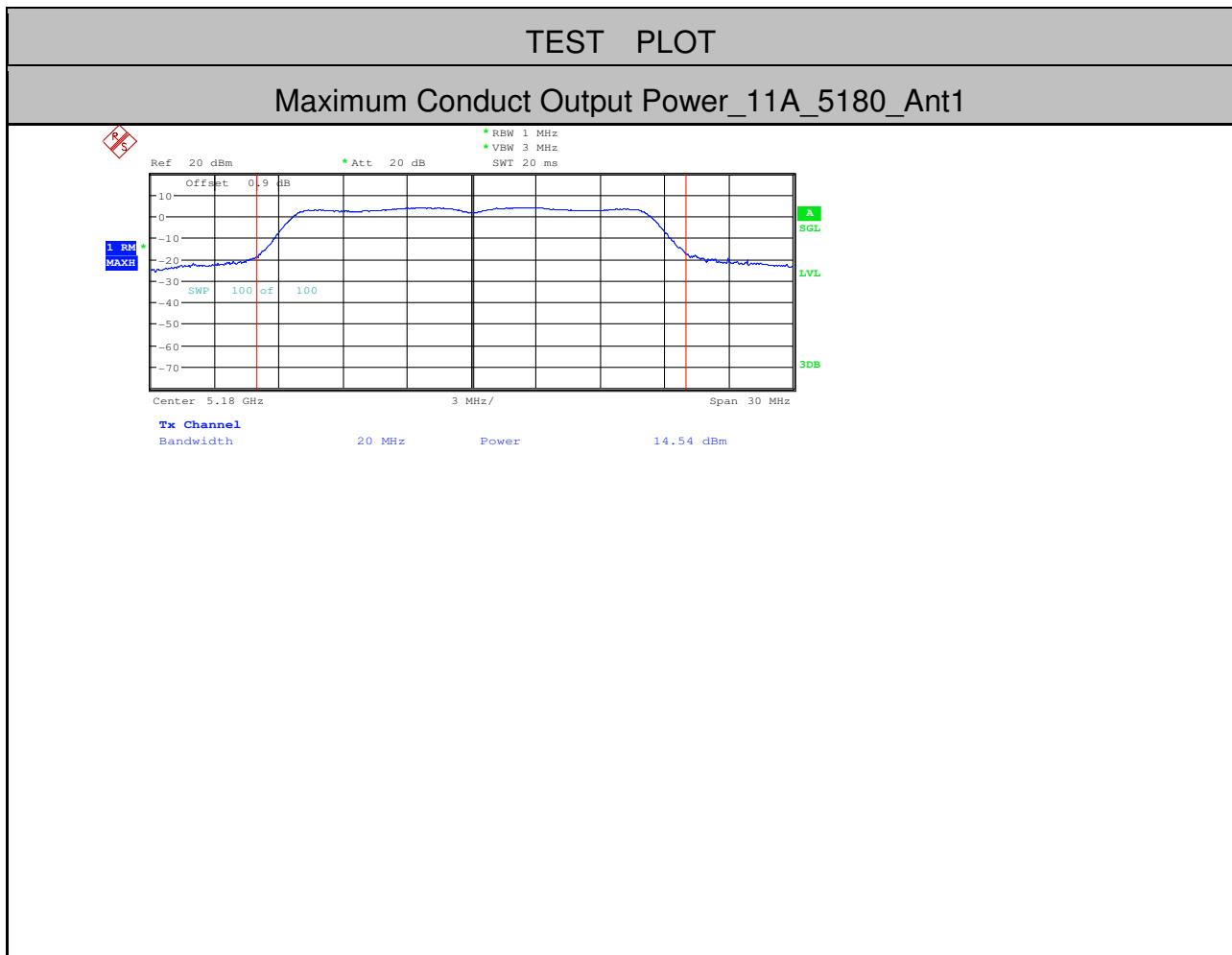
Test Mode	Test Channel	Ant	Level [dBm]	10log(1/x) Factor [dB]	Power [dBm]	Limit [dBm]	Verdict
11A	5180	Ant1	14.54	0.3	14.84	<23.31	PASS
11A	5200	Ant1	14.71	0.3	15.01	<23.31	PASS
11A	5240	Ant1	15.38	0.3	15.68	<23.31	PASS
11A	5745	Ant1	14.75	0.3	15.05	<29.33	PASS
11A	5785	Ant1	14.47	0.3	14.77	<29.33	PASS
11A	5825	Ant1	14.08	0.3	14.38	<29.33	PASS
11N20	5180	Ant1	16.02	0.32	16.34	<23.31	PASS
11N20	5200	Ant1	16.28	0.32	16.60	<23.31	PASS
11N20	5240	Ant1	15.47	0.32	15.79	<23.31	PASS
11N20	5745	Ant1	16.72	0.32	17.04	<29.33	PASS
11N20	5785	Ant1	16.42	0.32	16.74	<29.33	PASS
11N20	5825	Ant1	15.48	0.32	15.80	<29.33	PASS
11N40	5190	Ant1	14.86	0.65	15.51	<23.31	PASS
11N40	5230	Ant1	15.13	0.77	15.90	<23.31	PASS
11N40	5755	Ant1	14.96	0.79	15.75	<29.33	PASS
11N40	5795	Ant1	14.73	0.65	15.38	<29.33	PASS
11AC20	5180	Ant1	14.82	0.32	15.14	<23.31	PASS
11AC20	5200	Ant1	14.89	0.32	15.21	<23.31	PASS
11AC20	5240	Ant1	15.59	0.32	15.91	<23.31	PASS
11AC20	5745	Ant1	14.84	0.32	15.16	<29.33	PASS
11AC20	5785	Ant1	14.64	0.32	14.96	<29.33	PASS
11AC20	5825	Ant1	14.29	0.32	14.61	<29.33	PASS
11AC40	5190	Ant1	14.99	0.65	15.64	<23.31	PASS
11AC40	5230	Ant1	15.21	0.77	15.98	<23.31	PASS

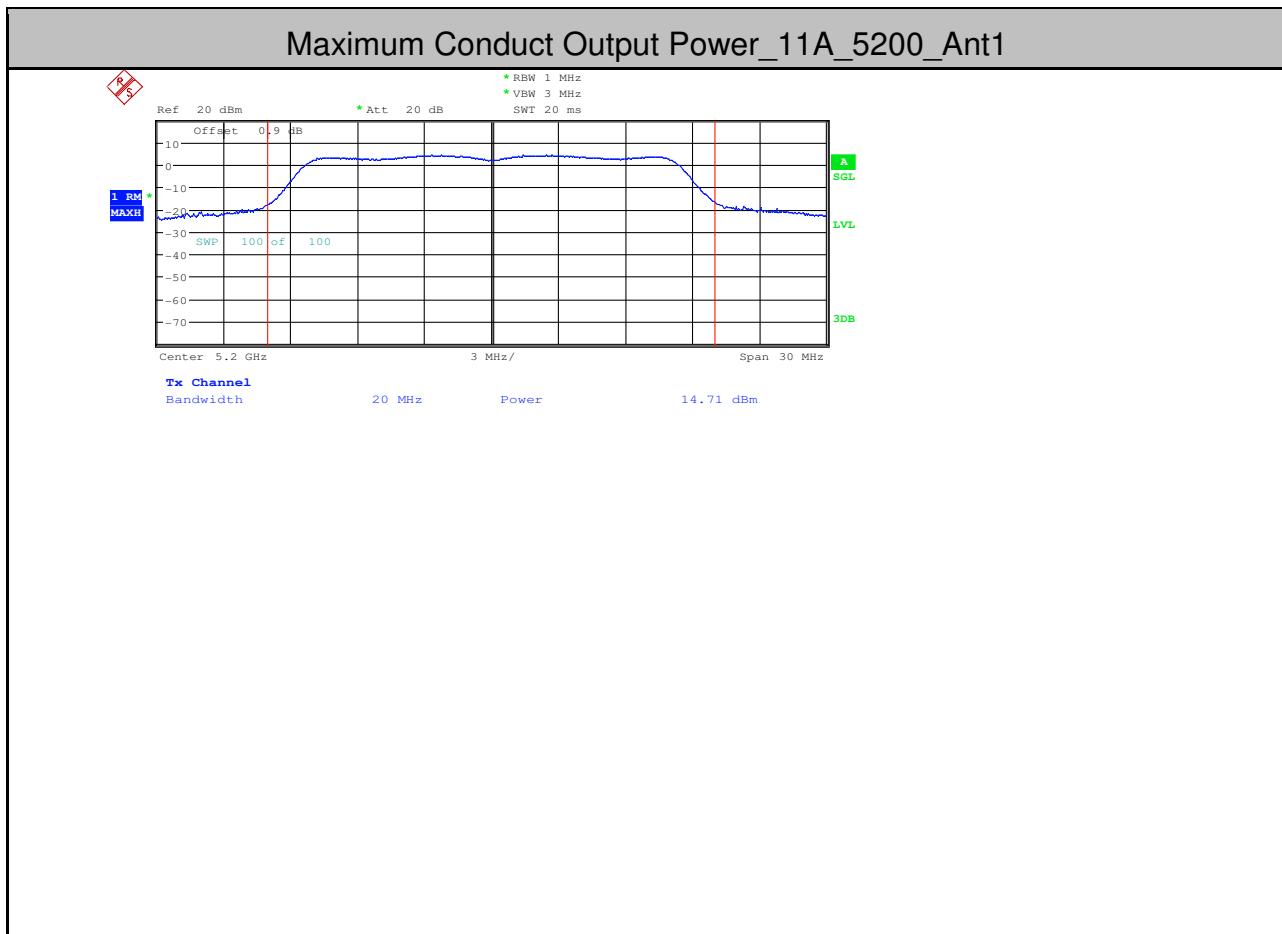


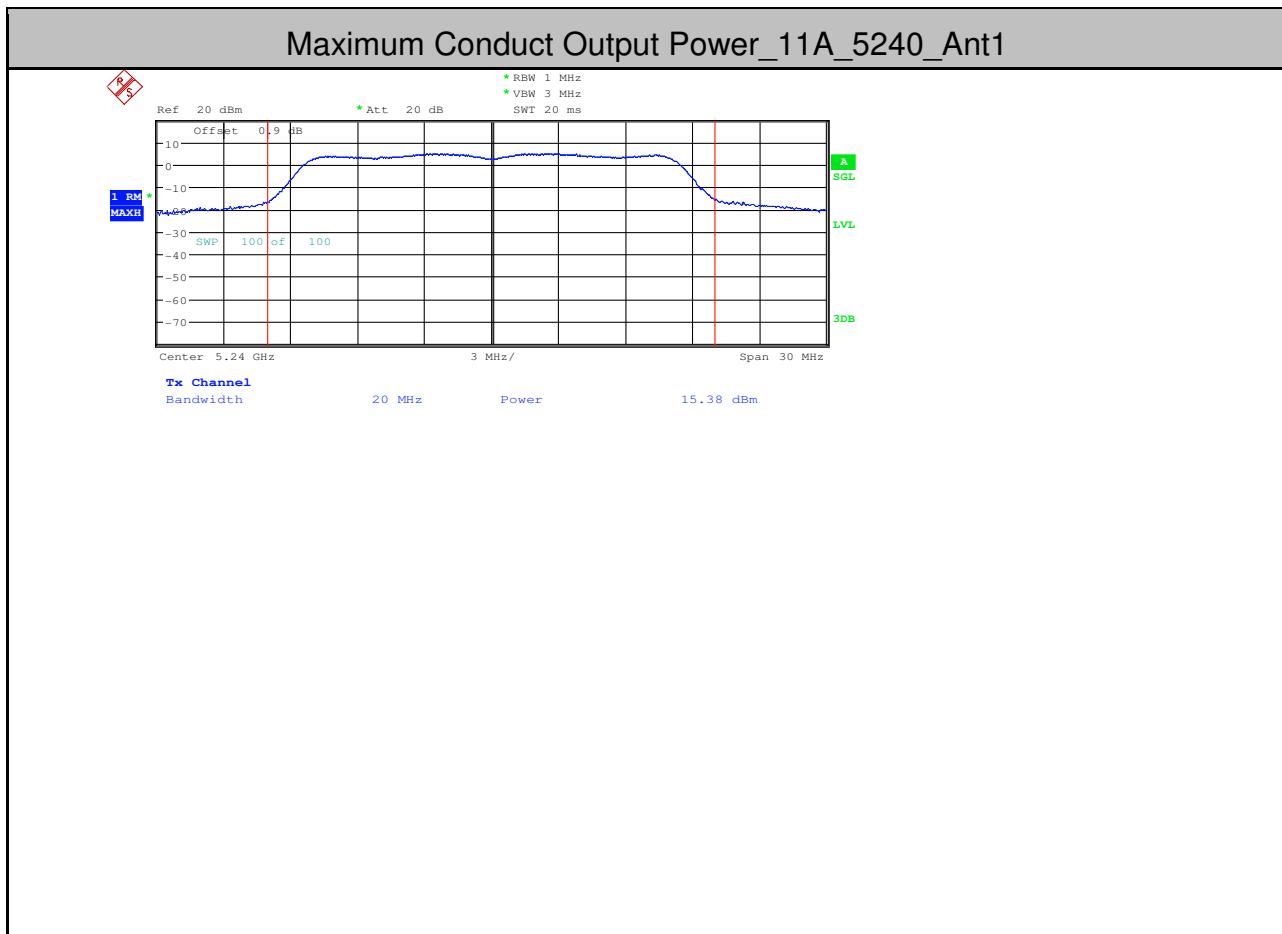
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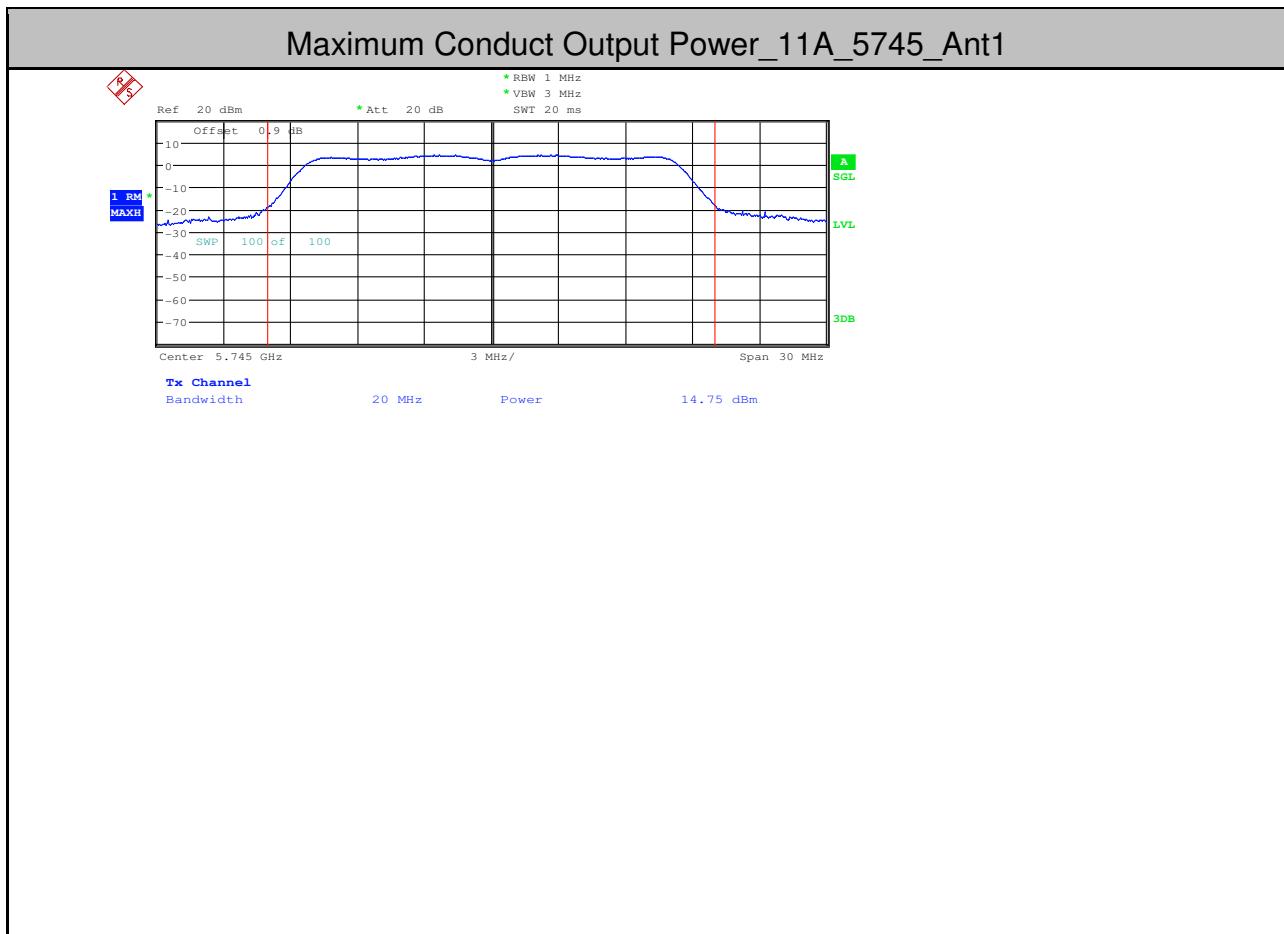
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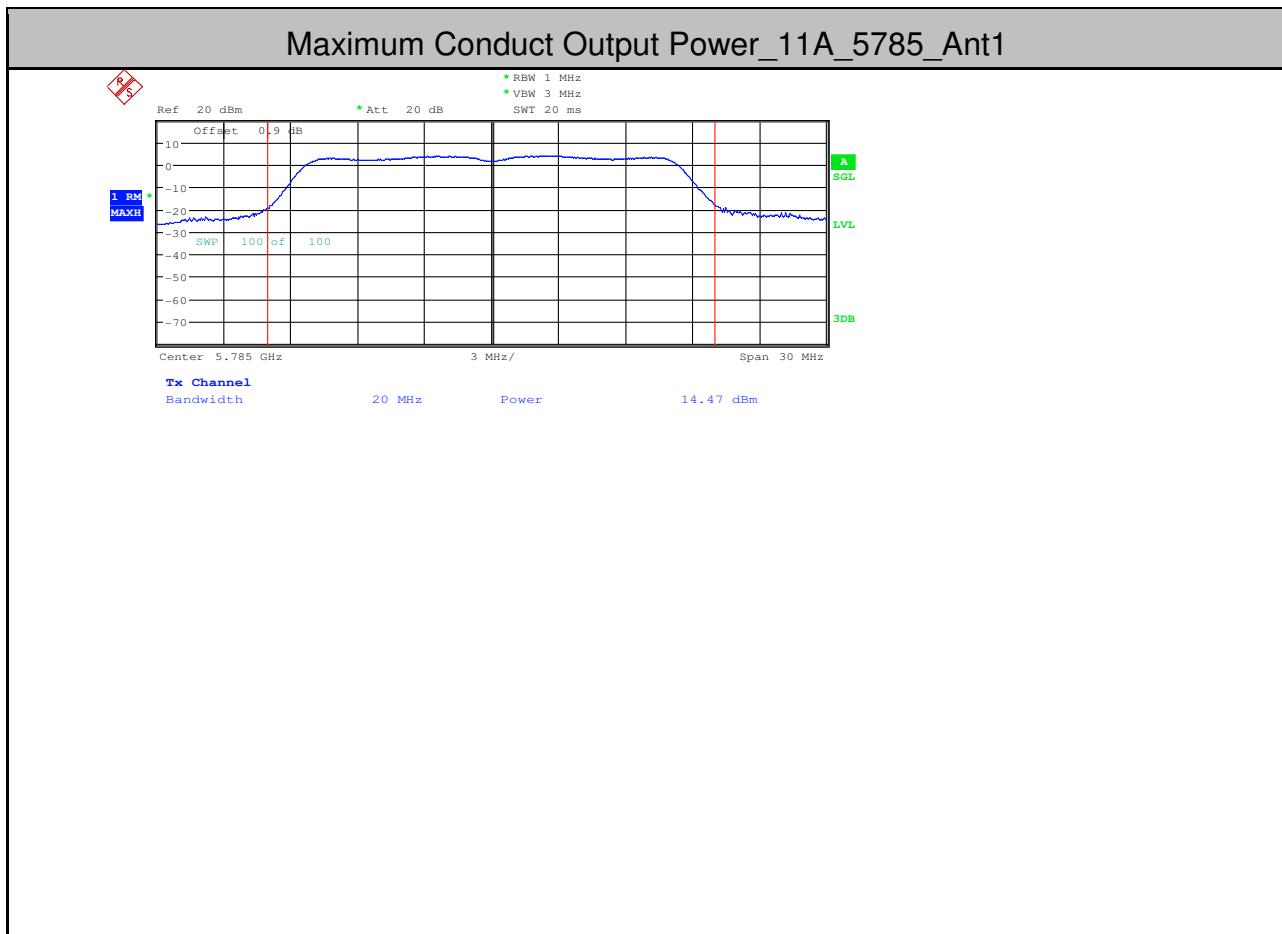
11AC40	5755	Ant1	15.16	0.65	15.81	<29.33	PASS
11AC40	5795	Ant1	14.69	0.77	15.46	<29.33	PASS
11AC80	5210	Ant1	15.33	1.55	16.88	<23.31	PASS
11AC80	5775	Ant1	15.32	1.33	16.65	<29.33	PASS

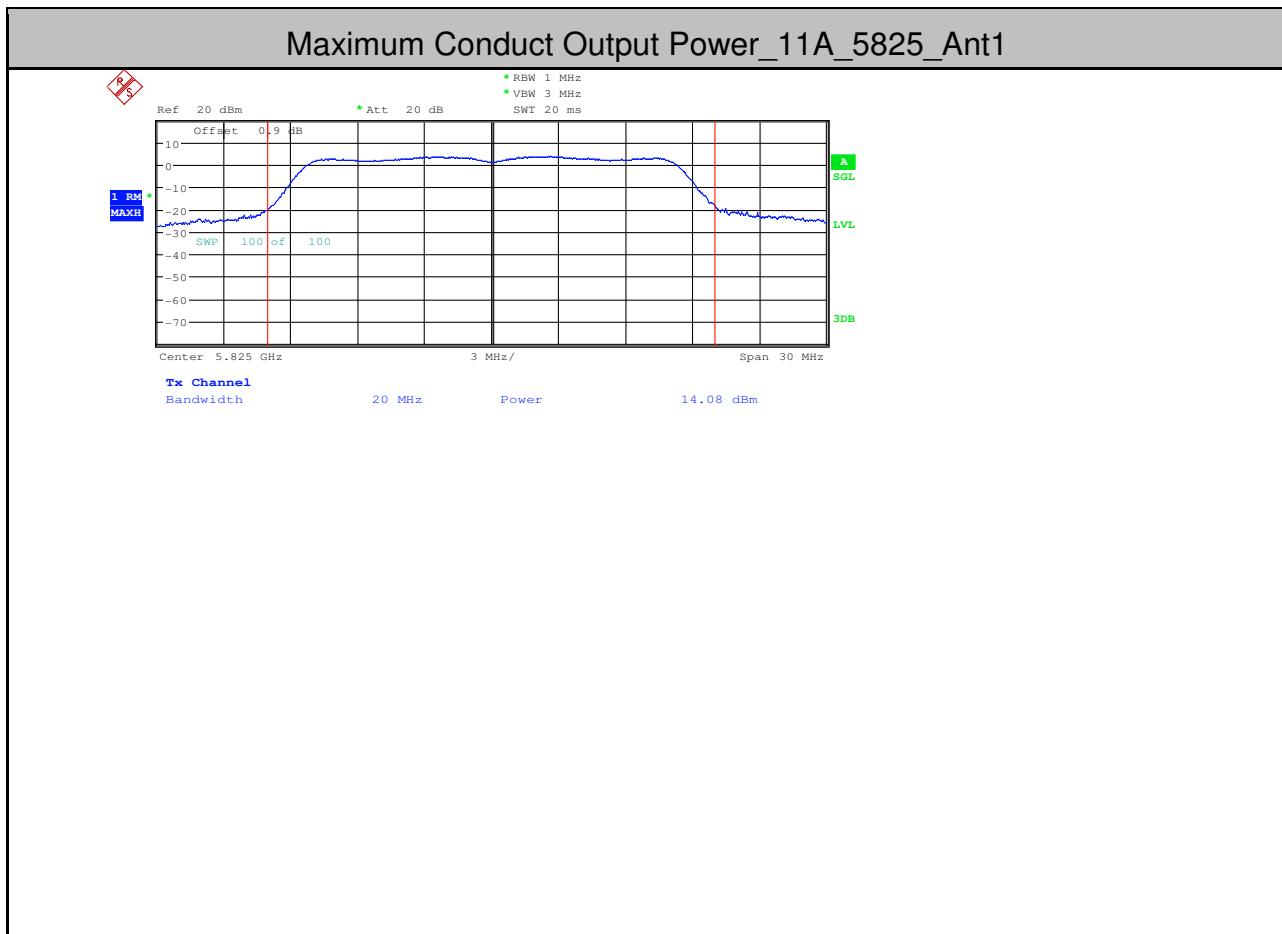


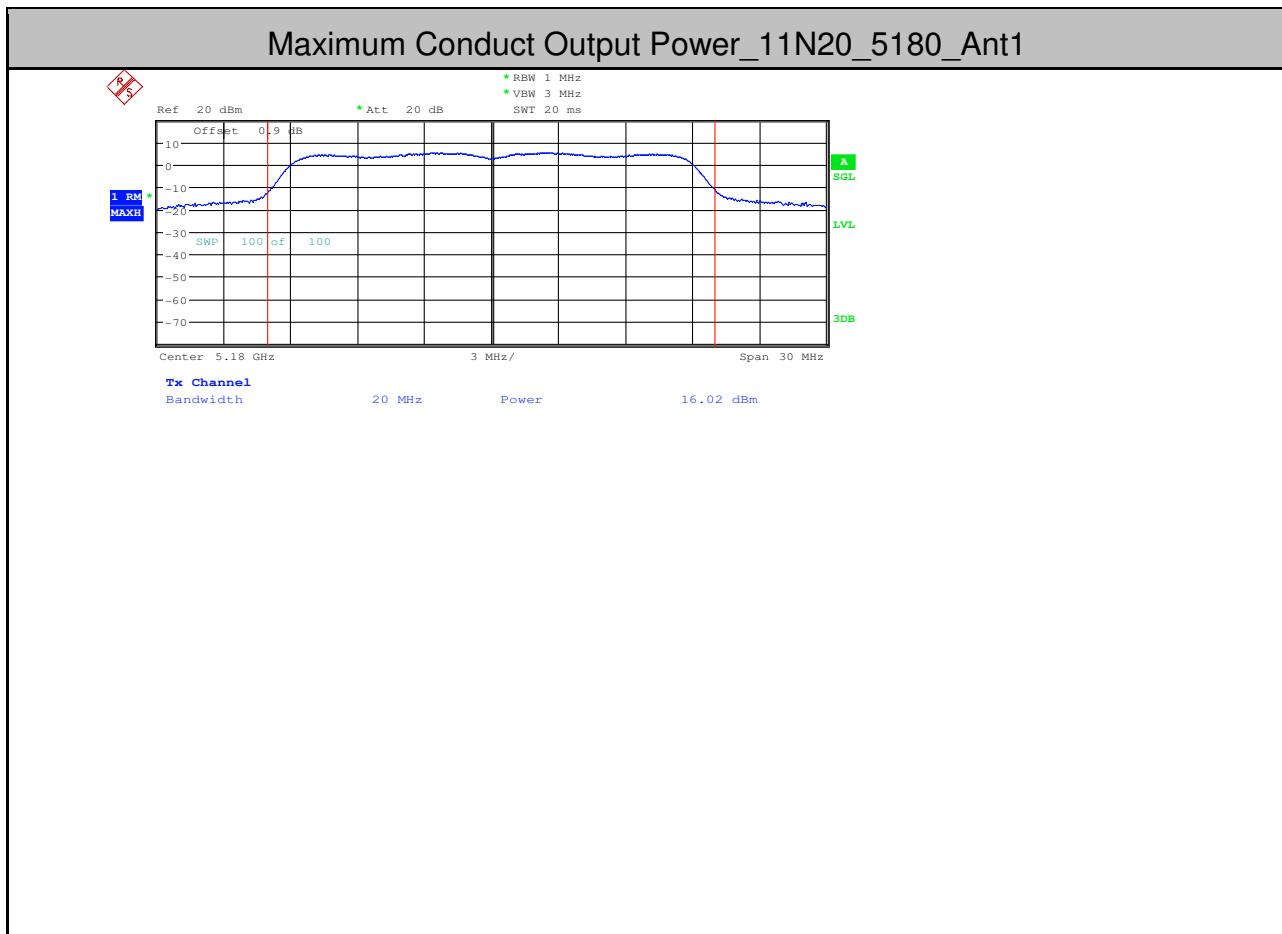


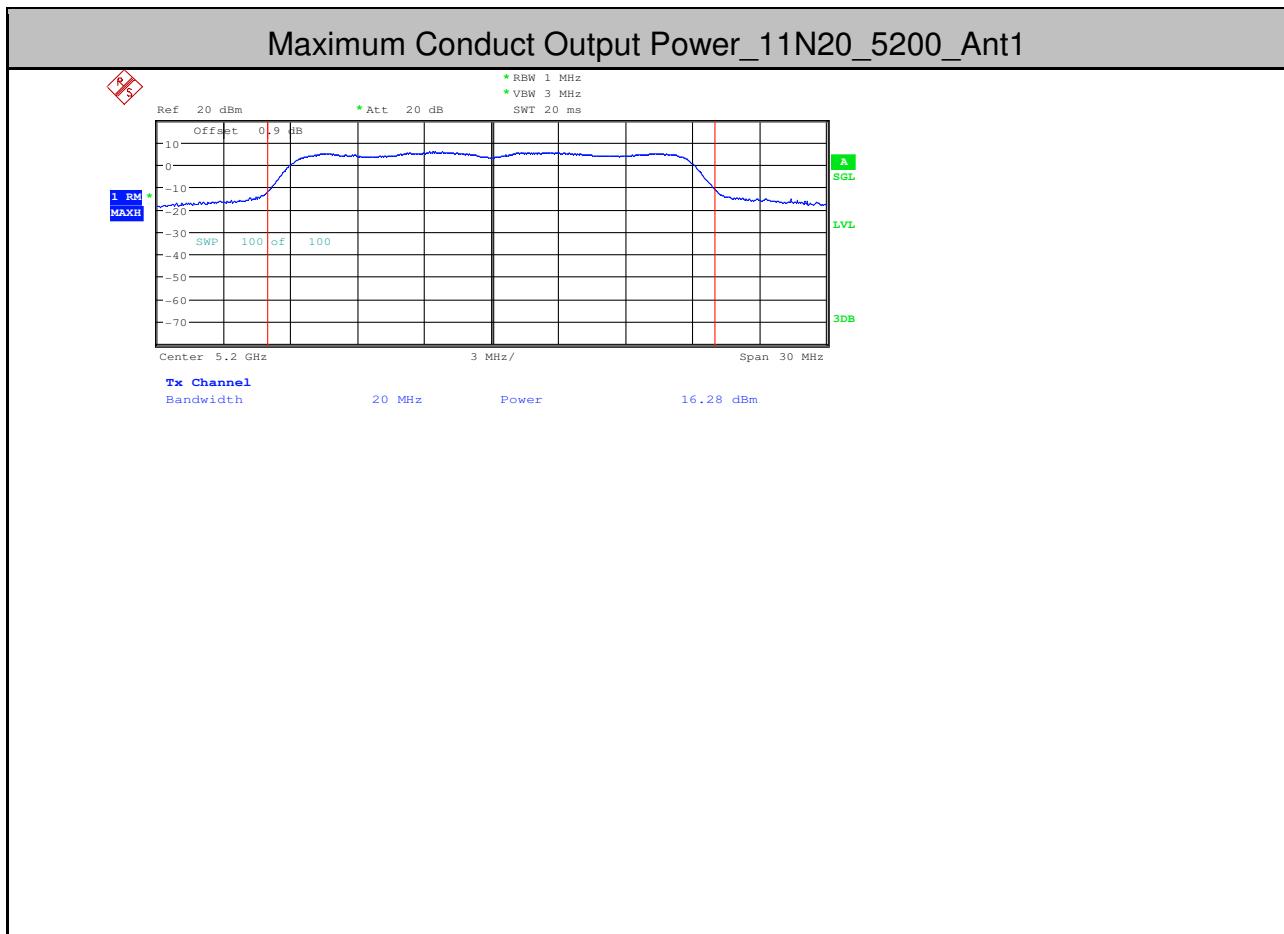


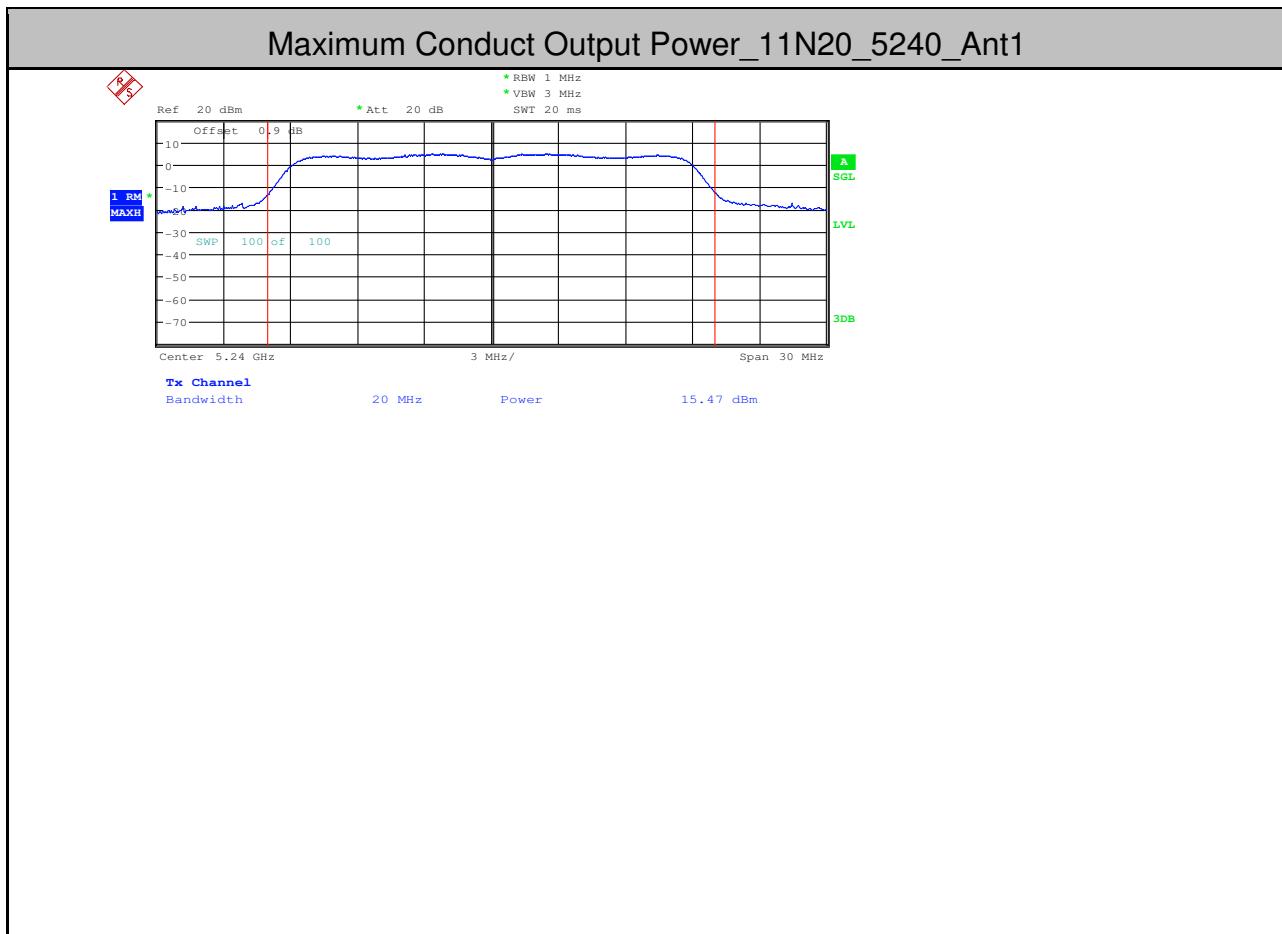


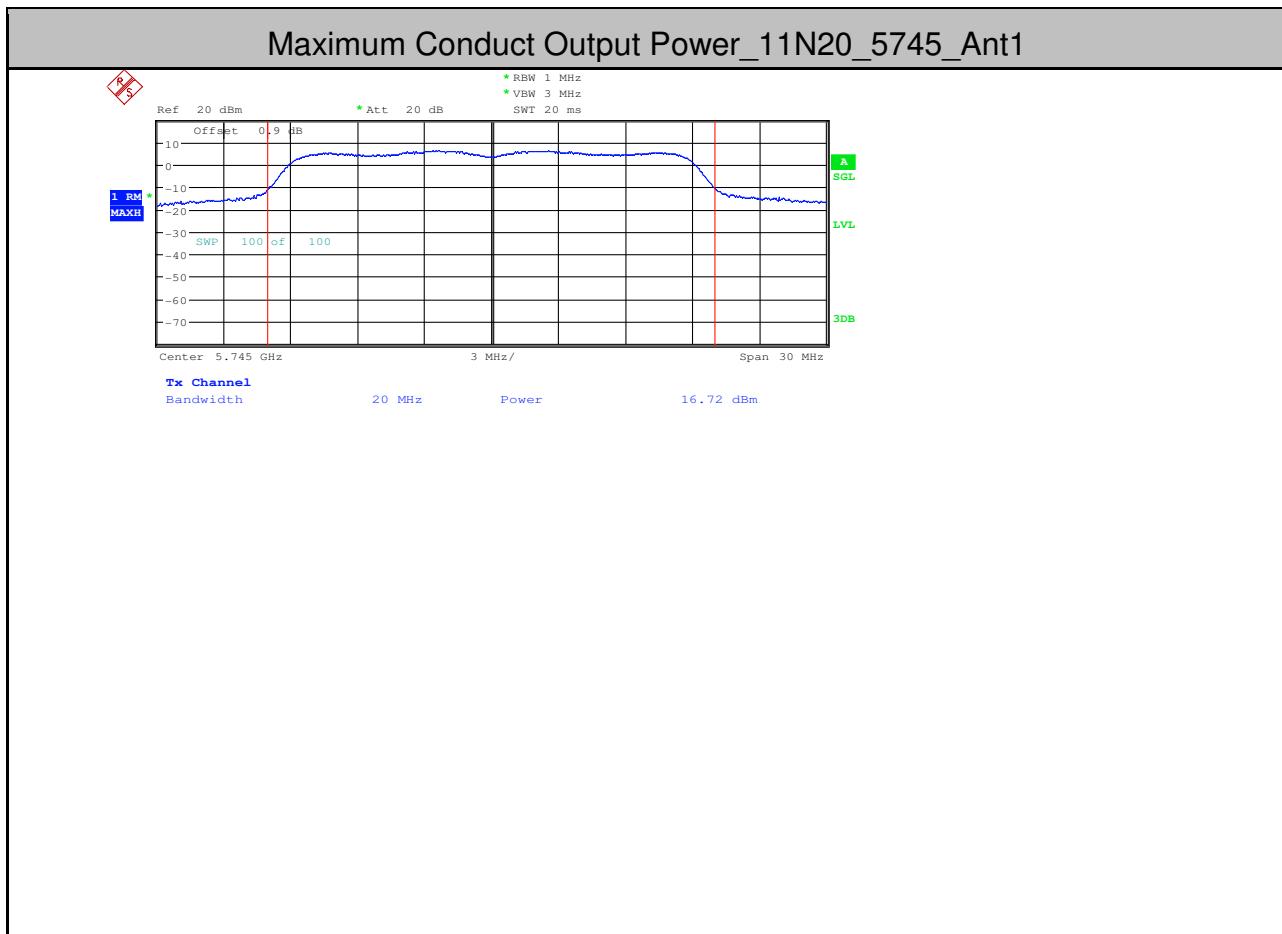


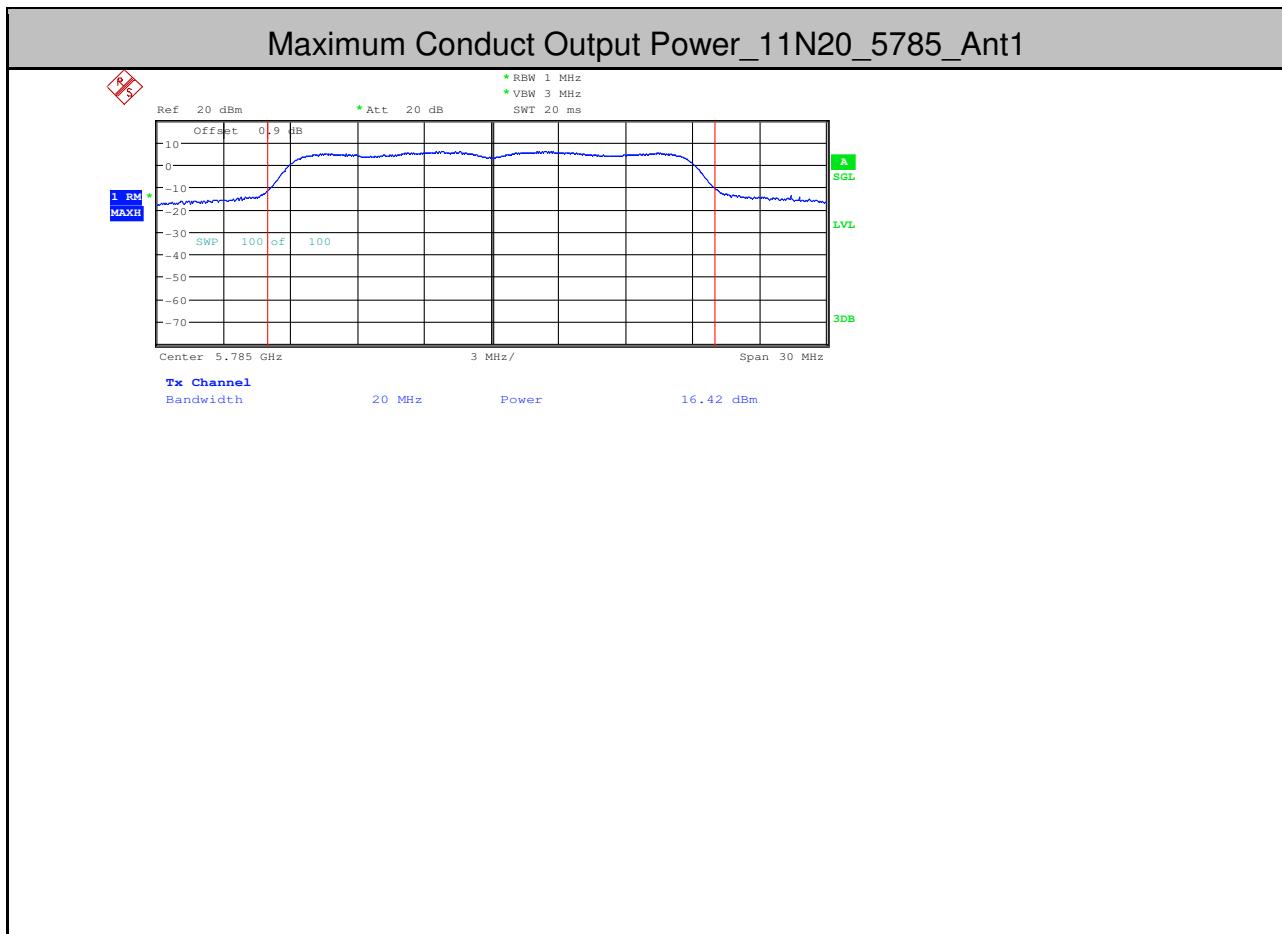


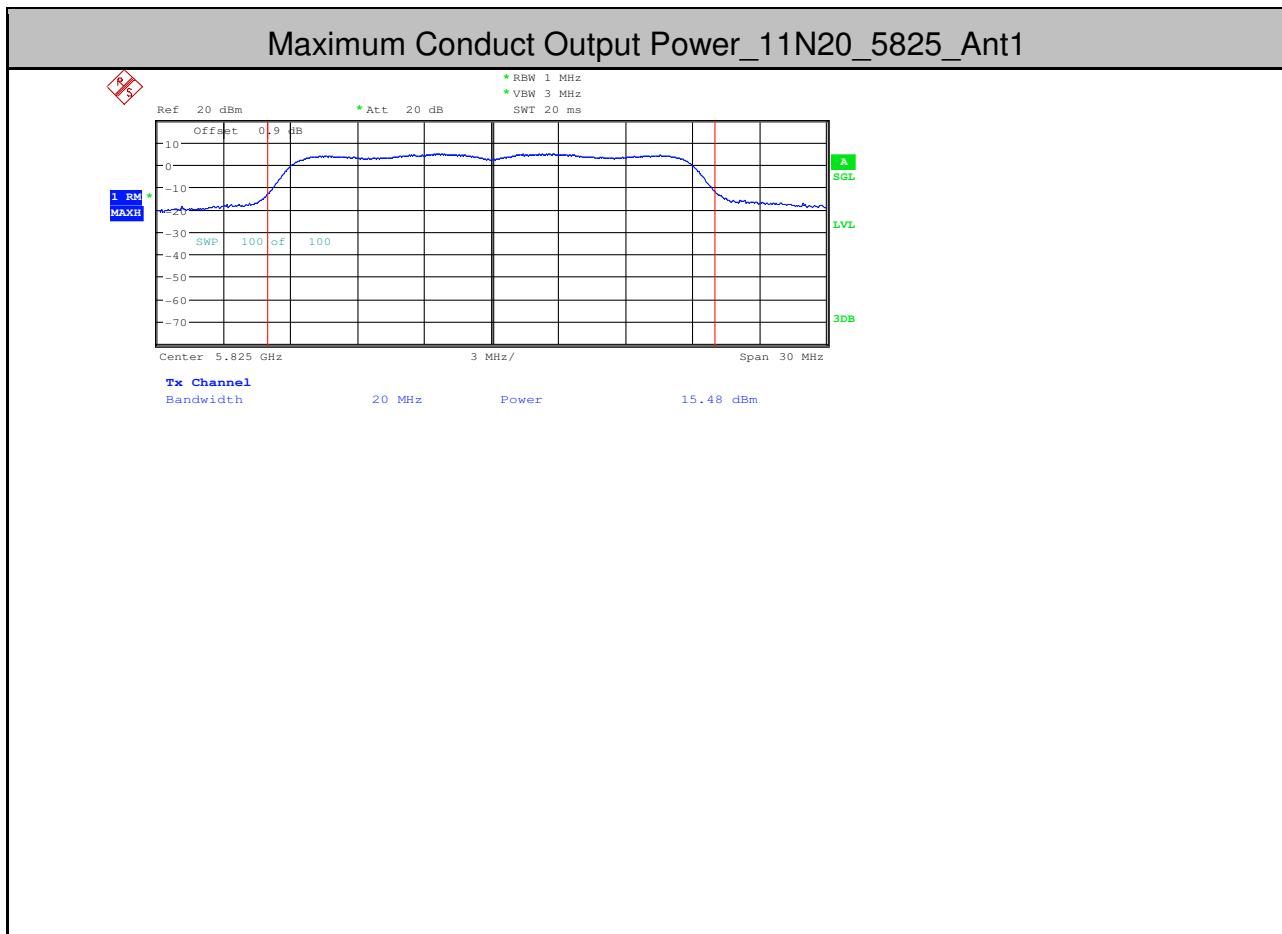


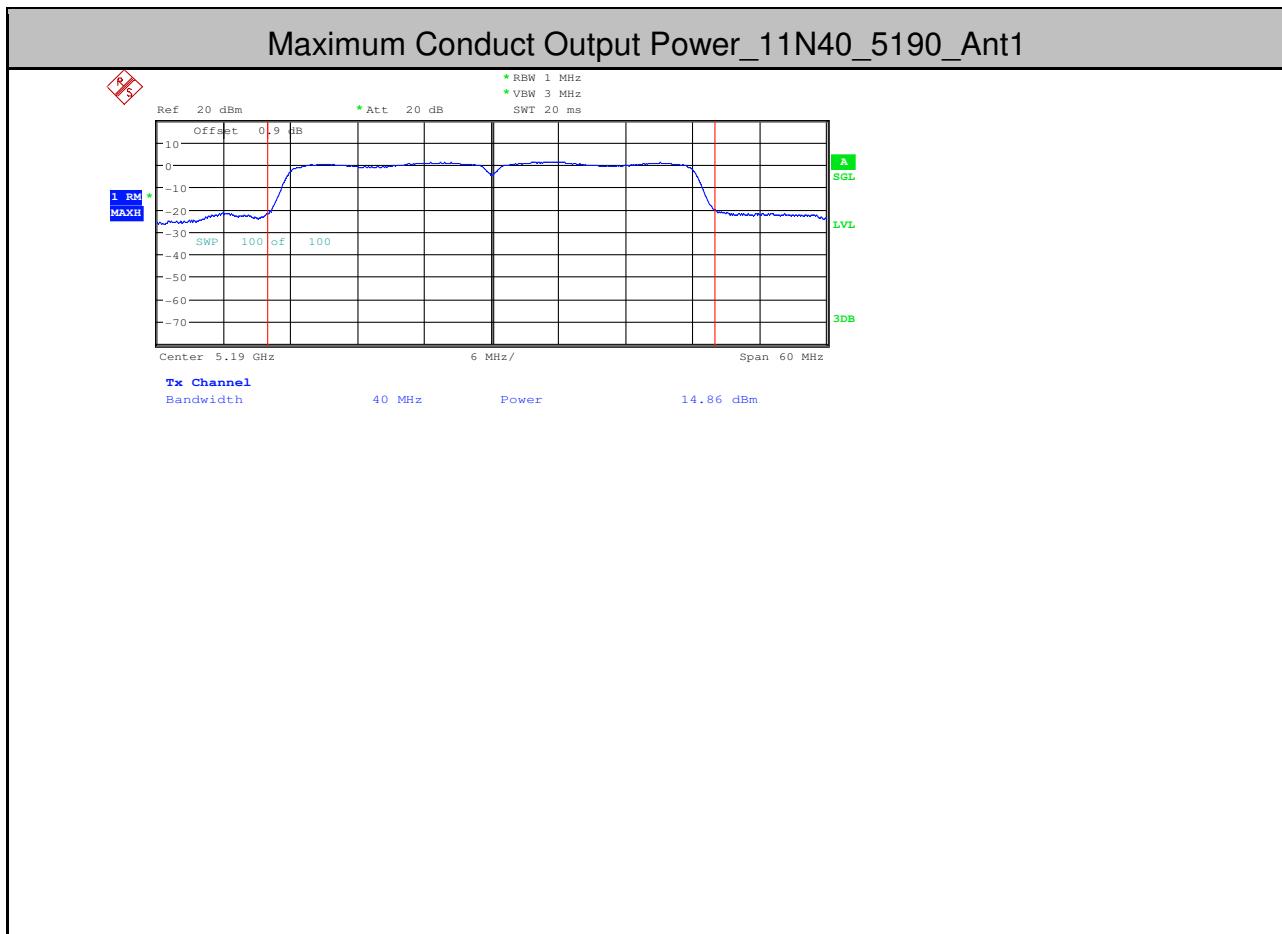


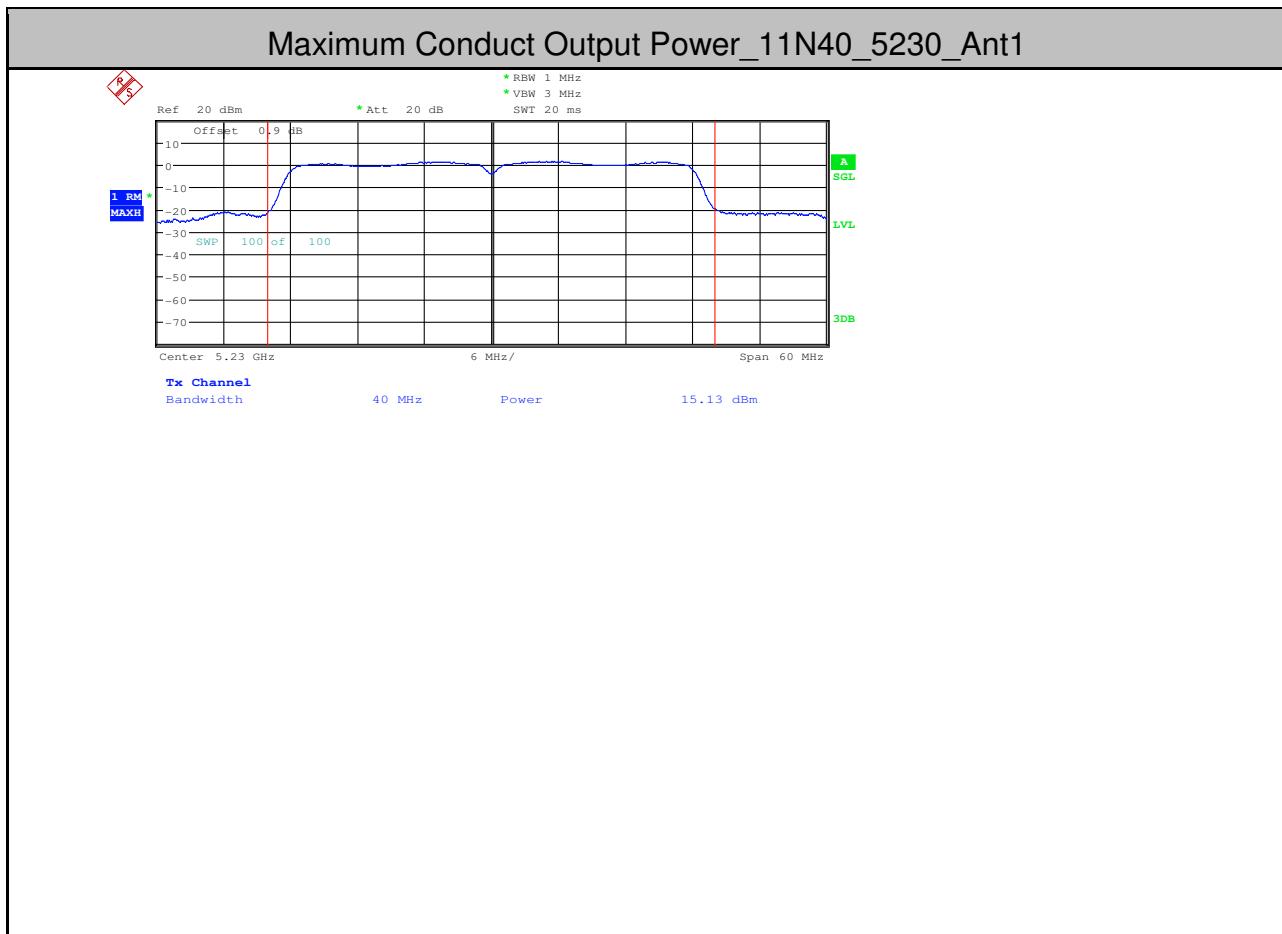


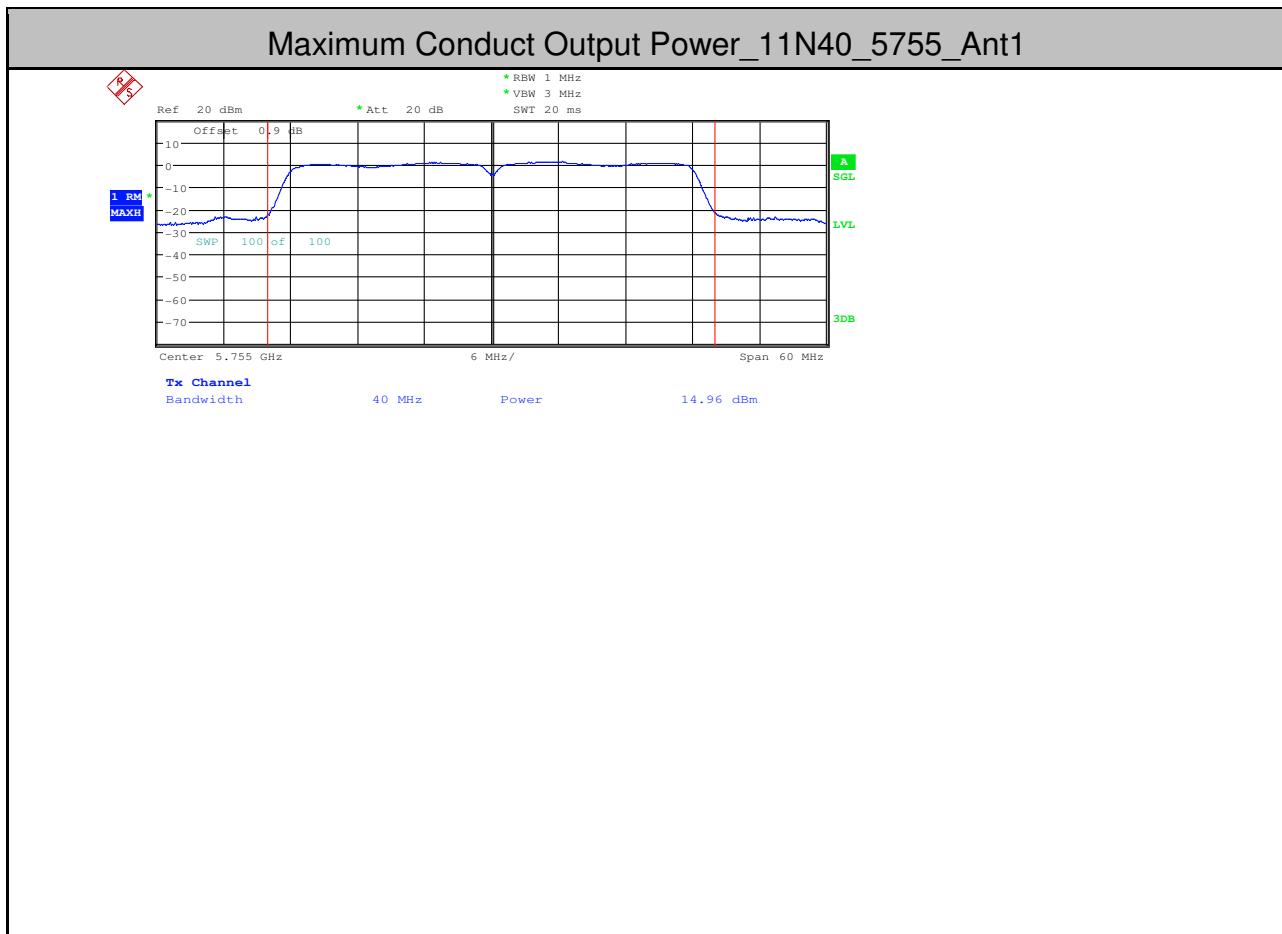


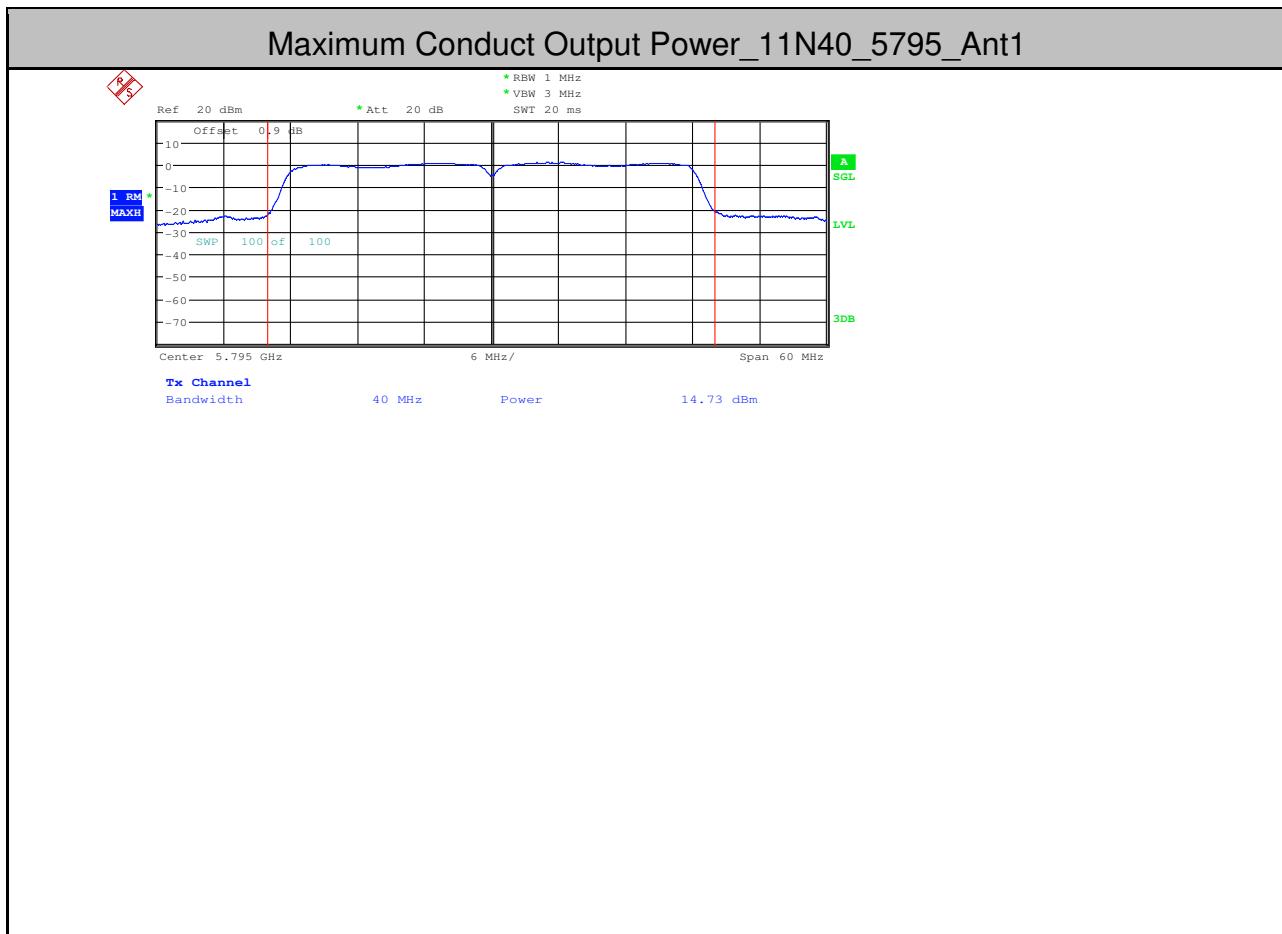


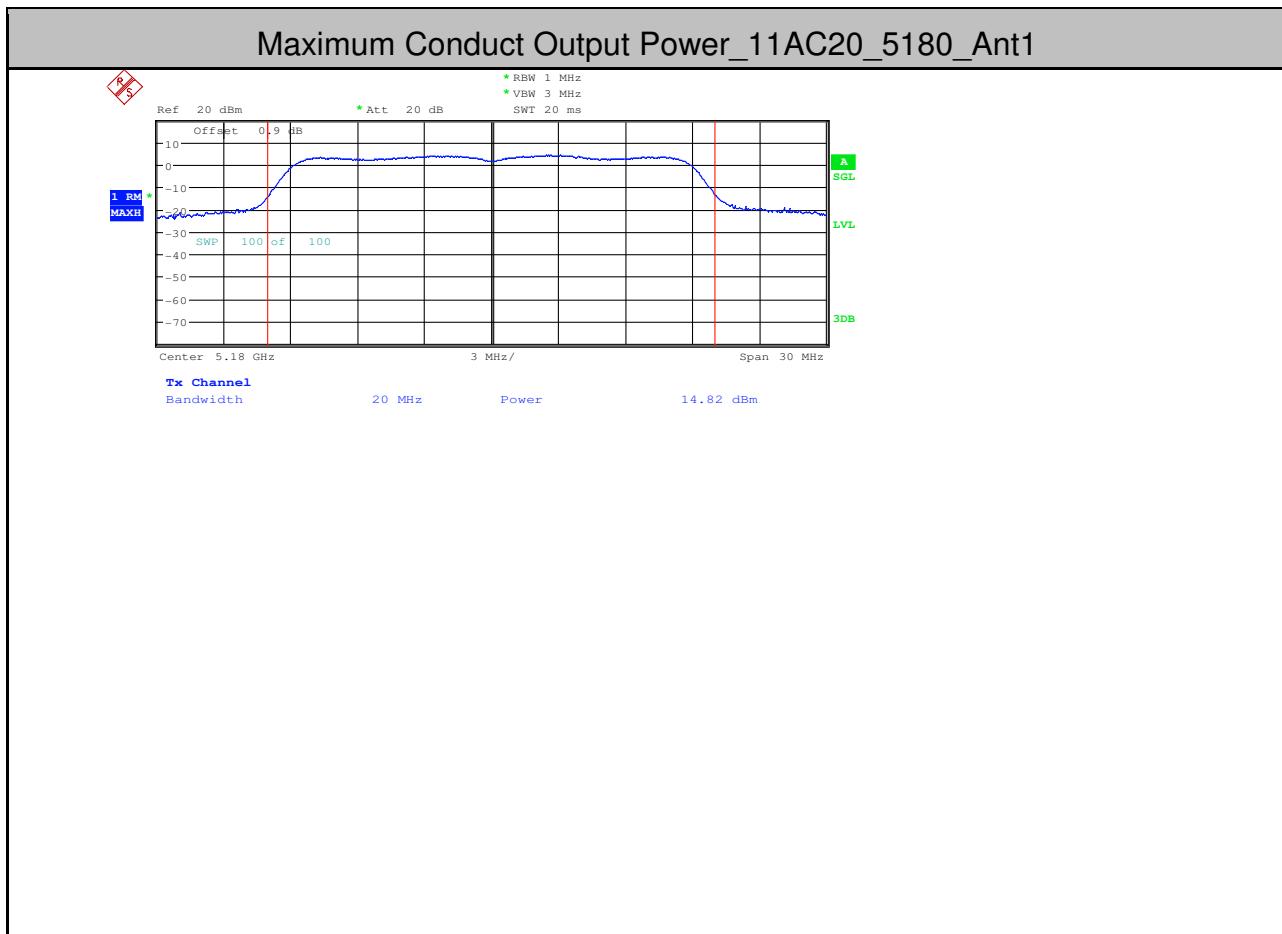


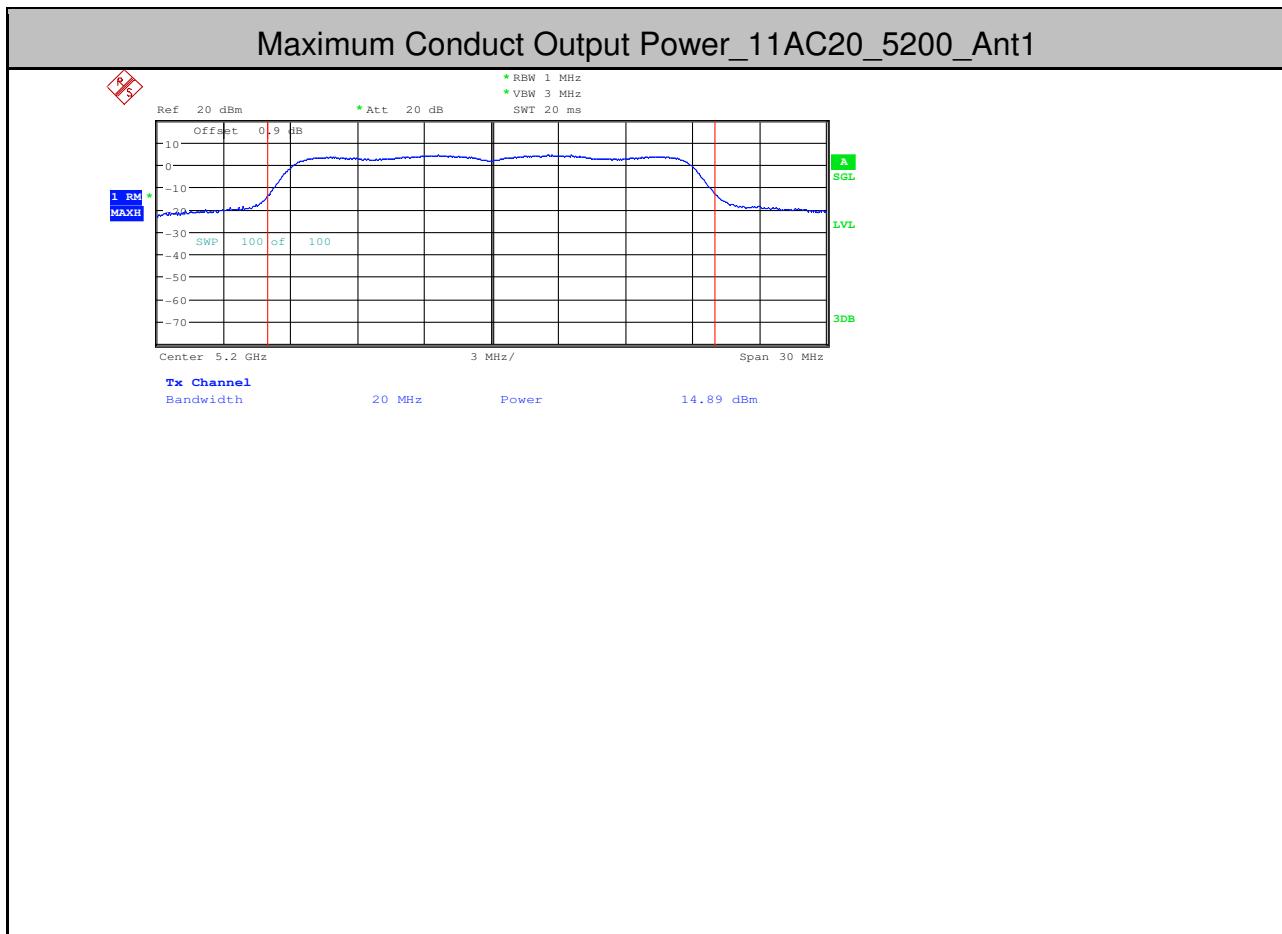


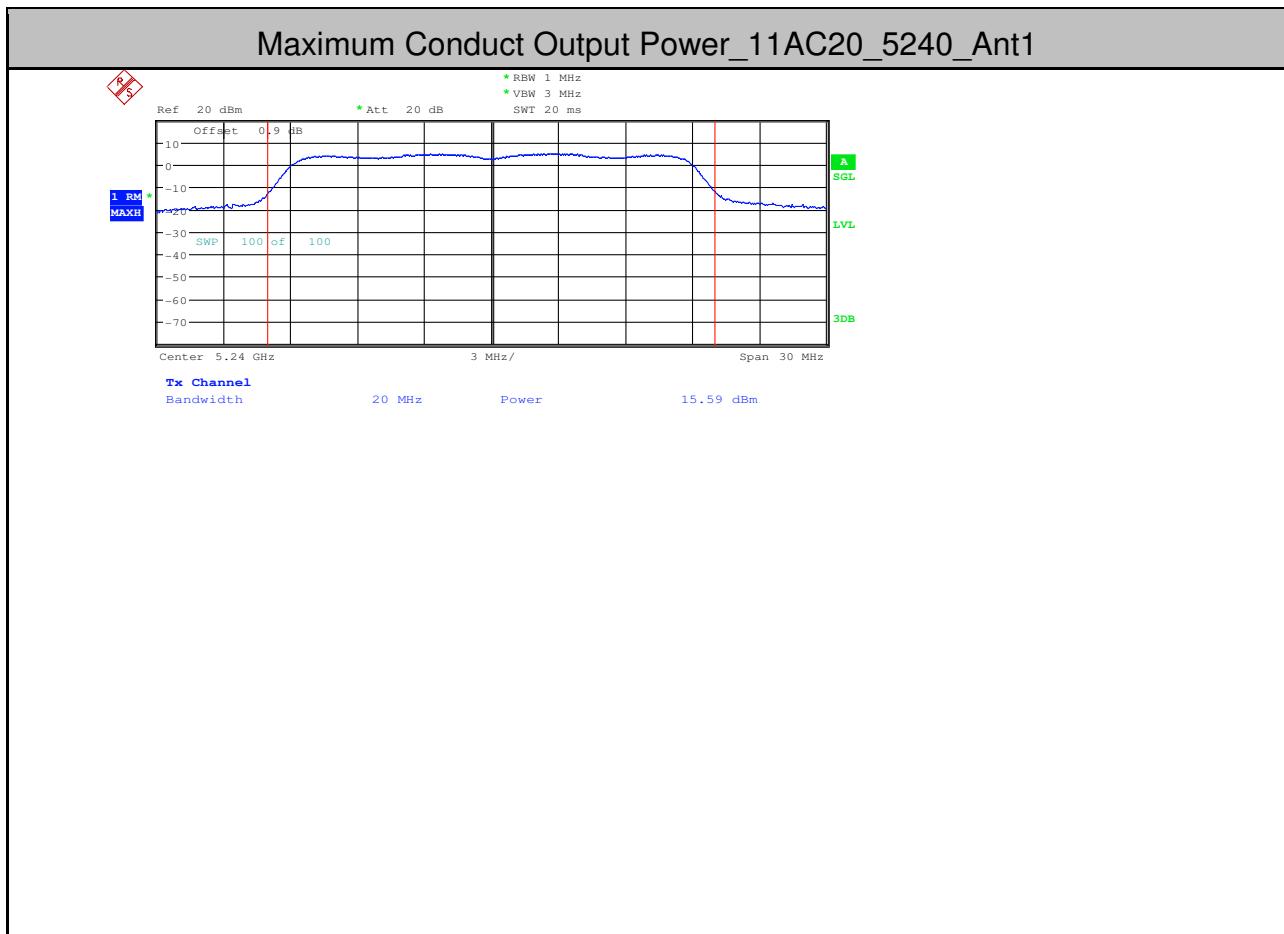


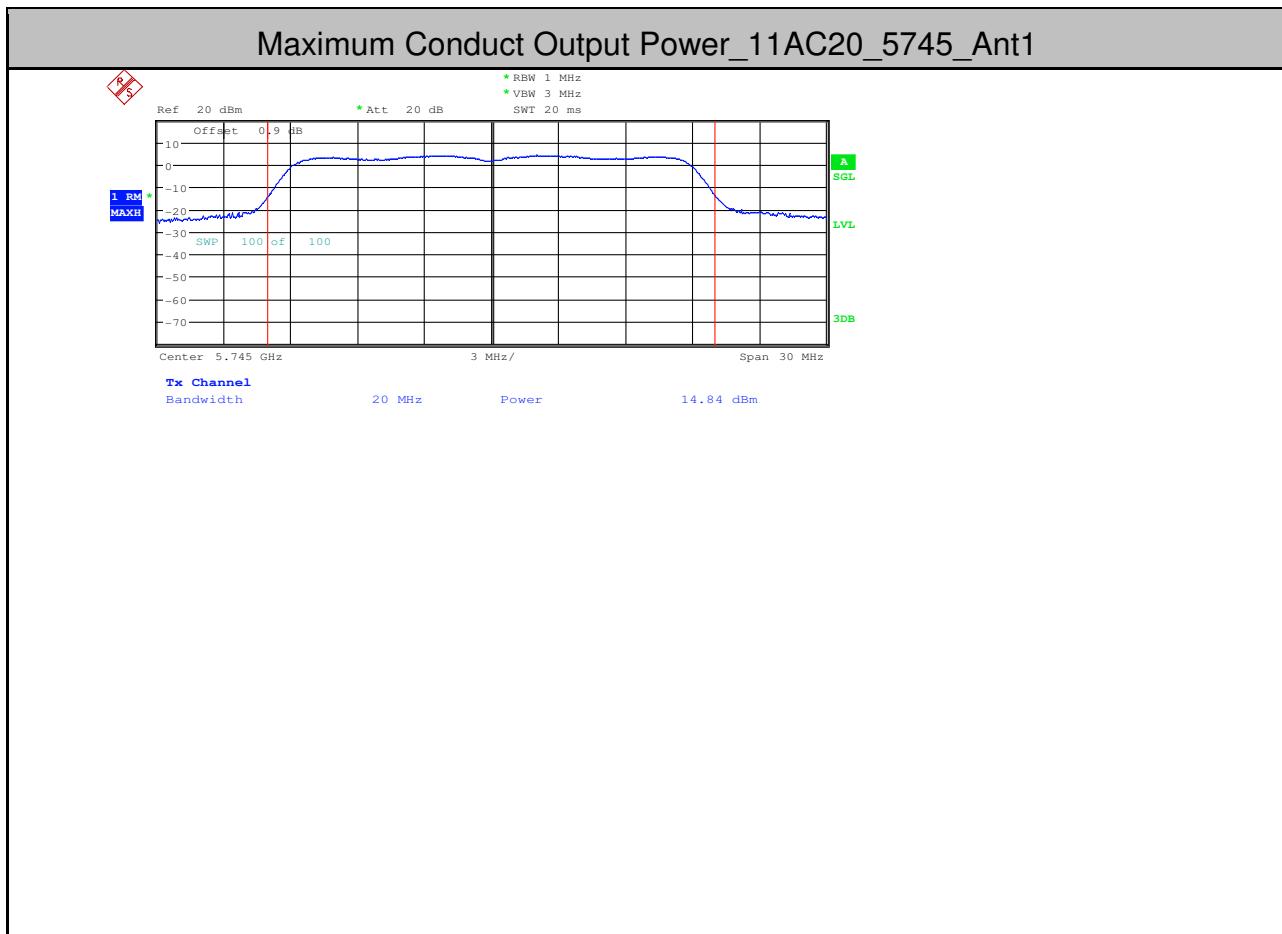


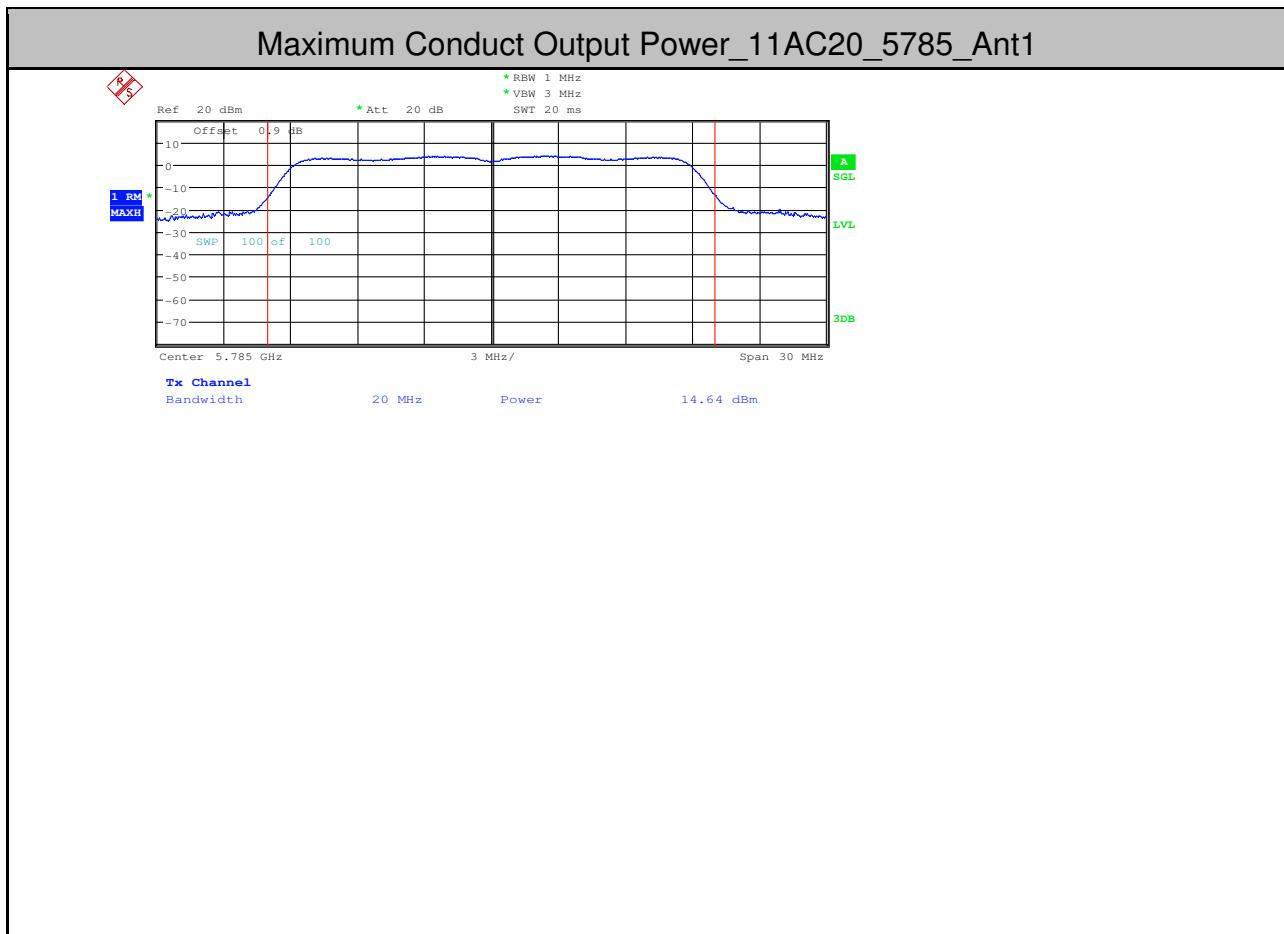


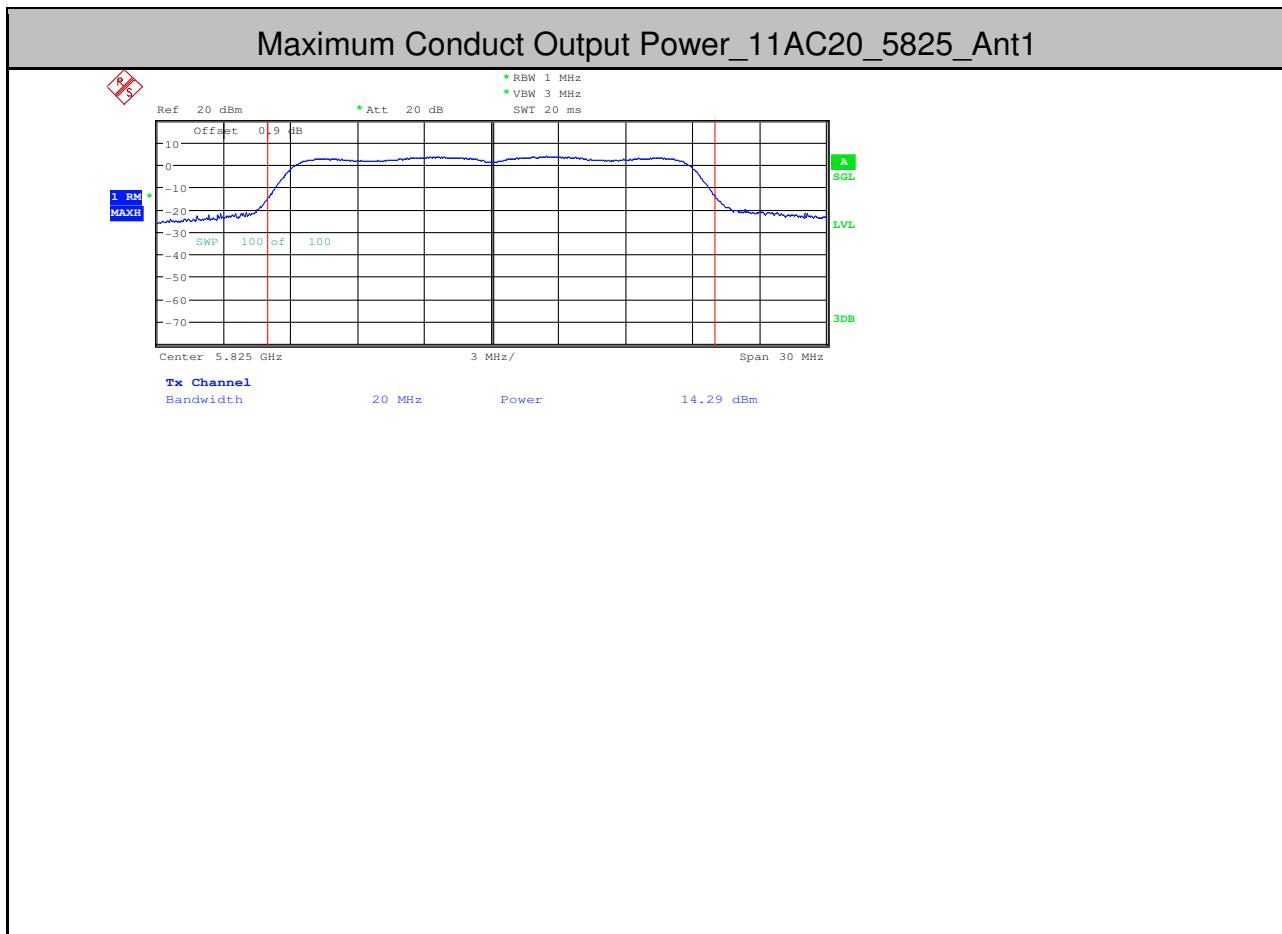


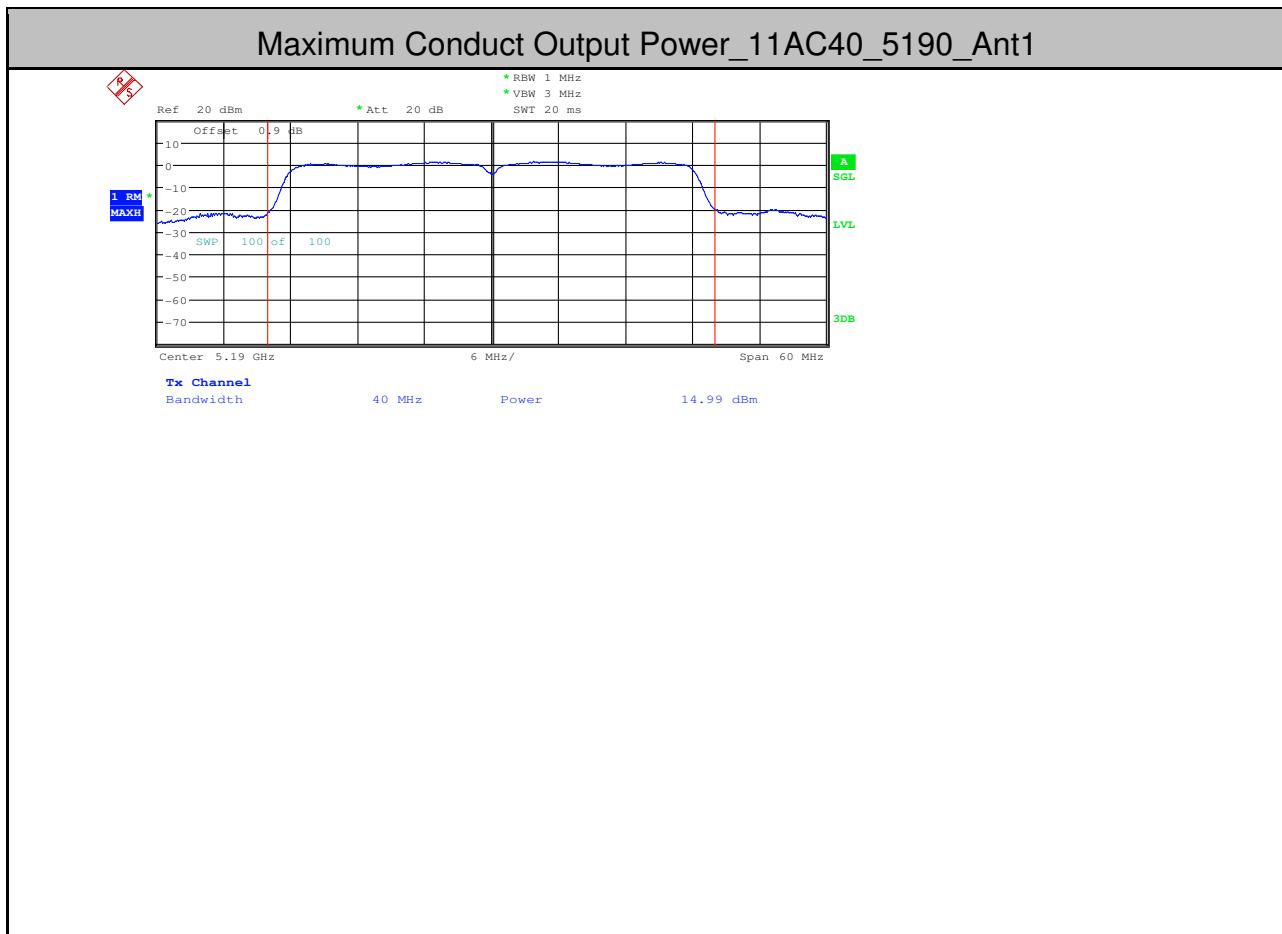


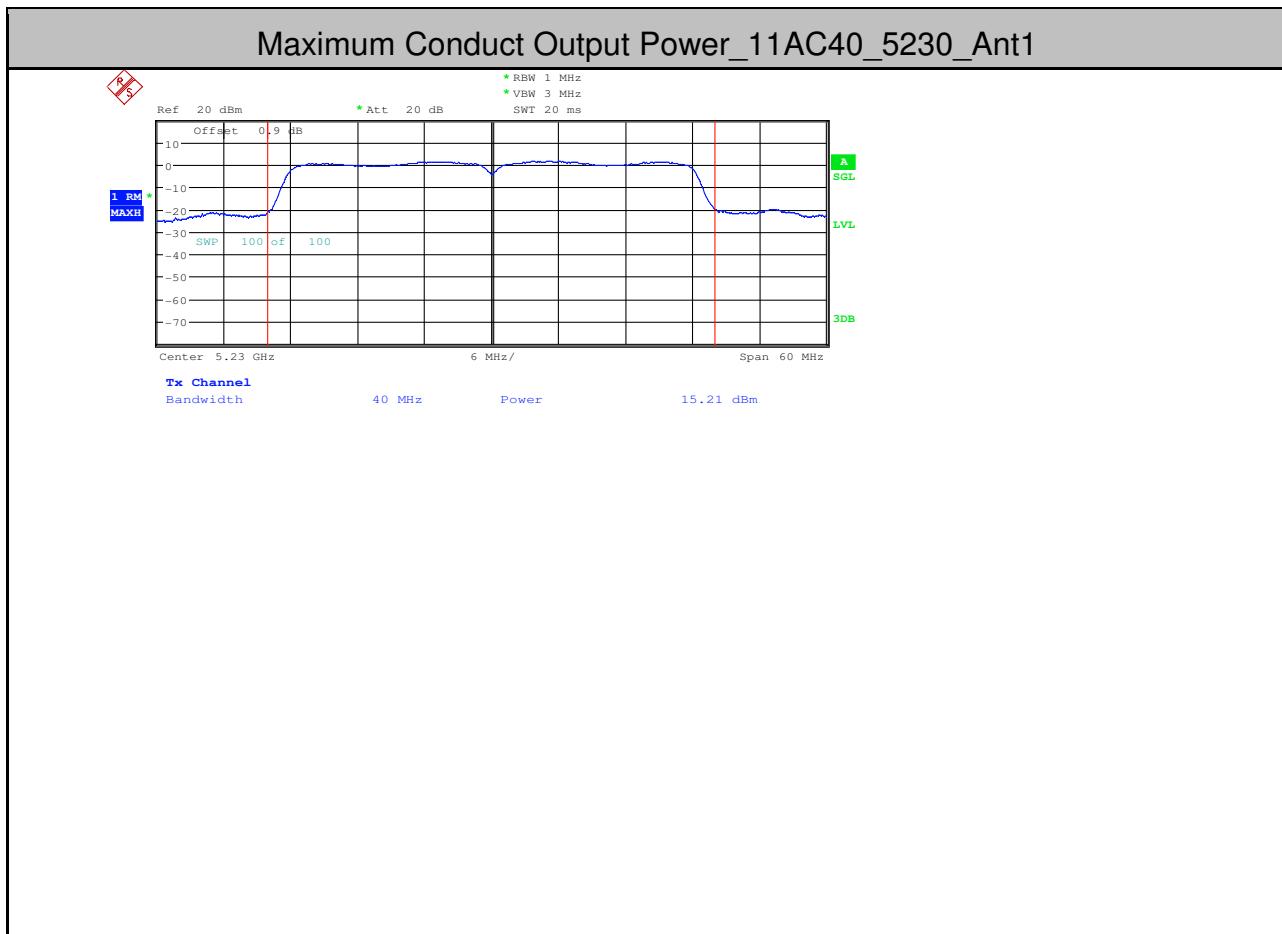


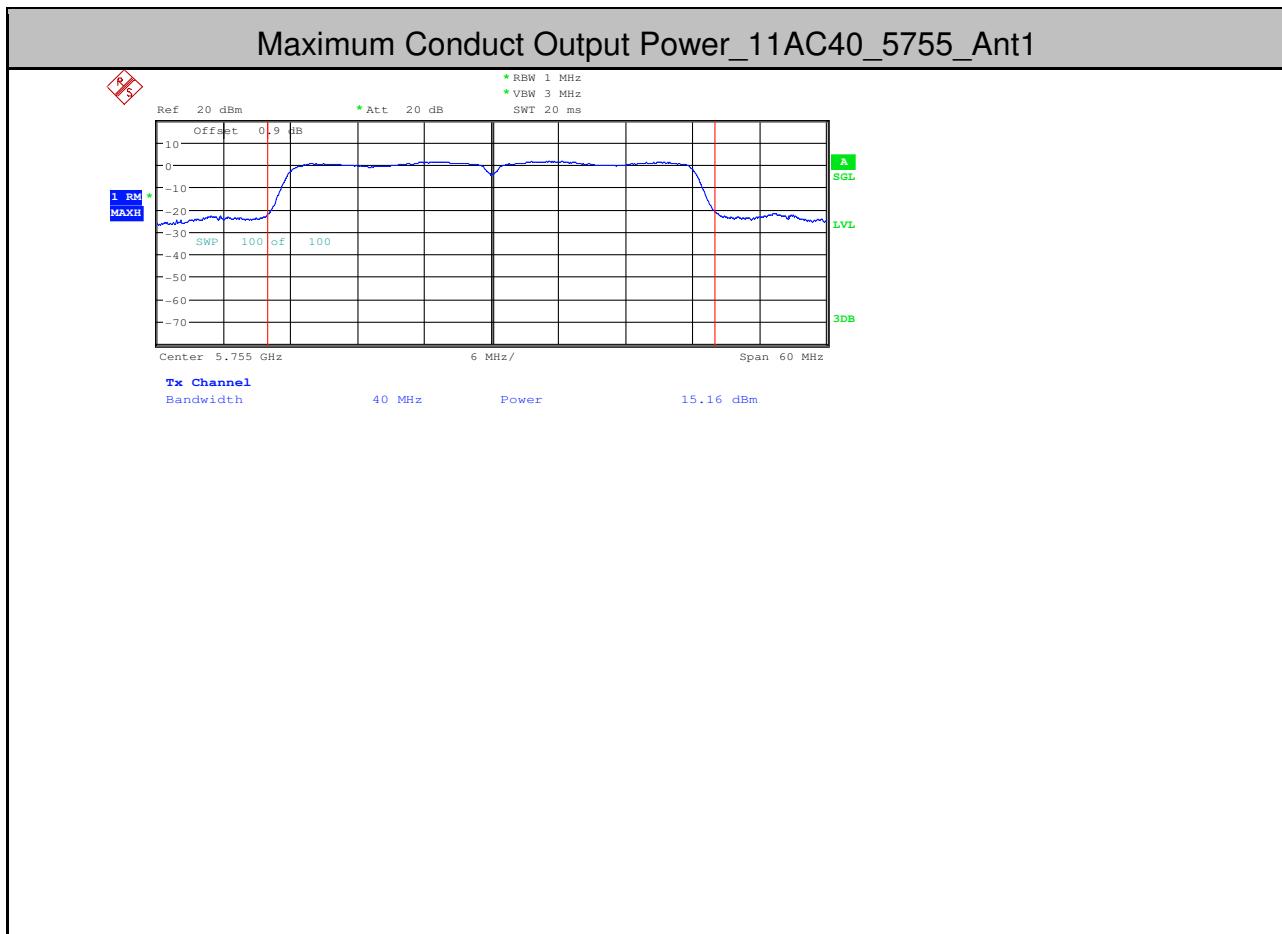


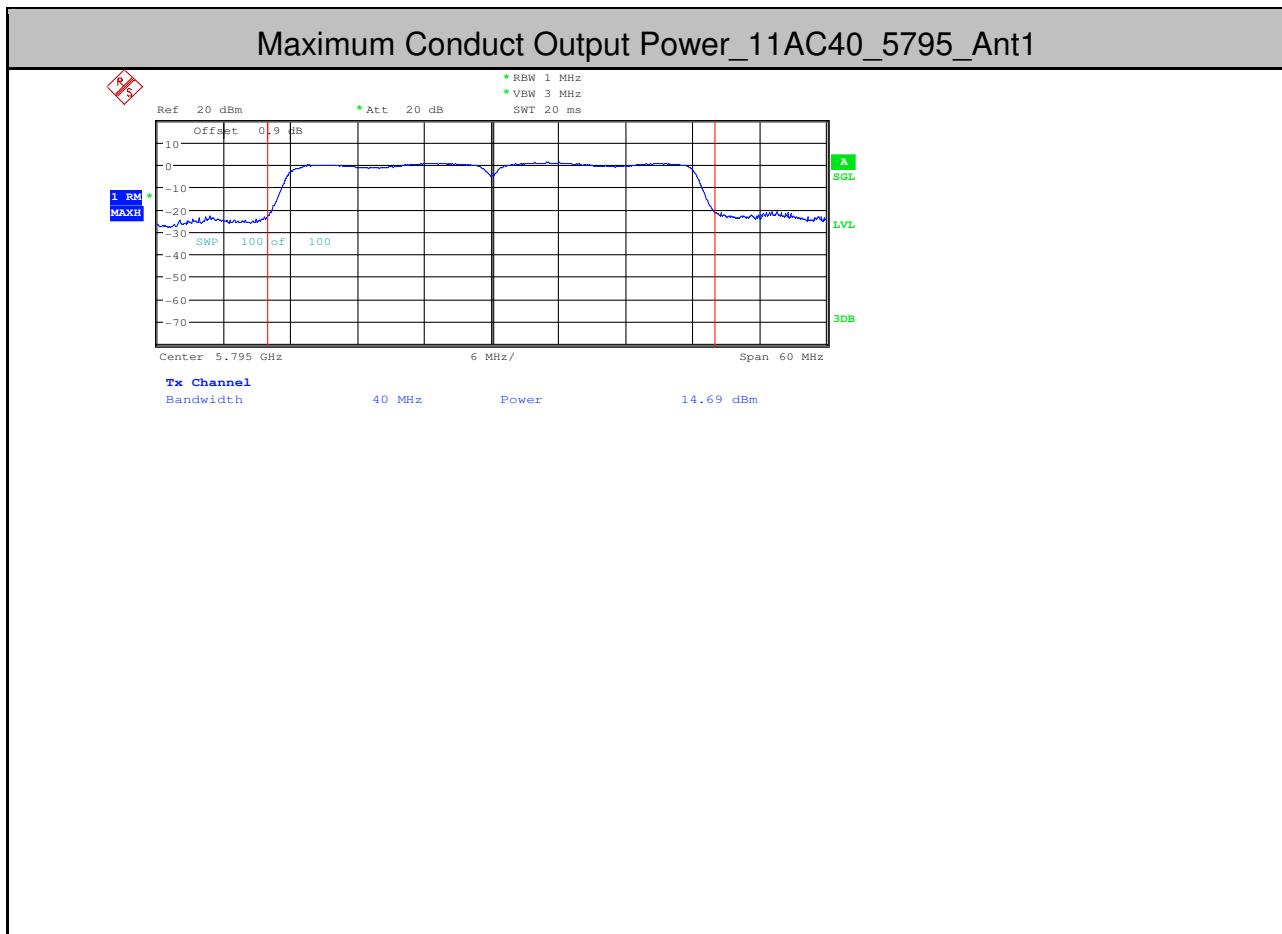


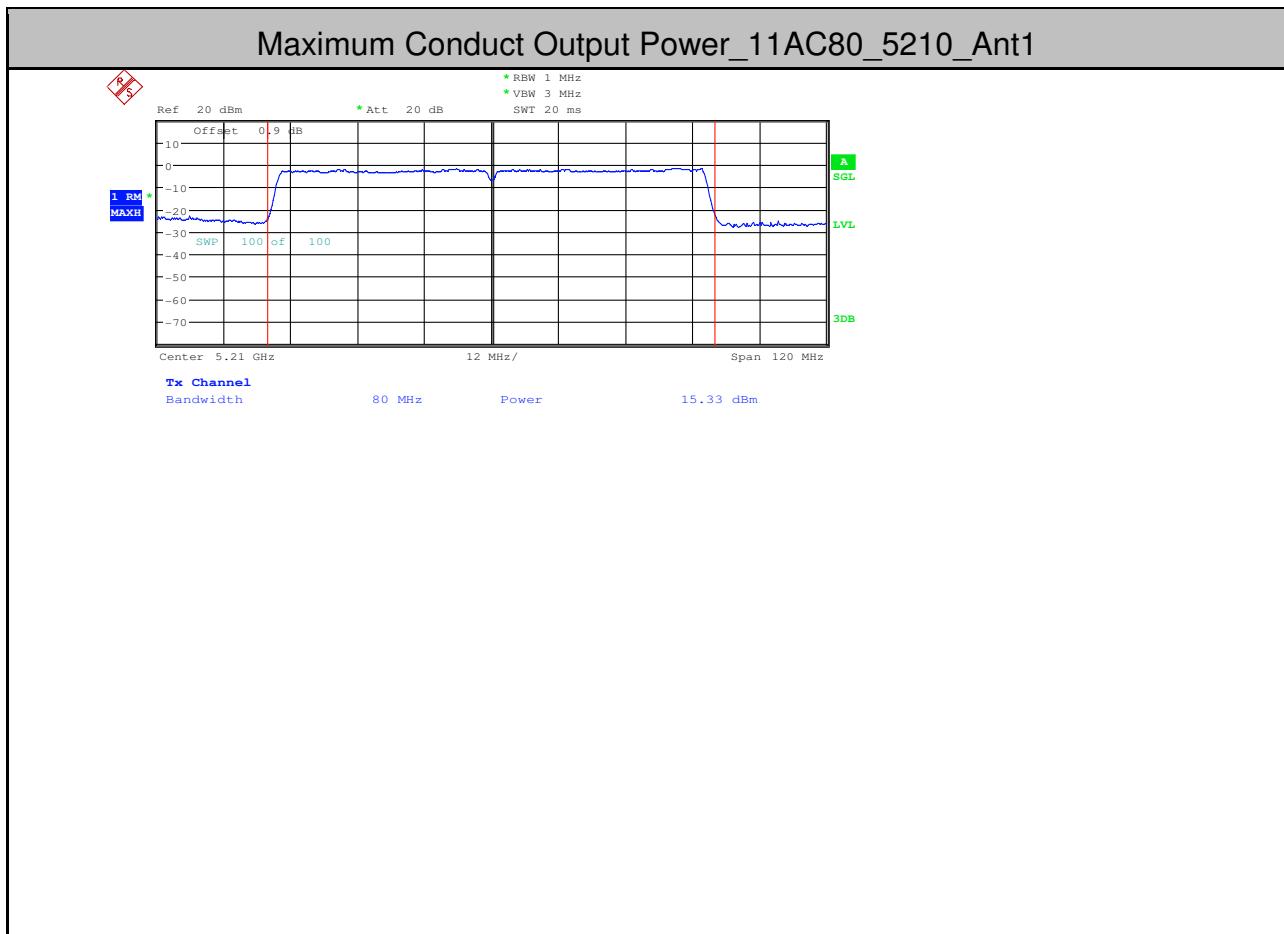


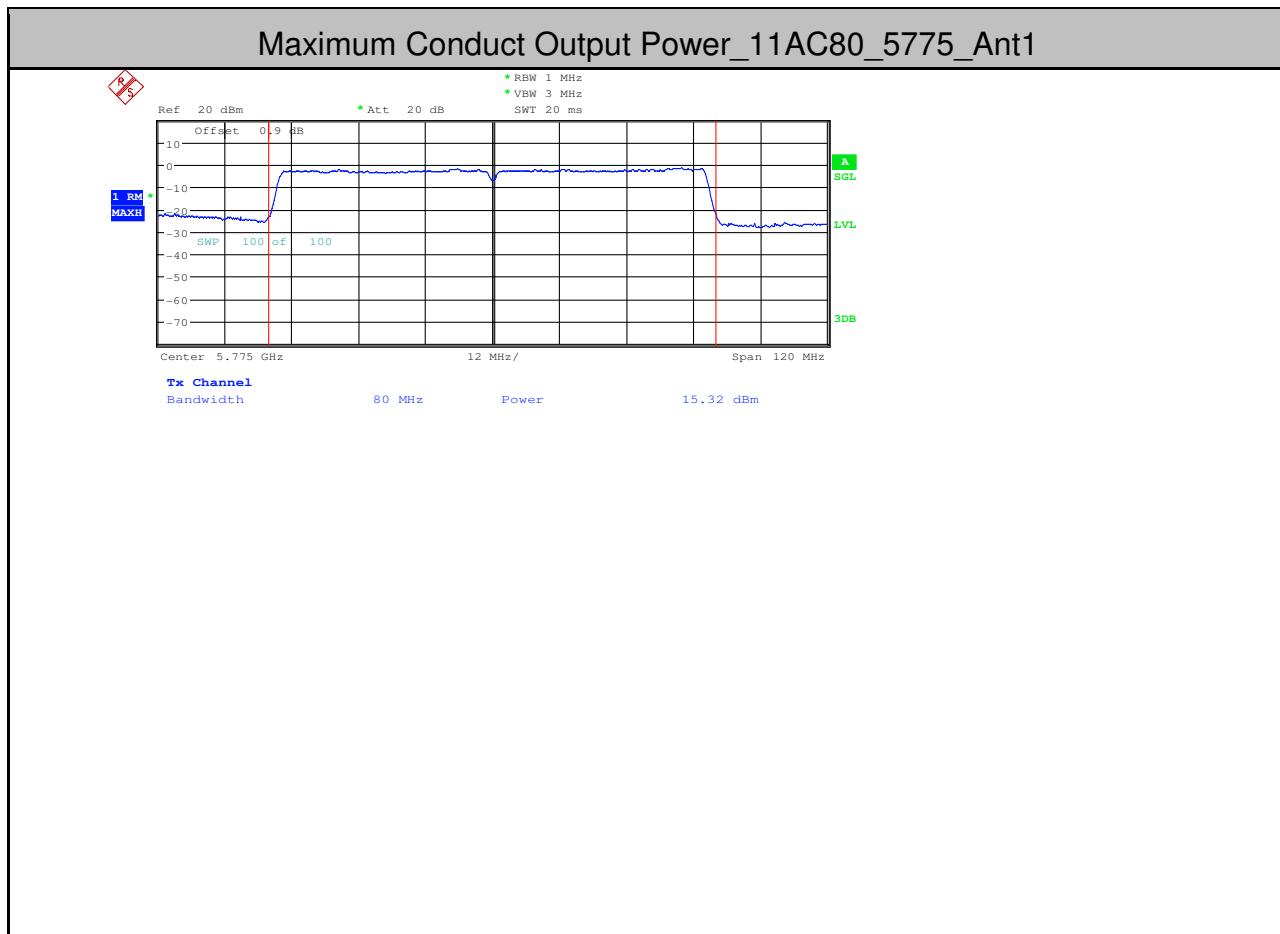












#### 4. Maximum Power Spectral Density

Test Mode	Test Channel	Ant	Level [dBm/MHz]	10log(1/x) Factor [dB]	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	5180	Ant1	4.43	0.3	4.73	<10.33	PASS
11A	5200	Ant1	4.55	0.3	4.85	<10.33	PASS
11A	5240	Ant1	5.26	0.3	5.56	<10.33	PASS
11N20	5180	Ant1	6.19	0.32	6.51	<10.33	PASS
11N20	5200	Ant1	6.33	0.32	6.65	<10.33	PASS
11N20	5240	Ant1	5.06	0.32	5.38	<10.33	PASS
11N40	5190	Ant1	1.52	0.65	2.17	<10.33	PASS
11N40	5230	Ant1	1.78	0.77	2.55	<10.33	PASS
11AC20	5180	Ant1	4.51	0.32	4.83	<10.33	PASS
11AC20	5200	Ant1	4.6	0.32	4.92	<10.33	PASS
11AC20	5240	Ant1	5.3	0.32	5.62	<10.33	PASS
11AC40	5190	Ant1	1.57	0.65	2.22	<10.33	PASS
11AC40	5230	Ant1	1.82	0.77	2.59	<10.33	PASS
11AC80	5210	Ant1	-1.42	1.55	0.13	<10.33	PASS

Test Mode	Test Channel	Ant	Level [dBm/500kHz]	10log(1/x) Factor [dB]	10log(500kHz/RBW) Factor [dB]	PSD [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
11A	5745	Ant1	2.98	0.3	0	3.28	<29.33	PASS
11A	5785	Ant1	2.48	0.3	0	2.78	<29.33	PASS
11A	5825	Ant1	2.11	0.3	0	2.41	<29.33	PASS
11N20	5745	Ant1	4.67	0.32	0	4.99	<29.33	PASS
11N20	5785	Ant1	5.05	0.32	0	5.37	<29.33	PASS
11N20	5825	Ant1	3.43	0.32	0	3.75	<29.33	PASS
11N40	5755	Ant1	0.05	0.79	0	0.84	<29.33	PASS
11N40	5795	Ant1	-0.21	0.65	0	0.44	<29.33	PASS

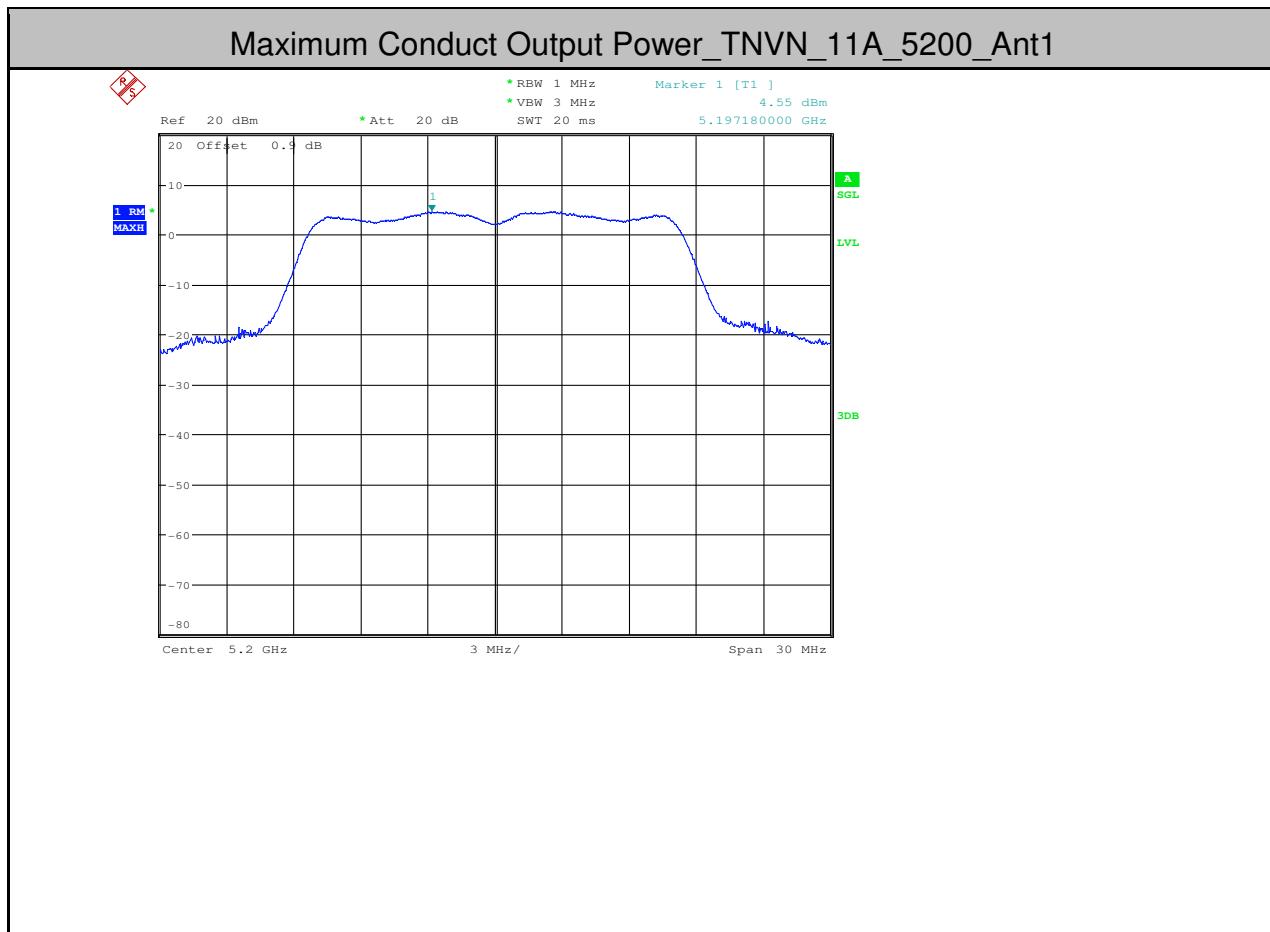


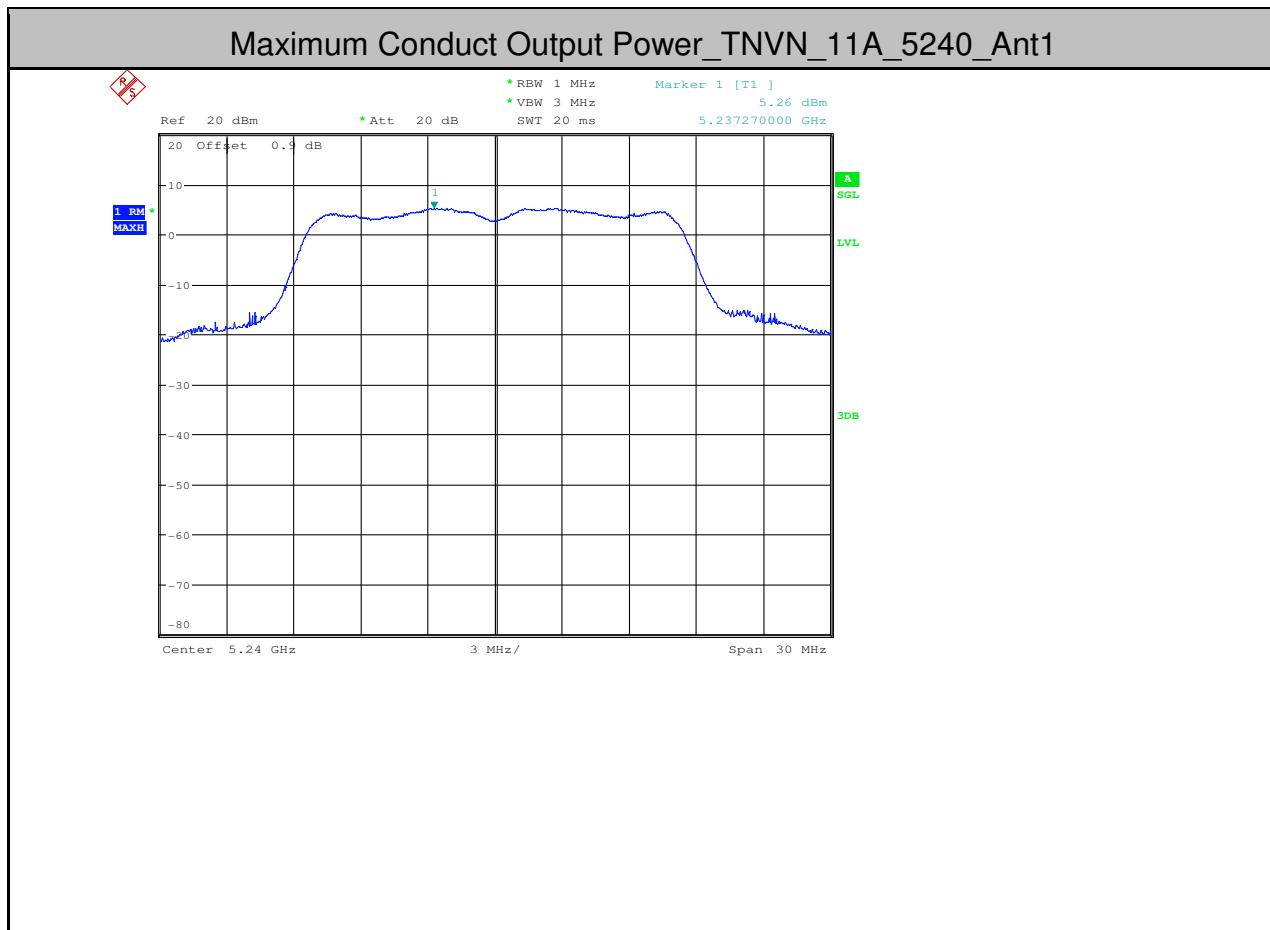
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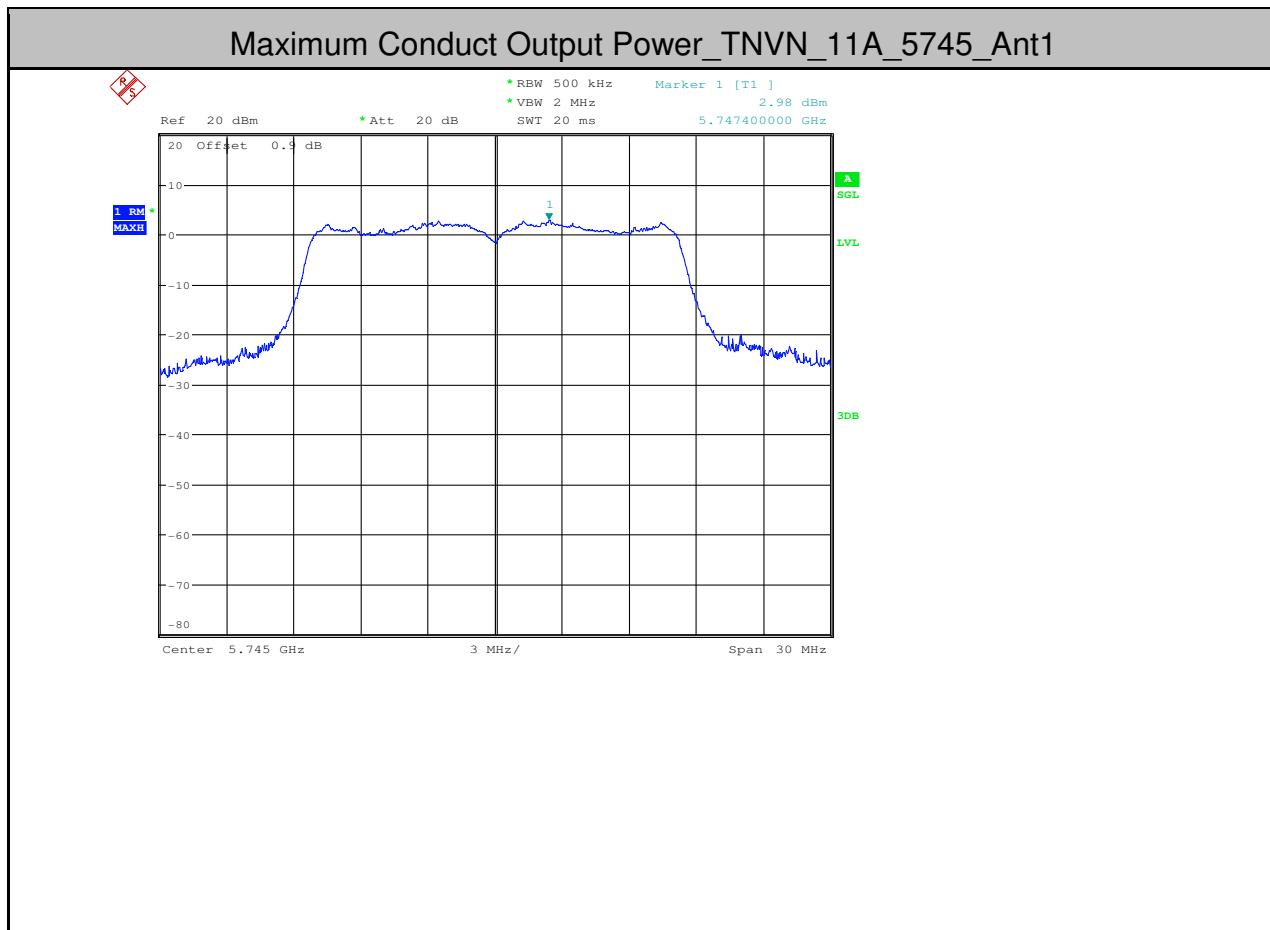
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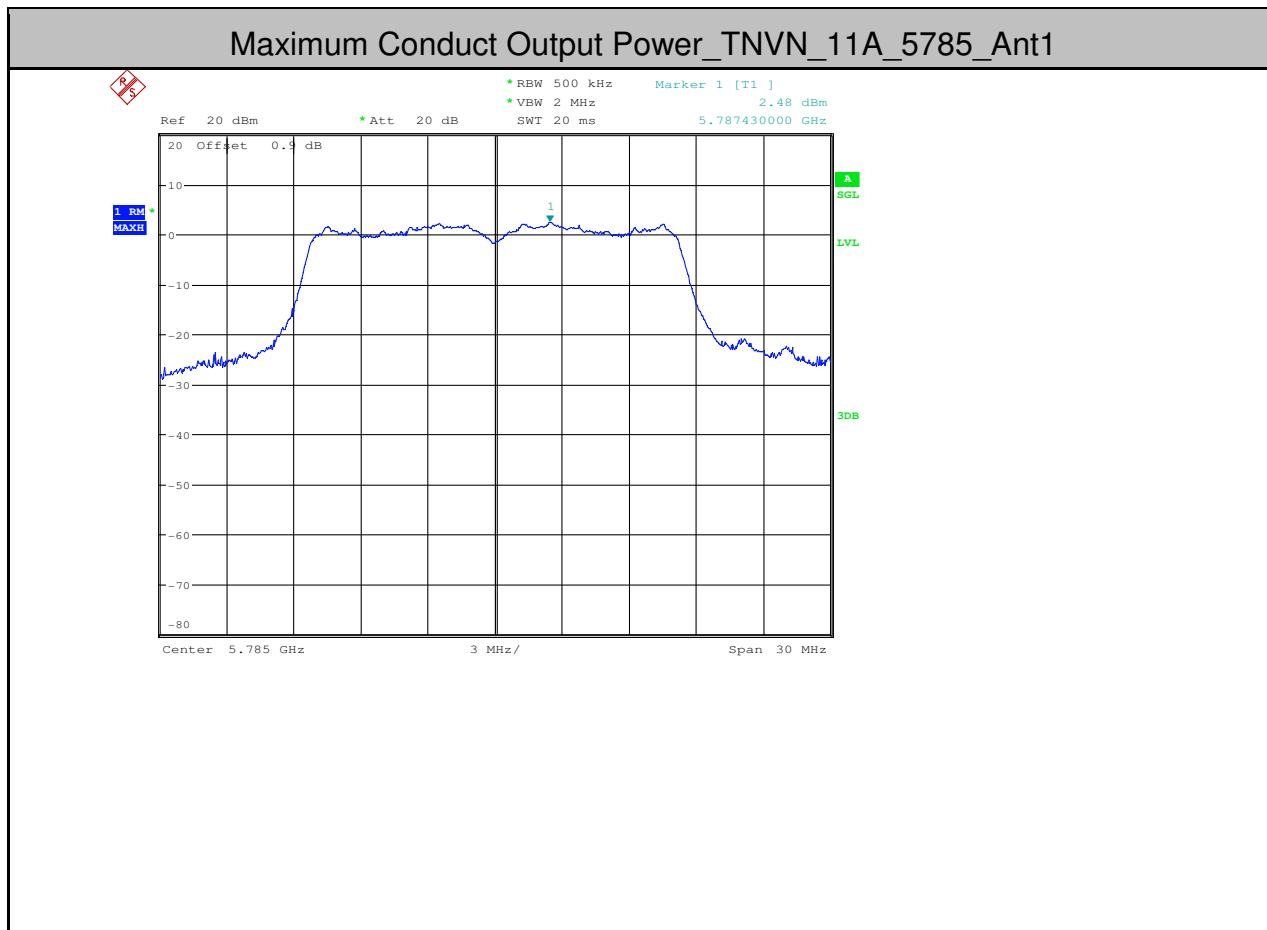
11AC20	5745	Ant1	2.53	0.32	0	2.85	<29.33	PASS
11AC20	5785	Ant1	2.42	0.32	0	2.74	<29.33	PASS
11AC20	5825	Ant1	2.3	0.32	0	2.62	<29.33	PASS
11AC40	5755	Ant1	0.19	0.65	0	0.84	<29.33	PASS
11AC40	5795	Ant1	-0.11	0.77	0	0.66	<29.33	PASS
11AC80	5775	Ant1	-2.89	1.33	0	-1.56	<29.33	PASS

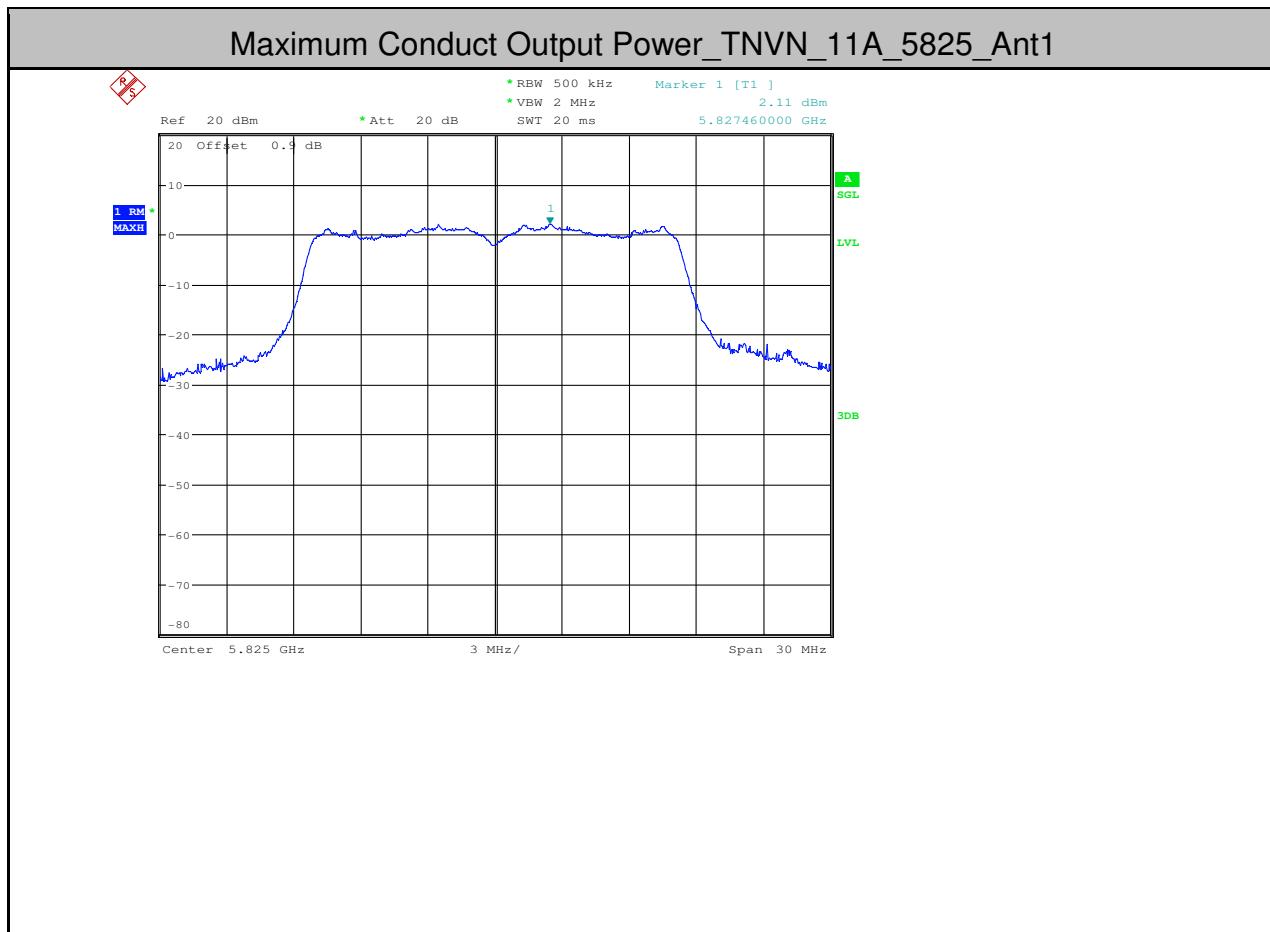


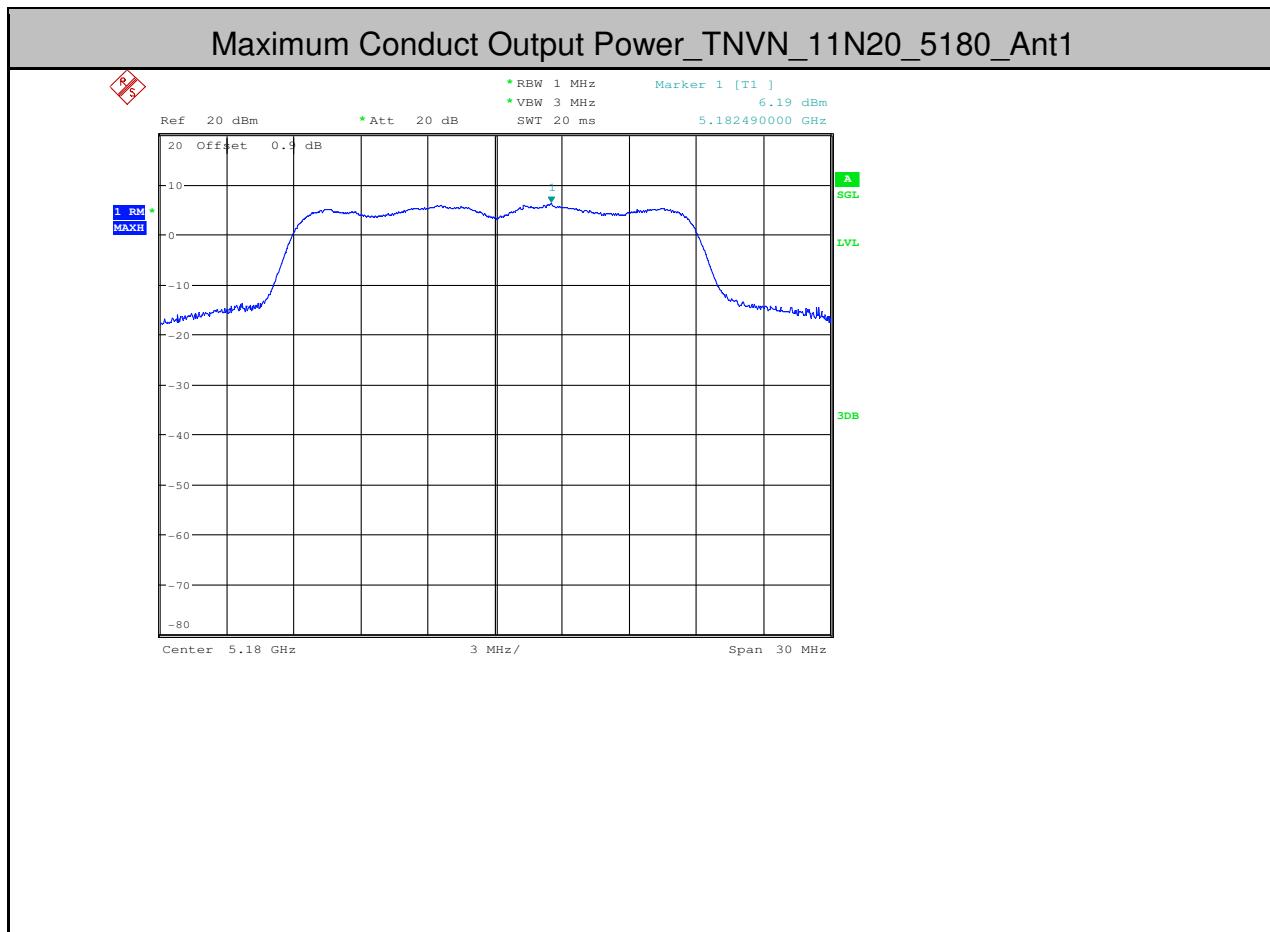


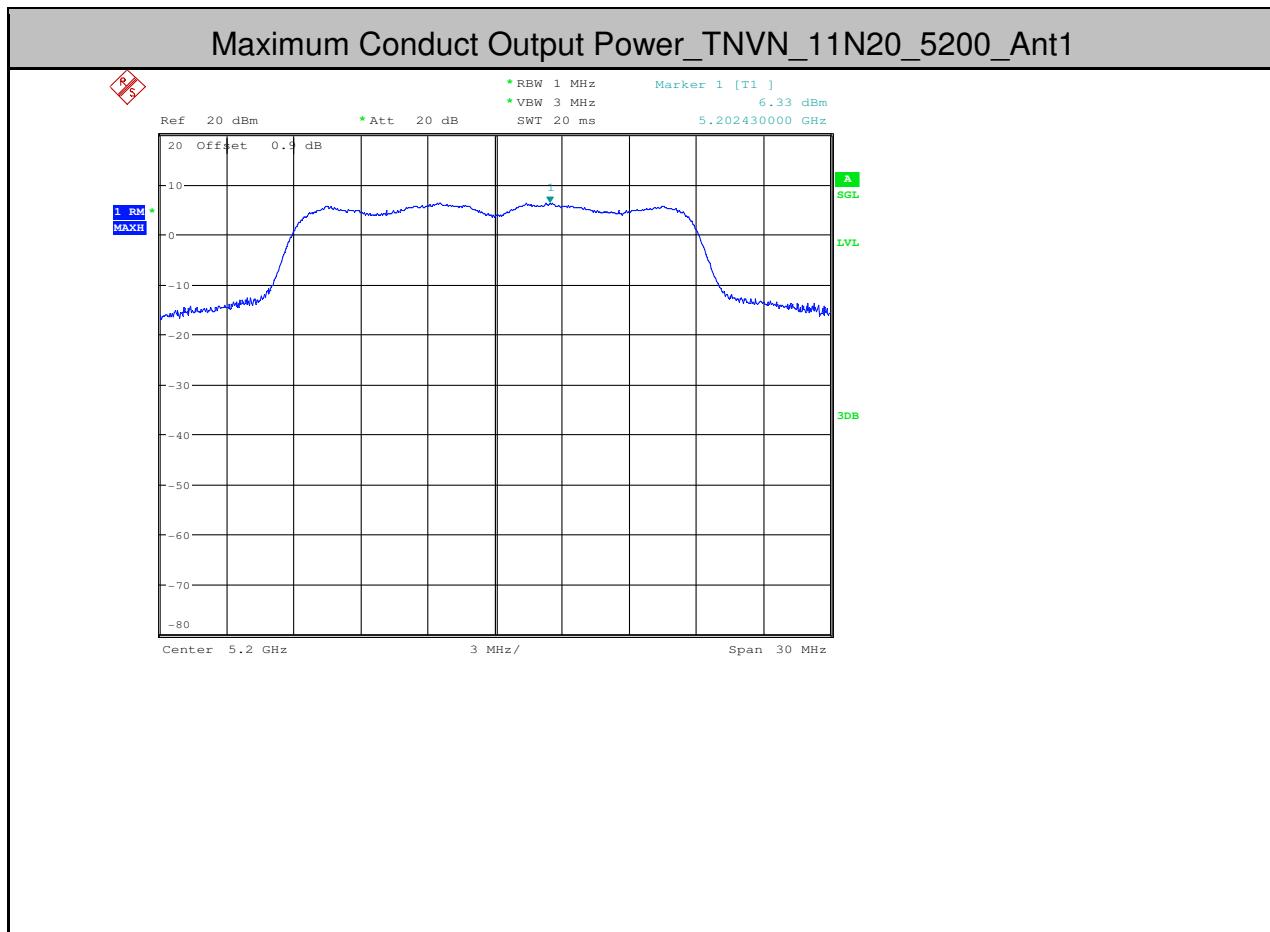


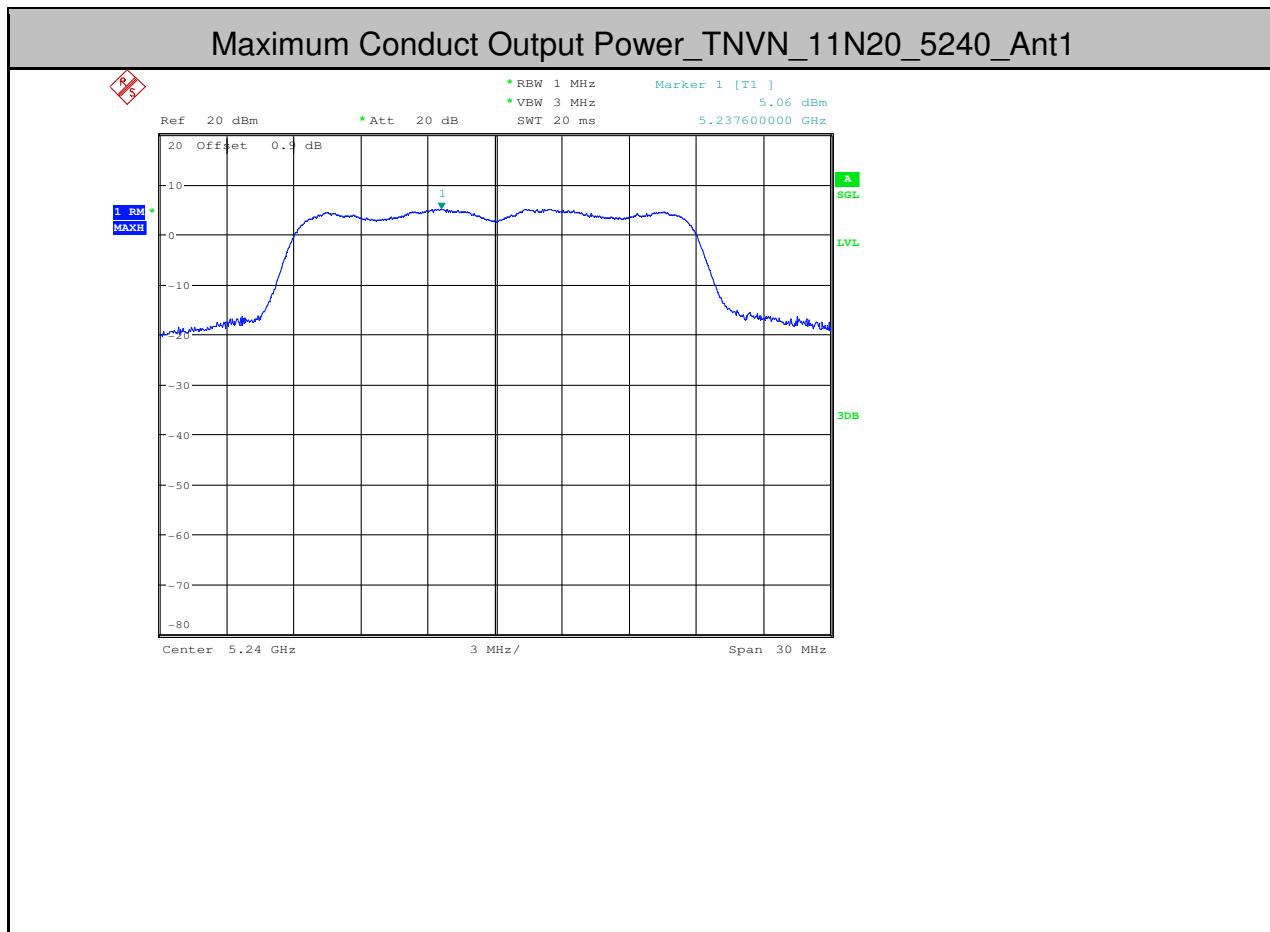


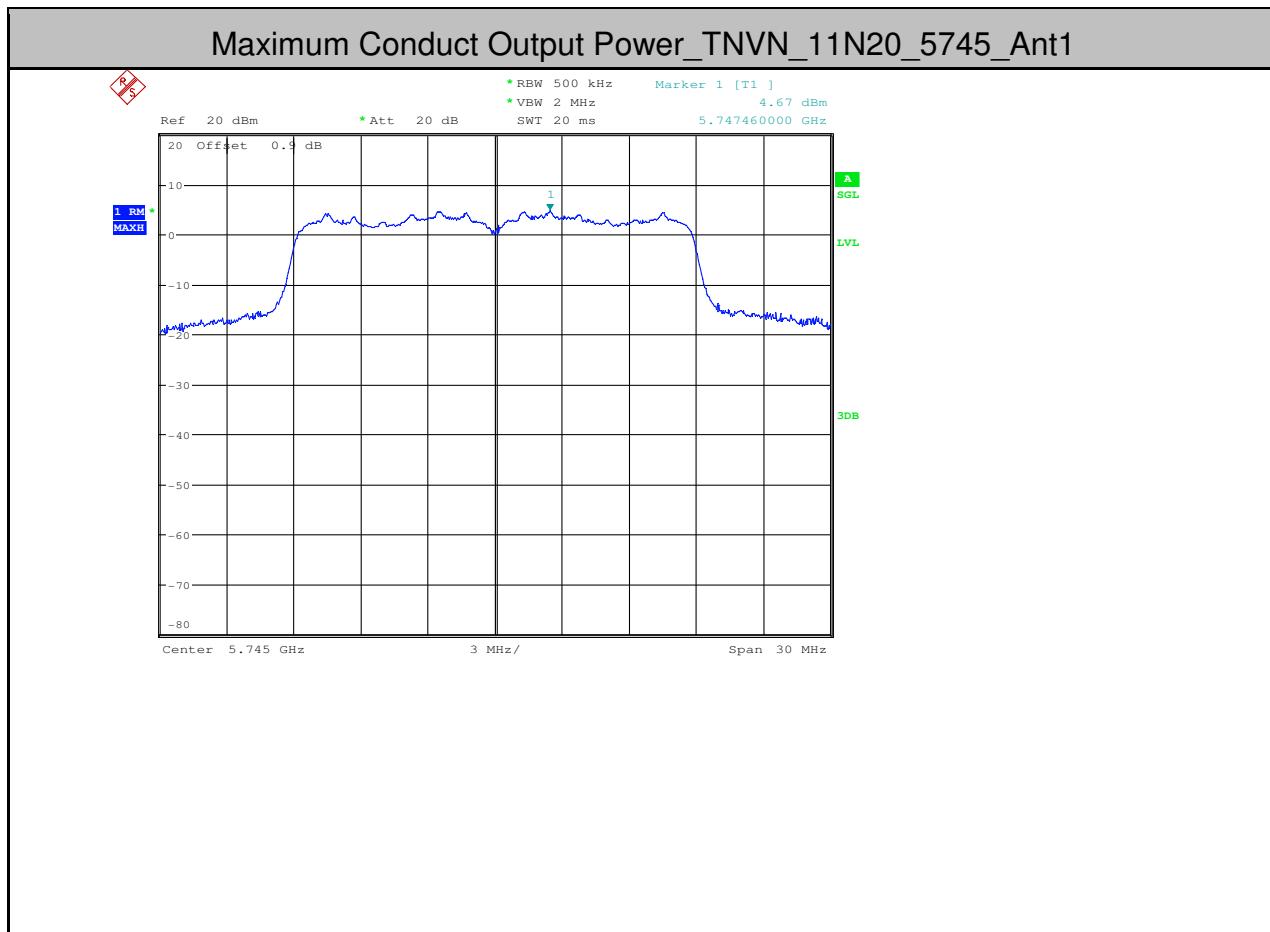


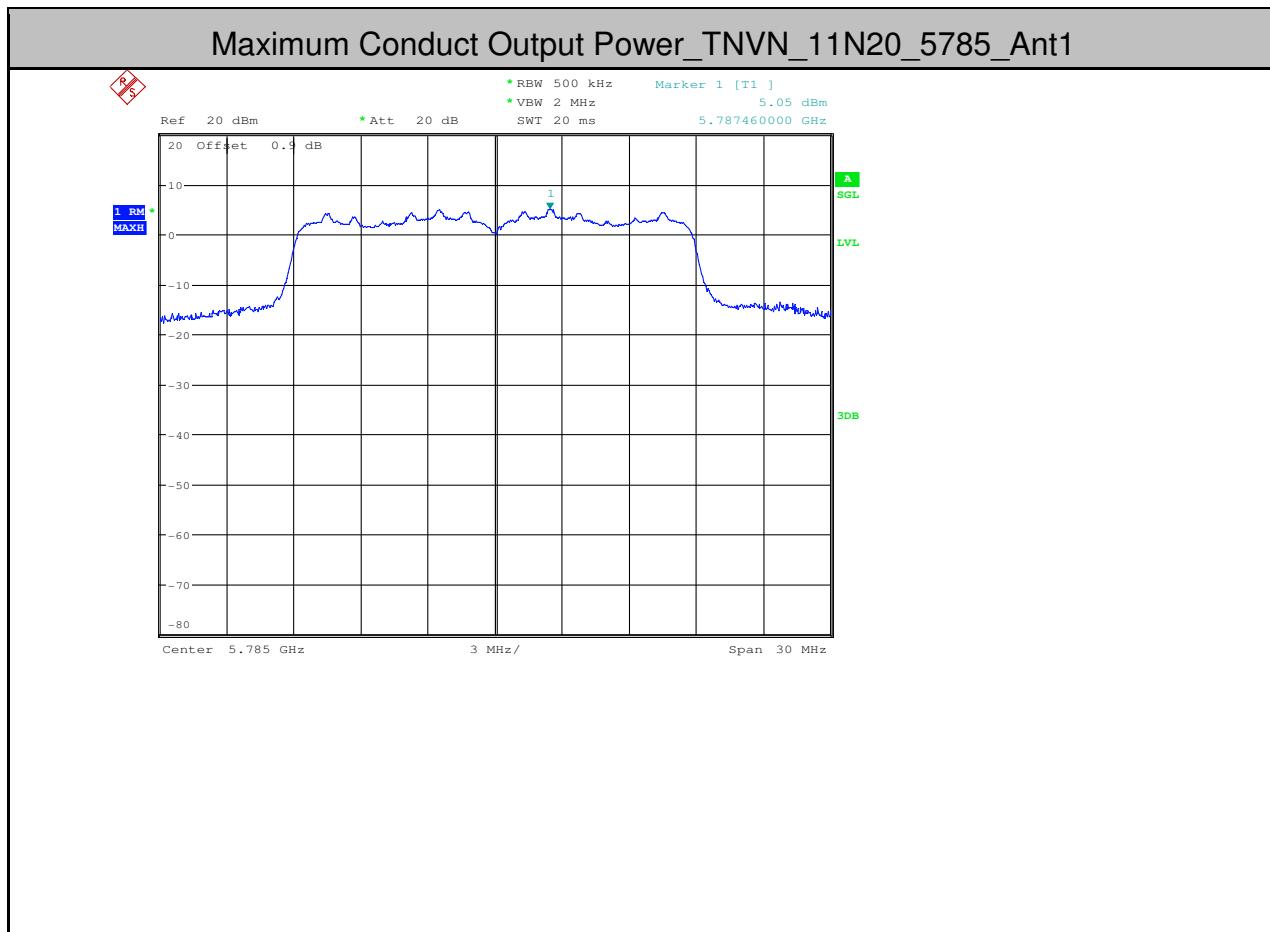


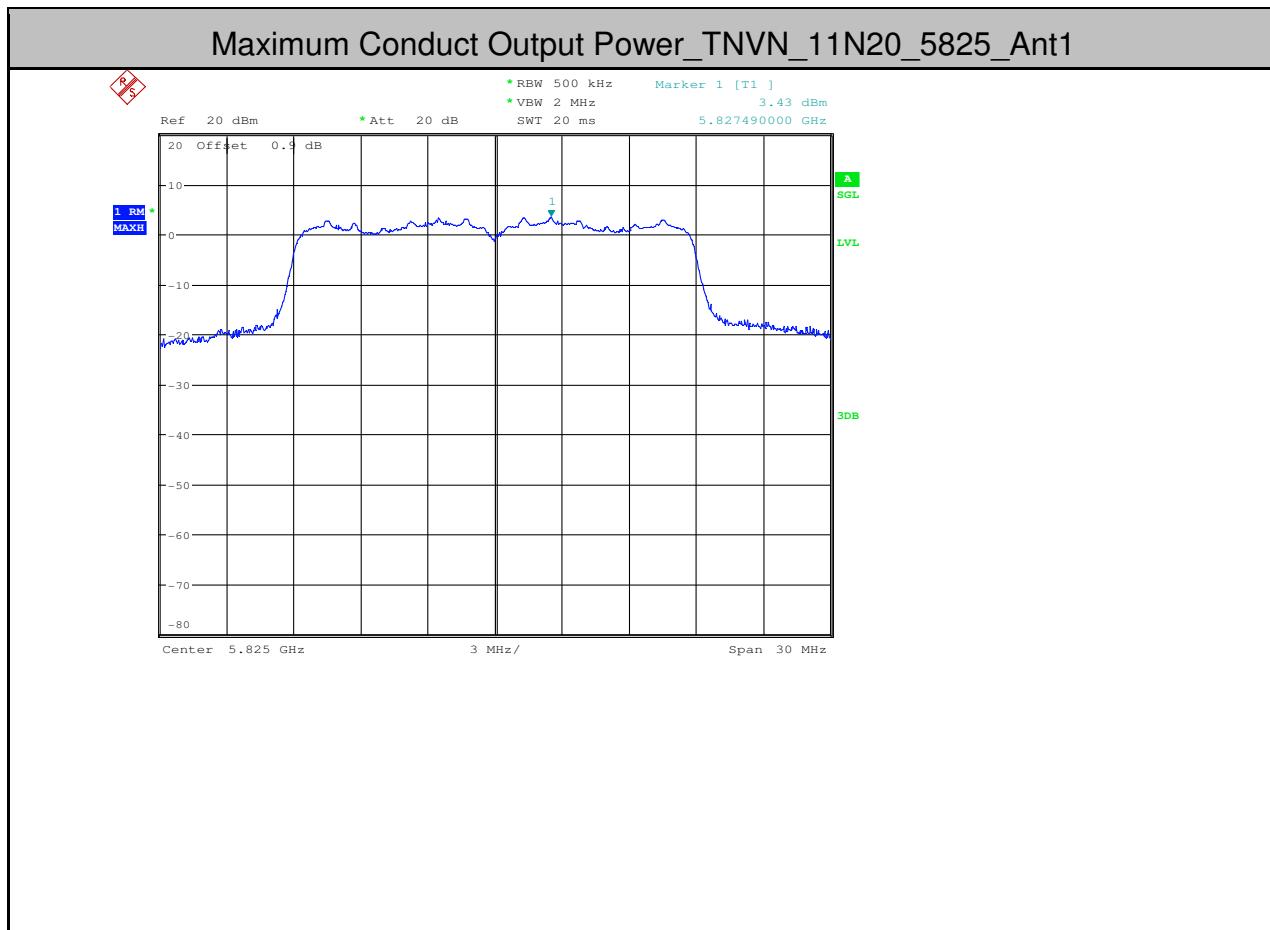


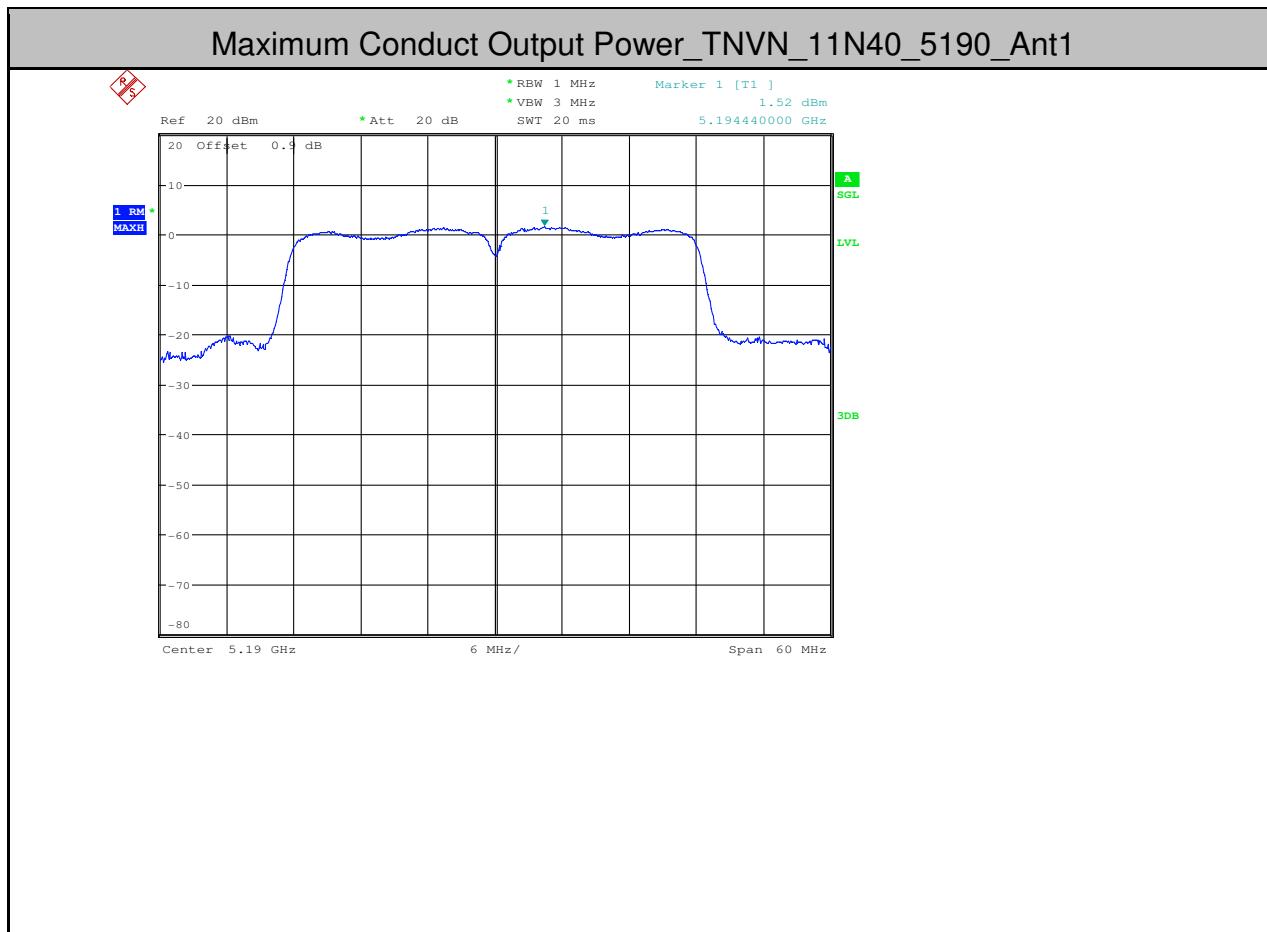


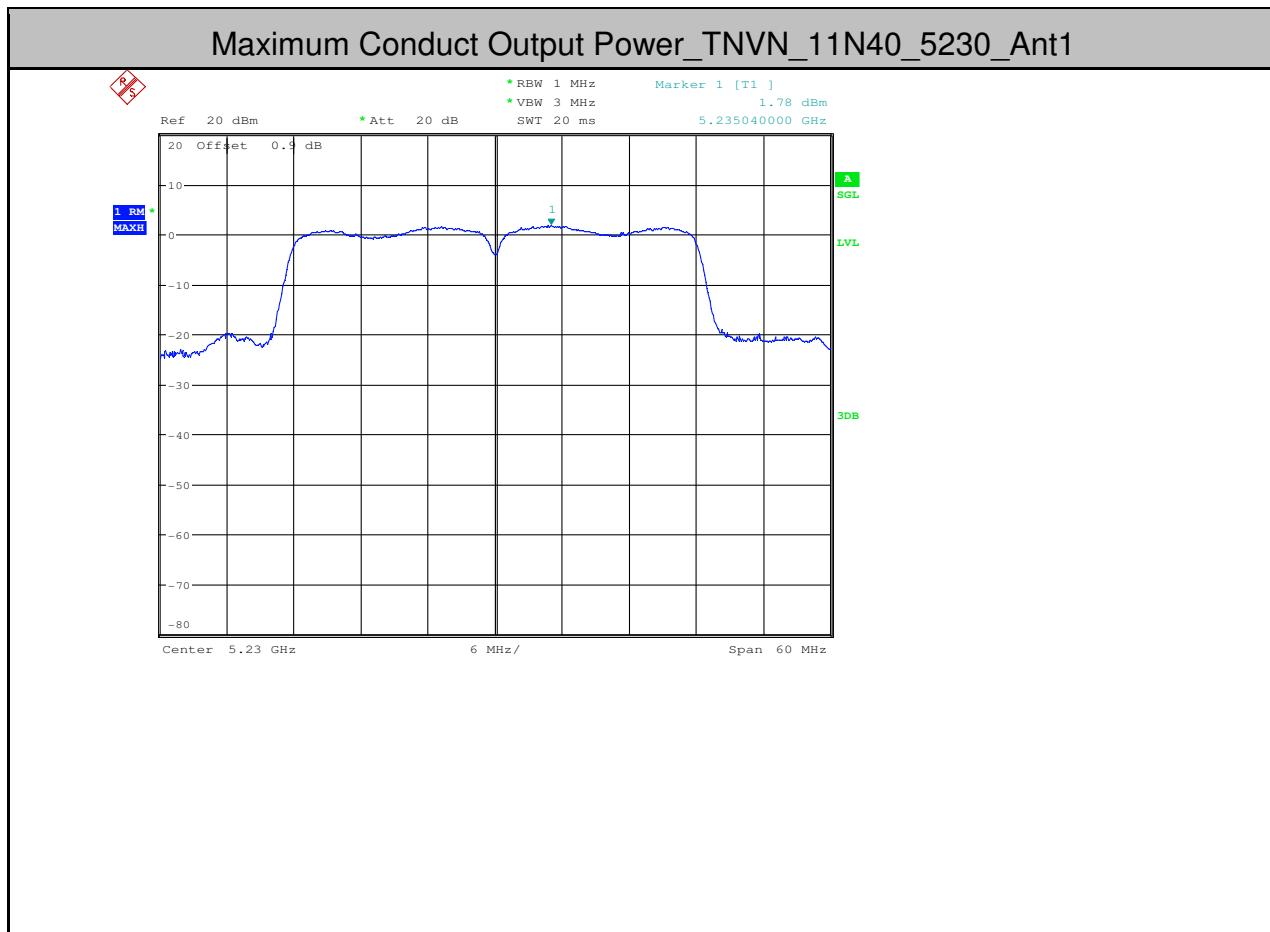


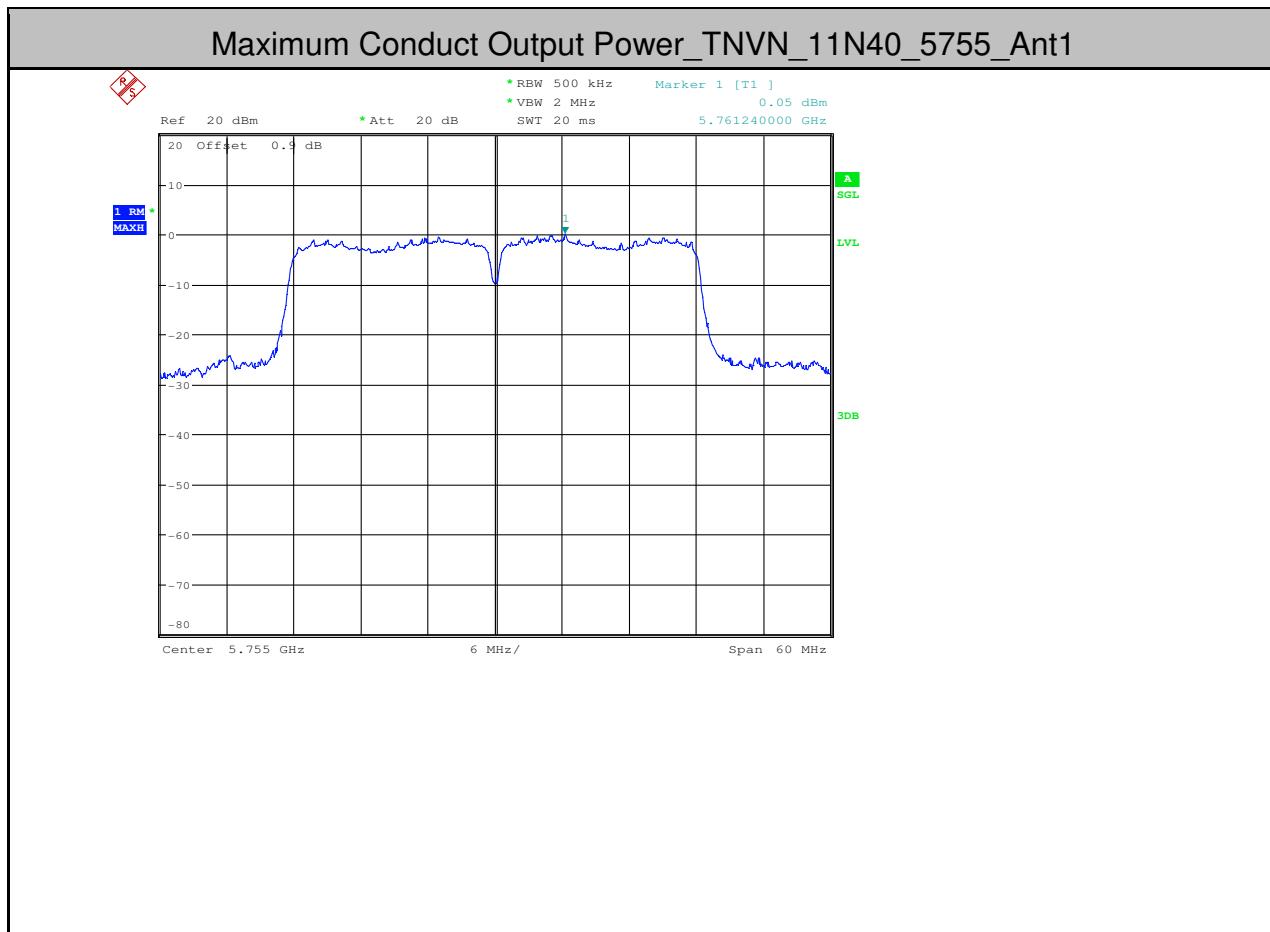


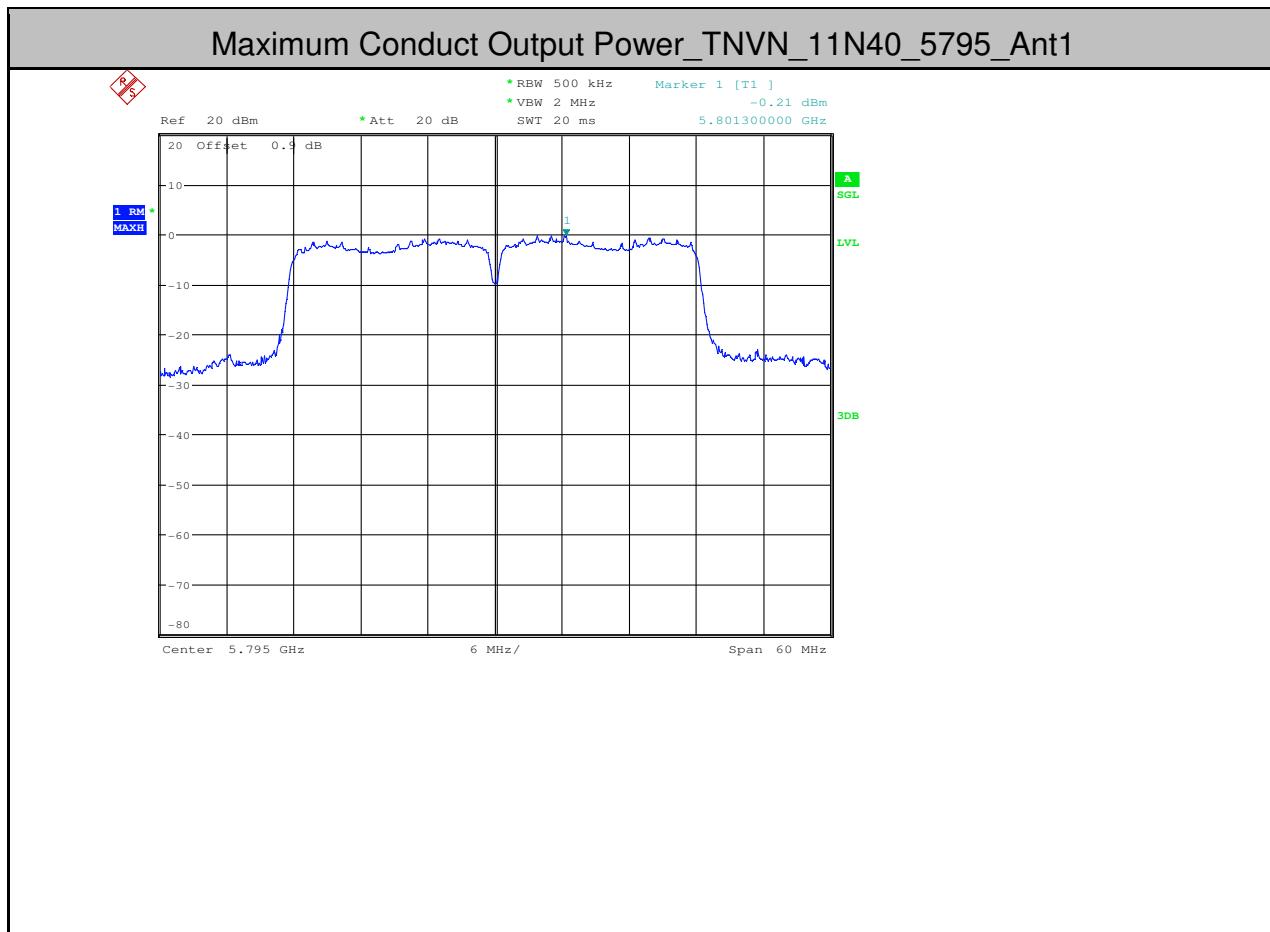


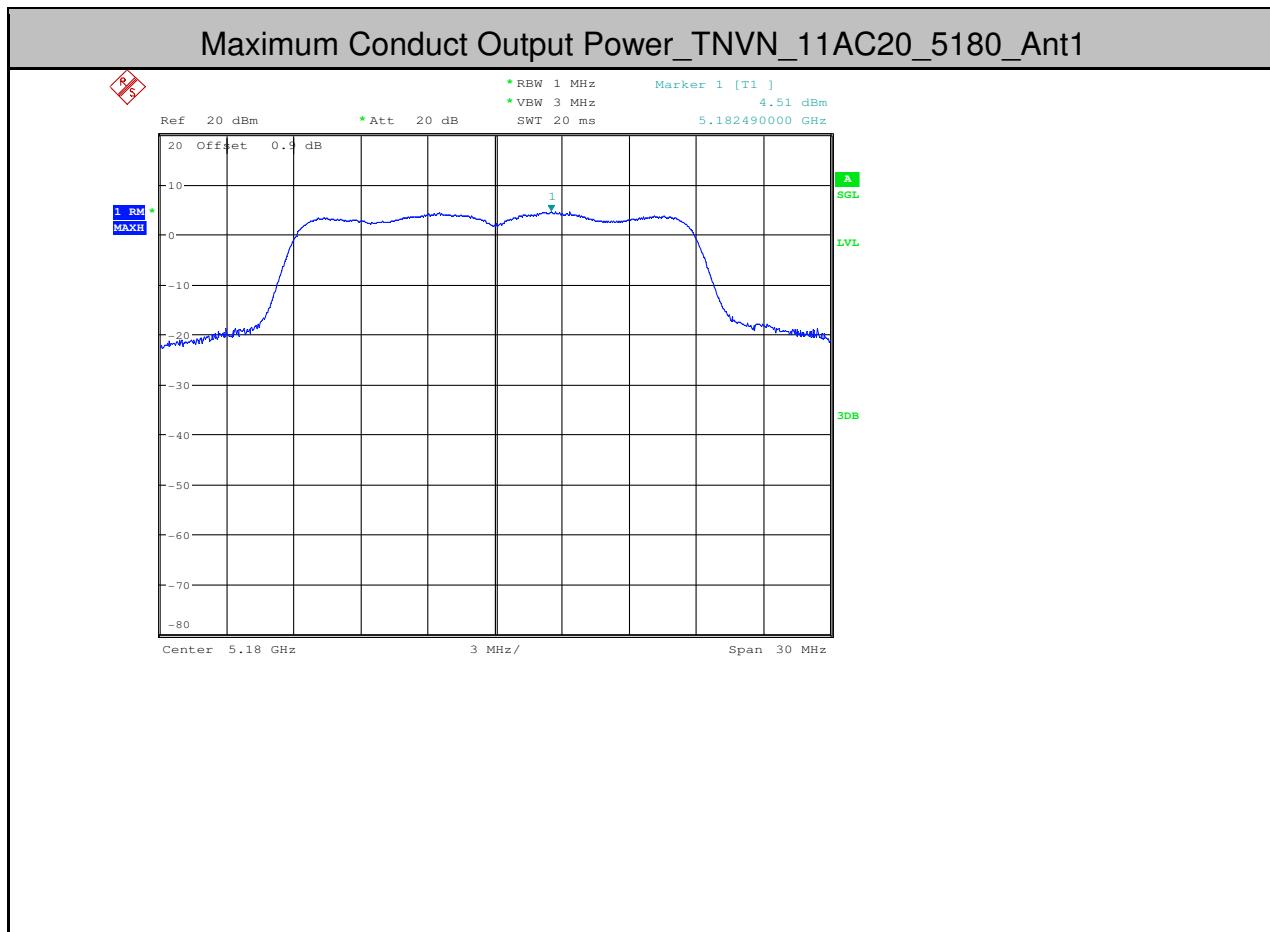


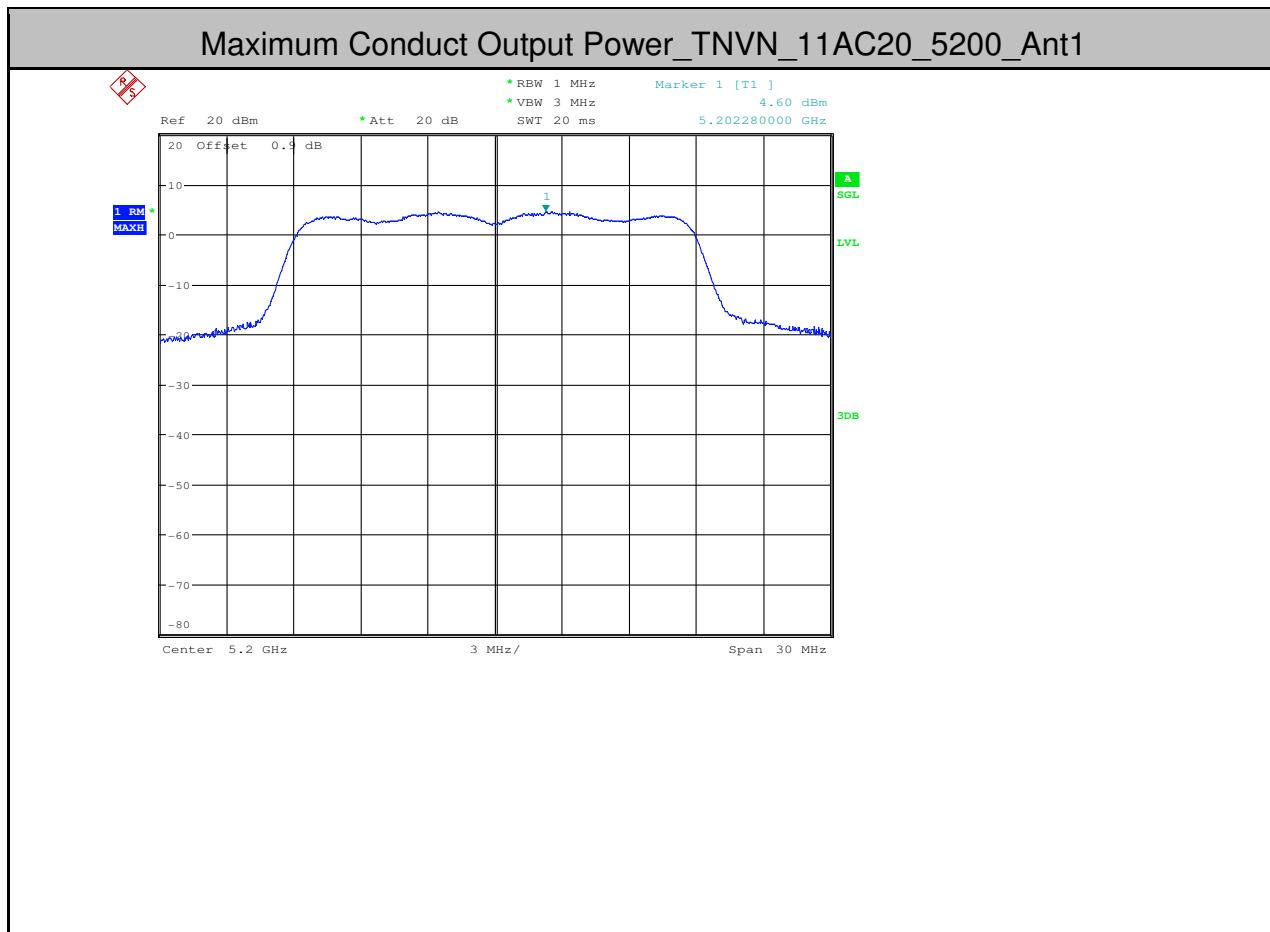


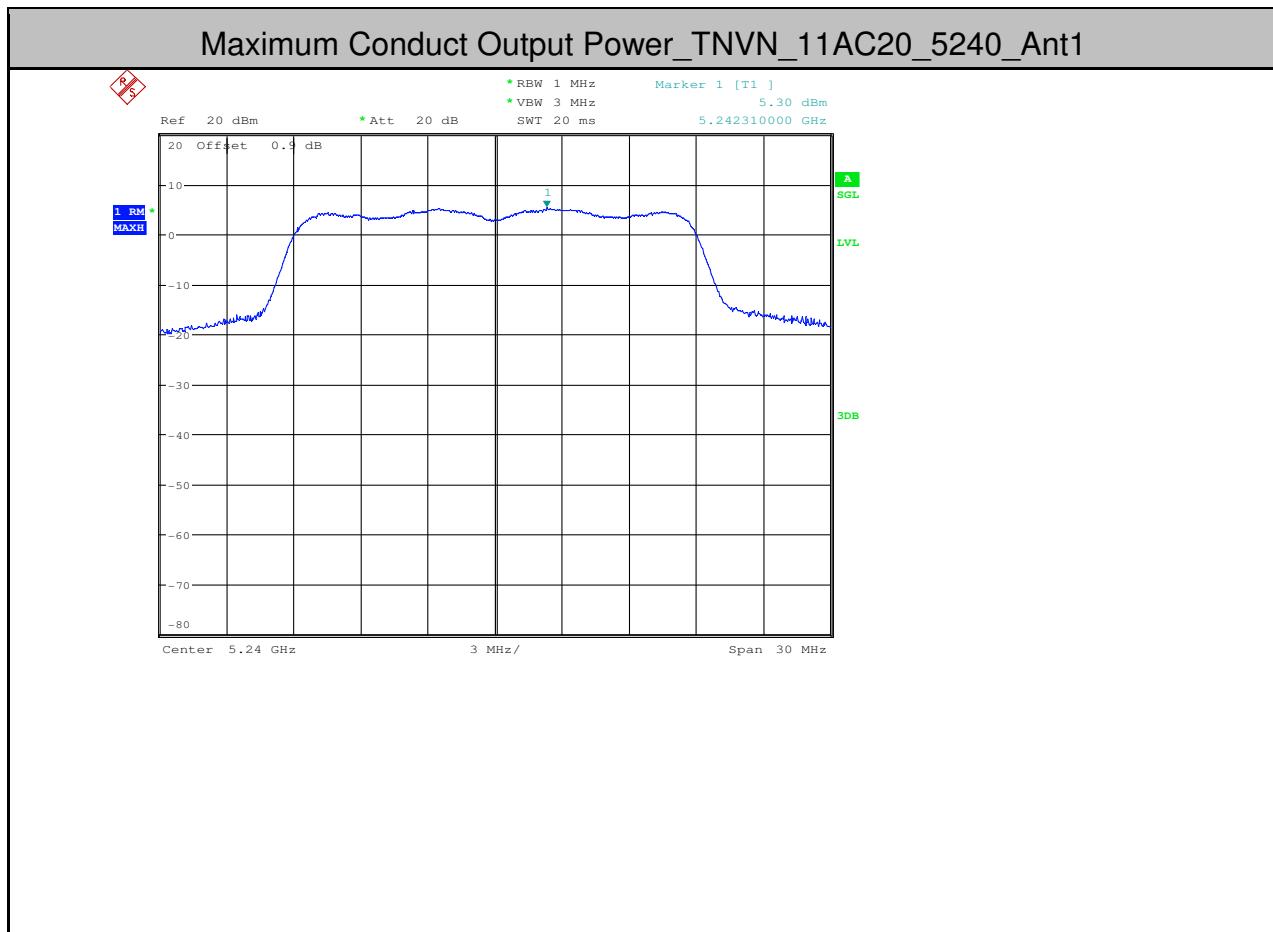


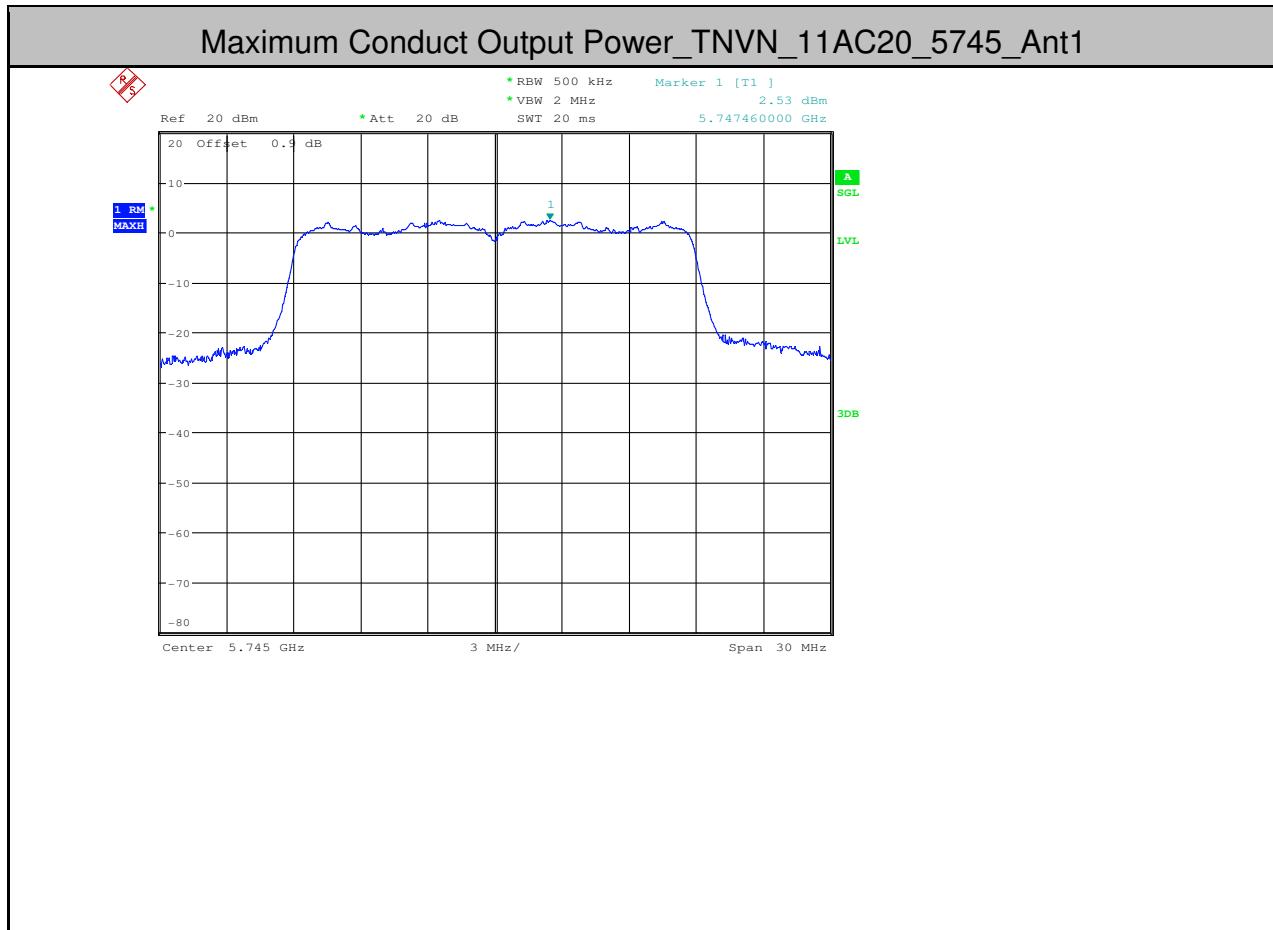


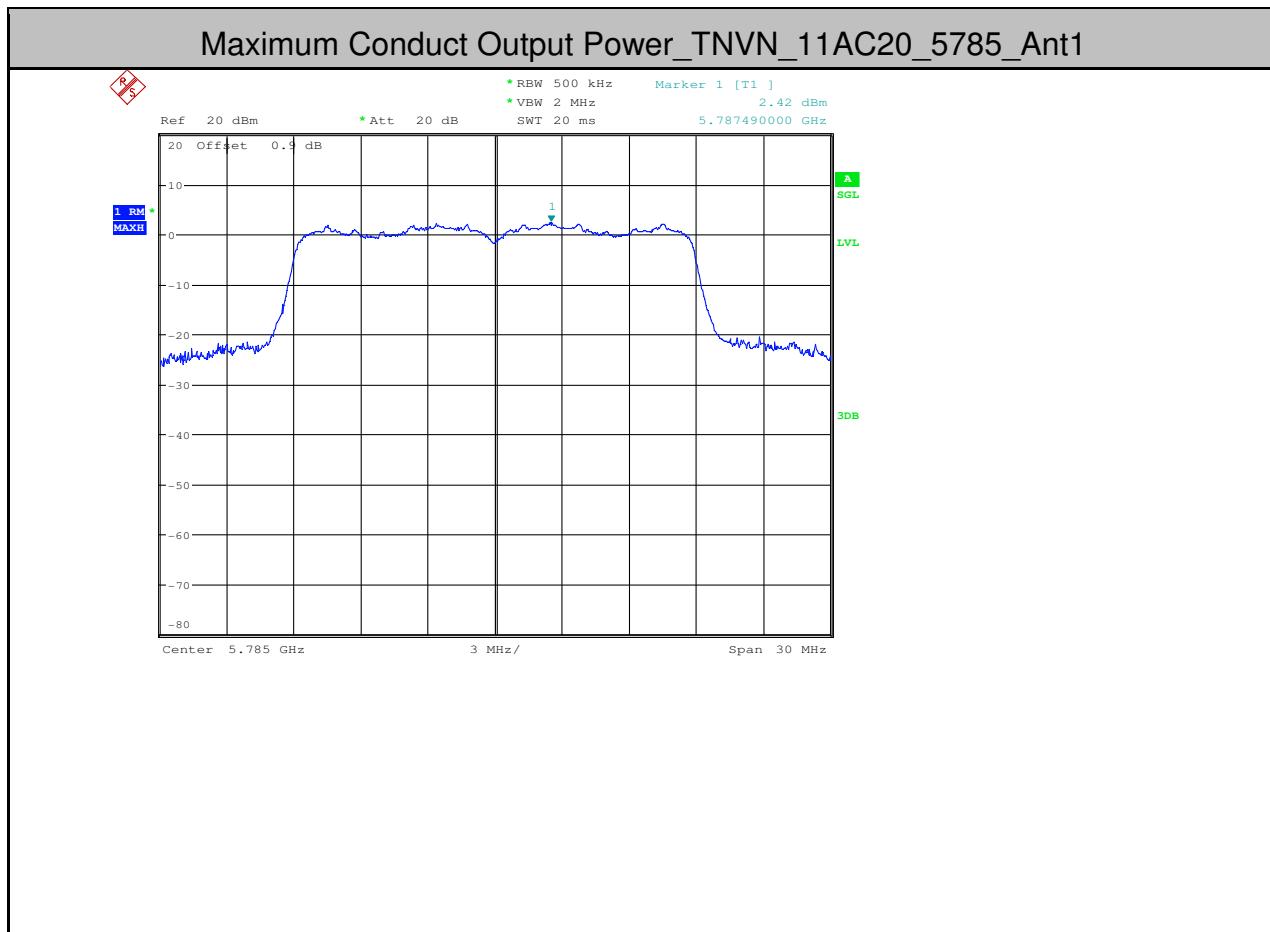


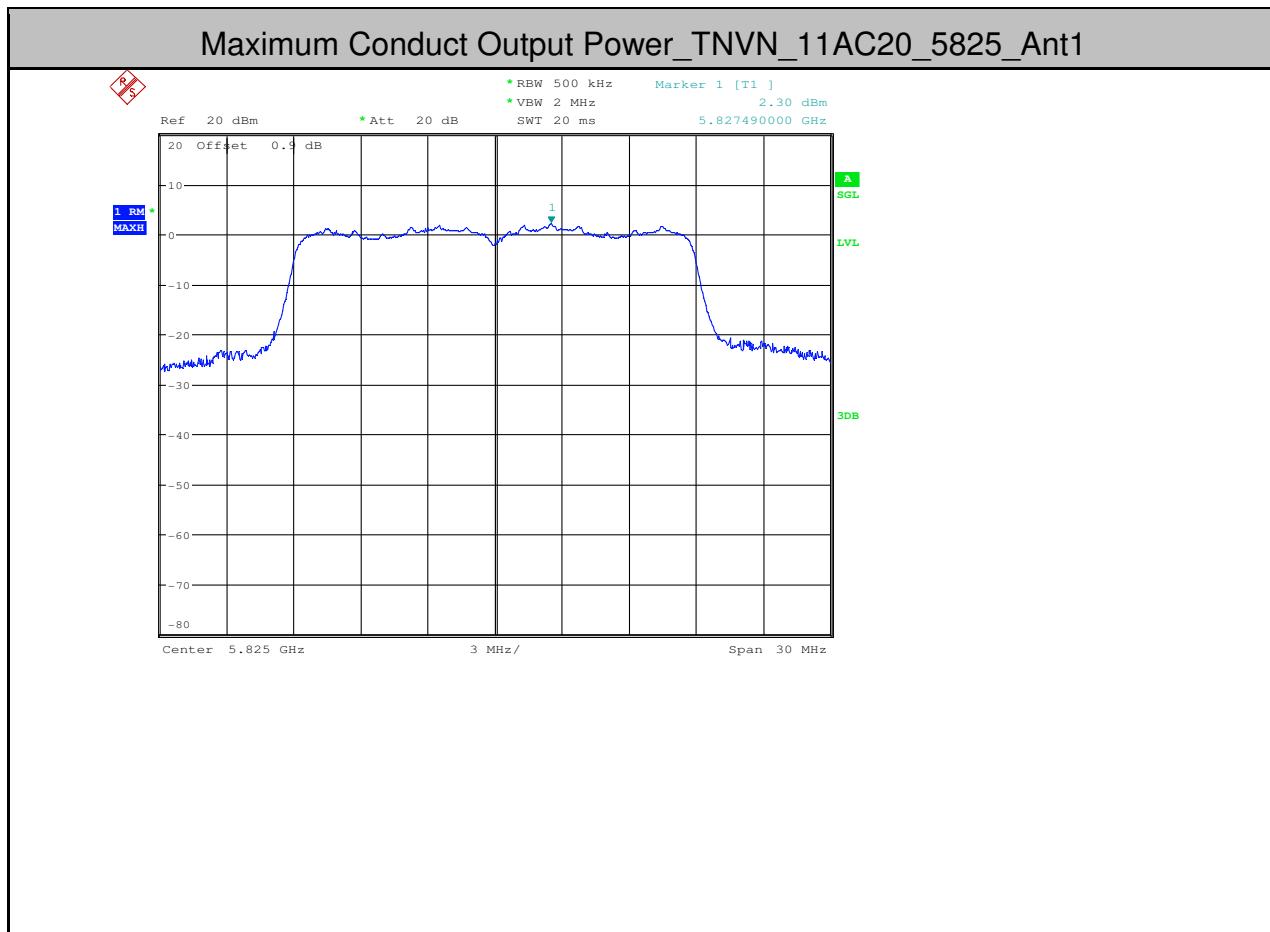


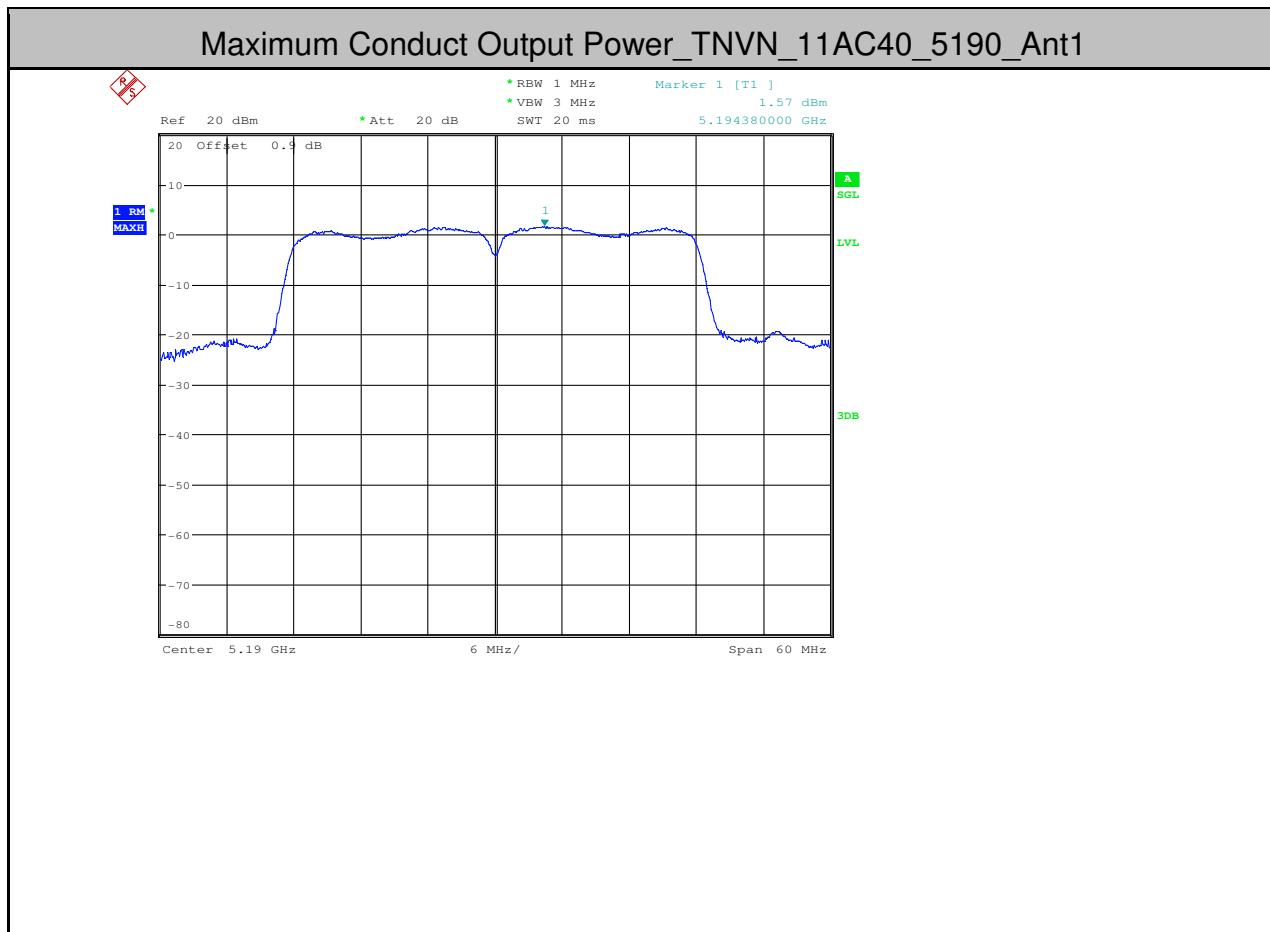


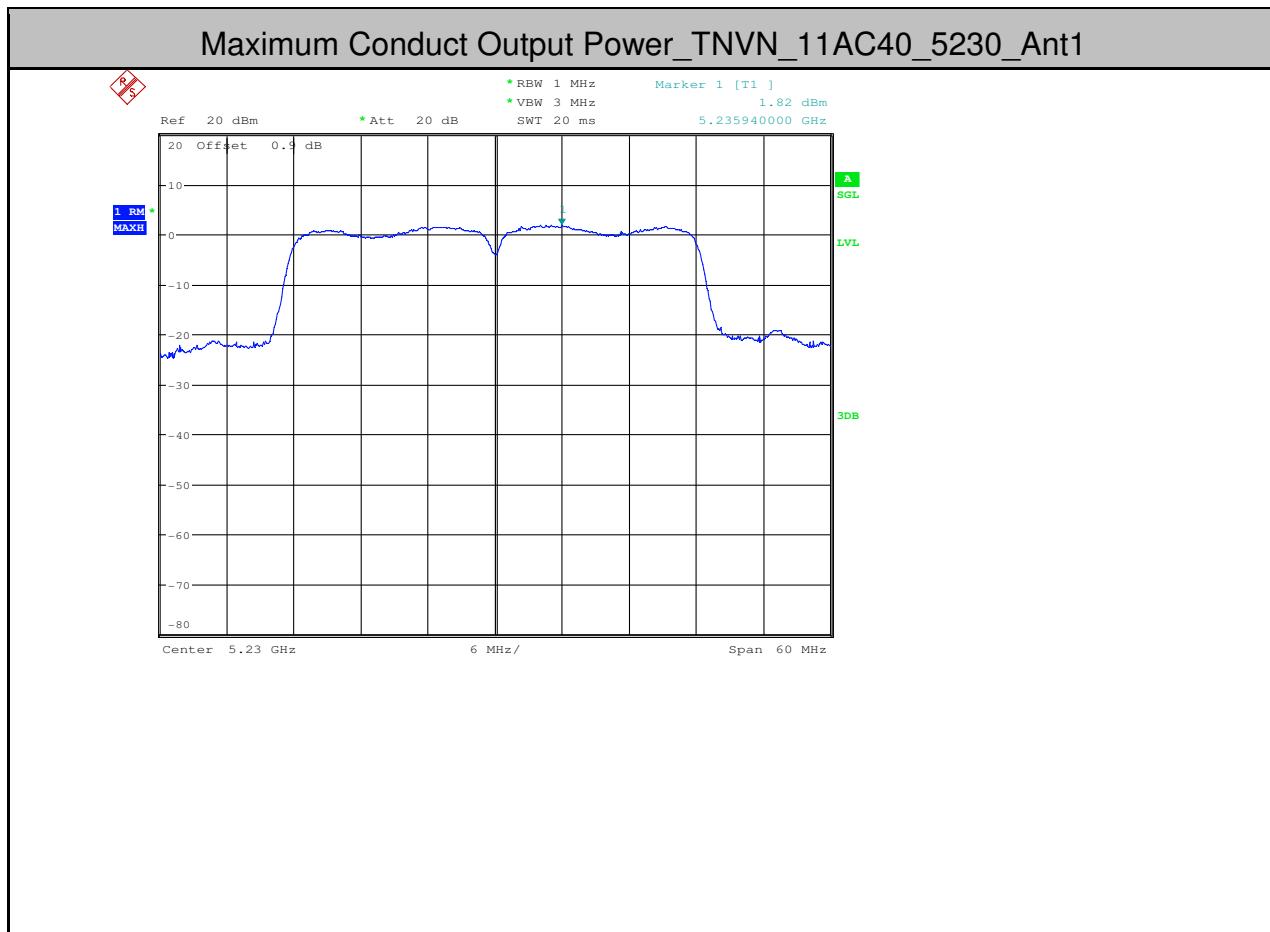


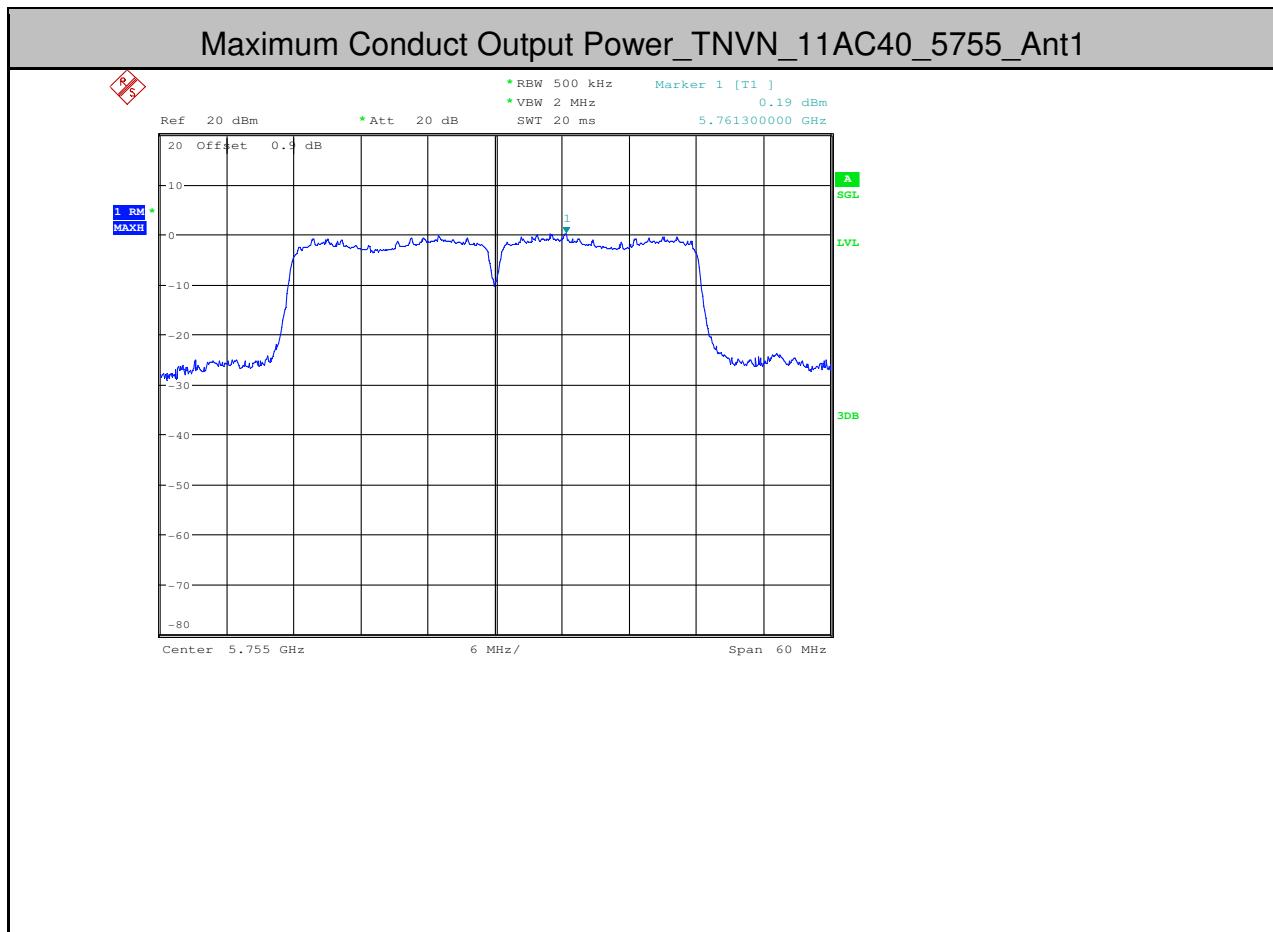


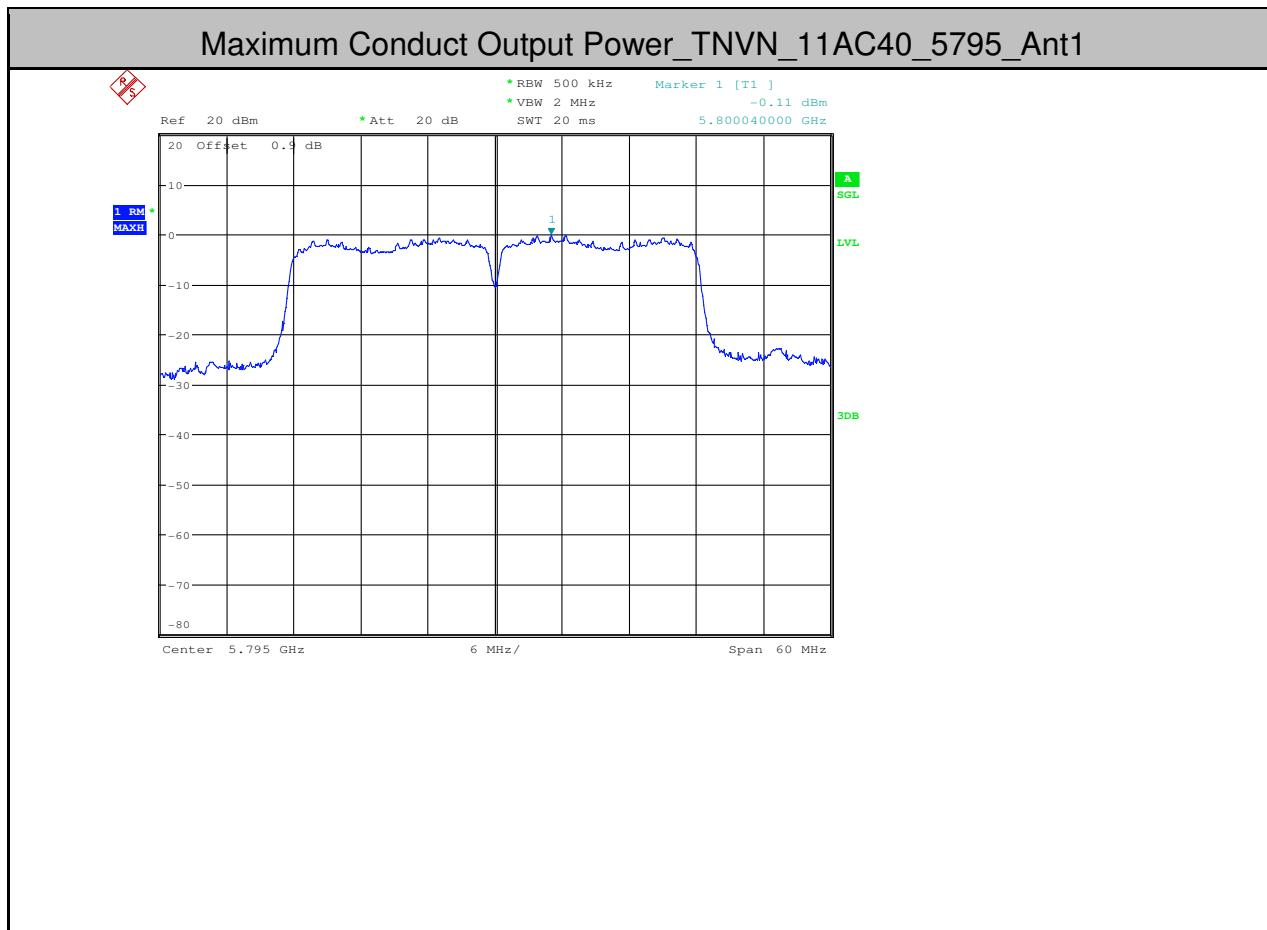


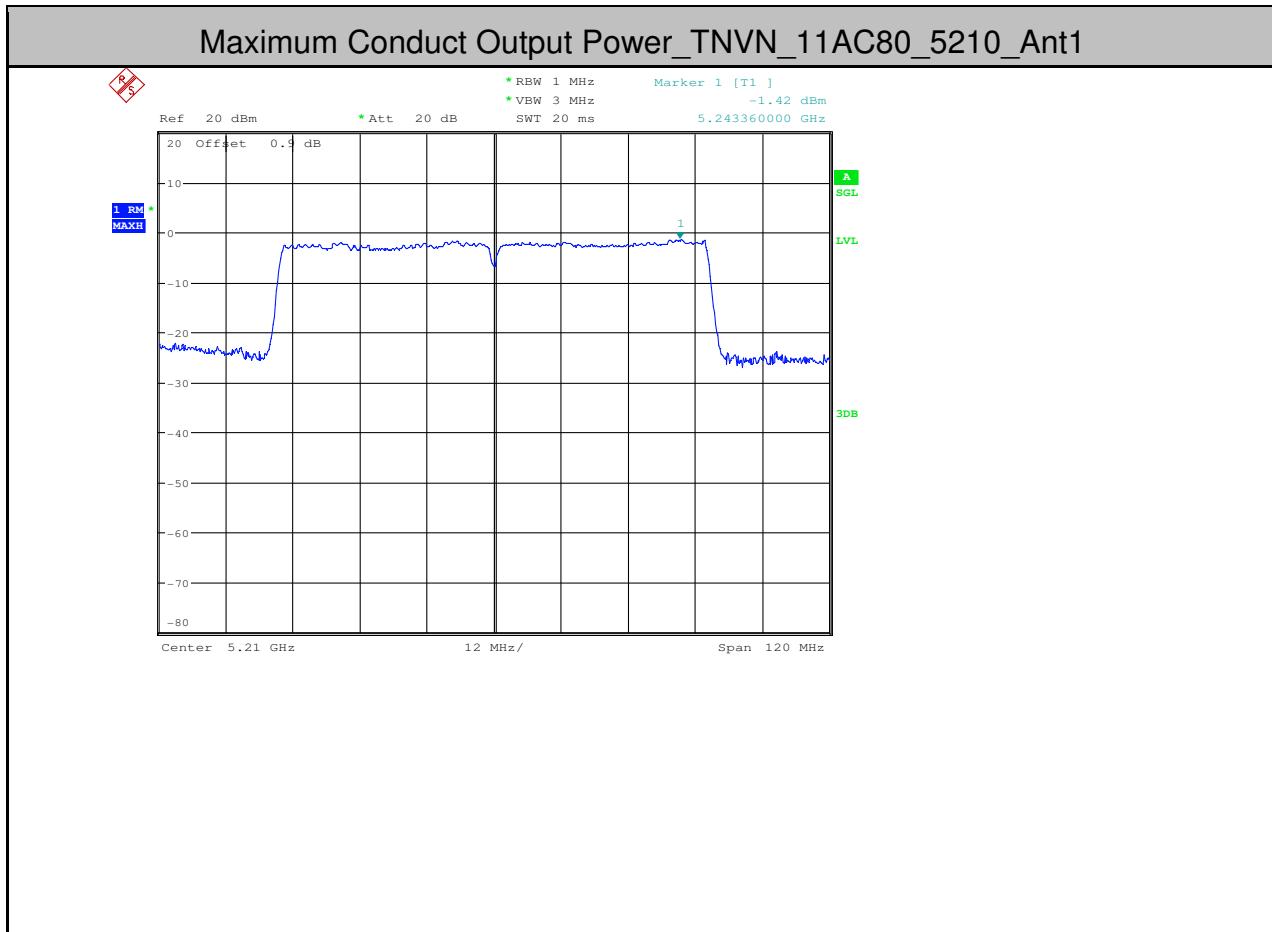


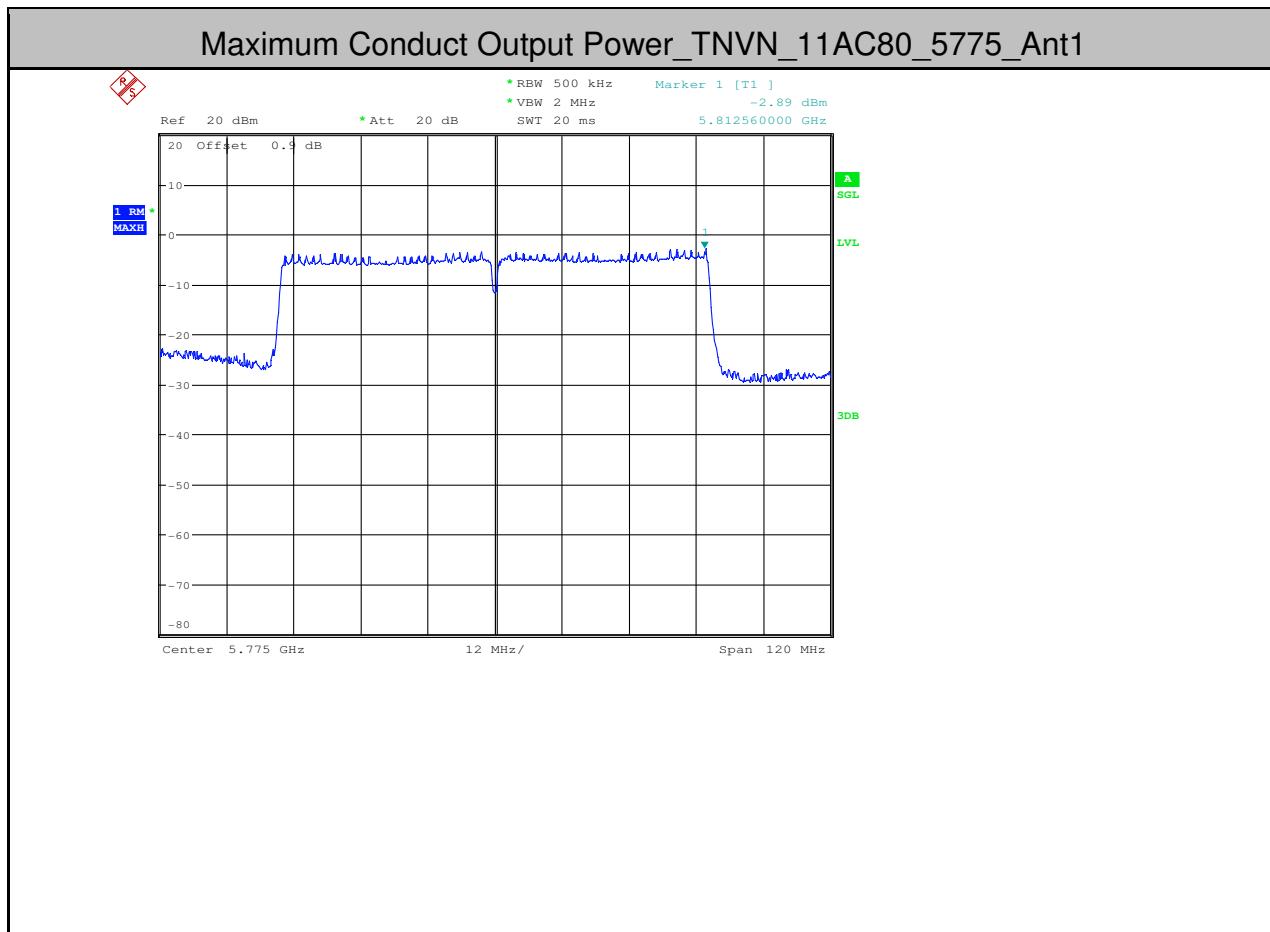














**5.Frequency Stability**

**Test data as follows:**

Test mode:	802.11a	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5182.895	-2.895	Pass
25		5177.104	2.896	Pass
15		5180	0	Pass
5		5171.312	8.688	Pass
0		5176.522	3.478	Pass
20	138	5179.104	0.896	Pass
	120	5177.882	2.118	Pass
	102	5181.013	-1.013	Pass

Test mode:	802.11a	Frequency(MHz):	5220
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5218.202	1.798	Pass
25		5221.005	-1.005	Pass
15		5220.719	-0.719	Pass
5		5218.924	1.076	Pass
0		5219.772	0.228	Pass
20	138	5219.901	0.099	Pass
	120	5220.119	-0.119	Pass
	102	5220.048	-0.048	Pass



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Test mode:	802.11a	Frequency(MHz):	5240
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5241.8163	-1.8163	Pass
25		5241.8170	-1.8170	Pass
15		5241.8174	-1.8174	Pass
5		5241.8165	-1.8165	Pass
0		5241.8160	-1.8160	Pass
20	138	5241.8167	-1.8167	Pass
	120	5241.8170	-1.8170	Pass
	102	5241.8173	-1.8173	Pass

Test mode:	802.11a	Frequency(MHz):	5745
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5746.2596	-1.2596	Pass
25		5746.2600	-1.2600	Pass
15		5746.2610	-1.2610	Pass
5		5746.2602	-1.2602	Pass
0		5746.2594	-1.2594	Pass
20	138	5746.2592	-1.2592	Pass
	120	5746.2600	-1.2600	Pass
	102	5746.2609	-1.2609	Pass



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Test mode:	802.11a	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5785.9259	-0.9259	Pass
25		5785.9263	-0.9263	Pass
15		5785.9266	-0.9266	Pass
5		5785.9256	-0.9256	Pass
0		5785.9246	-0.9246	Pass
20	138	5785.9254	-0.9254	Pass
	120	5785.9263	-0.9263	Pass
	102	5785.9271	-0.9271	Pass

Test mode:	802.11a	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5826.1175	-1.1175	Pass
25		5826.1184	-1.1184	Pass
15		5826.1186	-1.1186	Pass
5		5826.1180	-1.1180	Pass
0		5826.1173	-1.1173	Pass
20	138	5826.1180	-1.1180	Pass
	120	5826.1184	-1.1184	Pass
	102	5826.1187	-1.1187	Pass



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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5177.9593	2.0407	Pass
25		5177.9600	2.0400	Pass
15		5177.9601	2.0399	Pass
5		5177.9594	2.0406	Pass
0		5177.9591	2.0409	Pass
20	138	5177.9599	2.0401	Pass
	120	5177.9600	2.0400	Pass
	102	5177.9603	2.0397	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5220
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5218.9294	1.0706	Pass
25		5218.9300	1.0700	Pass
15		5218.9304	1.0696	Pass
5		5218.9297	1.0703	Pass
0		5218.9295	1.0705	Pass
20	138	5218.9298	1.0702	Pass
	120	5218.9300	1.0700	Pass
	102	5218.9302	1.0698	Pass



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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5241.0906	-1.0906	Pass
25		5241.0910	-1.0910	Pass
15		5241.0916	-1.0916	Pass
5		5241.0906	-1.0906	Pass
0		5241.0901	-1.0901	Pass
20	138	5241.0904	-1.0904	Pass
	120	5241.0910	-1.0910	Pass
	102	5241.0915	-1.0915	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5745.7183	-0.7183	Pass
25		5745.7189	-0.7189	Pass
15		5745.7196	-0.7196	Pass
5		5745.7194	-0.7194	Pass
0		5745.7189	-0.7189	Pass
20	138	5745.7182	-0.7182	Pass
	120	5745.7189	-0.7189	Pass
	102	5745.7192	-0.7192	Pass



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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5785.9008	-0.9008	Pass
25		5785.9011	-0.9011	Pass
15		5785.9015	-0.9015	Pass
5		5785.9012	-0.9012	Pass
0		5785.9007	-0.9007	Pass
20	138	5785.9005	-0.9005	Pass
	120	5785.9011	-0.9011	Pass
	102	5785.9016	-0.9016	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5824.9016	0.0984	Pass
25		5824.9022	0.0978	Pass
15		5824.9026	0.0974	Pass
5		5824.9018	0.0982	Pass
0		5824.9017	0.0983	Pass
20	138	5824.9014	0.0986	Pass
	120	5824.9022	0.0978	Pass
	102	5824.9031	0.0969	Pass



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Test mode:	802.11n(HT40)	Frequency(MHz):	5190
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5191.2228	-1.2228	Pass
25		5191.2231	-1.2231	Pass
15		5191.2232	-1.2232	Pass
5		5191.2231	-1.2231	Pass
0		5191.2228	-1.2228	Pass
20	138	5191.2228	-1.2228	Pass
	120	5191.2231	-1.2231	Pass
	102	5191.2233	-1.2233	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5230
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5232.1083	-2.1083	Pass
25		5232.1084	-2.1084	Pass
15		5232.1091	-2.1091	Pass
5		5232.1087	-2.1087	Pass
0		5232.1080	-2.1080	Pass
20	138	5232.1081	-2.1081	Pass
	120	5232.1084	-2.1084	Pass
	102	5232.1090	-2.1090	Pass



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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5756.3187	-1.3187	Pass
25		5756.3188	-1.3188	Pass
15		5756.3196	-1.3196	Pass
5		5756.3187	-1.3187	Pass
0		5756.3181	-1.3181	Pass
20	138	5756.3178	-1.3178	Pass
	120	5756.3188	-1.3188	Pass
	102	5756.3191	-1.3191	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5795.9005	-0.9005	Pass
25		5795.9011	-0.9011	Pass
15		5795.9017	-0.9017	Pass
5		5795.9008	-0.9008	Pass
0		5795.9007	-0.9007	Pass
20	138	5795.9006	-0.9006	Pass
	120	5795.9011	-0.9011	Pass
	102	5795.9014	-0.9014	Pass



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Test mode:	802.11ac20	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5177.9688	2.0312	Pass
25		5177.9745	2.0255	Pass
15		5177.9765	2.0235	Pass
5		5177.9877	2.0123	Pass
0		5177.9865	2.0135	Pass
20	138	5177.9478	2.0522	Pass
	120	5177.9588	2.0412	Pass
	102	5177.9534	2.0466	Pass

Test mode:	802.11ac20	Frequency(MHz):	5220
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5218.9292	1.0708	Pass
25		5218.9323	1.0677	Pass
15		5218.9343	1.0657	Pass
5		5218.9200	1.0800	Pass
0		5218.9256	1.0744	Pass
20	138	5218.9243	1.0757	Pass
	120	5218.9323	1.0677	Pass
	102	5218.9312	1.0688	Pass



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Test mode:	802.11ac20	Frequency(MHz):	5240
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5241.0904	-1.0904	Pass
25		5241.0909	-1.0909	Pass
15		5241.0914	-1.0914	Pass
5		5241.0905	-1.0905	Pass
0		5241.0903	-1.0903	Pass
20	138	5241.0904	-1.0904	Pass
	120	5241.0908	-1.0908	Pass
	102	5241.0913	-1.0913	Pass

Test mode:	802.11ac20	Frequency(MHz):	5745
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5745.7179	-0.7179	Pass
25		5745.7176	-0.7176	Pass
15		5745.7156	-0.7156	Pass
5		5745.7187	-0.7187	Pass
0		5745.7167	-0.7167	Pass
20	138	5745.7154	-0.7154	Pass
	120	5745.7187	-0.7187	Pass
	102	5745.7143	-0.7143	Pass



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Test mode:	802.11ac20	Frequency(MHz):	5785
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5785.9010	-0.9010	Pass
25		5785.9015	-0.9015	Pass
15		5785.9014	-0.9014	Pass
5		5785.9011	-0.9011	Pass
0		5785.9043	-0.9043	Pass
20	138	5785.9023	-0.9023	Pass
	120	5785.9043	-0.9043	Pass
	102	5785.9022	-0.9022	Pass

Test mode:	802.11ac20	Frequency(MHz):	5825
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5824.9013	0.0987	Pass
25		5824.9021	0.0979	Pass
15		5824.9025	0.0975	Pass
5		5824.9017	0.0983	Pass
0		5824.9016	0.0984	Pass
20	138	5824.9015	0.0987	Pass
	120	5824.9023	0.0977	Pass
	102	5824.9030	0.0970	Pass



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Test mode:	802.11ac40	Frequency(MHz):	5190
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5191.2243	-1.2243	Pass
25		5191.2231	-1.2231	Pass
15		5191.2232	-1.2232	Pass
5		5191.2233	-1.2233	Pass
0		5191.2254	-1.2254	Pass
20	138	5191.2265	-1.2265	Pass
	120	5191.2277	-1.2277	Pass
	102	5191.2255	-1.2255	Pass

Test mode:	802.11ac40	Frequency(MHz):	5230
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5232.1081	-2.1081	Pass
25		5232.1074	-2.1074	Pass
15		5232.1089	-2.1089	Pass
5		5232.1088	-2.1088	Pass
0		5232.1083	-2.1083	Pass
20	138	5232.1083	-2.1083	Pass
	120	5232.1090	-2.1090	Pass
	102	5232.1087	-2.1087	Pass



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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5756.3175	-1.3175	Pass
25		5756.3165	-1.3165	Pass
15		5756.3176	-1.3176	Pass
5		5756.3198	-1.3198	Pass
0		5756.3176	-1.3176	Pass
20	138	5756.3188	-1.3188	Pass
	120	5756.3167	-1.3167	Pass
	102	5756.3188	-1.3188	Pass

Test mode:	802.11ac40	Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5795.9013	-0.9013	Pass
25		5795.9021	-0.9021	Pass
15		5795.9016	-0.9016	Pass
5		5795.9018	-0.9018	Pass
0		5795.9025	-0.9025	Pass
20	138	5795.9054	-0.9054	Pass
	120	5795.9011	-0.9011	Pass
	102	5795.9014	-0.9014	Pass



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Test mode:	802.11ac80	Frequency(MHz):	5210
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5210.2100	-0.2100	Pass
25		5210.2113	-0.2113	Pass
15		5210.2132	-0.2132	Pass
5		5210.2143	-0.2143	Pass
0		5210.2132	-0.2132	Pass
20		5210.2123	-0.2123	Pass
	120	5210.2111	-0.2111	Pass
	102	5210.2114	-0.2114	Pass

Test mode:	802.11ac80	Frequency(MHz):	5775
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Temperature ( °C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(kHz)	Result
35	120	5775.9013	-0.9013	Pass
25		5775.9021	-0.9021	Pass
15		5775.9016	-0.9016	Pass
5		5775.9018	-0.9018	Pass
0		5775.9025	-0.9025	Pass
20		5775.9054	-0.9054	Pass
	120	5775.9011	-0.9011	Pass
	102	5775.9014	-0.9014	Pass