



Shenzhen Huaxia Testing Technology Co., Ltd

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

Telephone: +86-755-26648640
Fax: +86-755-26648637
Website: www.cqa-cert.com

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Test Report

Report No.: CQASZ20240801587E-04
Applicant: TOPDON TECHNOLOGY Co., Ltd.
Address of Applicant: Unit 2005 20/F, Qianhai Shimao Tower, Qianhai Shenzhen-Hong kong Cooperation Zone Shenzhen China
Equipment Under Test (EUT):
Product: THINKTOOL mini, Professional Diagnostic Tool
Model No.: TKT02, ArtiDiag800BT, ArtiDiag800 BT 2
Test Model No.: TKT02
Brand Name: TOPDON
FCC ID: 2AVYW-AD800BT
Standards: 47 CFR Part 15, Subpart E
KDB 789033 D02 General UNII Test Procedures New Rules v02
KDB 558074 D01 Meas Guidance v05
Date of Receipt: 2024-08-02
Date of Test: 2024-08-02 to 2024-08-14
Date of Issue: 2024-08-29
Test Result: **PASS***

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

Tested By: Lewis Zhou

(Lewis Zhou)

Reviewed By: Timo Lei

(Timo Lei)

Approved By: Alex

(Alex Wang)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20210801378E-04	Rev.01	Initial report	2021-10-27
CQASZ20211001867E-04	Rev.02	Update report	2021-12-10
CQASZ20240801587E-04	Rev.03	Update report	2024-08-29

Note1:

This test report (Ref. No.: CQASZ20211001867E-04)

All test data comes from source test reports (Ref. No.: CQASZ20210801378E-04).

Only on the basis of the original report Change EUT Name, Model No., Applicant, Address of Applicant, Manufacturer, Address of Manufacturer, Brand Name, Photographs of EUT. The tested samples have not been changed.

Note2:

This test report (Ref. No.: CQASZ20240801587E-04)

All test data comes from source test reports (Ref. No.: CQASZ20211001867E-04).

On the basis of the original report Change the series model No.

Because the charging pad are different Add radiation test results, Conducted emission test results, Photographs of EUT.

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

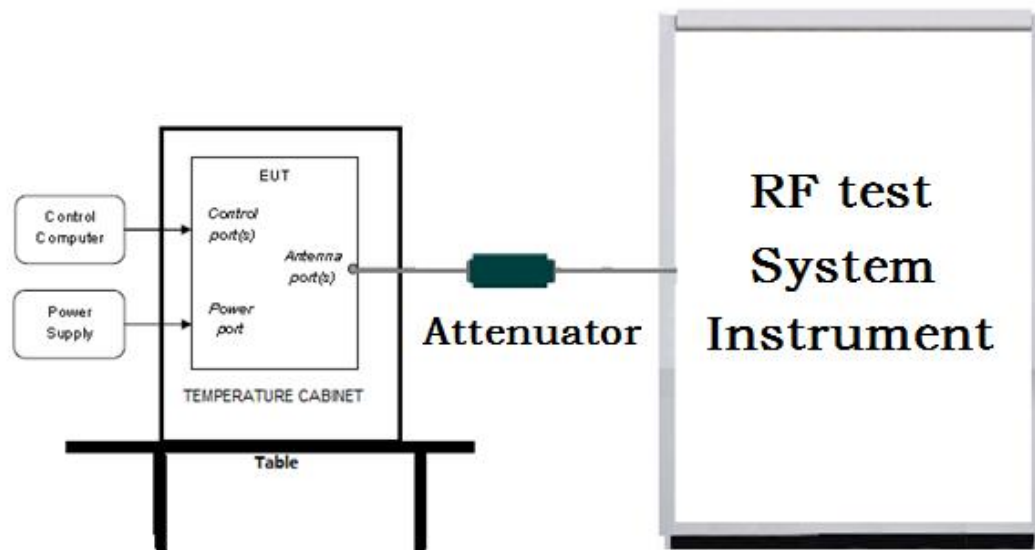
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3 Test Requirement

3.1 Test setup

3.1.1 For Conducted test setup



3.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

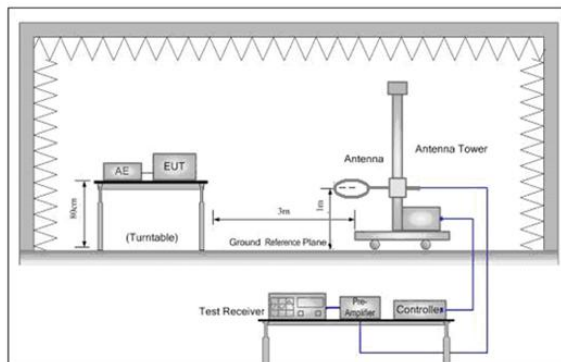


Figure 1. Below 30MHz

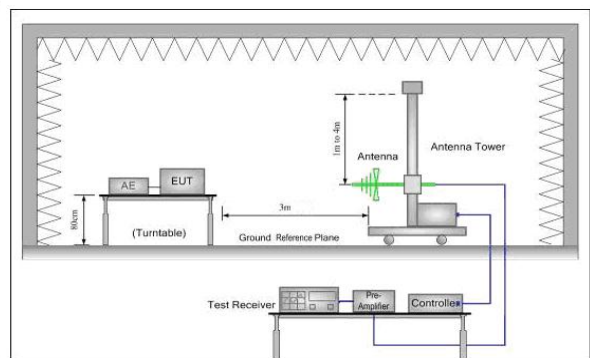


Figure 2. 30MHz to 1GHz

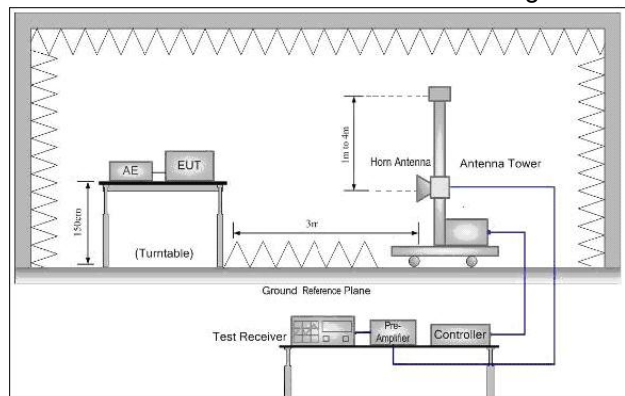
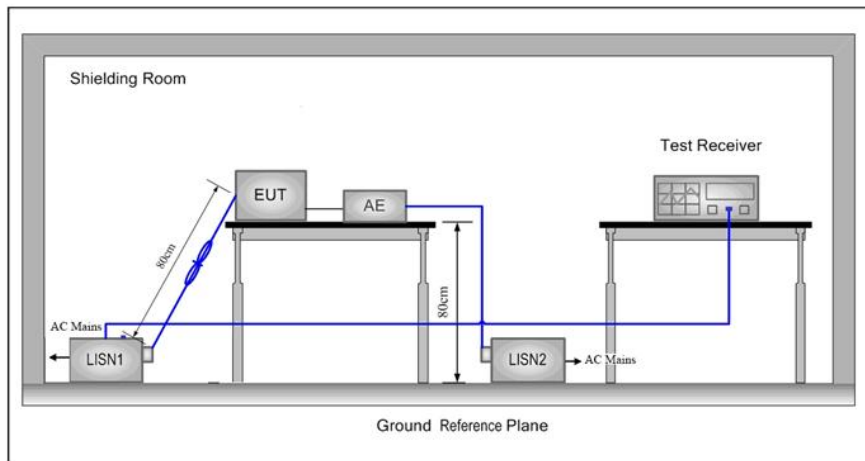


Figure 3. Above 1GHz

3.1.3 For Conducted Emissions test setup

Conducted Emissions setup



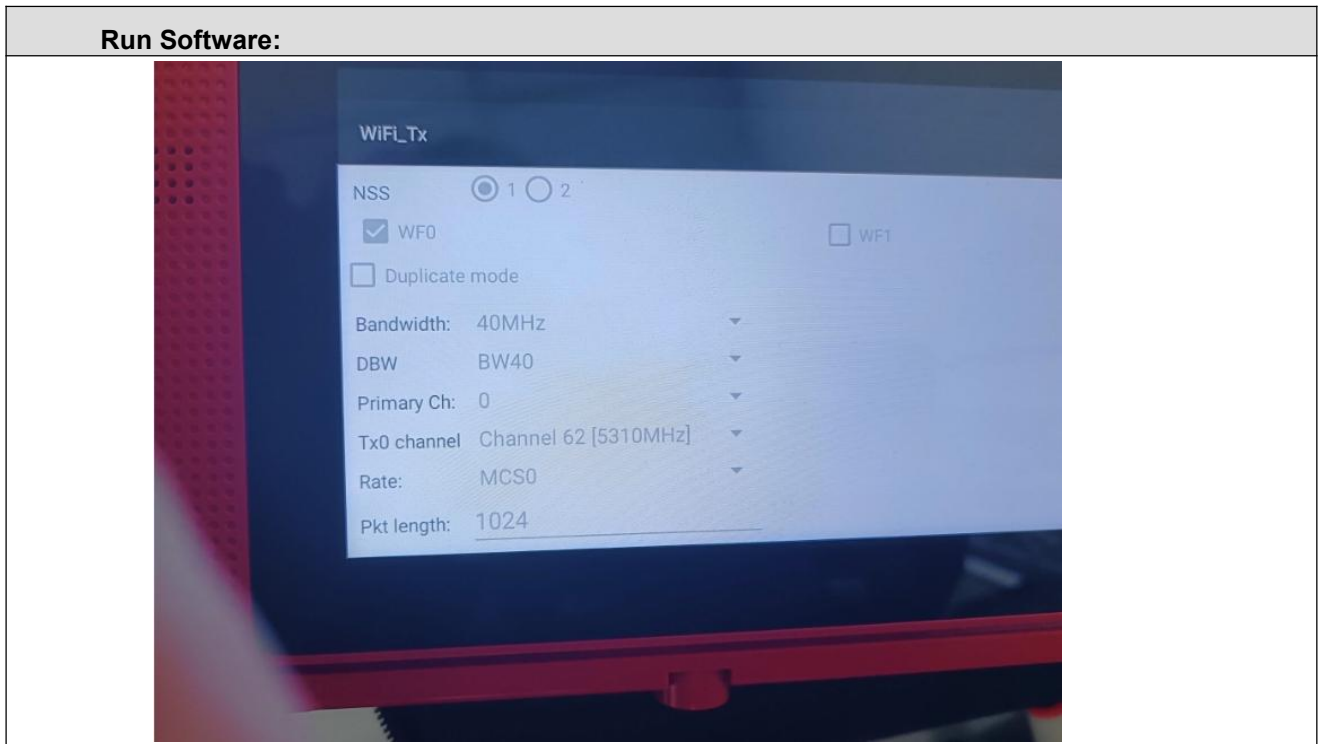
3.2 Test Environment

Operating Environment:		
Conducted Emissions:		
Temperature:	25.6 °C	
Humidity:	60 % RH	
Atmospheric Pressure:	1009 mbar	
Radiated Emissions:		
Temperature:	25.5 °C	
Humidity:	54 % RH	
Atmospheric Pressure:	1009mbar	
Radio conducted item test (RF Conducted test room):		
Temperature:	25.3 °C	
Humidity:	50 % RH	
Atmospheric Pressure:	1009 mbar	
Test Condition	Temperature (°C)	Voltage (V)
TN/VN	+15 to +35	7.6
TL/VL	0	6.84
TH/VL	50	6.84
TL/VH	0	8.36
TH/VH	50	8.36
Remark:		
1)The EUT just work in such extreme temperature of 0 °C to 50 °C and the extreme voltage of 6.84V to 8.36V, so here the EUT is tested in the temperature of 0 °C to 50 °C and the voltage of 6.84V to 8.36V.		
2)VN: 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.		

3.3 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



Test mode:

Pre-scan under all rate at lowest channel for Ant1

Through Pre-scan, 6Mbps 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).

4 General Information

4.1 Client Information

Applicant:	TOPDON TECHNOLOGY Co., Ltd.
Address of Applicant:	Unit 2005 20/F, Qianhai Shimao Tower, Qianhai Shenzhen-Hong kong Cooperation Zone Shenzhen China
Manufacturer:	TOPDON TECHNOLOGY Co., Ltd.
Address of Manufacturer:	Unit 2005 20/F, Qianhai Shimao Tower, Qianhai Shenzhen-Hong kong Cooperation Zone Shenzhen China
Factory:	THINKCAR TECH CO., LTD.
Address of Factory:	2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen

4.2 General Description of EUT

Product Name:	THINKTOOL mini, Professional Diagnostic Tool
Model No.:	TKT02, ArtiDiag800BT, ArtiDiag800 BT 2
Test Model No.:	TKT02
Trade Mark:	TOPDON
Hardware Version:	BSK-Y8-V3
Software Version:	V1.1.6
Test sample SN:	988980001306V0
EUT Power Supply:	lithium battery:DC7.6V, 3150mAh, Limited Charge Voltage:DC 8.7V Adapter: MODEL: PSYB0502500 INPUT: 100-240V~50/60Hz 0.6A Max OUTPUT: 5V 2.5A, 12.5W
EUT Supports Radios application:	Bluetooth Dual mode: 2402-2480MHz 2.4GHz: Wi-Fi: 802.11b/g/n(HT20): 2412MHz~2462MHz; 802.11n(HT40): 2422MHz~2452MHz 5GHz: Wi-Fi: U-NII-1: 5.15-5.25GHz; U-NII-3: 5.725-5.850GHz

4.3 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 Software of EUT:	RF Test (manufacturer declare)
Antenna Type:	internal antenna with ipex connector
Antenna gain:	1.52dBi@5GHz: Wi-Fi: U-NII-1, 2.05dBi@5GHz: Wi-Fi: U-NII-3

Model No.: TKT02, ArtiDiag800BT, ArtiDiag800 BT 2.

Only the model TKT02 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance and model name.

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

4.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Certification	Supplied by

4.5 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

4.6 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

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.

4.10 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%

5 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2023/9/8	2024/9/7
Spectrum analyzer	R&S	FSU26	CQA-038	2023/9/8	2024/9/7
Spectrum analyzer	R&S	FSU40	CQA-075	2023/9/8	2024/9/7
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2023/9/8	2024/9/7
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2023/9/8	2024/9/7
Preamplifier	EMCI	EMC184055SE	CQA-089	2023/9/8	2024/9/7
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	2023/9/8	2024/9/7
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2023/9/8	2024/9/7
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2023/9/8	2024/9/7
Antenna Connector	CQA	RFC-01	CQA-080	2023/9/8	2024/9/7
Power Sensor	KEYSIGHT	U2021XA	CQA-30	2023/9/8	2024/9/7
N1918A Power Analysis Manager Power Panel	Agilent	N1918A	CQA-074	2023/9/8	2024/9/7
Power meter	R&S	NRVD	CQA-029	2023/9/8	2024/9/7
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2023/9/8	2024/9/7
EMI Test Receiver	R&S	ESR7	CQA-005	2023/9/8	2024/9/7
LISN	R&S	ENV216	CQA-003	2023/9/8	2024/9/7
Coaxial cable	CQA	N/A	CQA-C009	2023/9/8	2024/9/7
DC power	KEYSIGHT	E3631A	CQA-028	2023/9/8	2024/9/7

Test software:

	Manufacturer	Software brand
Radiated Emissions test software	Tonscend	JS1120-3
Conducted Emissions test software	Audix	e3
RF Conducted test software	Audix	e3

6 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed 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 (b)(1)to(6)	KDB789033 / KDB 662911	Band Edge Measurements	PASS	Appendix D)
Part15E Section 15.407 (g)	KDB789033	Frequency stability	PASS	Appendix E)
Part15C Section 15.203	ANSI C63.10	Antenna Requirement	PASS	Appendix F)
Part15E Section 15.407 (c)	Section 15.407	Operation in the absence of information to the transmit	PASS	Appendix G)
Part15E Section 15.407 (b)(6)	ANSI C63.10	AC Power Line Conducted Emission	PASS	Appendix H)
Part15E Section 15.407 (b)(6)(7)(8)	KDB789033	Restricted bands around fundamental frequency(Radiated Emission)	PASS	Appendix I)
Part15E Section 15.407 (b)(1)(2)(3)(5)(6)(7)(8)	KDB789033	Radiated Spurious Emissions	PASS	Appendix J)

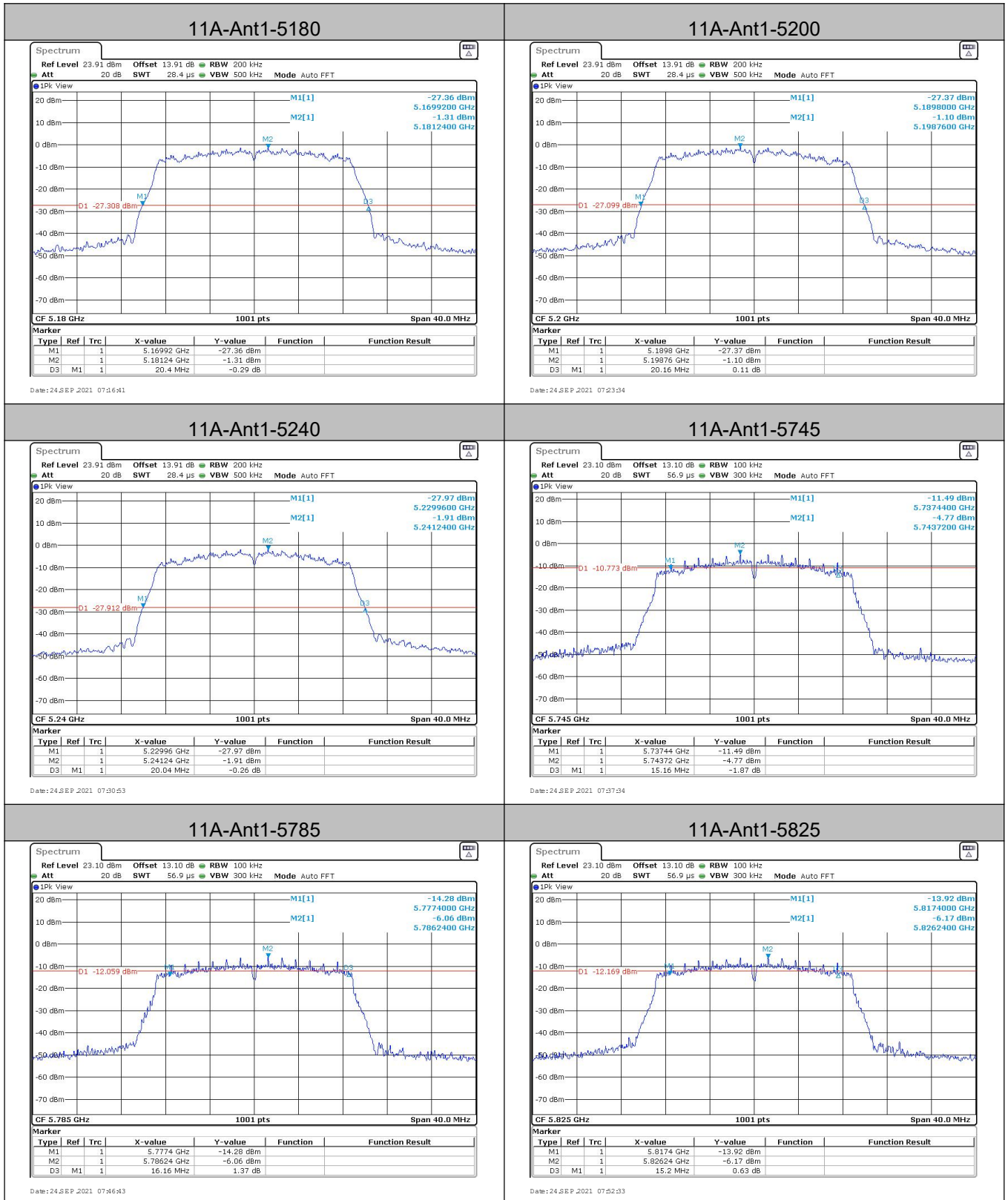
Appendix A): Emission Bandwidth

Result Table

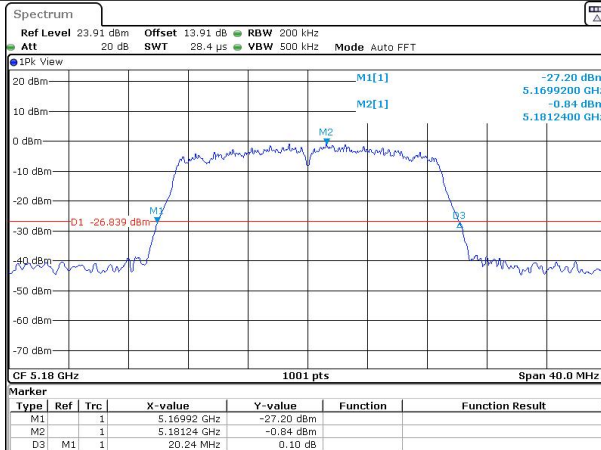
Test Mode	Antenna	Channel	EBW[MHz]	Verdict
11A	Ant1	5180	20.4	PASS
11A	Ant1	5200	20.16	PASS
11A	Ant1	5240	20.04	PASS
11A	Ant1	5745	15.16	PASS
11A	Ant1	5785	16.16	PASS
11A	Ant1	5825	15.2	PASS
11N20	Ant1	5180	20.24	PASS
11N20	Ant1	5200	20.28	PASS
11N20	Ant1	5240	20.2	PASS
11N20	Ant1	5745	15.2	PASS
11N20	Ant1	5785	16.48	PASS
11N20	Ant1	5825	15.76	PASS
11N40	Ant1	5190	40.24	PASS
11N40	Ant1	5230	40.64	PASS
11N40	Ant1	5755	35.2	PASS
11N40	Ant1	5795	35.2	PASS
11AC20	Ant1	5180	20.36	PASS
11AC20	Ant1	5200	20.2	PASS
11AC20	Ant1	5240	20.08	PASS
11AC20	Ant1	5745	16.36	PASS
11AC20	Ant1	5785	16.04	PASS
11AC20	Ant1	5825	15.2	PASS
11AC40	Ant1	5190	40.4	PASS
11AC40	Ant1	5230	40.32	PASS
11AC40	Ant1	5755	35.28	PASS
11AC40	Ant1	5795	35.2	PASS
11AC80	Ant1	5210	79.68	PASS
11AC80	Ant1	5775	75.52	PASS

Test Graph

EBW:

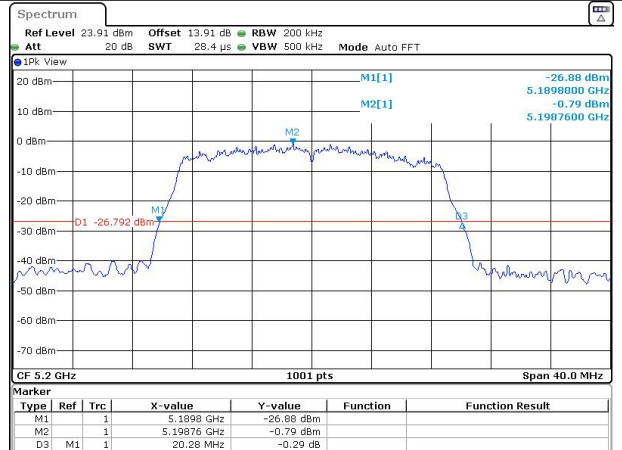


11N20SISO-Ant1-5180



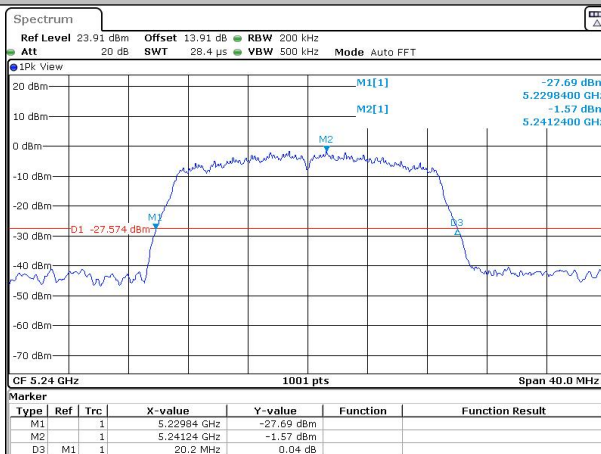
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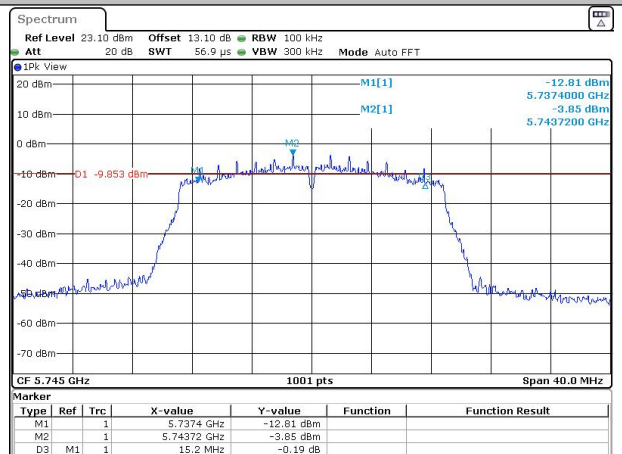
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11N20SISO-Ant1-5240



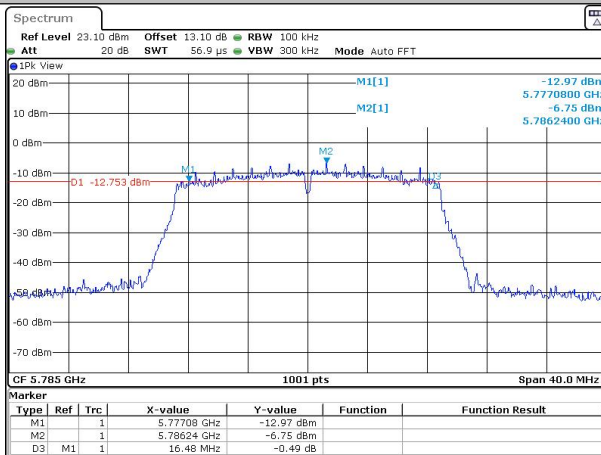
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11N20SISO-Ant1-5745



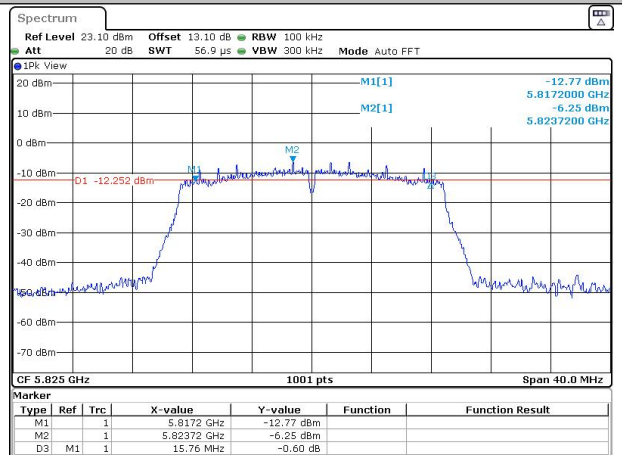
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11N20SISO-Ant1-5785



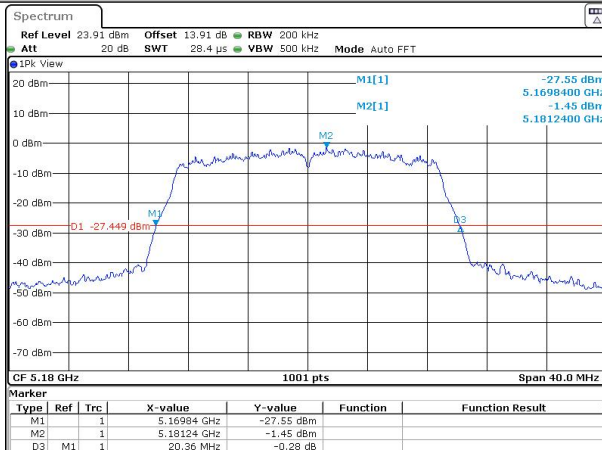
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11N20SISO-Ant1-5825



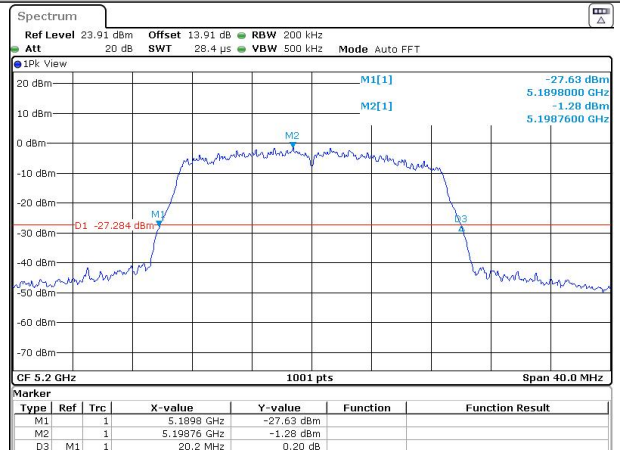
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11AC20SISO-Ant1-5180



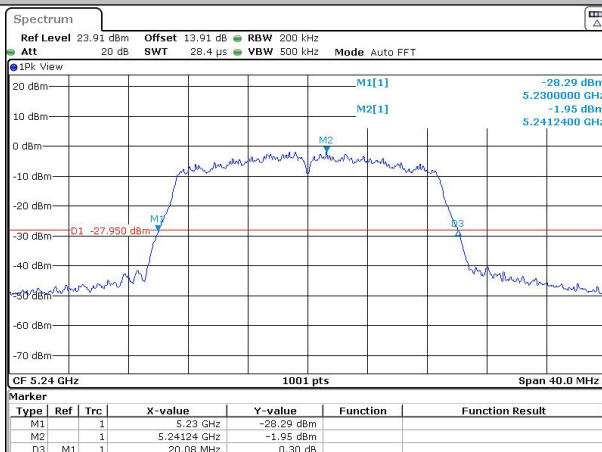
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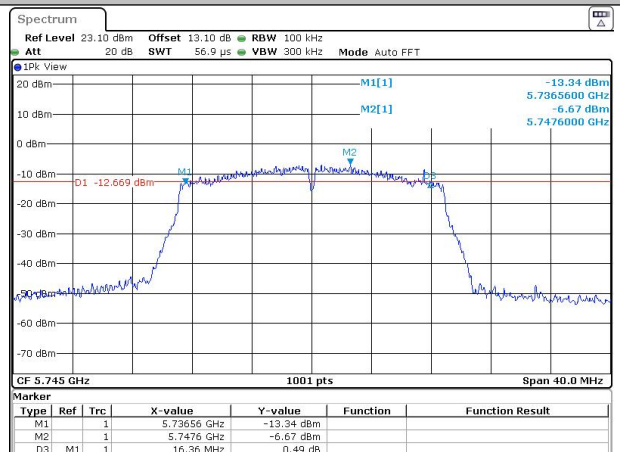
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11AC20SISO-Ant1-5240



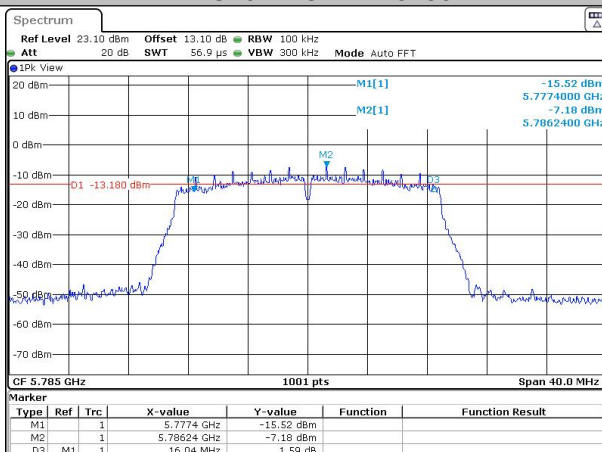
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11AC20SISO-Ant1-5745



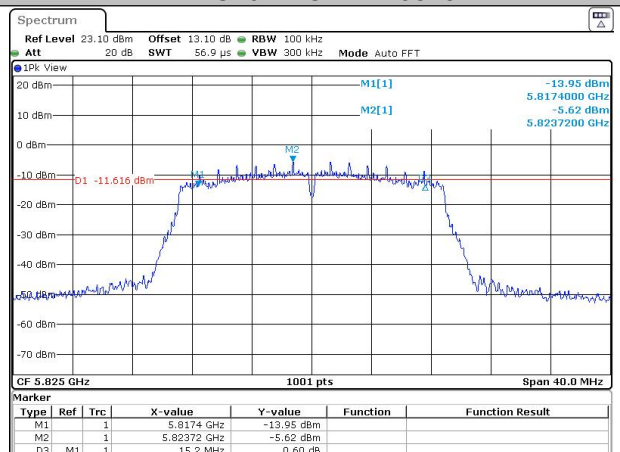
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11AC20SISO-Ant1-5785



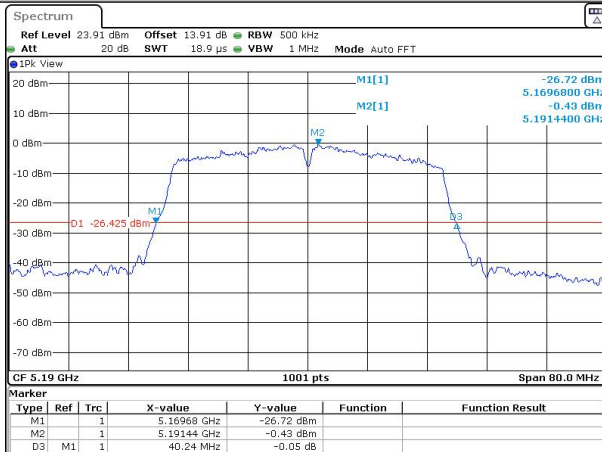
Date: 24 SEP 2021 10:49:09

11AC20SISO-Ant1-5825



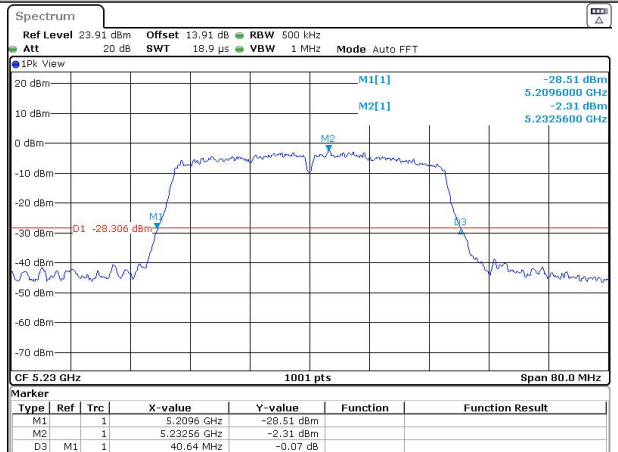
Date: 24 SEP 2021 10:55:56

11N40SISO-Ant1-5190



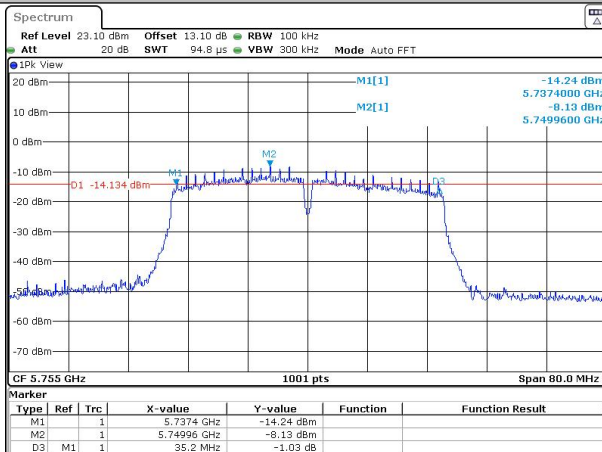
Date: 24 SEP 2021 08:48:04

11N40SISO-Ant1-5230



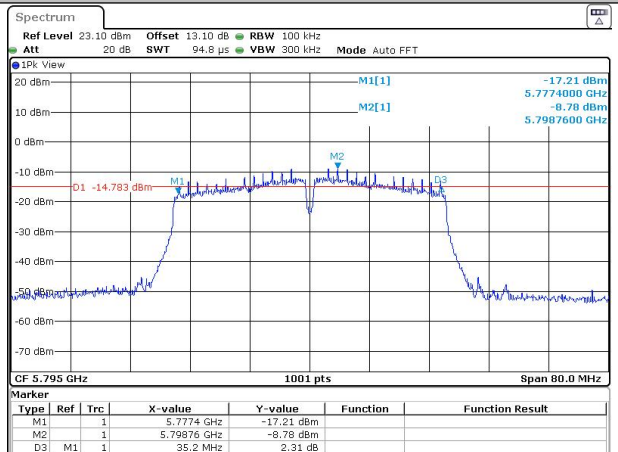
Date: 24 SEP 2021 09:21:08

11N40SISO-Ant1-5755



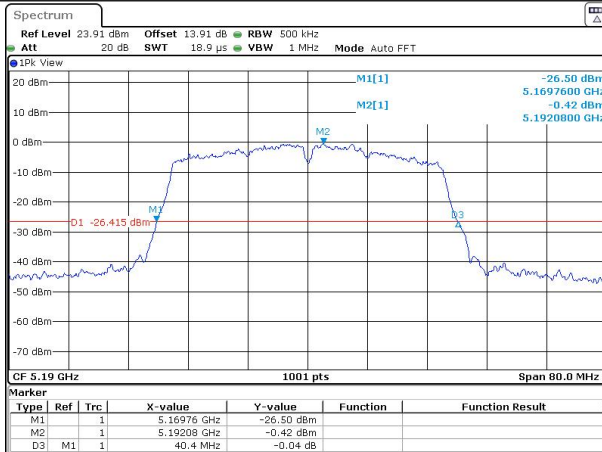
Date: 24 SEP 2021 09:31:49

11N40SISO-Ant1-5795



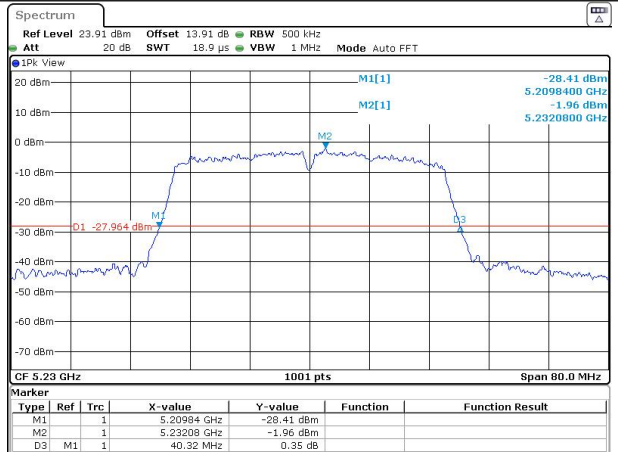
Date: 24 SEP 2021 09:41:12

11AC40SISO-Ant1-5190



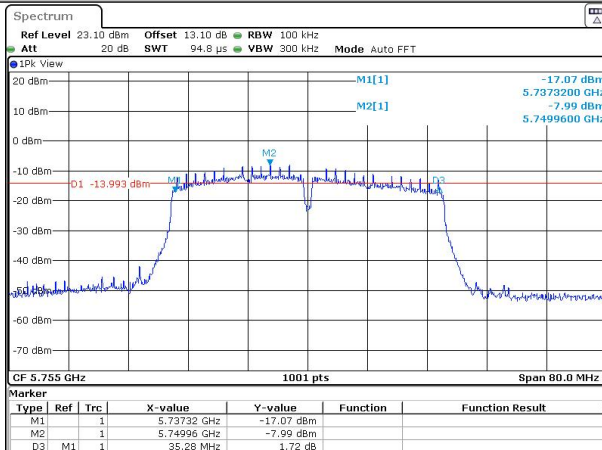
Date: 24 SEP 2021 11:02:47

11AC40SISO-Ant1-5230



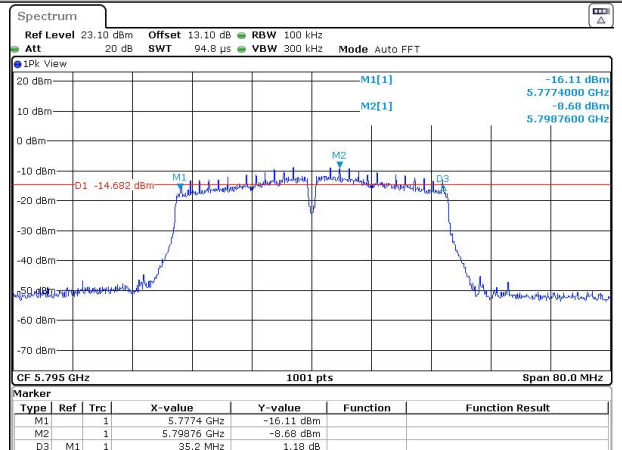
Date: 24 SEP 2021 11:08:38

11AC40SISO-Ant1-5755



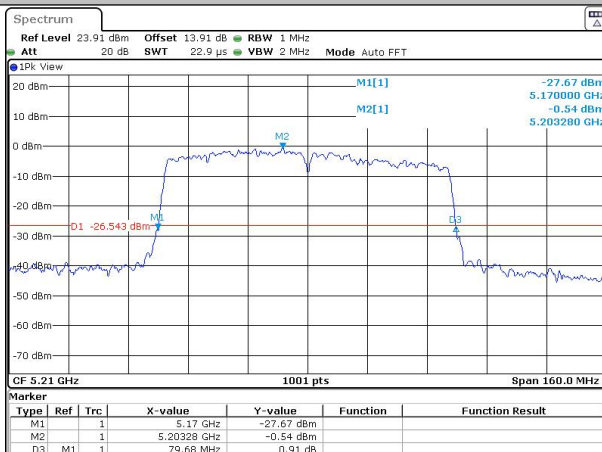
Date: 24 SEP 2021 11:14:36

11AC40SISO-Ant1-5795



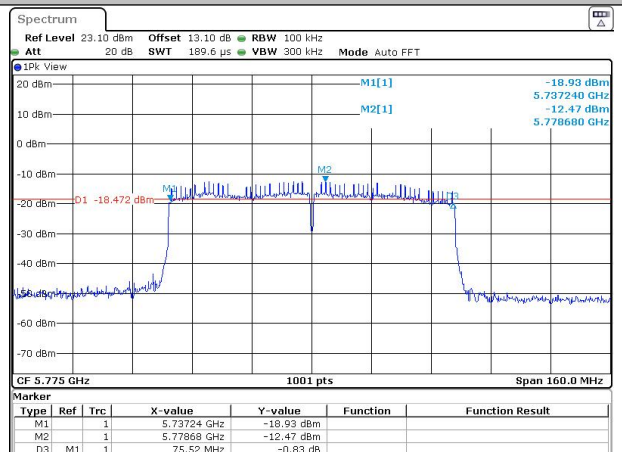
Date: 24 SEP 2021 11:30:20

11AC80SISO-Ant1-5210



Date: 24 SEP 2021 11:36:23

11AC80SISO-Ant1-5775



Date: 24 SEP 2021 11:43:04

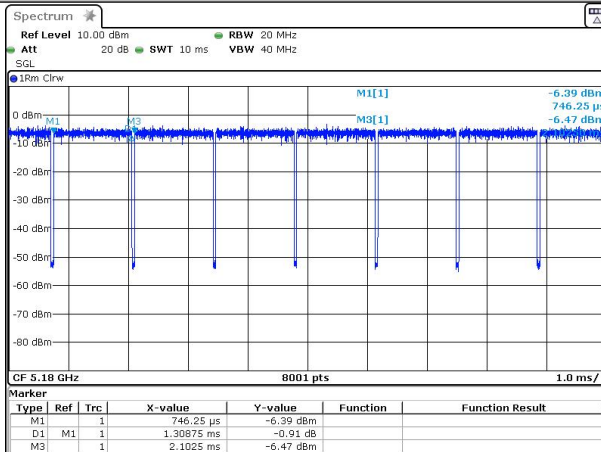
Appendix B): Maximum Conduct Output Power

1.Duty Cycle (x)

Measurement Data

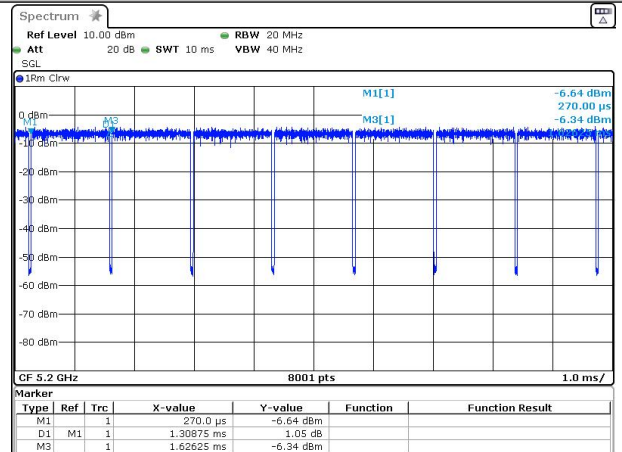
Test Mode	Antenna	Channel	Duty Cycle[%]	10log(1/x) Factor[dB]
11A	Ant1	5180	96.48	0.16
11A	Ant1	5200	96.48	0.16
11A	Ant1	5240	96.48	0.16
11A	Ant1	5745	96.5	0.15
11A	Ant1	5785	96.5	0.15
11A	Ant1	5825	96.59	0.15
11N20	Ant1	5180	96.56	0.15
11N20	Ant1	5200	96.56	0.15
11N20	Ant1	5240	96.56	0.15
11N20	Ant1	5745	96.56	0.15
11N20	Ant1	5785	96.56	0.15
11N20	Ant1	5825	96.56	0.15
11AC20	Ant1	5180	96.5	0.15
11AC20	Ant1	5200	96.5	0.15
11AC20	Ant1	5240	96.5	0.15
11AC20	Ant1	5745	96.59	0.15
11AC20	Ant1	5785	96.59	0.15
11AC20	Ant1	5825	96.49	0.15
11N40	Ant1	5190	93.30	0.30
11N40	Ant1	5230	93.14	0.31
11N40	Ant1	5755	93.30	0.30
11N40	Ant1	5795	93.14	0.31
11AC40	Ant1	5190	93.36	0.30
11AC40	Ant1	5230	93.18	0.31
11AC40	Ant1	5755	93.36	0.30
11AC40	Ant1	5795	93.36	0.30
11AC80	Ant1	5210	87.12	0.60
11AC80	Ant1	5775	87.12	0.60

11A-Ant1-5180



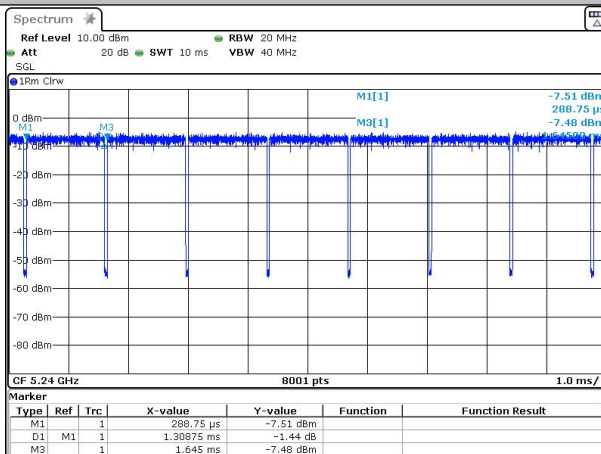
Date: 24 SEP 2021 07:16:02

11A-Ant1-5200



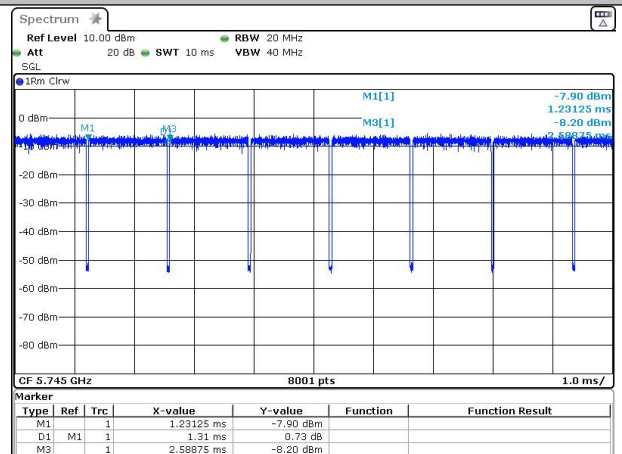
Date: 24 SEP 2021 07:22:55

11A-Ant1-5240



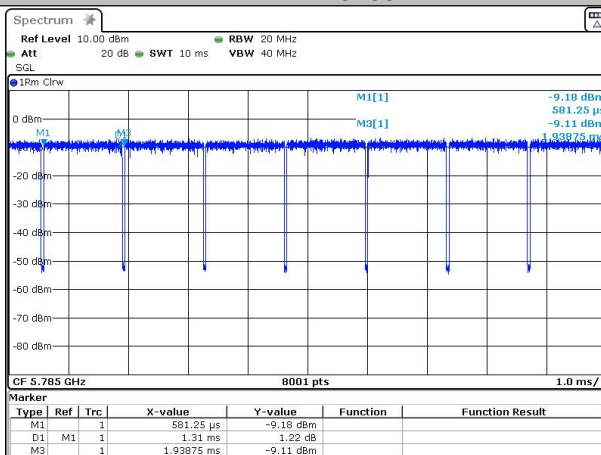
Date: 24 SEP 2021 07:30:15

11A-Ant1-5745



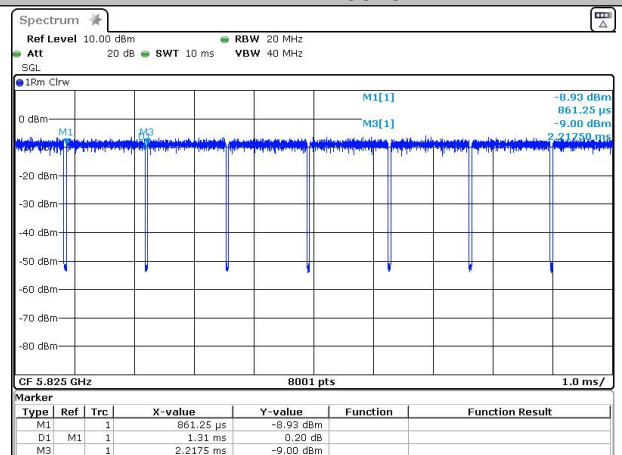
Date: 24 SEP 2021 07:37:10

11A-Ant1-5785



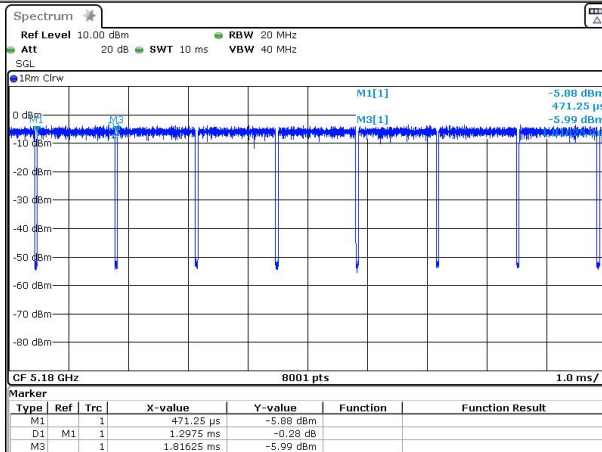
Date: 24 SEP 2021 07:46:19

11A-Ant1-5825



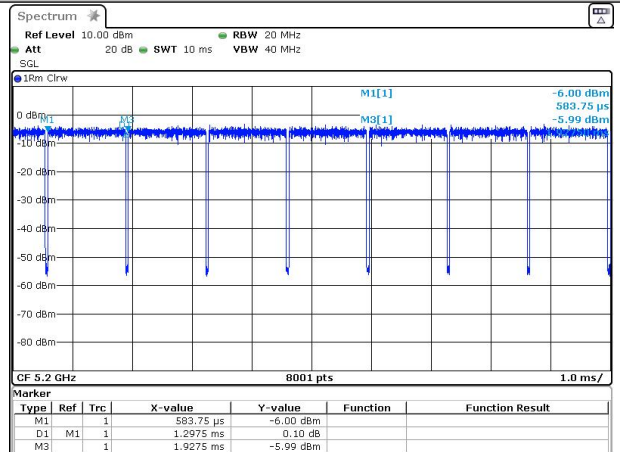
Date: 24 SEP 2021 07:52:28

11N20SISO-Ant1-5180



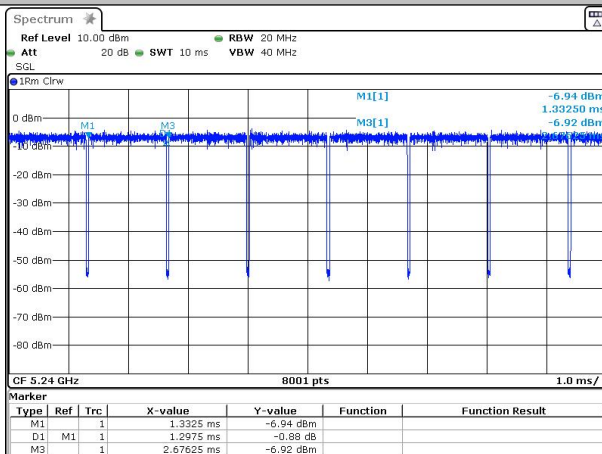
Date: 24 SEP 2021 07:59:56

11N20SISO-Ant1-5200



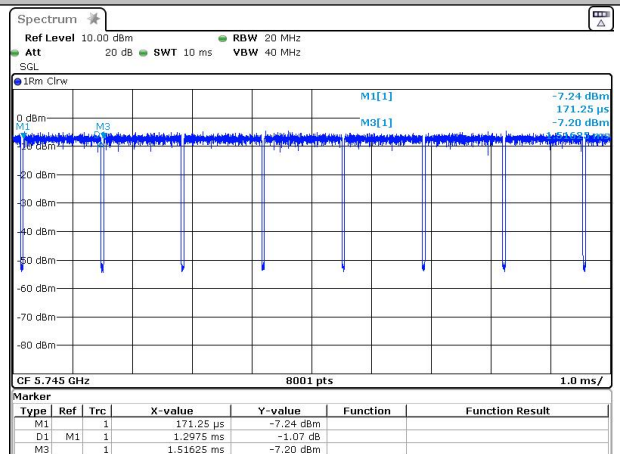
Date: 24 SEP 2021 08:09:52

11N20SISO-Ant1-5240



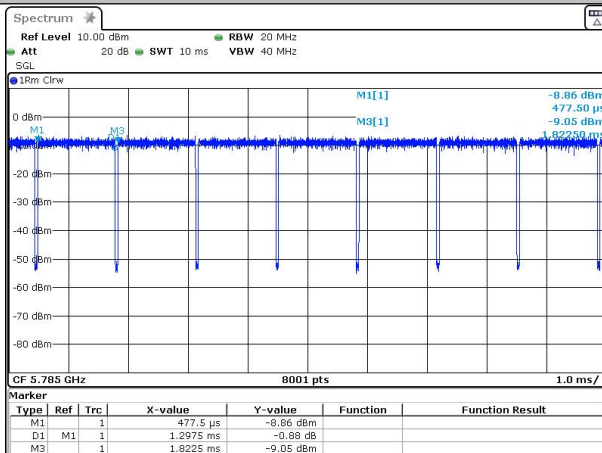
Date: 24 SEP 2021 08:16:12

11N20SISO-Ant1-5745



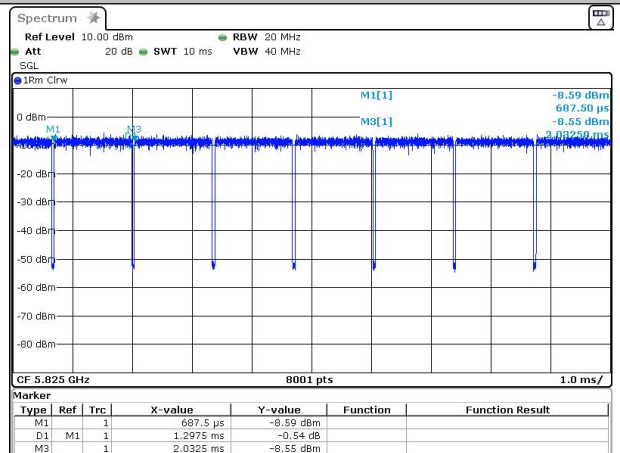
Date: 24 SEP 2021 08:24:17

11N20SISO-Ant1-5785



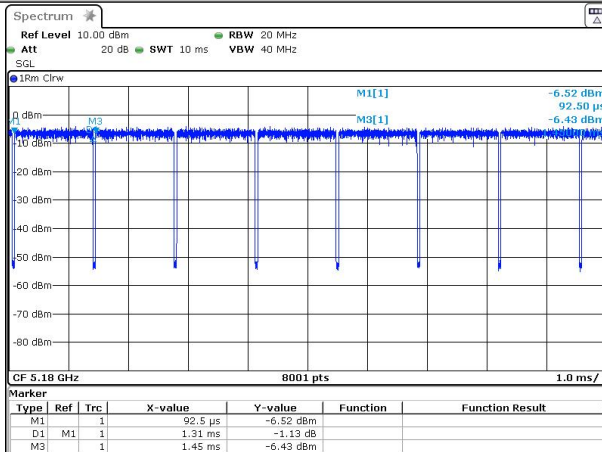
Date: 24 SEP 2021 08:30:26

11N20SISO-Ant1-5825



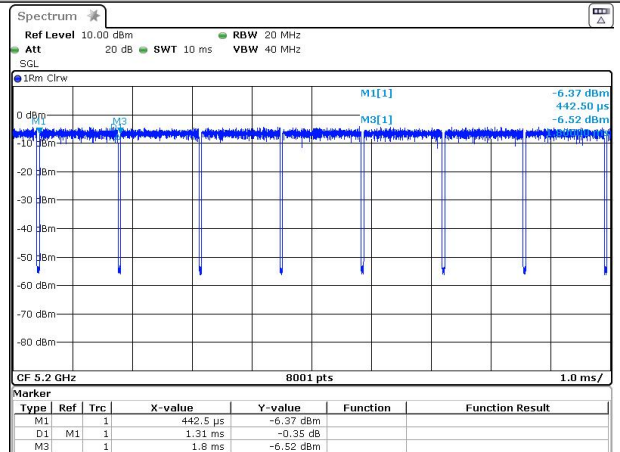
Date: 24 SEP 2021 08:38:27

11AC20SISO-Ant1-5180



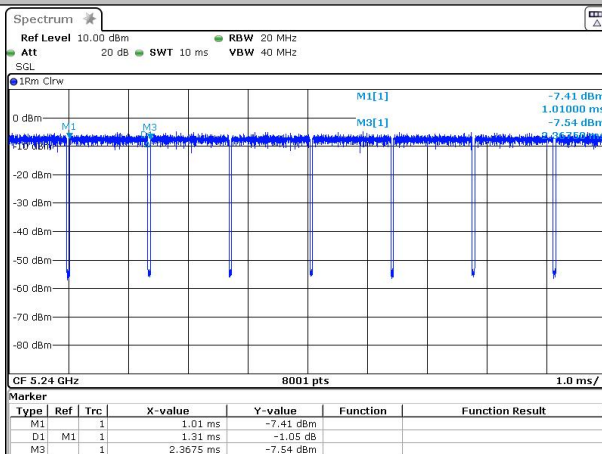
Date: 24 SEP 2021 10:55:25

11AC20SISO-Ant1-5200



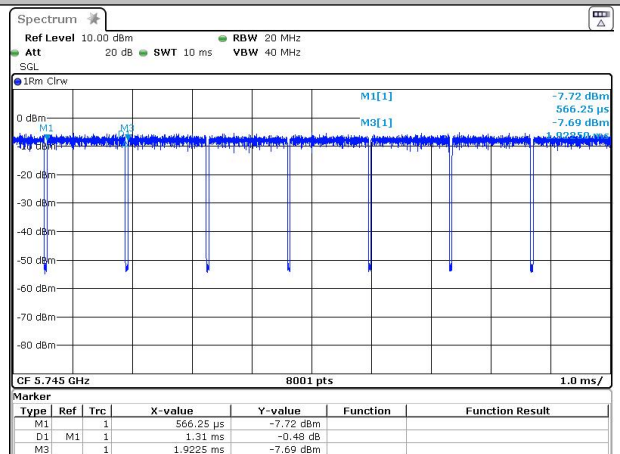
Date: 24 SEP 2021 10:28:44

11AC20SISO-Ant1-5240



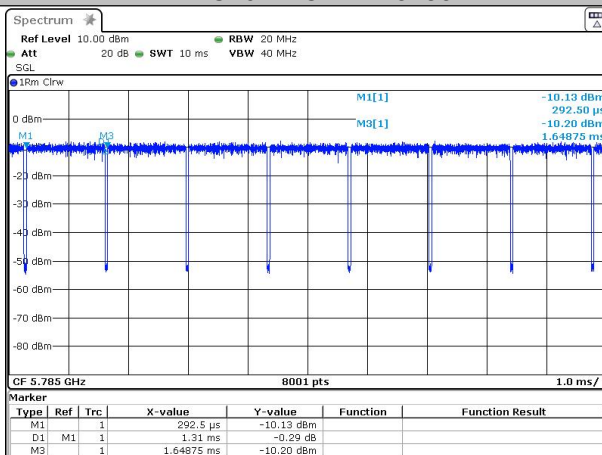
Date: 24 SEP 2021 10:36:12

11AC20SISO-Ant1-5745



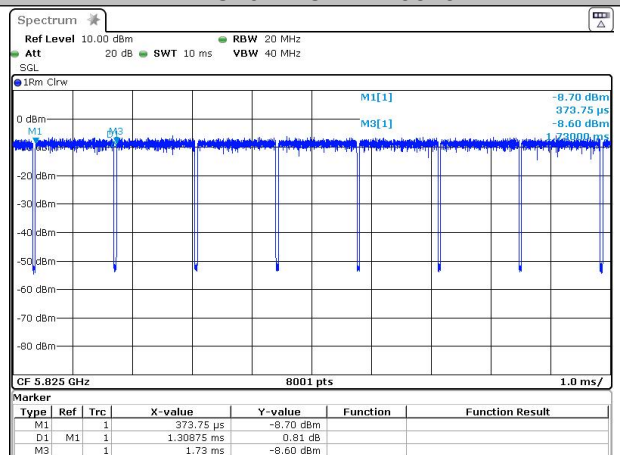
Date: 24 SEP 2021 10:42:48

11AC20SISO-Ant1-5785



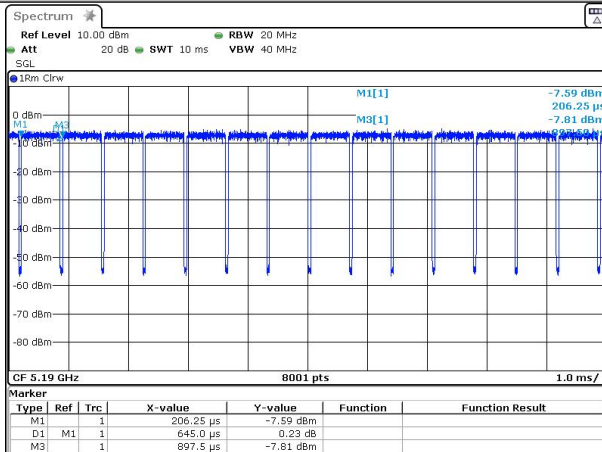
Date: 24 SEP 2021 10:48:45

11AC20SISO-Ant1-5825



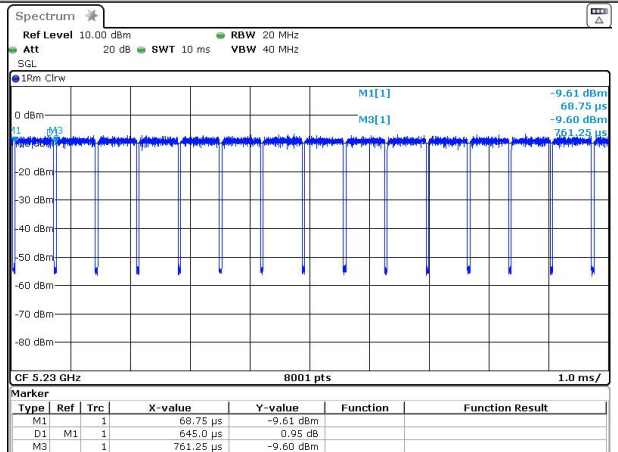
Date: 24 SEP 2021 10:55:32

11N40SISO-Ant1-5190



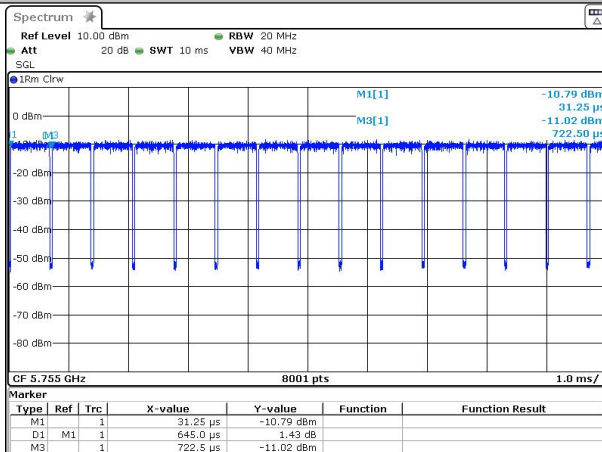
Date: 24 SEP 2021 08:47:34

11N40SISO-Ant1-5230



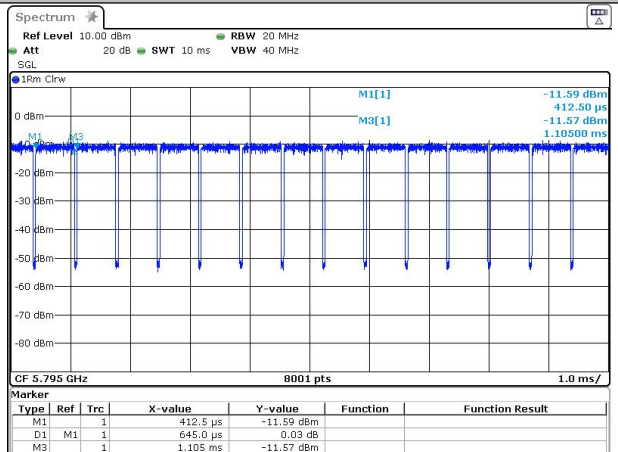
Date: 24 SEP 2021 09:20:37

11N40SISO-Ant1-5755



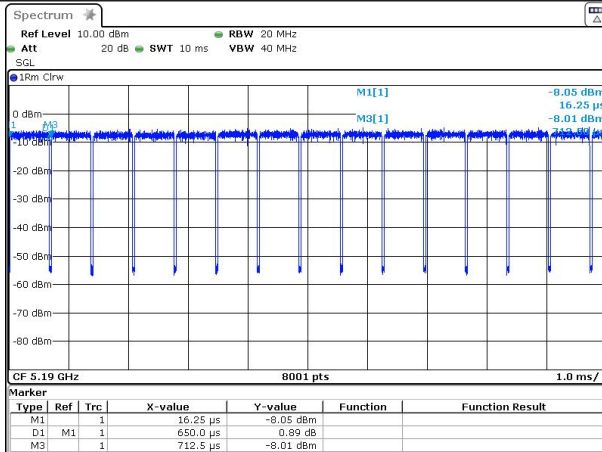
Date: 24 SEP 2021 09:31:19

11N40SISO-Ant1-5795



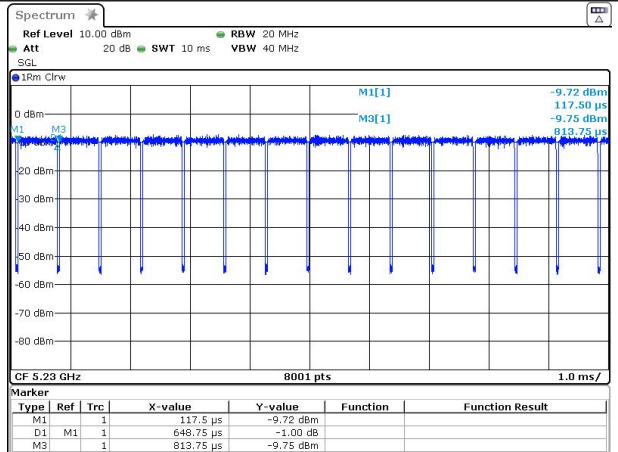
Date: 24 SEP 2021 09:47:40

11AC40SISO-Ant1-5190



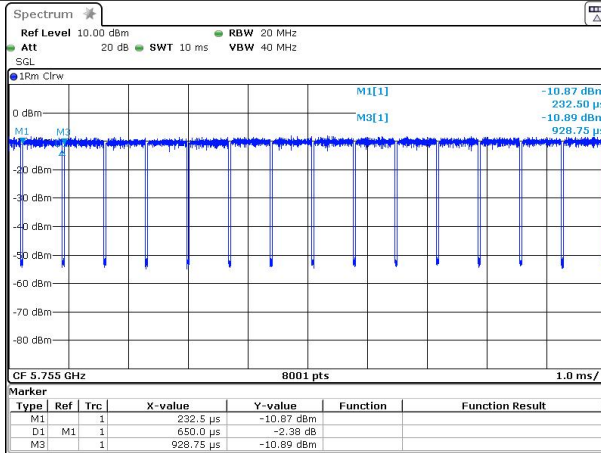
Date: 24 SEP 2021 11:02:17

11AC40SISO-Ant1-5230



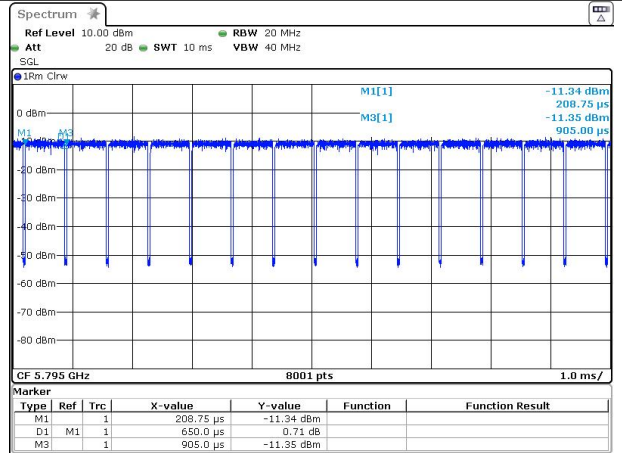
Date: 24 SEP 2021 11:08:27

11AC40SISO-Ant1-5755



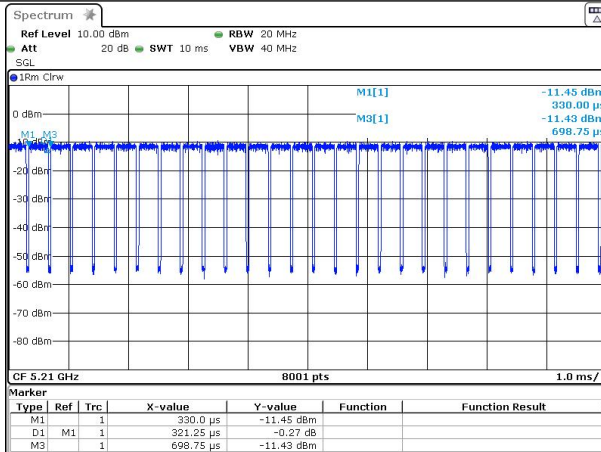
Date: 24 SEP 2021 11:14:56

11AC40SISO-Ant1-5795



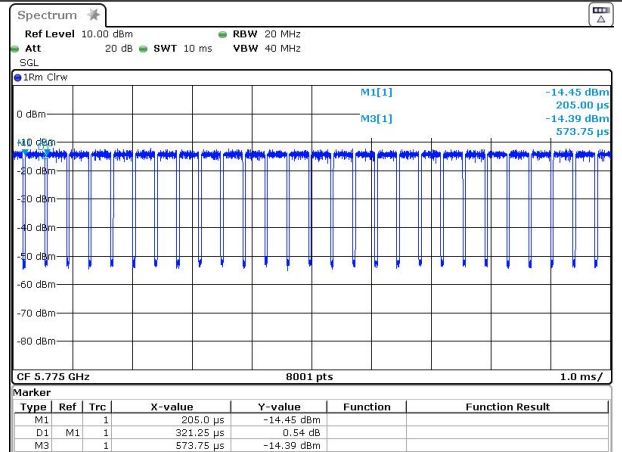
Date: 24 SEP 2021 11:29:30

11AC80SISO-Ant1-5210



Date: 24 SEP 2021 11:35:45

11AC80SISO-Ant1-5775



Date: 24 SEP 2021 11:42:26

2. Conducted Average Output Power

Measurement Data

Test Mode	Antenna	Channel	Meas.Level [dBm]	Av.Power [dBm]	Verdict
11A	Ant1	5180	9.66	9.82	PASS
11A	Ant1	5200	9.6	9.76	PASS
11A	Ant1	5240	9.13	9.29	PASS
11A	Ant1	5745	9.09	9.24	PASS
11A	Ant1	5785	8.45	8.60	PASS
11A	Ant1	5825	8.07	8.22	PASS
11N20	Ant1	5180	9.19	9.34	PASS
11N20	Ant1	5200	9.27	9.42	PASS
11N20	Ant1	5240	9.11	9.26	PASS
11N20	Ant1	5745	7.98	8.13	PASS
11N20	Ant1	5785	8.11	8.26	PASS
11N20	Ant1	5825	7.96	8.11	PASS
11AC20	Ant1	5180	9.43	9.58	PASS
11AC20	Ant1	5200	9.23	9.38	PASS
11AC20	Ant1	5240	8.72	8.87	PASS
11AC20	Ant1	5745	8.35	8.50	PASS
11AC20	Ant1	5785	8.43	8.58	PASS
11AC20	Ant1	5825	7.95	8.10	PASS
11N40	Ant1	5190	9.45	9.75	PASS
11N40	Ant1	5230	9.11	9.42	PASS
11N40	Ant1	5755	8.66	8.96	PASS
11N40	Ant1	5795	7.98	8.29	PASS
11AC40	Ant1	5190	9.34	9.64	PASS
11AC40	Ant1	5230	8.92	9.23	PASS
11AC40	Ant1	5755	8.4	8.70	PASS
11AC40	Ant1	5795	7.61	7.91	PASS
11AC80	Ant1	5210	8.76	9.36	PASS
11AC80	Ant1	5775	7.74	8.34	PASS

Remark:

Av.Power=Meas.Level+10 log (1/duty cycle)

E.i.r.p=Av.Power+G,

G = antenna gain in dBi.

Appendix C): Power Spectral Density

Result Table

Test Mode	Antenna	Channel	Meas.Level [dBm]	Duty Cycle Factor [dB]	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5180	5.33	0.16	5.49	11.00	PASS
11A	Ant1	5200	5.48	0.16	5.64	11.00	PASS
11A	Ant1	5240	4.32	0.16	4.48	11.00	PASS
11N20	Ant1	5180	5.77	0.15	5.92	11.00	PASS
11N20	Ant1	5200	5.60	0.15	5.75	11.00	PASS
11N20	Ant1	5240	4.86	0.15	5.01	11.00	PASS
11N40	Ant1	5190	3.30	0.3	3.6	11.00	PASS
11N40	Ant1	5230	0.82	0.31	1.13	11.00	PASS
11AC20	Ant1	5180	5.48	0.15	5.63	11.00	PASS
11AC20	Ant1	5200	5.19	0.15	5.34	11.00	PASS
11AC20	Ant1	5240	4.52	0.15	4.67	11.00	PASS
11AC40	Ant1	5190	3.46	0.3	3.76	11.00	PASS
11AC40	Ant1	5230	1.02	0.31	1.33	11.00	PASS
11AC80	Ant1	5210	-0.32	0.6	0.28	11.00	PASS
Test Mode	Antenna	Channel	Meas.Level [dBm]	Duty Cycle Factor [dB]	PSD [dBm/MHz]	Limit [dBm/500kHz]	Verdict
11A	Ant1	5745	-0.12	0.15	0.03	30.00	PASS
11A	Ant1	5785	-2.19	0.15	-2.04	30.00	PASS
11A	Ant1	5825	-0.96	0.15	-0.81	30.00	PASS
11N20	Ant1	5745	0.17	0.15	0.32	30.00	PASS
11N20	Ant1	5785	-2.38	0.15	-2.23	30.00	PASS
11N20	Ant1	5825	-1.25	0.15	-1.1	30.00	PASS
11N40	Ant1	5755	-3.86	0.3	-3.56	30.00	PASS
11N40	Ant1	5795	-4.82	0.31	-4.51	30.00	PASS
11AC20	Ant1	5745	-0.32	0.15	-0.17	30.00	PASS
11AC20	Ant1	5785	-1.59	0.15	-1.44	30.00	PASS
11AC20	Ant1	5825	-1.25	0.15	-1.1	30.00	PASS
11AC40	Ant1	5755	-4.27	0.30	-3.97	30.00	PASS
11AC40	Ant1	5795	-4.40	0.30	-4.1	30.00	PASS
11AC80	Ant1	5775	-8.76	0.60	-8.16	30.00	PASS

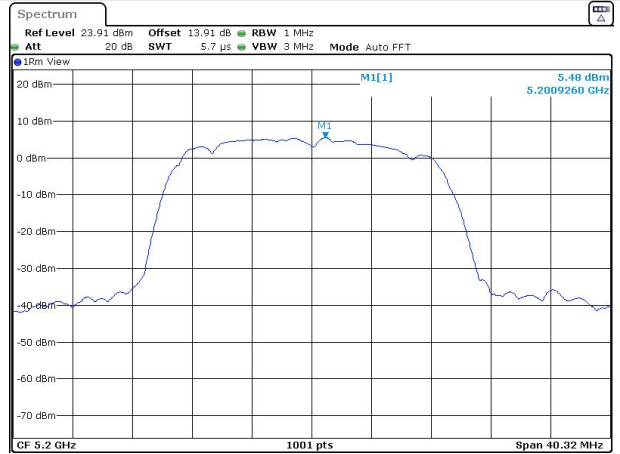
Remark:

PSD = Meas PSD + Duty Cycle Factor

11A-Ant1-5180



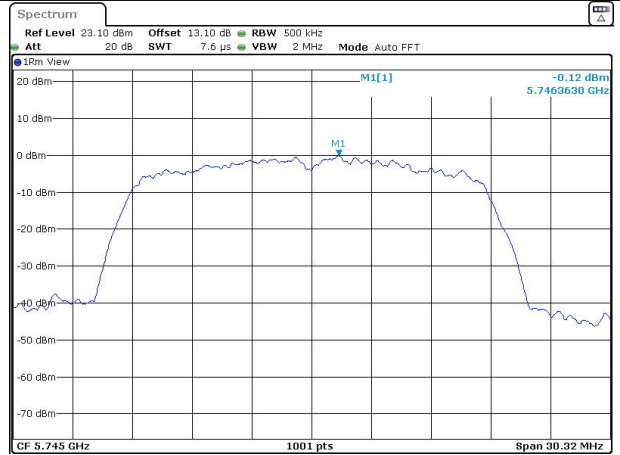
11A-Ant1-5200



11A-Ant1-5240



11A-Ant1-5745



11A-Ant1-5785



11A-Ant1-5825



11N20SISO-Ant1-5180



Date: 24 SEP 2021 08:02:39

11N20SISO-Ant1-5200



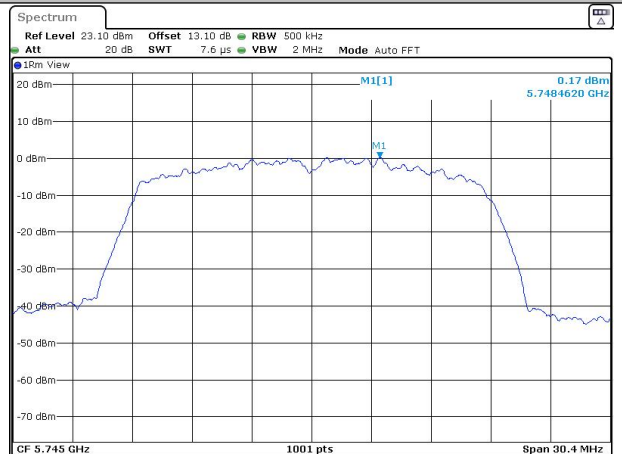
Date: 24 SEP 2021 08:02:34

11N20SISO-Ant1-5240



Date: 24 SEP 2021 08:08:54

11N20SISO-Ant1-5745



Date: 24 SEP 2021 08:06:10

11N20SISO-Ant1-5785



Date: 24 SEP 2021 08:32:19

11N20SISO-Ant1-5825



Date: 24 SEP 2021 08:39:59