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Report No.: SZEM180700671004
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TEST REPORT

Application No.: SZEM1807006710CR
Applicant: Xiamen Huoshiquan Import & Export CO., LTD
Address of Applicant: Room 703, No. 813-2 Xiahe Road, Siming District, XIAMEN China
Equipment Under Test (EUT):
EUT Name: RC quadcopter
Model No.: HS700, HS700D, HS700G, HS710, HS165, HS165G, HS165G, HS120D, HS120G, HS130D, HS130G, HS500, HS600, HS800, HS900, HS510, HS610, HS810, HS910, HS550, HS650, HS760, HS770, HS880, HS660, HS9001, CD200D, CD600, HS500G, HS600G, HS800G, HS900G, HS510G, HS550G, HS610G, HS650G, HS660G, HS760G, HS770G, HS880G, HS910G, HS500D, HS600D, HS800D, HS900D, HS510D, HS610D, HS810D, HS910D, HS650D, HS660D, HS760D, HS770D, HS880D, HS410, HS510, HS175, HS176, HS320, HS330 ♣

♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

FCC ID: 2AJ55HOLYSTONEJX
Standard(s) : 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2018-07-26
Date of Test: 2018-07-26 to 2018-09-04
Date of Issue: 2018-09-12

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Keny Xu
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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<i>Revision Record</i>				
<i>Version</i>	<i>Chapter</i>	<i>Date</i>	<i>Modifier</i>	<i>Remark</i>
01		2018-09-12		Original

Authorized for issue by:			
			
	<hr/>		
	Bill Chen /Project Engineer		
			
	<hr/>		
	Eric Fu /Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.407 (c)	Pass

N/A: Not applicable

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Duty Cycle	47 CFR Part 15, Subpart E 15.407	KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 II D	N/A	Pass
26dB Emission bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 1	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Maximum Conducted output power	47 CFR Part 15, Subpart E 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 E 15.407	KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Radiated Emissions	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart E 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 E 15.407	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass

N/A: Not applicable

Declaration of EUT Family Grouping:

Model No.: HS700, HS700D, HS700G, HS710, HS165, HS165G, HS165G, HS120D, HS120G, HS130D, HS130G, HS500, HS600, HS800, HS900, HS510, HS610, HS810, HS910, HS550, HS650, HS760, HS770, HS880, HS660, HS9001, CD200D, CD600, HS500G, HS600G, HS800G, HS900G, HS510G, HS550G, HS610G, HS650G, HS660G, HS760G, HS770G, HS880G, HS910G, HS500D, HS600D, HS800D, HS900D, HS510D, HS610D, HS810D, HS910D, HS650D, HS660D, HS760D, HS770D, HS880D, HS410, HS510, HS175, HS176, HS320, HS330

Only the model HS700 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only the colour, appearance, package and assort is different.



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 7.4V			
Frequency Range:	UNII Band III	IEEE 802.11a	5745-5825	5
		IEEE 802.11n 20MHz	5745-5825	5
Data Modulation:	For 802.11a: OFDM(BPSK/QPSK/16QAM/64QAM) For 802.11n: OFDM(8PSK/QPSK/16QAM/64QAM)			
Antenna Type	Monopole			
Antenna Gain	Antenna 1: 2dBi Antenna 2: 2dBi Two antennas can not simultaneous transmission.			

Using test software was control EUT work in continuous transmitter and receiver mode. And select test channel as below:

For 20MHz bandwidth:

Channel	Frequency
The lowest channel	5745MHz
The middle channel	5785MHz
The highest channel	5825MHz

4.2 Description of Support Units

Description	Manufacturer	Model No.
Plane	Xiamen Huoshiquan Import & Export CO., LTD	HS700

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.75\text{dB}$
5	RF power density	$\pm 2.84\text{dB}$
6	Conducted Spurious emissions	$\pm 0.75\text{dB}$
7	RF Radiated power	$\pm 4.5\text{dB}$ (below 1GHz)
		$\pm 4.8\text{dB}$ (above 1GHz)
8	Radiated Spurious emission test	$\pm 4.5\text{dB}$ (Below 1GHz)
		$\pm 4.8\text{dB}$ (Above 1GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Supply voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$



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 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **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

Unwanted emissions in the spurious domain					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2018-07-12	2019-07-11
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2017-09-27	2018-09-26
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2017-09-27	2018-09-27
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2018-04-02	2019-04-01
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A

RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
DC Power Supply	ZhaoXin	PS-3005D	SEM011-05	2017-09-27	2018-09-26
Spectrum Analyzer (20Hz-43GHz)	Rohde & Schwarz	FSU43	SEM004-08	2018-04-13	2019-04-12
Signal Generator (9kHz-40GHz)	KEYSIGHT	N5173B	SEM006-05	2017-09-27	2018-09-26
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.6	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2018-07-12	2019-07-11
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A



Spurious Emission					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2018-07-12	2019-07-11
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2017-09-27	2018-09-26
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2017-09-27	2018-09-27
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2018-04-02	2019-04-01
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A

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	ETS-LINDGREN	N/A	SEM001-01	2017-08-05	2020-08-04
MXE EMI Receiver (20Hz-8.4GHz)	Agilent Technologies	N9038A	SEM004-05	2018-09-25	2019-09-24
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2017-06-27	2020-06-26
Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2018-04-02	2019-04-01
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2018-07-12	2019-07-11

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date



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Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2017-09-29	2018-09-28
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2018-04-08	2019-04-07

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

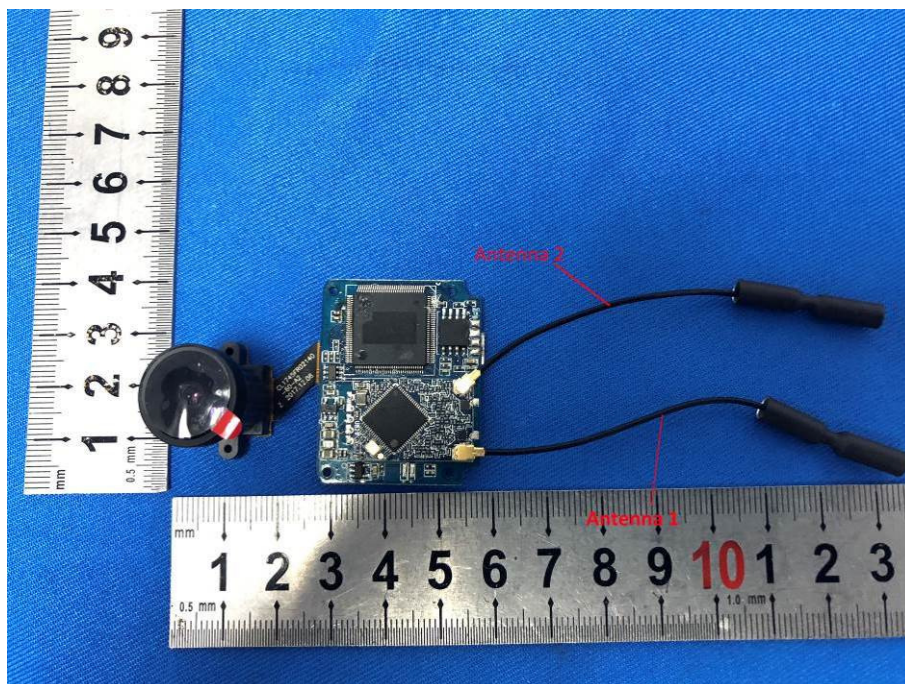
47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an 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 Antenna:



The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is Antenna 1: 2dBi and Antenna 2: 2dBi.



6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart C 15.407 (c)

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip (AR1021X) support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

7 Radio Spectrum Matter Test Results

7.1 Duty Cycle

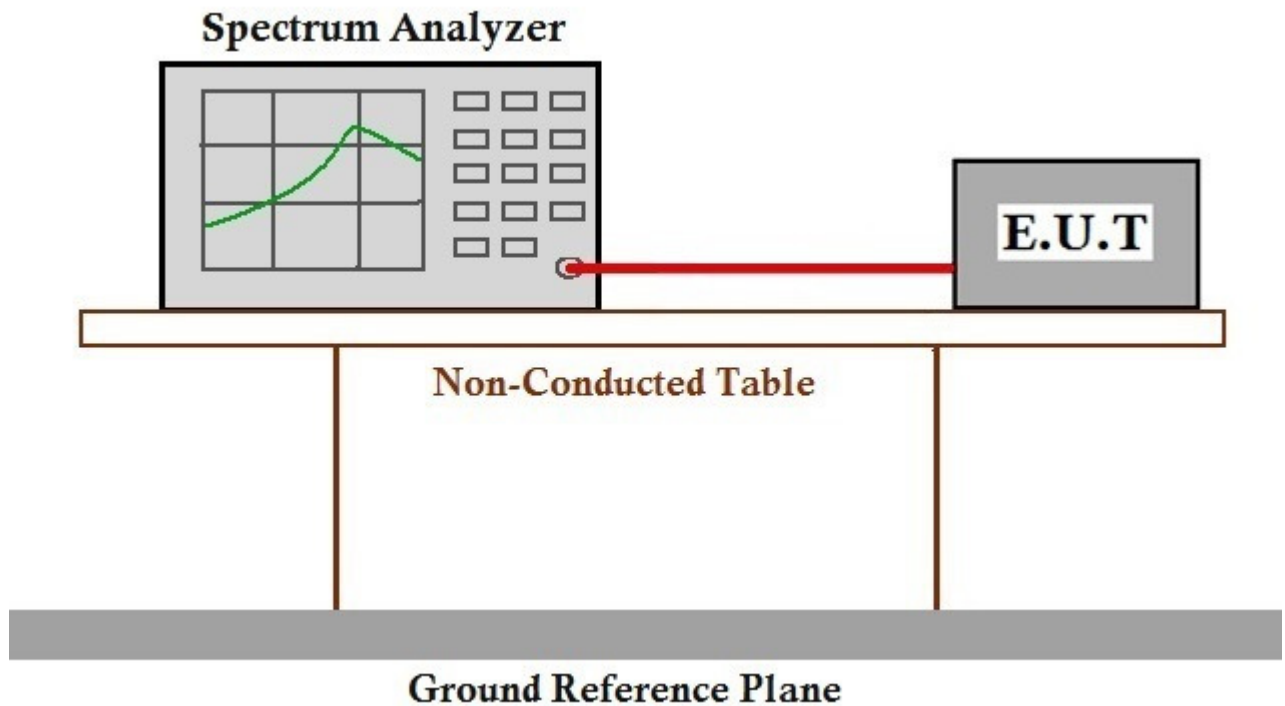
Test Requirement KDB 789033 D02 II B 1
 Test Method: KDB 789033 II B 1

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
 Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.1.2 Test Setup Diagram



7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407

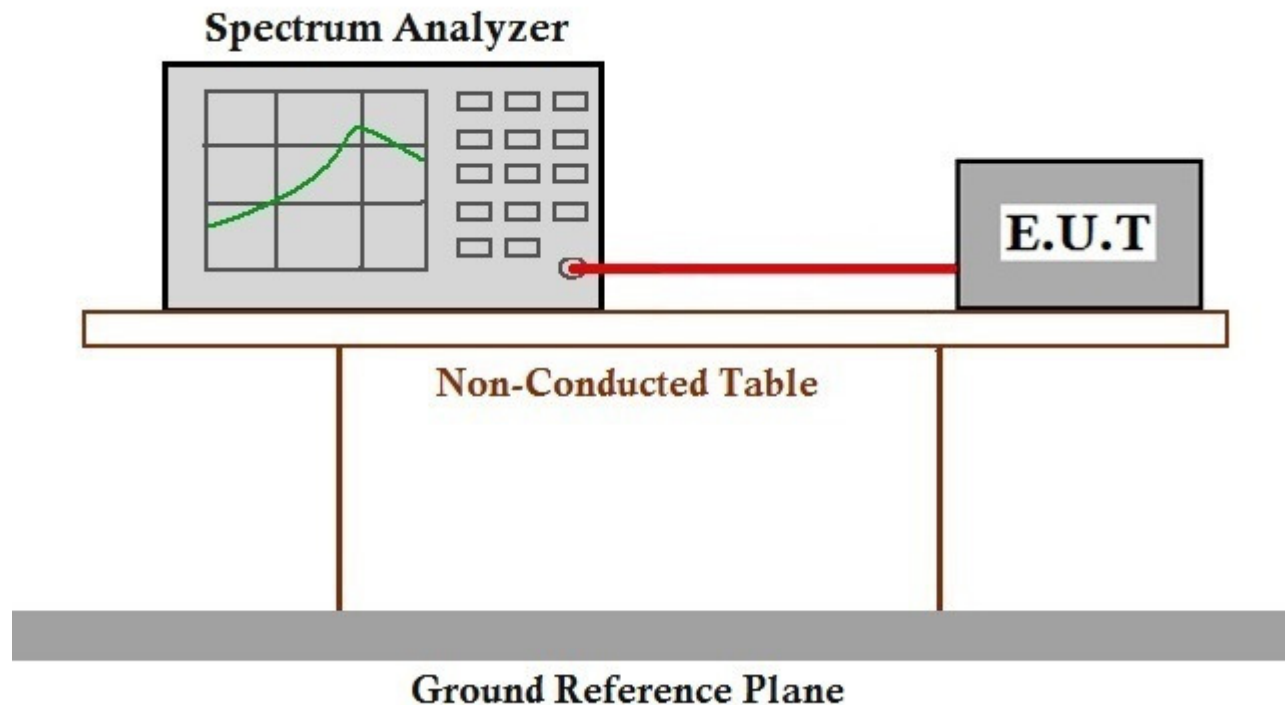
7.2 99% Bandwidth

Test Requirement N/A
Test Method: KDB 789033 II D

7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.2.2 Test Setup Diagram



7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407

7.3 26dB Emission bandwidth

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

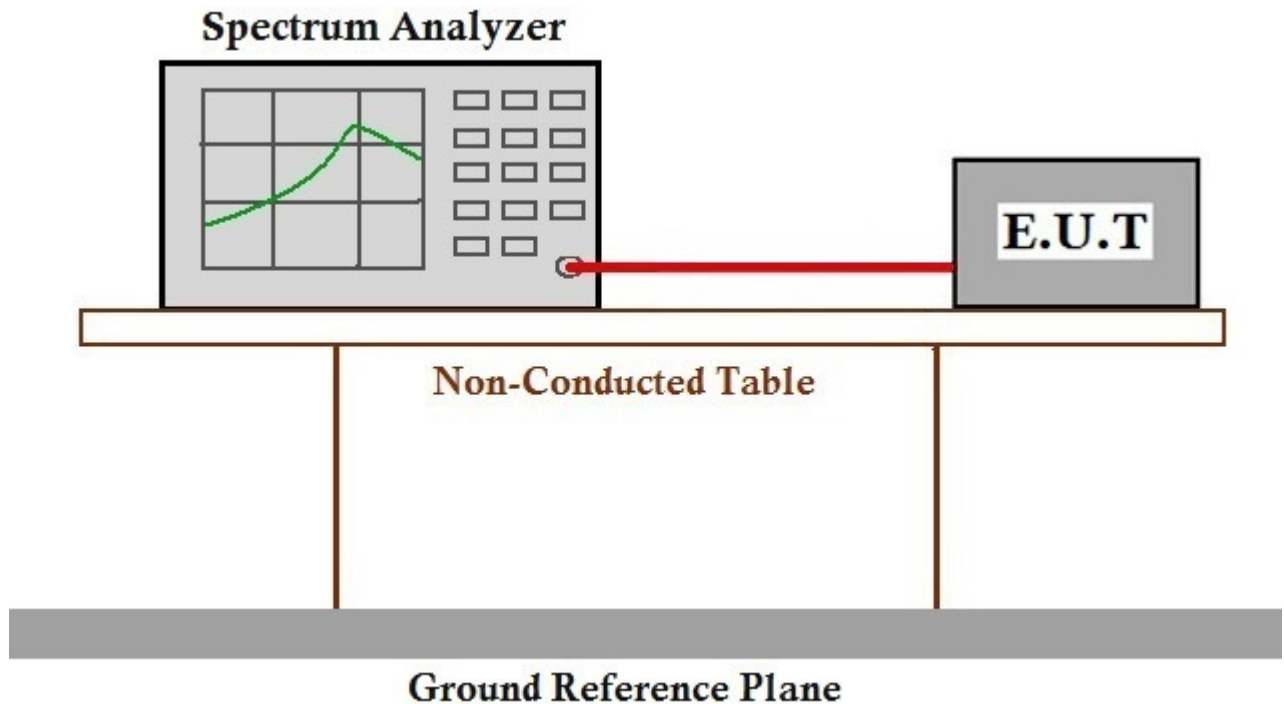
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar

Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.3.2 Test Setup Diagram



7.3.3 Measurement Procedure and 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:

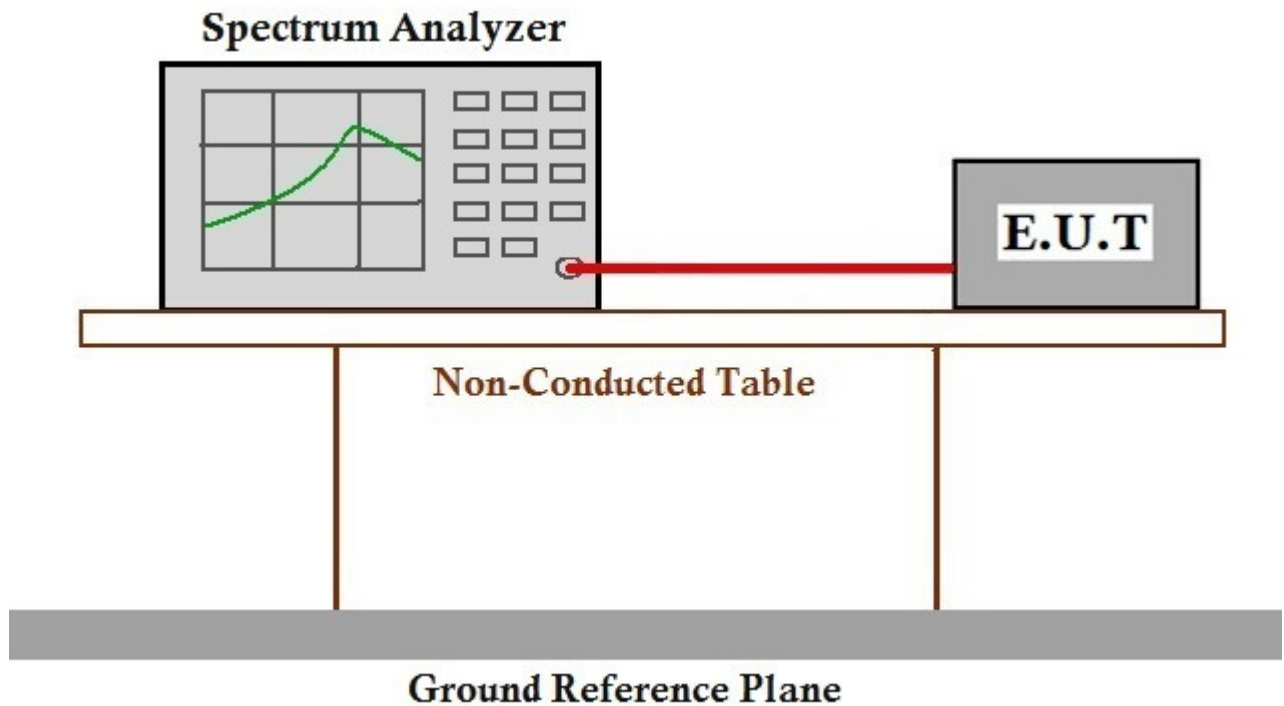
Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
 Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.4.2 Test Setup Diagram



7.4.3 Measurement Procedure and 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:

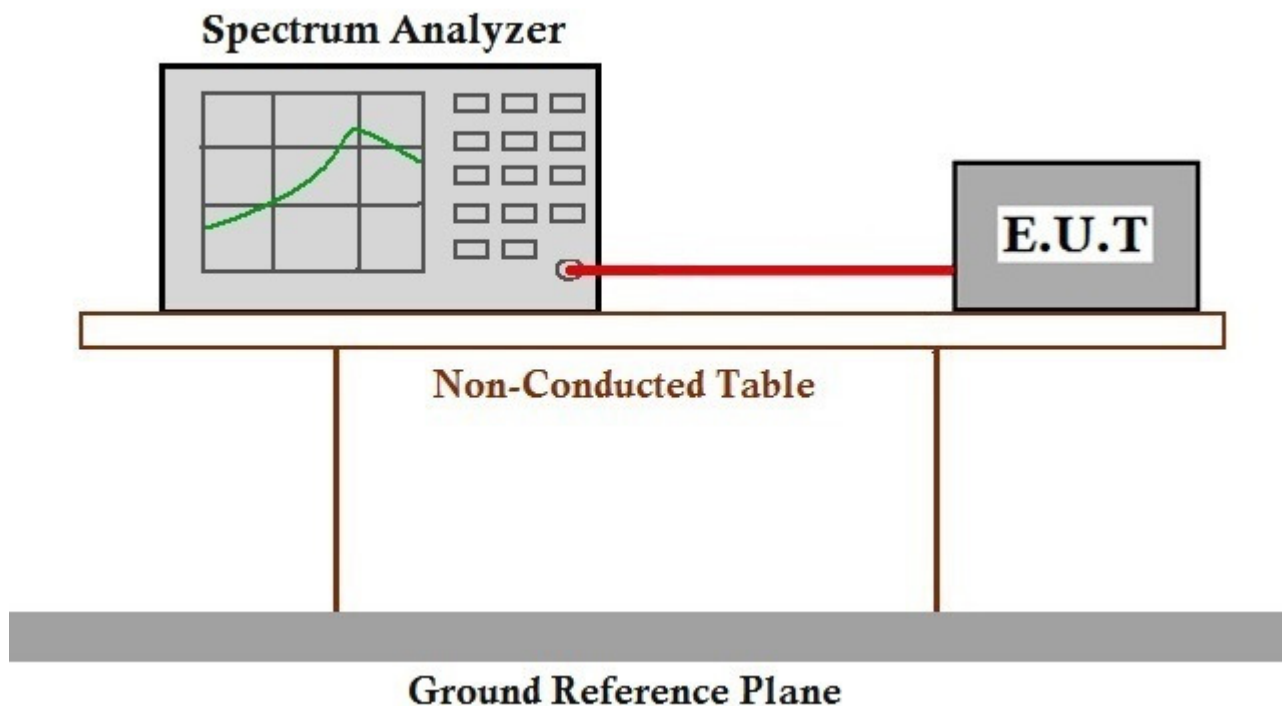
Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
 Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.5.2 Test Setup Diagram



7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.407

7.6 Radiated Emissions

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

Test Method: KDB 789033 D02 II G

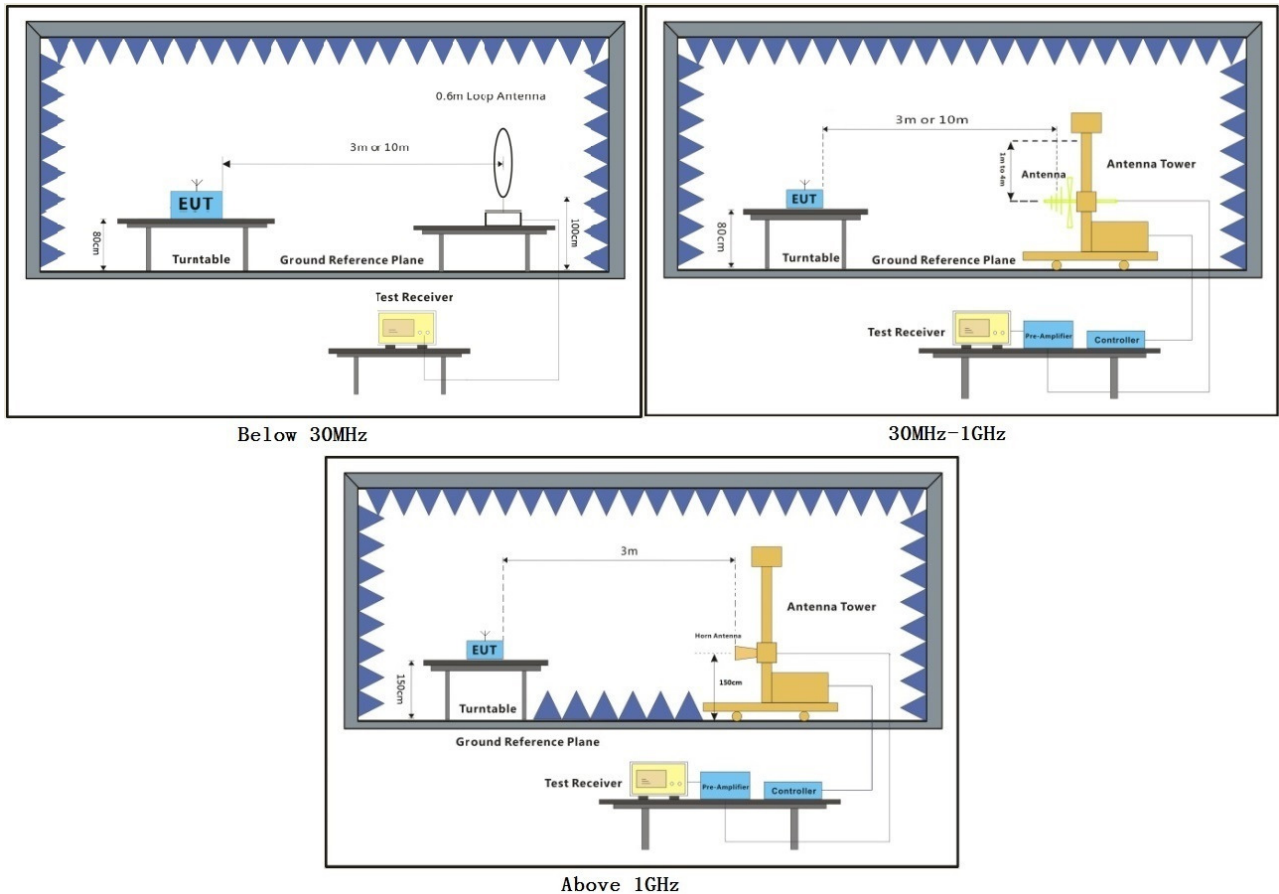
7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar

Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.6.2 Test Setup Diagram



7.6.3 Measurement Procedure and 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.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 40GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
4. 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. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

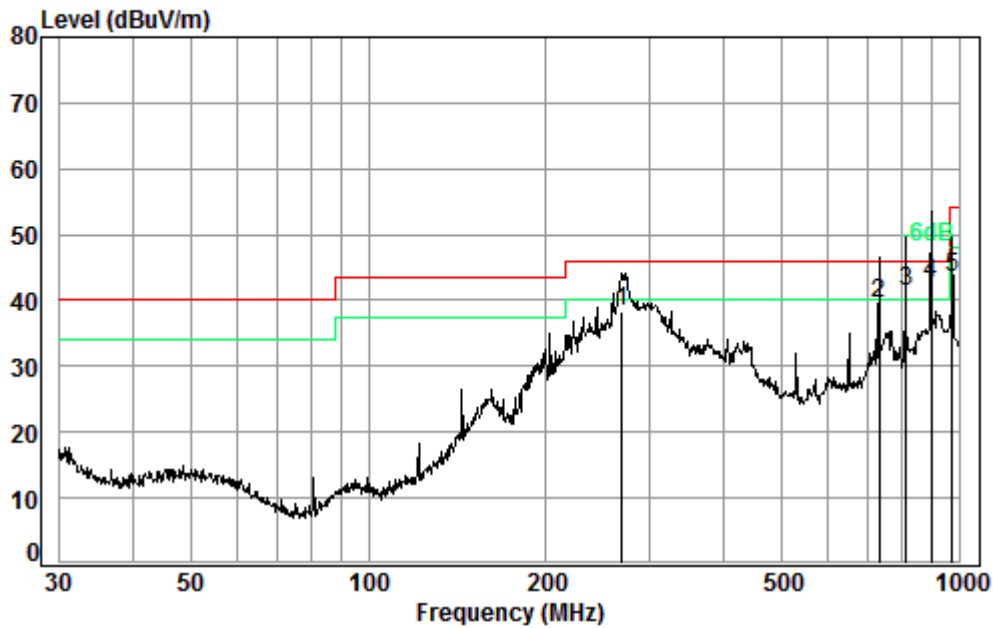


Pretest the EUT at antenna 1 and antenna 2 and found the antenna 2 which is worst case, So, Only the antenna 1 test data is recorded in the report.

30MHz~1GHz

Detector:QP

Mode: e; Polarization: Horizontal



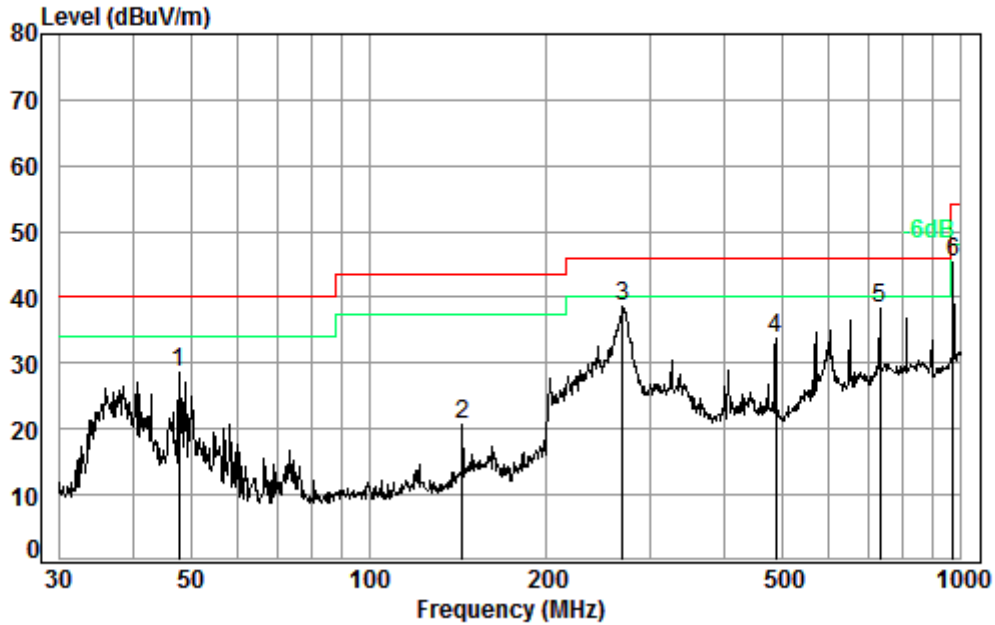
Condition: 3m HORIZONTAL

Job No. : 06710CR

Mode : e

	Freq	Cable Loss	Ant Factor	Preamplifier	Read Level	Limit Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	268.49	1.76	18.97	27.54	45.04	38.23	46.00	-7.77
2	729.36	2.99	28.08	27.51	36.12	39.68	46.00	-6.32
3	810.27	3.25	28.64	27.38	36.99	41.50	46.00	-4.50
4 pp	893.86	3.58	29.72	27.10	36.30	42.50	46.00	-3.50
5	972.34	3.67	30.17	26.85	36.60	43.59	54.00	-10.41

Mode: e; Polarization: Vertical



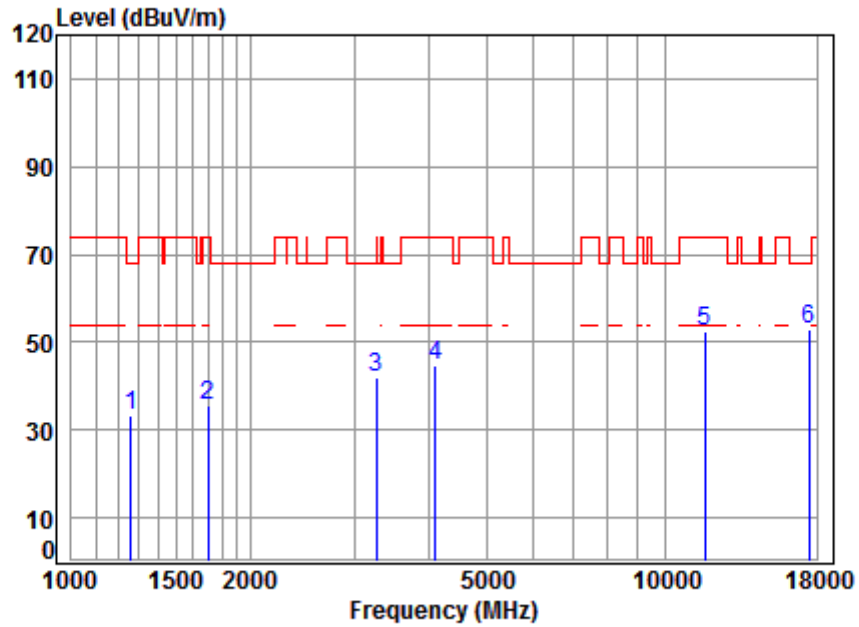
Condition: 3m VERTICAL
 Job No. : 06710CR
 Mode : e

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dB
1	47.83	0.76	14.86	27.61	40.56	28.57	40.00 -11.43
2	143.83	1.31	14.06	27.52	32.85	20.70	43.50 -22.80
3 pp	268.49	1.76	18.97	27.54	45.51	38.70	46.00 -7.30
4	487.32	2.56	24.35	27.86	34.71	33.76	46.00 -12.24
5	729.36	2.99	28.08	27.51	34.71	38.27	46.00 -7.73
6	972.34	3.67	30.17	26.85	38.45	45.44	54.00 -8.56



Above 1GHz

Mode:e; Polarization:Horizontal; Channel:High

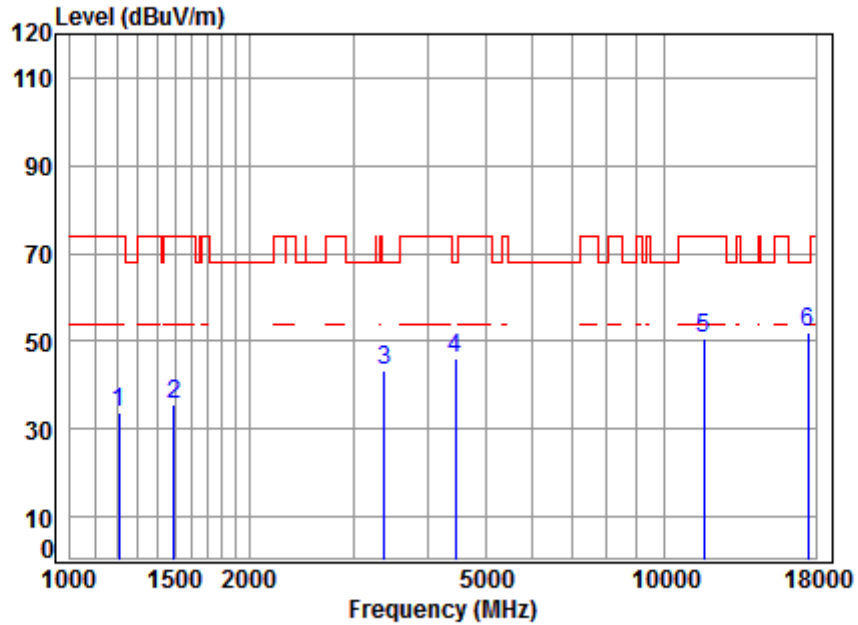


Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5825 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1260.149	4.65	24.77	41.23	45.02	33.21	68.20	-34.99	peak
2	1702.042	5.23	26.68	41.53	45.20	35.58	74.00	-38.42	peak
3	3261.418	6.24	31.79	42.17	46.32	42.18	74.00	-31.82	peak
4	4109.872	7.11	33.60	42.35	46.52	44.88	74.00	-29.12	peak
5	11650.000	12.20	38.25	38.29	40.34	52.50	74.00	-21.50	peak
6	pp17475.000	15.65	43.37	40.68	34.44	52.78	68.20	-15.42	peak



Mode:e; Polarization:Vertical; Channel:High

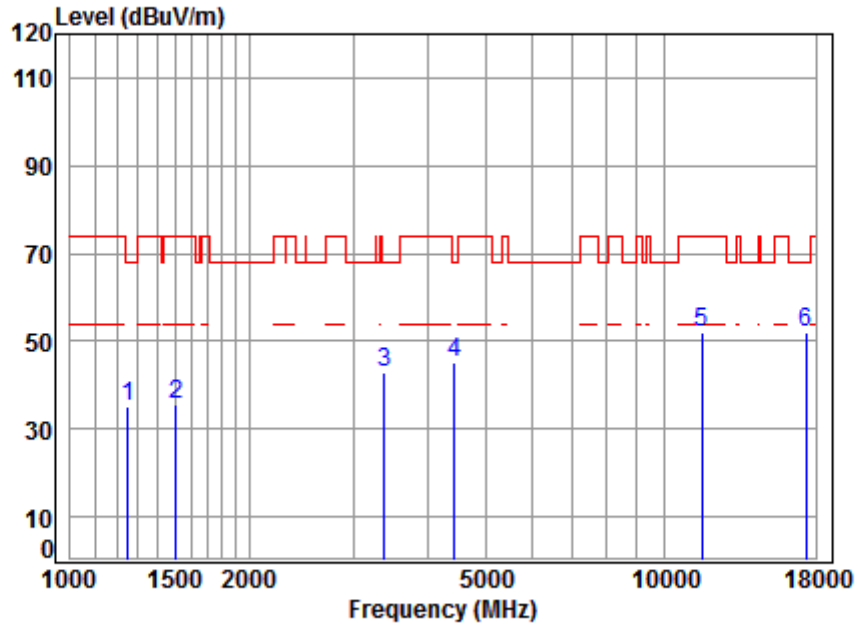


Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5825 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1206.682	4.44	24.51	41.19	46.19	33.95	74.00	-40.05 peak
2	1494.455	5.46	25.78	41.40	45.74	35.58	74.00	-38.42 peak
3	3386.297	6.36	32.01	42.19	47.16	43.34	68.20	-24.86 peak
4	4456.315	7.51	33.60	42.41	47.55	46.25	68.20	-21.95 peak
5	11650.000	12.20	38.25	38.29	38.56	50.72	74.00	-23.28 peak
6	pp17475.000	15.65	43.37	40.68	33.75	52.09	68.20	-16.11 peak



Mode:e; Polarization:Horizontal; Channel:middle

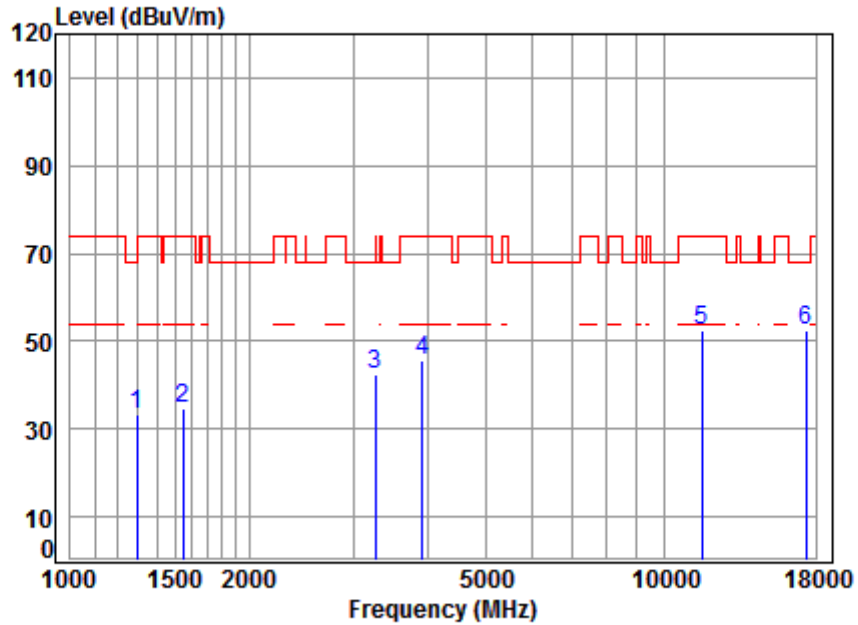


Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5785 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1249.269	4.61	24.72	41.22	46.85	34.96	68.20	-33.24 peak
2	1507.470	5.47	25.83	41.41	45.54	35.43	74.00	-38.57 peak
3	3376.523	6.35	31.99	42.19	46.67	42.82	68.20	-25.38 peak
4	4443.453	7.50	33.60	42.41	46.61	45.30	68.20	-22.90 peak
5	11570.000	12.17	38.17	38.24	39.92	52.02	74.00	-21.98 peak
6	pp17355.000	15.92	43.23	40.58	33.65	52.22	68.20	-15.98 peak



Mode:e; Polarization:Vertical; Channel:middle

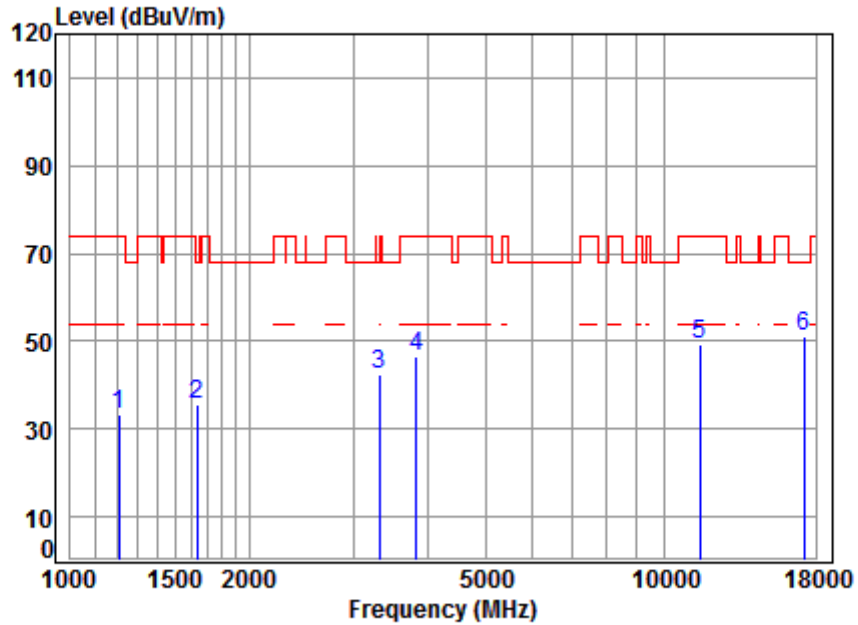


Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5785 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1297.103	4.79	24.94	41.26	44.99	33.46	68.20	-34.74 peak
2	1547.199	5.42	26.02	41.44	44.90	34.90	74.00	-39.10 peak
3	3261.418	6.24	31.79	42.17	46.76	42.62	74.00	-31.38 peak
4	3912.809	6.89	33.37	42.31	47.75	45.70	74.00	-28.30 peak
5	11570.000	12.17	38.17	38.24	40.33	52.43	74.00	-21.57 peak
6	pp17355.000	15.92	43.23	40.58	33.79	52.36	68.20	-15.84 peak



Mode:e; Polarization:Horizontal; Channel:Low

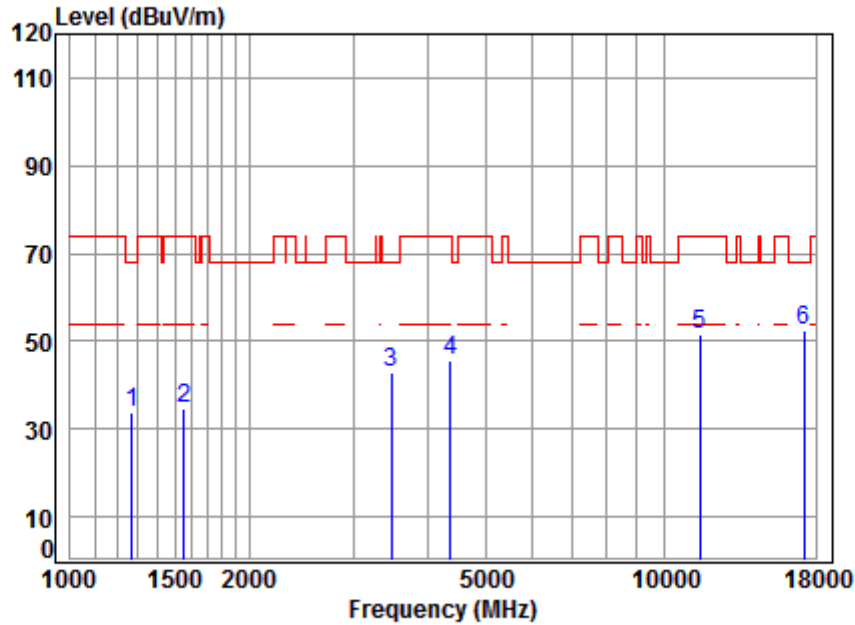


Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5745 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1206.682	4.44	24.51	41.19	45.62	33.38	74.00	-40.62 peak
2	1634.543	5.31	26.40	41.49	45.25	35.47	68.20	-32.73 peak
3	3318.471	6.29	31.89	42.18	46.64	42.64	68.20	-25.56 peak
4	3823.371	6.80	33.13	42.29	48.74	46.38	74.00	-27.62 peak
5	11490.000	12.13	38.09	38.19	37.22	49.25	74.00	-24.75 peak
6	pp17235.000	16.18	43.08	40.48	32.36	51.14	68.20	-17.06 peak



Mode:e; Polarization:Vertical; Channel:Low

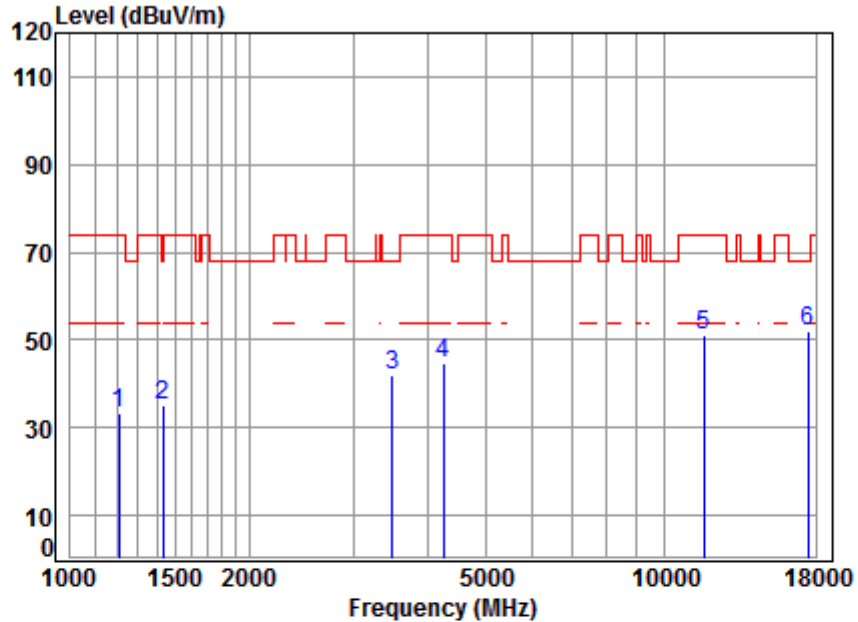


Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5745 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1271.123	4.69	24.82	41.24	45.56	33.83	68.20	-34.37	peak
2	1556.169	5.41	26.06	41.44	44.81	34.84	74.00	-39.16	peak
3	3475.541	6.44	32.16	42.22	46.52	42.90	68.20	-25.30	peak
4	4367.058	7.41	33.60	42.39	46.99	45.61	74.00	-28.39	peak
5	11490.000	12.13	38.09	38.19	39.69	51.72	74.00	-22.28	peak
6	pp17235.000	16.18	43.08	40.48	33.71	52.49	68.20	-15.71	peak



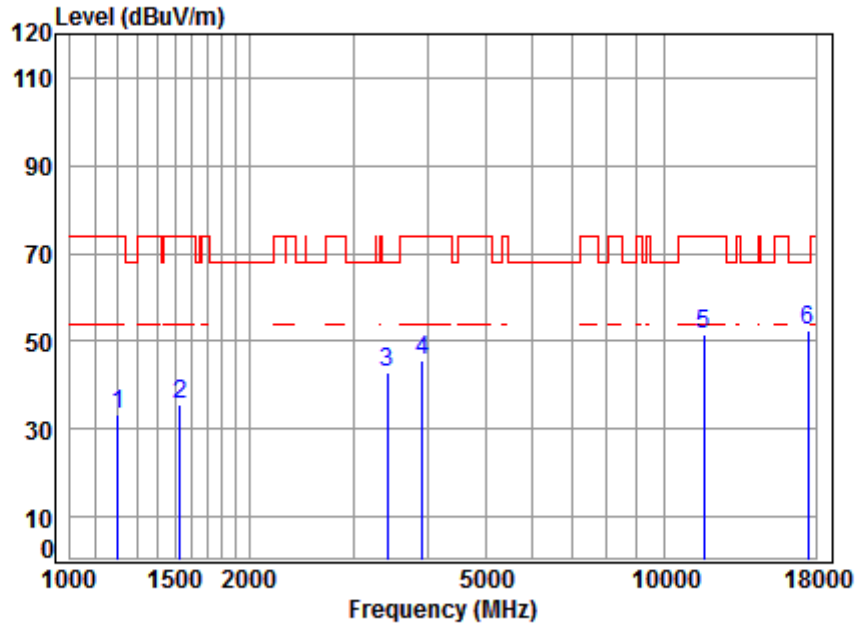
Mode:e; Polarization:Horizontal; Channel:High



Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5825 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1206.682	4.44	24.51	41.19	45.44	33.20	74.00	-40.80 peak
2	1435.189	5.27	25.54	41.36	45.77	35.22	74.00	-38.78 peak
3	3485.601	6.45	32.18	42.22	45.73	42.14	68.20	-26.06 peak
4	4254.921	7.28	33.60	42.37	46.38	44.89	74.00	-29.11 peak
5	11650.000	12.20	38.25	38.29	39.03	51.19	74.00	-22.81 peak
6	pp17475.000	15.65	43.37	40.68	33.63	51.97	68.20	-16.23 peak

Mode:e; Polarization:Vertical; Channel:High

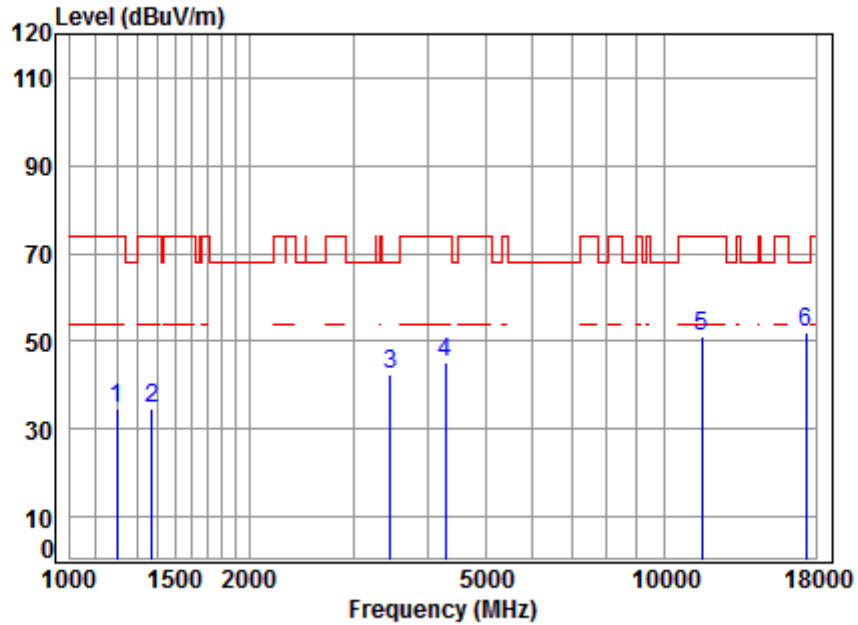


Condition: 3m VERTICAL
 Job No : 06710CR
 Mode : 5825 TX RSE
 Note : 5G WIFI 11N20

	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	1203.199	4.43	24.49	41.19	45.65	33.38	74.00	-40.62	peak
2	1529.414	5.44	25.94	41.43	45.49	35.44	74.00	-38.56	peak
3	3415.787	6.38	32.06	42.20	46.62	42.86	68.20	-25.34	peak
4	3924.135	6.91	33.40	42.31	47.46	45.46	74.00	-28.54	peak
5	11650.000	12.20	38.25	38.29	39.23	51.39	74.00	-22.61	peak
6	pp17475.000	15.65	43.37	40.68	34.11	52.45	68.20	-15.75	peak



Mode:e; Polarization:Horizontal; Channel:middle

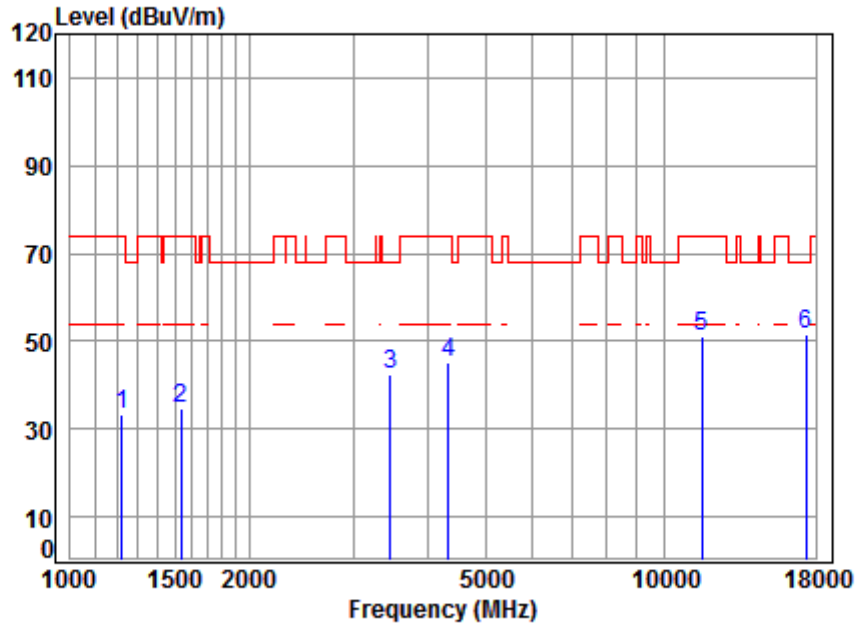


Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1199.726	4.42	24.48	41.18	47.17	34.89	74.00	-39.11 peak
2	1370.328	5.05	25.26	41.32	45.78	34.77	74.00	-39.23 peak
3	3465.510	6.43	32.14	42.21	46.14	42.50	68.20	-25.70 peak
4	4279.589	7.31	33.60	42.38	46.76	45.29	74.00	-28.71 peak
5	11570.000	12.17	38.17	38.24	39.12	51.22	74.00	-22.78 peak
6	pp17355.000	15.92	43.23	40.58	33.27	51.84	68.20	-16.36 peak



Mode:e; Polarization:Vertical; Channel:middle

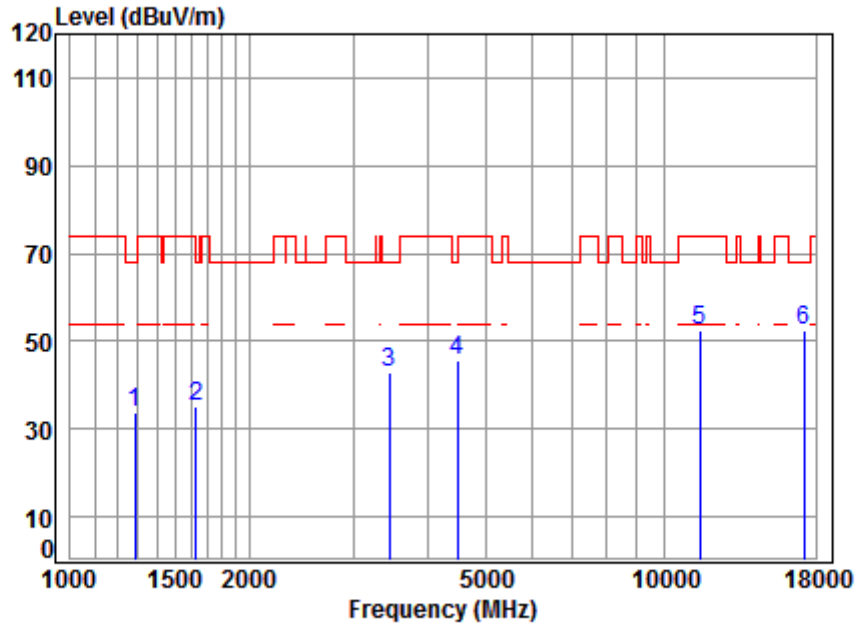


Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1224.247	4.51	24.60	41.20	45.21	33.12	74.00	-40.88 peak
2	1538.281	5.43	25.98	41.43	44.70	34.68	74.00	-39.32 peak
3	3465.510	6.43	32.14	42.21	45.85	42.21	68.20	-25.99 peak
4	4341.886	7.38	33.60	42.39	46.61	45.20	74.00	-28.80 peak
5	11570.000	12.17	38.17	38.24	38.85	50.95	74.00	-23.05 peak
6	pp17355.000	15.92	43.23	40.58	33.20	51.77	68.20	-16.43 peak



Mode:e; Polarization:Horizontal; Channel:Low

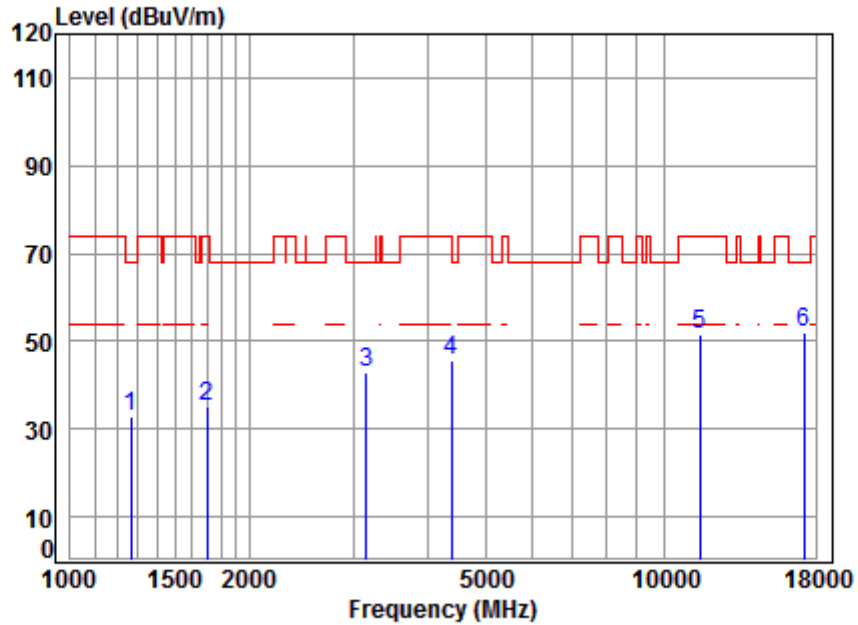


Condition: 3m HORIZONTAL
 Job No : 06710CR
 Mode : 5745 TX RSE
 Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	4.75	24.89	41.25	45.18	33.57	68.20	-34.63	peak
2	1629.825	5.31	26.38	41.49	44.75	34.95	68.20	-33.25	peak
3	3445.535	6.41	32.11	42.21	46.43	42.74	68.20	-25.46	peak
4	4482.150	7.54	33.60	42.41	46.99	45.72	68.20	-22.48	peak
5	11490.000	12.13	38.09	38.19	40.31	52.34	74.00	-21.66	peak
6	pp17235.000	16.18	43.08	40.48	33.81	52.59	68.20	-15.61	peak



Mode:e; Polarization:Vertical; Channel:Low



Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5745 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	4.68	24.80	41.24	44.67	32.91	68.20	-35.29	peak
2	1702.042	5.23	26.68	41.53	44.95	35.33	74.00	-38.67	peak
3	3150.237	6.13	31.59	42.14	47.43	43.01	68.20	-25.19	peak
4	4379.699	7.43	33.60	42.40	47.18	45.81	74.00	-28.19	peak
5	11490.000	12.13	38.09	38.19	39.46	51.49	74.00	-22.51	peak
6	pp17235.000	16.18	43.08	40.48	33.37	52.15	68.20	-16.05	peak



7.7 Radiated Emissions which fall in the restricted bands

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

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/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

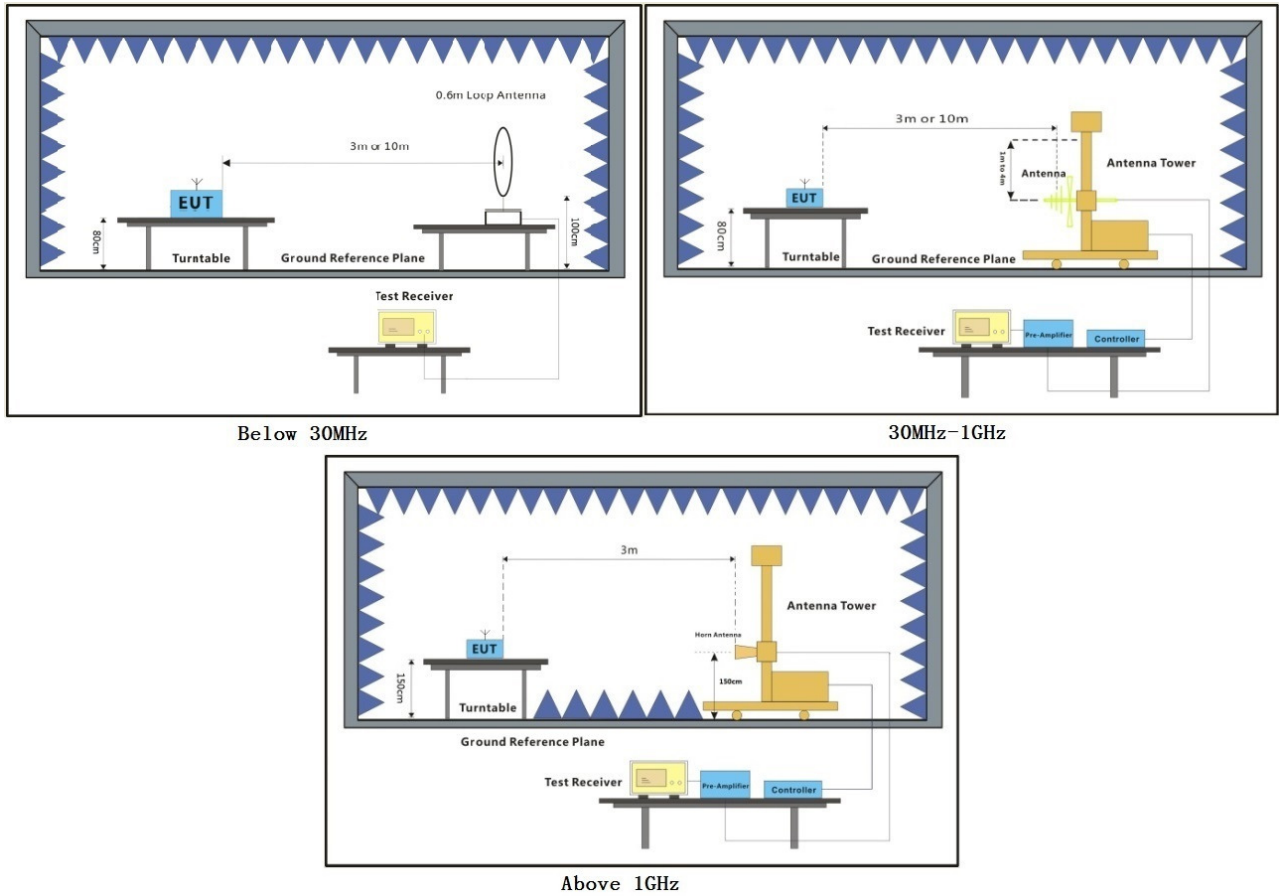
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
 Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.7.2 Test Setup Diagram





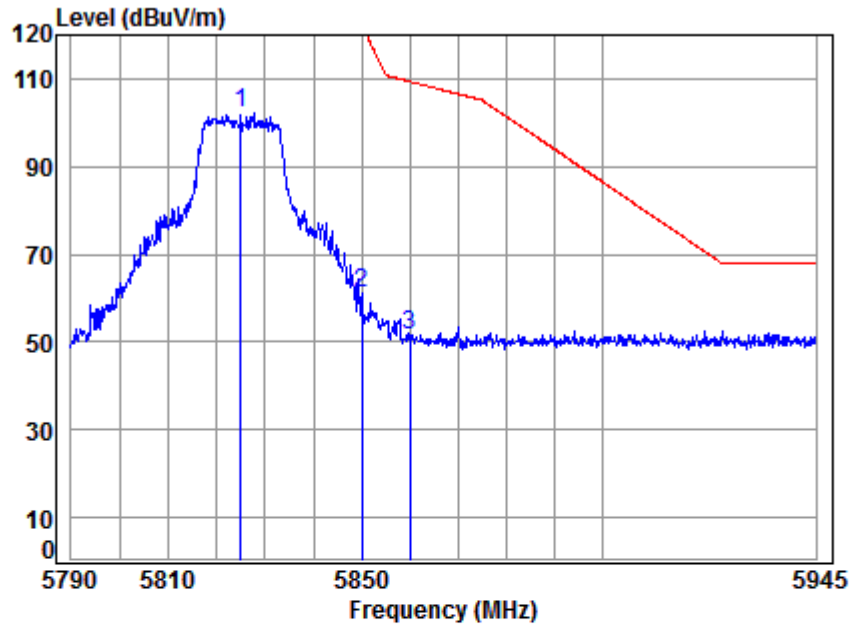
7.7.3 Measurement Procedure and Data

- 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.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Pretest the EUT at antenna 1 and antenna 2 and found the antenna 2 which is worst case, So, Only the antenna 1 test data is recorded in the report.

Mode:e; Polarization:Horizontal; Channel:High

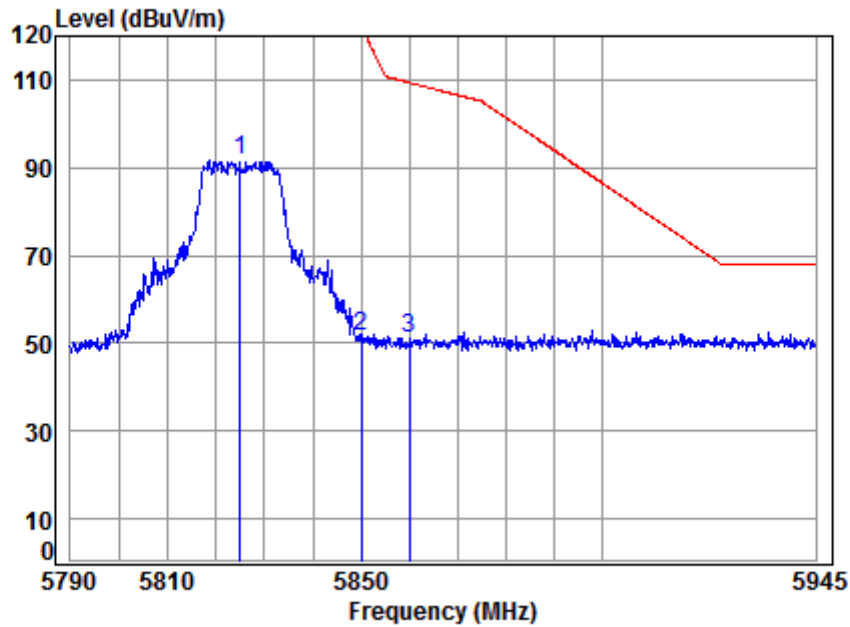


Condition: 3m HORIZONTAL
 Job No : 06710CR
 Mode : 5825 Band edge
 : 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	pp 5825.000	9.98	34.93	41.75	99.16	102.32	125.20	-22.88 peak
2	5850.000	10.07	34.95	41.73	57.85	61.14	122.20	-61.06 peak
3	5860.000	10.10	34.96	41.72	48.32	51.66	109.40	-57.74 peak



Mode:e; Polarization:Vertical; Channel:High

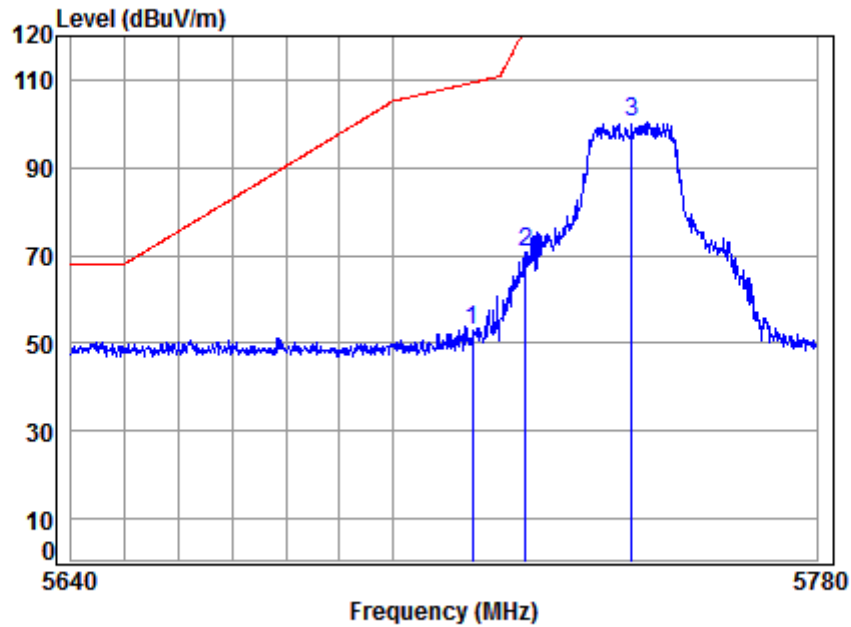


Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5825 Band edge
: 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	pp 5825.000	9.98	34.93	41.75	88.58	91.74	125.20	-33.46	peak
2	5850.000	10.07	34.95	41.73	48.17	51.46	122.20	-70.74	peak
3	5860.000	10.10	34.96	41.72	47.57	50.91	109.40	-58.49	peak



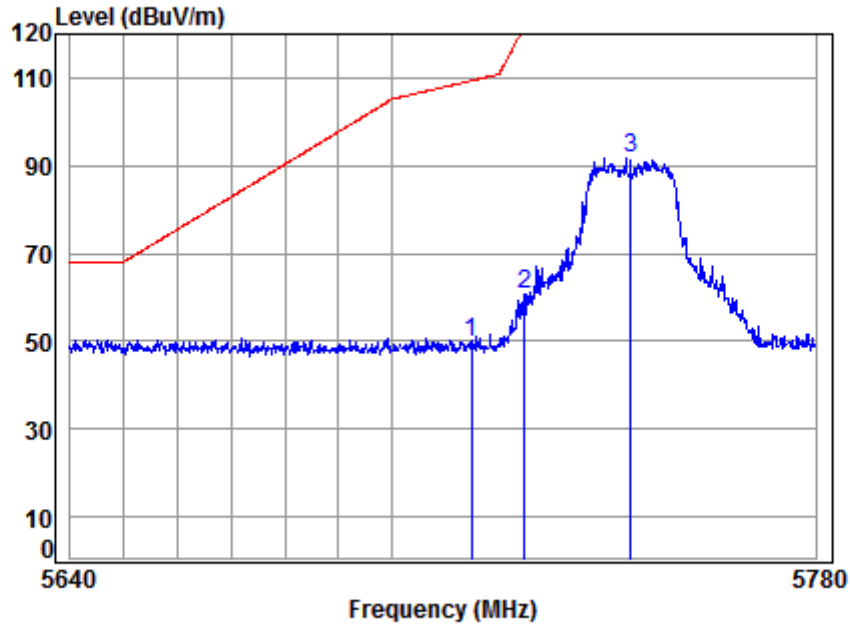
Mode:e; Polarization:Horizontal; Channel:Low



Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5745 Band edge
: 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5715.000	9.61	34.82	41.85	50.25	52.83	109.40	-56.57 peak
2	5725.000	9.64	34.83	41.84	68.25	70.88	122.20	-51.32 peak
3 pp	5745.000	9.71	34.85	41.82	97.43	100.17	125.20	-25.03 peak

Mode:e; Polarization:Vertical; Channel:Low

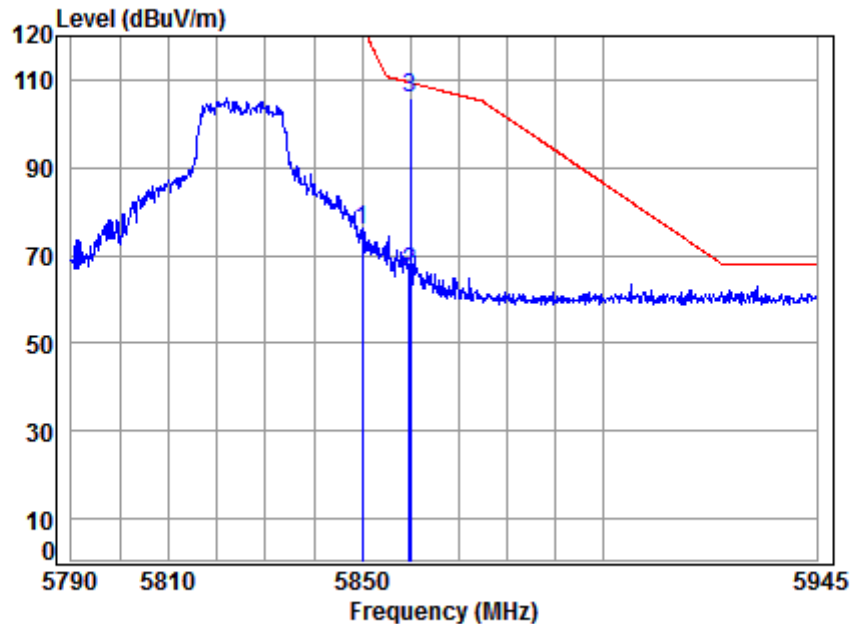


Condition: 3m VERTICAL
 Job No : 06710CR
 Mode : 5745 Band edge
 : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5715.000	9.61	34.82	41.85	47.35	49.93	109.40	-59.47 peak
2	5725.000	9.64	34.83	41.84	58.02	60.65	122.20	-61.55 peak
3 pp	5745.000	9.71	34.85	41.82	88.93	91.67	125.20	-33.53 peak



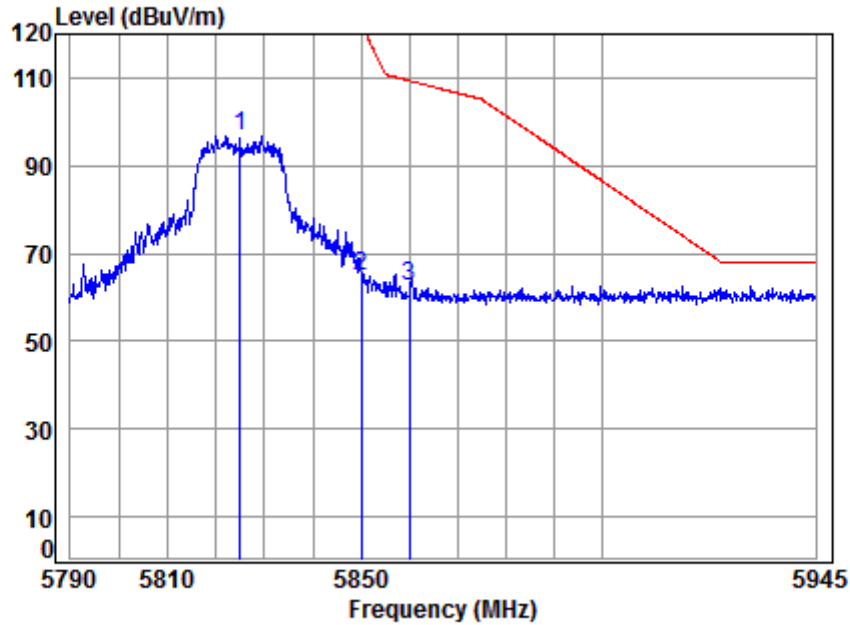
Mode:e; Polarization:Horizontal; Channel:High



Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5825 Band edge
: 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5850.000	10.07	34.95	41.73	72.43	75.72	122.20	-46.48	peak
2	5859.708	10.10	34.96	41.72	62.68	66.02	109.48	-43.46	Peak
3	pp 5860.000	10.10	34.96	41.72	102.52	105.86	109.40	-3.54	peak

Mode:e; Polarization:Vertical; Channel:High

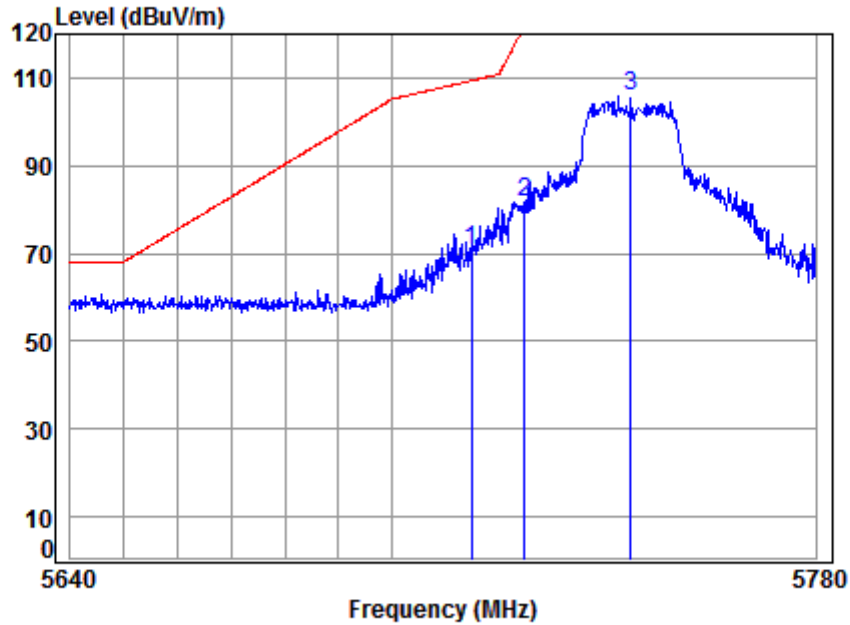


Condition: 3m VERTICAL
 Job No : 06710CR
 Mode : 5825 Band edge
 : 5G WIFI 11N20

		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 5825.000	9.98	34.93	41.75	93.79	96.95	125.20	-28.25	peak
2	5850.000	10.07	34.95	41.73	61.30	64.59	122.20	-57.61	peak
3	5860.000	10.10	34.96	41.72	59.33	62.67	109.40	-46.73	peak



Mode:e; Polarization:Horizontal; Channel:Low

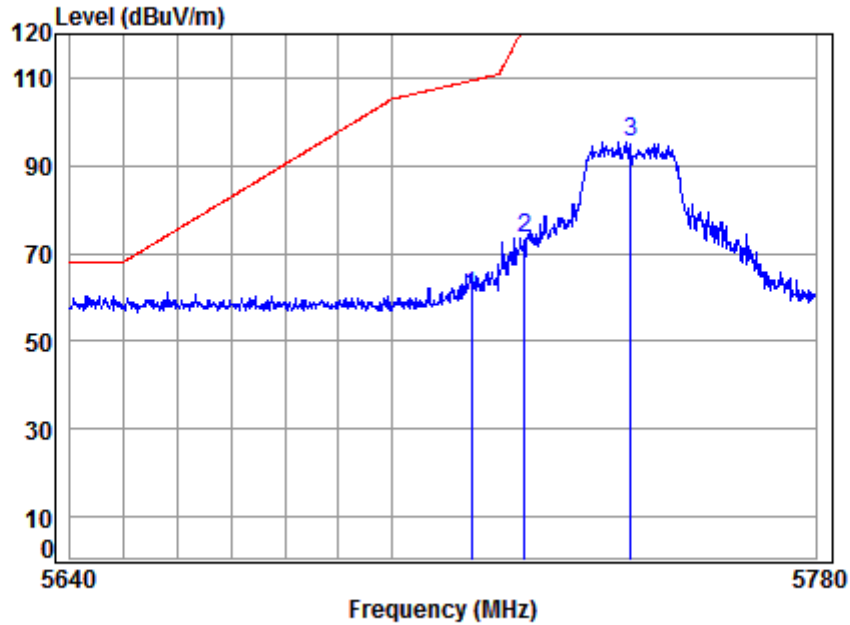


Condition: 3m HORIZONTAL
Job No : 06710CR
Mode : 5745 Band edge
: 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5715.000	9.61	34.82	41.85	68.08	70.66	109.40	-38.74	peak
2	5725.000	9.64	34.83	41.84	78.87	81.50	122.20	-40.70	peak
3 pp	5745.000	9.71	34.85	41.82	102.94	105.68	125.20	-19.52	peak



Mode:e; Polarization:Vertical; Channel:Low



Condition: 3m VERTICAL
Job No : 06710CR
Mode : 5745 Band edge
: 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5715.000	9.61	34.82	41.85	57.49	60.07	109.40	-49.33	peak
2	5725.000	9.64	34.83	41.84	70.78	73.41	122.20	-48.79	peak
3 pp	5745.000	9.71	34.85	41.82	92.73	95.47	125.20	-29.73	peak



7.8 Frequency Stability

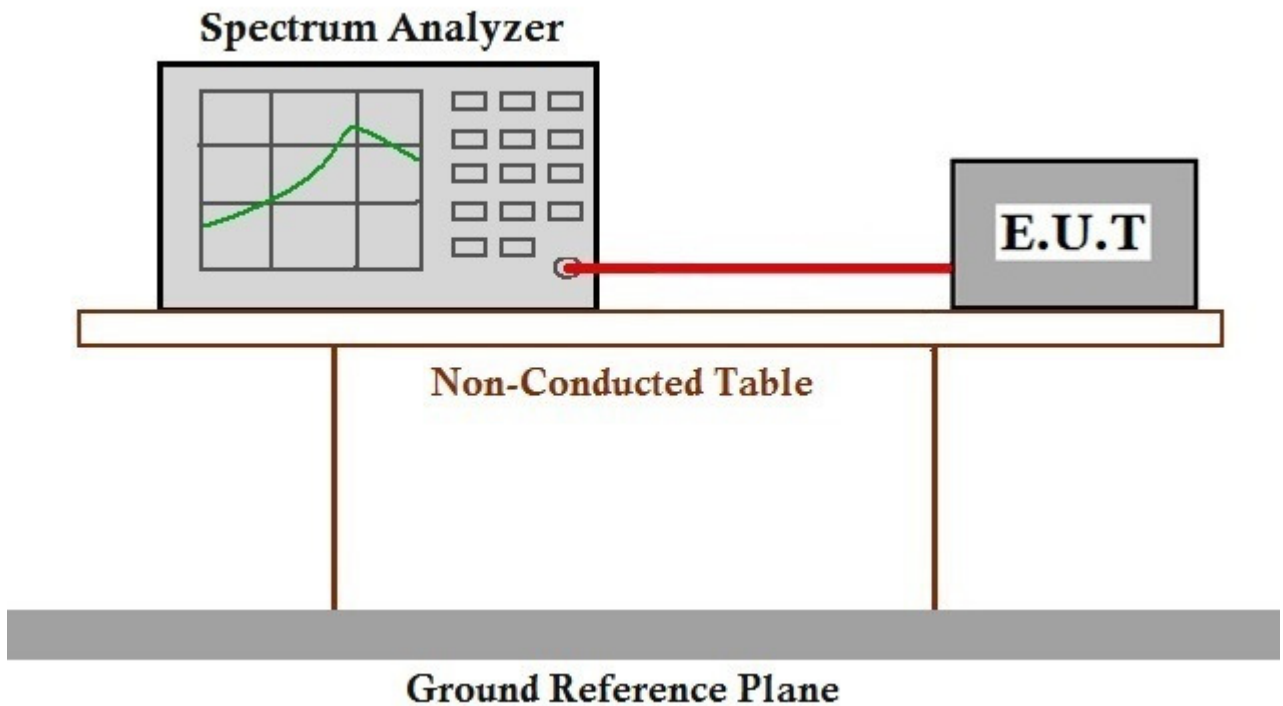
Test Requirement	47 CFR Part 15, Subpart C 15.407 (g)
Test Method:	ANSI C63.10 (2013) Section 6.8
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 44 % RH Atmospheric Pressure: 1010 mbar
 Test mode e:TX mode (UNII Band III)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); Only the data of worst case is recorded in the report.

7.8.2 Test Setup Diagram



7.8.3 Measurement Procedure and Data

The applicant declares that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user’s manual and meets Section 15.407(g) requirements.



8 Photographs

8.1 Test Setup

Refer to Setup Photos

8.2 EUT Constructional Details (EUT Photos)

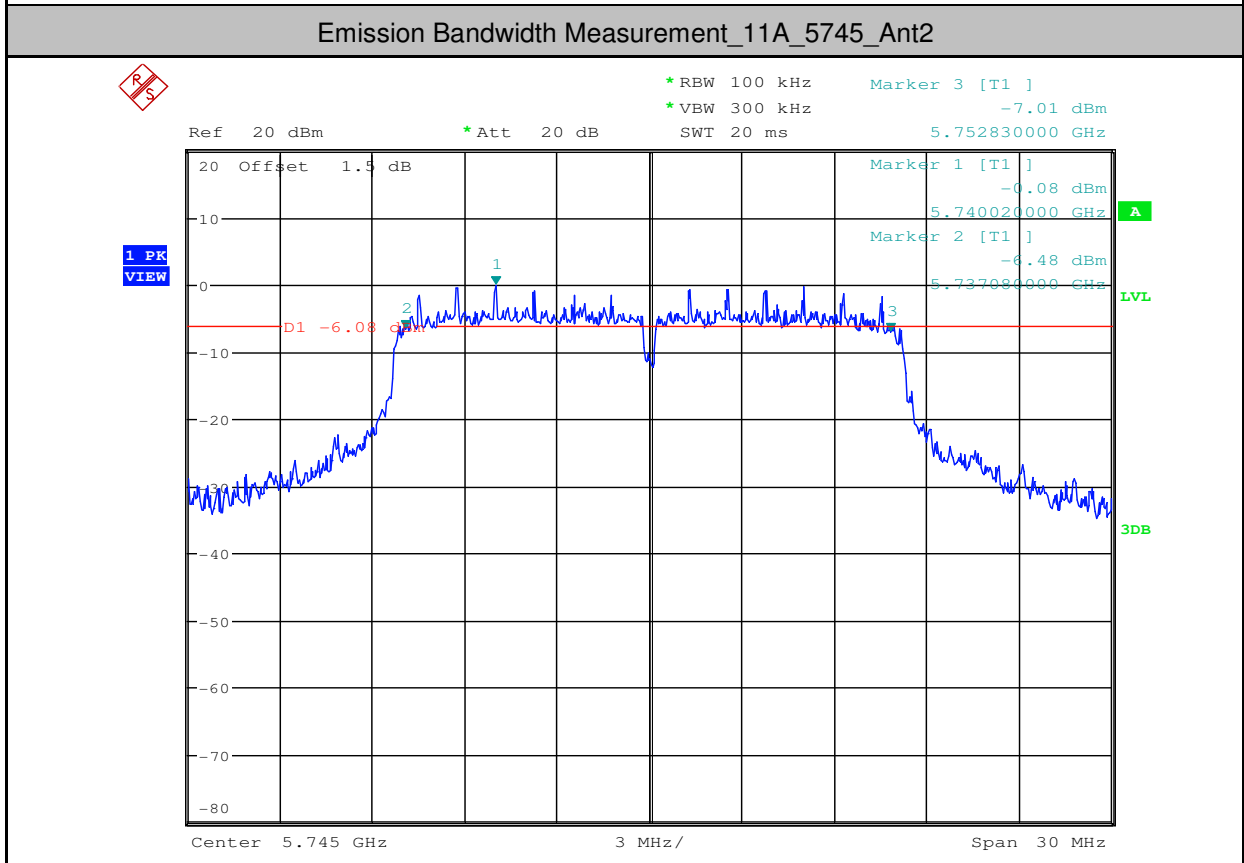
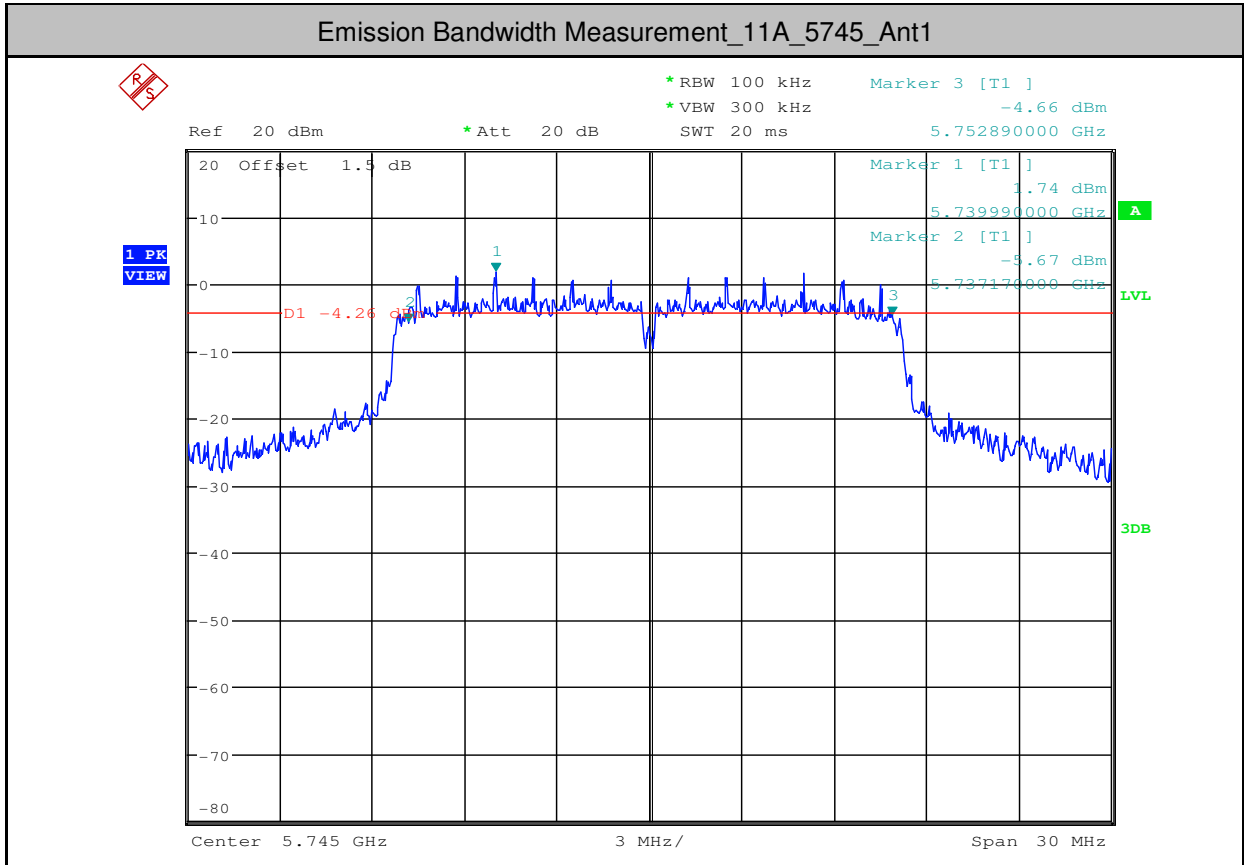
Refer to EUT external and internal photos

9 Appendix

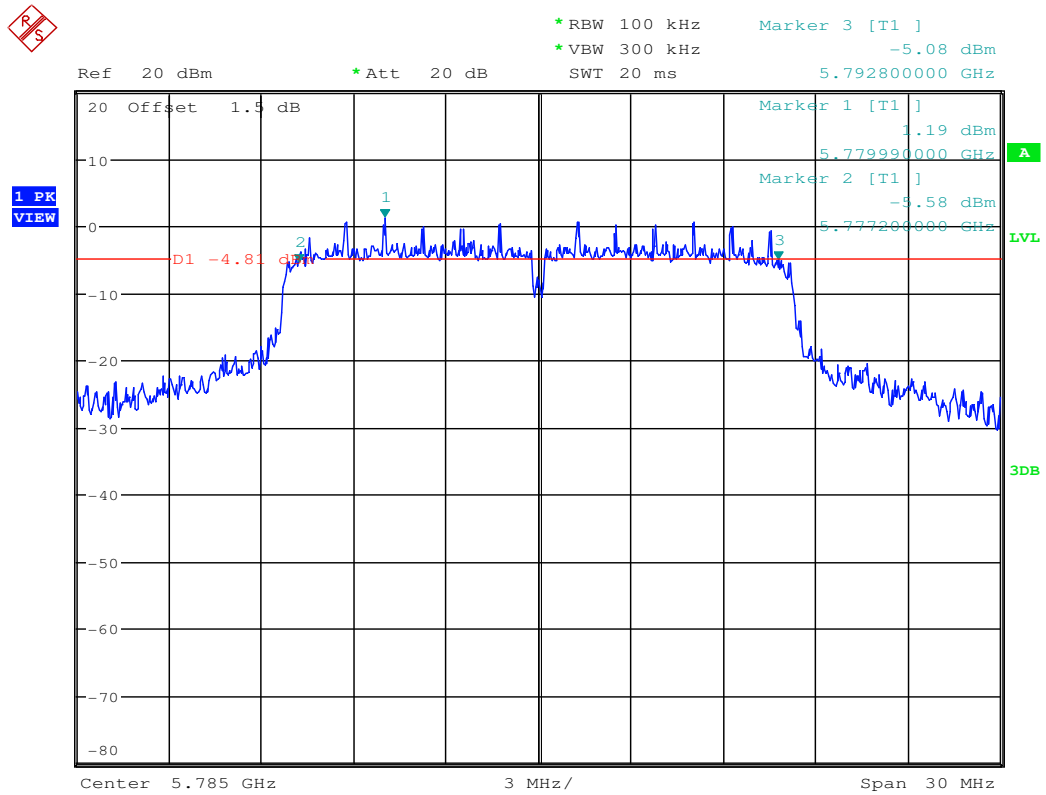
9.1 Appendix 15.407

1.Emission Bandwidth Measurement

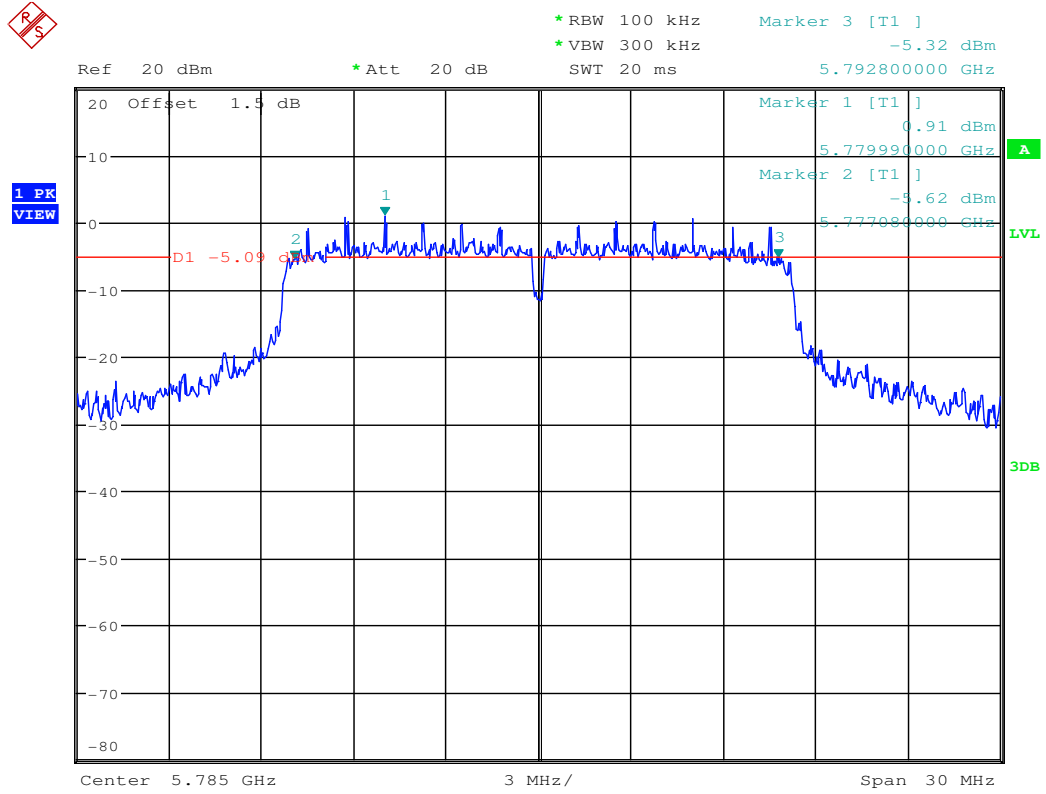
Test Mode	Test Channel	Ant	EBW[MHz]	Limit[MHz]	Verdict
11A	5745	Ant1	15.720	>=0.5	PASS
11A	5745	Ant2	15.750	>=0.5	PASS
11A	5785	Ant1	15.600	>=0.5	PASS
11A	5785	Ant2	15.720	>=0.5	PASS
11A	5825	Ant1	15.750	>=0.5	PASS
11A	5825	Ant2	15.960	>=0.5	PASS
11N20	5745	Ant1	16.830	>=0.5	PASS
11N20	5745	Ant2	16.860	>=0.5	PASS
11N20	5785	Ant1	16.890	>=0.5	PASS
11N20	5785	Ant2	16.590	>=0.5	PASS
11N20	5825	Ant1	16.860	>=0.5	PASS
11N20	5825	Ant2	16.830	>=0.5	PASS

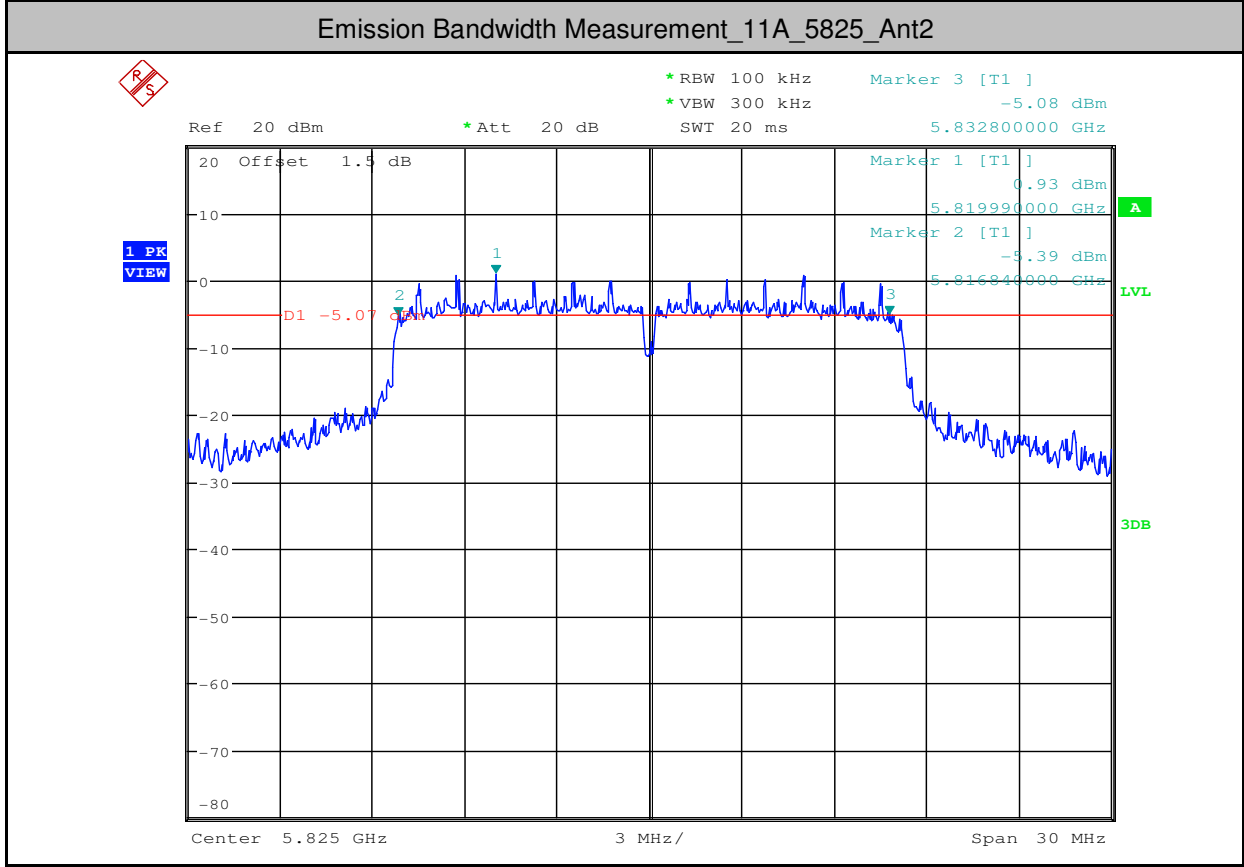
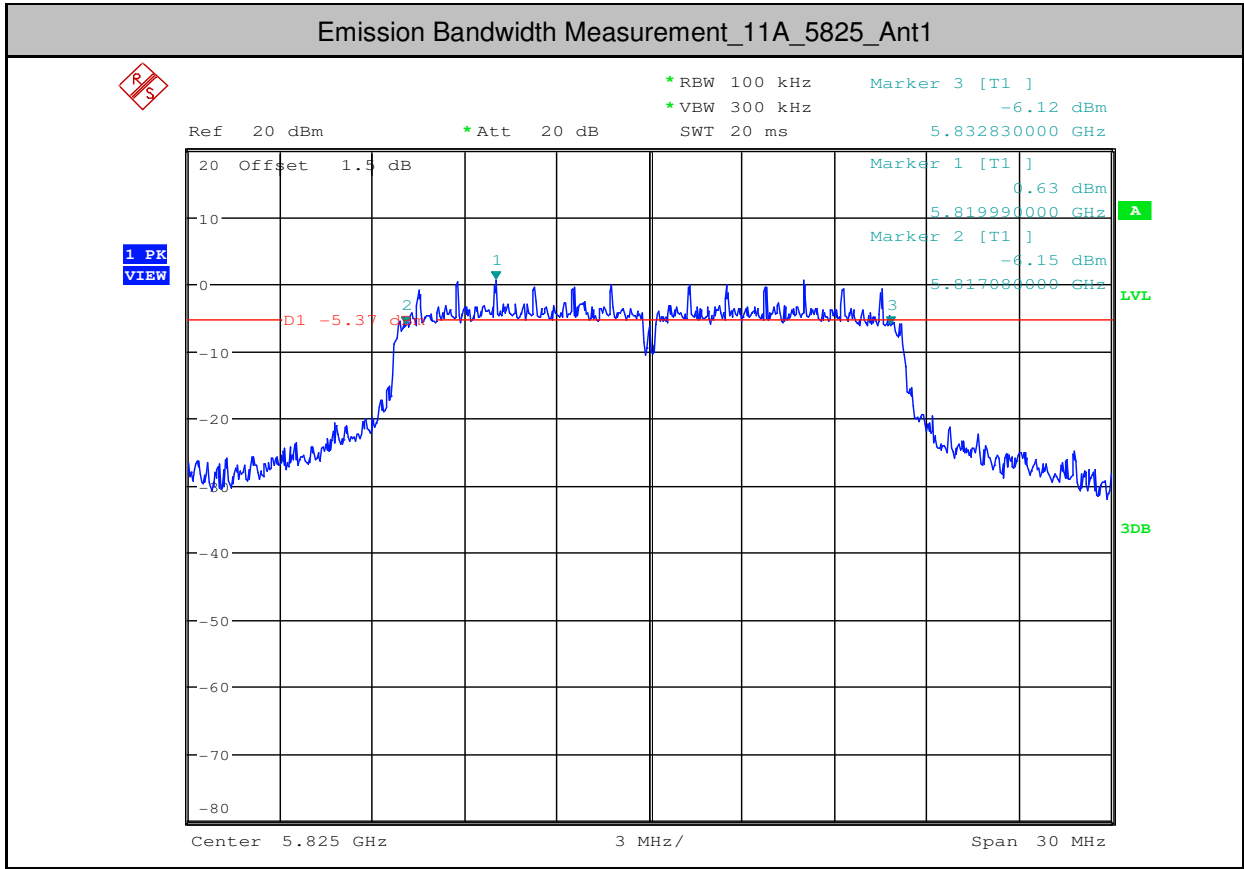


Emission Bandwidth Measurement_11A_5785_Ant1

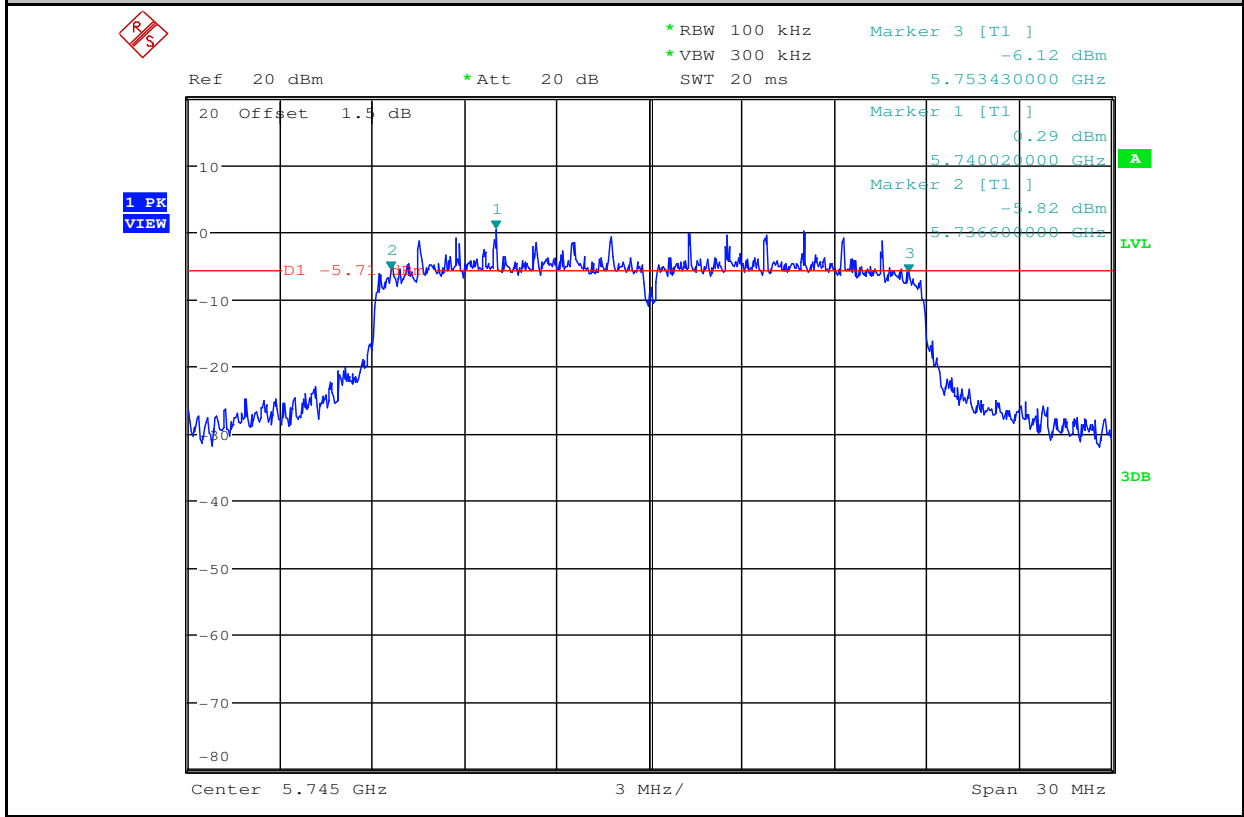


Emission Bandwidth Measurement_11A_5785_Ant2

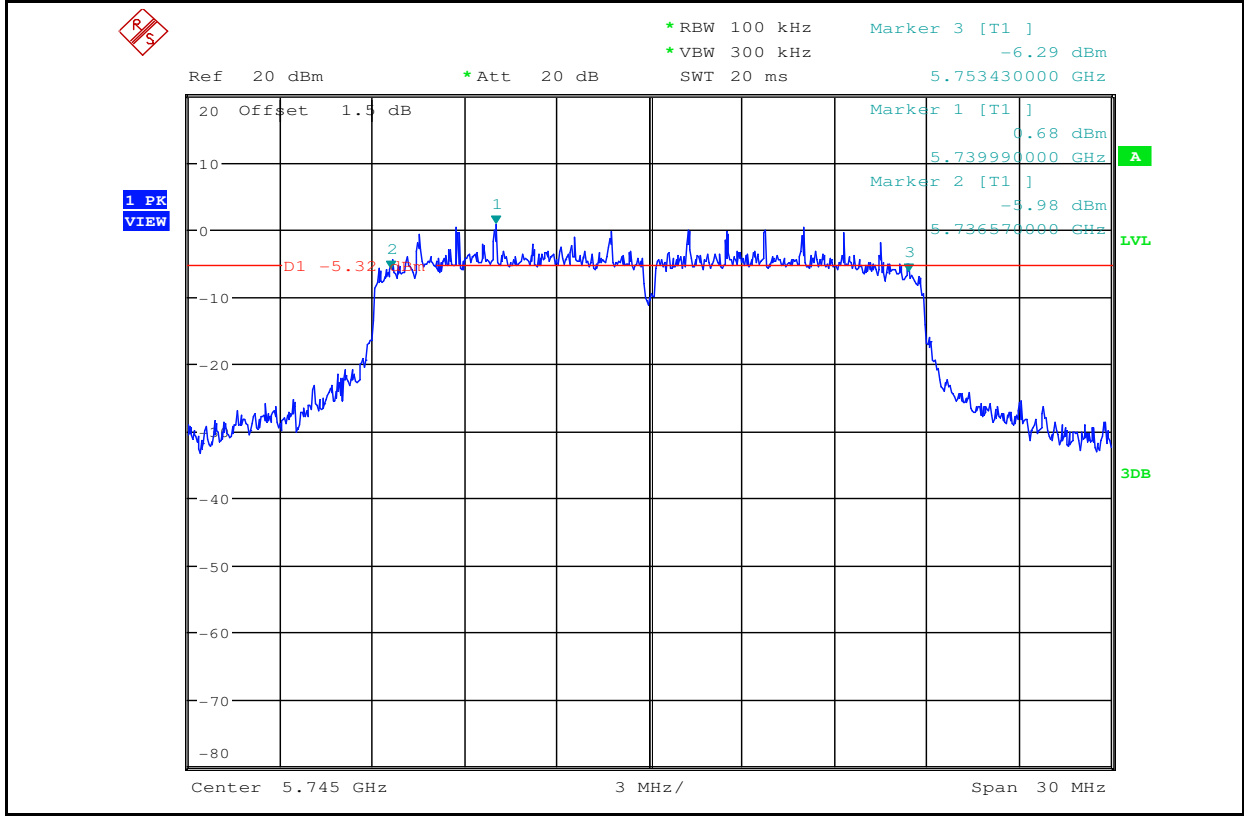




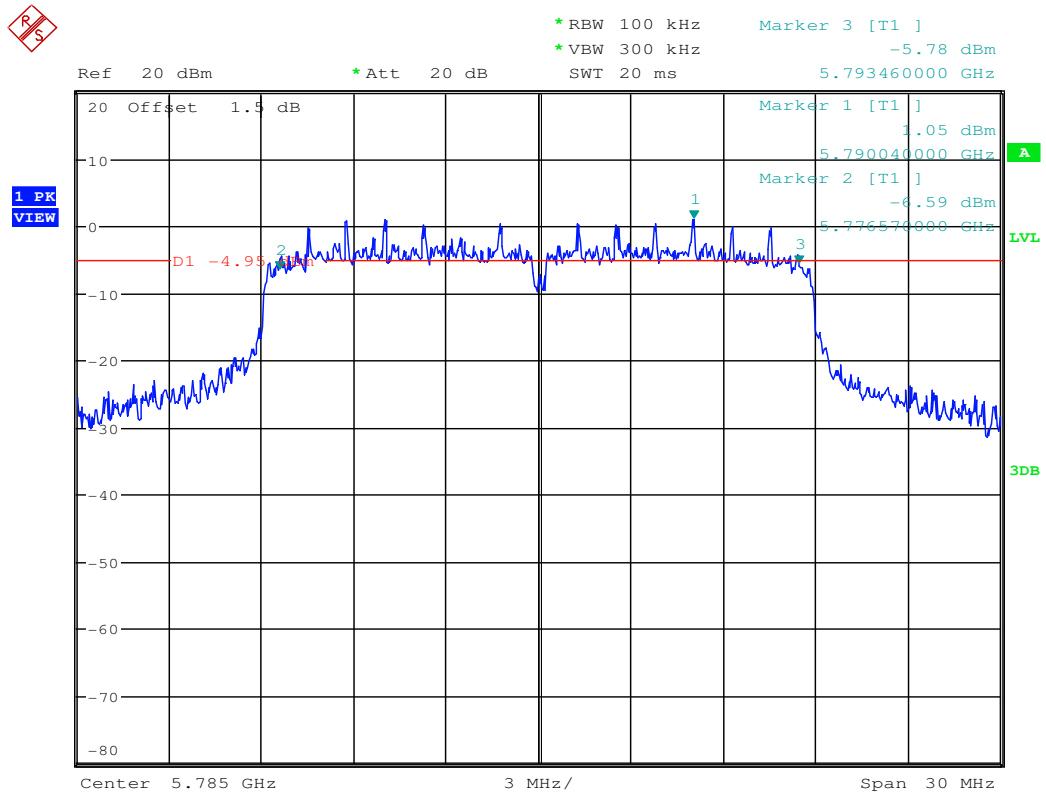
Emission Bandwidth Measurement_11N20_5745_Ant1



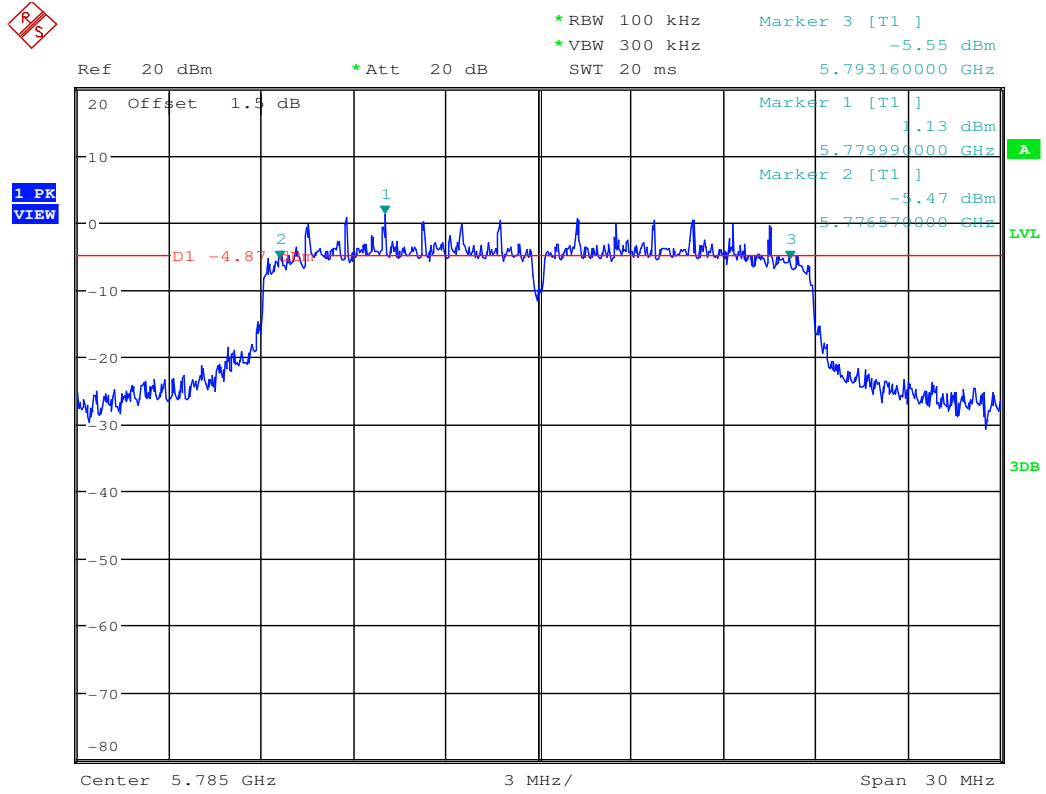
Emission Bandwidth Measurement_11N20_5745_Ant2



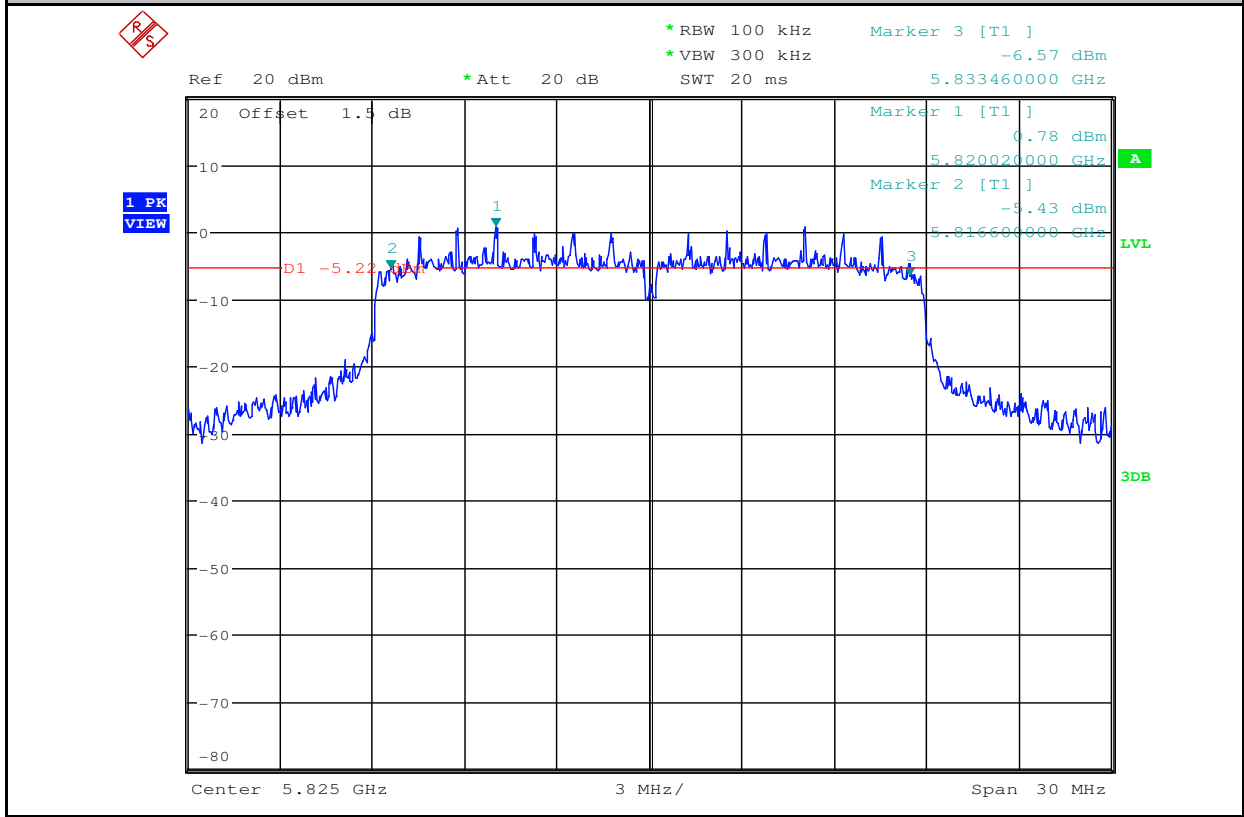
Emission Bandwidth Measurement_11N20_5785_Ant1



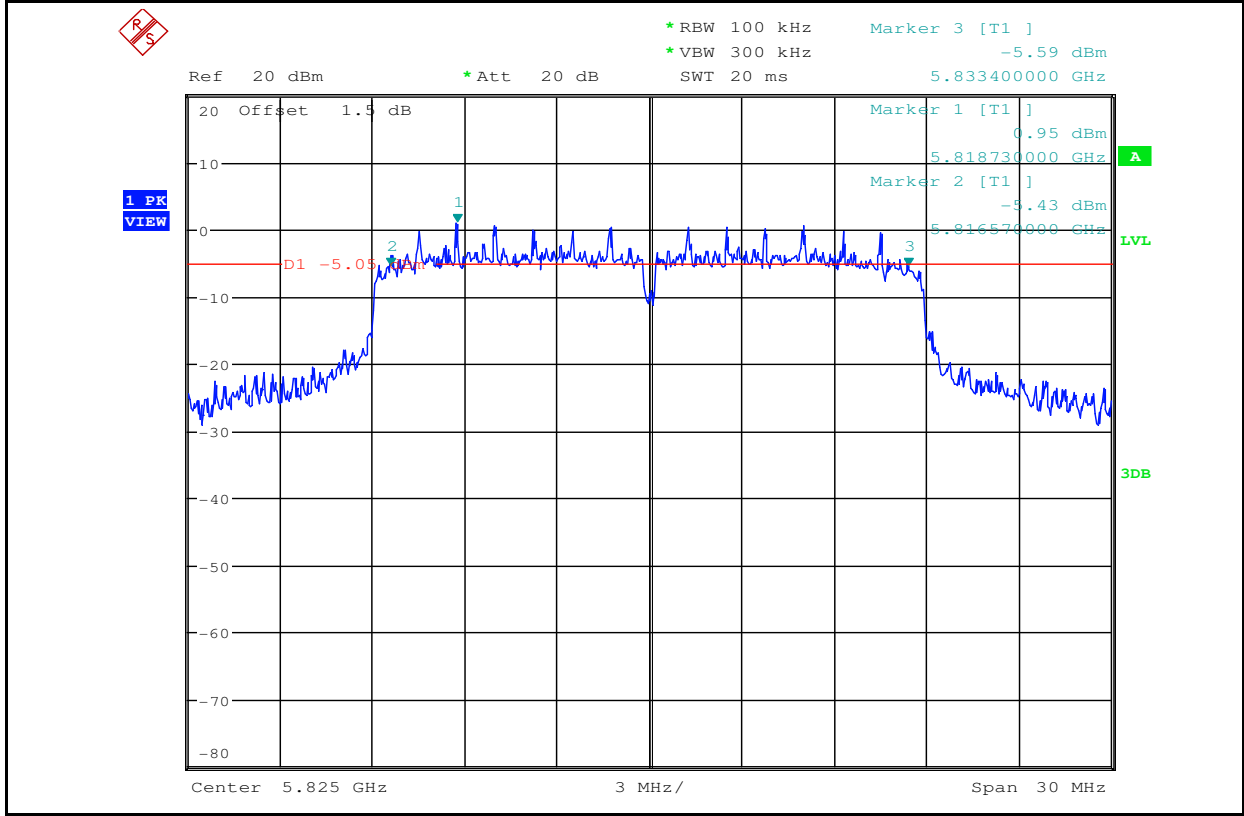
Emission Bandwidth Measurement_11N20_5785_Ant2



Emission Bandwidth Measurement_11N20_5825_Ant1



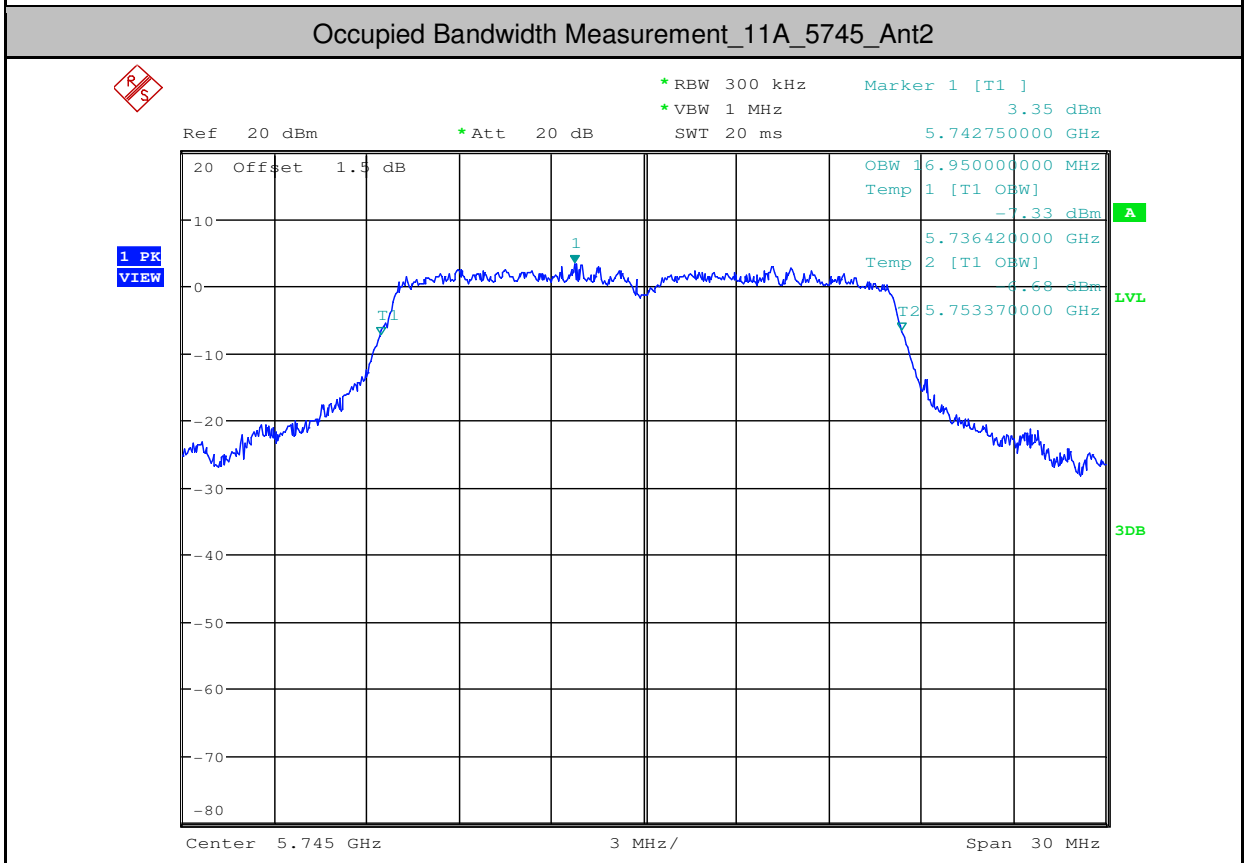
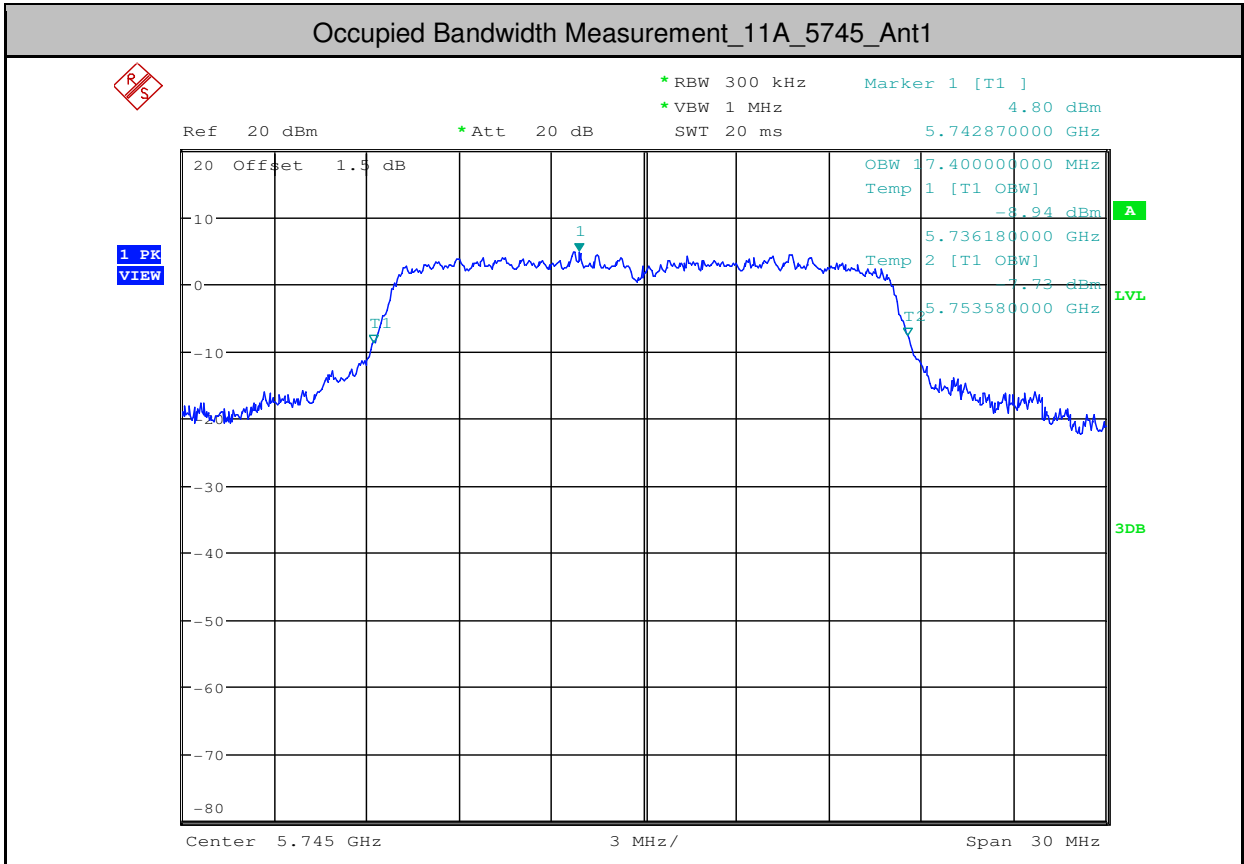
Emission Bandwidth Measurement_11N20_5825_Ant2

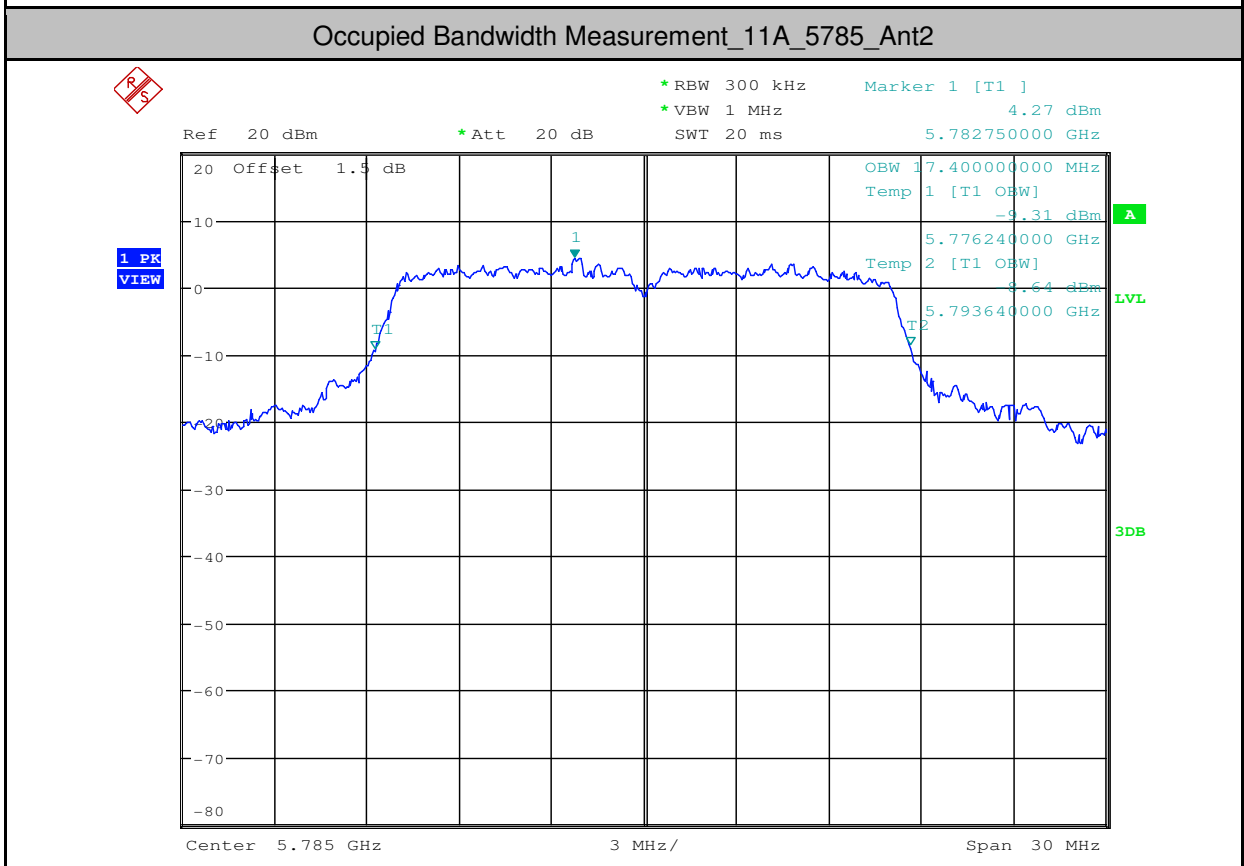
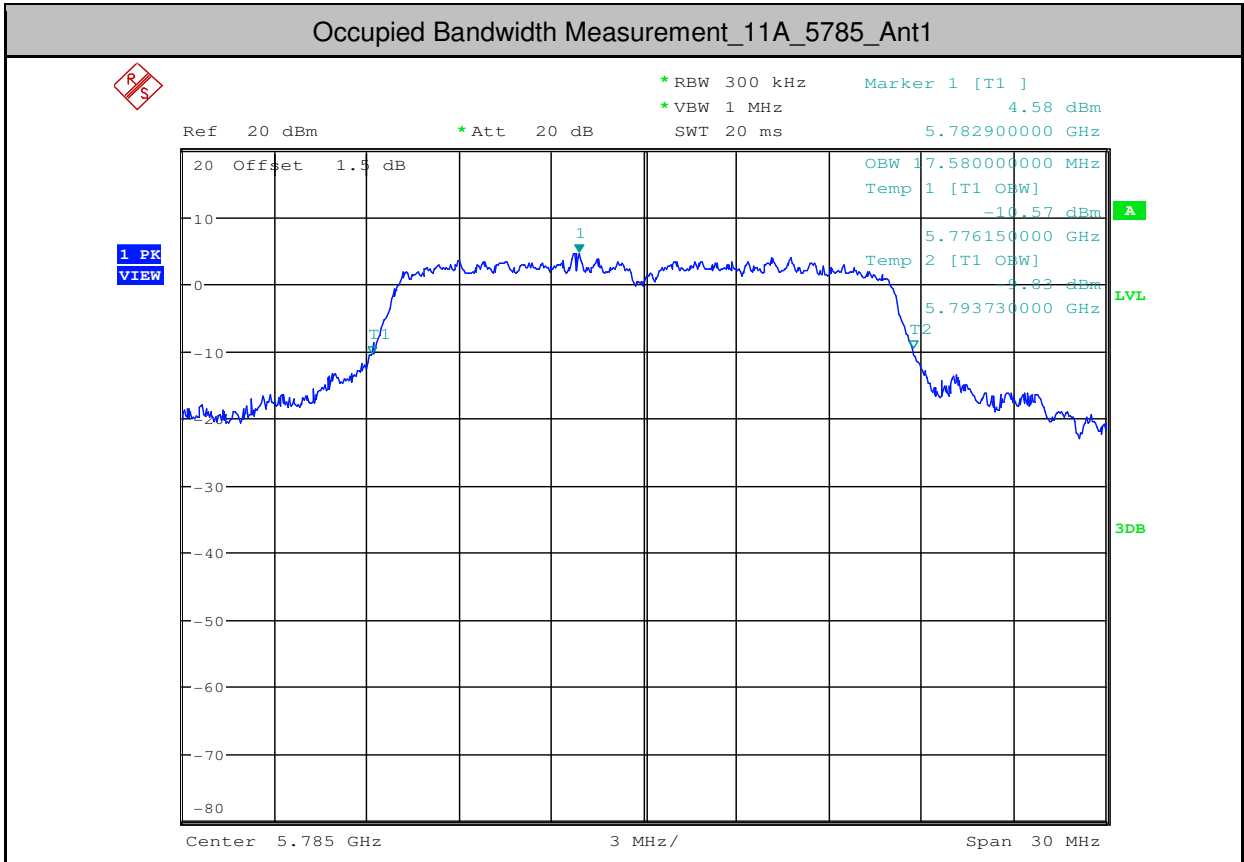


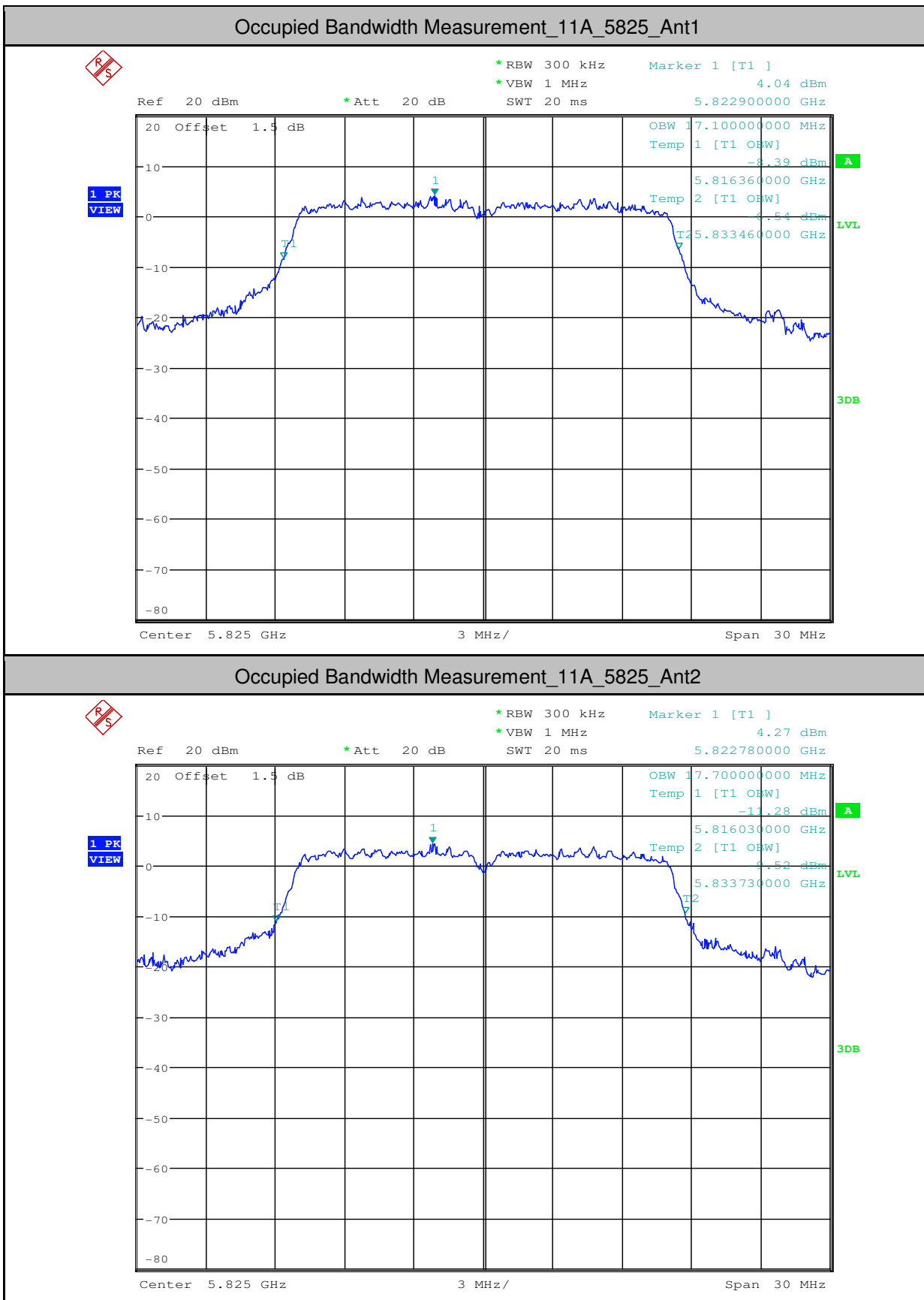


2.Occupied Bandwidth Measurement

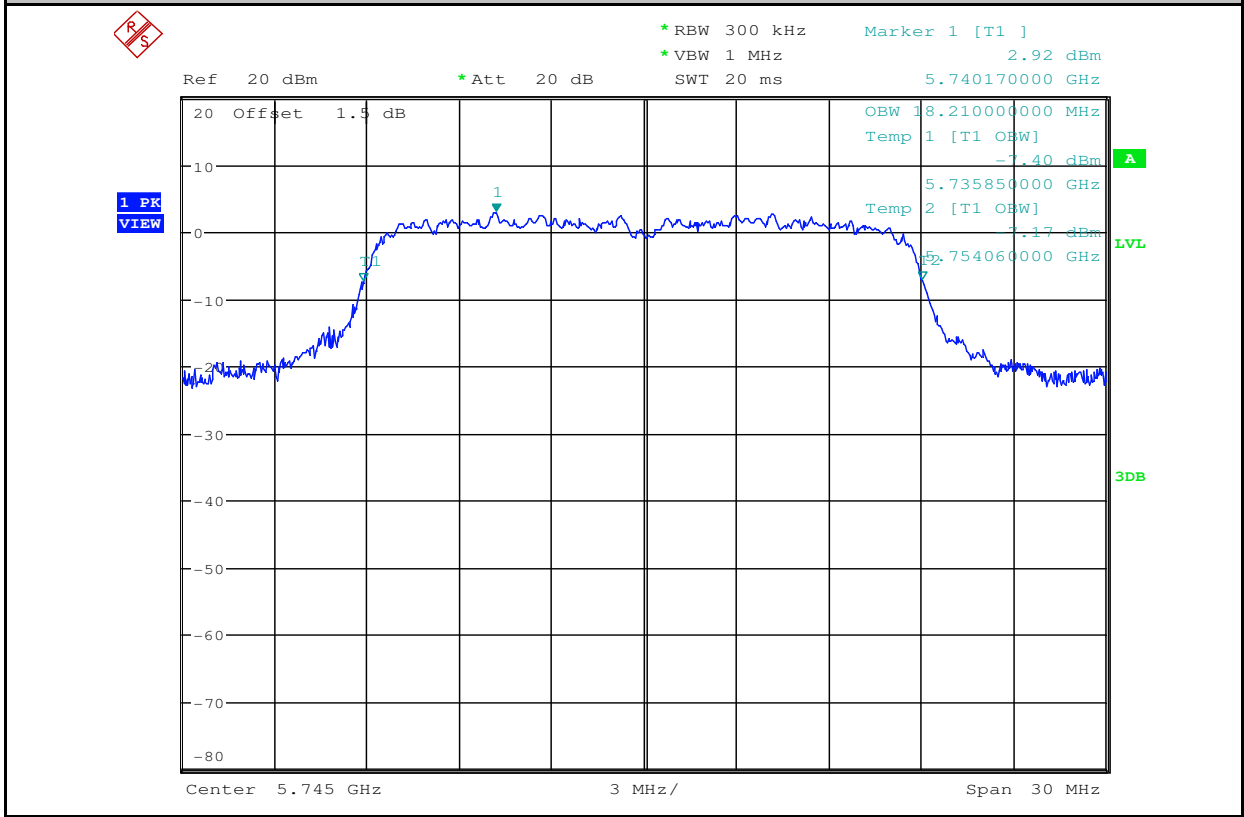
Test Mode	Test Channel	Ant	OBW[MHz]	Limit[MHz]	Verdict
11A	5745	Ant1	17.400	---	PASS
11A	5745	Ant2	16.950	---	PASS
11A	5785	Ant1	17.580	---	PASS
11A	5785	Ant2	17.400	---	PASS
11A	5825	Ant1	17.100	---	PASS
11A	5825	Ant2	17.700	---	PASS
11N20	5745	Ant1	18.210	---	PASS
11N20	5745	Ant2	18.090	---	PASS
11N20	5785	Ant1	18.240	---	PASS
11N20	5785	Ant2	18.450	---	PASS
11N20	5825	Ant1	18.240	---	PASS
11N20	5825	Ant2	18.750	---	PASS



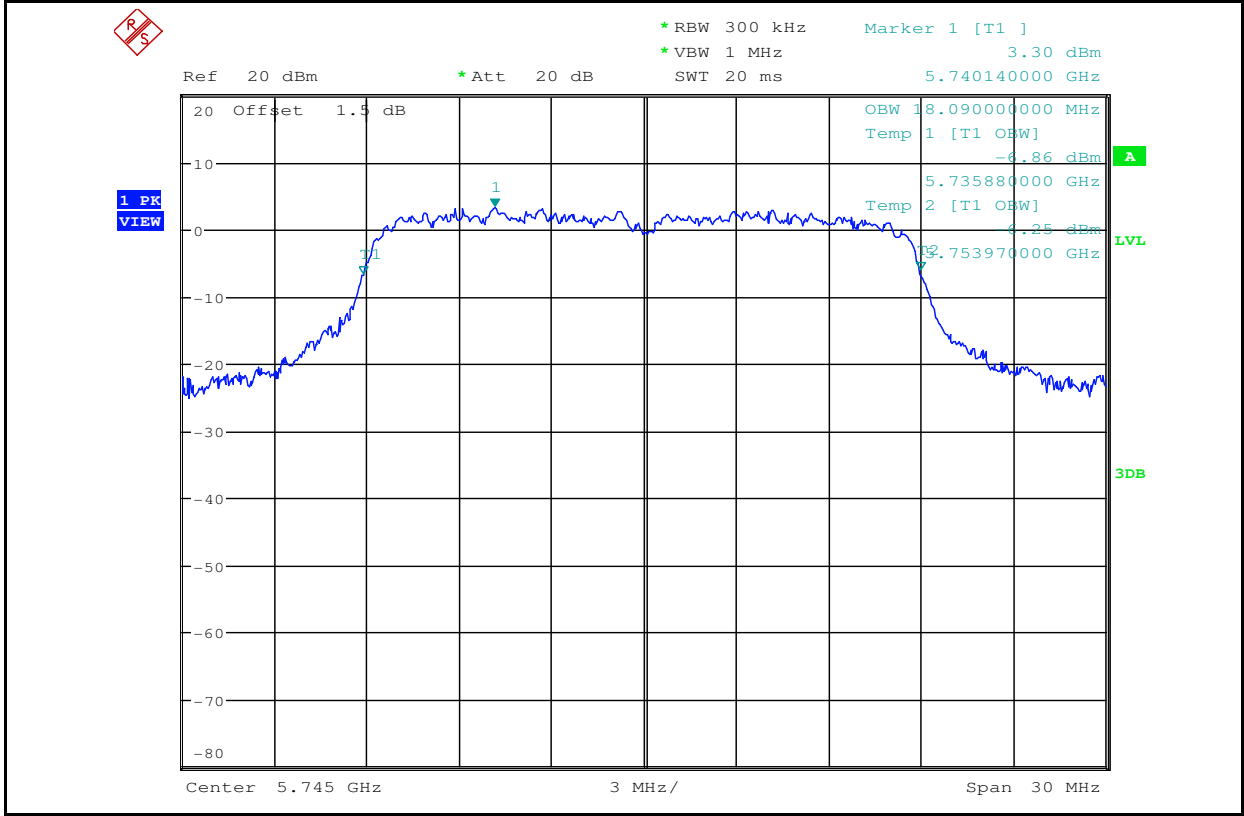


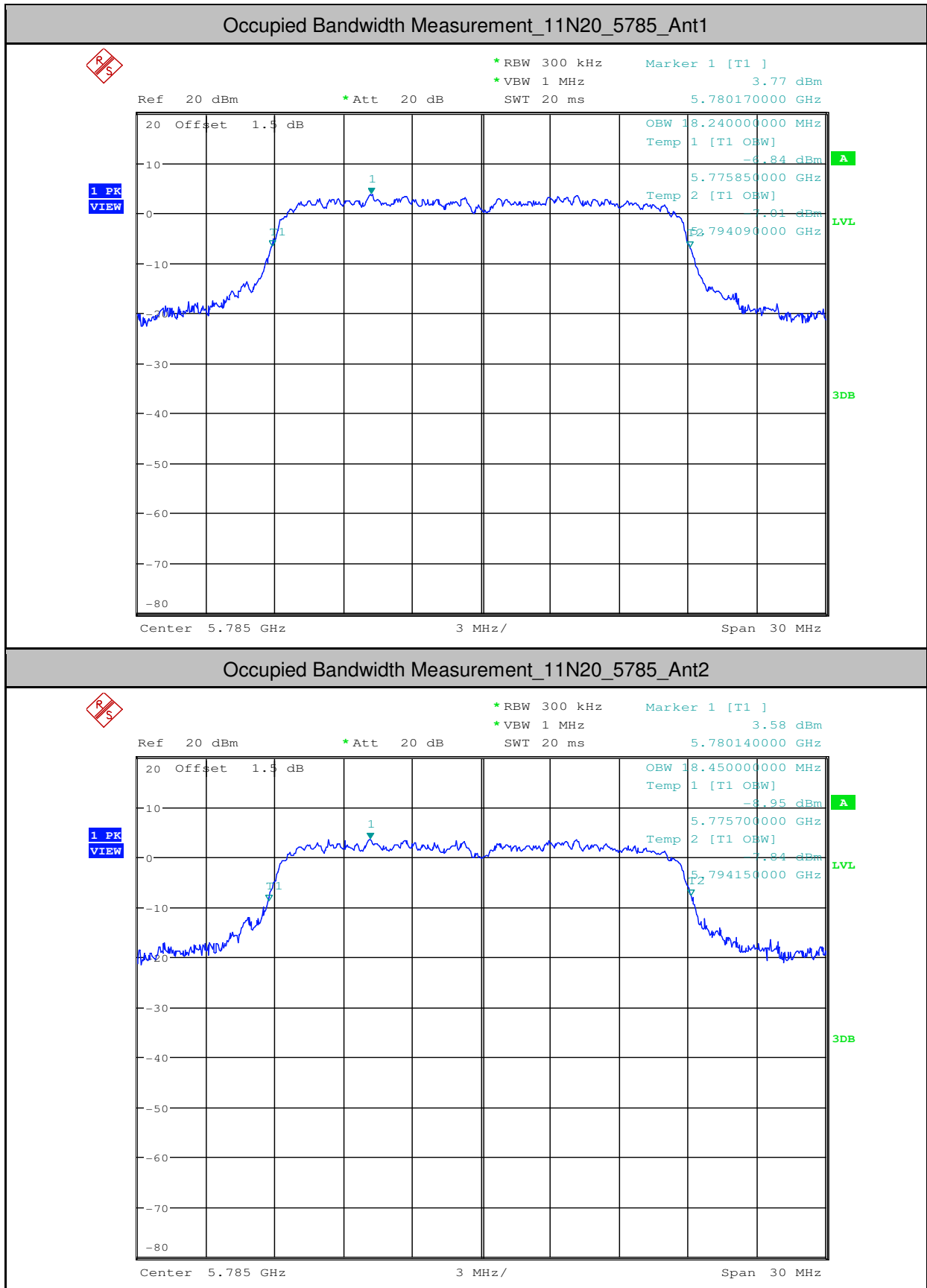


Occupied Bandwidth Measurement_11N20_5745_Ant1

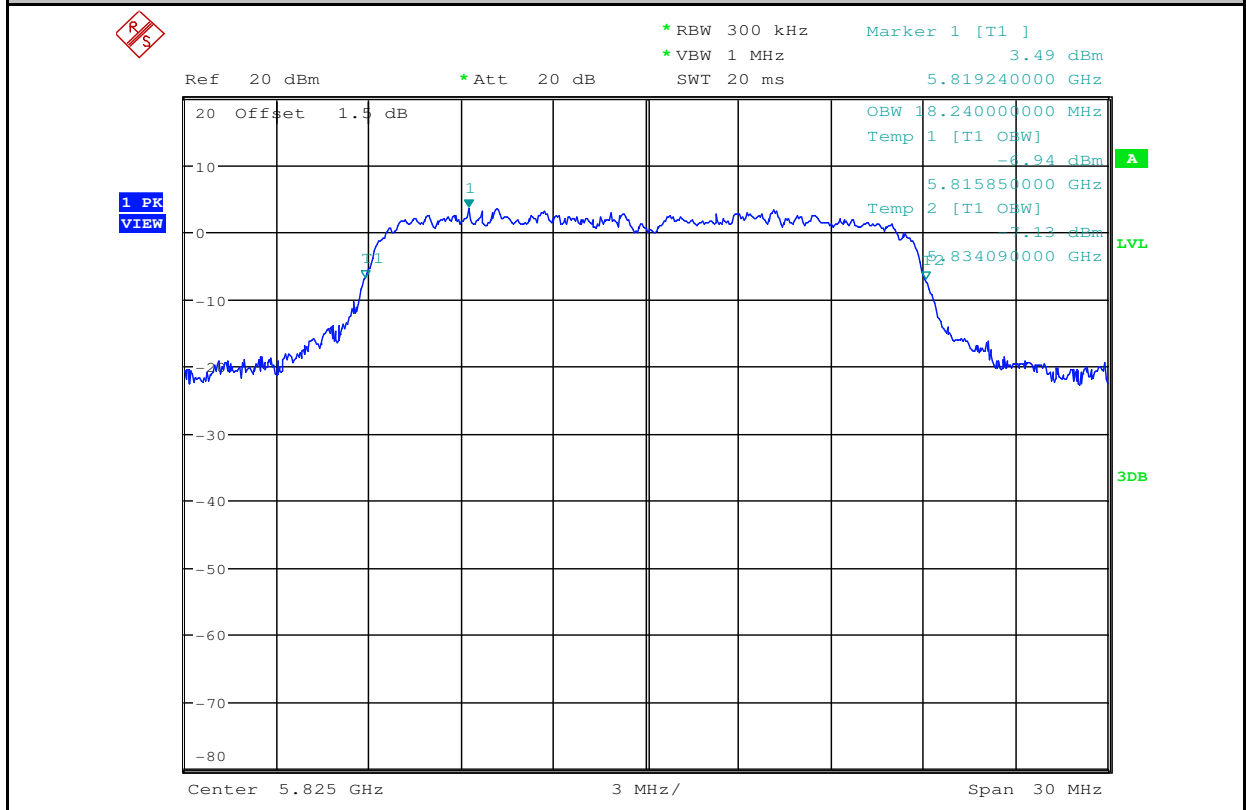


Occupied Bandwidth Measurement_11N20_5745_Ant2

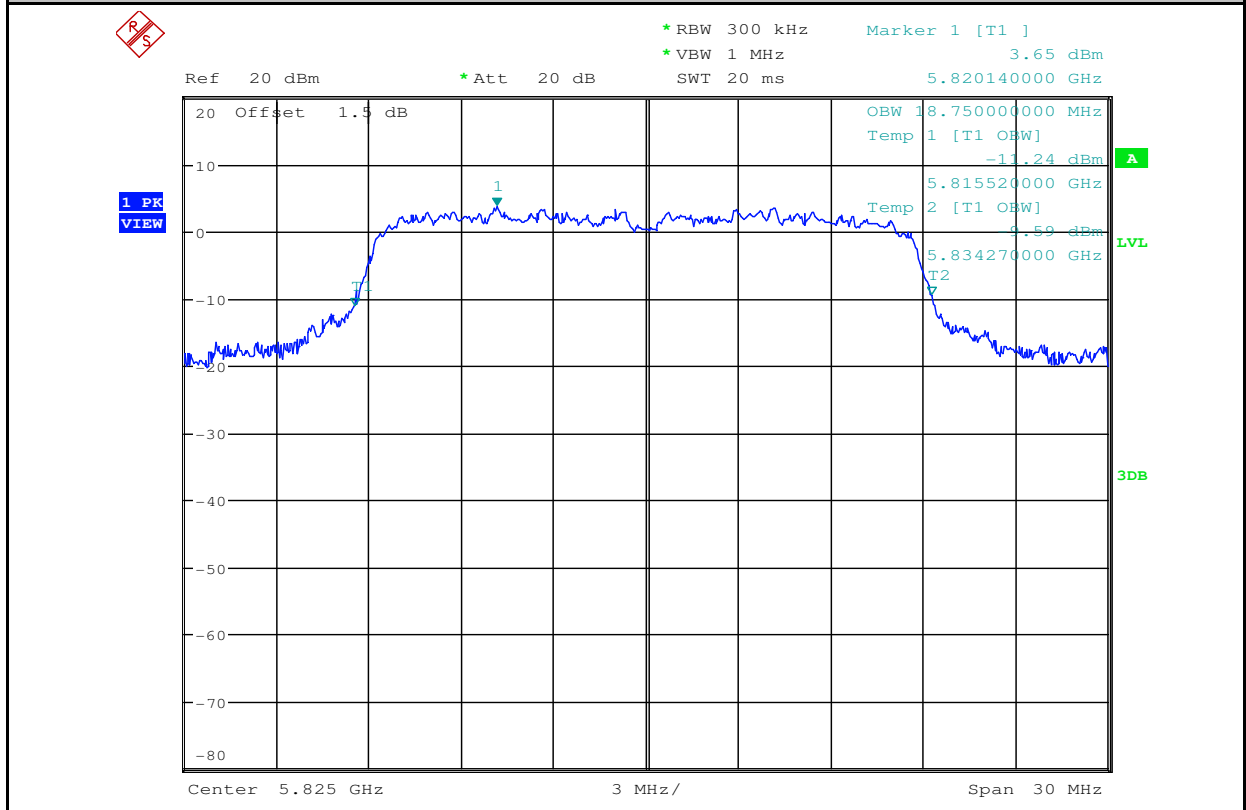




Occupied Bandwidth Measurement_11N20_5825_Ant1



Occupied Bandwidth Measurement_11N20_5825_Ant2

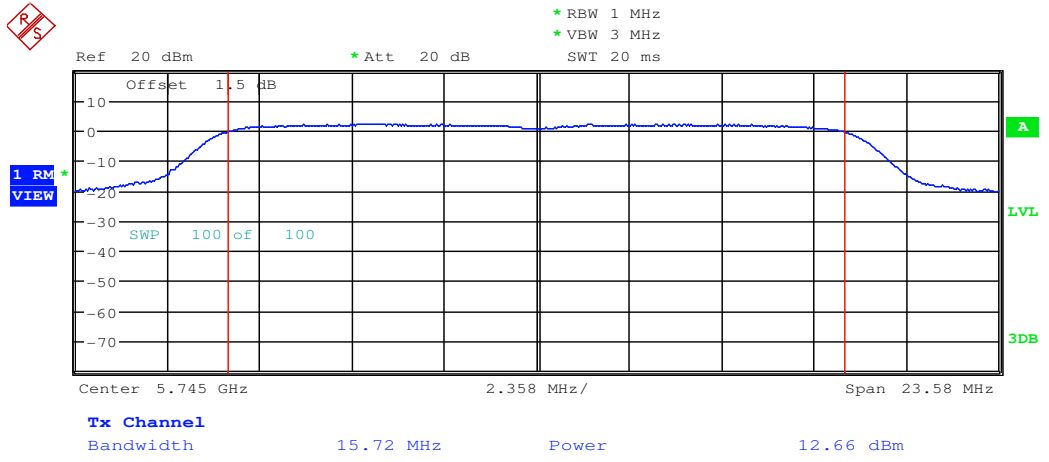




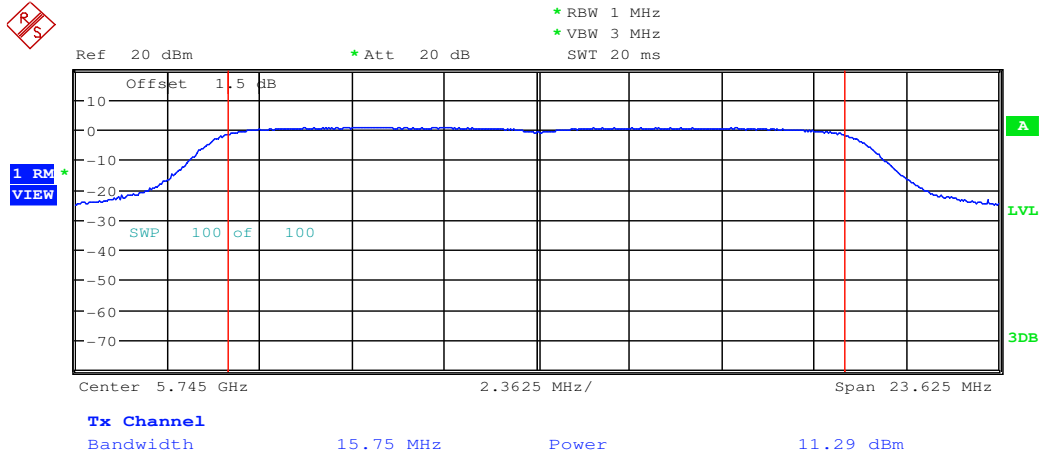
3. Maximum Conduct Output Power

Test Mode	Test Channel	Ant	Level [dBm]	10log(1/x) Factor [dB]	Power [dBm]	Limit [dBm]	Verdict
11A	5745	Ant1	12.66	0.09	12.75	<30.00	PASS
11A	5745	Ant2	11.29	0.09	11.38	<30.00	PASS
11A	5785	Ant1	12.1	0.09	12.19	<30.00	PASS
11A	5785	Ant2	11.92	0.09	12.01	<30.00	PASS
11A	5825	Ant1	11.82	0.09	11.91	<30.00	PASS
11A	5825	Ant2	12	0.09	12.09	<30.00	PASS
11N20	5745	Ant1	11.45	0.1	11.55	<30.00	PASS
11N20	5745	Ant2	11.9	0.1	12.00	<30.00	PASS
11N20	5785	Ant1	12.37	0.11	12.48	<30.00	PASS
11N20	5785	Ant2	12.19	0.1	12.29	<30.00	PASS
11N20	5825	Ant1	12	0.1	12.10	<30.00	PASS
11N20	5825	Ant2	12.26	0.1	12.36	<30.00	PASS

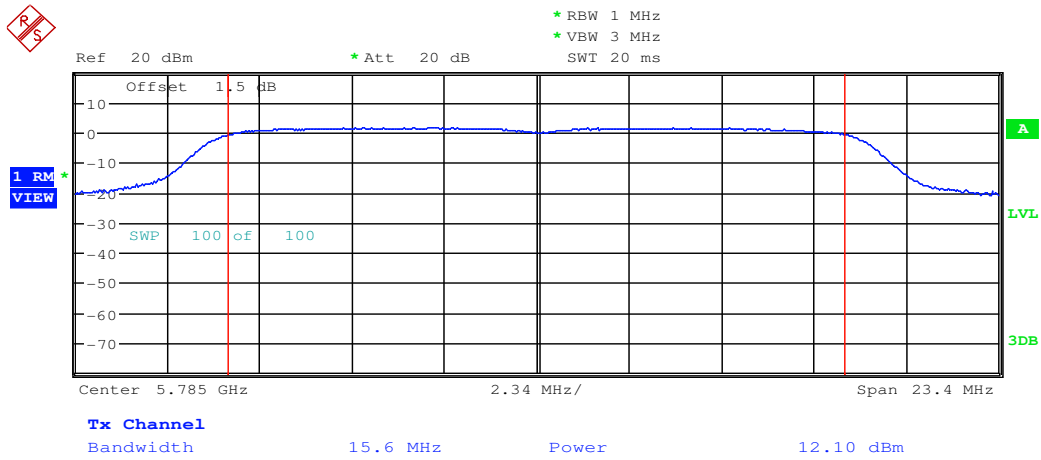
Maximum Conduct Output Power_11A_5745_Ant1



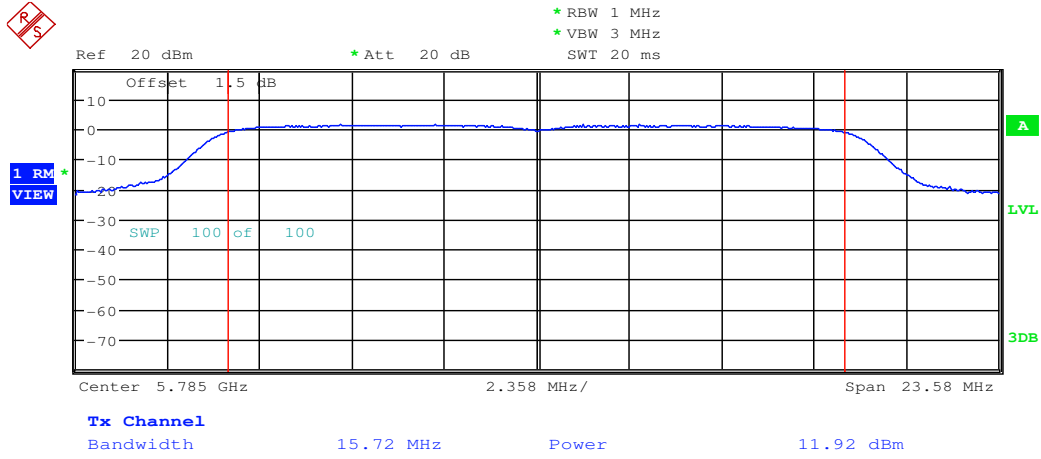
Maximum Conduct Output Power_11A_5745_Ant2



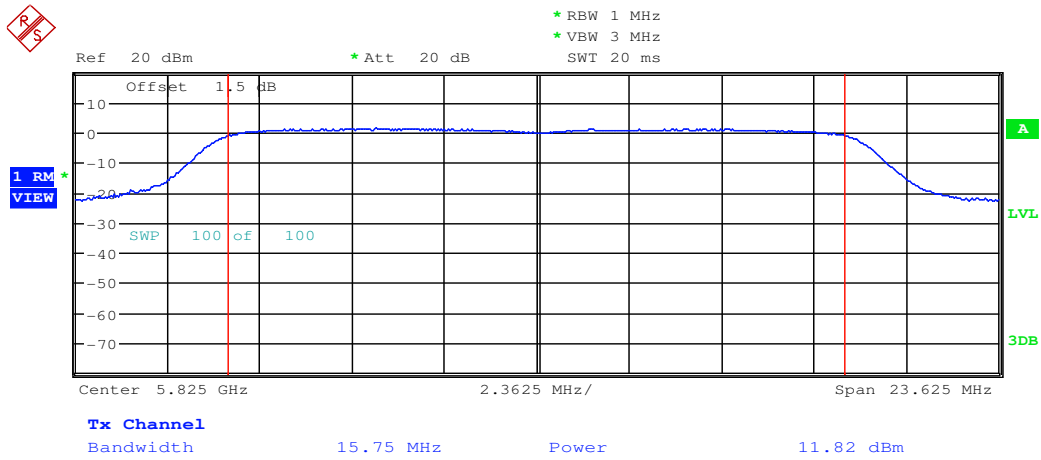
Maximum Conduct Output Power_11A_5785_Ant1



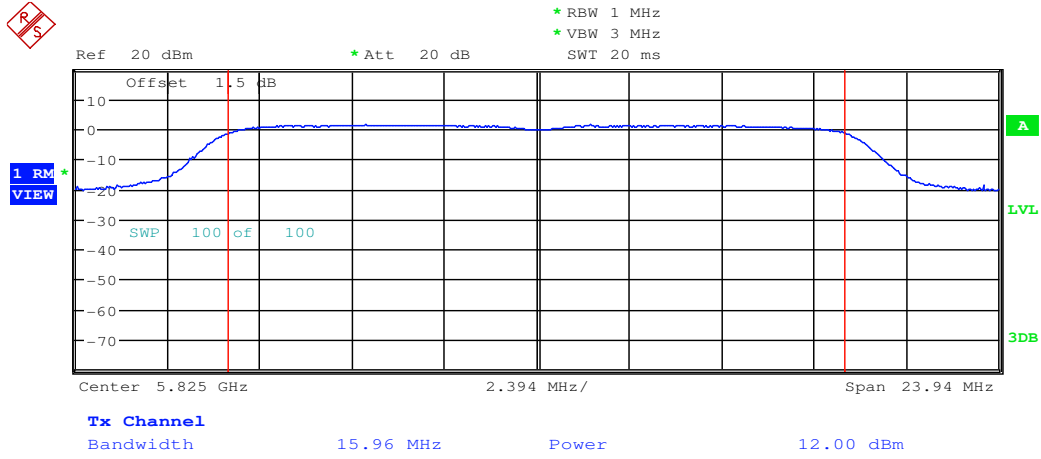
Maximum Conduct Output Power_11A_5785_Ant2

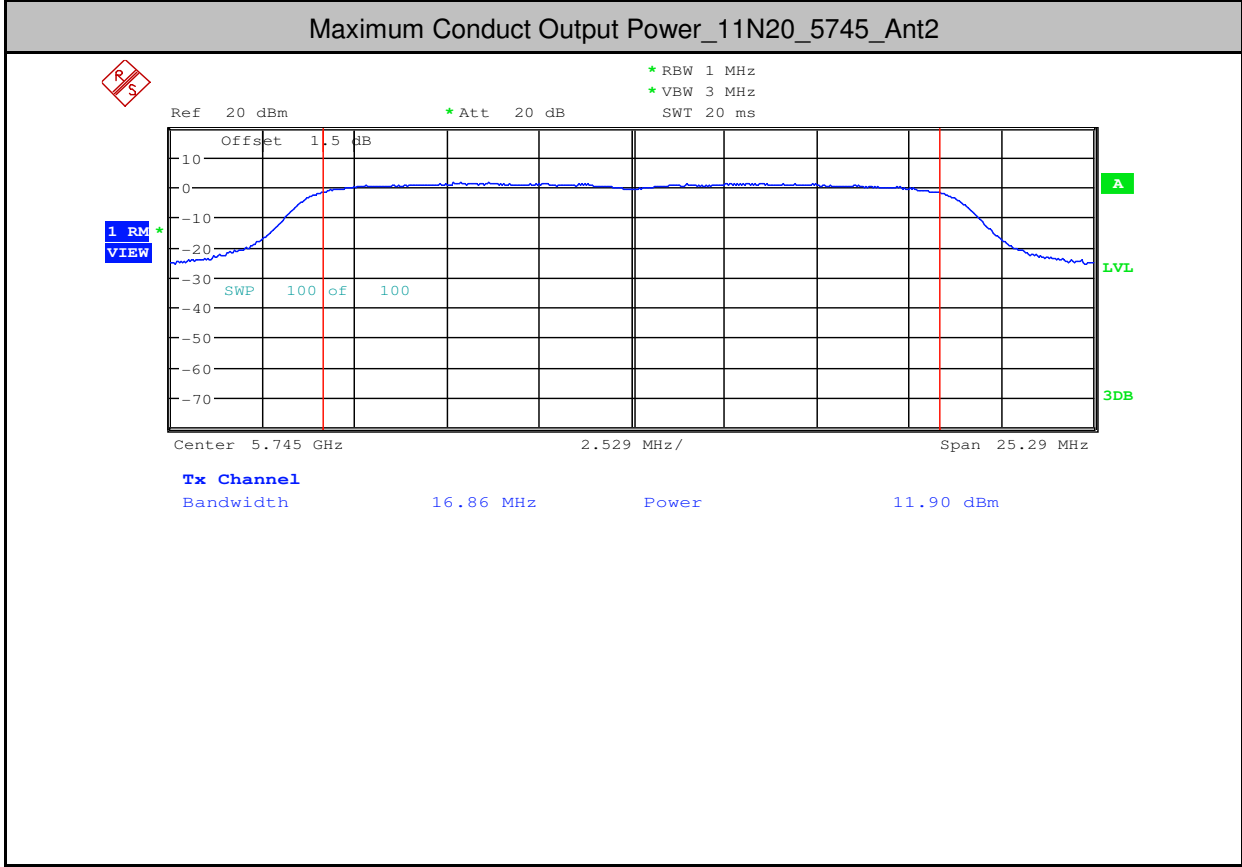
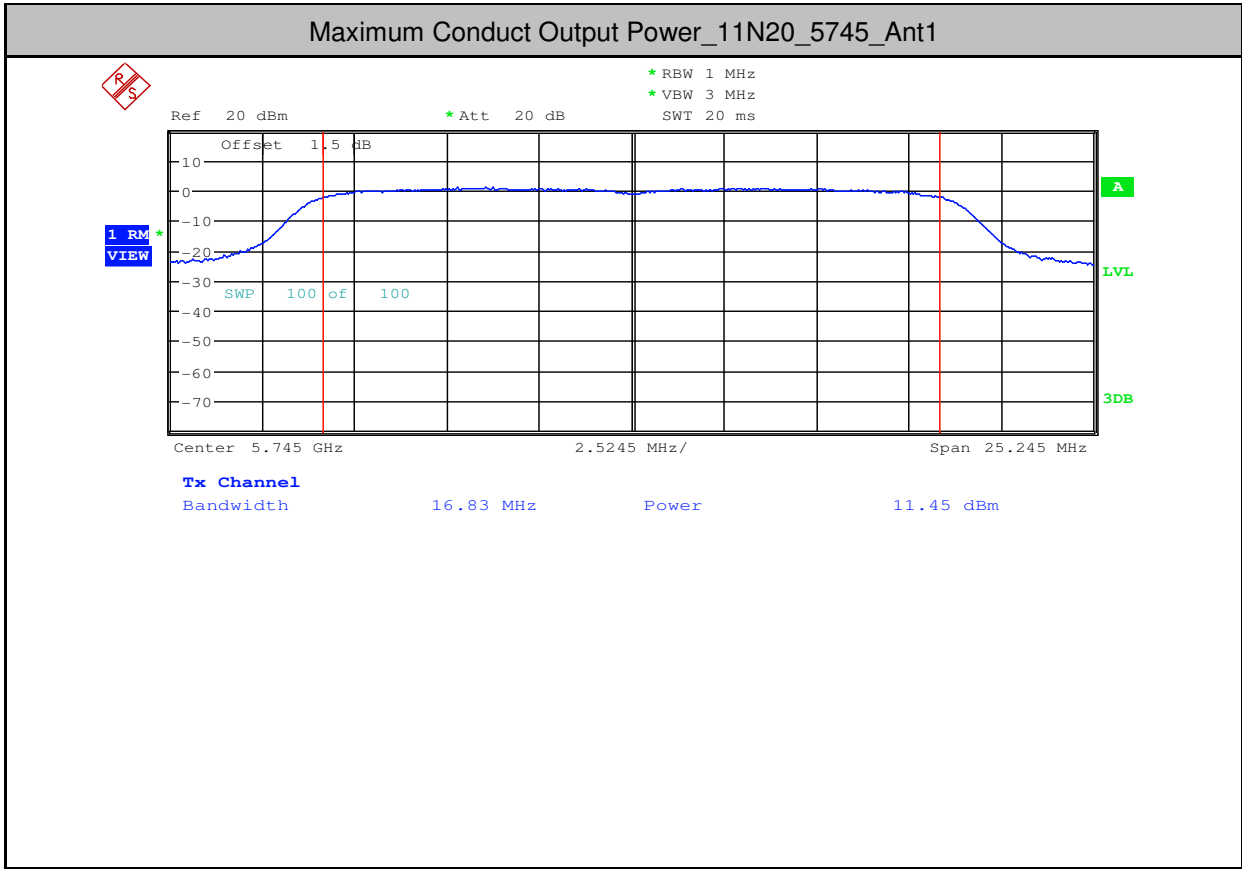


Maximum Conduct Output Power_11A_5825_Ant1

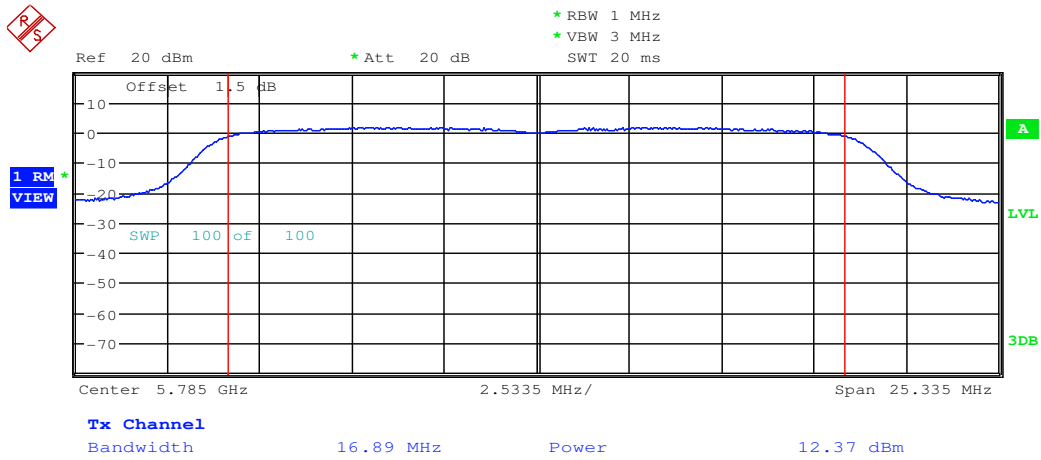


Maximum Conduct Output Power_11A_5825_Ant2

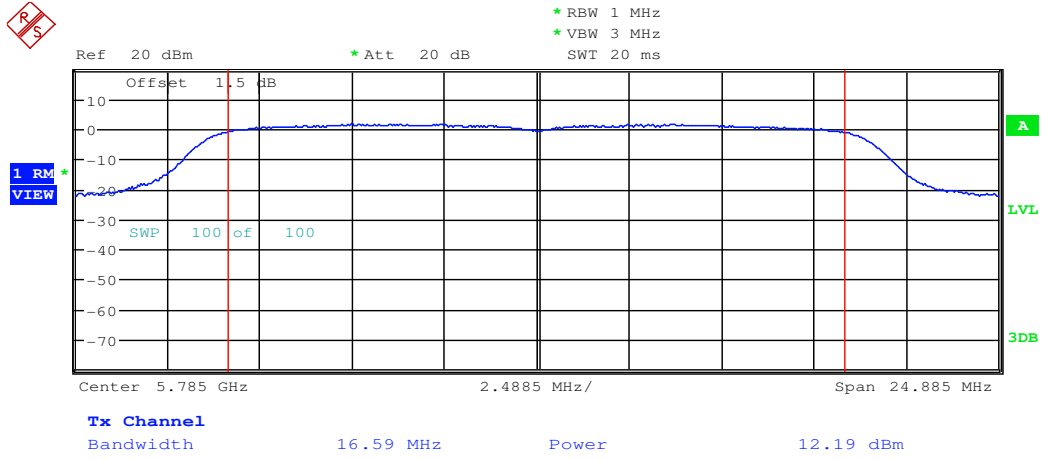


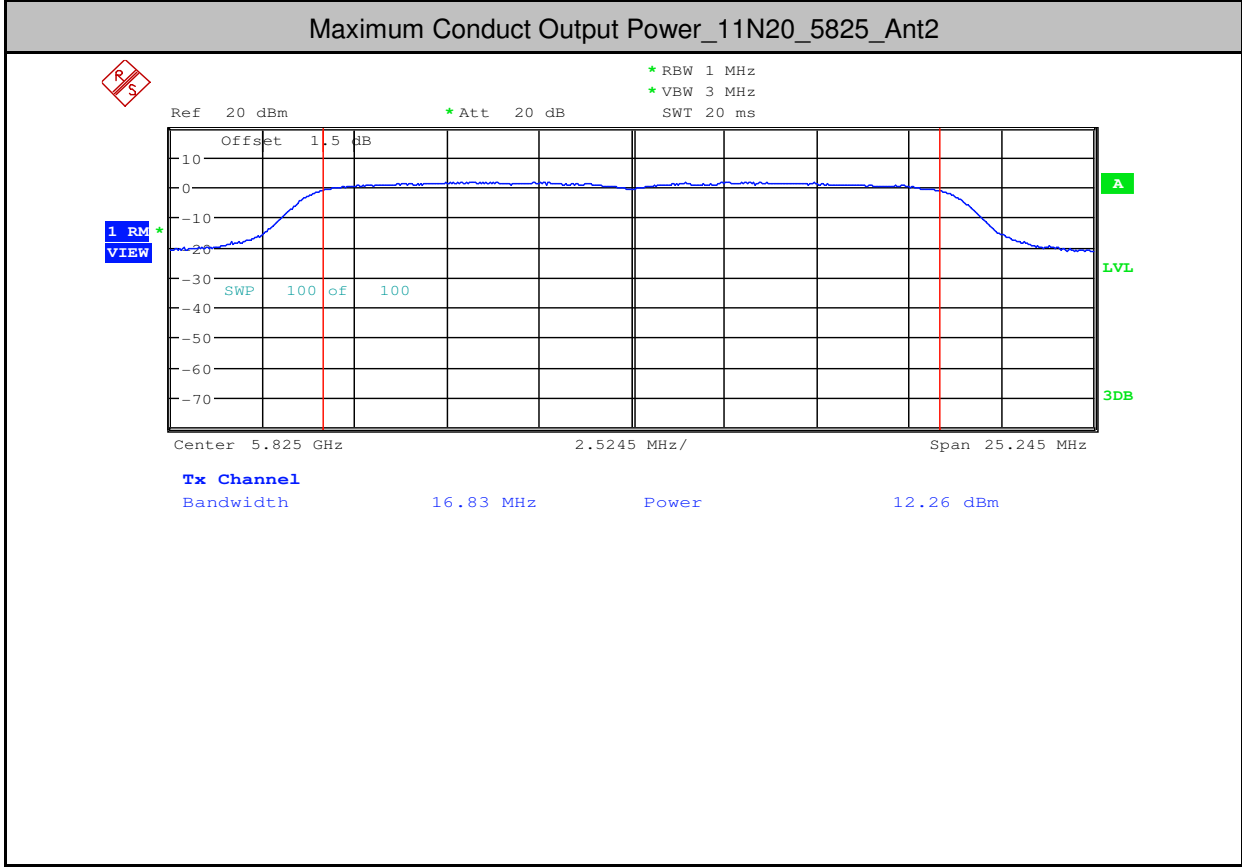
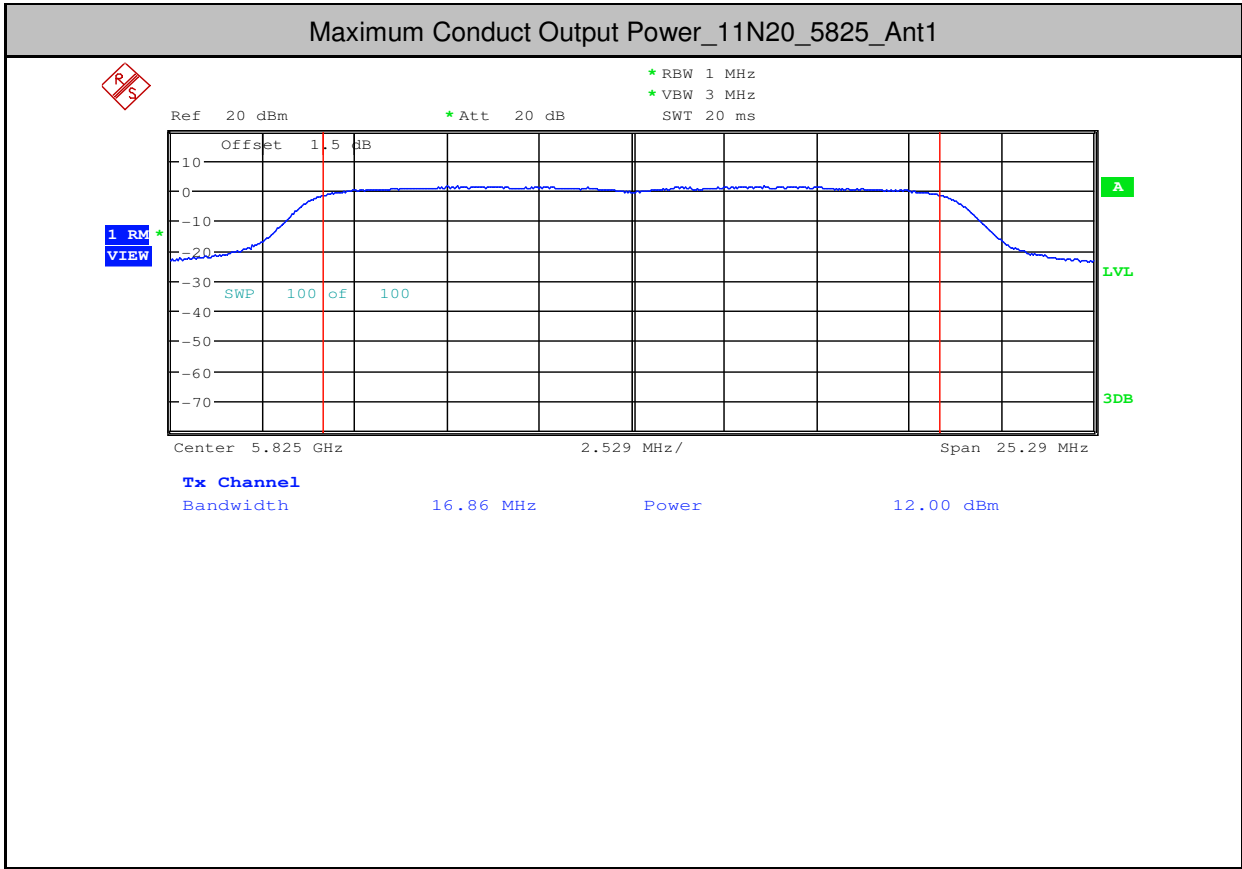


Maximum Conduct Output Power_11N20_5785_Ant1



Maximum Conduct Output Power_11N20_5785_Ant2

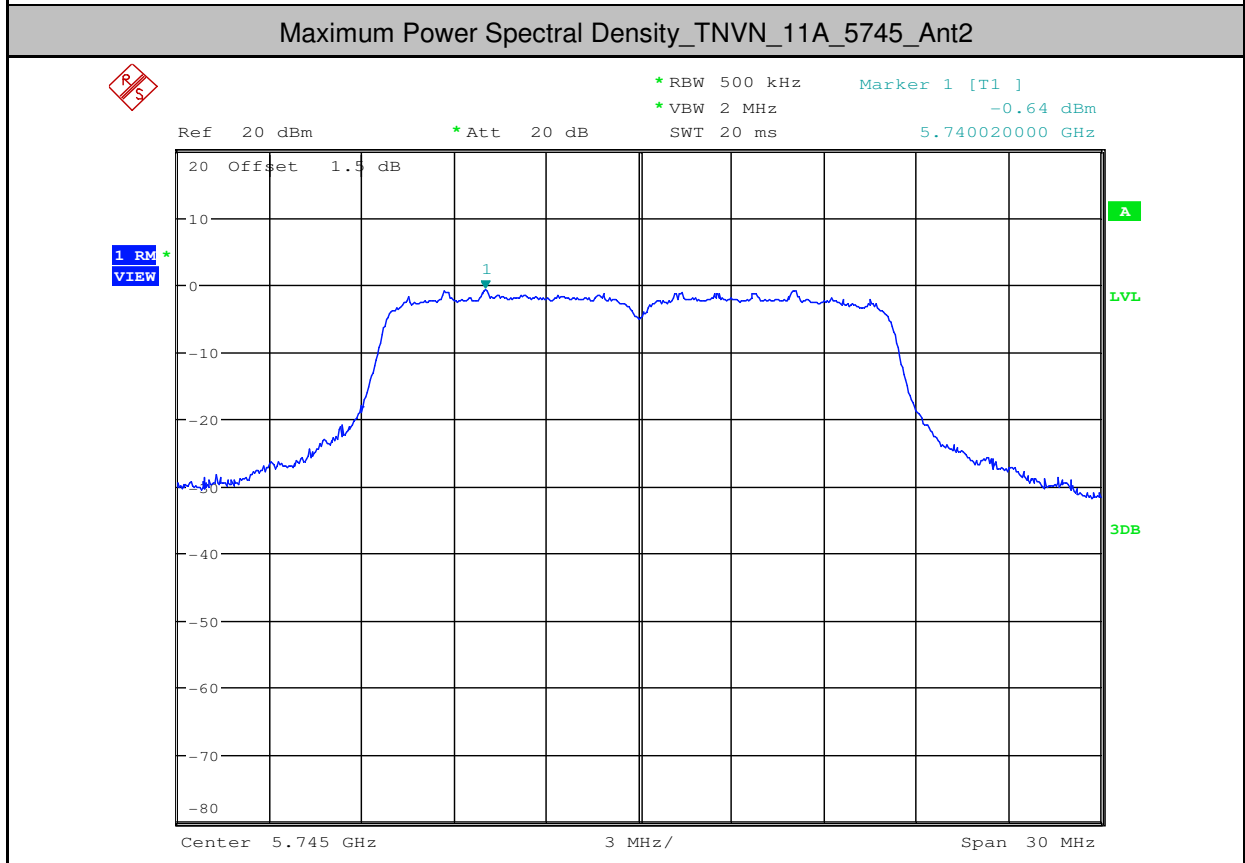
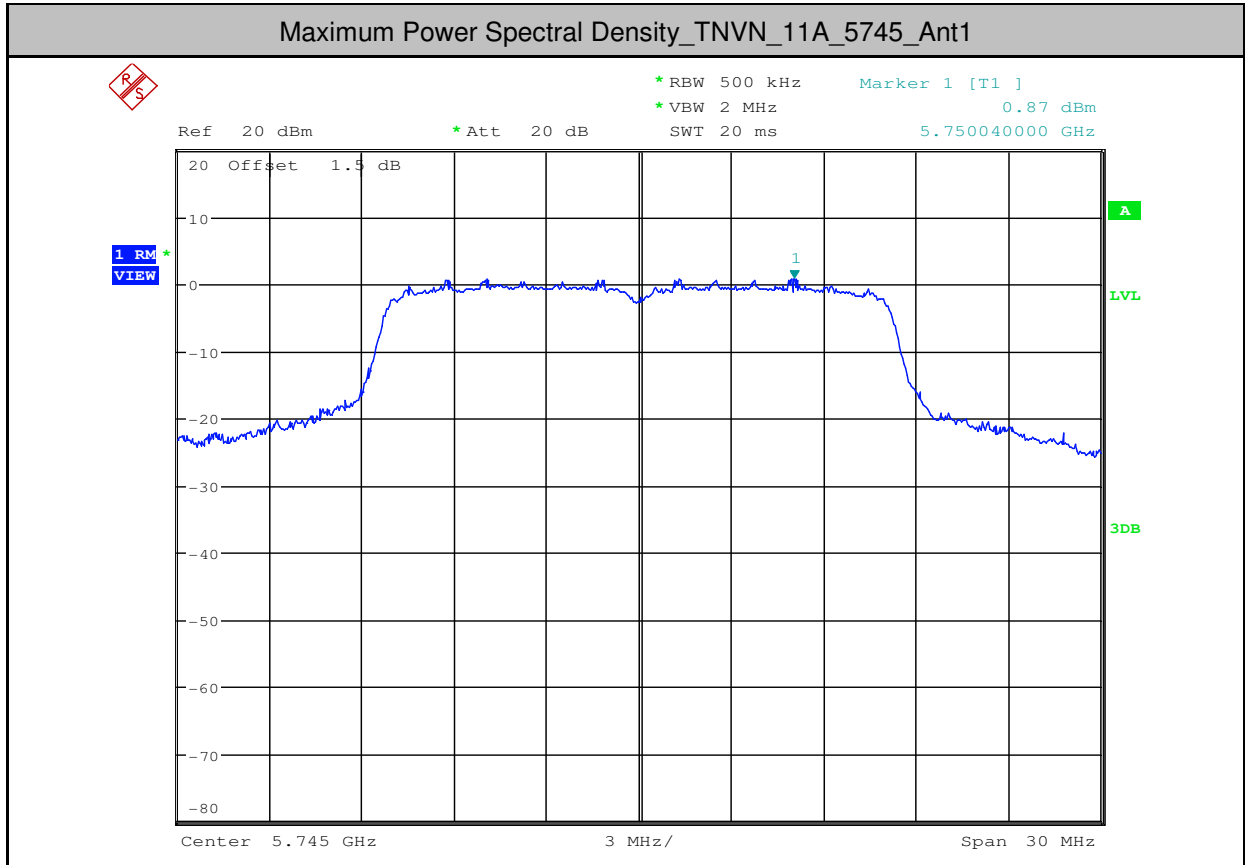


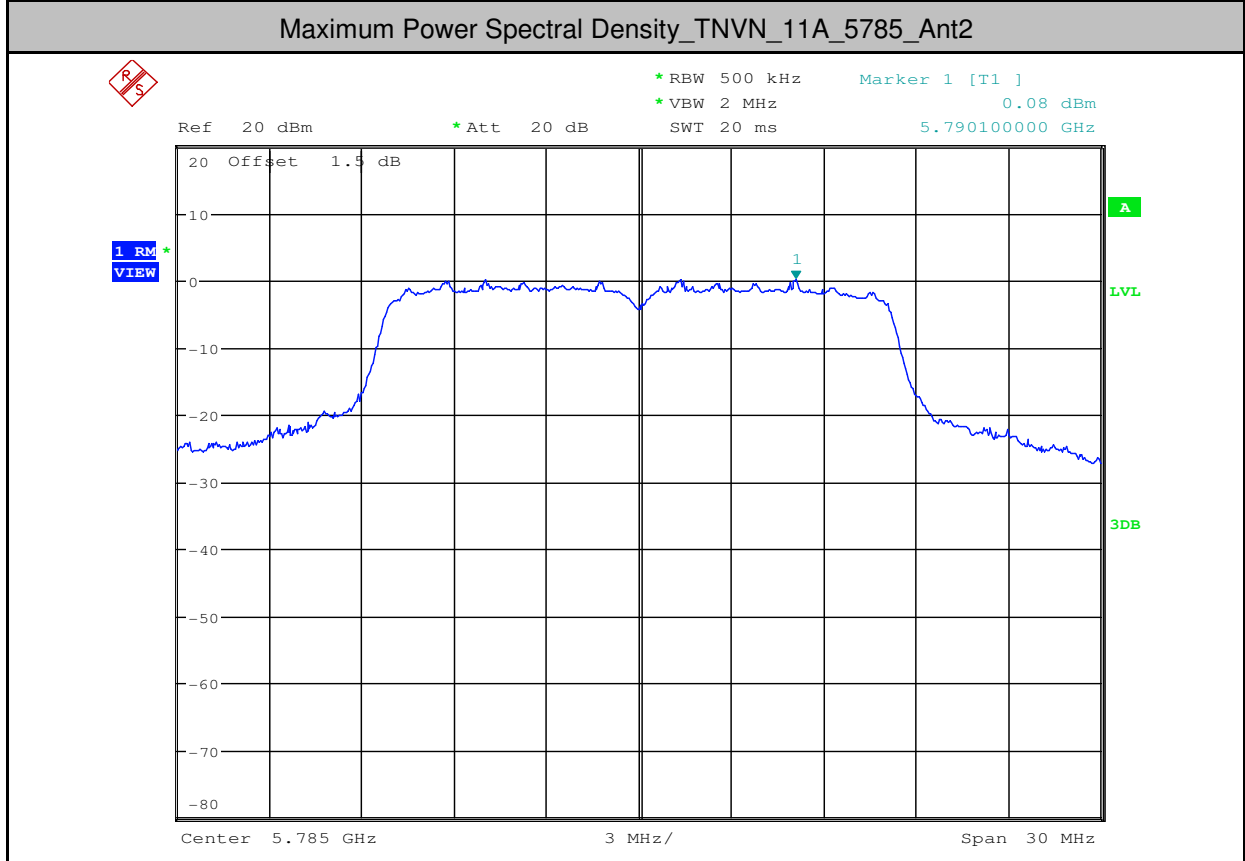
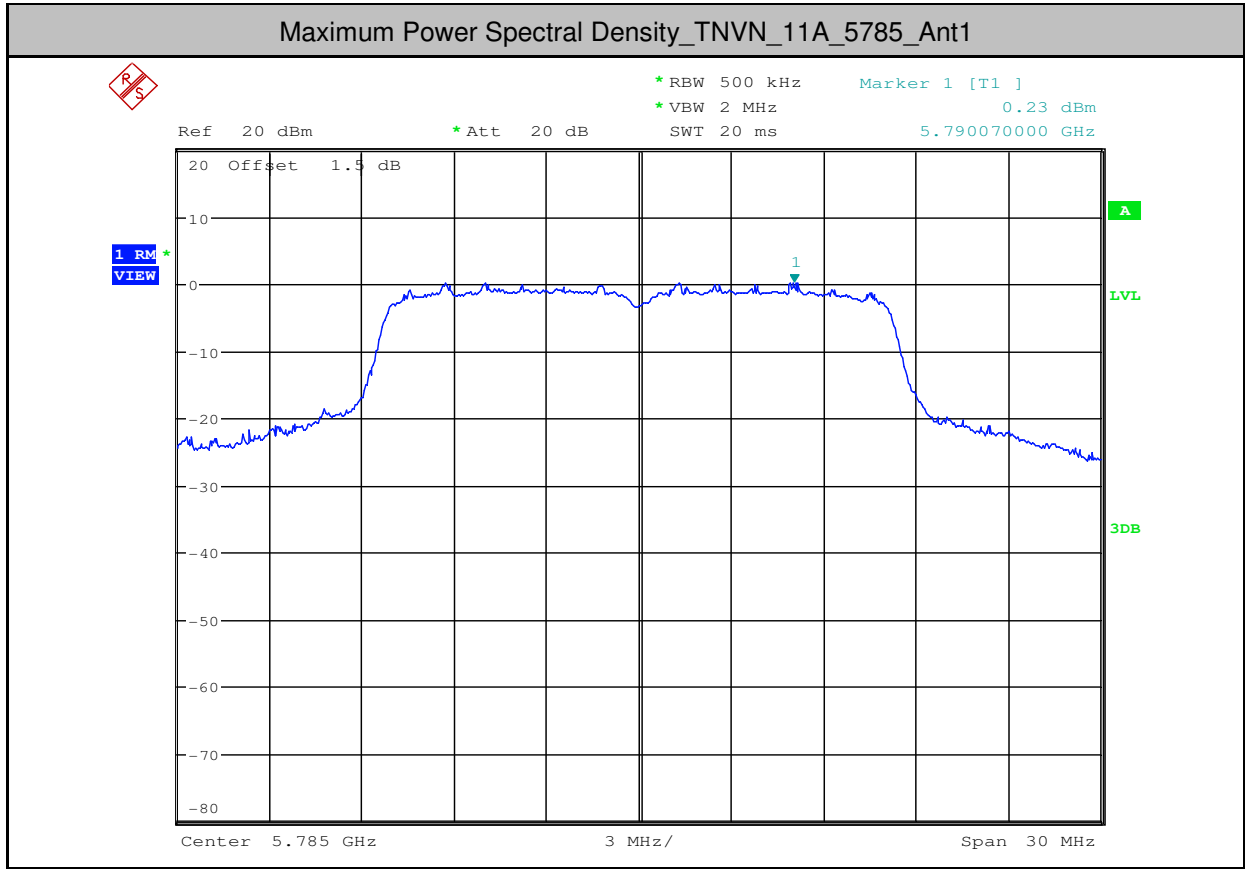


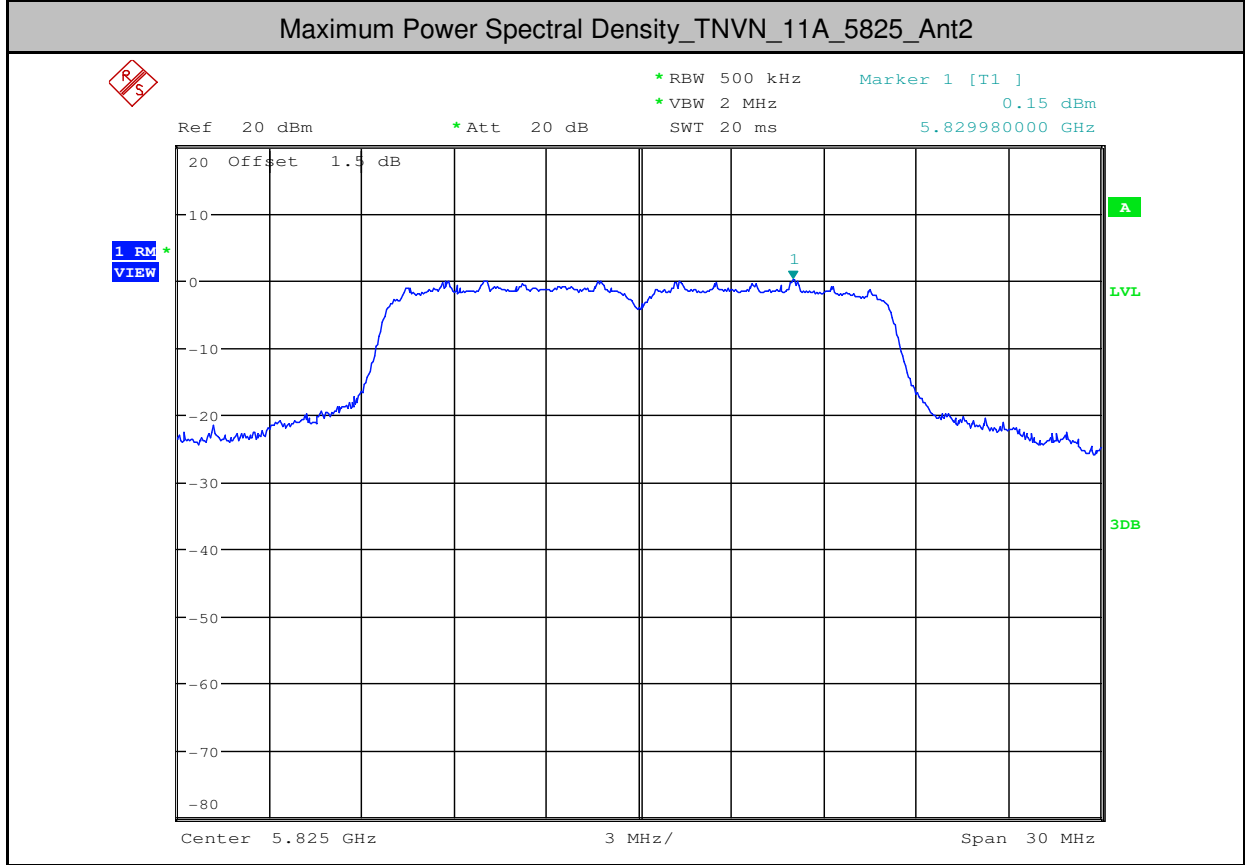
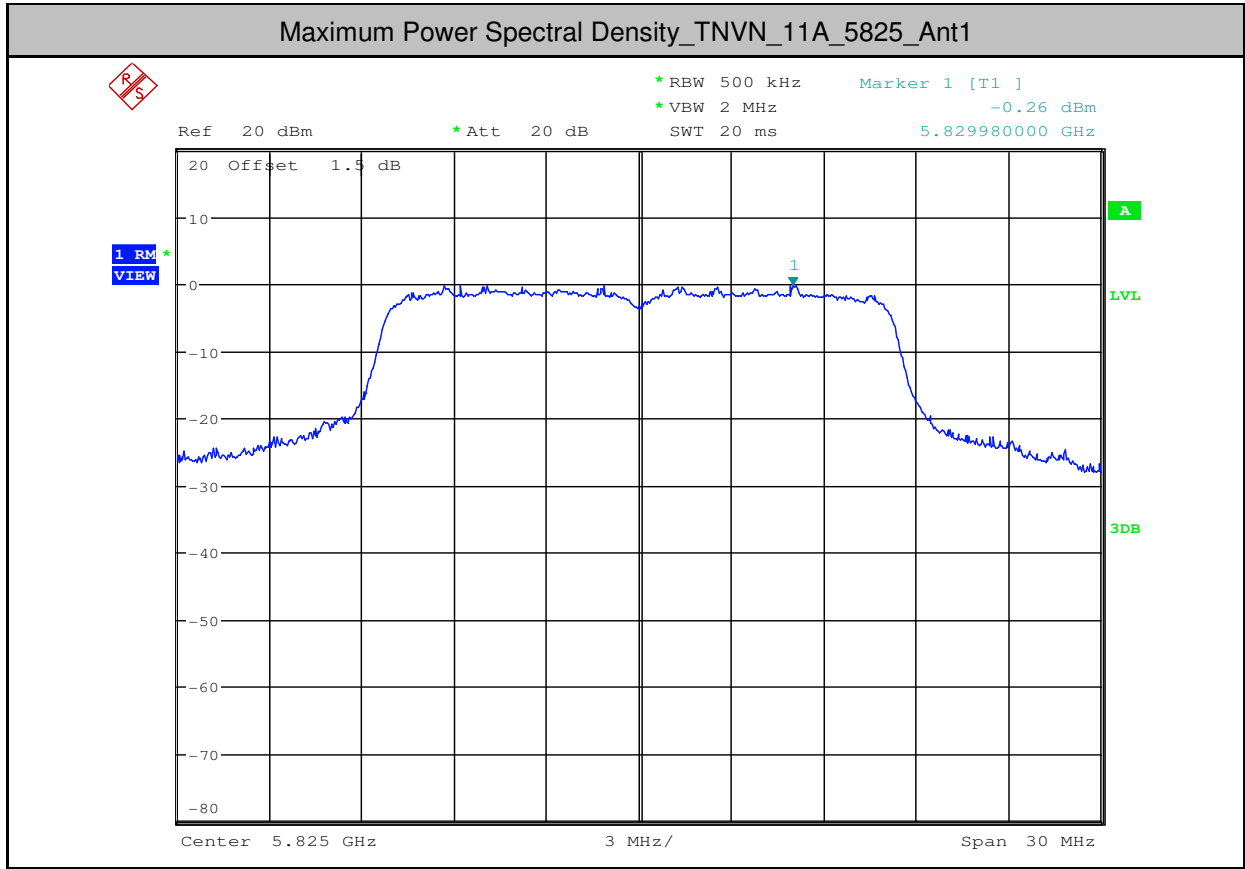


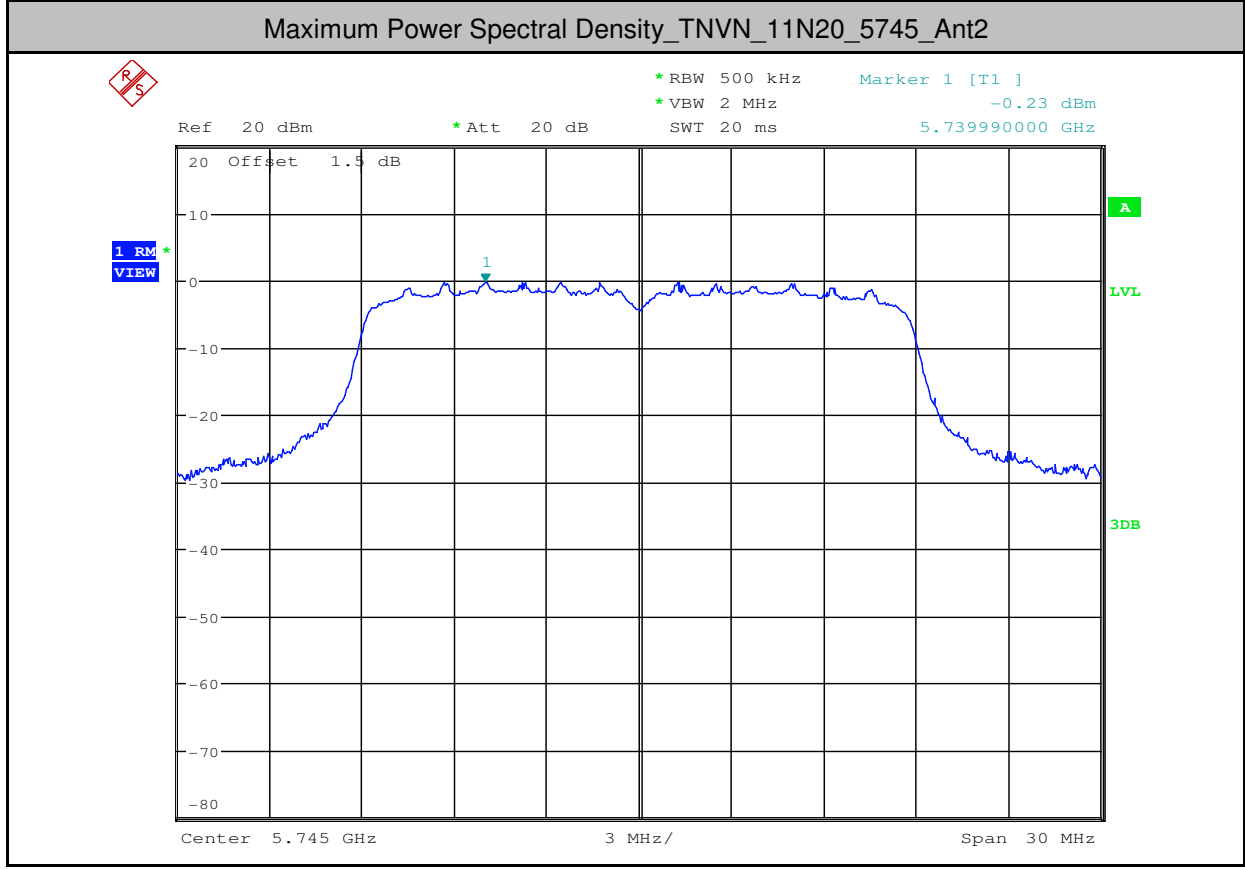
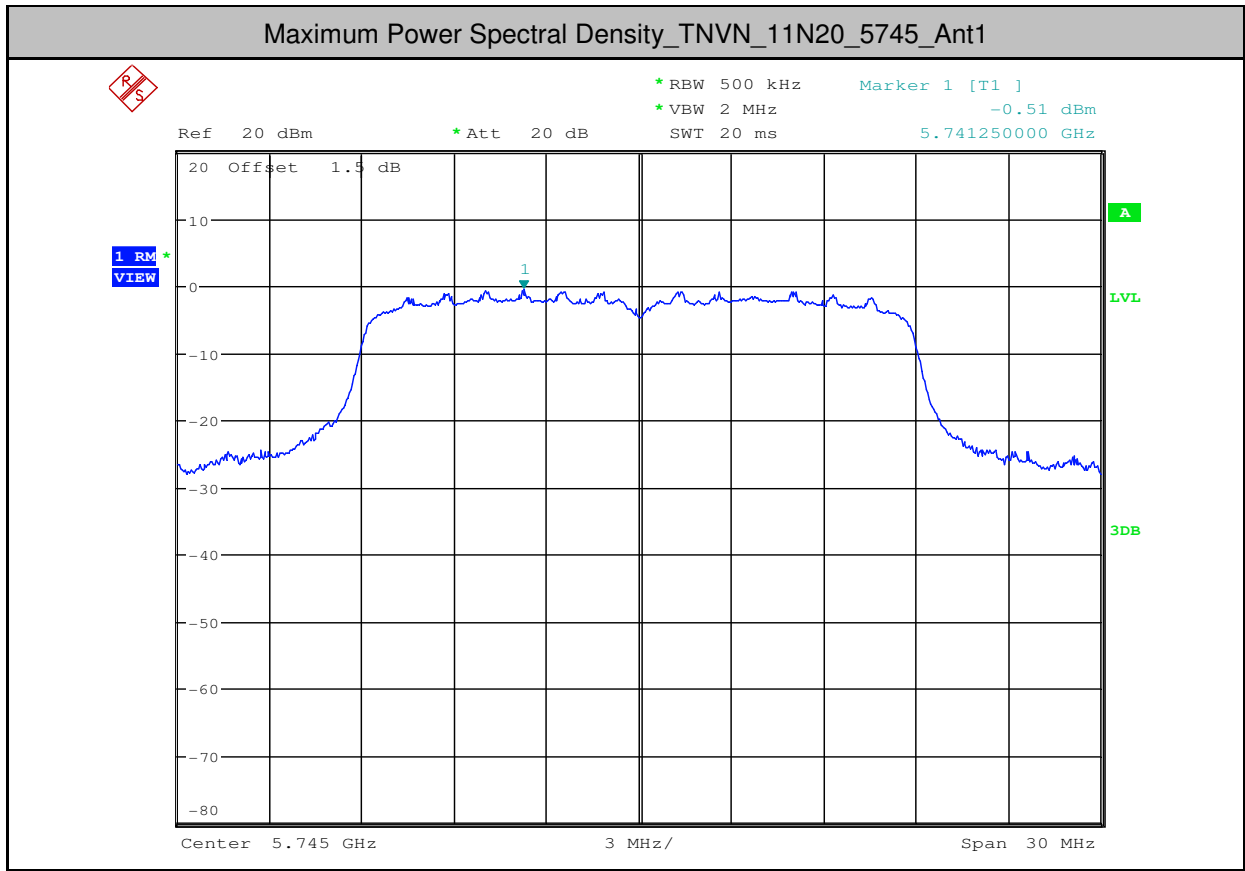
4. Maximum Power Spectral Density

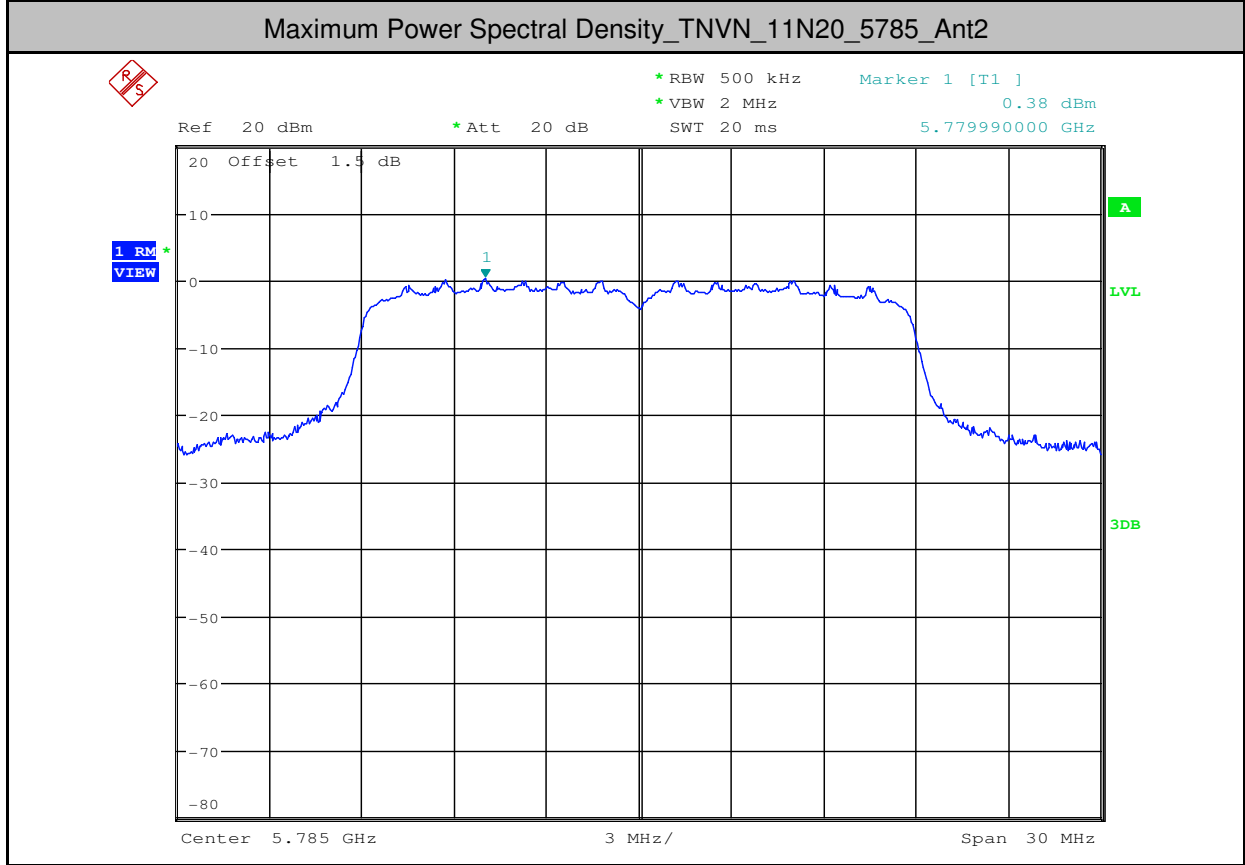
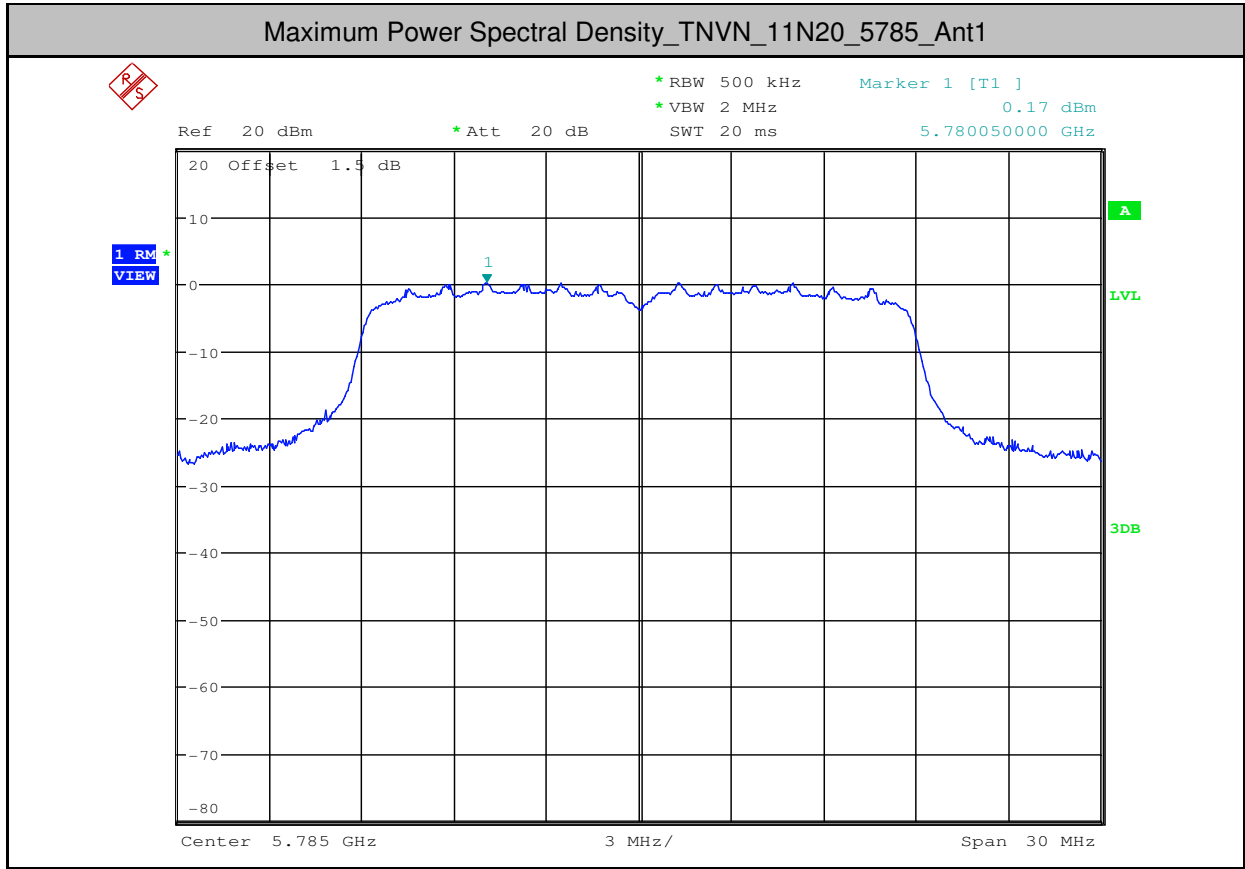
Test Mode	Test Channel	Ant	Level [dBm/500kHz]	10log(1/x) Factor[dB]	10log(500kHz/RBW) Factor [dB]	PSD [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
11A	5745	Ant1	0.87	0.09	0	0.96	<17.00	PASS
11A	5745	Ant2	-0.64	0.09	0	-0.55	<17.00	PASS
11A	5785	Ant1	0.23	0.09	0	0.32	<17.00	PASS
11A	5785	Ant2	0.08	0.09	0	0.17	<17.00	PASS
11A	5825	Ant1	-0.26	0.09	0	-0.17	<17.00	PASS
11A	5825	Ant2	0.15	0.09	0	0.24	<17.00	PASS
11N20	5745	Ant1	-0.51	0.1	0	-0.41	<17.00	PASS
11N20	5745	Ant2	-0.23	0.1	0	-0.13	<17.00	PASS
11N20	5785	Ant1	0.17	0.11	0	0.28	<17.00	PASS
11N20	5785	Ant2	0.38	0.1	0	0.48	<17.00	PASS
11N20	5825	Ant1	-0.1	0.1	0	0	<17.00	PASS
11N20	5825	Ant2	0.21	0.1	0	0.31	<17.00	PASS

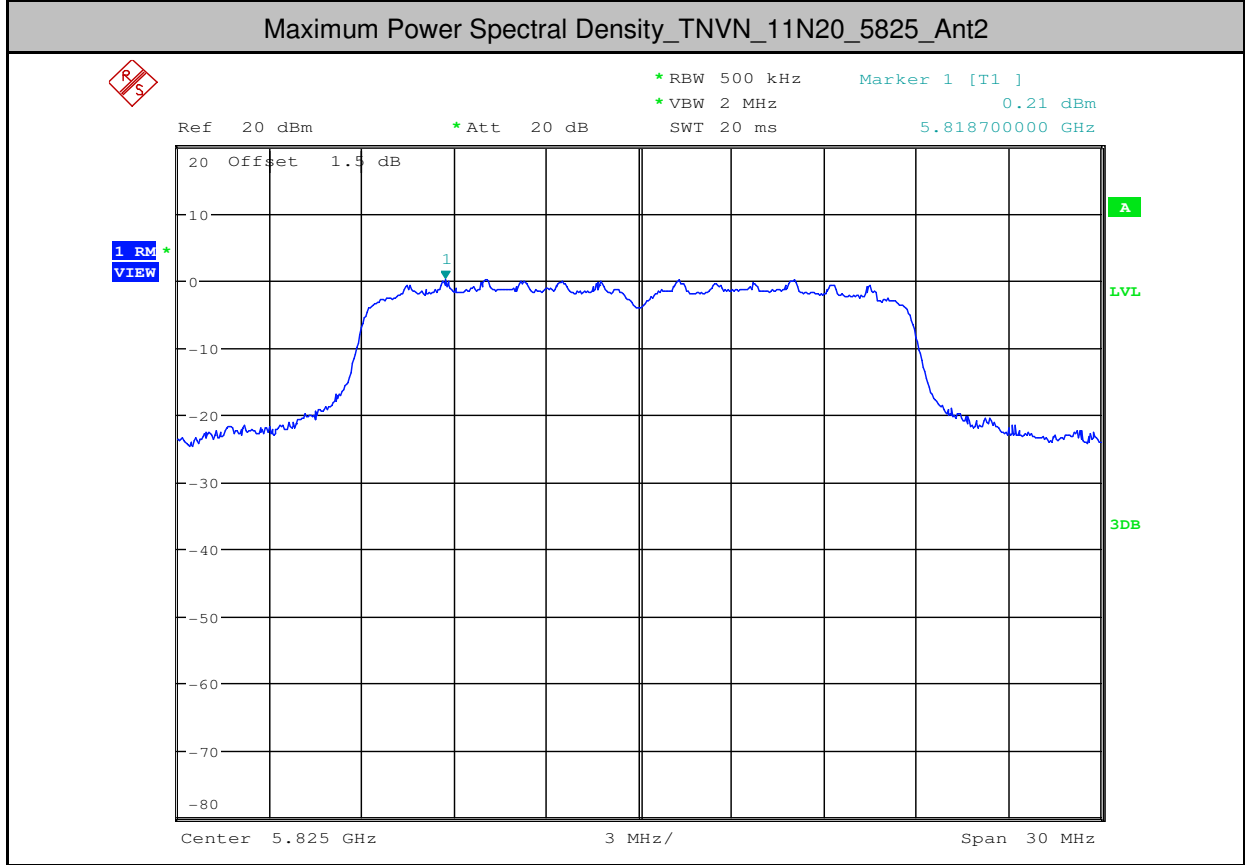
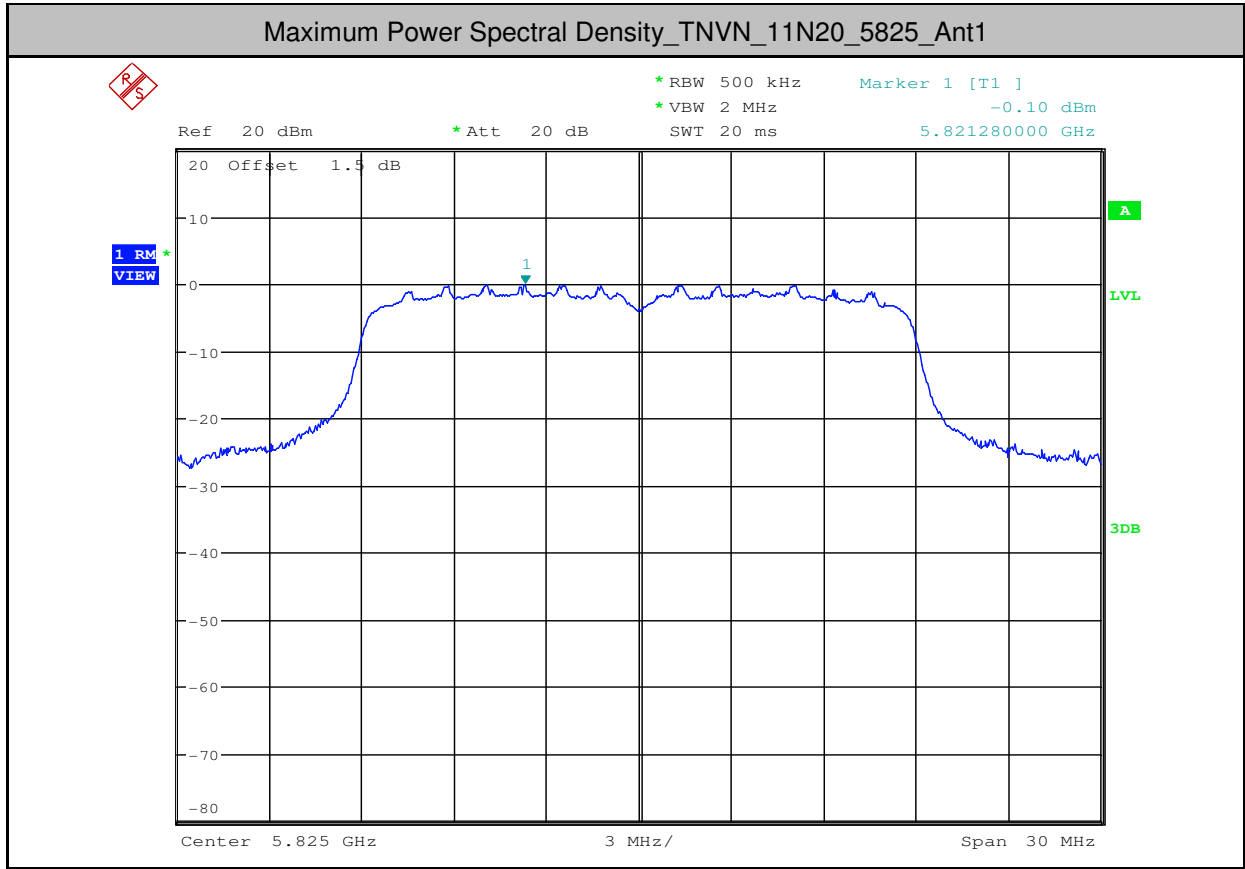








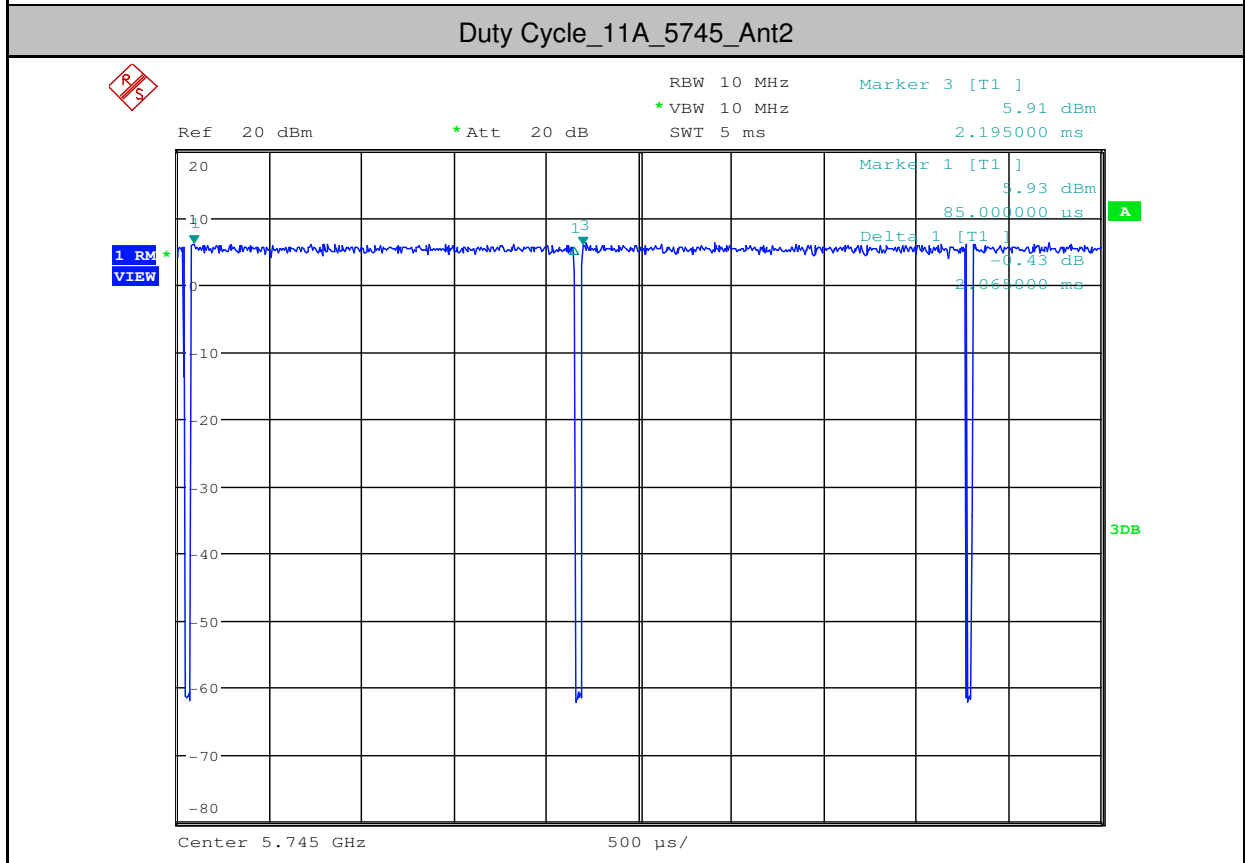
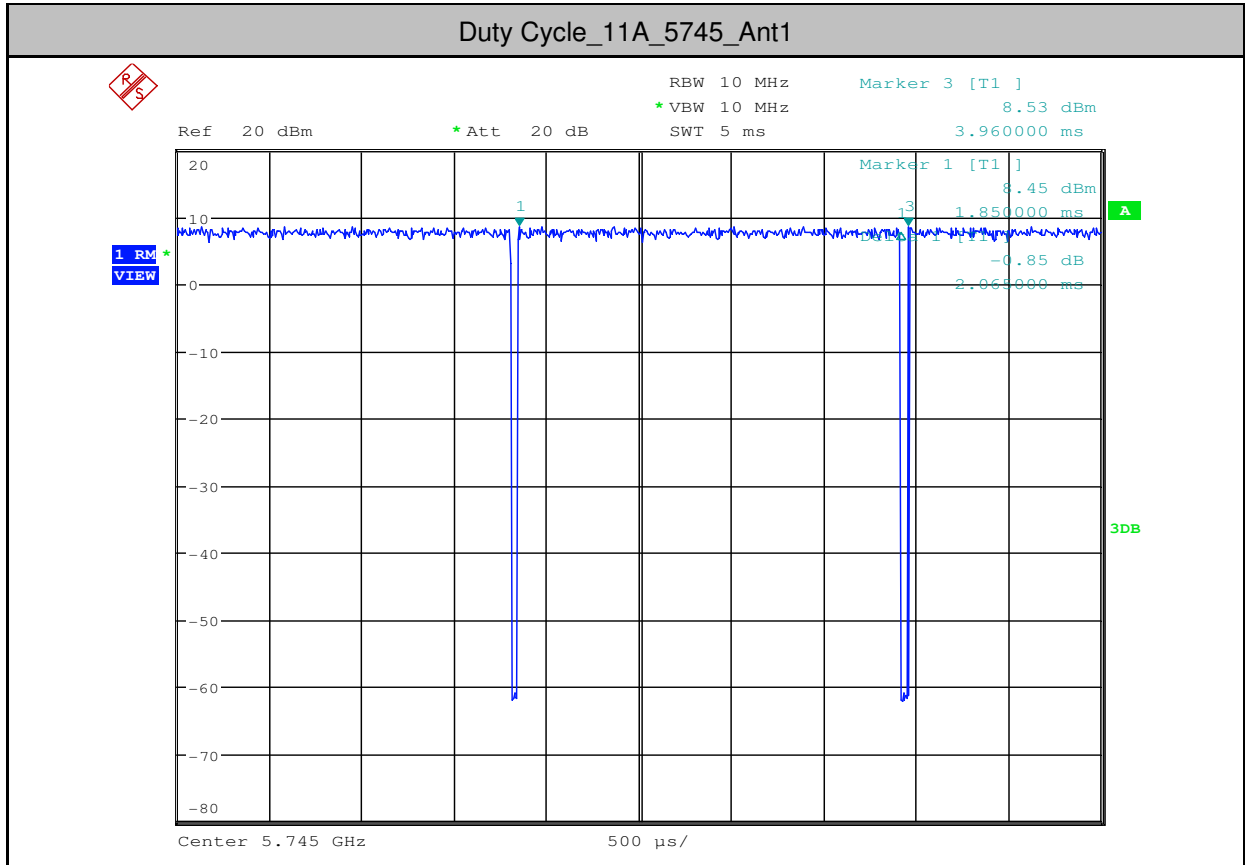


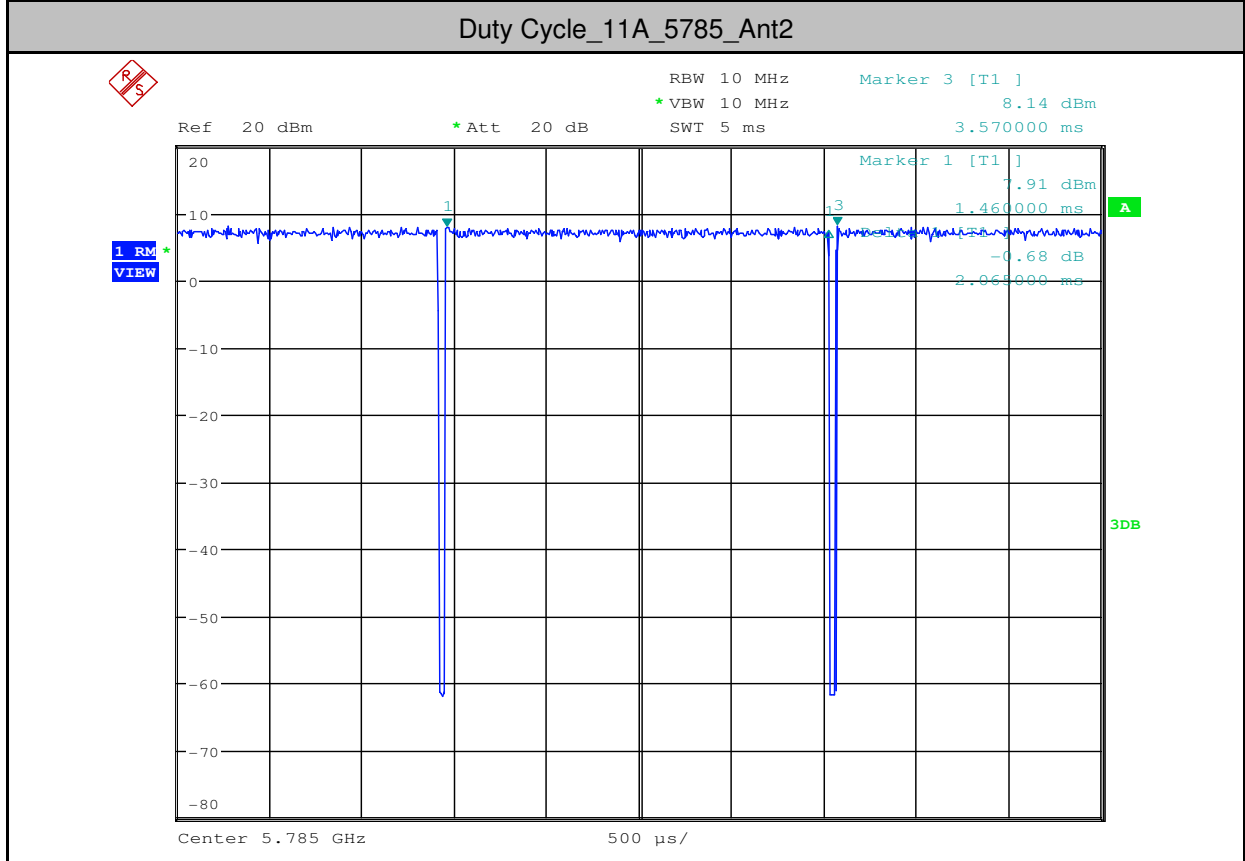
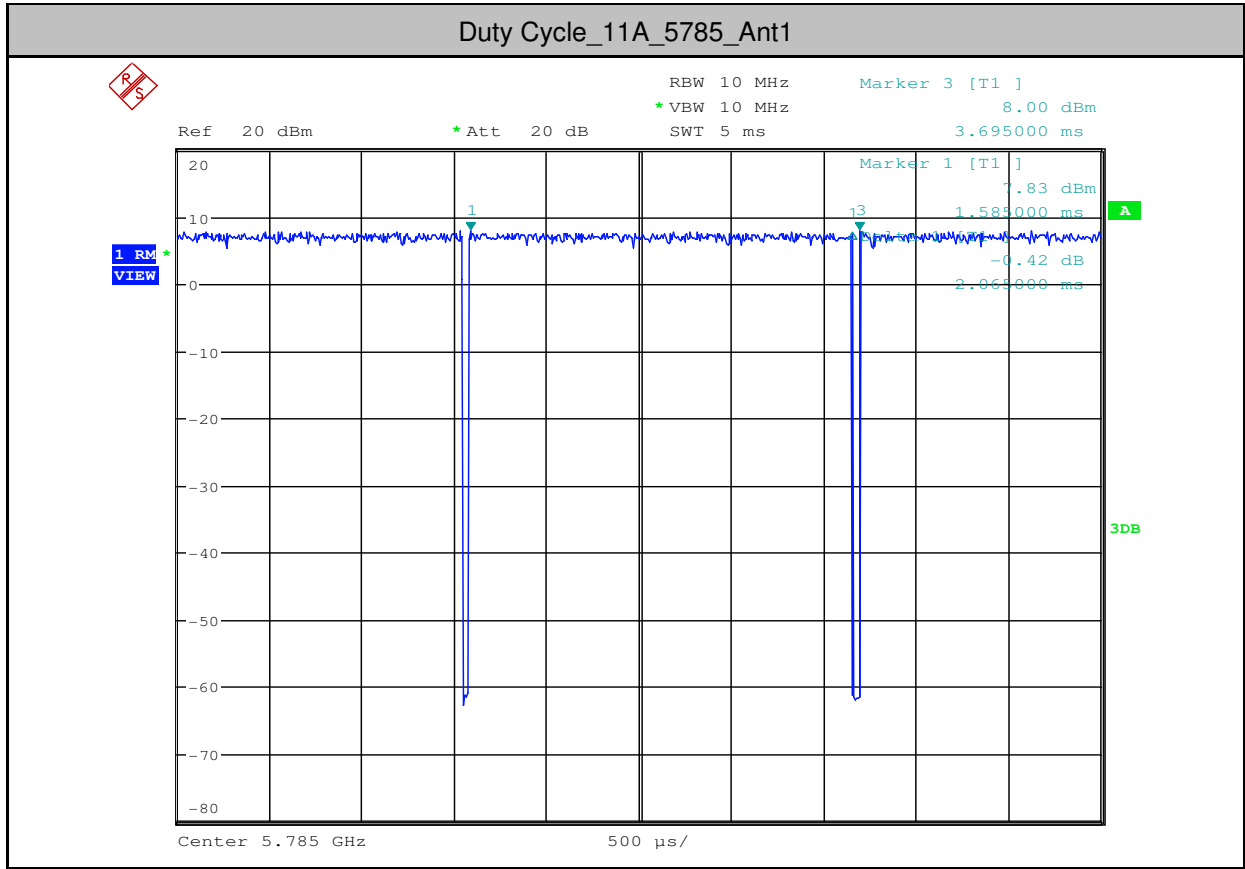


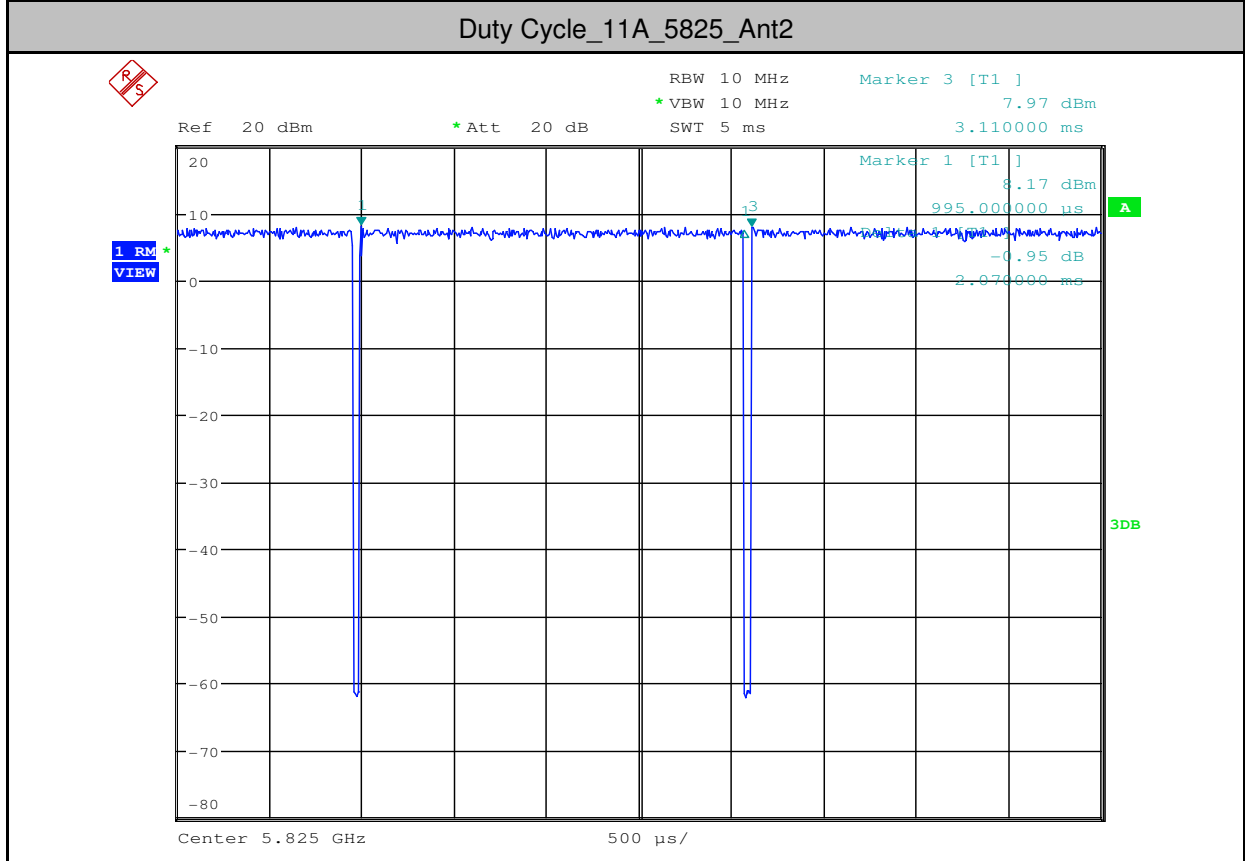
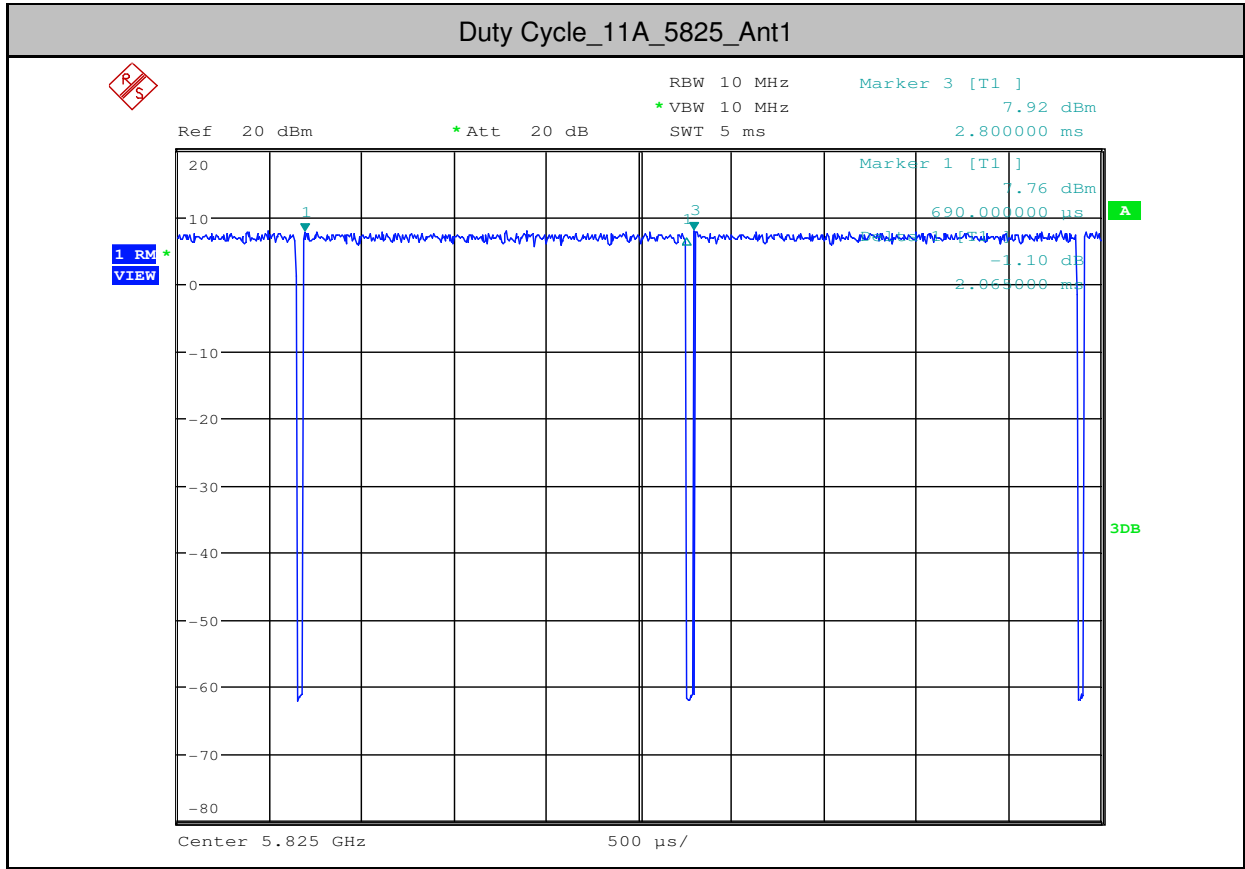


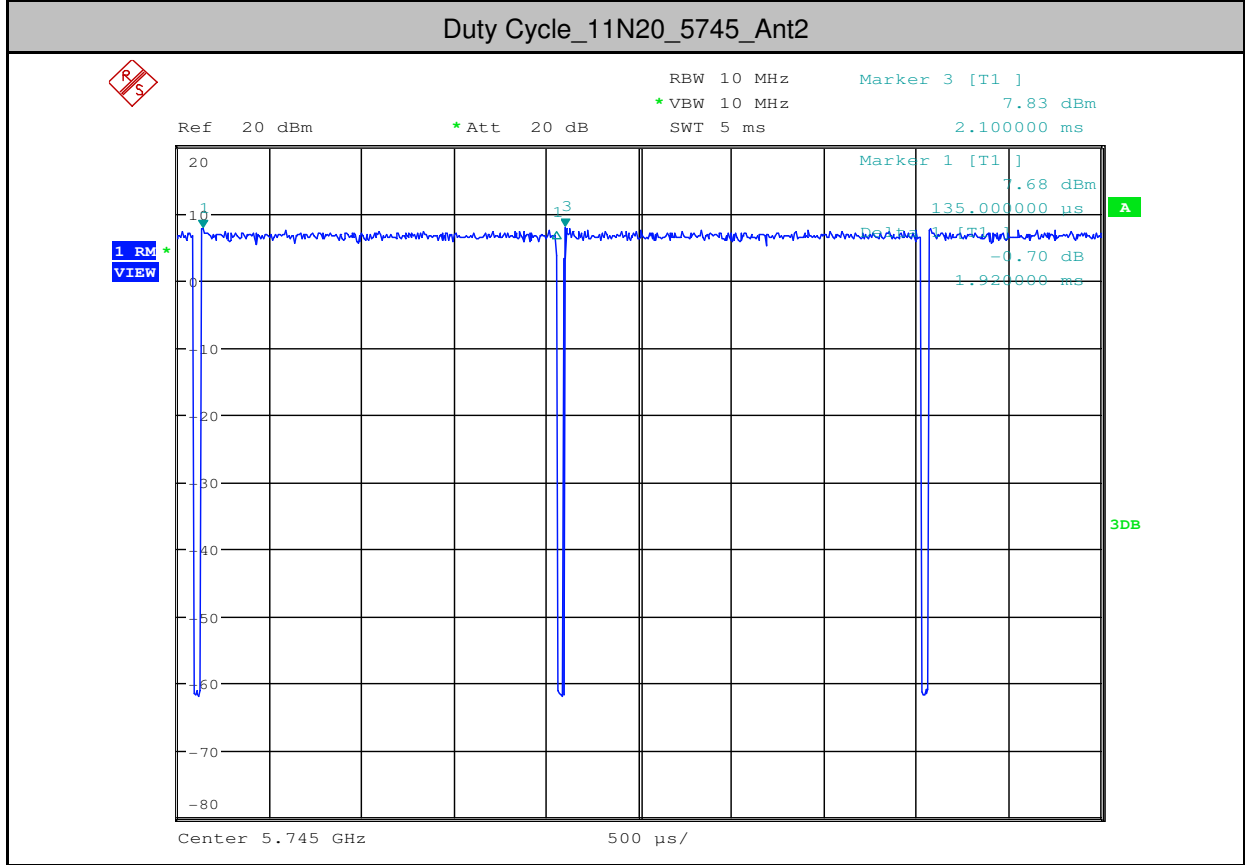
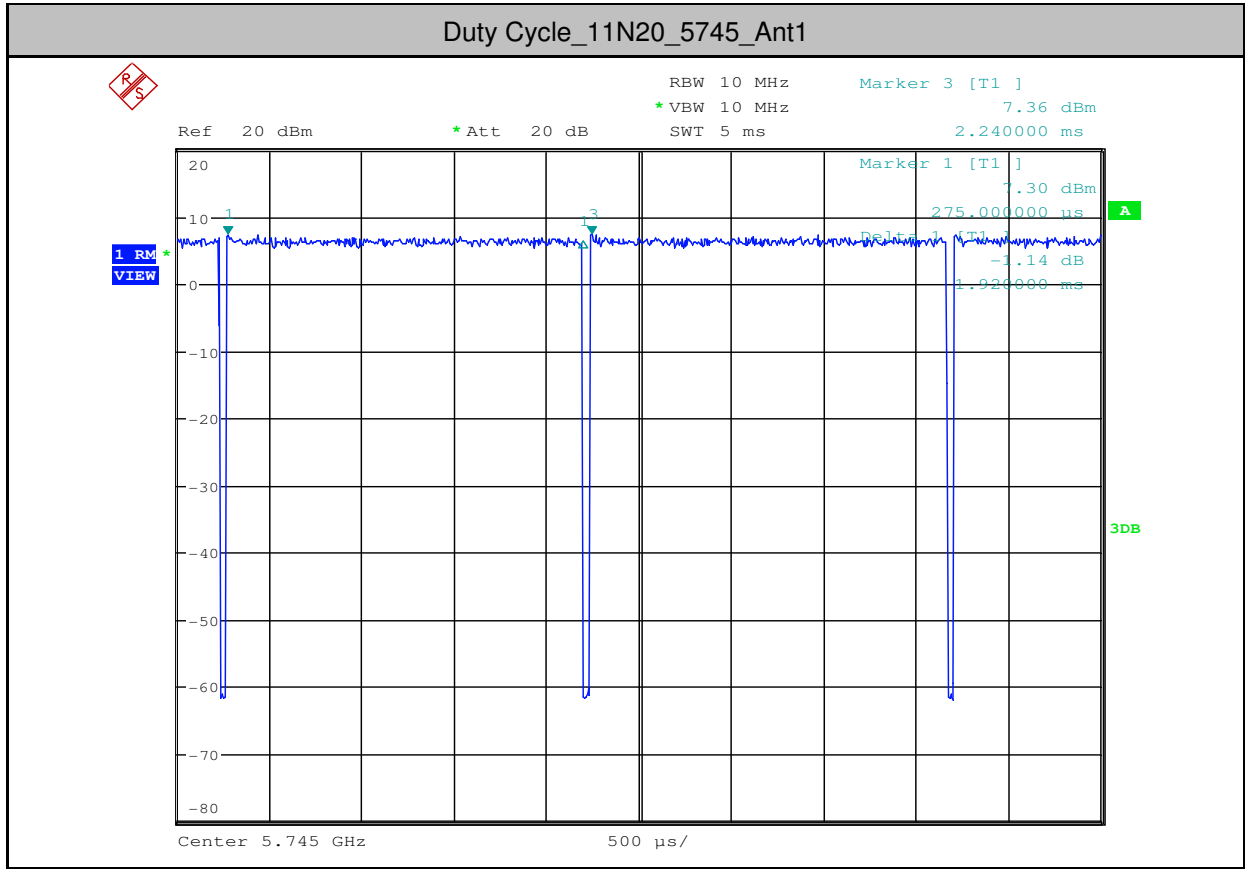
5.Duty Cycle (x)

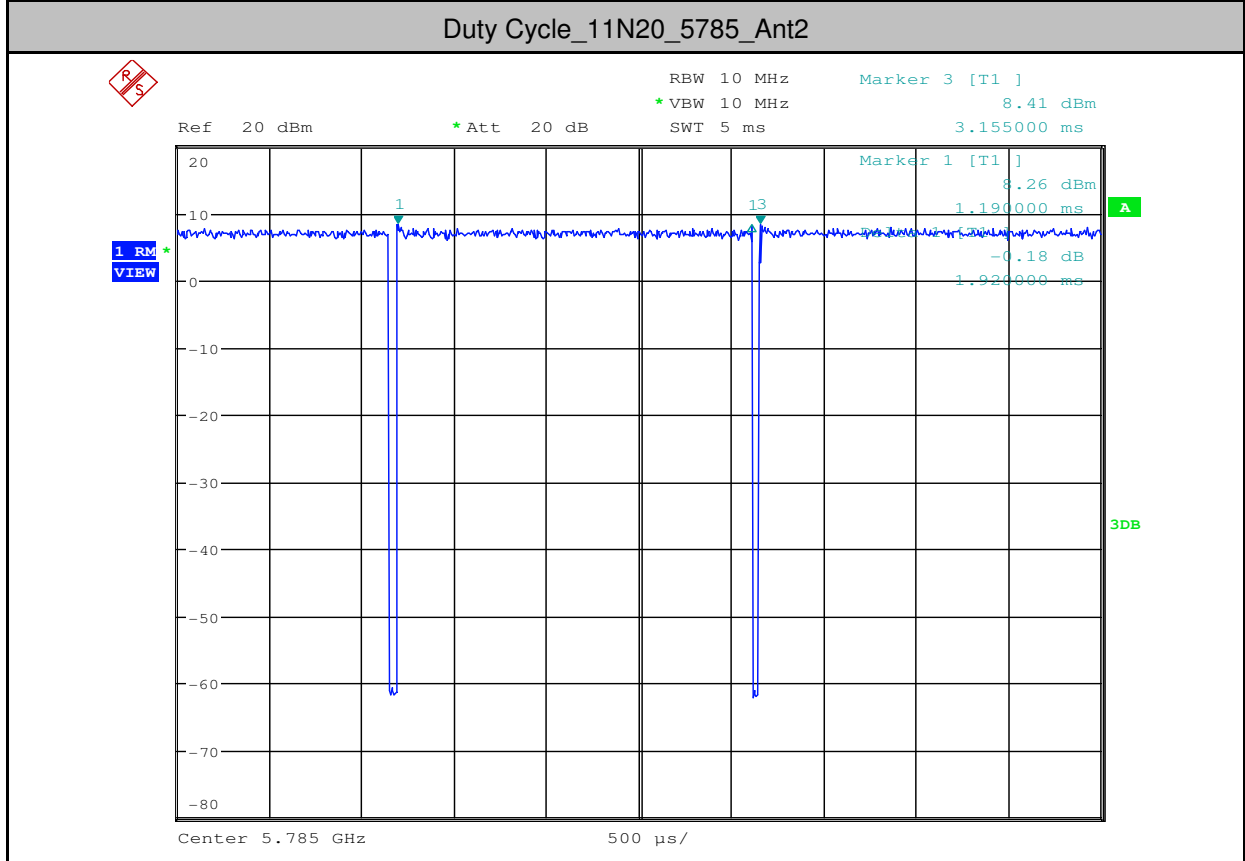
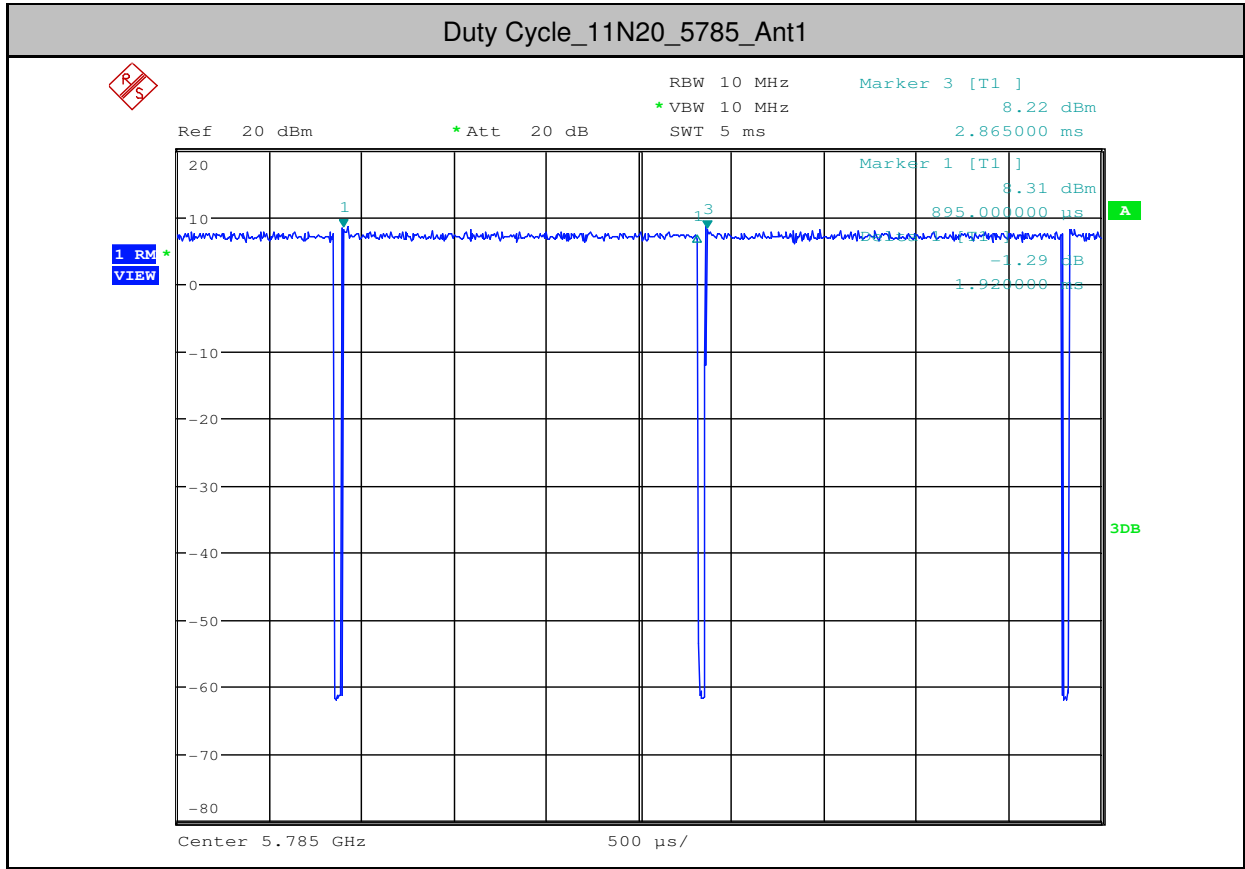
Test Mode	Test Channel	Ant	Duty Cycle[%]	10log(1/x) Factor[dB]
11A	5745	Ant1	97.87	0.09
11A	5745	Ant2	97.87	0.09
11A	5785	Ant1	97.87	0.09
11A	5785	Ant2	97.87	0.09
11A	5825	Ant1	97.87	0.09
11A	5825	Ant2	97.87	0.09
11N20	5745	Ant1	97.71	0.1
11N20	5745	Ant2	97.71	0.1
11N20	5785	Ant1	97.46	0.11
11N20	5785	Ant2	97.71	0.1
11N20	5825	Ant1	97.72	0.1
11N20	5825	Ant2	97.71	0.1

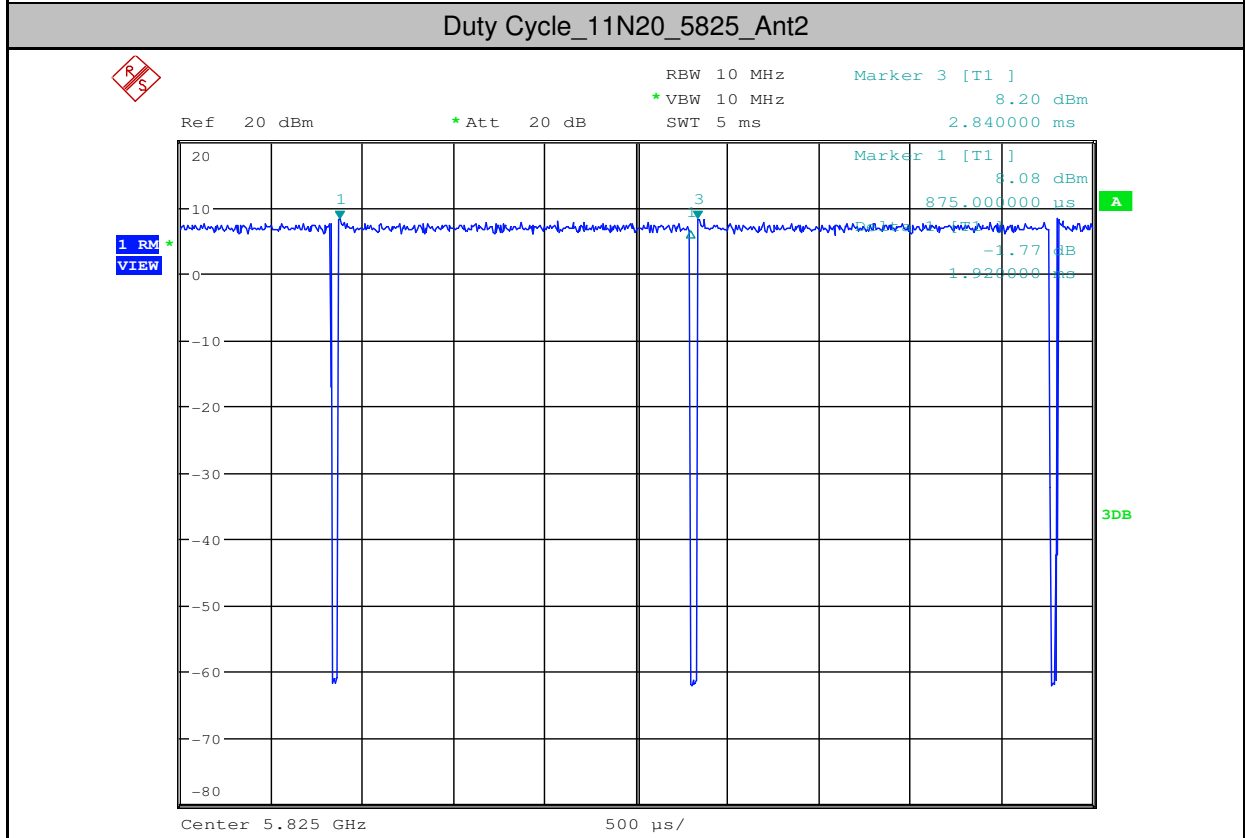
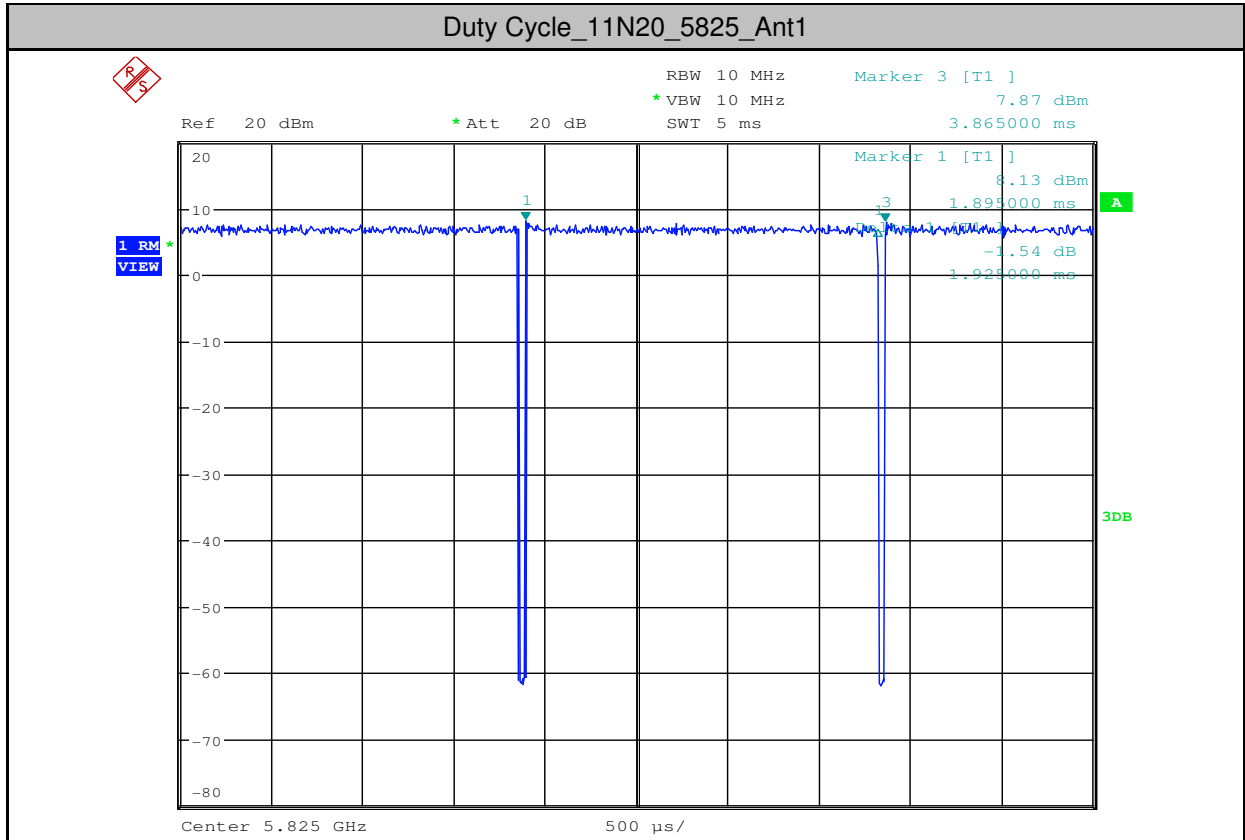












- End of the Report -