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Report Template Version: V05
Report Template Revision Date: 2021-11-03

Test Report

Report No. :	CQASZ20220100087E-03
Applicant:	Qolsys, Inc.
Address of Applicant:	1919 S. Bascom Ave. suite 600 Campbell, CA 95008 USA
Equipment Under Test (EUT):	
EUT Name:	Portable electronic tablet computer
All Model No.:	IQRemote PG
Test Model No.:	IQRemote PG
Brand Name:	N/A
FCC ID:	2AAJXQS-IQRTPG
Standards:	47 CFR Part 15, Subpart E
	ANSI C63.10-2013
	KDB 789033 D02 General UNII Test Procedures New Rules v02
	KDB 662911 D01 Multiple Transmitter Output v02r01
Date of Receipt:	2022-01-14
Date of Test:	2022-01-14 to 2022-06-25
Date of Issue:	2022-7-29
Test Result :	**PASS***

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

Tested By: lewis zhou

(Lewis Zhou)

Reviewed By: K. Liao

(K Liao)

Approved By:

(Jack Ai)

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CQA, this report can't be reproduced except in full.

1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20220100087E-03	Rev.01	Initial report	2022-7-29

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart E Section 15.407 (b)(6)	ANSI C63.10-2013	PASS
Conducted Output Power and transmit power control mechanism	47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)(4)(h)(1)	ANSI C63.10-2013	PASS
Emission Bandwidth	47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)	ANSI C63.10-2013	PASS
Peak Power Spectral Density	47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)(5)	ANSI C63.10-2013	PASS
Frequency stability	47 CFR Part 15 Subpart E Section 15.407 (g)	ANSI C63.10-2013	PASS
Operation in the absence of information to the transmit	47 CFR Part 15 Subpart E Section 15.407 (c)	47 CFR Part 15 Subpart E	PASS
Radiated Spurious Emissions	47 CFR Part 15 Subpart E Section 15.407 (b)(1)(2)(3)(5)(6)(7)(8)	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15 Subpart E Section 15.407 (b)(6)(7)(8)	ANSI C63.10-2013	PASS

Remark:
The tested sample(s) and the sample information are provided by the client.
Tx: In this whole report Tx (or tx) means Transmitter.
Rx: In this whole report Rx (or rx) means Receiver.
RF: In this whole report RF means Radiated Frequency.
CH: In this whole report CH means channel.
Volt: In this whole report Volt means Voltage.
Temp: In this whole report Temp means Temperature.
Humid: In this whole report Humid means humidity.
Press: In this whole report Press means Pressure.
N/A: In this whole report not application

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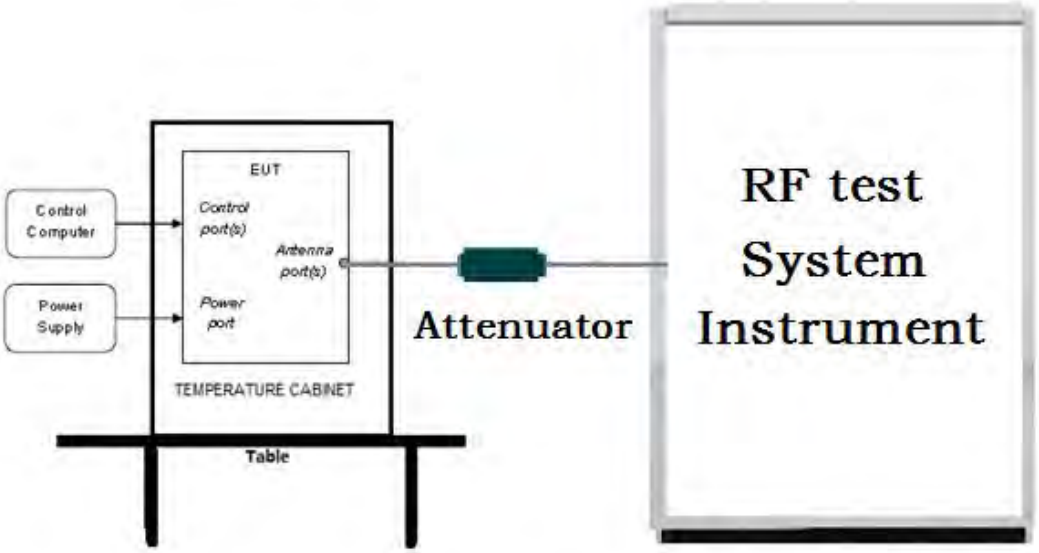
4 Test Requirement

4.1 Test setup

4.1.1 For Conducted test setup



4.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

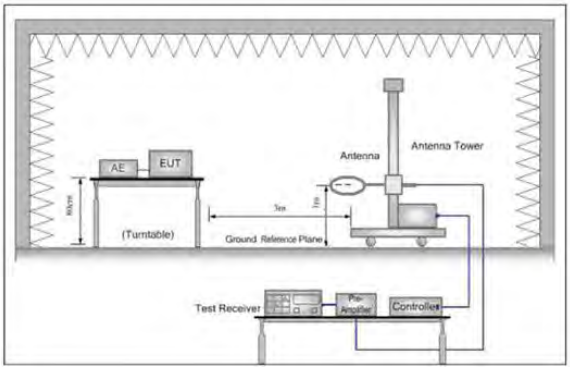


Figure 1. Below 30MHz

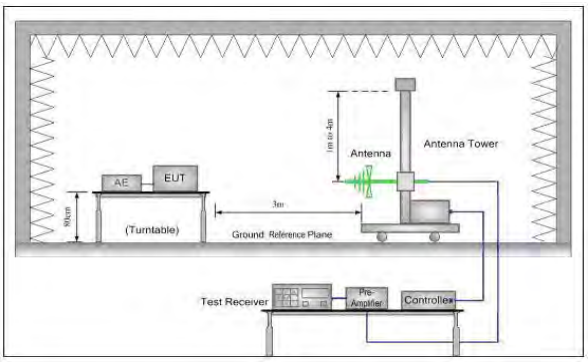


Figure 2. 30MHz to 1GHz

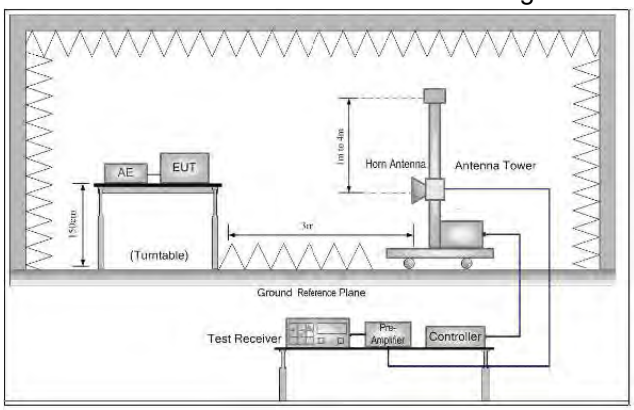
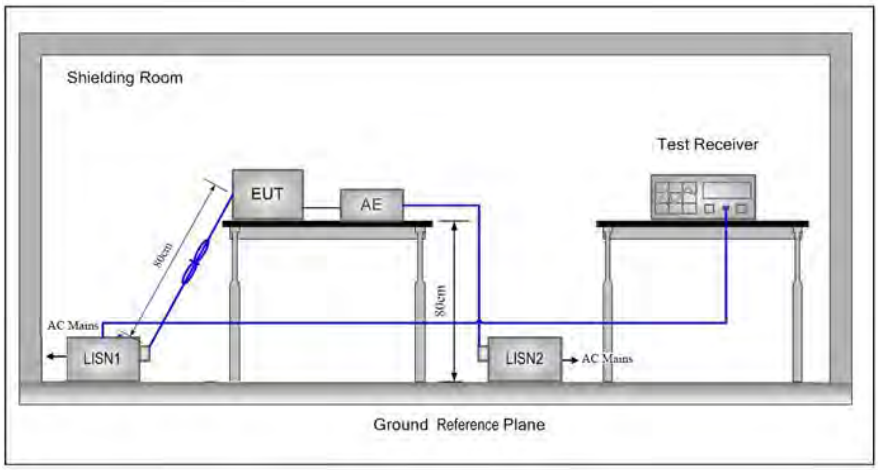


Figure 3. Above 1GHz

4.1.3 For Conducted Emissions test setup

Conducted Emissions setup



4.2 Test Environment

Operating Environment:		
Conducted Emissions:		
Temperature:	26 °C	
Humidity:	59 % RH	
Atmospheric Pressure:	1009mbar	
Radiated Emissions:		
Temperature:	25.5 °C	
Humidity:	53 % RH	
Atmospheric Pressure:	1009mbar	
Radio conducted item test (RF Conducted test room):		
Temperature:	25.5 °C	
Humidity:	53 % RH	
Atmospheric Pressure:	1009mbar	
Test Condition	Temperature (°C)	Voltage (V)
TN/VN	+15 to +35	12
TL/VL	-20	10.8
TH/VL	50	10.8
TL/VH	-20	13.2
TH/VH	50	13.2

Remark:

1)The EUT just work in such extreme temperature of -20 °C to 50 °C and the extreme voltage of 10.8 V to 13.2 V, so here the EUT is tested in the temperature of -20 °C to 50 °C and the voltage of 10.8V to 13.2V.

2VN: Normal Voltage; TN: Normal Temperature;

TL: Low Extreme Test Temperature; TH: High Extreme Test Temperature;

VL: Low Extreme Test Voltage; VH: High Extreme Test Voltage.

4.3 Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
802.11a/n/ac(20M)	5150MHz ~5250 MHz	Channel 36	Channel 40	Channel 48
		5180MHz	5200MHz	5240MHz
802.11n/ac(40M)	5150MHz ~5250 MHz	Channel 38	N/A	Channel 46
		5190MHz	N/A	5230MHz
802.11ac(80M)	5150MHz ~5250 MHz	N/A	Channel 42	N/A
		N/A	5210MHz	N/A
802.11a/n/ac(20M)	5725MHz ~5850 MHz	Channel 149	Channel 157	Channel 165
		5745MHz	5785MHz	5825MHz
802.11n/ac(40M)	5725MHz ~5850 MHz	Channel 151	N/A	Channel 159
		5755MHz	N/A	5795MHz
802.11ac(80M)	5725MHz ~5850 MHz	N/A	Channel 155	N/A
		N/A	5775MHz	N/A

Run Software:

Test mode:

Pre-scan under all rate at lowest channel for Ant1

Through Pre-scan, MCS0 is the worst case of 802.11a (20M);MCS0 is the worst case of 802.11n (20M) ;MCS0 is the worst case of 802.11ac (20M) ;MCS0 is the worst case of 802.11n(40M) ;MCS0 is the worst case of 802.11ac (40M) ;MCS0 is the worst case of 802.11ac(80M).

5 General Information

5.1 Client Information

Applicant:	Qolsys, Inc.
Address of Applicant:	1919 S. Bascom Ave. suite 600 Campbell, CA 95008 USA
Manufacturer:	Chengdu Vantron Technology Co., Ltd.
Address of Manufacturer:	No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China 610045
Factory:	Chengdu Vantron Technology Co., Ltd.
Address of Factory:	No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China 610045

5.2 General Description of EUT

Product Name:	Portable electronic tablet computer
All Model No.:	IQRemote PG
Test Model No.:	IQRemote PG
Trade Mark:	N/A
EUT Supports Radios application	5GHz: Wi-Fi: U-NII-1: 5.15-5.25GHz; U-NII-3: 5.725-5.850GHz
Software Version:	1.0 FCC
Hardware Version:	Rev 5.1.1
Power Supply:	lithium battery: DC 3.7V 2600mAh 9.62Wh, Charge by adapter
Adapter:	AC/DC Adapter: Model: SW-120100 Input: 100-240V~ 50/60Hz 0.68A MAX Output: 12V⎓ 1000mA

5.3 Product Specification subjective to this standard

Operation Frequency:	IEEE 802.11a/n/ac(20M): 5150MHz ~5250 MHz IEEE802.11n/ac(40M): 5150MHz ~5250 MHz IEEE802.11ac(80M): 5150MHz ~5250 MHz IEEE 802.11a/n/ac(20M): 5725MHz ~5850 MHz IEEE802.11n/ac(40M): 5725MHz ~5850 MHz IEEE802.11ac(80M): 5725MHz ~5850 MHz
Channel Numbers:	IEEE 802.11a/n/ac(20M): 5150MHz ~5250MHz/ 4 channel IEEE 802.11n/ac(40M): 5150MHz ~5250MHz/ 2 channel IEEE 802.11ac(80M): 5150MHz ~5250MHz/ 1 channel IEEE 802.11a/n/ac(20M): 5725MHz ~5850MHz/ 5 channel IEEE 802.11n/ac(40M): 5725MHz ~5850MHz/ 2 channel IEEE 802.11ac(80M): 5725MHz ~5850MHz/ 1 channel
Type of Modulation:	OFDM
Sample Type:	☐ Mobile ☐ Portable ☒ Fix Location
Test Power Grade:	N/A
Test Software of EUT:	Wi-Fi Continuous Tx -Modulation
Antenna Type:	FPC antenna
Antenna gain:	1.02 dBi

Operation Frequency each of channel

For 802.11a/n/ac(20M) Operation in the 5150MHz ~5250 MHz band			
Channel	Frequency	Channel	Frequency
36	5180MHz	44	5220MHz
40	5200MHz	48	5240MHz
For 802.11a/n/ac(20M) Operation in the 5725MHz ~5850 MHz band			
Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz	NA	NA

For 802.11n/ac(40M) Operation in the 5150MHz ~5250 MHz band			
Channel	Frequency	Channel	Frequency
38	5190MHz	46	5230MHz
For 802.11n/ac(40M) Operation in the 5725MHz ~5850 MHz band			
Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

For 802.11ac(80M) Operation in the 5150MHz ~5250 MHz band			
Channel	Frequency	NA	NA
42	5210MHz	NA	NA
For 802.11ac(80M) Operation in the 5725MHz ~5850 MHz band			
Channel	Frequency	NA	NA
155	5775MHz	NA	NA

5.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by
/	/	/	/	/

5.5 Test Location

All tests were performed at:

Shenzhen Huaxia Testing Technology Co., Ltd.,

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua New District, Shenzhen, Guangdong, China

5.6 Test Facility

- **A2LA (Certificate No. 4742.01)**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

- **FCC Registration No.: 522263**

Shenzhen Huaxia Testing Technology 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.:522263

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

5.10 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	3×10^{-8}
2	RF power, conducted	0.86dB
3	Radiated Spurious emission test	5.12dB (Below 1GHz)
		4.6dB (Above 1GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.8°C
6	Humidity test	2.0%
7	DC power voltages	0.5%

6 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2021/9/10	2022/9/9
Spectrum analyzer	R&S	FSU26	CQA-038	2021/9/10	2022/9/9
Spectrum analyzer	R&S	FSV40	CQA-075	2021/9/10	2022/9/9
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	4012339	2021/9/10	2022/9/9
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2021/9/10	2022/9/9
Preamplifier	EMCI	EMC184055SE	CQA-089	2021/9/10	2022/9/9
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2021/9/16	2024/9/15
Bilog Antenna	R&S	HL562	CQA-011	2021/9/16	2024/9/15
Horn Antenna	R&S	HF906	CQA-012	2021/9/16	2024/9/15
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2021/9/16	2024/9/15
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2021/9/10	2022/9/9
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2021/9/10	2022/9/9
Antenna Connector	CQA	RFC-01	CQA-080	2021/9/10	2022/9/9
Power Sensor	KEYSIGHT	U2021XA	CQA-30	2021/9/10	2022/9/9
N1918A Power Analysis Manager Power Panel	Agilent	N1918A	CQA-074	2021/9/10	2022/9/9
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2021/9/10	2022/9/9
EMI Test Receiver	R&S	ESR7	CQA-005	2021/9/10	2022/9/9
LISN	R&S	ENV216	CQA-003	2021/9/10	2022/9/9
Coaxial cable	CQA	N/A	CQA-C009	2021/9/10	2022/9/9
high-low temperature chamber	Auchno	OJN-9606	CQA-S003	2021/9/10	2022/9/9
DC power	KEYSIGHT	E3631A	CQA-028	2021/9/16	2024/9/15

7 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart E Unlicensed National Information Infrastructure
2	ANSI C63.10-2013	American National Standard for Testing Unlicesed Wireless Devices
3	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01	Guidelines for compliance testing of unlicensed national information infrastructure (U-NII) device part 15, subpart E
4	KDB 662911 D01 Multiple Transmitter Output v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band

Test Results List:

Test Requirement	Test method	Test item	Verdict	Note
Part15E Section 15.407 (a)(1)(2)	KDB789033	Emission Bandwidth and Occupied Bandwidth	PASS	Appendix A)
Part15E Section 15.407 (a)(1)(2)(4)(h)(1)	KDB789033 / KDB 662911	Conducted Output Power and transmit power control mechanism	PASS	Appendix B)
Part15E Section 15.407 (a)(1)(2)(5)	KDB789033 / KDB 662911	Power Spectral Density	PASS	Appendix C)
Part15E Section 15.407 (g)	KDB789033	Frequency stability	PASS	Appendix D)
Part15C Section 15.203	ANSI C63.10	Antenna Requirement	PASS	Appendix E)
Part15E Section 15.407 (c)	Section 15.407	Operation in the absence of information to the transmit	PASS	Appendix F)
Part15E Section 15.407 (b)(6)	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix G)
Part15E Section 15.407 (b)(6)(7)(8)	KDB789033	Restricted bands around fundamental frequency(Radiated Emission)	PASS	Appendix H)
Part15E Section 15.407 (b)(1)(2)(3)(5)(6)(7)(8)	KDB789033	Radiated Spurious Emissions	PASS	Appendix I)

Appendix A): Emission Bandwidth

Result Table

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	25.480	5168.720	5194.200	---	PASS
		5200	24.160	5188.520	5212.680	---	PASS
		5240	27.160	5228.680	5255.840	---	PASS
		5745	24.400	5732.440	5756.840	---	PASS
		5785	27.160	5771.880	5799.040	---	PASS
		5825	27.680	5812.040	5839.720	---	PASS
11N20SISO	Ant1	5180	25.880	5168.600	5194.480	---	PASS
		5200	26.520	5187.280	5213.800	---	PASS
		5240	28.000	5228.640	5256.640	---	PASS
		5745	25.480	5734.280	5759.760	---	PASS
		5785	29.880	5771.520	5801.400	---	PASS
		5825	28.880	5811.240	5840.120	---	PASS
11N40SISO	Ant1	5190	51.280	5170.320	5221.600	---	PASS
		5230	57.520	5210.240	5267.760	---	PASS
		5755	56.720	5730.040	5786.760	---	PASS
		5795	60.480	5771.160	5831.640	---	PASS
11AC20SISO	Ant1	5180	25.640	5169.320	5194.960	---	PASS
		5200	26.480	5187.760	5214.240	---	PASS
		5240	28.440	5227.800	5256.240	---	PASS
		5745	22.080	5733.840	5755.920	---	PASS
		5785	26.760	5772.440	5799.200	---	PASS
		5825	27.080	5812.160	5839.240	---	PASS
11AC40SISO	Ant1	5190	47.440	5170.240	5217.680	---	PASS
		5230	58.320	5210.160	5268.480	---	PASS
		5755	56.560	5729.800	5786.360	---	PASS
		5795	52.080	5773.320	5825.400	---	PASS
11AC80SISO	Ant1	5210	107.520	5170.000	5277.520	---	PASS
		5775	107.040	5730.840	5837.880	---	PASS

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.382	5171.249	5189.630	---	PASS
		5200	18.062	5191.009	5209.071	---	PASS
		5240	18.941	5231.049	5249.990	---	PASS
		5745	17.582	5736.129	5753.711	---	PASS
		5785	19.101	5775.849	5794.950	---	PASS
		5825	18.981	5815.849	5834.830	---	PASS
11N20SISO	Ant1	5180	18.901	5170.849	5189.750	---	PASS
		5200	18.501	5190.849	5209.351	---	PASS
		5240	19.181	5230.609	5249.790	---	PASS
		5745	18.422	5735.729	5754.151	---	PASS
		5785	19.021	5775.769	5794.790	---	PASS
		5825	19.101	5815.569	5834.670	---	PASS
11N40SISO	Ant1	5190	36.284	5172.098	5208.382	---	PASS
		5230	37.003	5212.018	5249.021	---	PASS
		5755	36.683	5736.618	5773.302	---	PASS
		5795	36.843	5776.778	5813.621	---	PASS
11AC20SISO	Ant1	5180	18.701	5170.809	5189.510	---	PASS
		5200	18.541	5190.729	5209.271	---	PASS
		5240	19.58	5230.649	5250.230	---	PASS
		5745	18.422	5735.889	5754.311	---	PASS
		5785	18.821	5775.729	5794.550	---	PASS
		5825	18.781	5815.809	5834.590	---	PASS
11AC40SISO	Ant1	5190	36.603	5171.698	5208.302	---	PASS
		5230	37.323	5211.858	5249.181	---	PASS
		5755	36.683	5736.778	5773.462	---	PASS
		5795	36.843	5776.938	5813.781	---	PASS
11AC80SISO	Ant1	5210	76.244	5172.438	5248.681	---	PASS
		5775	76.404	5736.958	5813.362	---	PASS

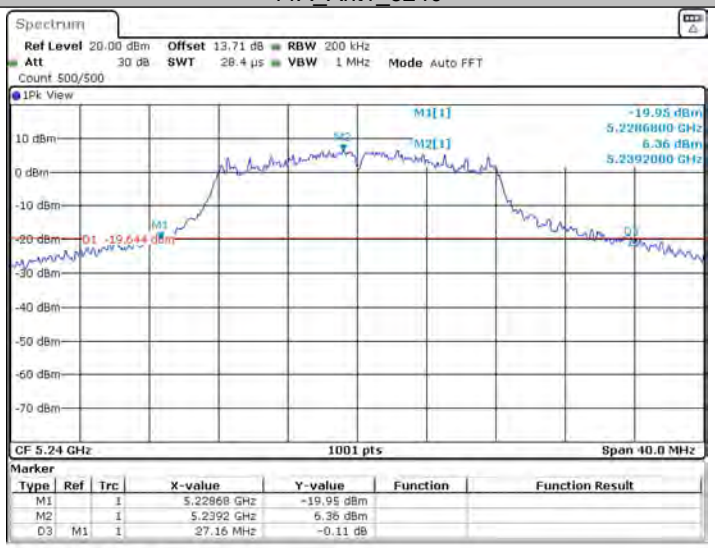
Test Graph

EBW:

11A_Ant1_5180

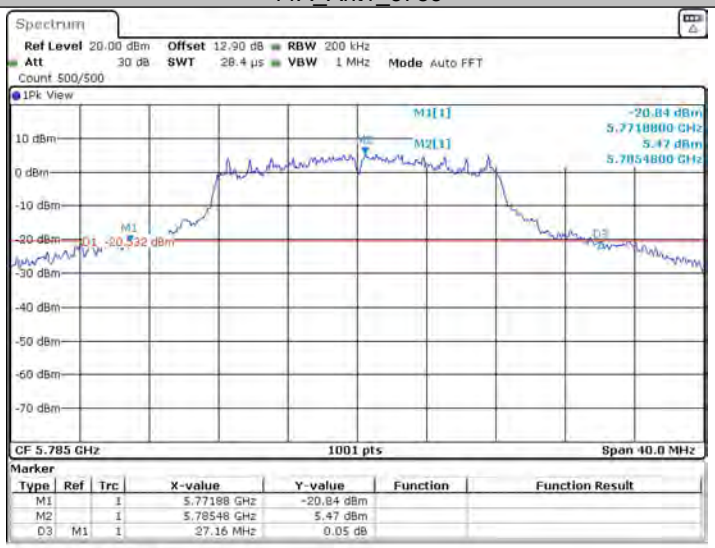
11A_Ant1_5200

11A_Ant1_5240

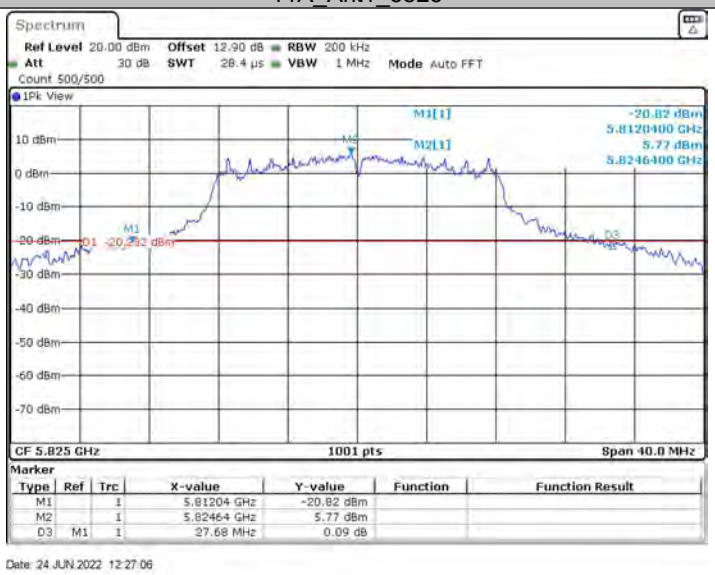


11A_Ant1_5745

11A_Ant1_5785



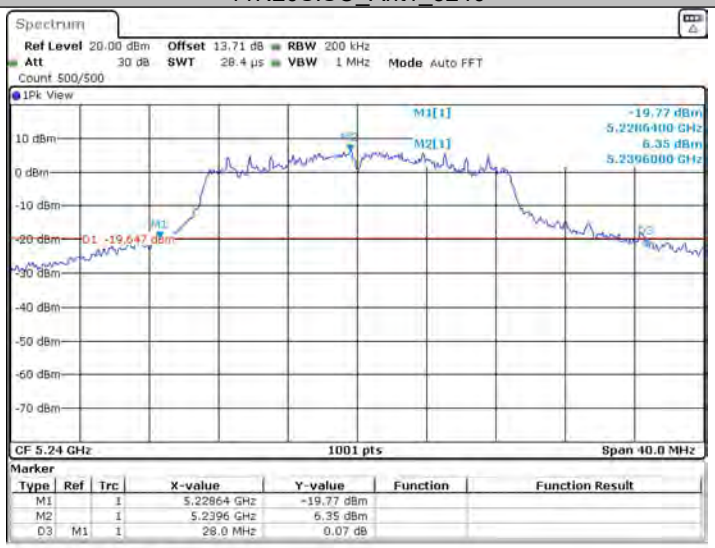
11A_Ant1_5825



11N20SISO_Ant1_5180

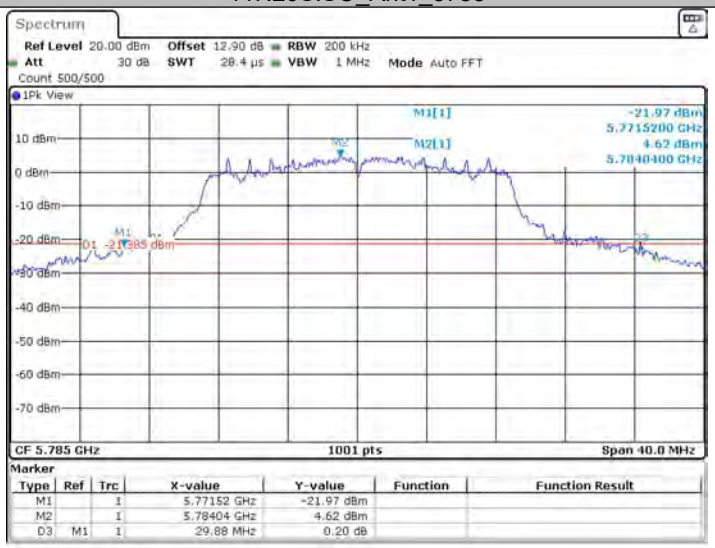
11N20SISO_Ant1_5200

11N20SISO_Ant1_5240



11N20SISO_Ant1_5745

11N20SISO_Ant1_5785



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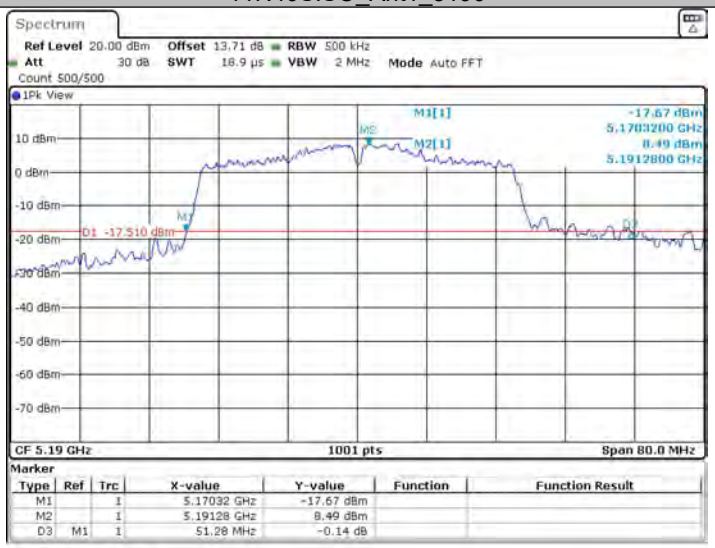

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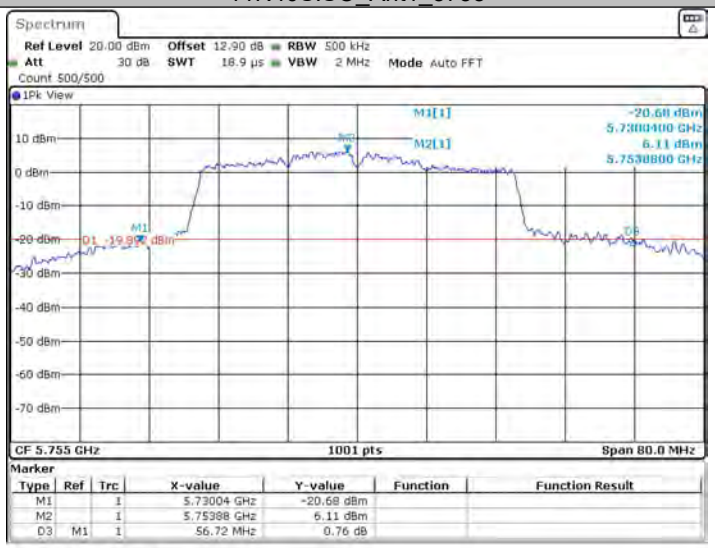

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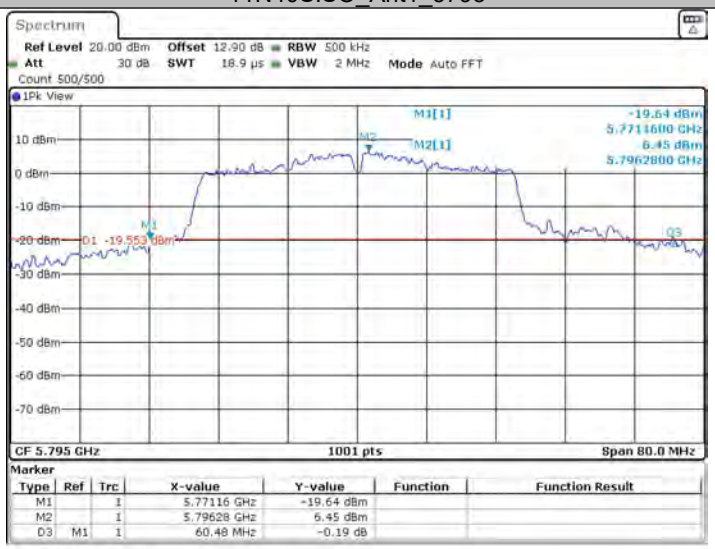

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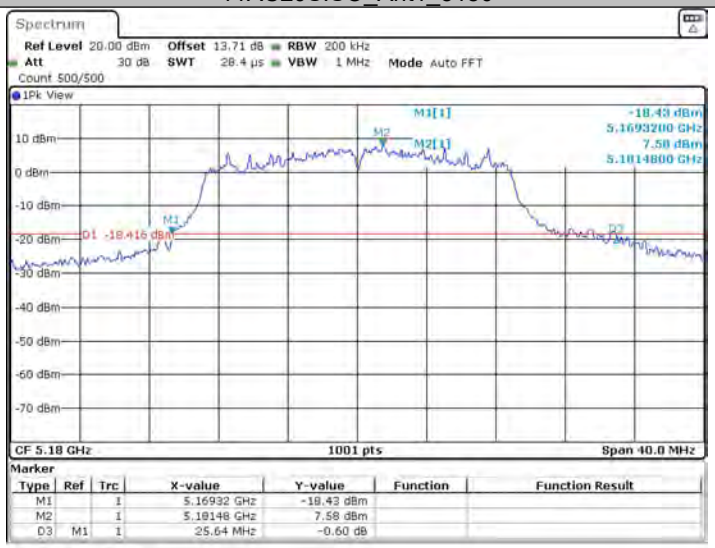

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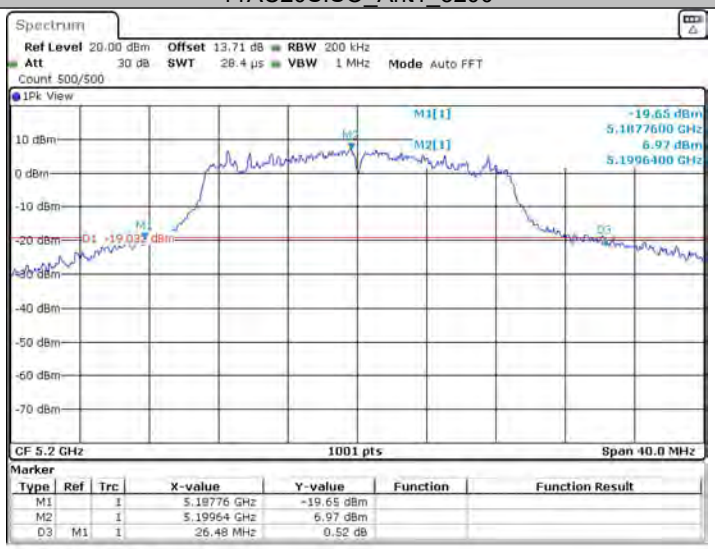

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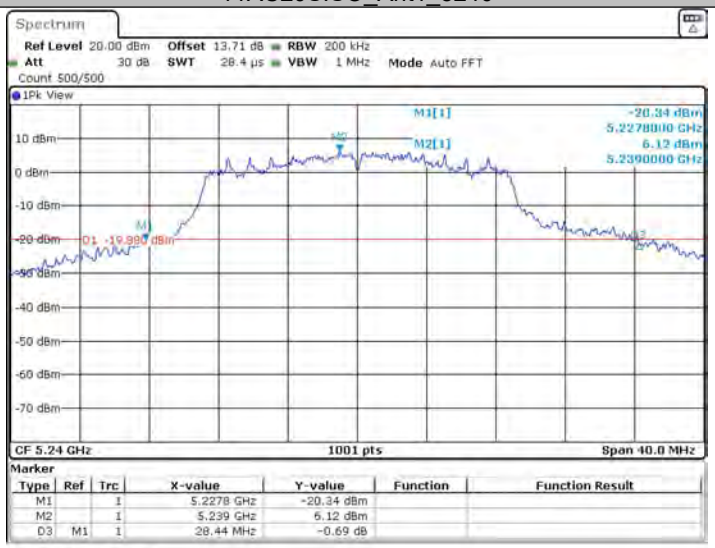

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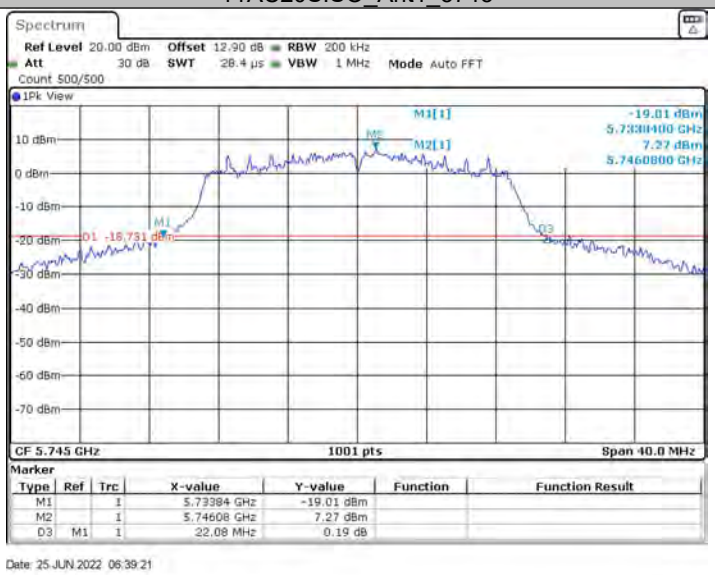

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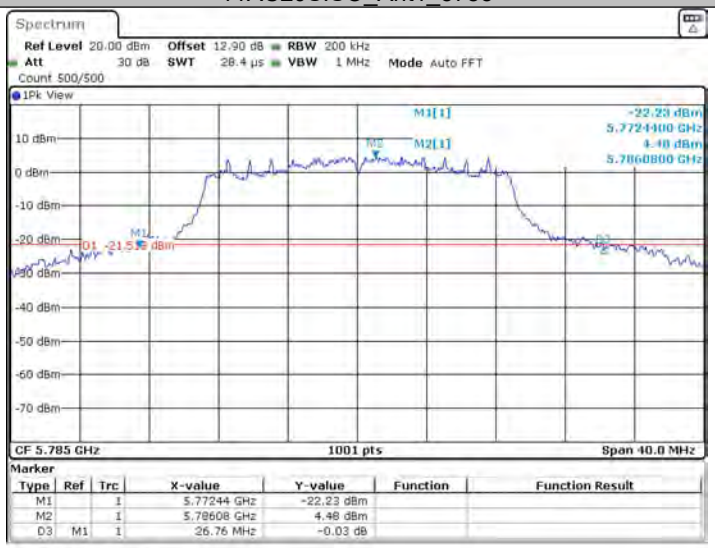

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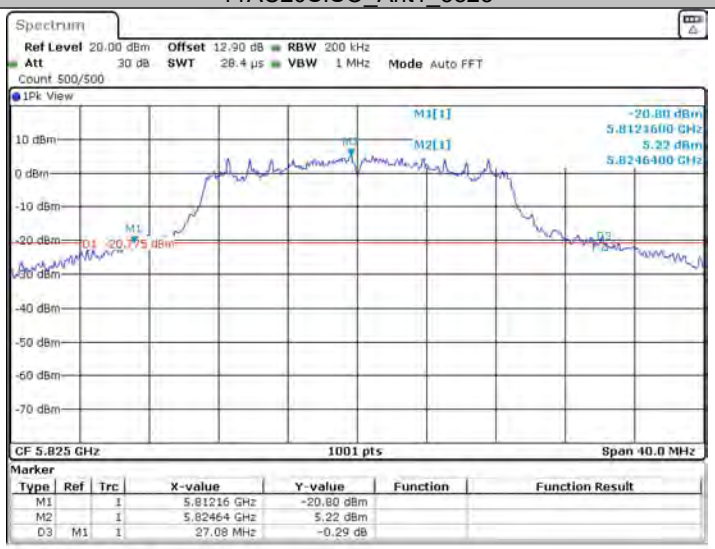

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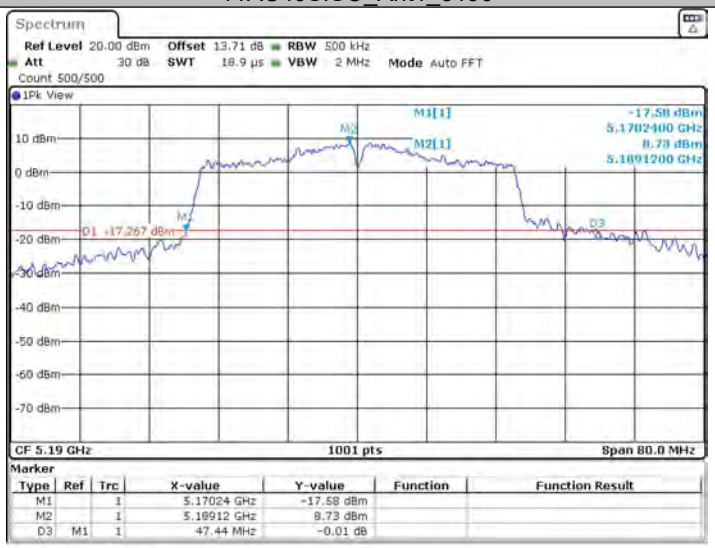

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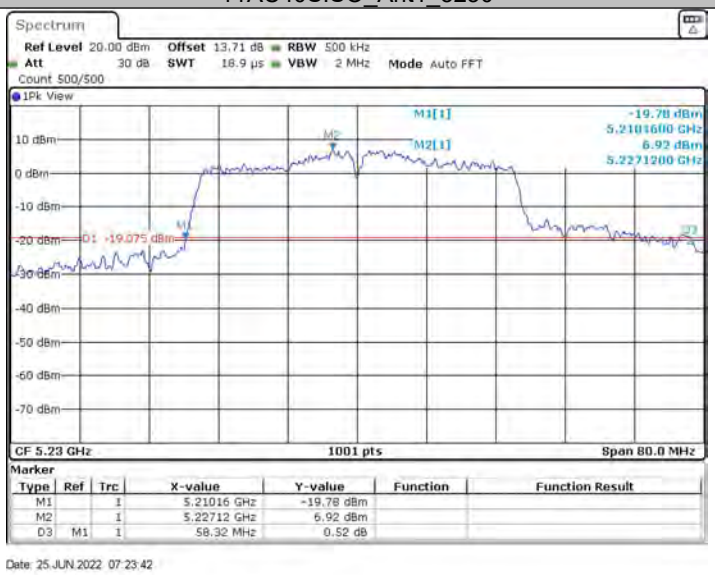

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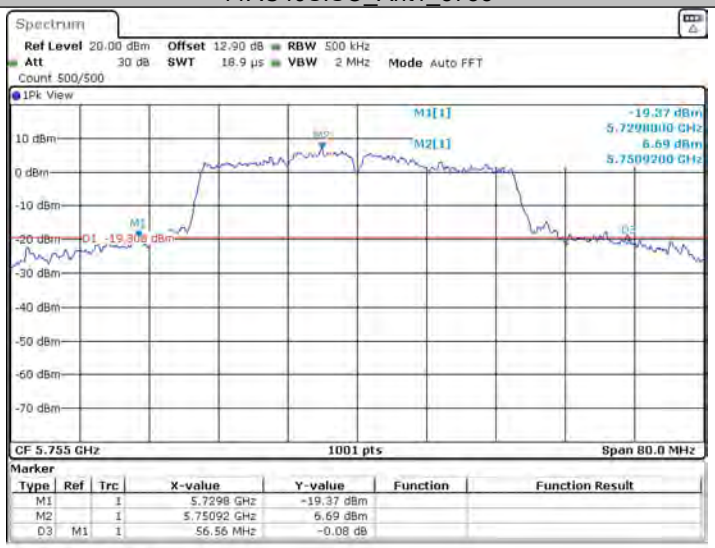

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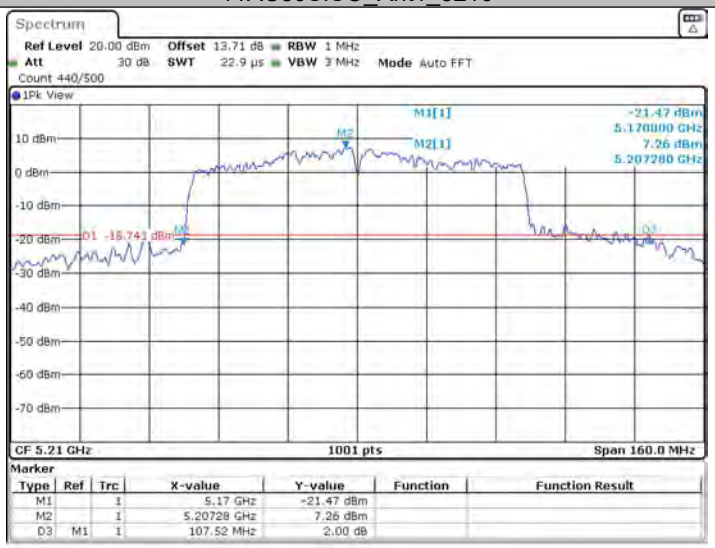

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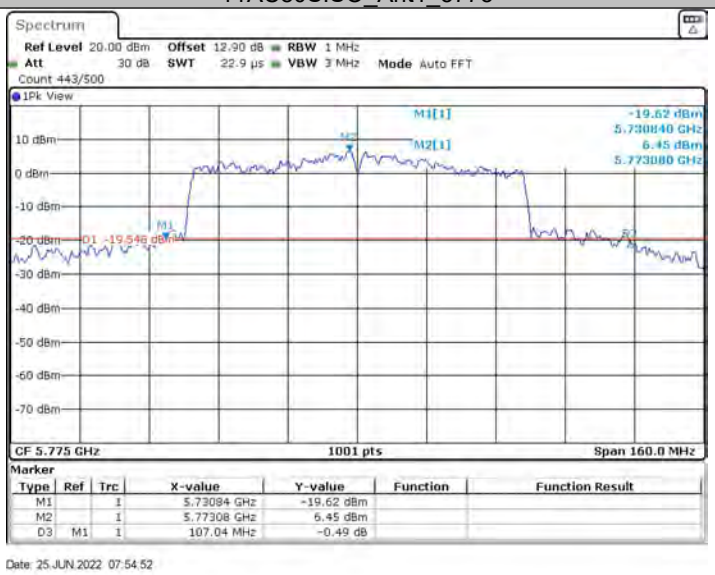


OBW:

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11A_Ant1_5745

11A_Ant1_5785

11A_Ant1_5825

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

11N20SISO_Ant1_5745

11N20SISO_Ant1_5785

Date: 24.JUN.2022 12:58:14

11N20SISO_Ant1_5825

Date: 24.JUN.2022 13:03:34

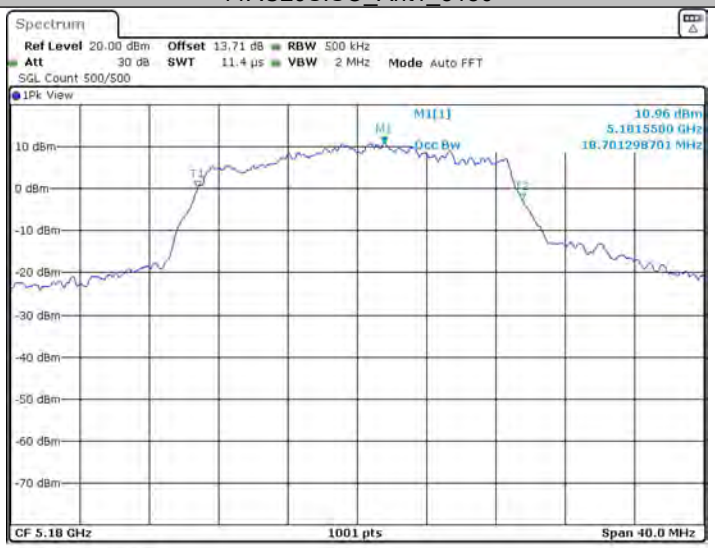
11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11N40SISO_Ant1_5755

11N40SISO_Ant1_5795

11AC20SISO_Ant1_5180



Date: 25.JUN.2022 06:12:47

11AC20SISO_Ant1_5200

Date: 25.JUN.2022 06:19:28

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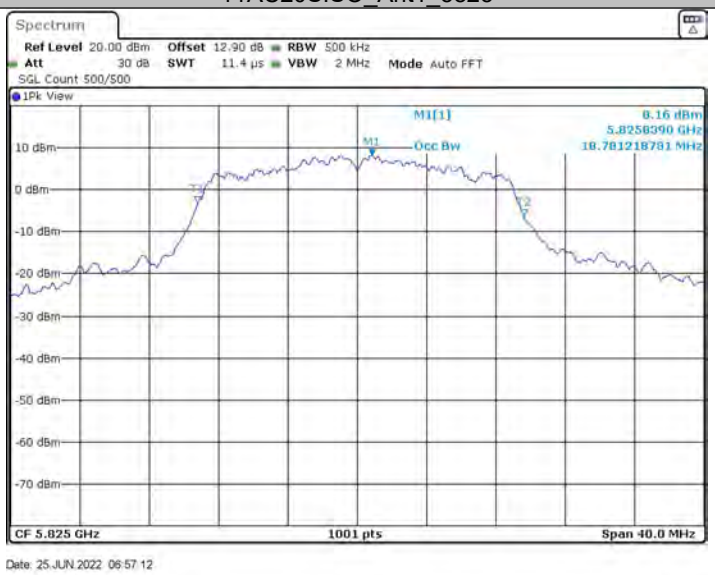
11AC20SISO_Ant1_5745

11AC20SISO_Ant1_5785

11AC20SISO_Ant1_5825



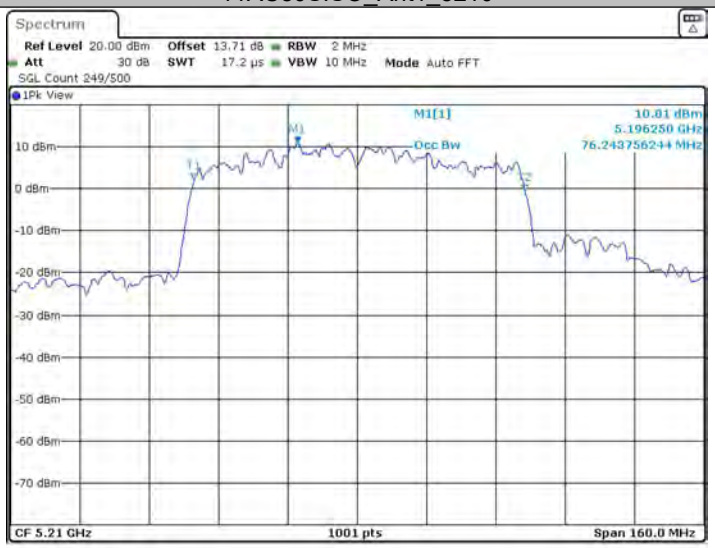
11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230

11AC40SISO_Ant1_5755

11AC40SISO_Ant1_5795

11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5775

Appendix B): Maximum Conduct Output Power

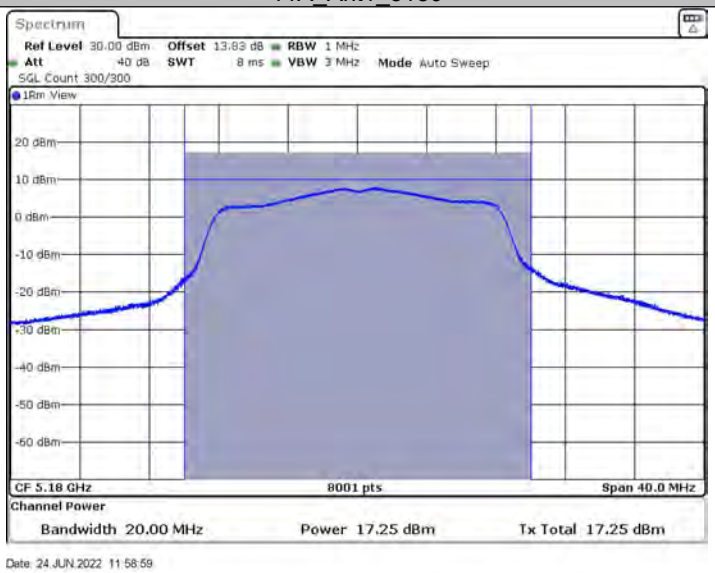
Conducted Average Output Power:

Measurement Data

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	5180	17.25	≤23.98	PASS
		5200	16.92	≤23.98	PASS
		5240	15.88	≤23.98	PASS
		5745	16.15	≤30	PASS
		5785	14.76	≤30	PASS
		5825	14.91	≤30	PASS
11N20SISO	Ant1	5180	17.02	≤23.98	PASS
		5200	16.59	≤23.98	PASS
		5240	15.59	≤23.98	PASS
		5745	15.99	≤30	PASS
		5785	14.43	≤30	PASS
		5825	14.58	≤30	PASS
11N40SISO	Ant1	5190	16.84	≤23.98	PASS
		5230	15.10	≤23.98	PASS
		5755	15.00	≤30	PASS
		5795	14.76	≤30	PASS
11AC20SISO	Ant1	5180	16.89	≤23.98	PASS
		5200	16.51	≤23.98	PASS
		5240	15.57	≤23.98	PASS
		5745	15.65	≤30	PASS
		5785	14.26	≤30	PASS
		5825	14.28	≤30	PASS
11AC40SISO	Ant1	5190	16.89	≤23.98	PASS
		5230	15.17	≤23.98	PASS
		5755	15.29	≤30	PASS
		5795	14.90	≤30	PASS
11AC80SISO	Ant1	5210	15.70	≤23.98	PASS
		5775	14.51	≤30	PASS

Test Graph

11A_Ant1_5180



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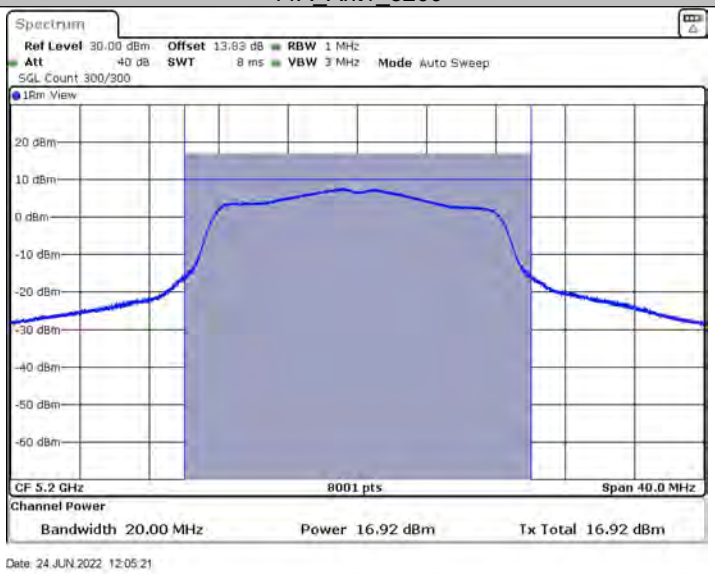

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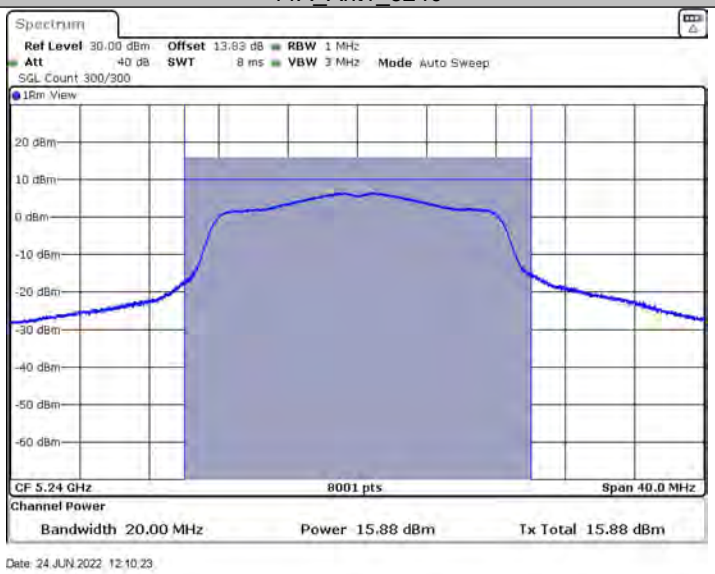

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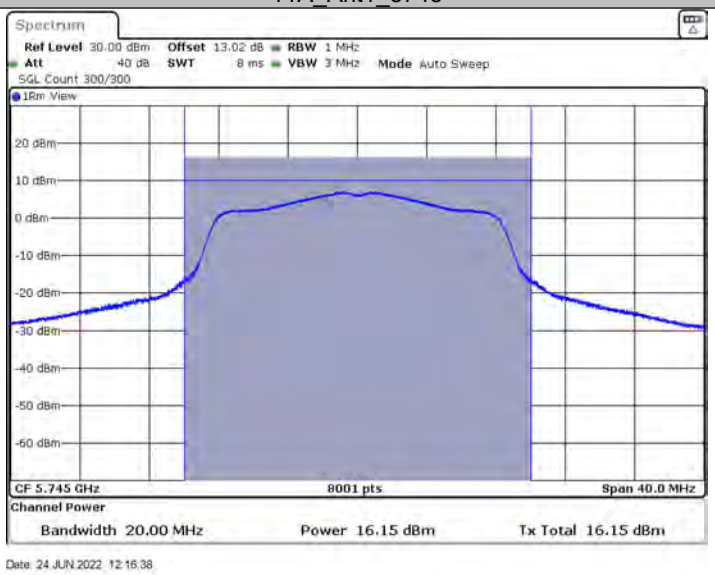

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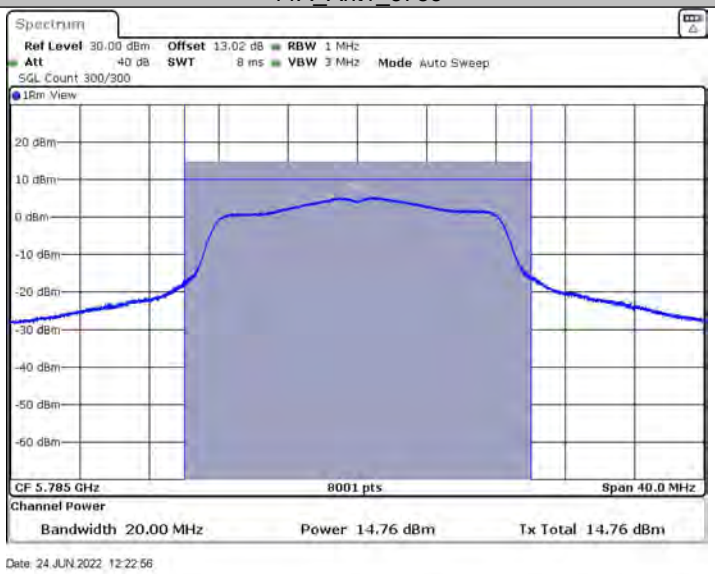

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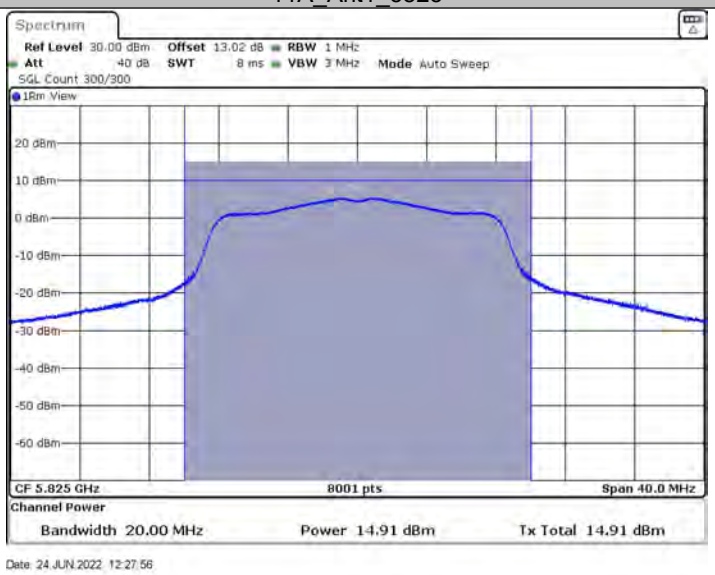

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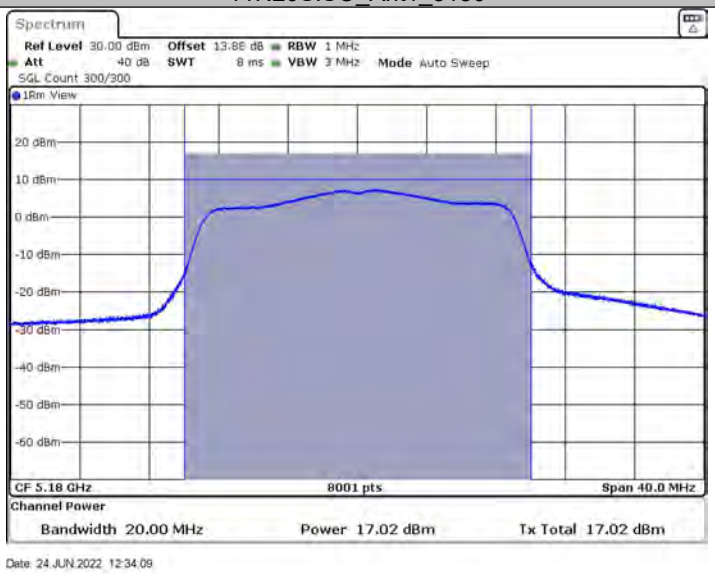

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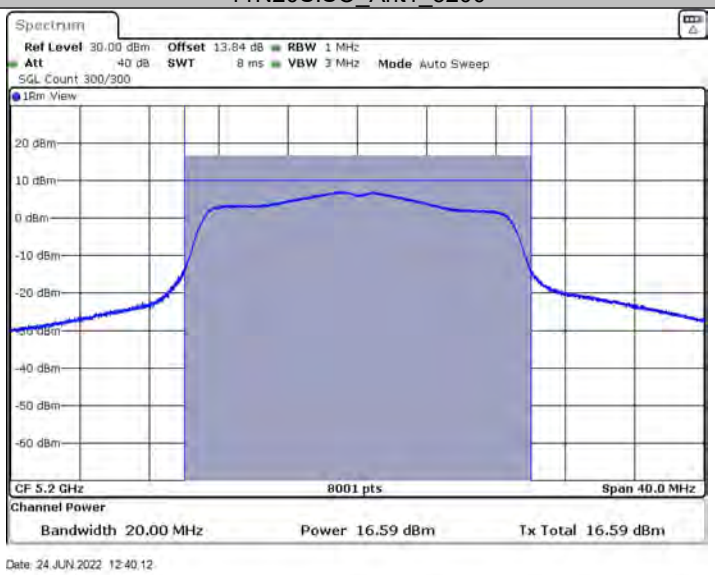

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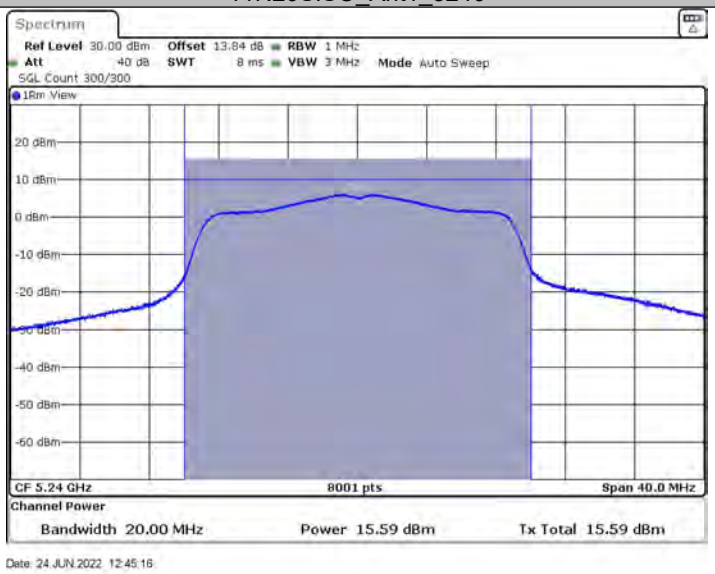

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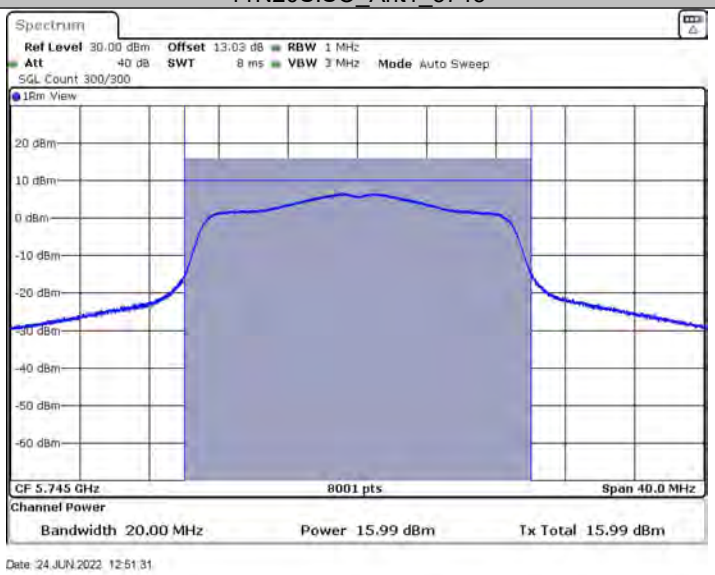

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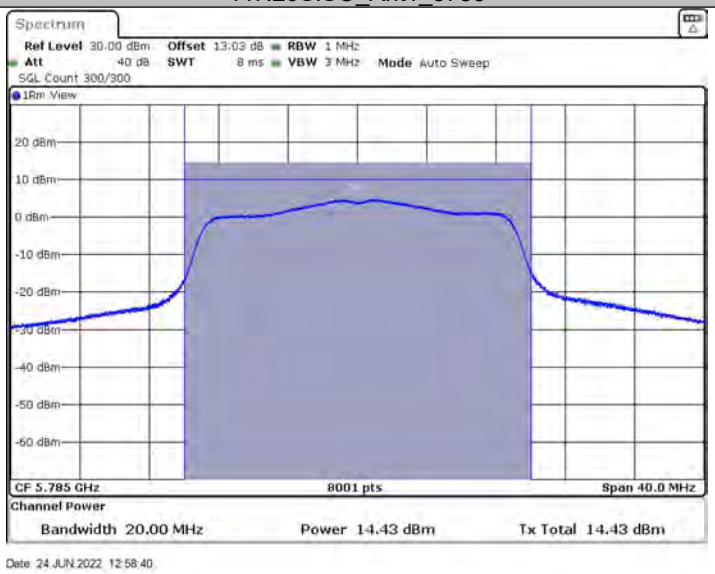

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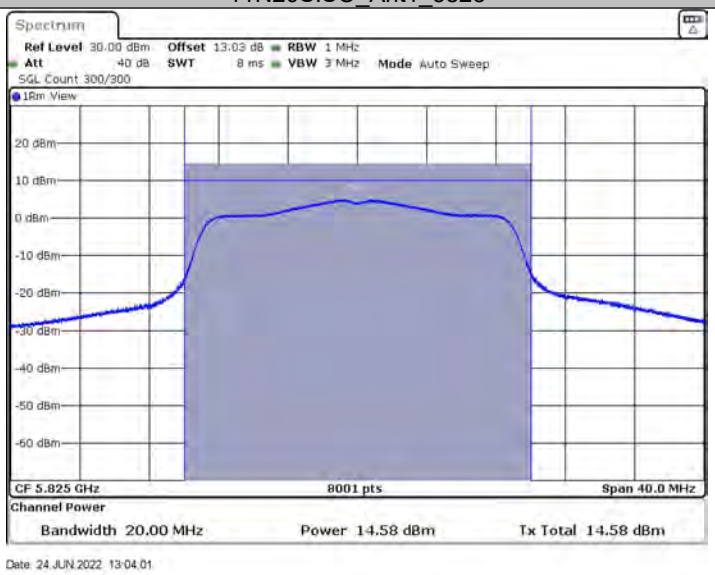

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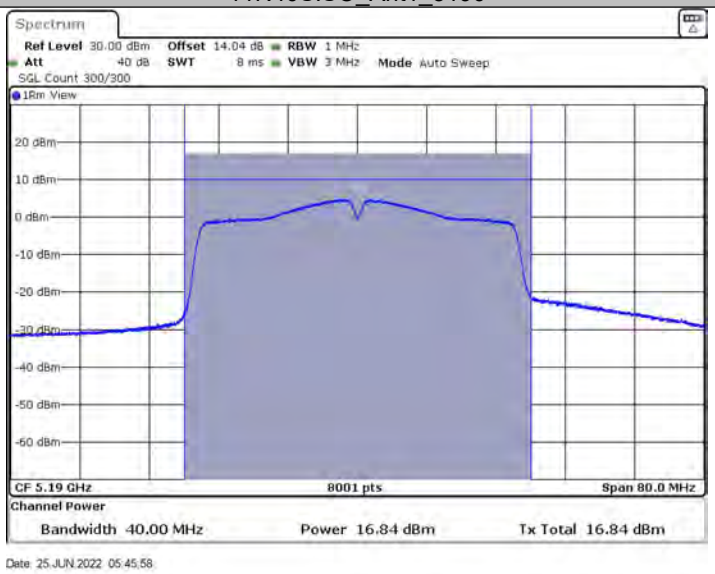

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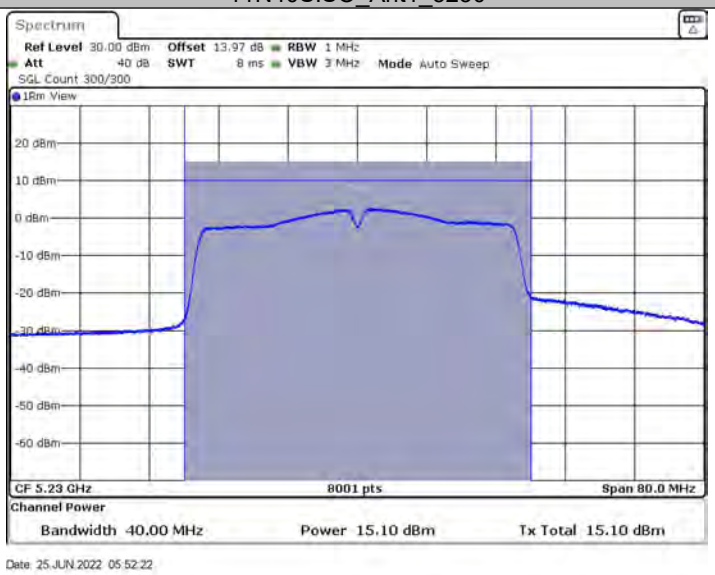

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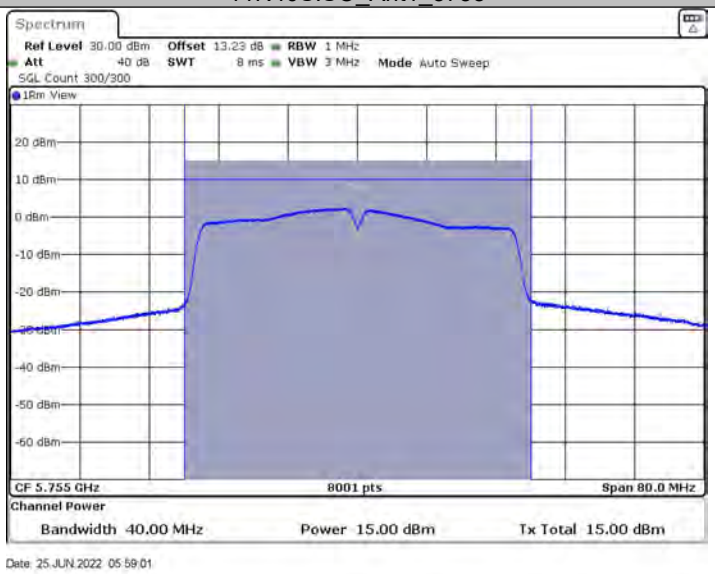

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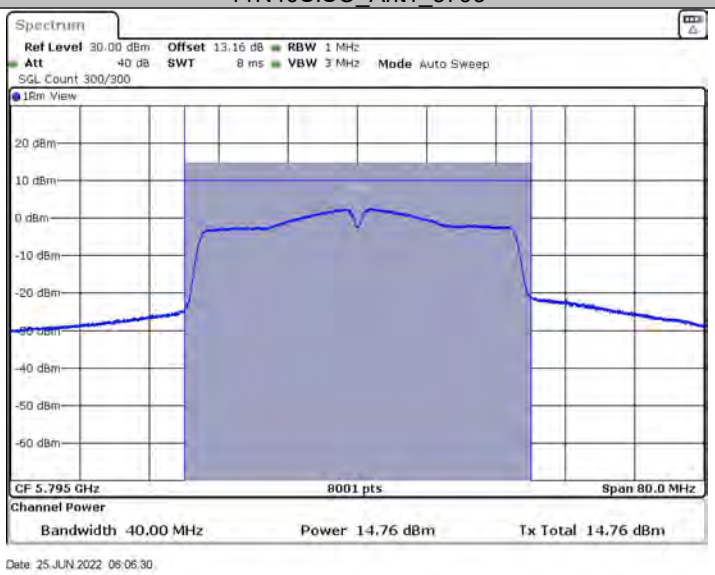

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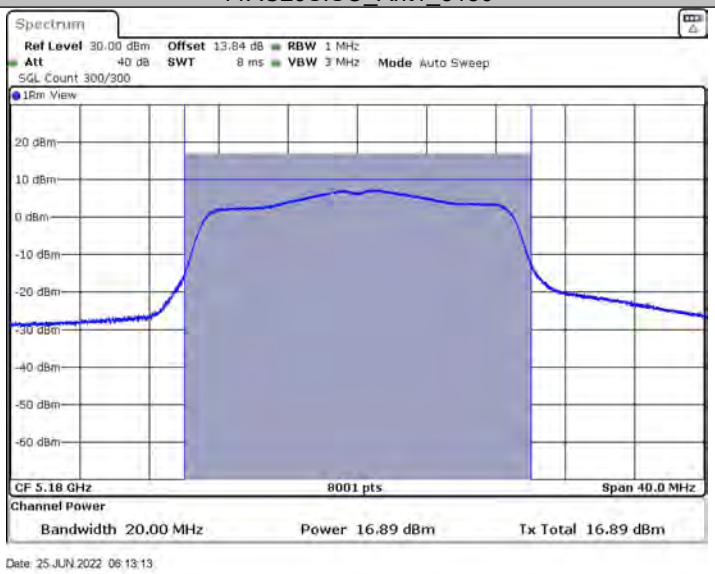

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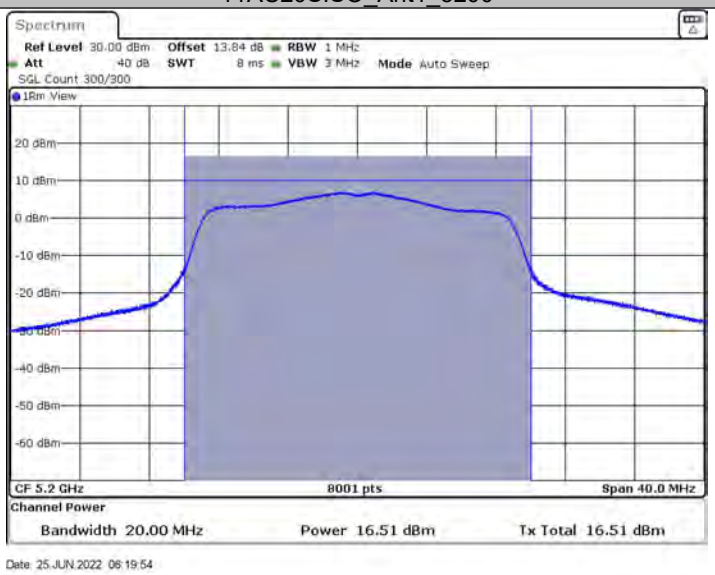

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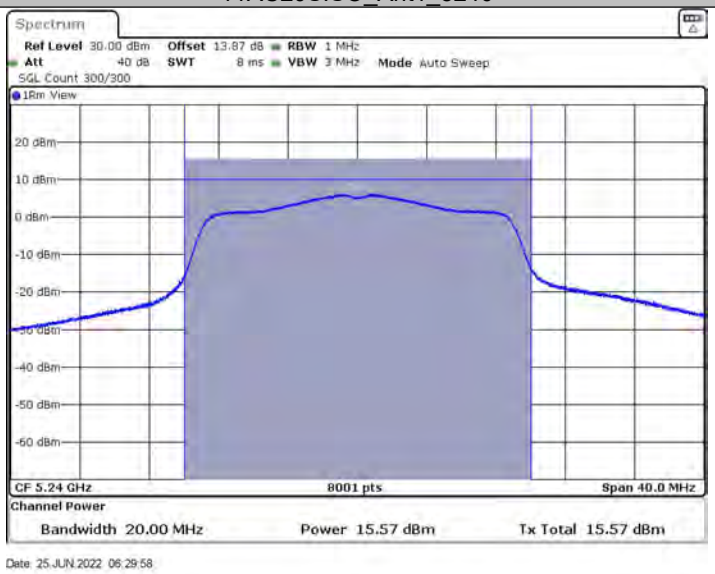

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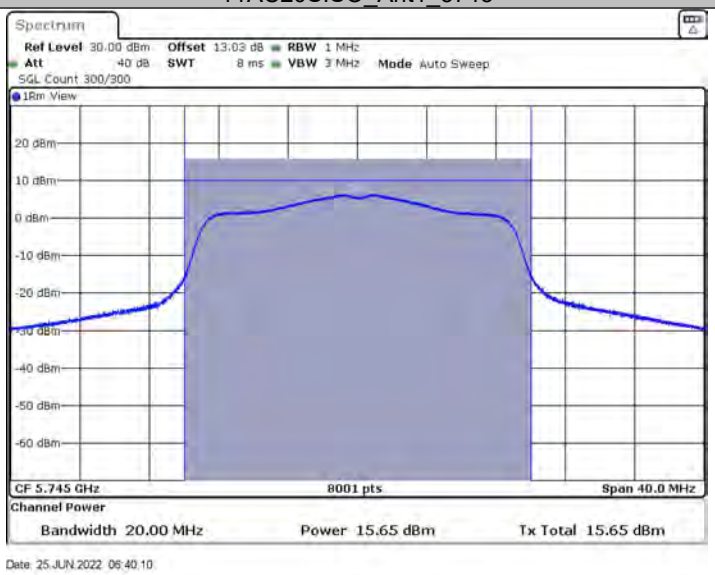

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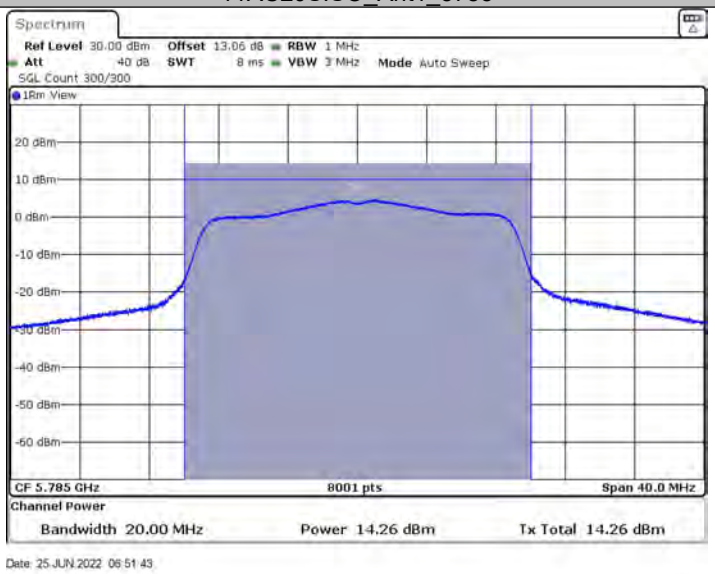

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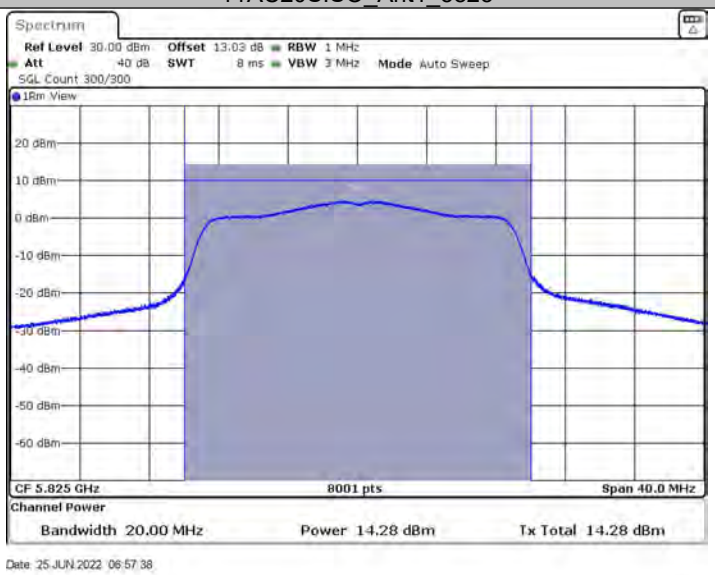

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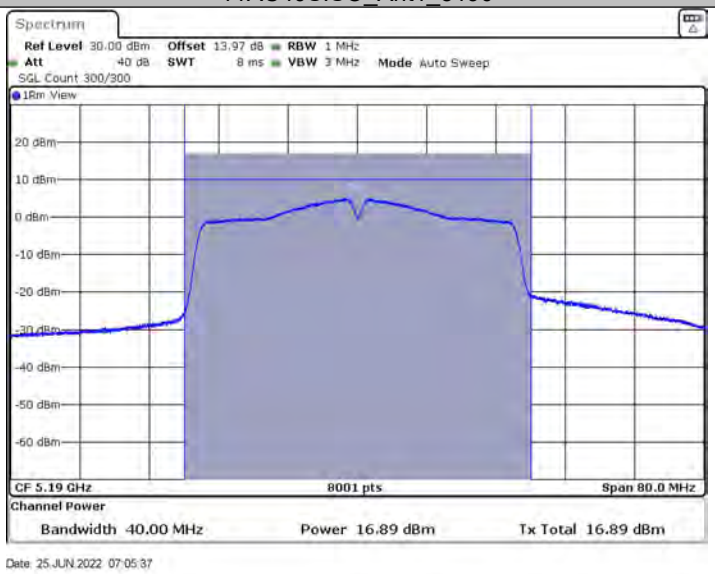

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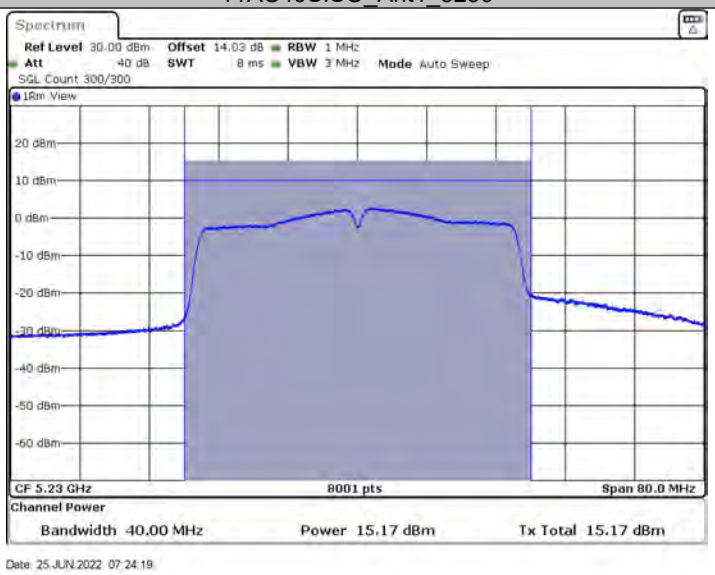

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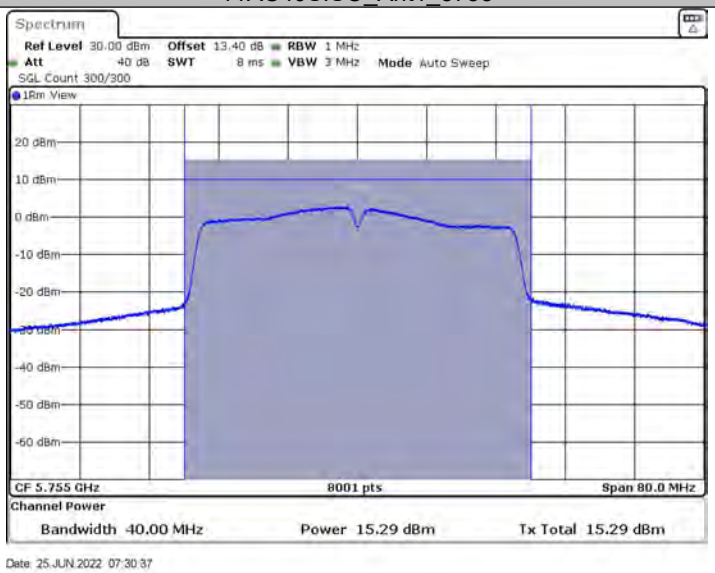

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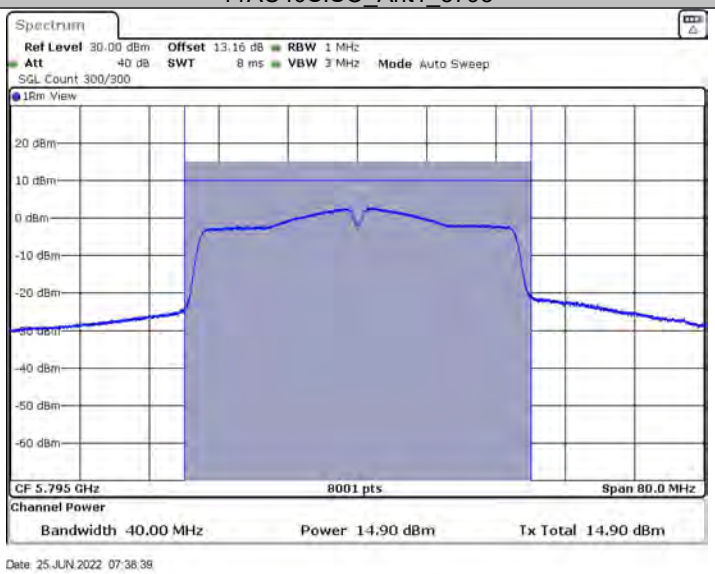

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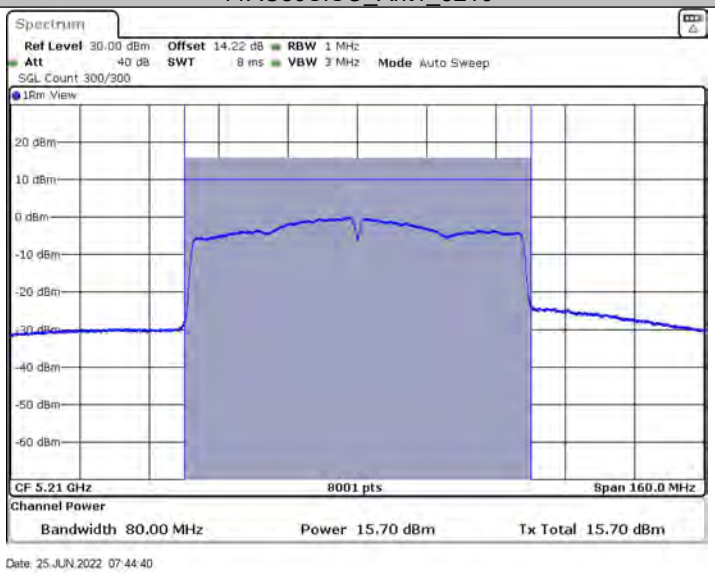

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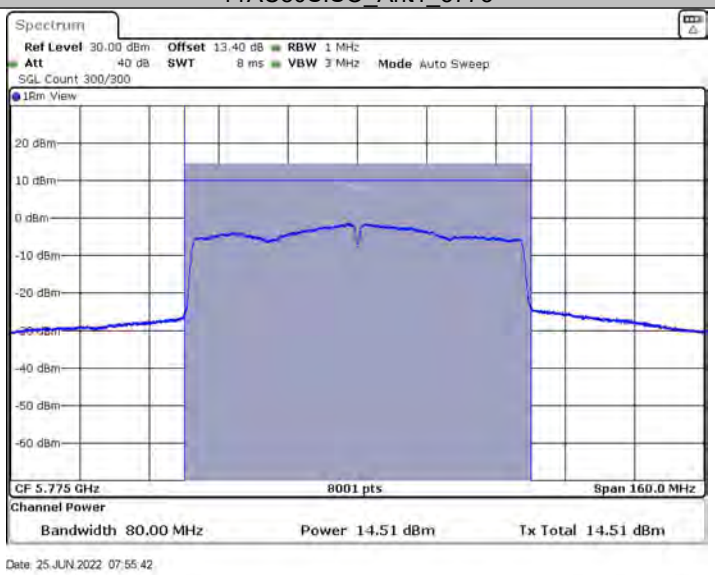


Appendix C): Power Spectral Density

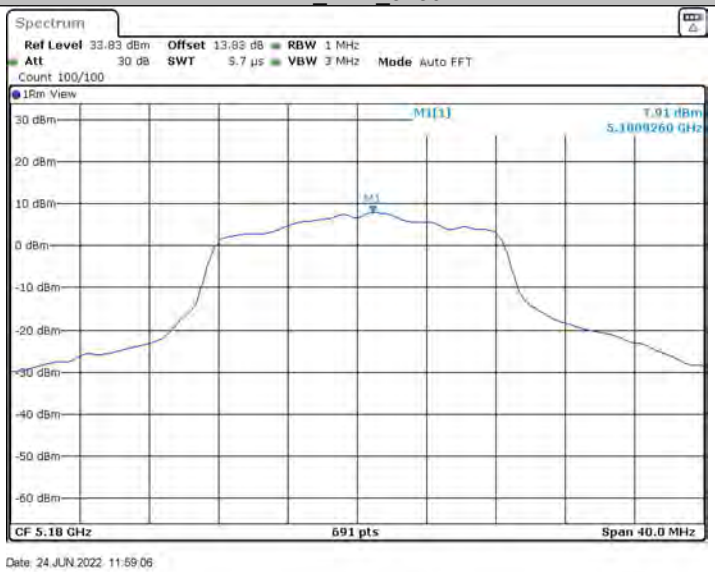
Result Table

TestMode	Antenna	Channel	Test value [dBm/MHz]	Duty Cycle Factor	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	7.91	0.13	8.04	≤11	PASS
		5200	7.63	0.13	7.76	≤11	PASS
		5240	6.31	0.13	6.44	≤11	PASS
		5745	4.46	0.13	4.59	≤30	PASS
		5785	2.44	0.13	2.57	≤30	PASS
		5825	2.62	0.13	2.75	≤30	PASS
11N20SISO	Ant1	5180	7.3	0.20	7.5	≤11	PASS
		5200	6.98	0.20	7.18	≤11	PASS
		5240	5.97	0.20	6.17	≤11	PASS
		5745	3.71	0.20	3.91	≤30	PASS
		5785	1.78	0.20	1.98	≤30	PASS
		5825	1.89	0.20	2.09	≤30	PASS
11N40SISO	Ant1	5190	4.58	0.40	4.98	≤11	PASS
		5230	2.8	0.40	3.2	≤11	PASS
		5755	-0.65	0.40	-0.25	≤30	PASS
		5795	-0.55	0.40	-0.15	≤30	PASS
11AC20SISO	Ant1	5180	7.39	0.22	7.61	≤11	PASS
		5200	6.67	0.22	6.89	≤11	PASS
		5240	6.27	0.22	6.49	≤11	PASS
		5745	3.84	0.22	4.06	≤30	PASS
		5785	1.91	0.22	2.13	≤30	PASS
		5825	1.64	0.22	1.86	≤30	PASS
11AC40SISO	Ant1	5190	4.56	0.42	4.98	≤11	PASS
		5230	2.21	0.42	2.63	≤11	PASS
		5755	-0.52	0.42	-0.1	≤30	PASS
		5795	-0.27	0.42	0.15	≤30	PASS
11AC80SISO	Ant1	5210	-0.02	1.12	1.1	≤11	PASS
		5775	-4.34	1.12	-3.22	≤30	PASS

Remark:

PSD = Meas PSD + Duty Cycle Factor

11A_Ant1_5180



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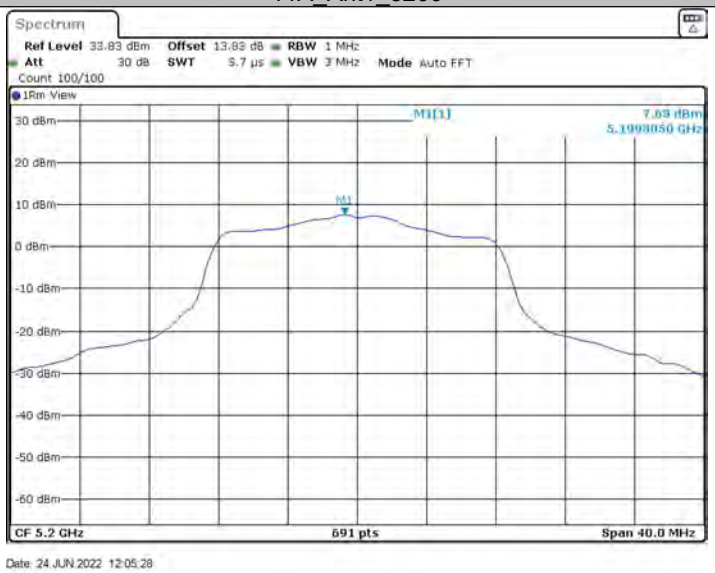

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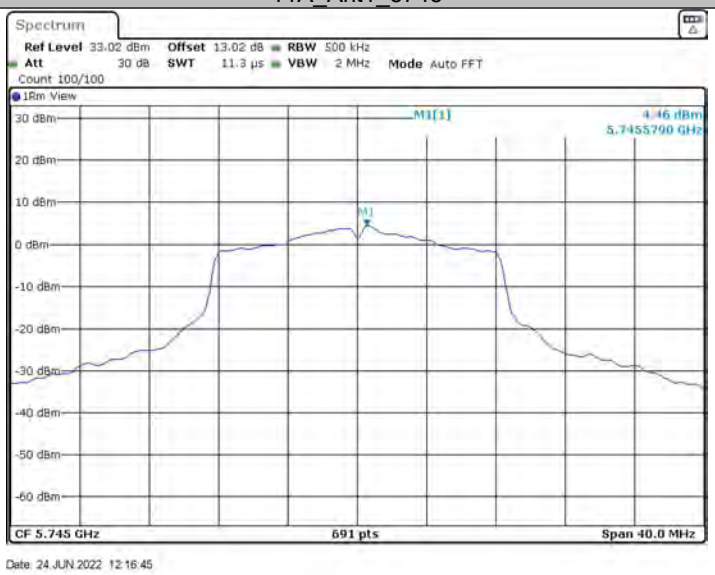

11A_Ant1_5785

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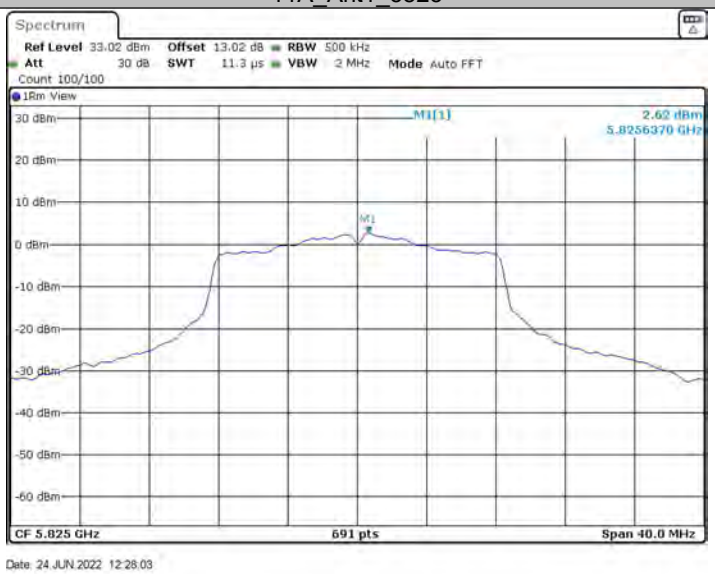

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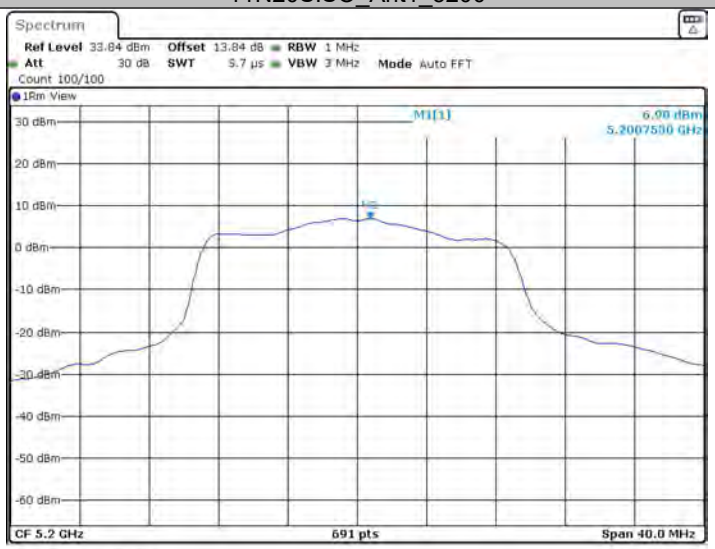

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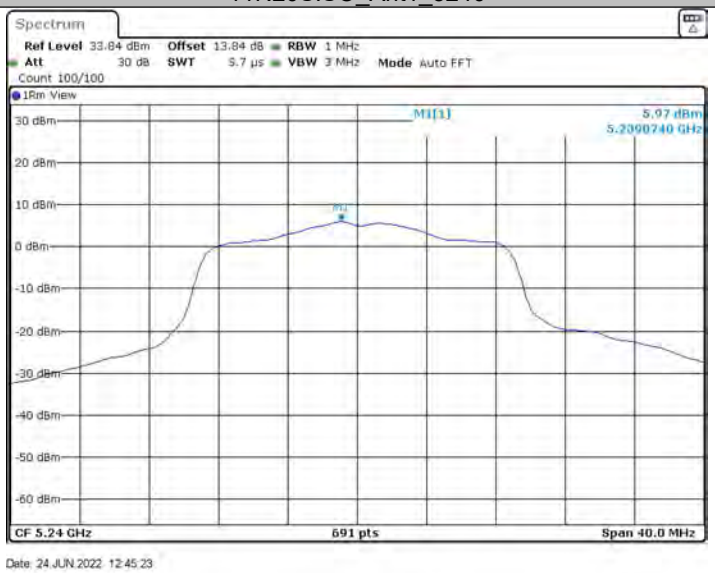

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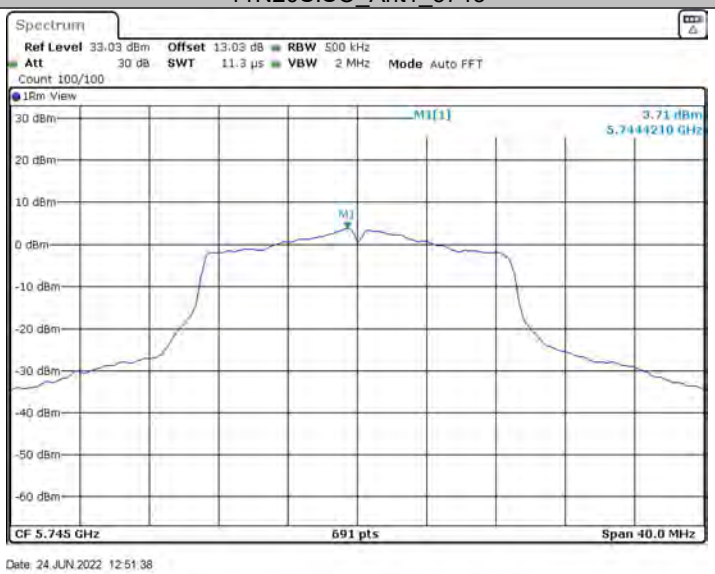

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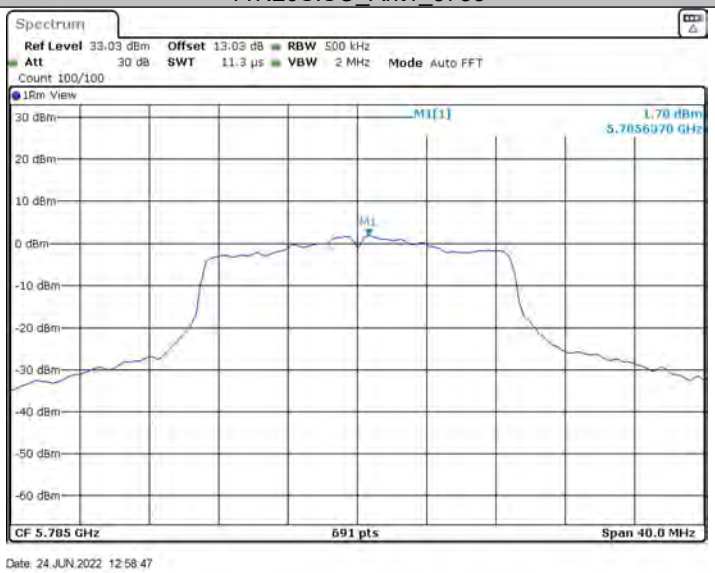

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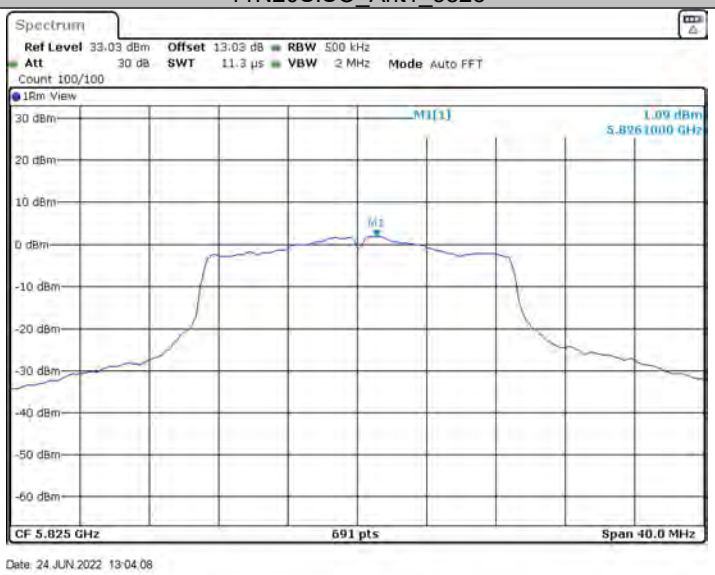

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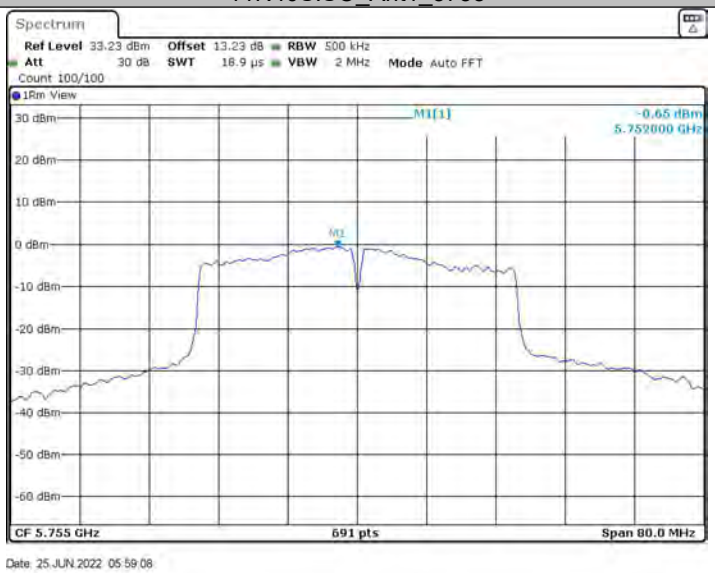
11N40SISO_Ant1_5230

11N40SISO_Ant1_5755



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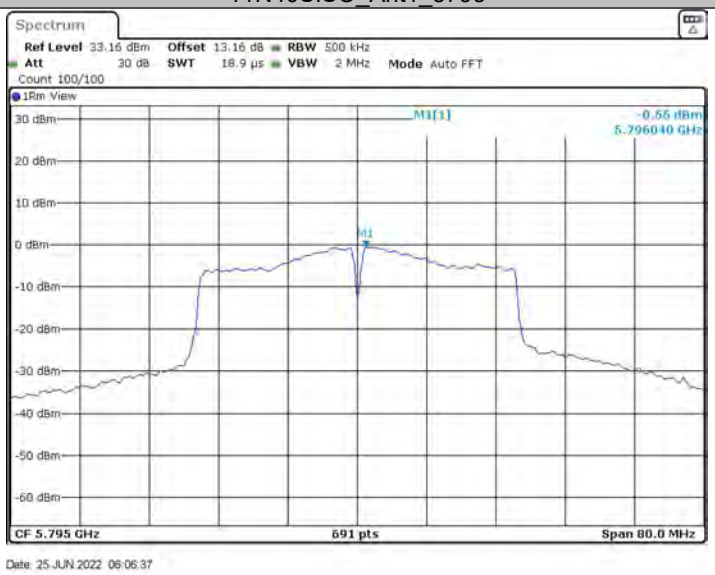

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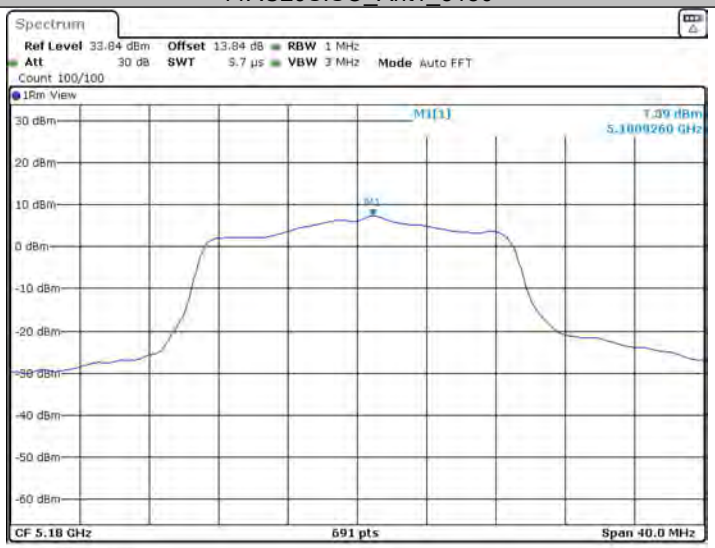

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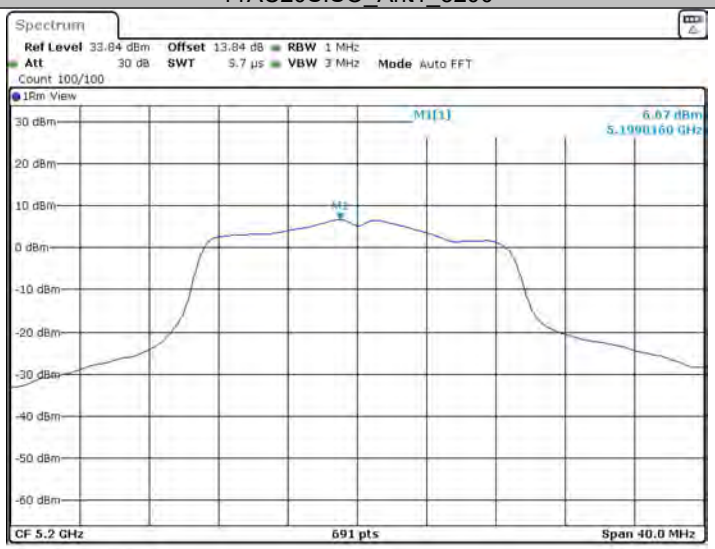

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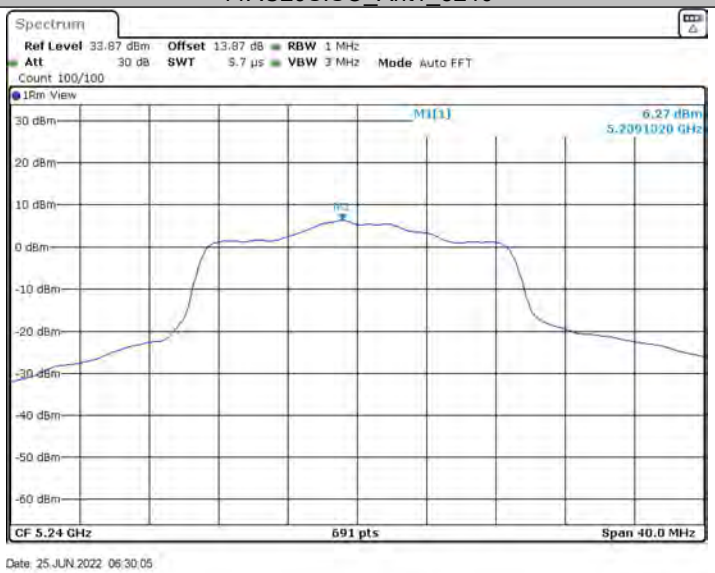

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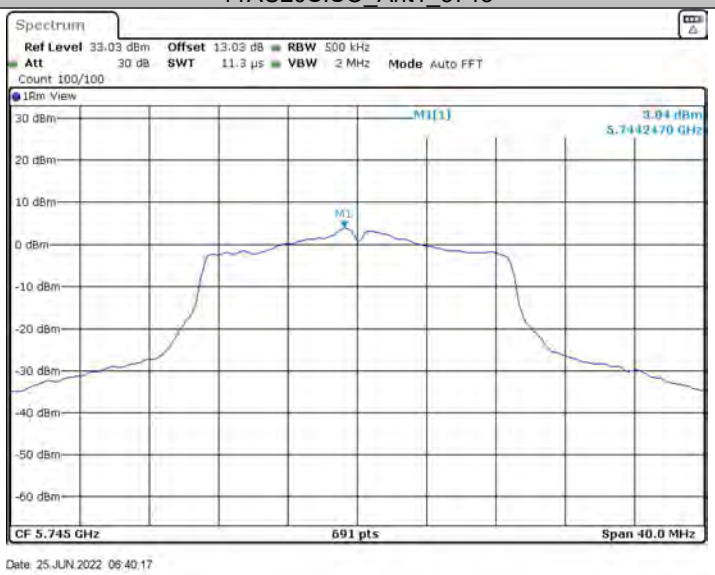
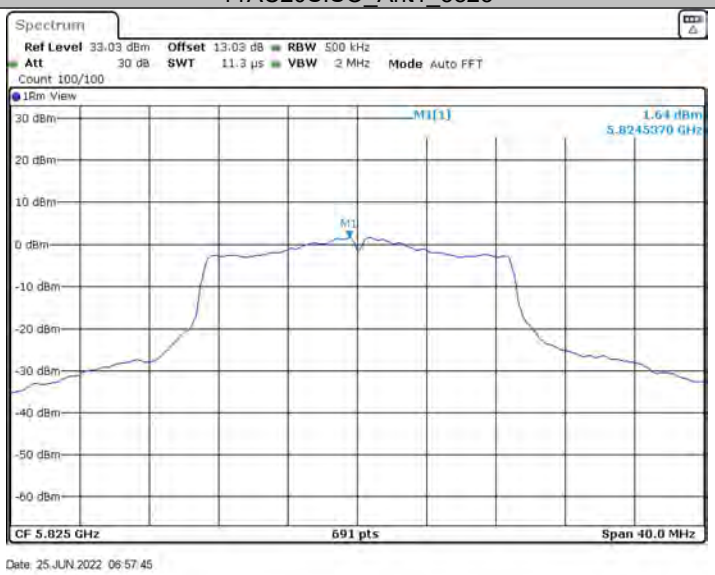


11AC20SISO_Ant1_5785

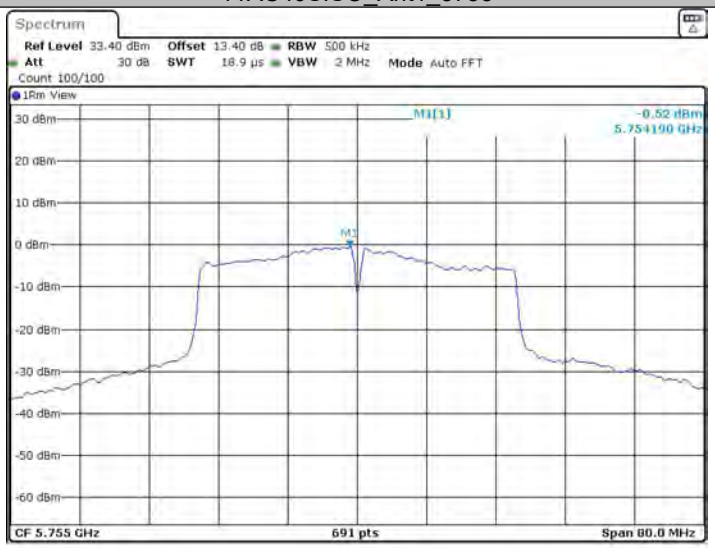
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230

11AC40SISO_Ant1_5755



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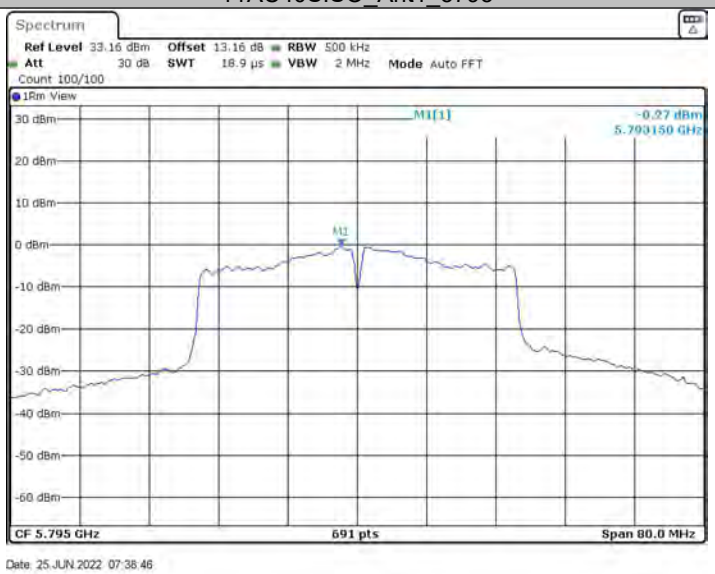


11AC80SISO_Ant1_5210

11AC80SISO_Ant1_5775

Appendix D): Radiated Band Edge Measurements

Result Table

Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11A	Ant1	5180	-44.58		PASS
11A	Ant1	5240	-45.65		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11A	Ant1	5745	-21.35	-35.39	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			5850-5860	**Above 5860**	
11A	Ant1	5825	-42.35	-45.65	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
11N20SISO	Ant1	5180	-42.12		PASS
11N20SISO	Ant1	5240	-43.51		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11N20SISO	Ant1	5745	-40.69	-39.74	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			5850-5860	**Above 5860**	
11N20SISO	Ant1	5825	-46.12	-46.65	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
11N40SISO	Ant1	5190	-49.45		PASS
11N40SISO	Ant1	5230	-56.35		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11N40SISO	Ant1	5755	-43.34	-32.14	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			5850-5860	**Above 5860**	
11N40SISO	Ant1	5795	-45.46	-46.57	PASS

Test Mode	Antenna	Channel	Max.Level [dBm]		Verdict
11AC20SISO	Ant1	5180	-46.35		PASS
11AC20SISO	Ant1	5240	-48.14		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11AC20SISO	Ant1	5745	-47.57	-38.78	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			5850-5860	**Above 5860**	
11AC20SISO	Ant1	5825	-48.66	-46.22	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
11AC40SISO	Ant1	5190	-36.87		PASS
11AC40SISO	Ant1	5230	-47.77		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11AC40SISO	Ant1	5755	-47.65	-32.47	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			5850-5860	**Above 5860**	
11AC40SISO	Ant1	5795	-46.07	-47.29	PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
11AC80SISO	Ant1	5210	-47.46		PASS
Test Mode	**Antenna**	**Channel**	**Max.Level [dBm]**		**Verdict**
			Below 5715	**5715-5725**	
11AC80SISO	Ant1	5775	-46.47	-46.54	PASS

Appendix D): Frequency Stability

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	42000	8.108108	20	PASS
			LV	NT	42000	8.108108	20	PASS
			HV	NT	42000	8.108108	20	PASS
		5200	NV	NT	42000	8.076923	20	PASS
			LV	NT	42000	8.076923	20	PASS
			HV	NT	42000	8.076923	20	PASS
		5240	NV	NT	43000	8.206107	20	PASS
			LV	NT	43000	8.206107	20	PASS
			HV	NT	43000	8.206107	20	PASS
		5745	NV	NT	47000	8.181027	20	PASS
			LV	NT	47000	8.181027	20	PASS
			HV	NT	47000	8.181027	20	PASS
		5785	NV	NT	47000	8.12446	20	PASS
			LV	NT	47000	8.12446	20	PASS
			HV	NT	47000	8.12446	20	PASS
		5825	NV	NT	48000	8.240343	20	PASS
			LV	NT	48000	8.240343	20	PASS
			HV	NT	48000	8.240343	20	PASS
11N20SISO	Ant1	5180	NV	NT	42000	8.108108	20	PASS
			LV	NT	43000	8.301158	20	PASS
			HV	NT	42000	8.108108	20	PASS
		5200	NV	NT	43000	8.269231	20	PASS
			LV	NT	43000	8.269231	20	PASS
			HV	NT	42000	8.076923	20	PASS
		5240	NV	NT	43000	8.206107	20	PASS
			LV	NT	43000	8.206107	20	PASS
			HV	NT	43000	8.206107	20	PASS
		5745	NV	NT	47000	8.181027	20	PASS
			LV	NT	47000	8.181027	20	PASS
			HV	NT	47000	8.181027	20	PASS
		5785	NV	NT	47000	8.12446	20	PASS

			LV	NT	48000	8.297321	20	PASS
			HV	NT	48000	8.297321	20	PASS
		5825	NV	NT	48000	8.240343	20	PASS
			LV	NT	48000	8.240343	20	PASS
			HV	NT	48000	8.240343	20	PASS
11N40SISO	Ant1	5190	NV	NT	41000	7.899807	20	PASS
			LV	NT	41000	7.899807	20	PASS
			HV	NT	41000	7.899807	20	PASS
		5230	NV	NT	42000	8.030593	20	PASS
			LV	NT	42000	8.030593	20	PASS
			HV	NT	42000	8.030593	20	PASS
		5755	NV	NT	46000	7.99305	20	PASS
			LV	NT	46000	7.99305	20	PASS
			HV	NT	46000	7.99305	20	PASS
		5795	NV	NT	47000	8.11044	20	PASS
			LV	NT	47000	8.11044	20	PASS
			HV	NT	47000	8.11044	20	PASS
11AC20SISO	Ant1	5180	NV	NT	42000	8.108108	20	PASS
			LV	NT	42000	8.108108	20	PASS
			HV	NT	42000	8.108108	20	PASS
		5200	NV	NT	42000	8.076923	20	PASS
			LV	NT	42000	8.076923	20	PASS
			HV	NT	42000	8.076923	20	PASS
		5240	NV	NT	43000	8.206107	20	PASS
			LV	NT	43000	8.206107	20	PASS
			HV	NT	43000	8.206107	20	PASS
		5745	NV	NT	47000	8.181027	20	PASS
			LV	NT	47000	8.181027	20	PASS
			HV	NT	47000	8.181027	20	PASS
		5785	NV	NT	47000	8.12446	20	PASS
			LV	NT	48000	8.297321	20	PASS
			HV	NT	47000	8.12446	20	PASS
		5825	NV	NT	48000	8.240343	20	PASS
			LV	NT	48000	8.240343	20	PASS
			HV	NT	48000	8.240343	20	PASS
11AC40SISO	Ant1	5190	NV	NT	43000	8.285164	20	PASS
			LV	NT	43000	8.285164	20	PASS

			HV	NT	43000	8.285164	20	PASS
		5230	NV	NT	43000	8.221797	20	PASS
			LV	NT	44000	8.413002	20	PASS
			HV	NT	43000	8.221797	20	PASS
		5755	NV	NT	47000	8.166811	20	PASS
			LV	NT	47000	8.166811	20	PASS
			HV	NT	48000	8.340573	20	PASS
		5795	NV	NT	49000	8.455565	20	PASS
			LV	NT	48000	8.283003	20	PASS
			HV	NT	48000	8.283003	20	PASS
11AC80SISO	Ant1	5210	NV	NT	43000	8.253359	20	PASS
			LV	NT	44000	8.445298	20	PASS
			HV	NT	43000	8.253359	20	PASS
		5775	NV	NT	49000	8.484848	20	PASS
			LV	NT	48000	8.311688	20	PASS
			HV	NT	48000	8.311688	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	42000	8.108108	20	PASS
			NV	-20	42000	8.108108	20	PASS
			NV	-10	42000	8.108108	20	PASS
			NV	0	42000	8.108108	20	PASS
			NV	10	42000	8.108108	20	PASS
			NV	20	42000	8.108108	20	PASS
			NV	30	42000	8.108108	20	PASS
			NV	40	42000	8.108108	20	PASS
			NV	50	42000	8.108108	20	PASS
		5200	NV	-30	42000	8.076923	20	PASS
			NV	-20	42000	8.076923	20	PASS
			NV	-10	42000	8.076923	20	PASS
			NV	0	42000	8.076923	20	PASS
			NV	10	42000	8.076923	20	PASS
			NV	20	42000	8.076923	20	PASS
			NV	30	42000	8.076923	20	PASS
			NV	40	42000	8.076923	20	PASS
			NV	50	42000	8.076923	20	PASS
		5240	NV	-30	43000	8.206107	20	PASS
			NV	-20	43000	8.206107	20	PASS
			NV	-10	43000	8.206107	20	PASS
			NV	0	43000	8.206107	20	PASS
			NV	10	43000	8.206107	20	PASS
			NV	20	43000	8.206107	20	PASS
			NV	30	43000	8.206107	20	PASS
			NV	40	43000	8.206107	20	PASS
			NV	50	43000	8.206107	20	PASS
		5745	NV	-30	47000	8.181027	20	PASS
			NV	-20	47000	8.181027	20	PASS
			NV	-10	47000	8.181027	20	PASS
			NV	0	47000	8.181027	20	PASS
			NV	10	47000	8.181027	20	PASS
			NV	20	47000	8.181027	20	PASS
			NV	30	47000	8.181027	20	PASS

			NV	40	47000	8.181027	20	PASS
			NV	50	47000	8.181027	20	PASS
		5785	NV	-30	47000	8.12446	20	PASS
			NV	-20	47000	8.12446	20	PASS
			NV	-10	47000	8.12446	20	PASS
			NV	0	47000	8.12446	20	PASS
			NV	10	47000	8.12446	20	PASS
			NV	20	47000	8.12446	20	PASS
			NV	30	47000	8.12446	20	PASS
			NV	40	47000	8.12446	20	PASS
			NV	50	47000	8.12446	20	PASS
		5825	NV	-30	48000	8.240343	20	PASS
			NV	-20	48000	8.240343	20	PASS
			NV	-10	48000	8.240343	20	PASS
			NV	0	48000	8.240343	20	PASS
			NV	10	48000	8.240343	20	PASS
			NV	20	48000	8.240343	20	PASS
			NV	30	48000	8.240343	20	PASS
			NV	40	48000	8.240343	20	PASS
			NV	50	48000	8.240343	20	PASS
11N20SISO	Ant1	5180	NV	-30	42000	8.108108	20	PASS
			NV	-20	42000	8.108108	20	PASS
			NV	-10	43000	8.301158	20	PASS
			NV	0	42000	8.108108	20	PASS
			NV	10	42000	8.108108	20	PASS
			NV	20	42000	8.108108	20	PASS
			NV	30	42000	8.108108	20	PASS
			NV	40	42000	8.108108	20	PASS
			NV	50	42000	8.108108	20	PASS
		5200	NV	-30	42000	8.076923	20	PASS
			NV	-20	43000	8.269231	20	PASS
			NV	-10	43000	8.269231	20	PASS
			NV	0	43000	8.269231	20	PASS
			NV	10	43000	8.269231	20	PASS
			NV	20	43000	8.269231	20	PASS
			NV	30	43000	8.269231	20	PASS
			NV	40	43000	8.269231	20	PASS

			NV	50	43000	8.269231	20	PASS
		5240	NV	-30	43000	8.206107	20	PASS
			NV	-20	43000	8.206107	20	PASS
			NV	-10	43000	8.206107	20	PASS
			NV	0	43000	8.206107	20	PASS
			NV	10	43000	8.206107	20	PASS
			NV	20	43000	8.206107	20	PASS
			NV	30	43000	8.206107	20	PASS
			NV	40	43000	8.206107	20	PASS
			NV	50	43000	8.206107	20	PASS
		5745	NV	-30	47000	8.181027	20	PASS
			NV	-20	47000	8.181027	20	PASS
			NV	-10	47000	8.181027	20	PASS
			NV	0	47000	8.181027	20	PASS
			NV	10	47000	8.181027	20	PASS
			NV	20	47000	8.181027	20	PASS
			NV	30	47000	8.181027	20	PASS
			NV	40	47000	8.181027	20	PASS
			NV	50	47000	8.181027	20	PASS
		5785	NV	-30	48000	8.297321	20	PASS
			NV	-20	48000	8.297321	20	PASS
			NV	-10	48000	8.297321	20	PASS
			NV	0	48000	8.297321	20	PASS
			NV	10	48000	8.297321	20	PASS
			NV	20	48000	8.297321	20	PASS
			NV	30	47000	8.12446	20	PASS
			NV	40	48000	8.297321	20	PASS
			NV	50	48000	8.297321	20	PASS
		5825	NV	-30	48000	8.240343	20	PASS
			NV	-20	48000	8.240343	20	PASS
			NV	-10	48000	8.240343	20	PASS
			NV	0	48000	8.240343	20	PASS
			NV	10	48000	8.240343	20	PASS
			NV	20	48000	8.240343	20	PASS
			NV	30	48000	8.240343	20	PASS
			NV	40	48000	8.240343	20	PASS
			NV	50	48000	8.240343	20	PASS

11N40SISO	Ant1	5190	NV	-30	41000	7.899807	20	PASS
			NV	-20	41000	7.899807	20	PASS
			NV	-10	41000	7.899807	20	PASS
			NV	0	41000	7.899807	20	PASS
			NV	10	41000	7.899807	20	PASS
			NV	20	41000	7.899807	20	PASS
			NV	30	41000	7.899807	20	PASS
			NV	40	41000	7.899807	20	PASS
			NV	50	41000	7.899807	20	PASS
		5230	NV	-30	42000	8.030593	20	PASS
			NV	-20	42000	8.030593	20	PASS
			NV	-10	42000	8.030593	20	PASS
			NV	0	42000	8.030593	20	PASS
			NV	10	42000	8.030593	20	PASS
			NV	20	42000	8.030593	20	PASS
			NV	30	42000	8.030593	20	PASS
			NV	40	42000	8.030593	20	PASS
			NV	50	42000	8.030593	20	PASS
		5755	NV	-30	46000	7.99305	20	PASS
			NV	-20	46000	7.99305	20	PASS
			NV	-10	46000	7.99305	20	PASS
			NV	0	46000	7.99305	20	PASS
			NV	10	46000	7.99305	20	PASS
			NV	20	46000	7.99305	20	PASS
			NV	30	46000	7.99305	20	PASS
			NV	40	46000	7.99305	20	PASS
			NV	50	46000	7.99305	20	PASS
		5795	NV	-30	47000	8.11044	20	PASS
			NV	-20	47000	8.11044	20	PASS
			NV	-10	47000	8.11044	20	PASS
			NV	0	47000	8.11044	20	PASS
			NV	10	47000	8.11044	20	PASS
			NV	20	47000	8.11044	20	PASS
			NV	30	46000	7.937877	20	PASS
			NV	40	47000	8.11044	20	PASS
			NV	50	46000	7.937877	20	PASS
11AC20SISO	Ant1	5180	NV	-30	42000	8.108108	20	PASS

			NV	-20	42000	8.108108	20	PASS
			NV	-10	42000	8.108108	20	PASS
			NV	0	42000	8.108108	20	PASS
			NV	10	42000	8.108108	20	PASS
			NV	20	42000	8.108108	20	PASS
			NV	30	42000	8.108108	20	PASS
			NV	40	42000	8.108108	20	PASS
			NV	50	42000	8.108108	20	PASS
		5200	NV	-30	42000	8.076923	20	PASS
			NV	-20	42000	8.076923	20	PASS
			NV	-10	42000	8.076923	20	PASS
			NV	0	42000	8.076923	20	PASS
			NV	10	42000	8.076923	20	PASS
			NV	20	42000	8.076923	20	PASS
			NV	30	42000	8.076923	20	PASS
			NV	40	42000	8.076923	20	PASS
			NV	50	42000	8.076923	20	PASS
		5240	NV	-30	43000	8.206107	20	PASS
			NV	-20	43000	8.206107	20	PASS
			NV	-10	43000	8.206107	20	PASS
			NV	0	43000	8.206107	20	PASS
			NV	10	43000	8.206107	20	PASS
			NV	20	43000	8.206107	20	PASS
			NV	30	43000	8.206107	20	PASS
			NV	40	43000	8.206107	20	PASS
			NV	50	43000	8.206107	20	PASS
		5745	NV	-30	47000	8.181027	20	PASS
			NV	-20	47000	8.181027	20	PASS
			NV	-10	47000	8.181027	20	PASS
			NV	0	47000	8.181027	20	PASS
			NV	10	47000	8.181027	20	PASS
			NV	20	47000	8.181027	20	PASS
			NV	30	47000	8.181027	20	PASS
			NV	40	47000	8.181027	20	PASS
			NV	50	47000	8.181027	20	PASS
		5785	NV	-30	47000	8.12446	20	PASS
			NV	-20	48000	8.297321	20	PASS

			NV	-10	47000	8.12446	20	PASS
			NV	0	47000	8.12446	20	PASS
			NV	10	47000	8.12446	20	PASS
			NV	20	47000	8.12446	20	PASS
			NV	30	47000	8.12446	20	PASS
			NV	40	47000	8.12446	20	PASS
			NV	50	48000	8.297321	20	PASS
		5825	NV	-30	48000	8.240343	20	PASS
			NV	-20	48000	8.240343	20	PASS
			NV	-10	48000	8.240343	20	PASS
			NV	0	48000	8.240343	20	PASS
			NV	10	48000	8.240343	20	PASS
			NV	20	48000	8.240343	20	PASS
			NV	30	48000	8.240343	20	PASS
			NV	40	48000	8.240343	20	PASS
			NV	50	48000	8.240343	20	PASS
11AC40SISO	Ant1	5190	NV	-30	43000	8.285164	20	PASS
			NV	-20	43000	8.285164	20	PASS
			NV	-10	43000	8.285164	20	PASS
			NV	0	43000	8.285164	20	PASS
			NV	10	43000	8.285164	20	PASS
			NV	20	43000	8.285164	20	PASS
			NV	30	43000	8.285164	20	PASS
			NV	40	43000	8.285164	20	PASS
			NV	50	43000	8.285164	20	PASS
		5230	NV	-30	43000	8.221797	20	PASS
			NV	-20	43000	8.221797	20	PASS
			NV	-10	43000	8.221797	20	PASS
			NV	0	43000	8.221797	20	PASS
			NV	10	43000	8.221797	20	PASS
			NV	20	43000	8.221797	20	PASS
			NV	30	43000	8.221797	20	PASS
			NV	40	43000	8.221797	20	PASS
			NV	50	43000	8.221797	20	PASS
		5755	NV	-30	48000	8.340573	20	PASS
			NV	-20	48000	8.340573	20	PASS
			NV	-10	48000	8.340573	20	PASS

			NV	0	48000	8.340573	20	PASS
			NV	10	48000	8.340573	20	PASS
			NV	20	48000	8.340573	20	PASS
			NV	30	48000	8.340573	20	PASS
			NV	40	48000	8.340573	20	PASS
			NV	50	48000	8.340573	20	PASS
		5795	NV	-30	48000	8.283003	20	PASS
			NV	-20	48000	8.283003	20	PASS
			NV	-10	48000	8.283003	20	PASS
			NV	0	48000	8.283003	20	PASS
			NV	10	48000	8.283003	20	PASS
			NV	20	48000	8.283003	20	PASS
			NV	30	48000	8.283003	20	PASS
			NV	40	48000	8.283003	20	PASS
			NV	50	48000	8.283003	20	PASS
11AC80SISO	Ant1	5210	NV	-30	43000	8.253359	20	PASS
			NV	-20	43000	8.253359	20	PASS
			NV	-10	43000	8.253359	20	PASS
			NV	0	43000	8.253359	20	PASS
			NV	10	43000	8.253359	20	PASS
			NV	20	44000	8.445298	20	PASS
			NV	30	43000	8.253359	20	PASS
			NV	40	43000	8.253359	20	PASS
			NV	50	43000	8.253359	20	PASS
		5775	NV	-30	48000	8.311688	20	PASS
			NV	-20	48000	8.311688	20	PASS
			NV	-10	48000	8.311688	20	PASS
			NV	0	48000	8.311688	20	PASS
			NV	10	48000	8.311688	20	PASS
			NV	20	48000	8.311688	20	PASS
			NV	30	48000	8.311688	20	PASS
			NV	40	48000	8.311688	20	PASS
			NV	50	48000	8.311688	20	PASS

Appendix E): Antenna Requirement

15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. **15.407(a)(1) (2) requirement:** The conducted output power limit specified in paragraph (a) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (a) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power and the peak power spectral density shall be reduced by the by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
EUT Antenna:	Please see EUT internal photos.
The antenna is internal antenna with ipex connector.The best case gain of the 5G WiFi antenna is 1.02dBi	

Appendix F): Operation in the absence of information to the transmit

15.407(c) 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 signal ling 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.
Operation in the absence of information to the transmit
While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ASK message transmitting from remote device and verify whether it shall resend or discontinue transmission. (manufacturer declare)

Appendix G): AC Power Line Conducted Emission

Test Procedure:	Test frequency range :150KHz-30MHz 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 50Ω/50μH + 5Ω 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.
Limit:	

Frequency range (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

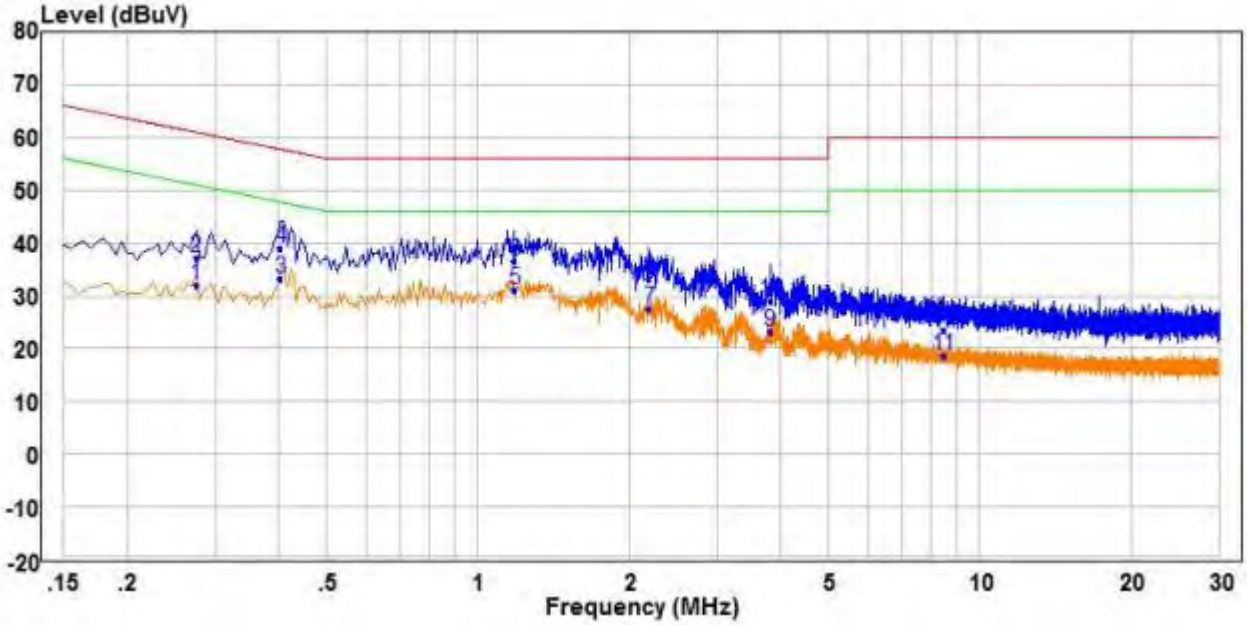
* The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.
NOTE : The lower limit is applicable at the transition frequency

Measurement Data

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

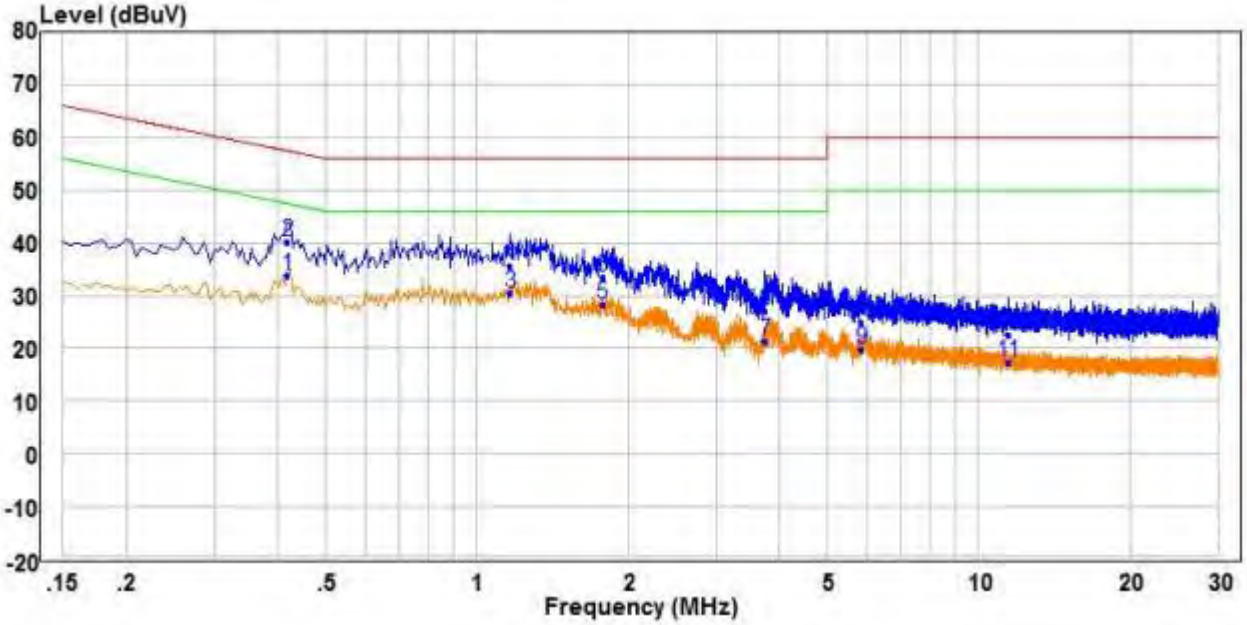
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:



		Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.275	22.36	9.52	31.88	50.97	-19.09	Average	Line
2		0.275	27.57	9.52	37.09	60.97	-23.88	QP	Line
3	PP	0.405	23.55	9.61	33.16	47.75	-14.59	Average	Line
4	QP	0.405	29.40	9.61	39.01	57.75	-18.74	QP	Line
5		1.185	20.96	10.18	31.14	46.00	-14.86	Average	Line
6		1.185	26.41	10.18	36.59	56.00	-19.41	QP	Line
7		2.200	16.04	11.45	27.49	46.00	-18.51	Average	Line
8		2.200	21.78	11.45	33.23	56.00	-22.77	QP	Line
9		3.830	12.79	10.28	23.07	46.00	-22.93	Average	Line
10		3.830	18.55	10.28	28.83	56.00	-27.17	QP	Line
11		8.465	8.70	9.85	18.55	50.00	-31.45	Average	Line
12		8.465	13.74	9.85	23.59	60.00	-36.41	QP	Line

Neutral line:



		Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	PP	0.420	24.06	9.62	33.68	47.45	-13.77	Average	Neutral
2	QP	0.420	30.45	9.62	40.07	57.45	-17.38	QP	Neutral
3		1.165	20.78	9.71	30.49	46.00	-15.51	Average	Neutral
4		1.165	26.02	9.71	35.73	56.00	-20.27	QP	Neutral
5		1.780	18.50	9.74	28.24	46.00	-17.76	Average	Neutral
6		1.780	23.81	9.74	33.55	56.00	-22.45	QP	Neutral
7		3.760	11.61	9.78	21.39	46.00	-24.61	Average	Neutral
8		3.760	17.39	9.78	27.17	56.00	-28.83	QP	Neutral
9		5.835	10.11	9.82	19.93	50.00	-30.07	Average	Neutral
10		5.835	15.30	9.82	25.12	60.00	-34.88	QP	Neutral
11		11.475	7.68	9.85	17.53	50.00	-32.47	Average	Neutral
12		11.475	12.69	9.85	22.54	60.00	-37.46	QP	Neutral

Notes:

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

Appendix H): Restricted bands around fundamental frequency (Radiated Emission)

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
h. Test the EUT in the lowest 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 worse case.
j. Repeat above procedures until all frequencies measured was complete.

Limit:

Frequency	Limit (dBμV/m @3cm)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

Test plot as follows:

Worse case mode:		802.11a(6Mbps)		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	52.56	-3.63	48.93	74	-25.07	peak	H
5150	36.36	-3.63	32.73	54	-21.27	AVG	H
5150	52.43	-3.63	48.80	74	-25.20	peak	V
5150	37.20	-3.63	33.57	54	-20.43	AVG	V

Worse case mode:		802.11a(6Mbps)		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350	52.68	-3.59	49.09	74	-24.91	peak	H
5350	36.25	-3.59	32.66	54	-21.34	AVG	H
5350	53.52	-3.59	49.93	74	-24.07	peak	V
5350	37.66	-3.59	34.07	54	-19.93	AVG	V

Worse case mode:		802.11a(6Mbps)		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	53.57	-3.46	50.11	74	-23.89	peak	H
5740.90	36.66	-3.44	33.22	54	-20.78	peak	H
5650	53.76	-3.46	50.30	74	-23.70	peak	V
5744.84	37.79	-3.44	34.35	54	-19.65	peak	V

Worse case mode:		802.11a(6Mbps)		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5823.64	53.32	-3.42	49.90	74	-24.10	peak	H
5925	37.88	-3.41	34.47	54	-19.53	peak	H
5824.99	53.55	-3.42	50.13	74	-23.87	peak	V
5925	36.44	-3.41	33.03	54	-20.97	peak	V

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	53.19	-3.63	49.56	74	-24.44	peak	H
5150	36.93	-3.63	33.30	54	-20.70	AVG	H
5150	52.46	-3.63	48.83	74	-25.17	peak	V
5150	37.61	-3.63	33.98	54	-20.02	AVG	V

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350	52.98	-3.59	49.39	74	-24.61	peak	H
5350	36.10	-3.59	32.51	54	-21.49	AVG	H
5350	53.28	-3.59	49.69	74	-24.31	peak	V
5350	36.27	-3.59	32.68	54	-21.32	AVG	V

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	53.10	-3.46	49.64	74	-24.36	peak	H
5741.57	36.62	-3.44	33.18	54	-20.82	peak	H
5650	52.70	-3.46	49.24	74	-24.76	peak	V
5741.24	36.90	-3.44	33.46	54	-20.54	peak	V

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5826.17	52.72	-3.42	49.30	74	-24.70	peak	H
5925	36.26	-3.41	32.85	54	-21.15	peak	H
5826.24	53.34	-3.42	49.92	74	-24.08	peak	V
5925	36.78	-3.41	33.37	54	-20.63	peak	V

Worse case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		38	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	52.55	-3.63	48.92	74	-25.08	peak	H
5150	37.12	-3.63	33.49	54	-20.51	AVG	H
5150	52.99	-3.63	49.36	74	-24.64	peak	V
5150	37.50	-3.63	33.87	54	-20.13	AVG	V

Worse case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		46	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350	53.41	-3.59	49.82	74	-24.18	peak	H
5350	35.99	-3.59	32.40	54	-21.60	AVG	H
5350	53.95	-3.59	50.36	74	-23.64	peak	V
5350	37.44	-3.59	33.85	54	-20.15	AVG	V

Worse case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		151	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	54.19	-3.46	50.73	74	-23.27	peak	H
5754.69	37.25	-3.44	33.81	54	-20.19	peak	H
5650	53.16	-3.46	49.70	74	-24.30	peak	V
5757.16	36.35	-3.44	32.91	54	-21.09	peak	V

Worse case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		159	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5781.81	52.46	-3.42	49.04	74	-24.96	peak	H
5925	36.93	-3.41	33.52	54	-20.48	peak	H
5784.64	54.12	-3.42	50.70	74	-23.30	peak	V
5925	37.81	-3.41	34.40	54	-19.60	peak	V

Worse case mode:		802.11ac(HT20)(6.5Mbps)		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	52.90	-3.63	49.27	74	-24.73	peak	H
5150	36.60	-3.63	32.97	54	-21.03	AVG	H
5150	52.81	-3.63	49.18	74	-24.82	peak	V
5150	36.04	-3.63	32.41	54	-21.59	AVG	V

Worse case mode:		802.11ac(HT20)(6.5Mbps)		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350	52.77	-3.59	49.18	74	-24.82	peak	H
5350	36.37	-3.59	32.78	54	-21.22	AVG	H
5350	53.47	-3.59	49.88	74	-24.12	peak	V
5350	37.93	-3.59	34.34	54	-19.66	AVG	V

Worse case mode:		802.11ac(HT20)(6.5Mbps)		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	53.49	-3.46	50.03	74	-23.97	peak	H
5739.20	37.20	-3.44	33.76	54	-20.24	peak	H
5650	53.74	-3.46	50.28	74	-23.72	peak	V
5736.21	37.48	-3.44	34.04	54	-19.96	peak	V

Worse case mode:		802.11ac(HT20)(6.5Mbps)		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5825.52	53.37	-3.42	49.95	74	-24.05	peak	H
5925	36.19	-3.41	32.78	54	-21.22	peak	H
5820.02	52.72	-3.42	49.30	74	-24.70	peak	V
5925	36.37	-3.41	32.96	54	-21.04	peak	V

Worse case mode:		802.11ac(VHT40)(13.5Mbps)		Test channel:		38	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	52.41	-3.63	48.78	74	-25.22	peak	H
5150	37.04	-3.63	33.41	54	-20.59	AVG	H
5150	53.79	-3.63	50.16	74	-23.84	peak	V
5150	37.10	-3.63	33.47	54	-20.53	AVG	V

Worse case mode:		802.11ac(VHT40)(13.5Mbps)		Test channel:		46	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350	53.52	-3.59	49.93	74	-24.07	peak	H
5350	37.34	-3.59	33.75	54	-20.25	AVG	H
5350	53.18	-3.59	49.59	74	-24.41	peak	V
5350	36.35	-3.59	32.76	54	-21.24	AVG	V

Worse case mode:		802.11ac(VHT40)(13.5Mbps)		Test channel:		151	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	53.59	-3.46	50.13	74	-23.87	peak	H
5752.29	36.47	-3.44	33.03	54	-20.97	peak	H
5650	54.08	-3.46	50.62	74	-23.38	peak	V
5754.03	36.47	-3.44	33.03	54	-20.97	peak	V

Worse case mode:		802.11ac(VHT40)(13.5Mbps)		Test channel:		159	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5795.02	54.13	-3.42	50.71	74	-23.29	peak	H
5925	37.17	-3.41	33.76	54	-20.24	peak	H
5793.16	52.88	-3.42	49.46	74	-24.54	peak	V
5925	37.25	-3.41	33.84	54	-20.16	peak	V

Worse case mode:		802.11ac(VHT80)(29.3Mbps)		Test channel:		42	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	52.27	-3.63	48.64	74	-25.36	peak	H
5150	36.06	-3.63	32.43	54	-21.57	AVG	H
5150	51.30	-3.63	47.67	74	-26.33	peak	V
5150	38.62	-3.63	34.99	54	-19.01	AVG	V
5350	54.87	-3.63	51.24	74	-22.76	peak	H
5350	39.27	-3.63	35.64	54	-18.36	AVG	H
5350	51.00	-3.63	47.37	74	-26.63	peak	V
5350	35.22	-3.63	31.59	54	-22.41	AVG	V

Worse case mode:		802.11ac(VHT80)(29.3Mbps)		Test channel:		155	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	53.23	-3.46	49.77	74	-24.23	peak	H
5773.61	36.12	-3.44	32.68	54	-21.32	peak	H
5925	51.26	-3.46	47.80	74	-26.20	peak	H
5650	38.30	-3.41	34.89	54	-19.11	peak	V
5777.00	55.25	-3.42	51.83	74	-22.17	peak	V
5925	39.11	-3.41	35.70	54	-18.30	peak	V

Note:
1) Through Pre-scan transmitting mode with all kind of modulation and data rate, find the MCS0 is the worst case of 802.11a; MCS0 is the worst case of 802.11n(20M)(40M); MCS0 is the worst case of 802.11ac(20M)(40M)(80M); and then Only the worst case is recorded in the report.
2) 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 - Correct Factor
Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor
3) All modes and antenna are tested, and found the antenna 1 which is worst case for 802.11a/n(20M)(40M)/ac(20M)(40M)(80M),so only the worst case mode is recorded in the report.

Appendix I): Radiated Spurious Emissions

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Procedure:

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. 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.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre)
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 worse case.
j. Repeat above procedures until all frequencies measured was complete.

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBμV/cm)	Remark	Measurement distance (cm)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

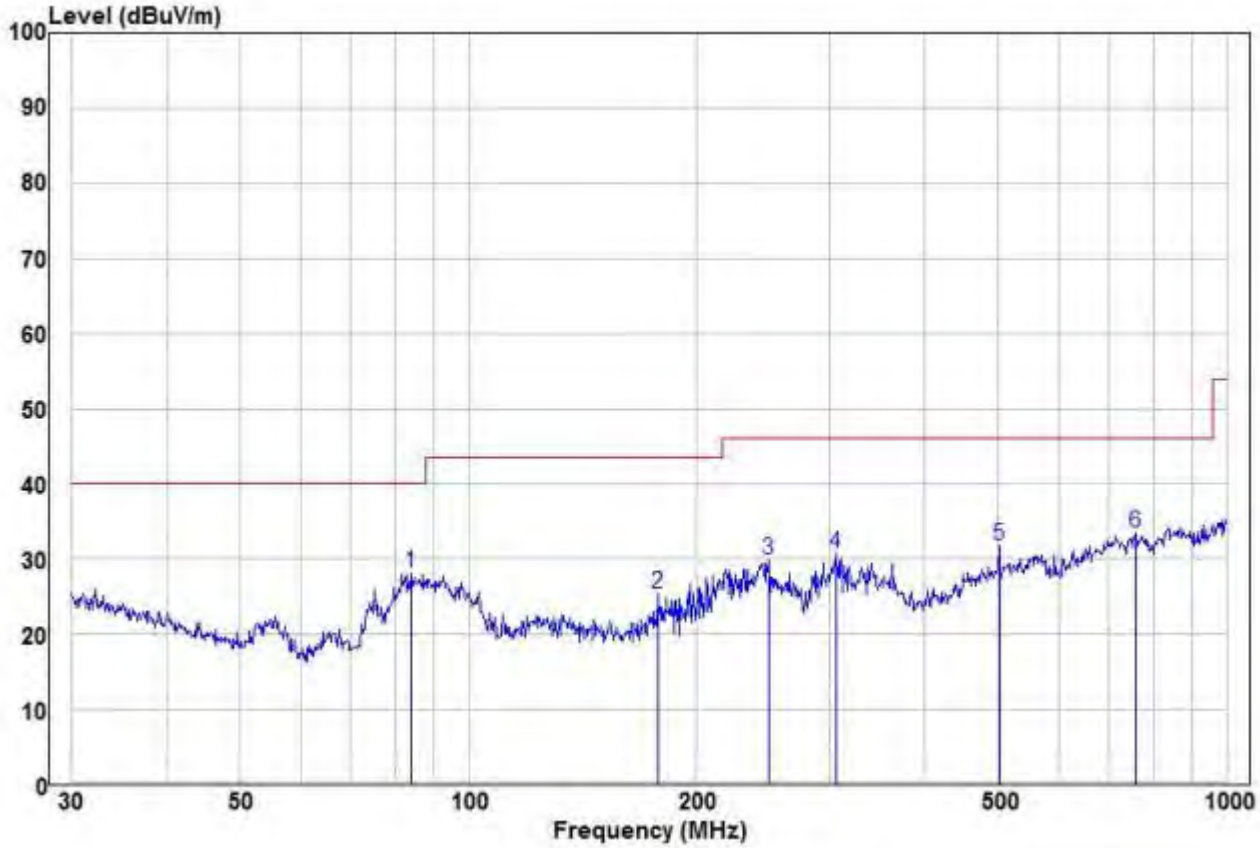
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Test result: PASS

Test Data:

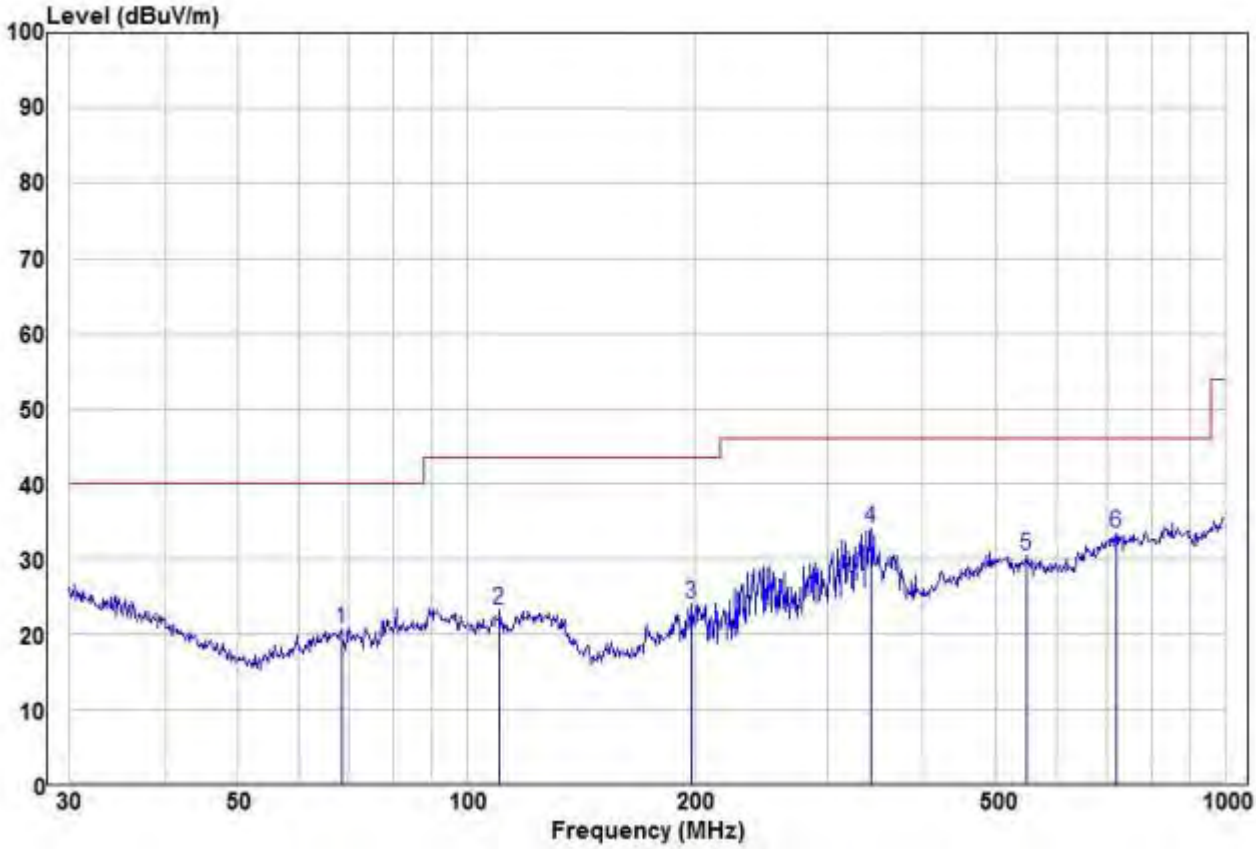
Radiated Emission below 1GHz

30MHz~1GHz		
Test mode:	Transmitting	Vertical



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1 pp	84.11	27.67	0.40	28.07	40.00	-11.93	Peak	VERTICAL
2	177.51	24.73	0.64	25.37	43.50	-18.13	Peak	VERTICAL
3	248.55	27.11	2.73	29.84	46.00	-16.16	Peak	VERTICAL
4	305.68	27.94	2.84	30.78	46.00	-15.22	Peak	VERTICAL
5	501.18	29.69	2.18	31.87	46.00	-14.13	Peak	VERTICAL
6	760.70	30.50	2.94	33.44	46.00	-12.56	Peak	VERTICAL

Test mode:	Transmitting	Horizontal



		Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		68.39	20.25	0.35	20.60	40.00	-19.40	Peak	HORIZONTAL
2		110.57	22.80	0.48	23.28	43.50	-20.22	Peak	HORIZONTAL
3		197.89	23.47	0.68	24.15	43.50	-19.35	Peak	HORIZONTAL
4	pp	341.98	31.29	2.89	34.18	46.00	-11.82	Peak	HORIZONTAL
5		549.02	28.25	2.25	30.50	46.00	-15.50	Peak	HORIZONTAL
6		719.20	31.17	2.40	33.57	46.00	-12.43	Peak	HORIZONTAL

Transmitter Emission above 1GHz

5G WIFI can transmit at the same time with Power G, so the test data describes the test results of both transmission at the same time.

Test mode:	802.11a(6Mbps)			Test channel:		48	
Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Over (dB)	Detector Type	Ant. Pol. H/V
1825.500	54.21	-9.32	44.89	74	-29.11	peak	H
10480	52.77	-4.12	48.65	74	-25.35	peak	H
10480	37.27	-4.12	33.15	54	-20.85	AVG	H
15720	48.93	1.46	50.39	74	-23.61	peak	H
15720	36.29	1.46	37.75	54	-16.25	AVG	H
1825.500	53.02	-9.32	43.7	74	-30.3	peak	V
10480	52.67	-4.12	48.55	74	-25.45	peak	V
10480	37.14	-4.12	33.02	54	-20.98	AVG	V
15720	48.53	1.46	49.99	74	-24.01	peak	V
15720	35.65	1.46	37.11	54	-16.89	AVG	V

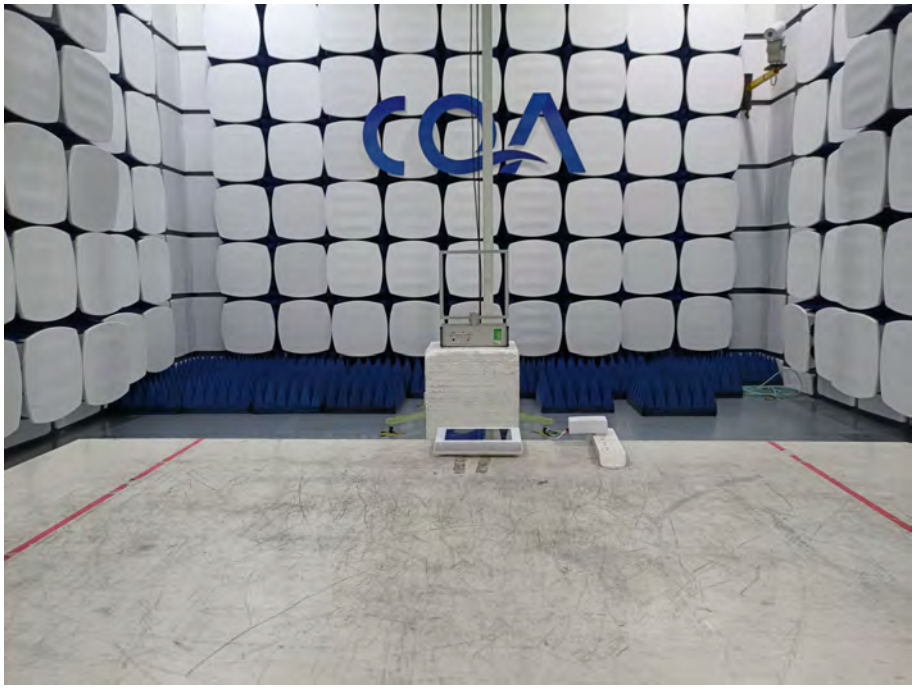
Remark:

1) The 6Mbps of rate of 802.11a at 48 channel is the worst case, only the worst data recorded in the report.
2) 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
3) Scan from 9kHz to 40GHz,The disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

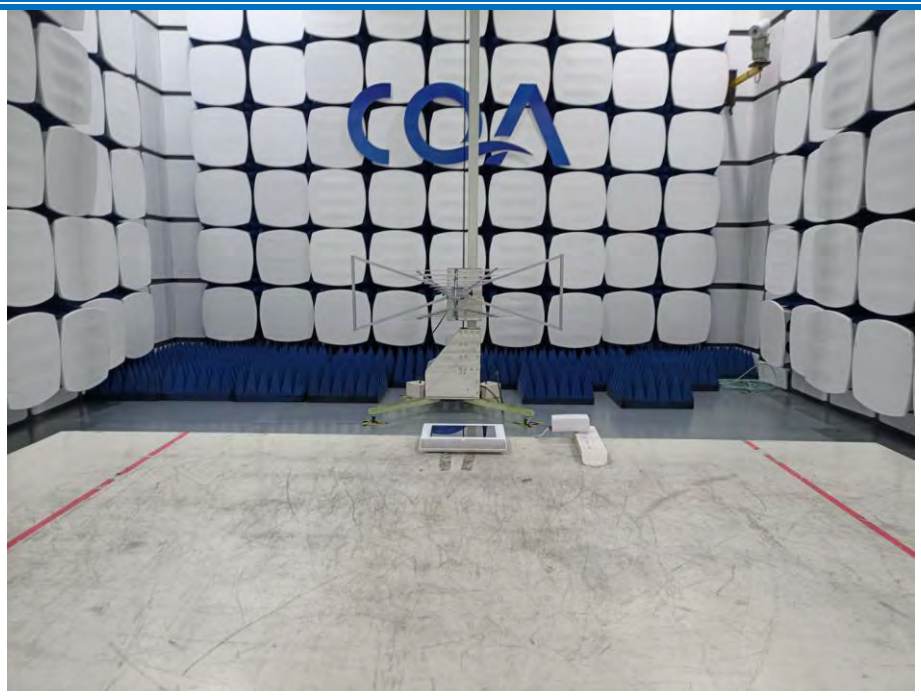
8 Photographs - EUT Test Setup

8.1 Radiated Spurious Emission

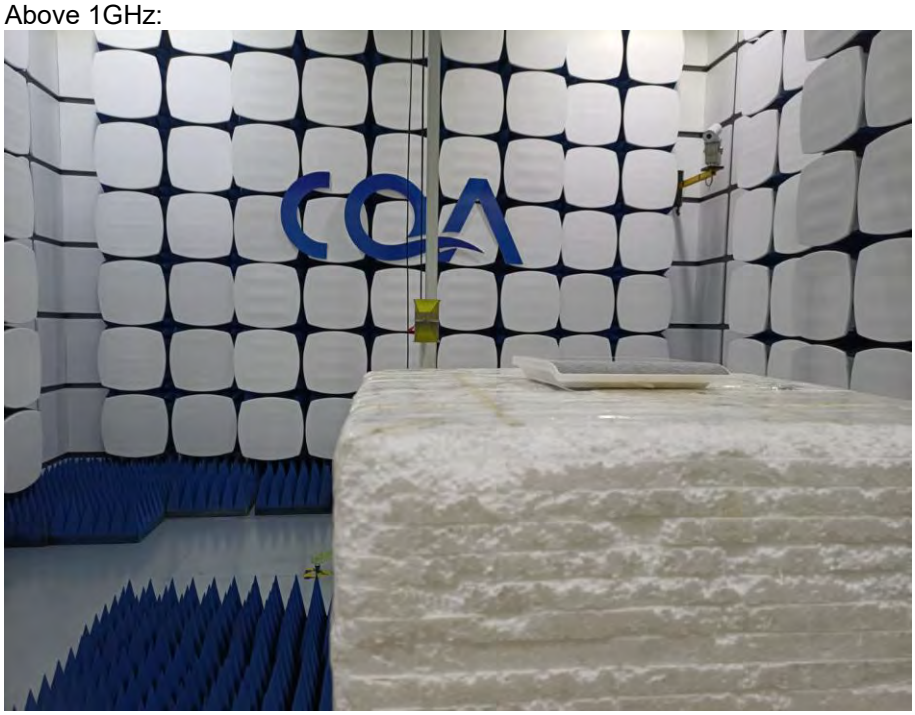
9KHz~30MHz:



30MHz~1GHz:



Above 1GHz:



8.2 Conducted Emission

PHOTOGRAPHS OF EUT Constructional Details

Refer to APPENDIX 2 PHOTOGRAPHS OF EUT for CQASZ20220100087E-01.

*** END OF REPORT***