



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

Report Template Version: V05
Report Template Revision Date: 2018-07-06

Test Report

Report No.: CQASZ20251102695E-02
Applicant: Shenzhen Creativity 3D Technology Co.,Ltd.
Address of Applicant: 18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,shenzhen, China
Equipment Under Test (EUT):
Product: 3D Printer
Model No.: HALOT-SKY 2025, HALOT-SKY 2025 Pro, HALOT-SKY 2026, HALOT-SKY 2026 PRO, HALOT-SKY 2027, HALOT-SKY 2027 PRO, HALOT-SKY 2028, HALOT-SKY 2028 PRO
Test Model No.: HALOT-SKY 2025
Brand Name: N/A
FCC ID: 2AXH6-SKY2025
Standards: 47 CFR Part 15, Subpart E
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Date of Receipt: 2025-11-24
Date of Test: 2025-11-24 to 2025-12-03
Date of Issue: 2026-02-04
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:

Jack Ai

(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20251102695E-02	Rev.01	Initial report	2026-02-04

2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203	ANSI C63.10-2020; KDB789033	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Subpart E Section 15.207	ANSI C63.10-2020; KDB789033	PASS
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.407 (a)	ANSI C63.10-2020; KDB789033	PASS
Emission Bandwidth	47 CFR Part 15 Subpart C Section 15.407 (a)(e)	ANSI C63.10-2020; KDB789033	PASS
Maximum Power Spectral Density	47 CFR Part 15 Subpart E Section 15.407 (a)	ANSI C63.10-2020; KDB789033	PASS
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.209 & 15.407(b)	ANSI C63.10-2020; KDB789033	PASS
Frequency stability	47 CFR Part 15 Subpart E Section 15.407 (g)	ANSI C63.10-2020; KDB789033	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)	ANSI C63.10-2020; KDB789033	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

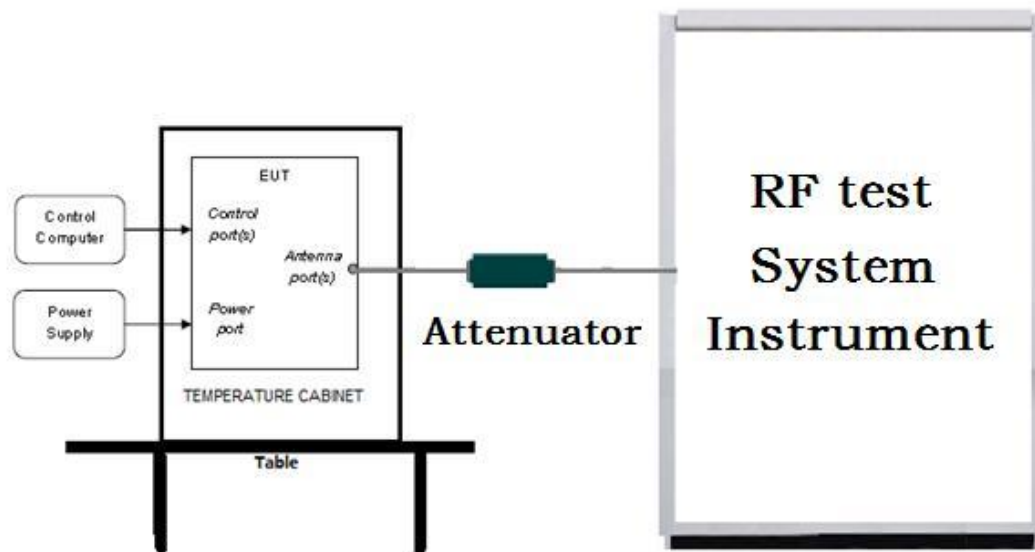
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4 Test Requirement

4.1 Test setup

4.1.1 For Conducted test setup



4.1.2 For Radiated Emissions test setup

Radiated Emissions setup:

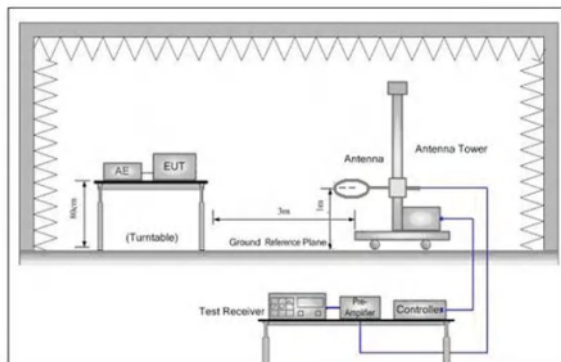


Figure 1. Below 30MHz

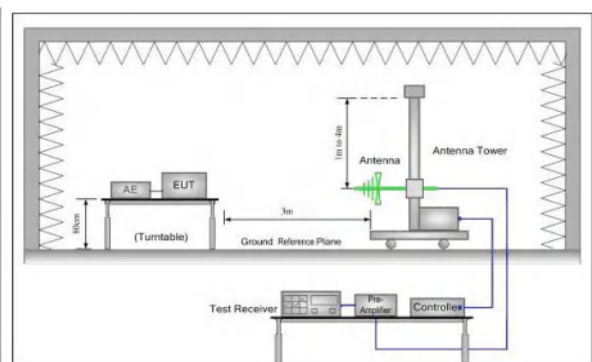


Figure 2. 30MHz to 1GHz

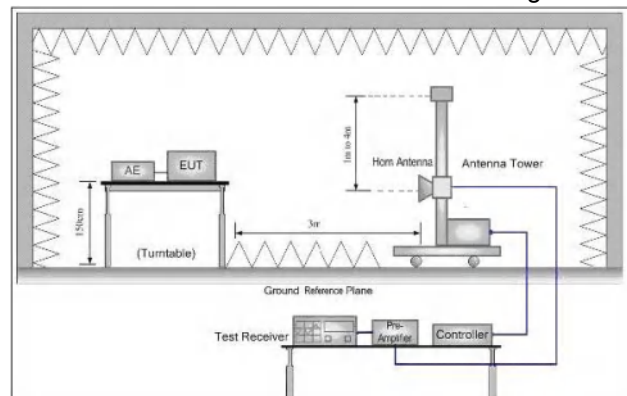
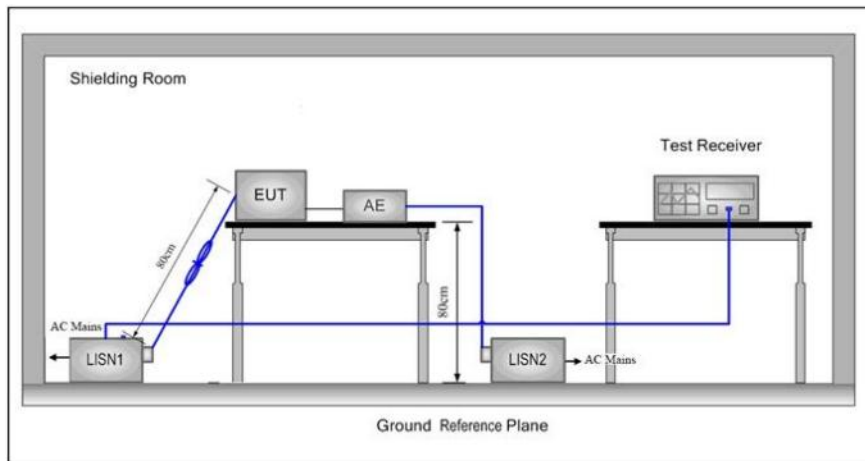


Figure 3. Above 1GHz

4.1.3 For Conducted Emissions test setup

Conducted Emissions setup



4.2 Test Environment

Operating Environment:		
Conducted Emissions:		
Temperature:	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	120
TL/VL	-30	108
TH/VL	50	108
TL/VH	-30	132
TH/VH	50	132
Remark:		
1)The EUT just work in such extreme temperature of -30 °C to 50 °C and the extreme voltage of 108V to 132V, so here the EUT is tested in the temperature of -30 °C to 50 °C and the voltage of 108V to 132V.		
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.		

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
802.11n/ac(80M)	5150MHz ~5250 MHz	N/A	Channel 42	N/A
		N/A	5210MHz	N/A

Test mode:

Transmitting mode:	EUT is set in RF test mode in all supported modulation types, bandwidth and data rate, etc.
EUT Power level:	Class0

Run Software:

```

C:\Windows\System32\cmd.exe - adb shell

root@CarPlayBox:/#
root@CarPlayBox:/# rtwpriv wlan0 mp_pwrctlm 3
rtwpriv wlan0 mp_pwrctlm 3
wlan0 mp_pwrctlm:PwrCtlDM start TSSI tracking on
root@CarPlayBox:/#
root@CarPlayBox:/# rtwpriv wlan0 1 0 b 11M 1 2000
rtwpriv wlan0 mp_txpower dbm=20
rtwpriv wlan0 1 0 b 11M 1 2000
rtwpriv wlan0 mp_txpower dbm=20
config packet Period =2000
Packet Pattern = random Byte
wlan0 mp_rate:Set data rate to 3 index 0
wlan0 mp_ant_tx:switch Tx antenna to b
wlan0 mp_bandwidth:No change current BW 0

wlan0 mp_channel:No change current channel:1
wlan0 1:Set PMac Tx Mode OK

root@CarPlayBox:/# rtwpriv wlan0 mp_txpower dbm=20
wlan0 mp_txpower:Path Set power dbm :20.0

root@CarPlayBox:/#
root@CarPlayBox:/#
root@CarPlayBox:/#

```

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 802.11n(80M); MCS0 is the worst case of 802.11ac (80M)

5 General Information

5.1 Client Information

Applicant:	Shenzhen Creality 3D Technology Co.,Ltd.
Address of Applicant:	18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,shenzhen, China
Manufacturer:	Shenzhen Creality 3D Technology Co.,Ltd.
Address of Manufacturer:	18F, JinXiuHongDu Building, Meilong Blvd., Longhua Dist.,shenzhen, China
Factory:	Shenzhen PioCreat 3d Technology Co., Ltd.
Address of Factory:	3rd Floor, Building 1, No. 156 Huawang Road, Langkou Community, Dalang Street, Longhua District, Shenzhen, China

5.2 General Description of EUT

Product Name:	3D Printer
Model No.:	HALOT-SKY 2025, HALOT-SKY 2025 Pro, HALOT-SKY 2026, HALOT-SKY 2026 PRO, HALOT-SKY 2027, HALOT-SKY 2027 PRO, HALOT-SKY 2028, HALOT-SKY 2028 PRO
Test Model No.:	HALOT-SKY 2025
Trade Mark:	N/A
Software Version:	V1.0
Hardware Version:	V1.1
EUT Power Supply:	Power supply AC 120V
EUT Supports Radios application:	U-NII-1: 5.15-5.25GHz
EUT Type:	Client devices

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
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
Type of Modulation:	IEEE for 802.11a/n/ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)
Sample Type:	☒ Mobile ☐ Portable
Test Software of EUT:	adb
Antenna Type:	FPC antenna
Antenna gain:	2.34dBi
Cable loss:	1.0 dB

Operation Frequency each of channel

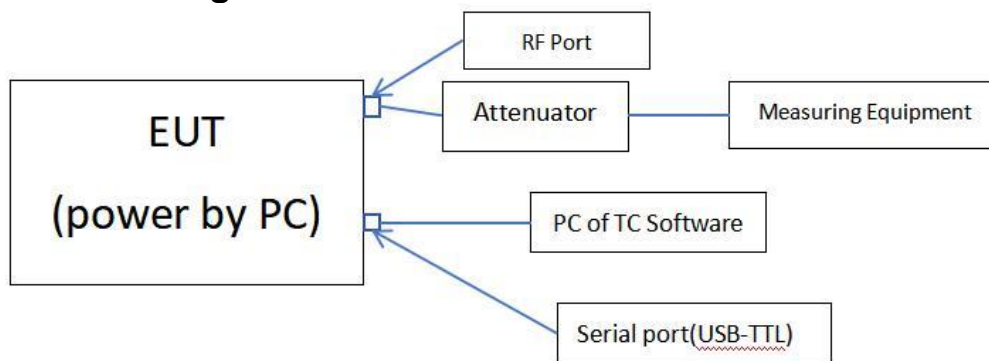
(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
80MHz	42	5210	/	/

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 configuration



5.6 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

5.7 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

5.8 Deviation from Standards

None.

5.9 Abnormalities from Standard Conditions

None.

5.10 Other Information Requested by the Customer

None.

5.11 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	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU26	CQA-038	2025/9/1	2026/8/31
Spectrum analyzer	R&S	FSU40	CQA-075	2025/9/1	2026/8/31
Preamplifier	MITEQ	AFS4-00010300-18-10P-4	CQA-035	2025/9/1	2026/8/31
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2025/9/1	2026/8/31
Preamplifier	EMCI	EMC184055SE	CQA-089	2025/9/1	2026/8/31
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2023/9/8	2026/9/7
Bilog Antenna	R&S	HL562	CQA-011	2023/11/01	2026/10/31
Horn Antenna	R&S	HF906	CQA-012	2023/11/01	2026/10/31
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2023/9/7	2026/9/6
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2025/9/1	2026/8/31
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2025/9/1	2026/8/31
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2025/9/1	2026/8/31
Antenna Connector	CQA	RFC-01	CQA-080	2025/9/1	2026/8/31
Power Sensor	KEYSIGHT	U2021XA	CQA-30	2025/9/1	2026/8/31
N1918A Power Analysis Manager Power Panel	Agilent	N1918A	CQA-074	2025/9/1	2026/8/31
Power meter	R&S	NRVD	CQA-029	2025/9/1	2026/8/31
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2025/9/1	2026/8/31
EMI Test Receiver	R&S	ESR7	CQA-005	2025/9/1	2026/8/31
LISN	R&S	ENV216	CQA-003	2025/9/1	2026/8/31
Coaxial cable	CQA	N/A	CQA-C009	2025/9/1	2026/8/31
DC power	KEYSIGHT	E3631A	CQA-028	2025/9/1	2026/8/31

Test software:

	Manufacturer	Software brand	Software version
Radiated Emissions test software	Tonscend	JS1120-3	Version:8
Conducted Emissions test software	Audix	e3	Version:9
RF Conducted test software	Audix	e3	V3.5.39

7 Radio Technical Requirements Specification

Reference documents for testing:

No.	Identity	Document Title
1	FCC Part15E	Subpart C-Intentional Radiators
2	ANSI C63.10-2020	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

Appendix A): Emission Bandwidth

26dB Emission bandwidth

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

Test Method: KDB 789033 D02 II C 1

6 dB bandwidth (5.725-5.85 GHz band)

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

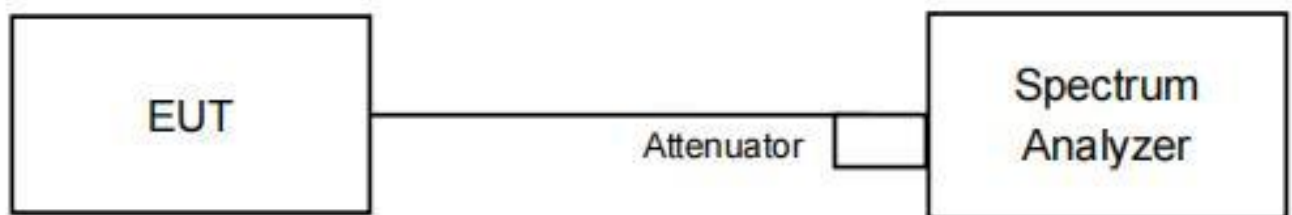
Test Method: KDB 789033 D02 II C 2

Limit: ≥ 500 kHz

Test Procedure:

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

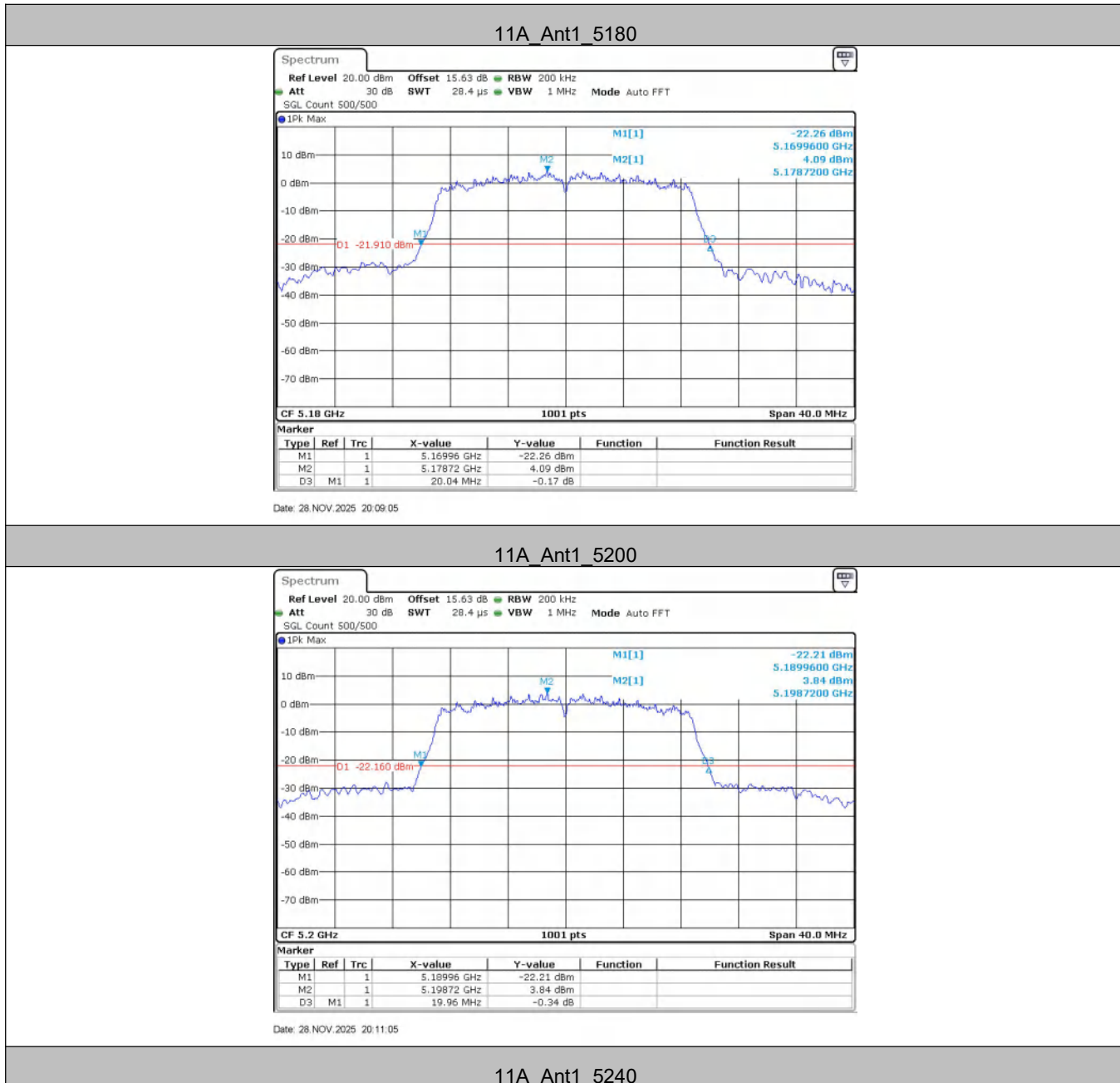
Test Setup Diagram

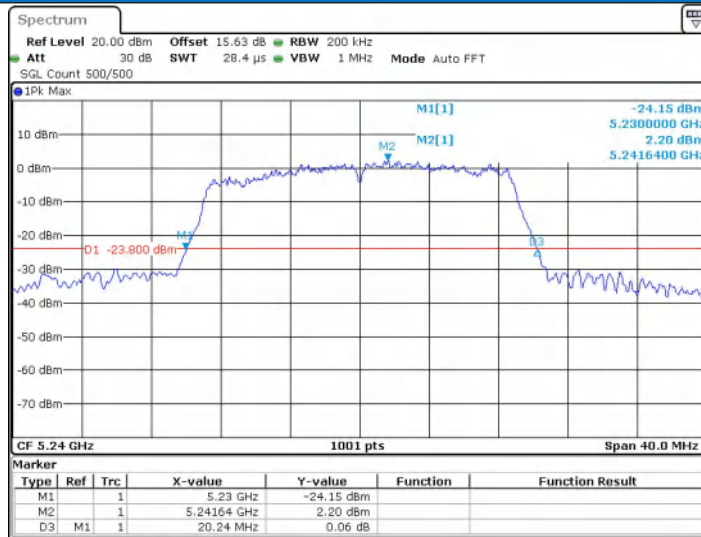


Result Table

TestMode	Freq(MHz)	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	5180	20.04	5169.96	5190.00
	5200	19.96	5189.96	5209.92
	5240	20.24	5230.00	5250.24
11N20SISO	5180	20.36	5169.92	5190.28
	5200	20.12	5189.88	5210.00
	5240	20.24	5229.96	5250.20
11N40SISO	5190	40.96	5169.36	5210.32
	5230	43.36	5209.76	5253.12
11AC20SISO	5180	20.16	5169.92	5190.08
	5200	20.12	5189.92	5210.04
	5240	20.20	5229.88	5250.08
11AC40SISO	5190	40.56	5169.60	5210.16
	5230	41.92	5209.36	5251.28
11AC80SISO	5210	81.92	5169.04	5250.96

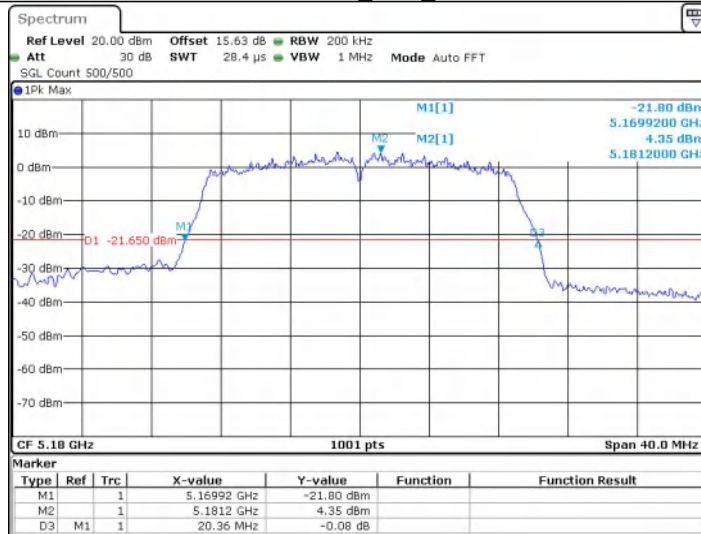
Test Graph





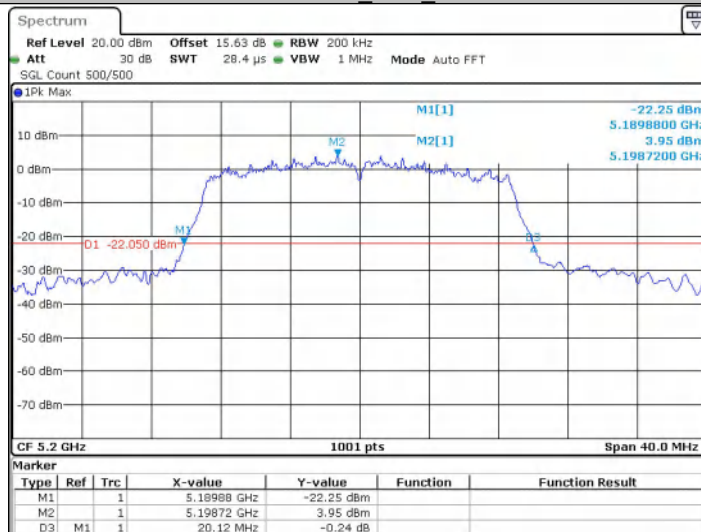
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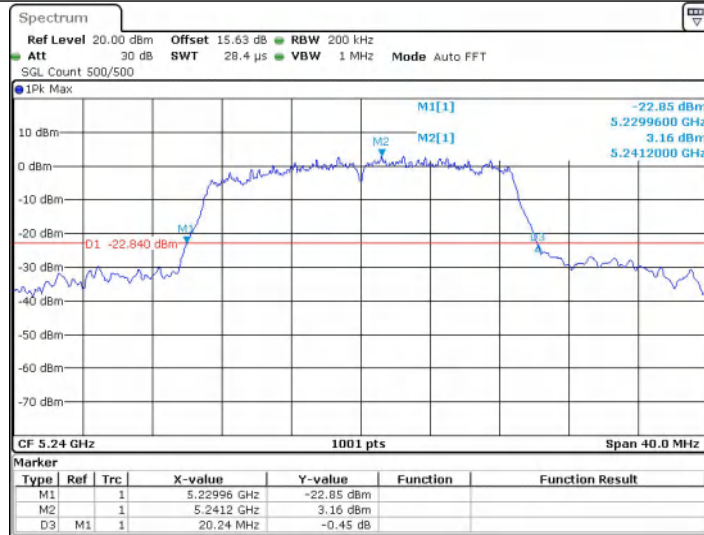
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11N20SISO_Ant1_5200



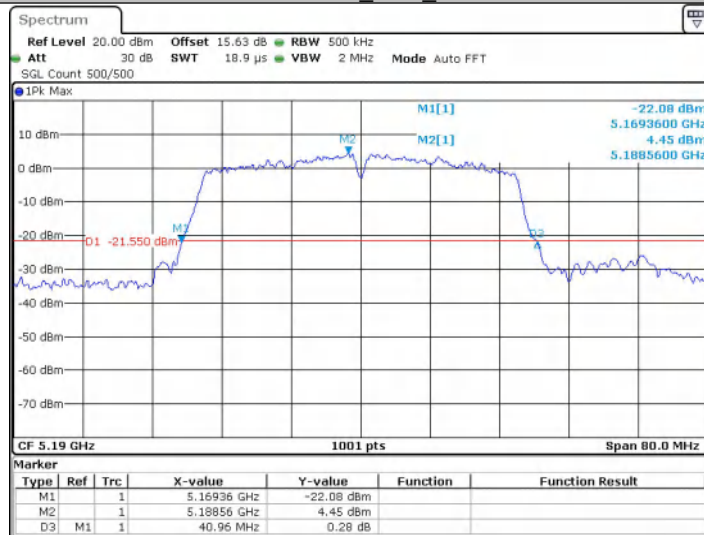
Date: 28 NOV.2025 20:15:38

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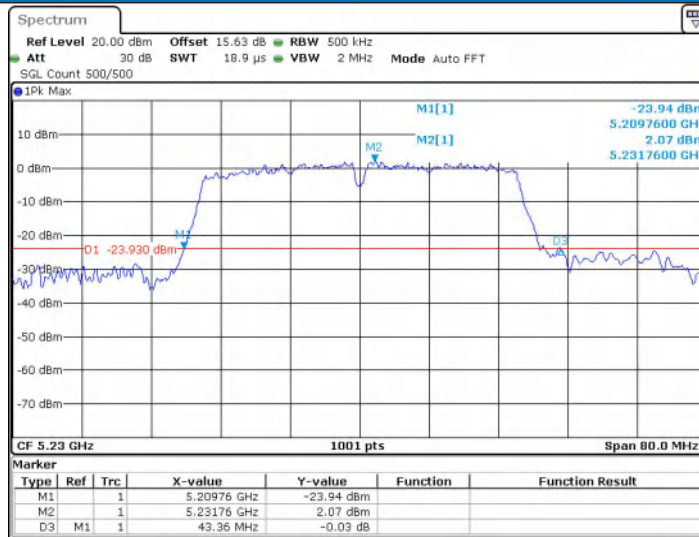
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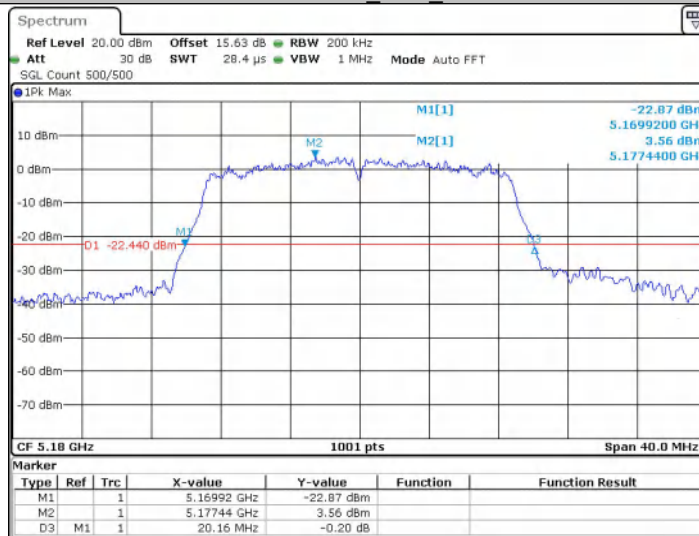
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11N40SISO_Ant1_5230



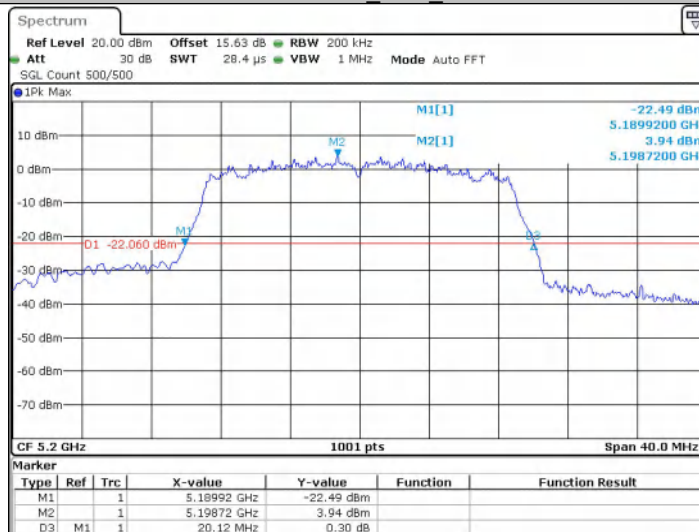
Date: 28 NOV.2025 20:21:08

11AC20SISO_Ant1_5180



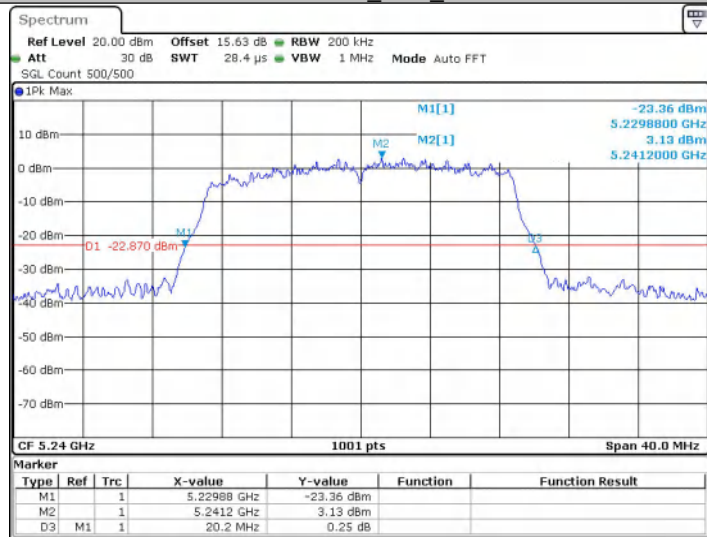
Date: 28 NOV.2025 20:23:21

11AC20SISO_Ant1_5200



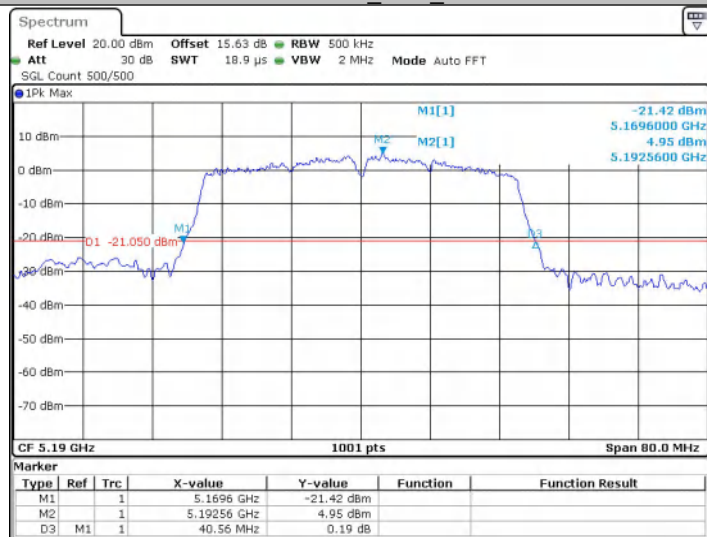
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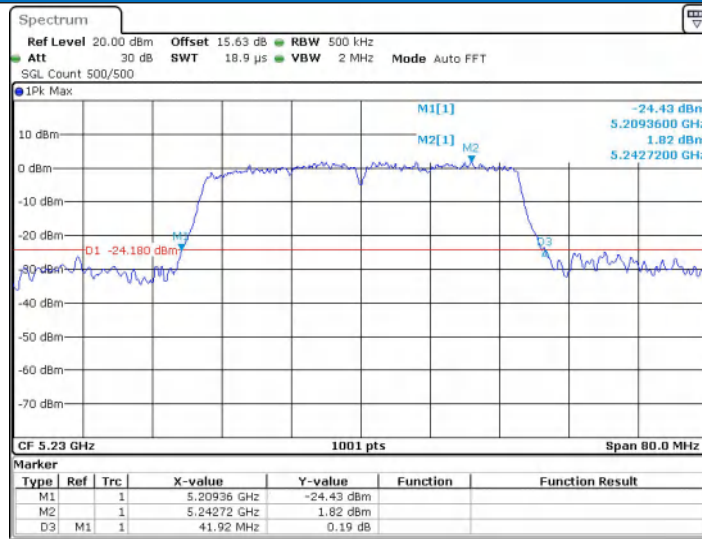
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11AC40SISO_Ant1_5190



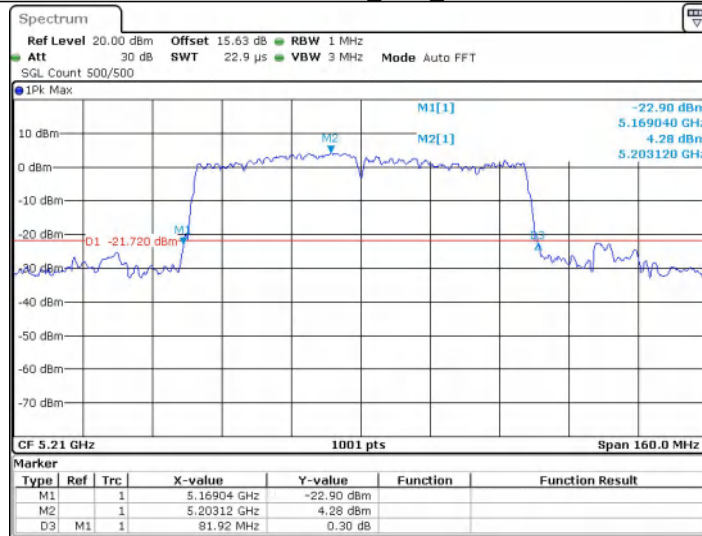
Date: 28 NOV.2025 20:36:09

11AC40SISO_Ant1_5230



Date: 28 NOV 2025 20:38:46

11AC80SISO_Ant1_5210



Date: 2 DEC 2025 14:05:34

Appendix B): Maximum Conduct Output Power

1.Duty Cycle (x)

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

Test Procedure:

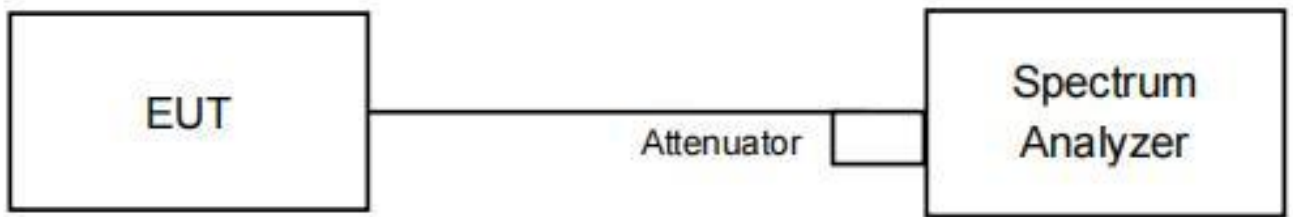
Set RBW = 20MHz

Set VBW = 40MHz

Set detector = peak.

Set span =0Hz

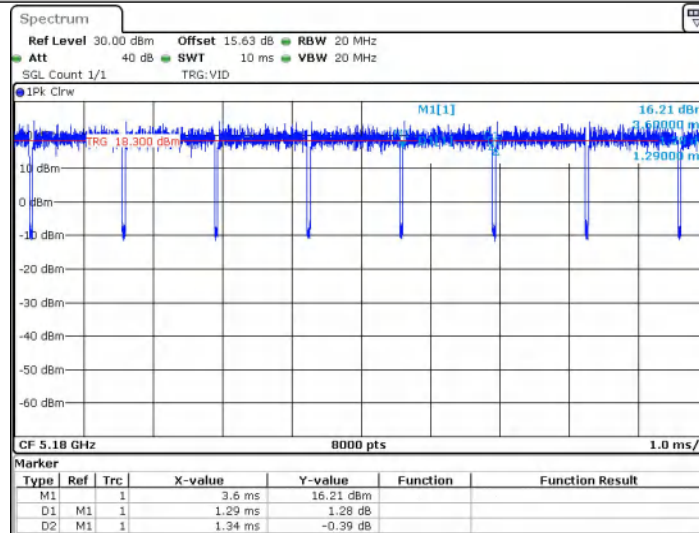
Test Setup Diagram



Measurement Data

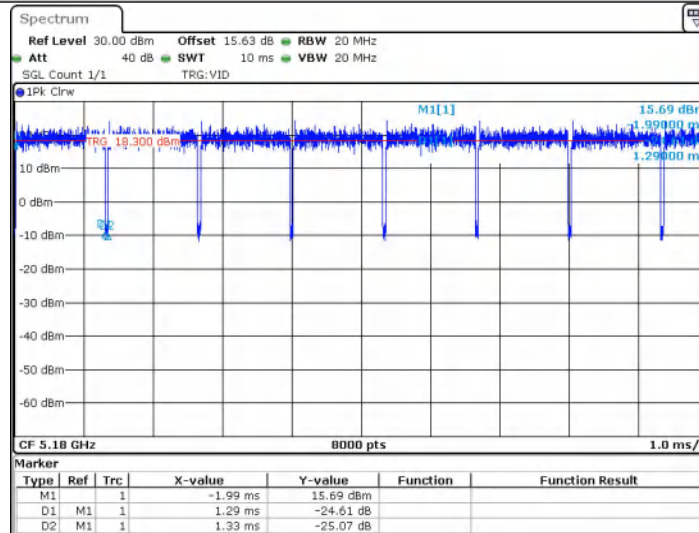
Test Mode	Antenna	Duty Cycle[%]	10log(1/x) Factor[dB]
11A	Ant1	96.27	0.17
11N20	Ant1	96.99	0.13
11N40	Ant1	94.12	0.26
11AC20	Ant1	96.99	0.13
11AC40	Ant1	94.12	0.26
11AC80	Ant1	97.25	0.12

11A



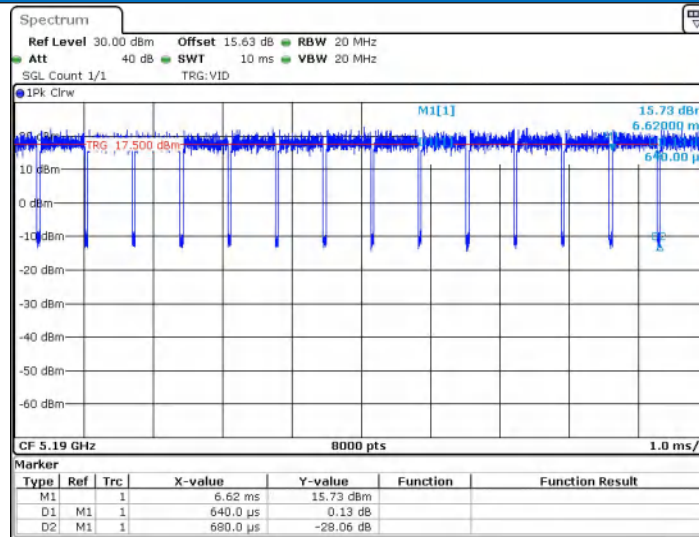
Date: 28 NOV. 2025 20:09:23

11N20



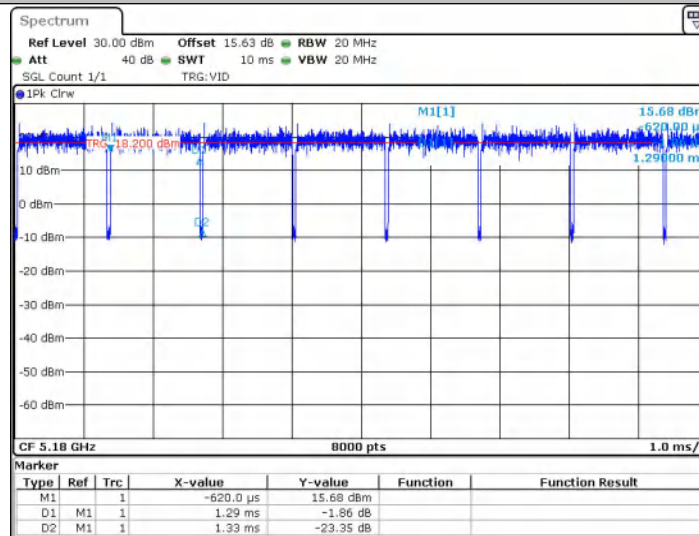
Date: 28 NOV. 2025 20:14:05

11N40



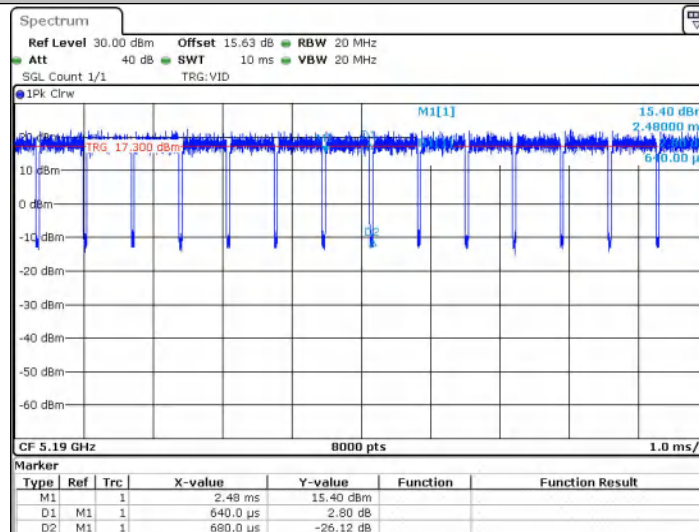
Date: 28 NOV. 2025 20:18:57

11AC20



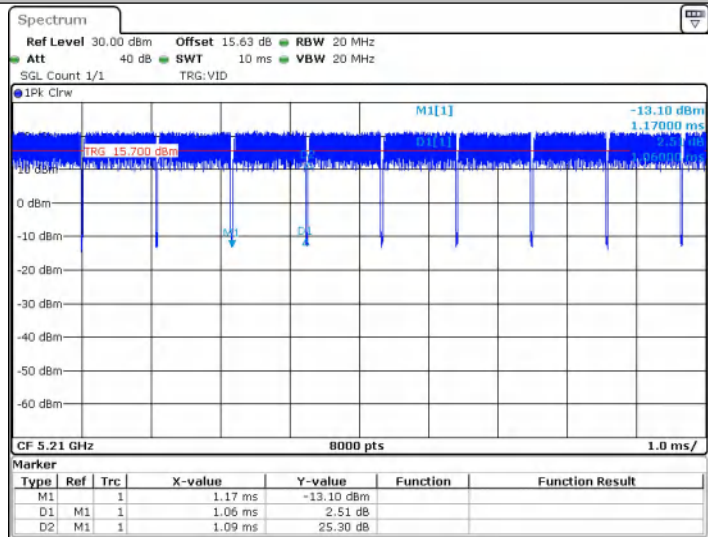
Date: 28 NOV. 2025 20:23:39

11AC40



Date: 28 NOV. 2025 20:36:30

11AC80



Date: 28 NOV. 2025 20:41:02

2. Maximum Conducted Output Power

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

Test Method: KDB 789033 D02 II E

Limit:

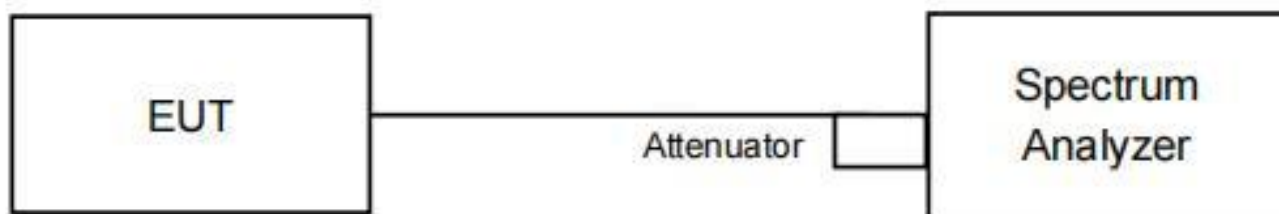
Frequency band(MHz)	Limit
5150-5250	$\leq 1\text{W}(30\text{dBm})$ for master device
	$\leq 250\text{mW}(24\text{dBm})$ for client device
5250-5350	$\leq 250\text{mW}(24\text{dBm})$ for client device or $11\text{dBm}+10\log B^*$
5470-5725	$\leq 250\text{mW}(24\text{dBm})$ for client device or $11\text{dBm}+10\log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

Test Procedure:

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- (1) Set RBW = 1 MHz.
- (2) Set VBW ≥ 3 MHz.
- (3) Detector = power average
- (4) Sweep time = auto.
- (5) Add duty cycle to the measured average power.

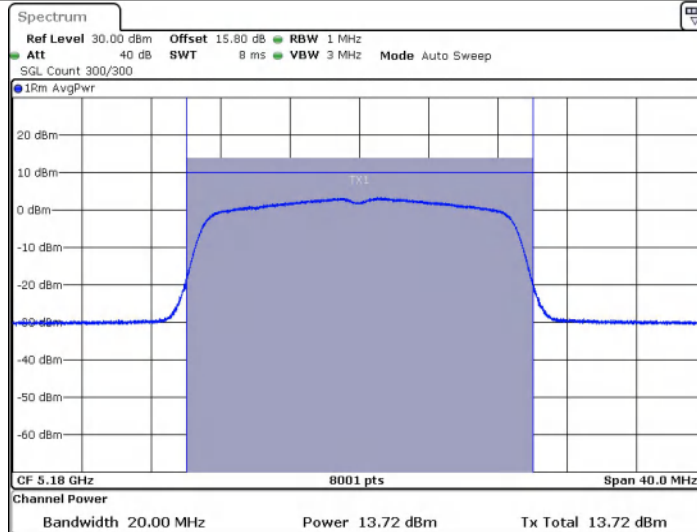
Test Setup Diagram



Measurement Data

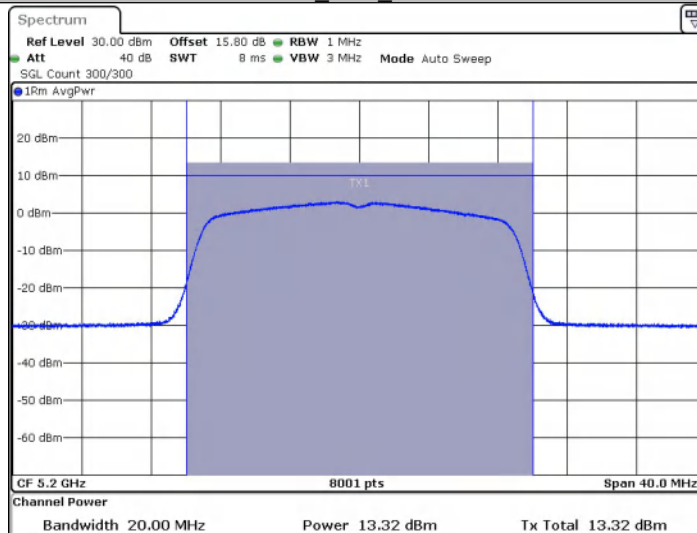
Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	13.72	≤ 23.98	PASS
		5200	13.32	≤ 23.98	PASS
		5240	12.42	≤ 23.98	PASS
11N20SISO	Ant1	5180	13.63	≤ 23.98	PASS
		5200	13.30	≤ 23.98	PASS
		5240	12.44	≤ 23.98	PASS
11N40SISO	Ant1	5190	13.67	≤ 23.98	PASS
		5230	11.89	≤ 23.98	PASS
11AC20SISO	Ant1	5180	13.60	≤ 23.98	PASS
		5200	13.18	≤ 23.98	PASS
		5240	12.44	≤ 23.98	PASS
11AC40SISO	Ant1	5190	13.41	≤ 23.98	PASS
		5230	11.83	≤ 23.98	PASS
11AC80SISO	Ant1	5210	12.92	≤ 23.98	PASS

11A_Ant1_5180



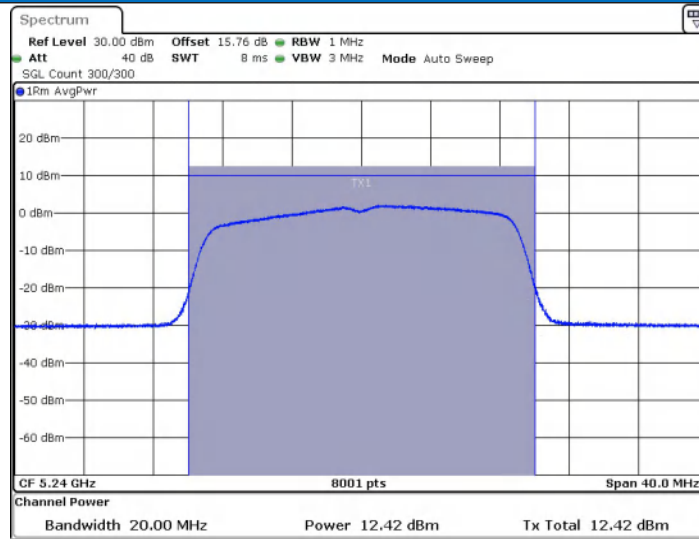
Date: 28.NOV.2025 20:09:33

11A_Ant1_5200



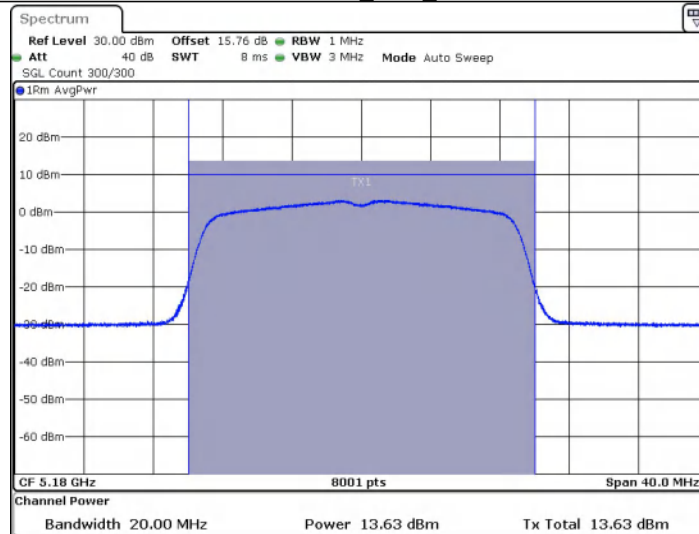
Date: 28.NOV.2025 20:11:32

11A_Ant1_5240



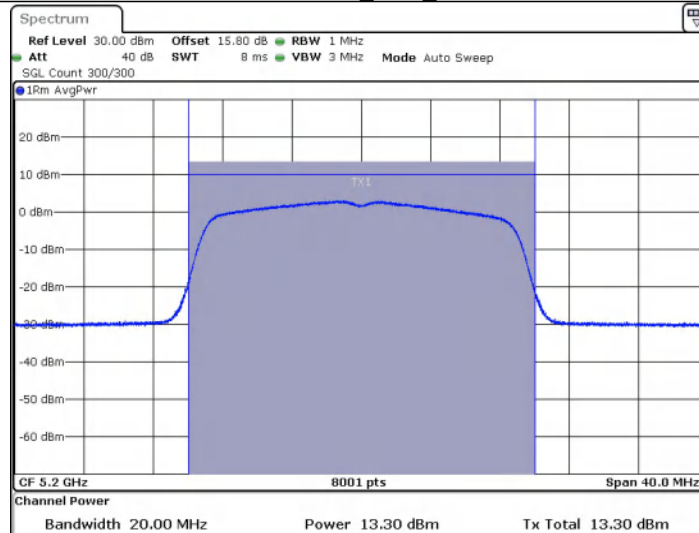
Date: 28.NOV.2025 20:12:42

11N20SISO_Ant1_5180



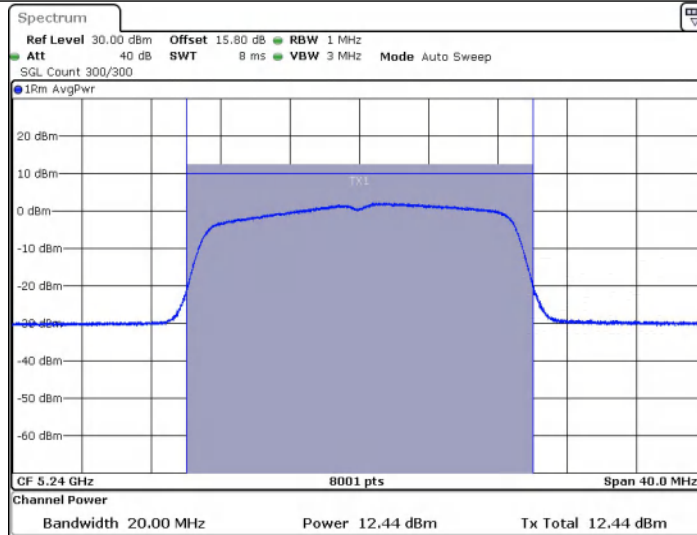
Date: 28.NOV.2025 20:14:14

11N20SISO_Ant1_5200



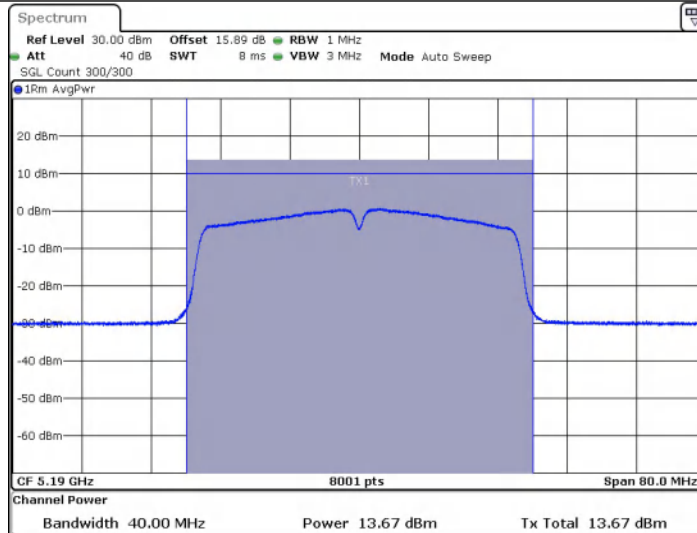
Date: 28.NOV.2025 20:16:04

11N20SISO_Ant1_5240



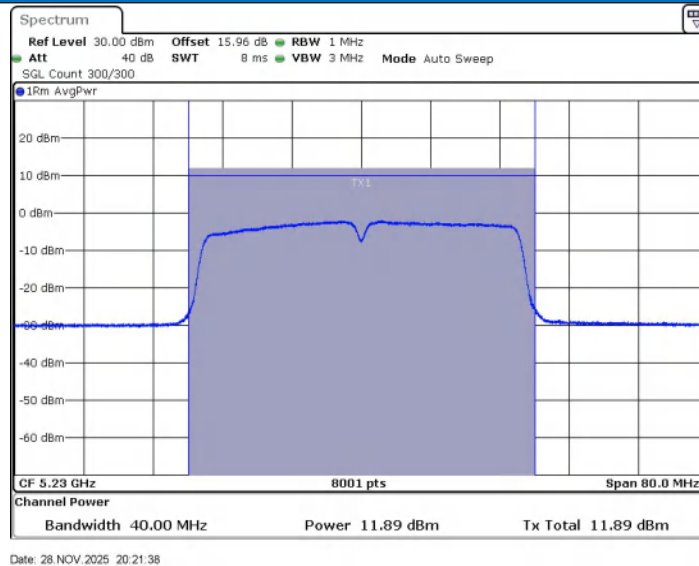
Date: 28.NOV.2025 20:17:07

11N40SISO_Ant1_5190

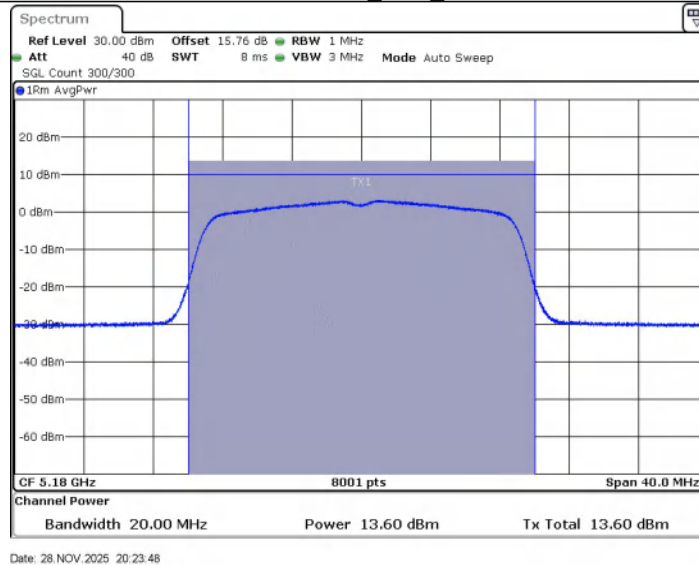


Date: 28.NOV.2025 20:19:06

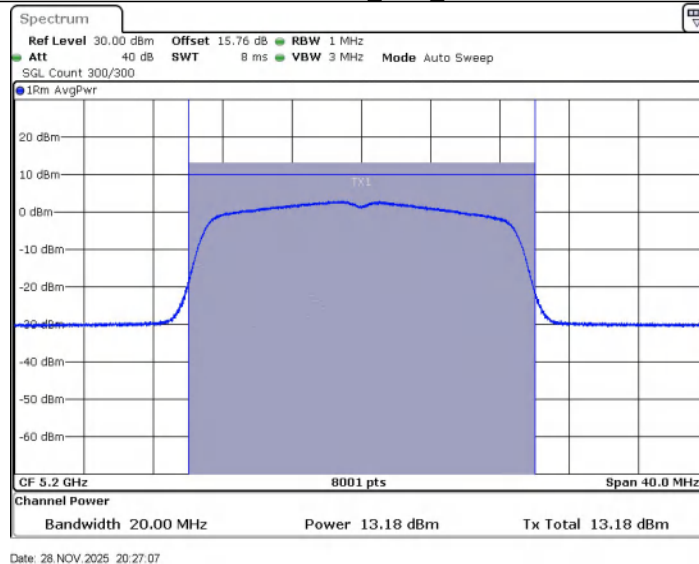
11N40SISO_Ant1_5230



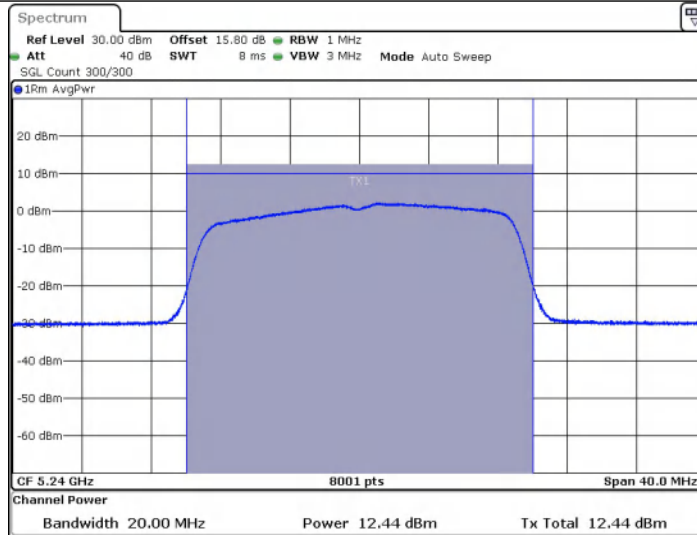
11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200

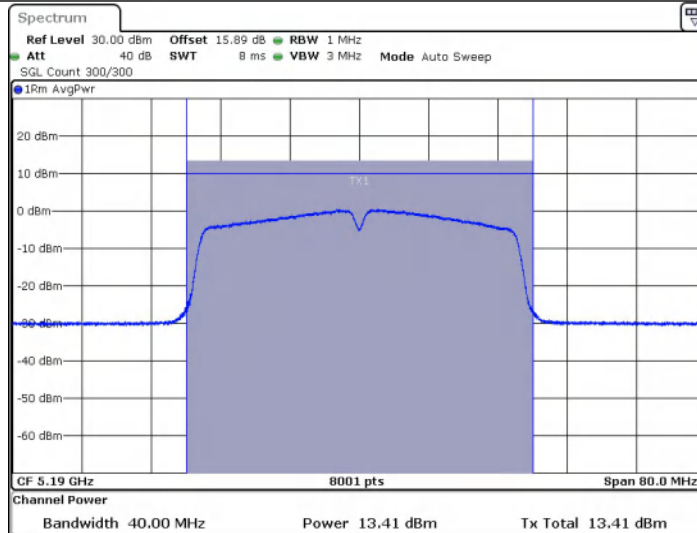


11AC20SISO_Ant1_5240



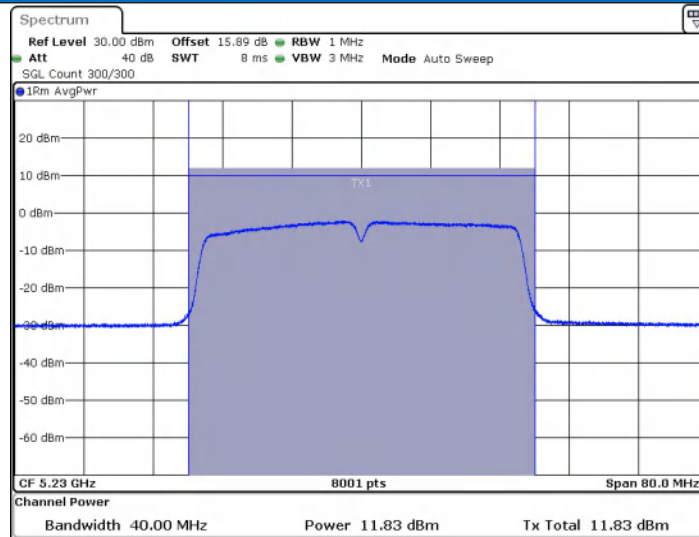
Date: 28.NOV.2025 20:30:24

11AC40SISO_Ant1_5190



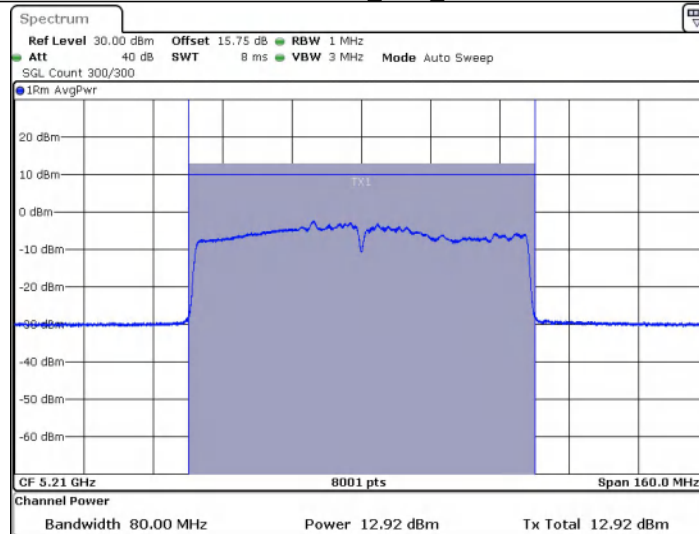
Date: 28.NOV.2025 20:36:40

11AC40SISO_Ant1_5230



Date: 28.NOV.2025 20:39:16

11AC80SISO_Ant1_5210



Date: 28.NOV.2025 20:41:11

Remark:

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

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

G = antenna gain in dBi.

Appendix C): Maximum Power Spectral Density

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

Test Method: KDB 789033 D02 II F

Test Procedure:

For 5150-5725MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 1MHz.
4. Set the VBW $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold.

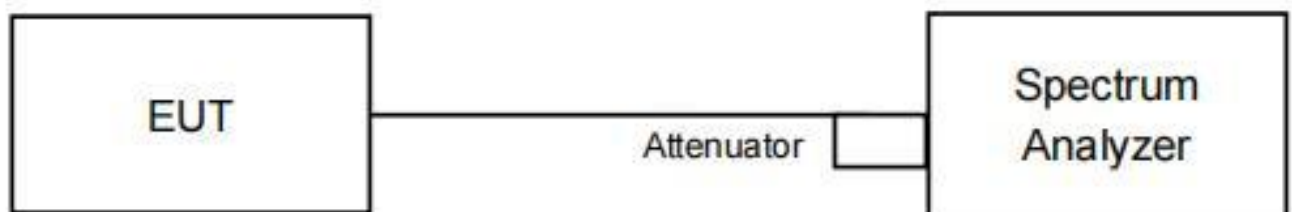
For 5725-5850MHz:

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 500KHz.
4. Set the VBW $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold.

Limit:

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

Test Setup Diagram



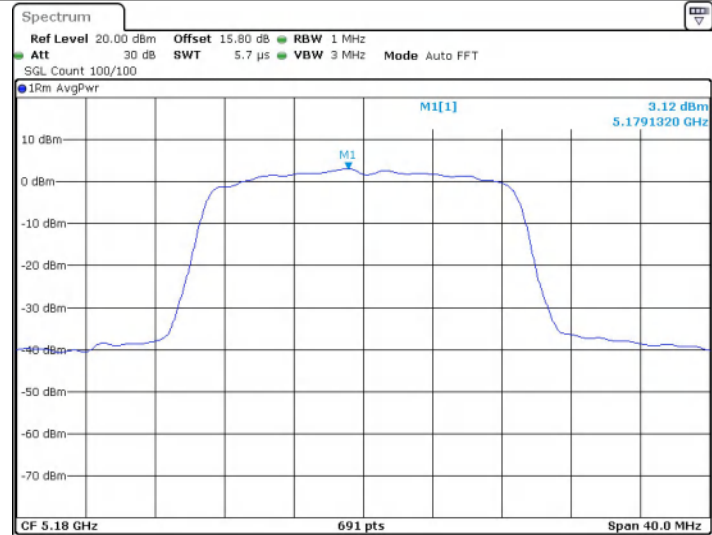
Result Table

TestMode	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	5180	3.12	≤11.00	PASS
	5200	2.61	≤11.00	PASS
	5240	1.78	≤11.00	PASS
11N20SISO	5180	3.23	≤11.00	PASS
	5200	2.86	≤11.00	PASS
	5240	1.76	≤11.00	PASS
11N40SISO	5190	0.10	≤11.00	PASS
	5230	-2.09	≤11.00	PASS
11AC20SISO	5180	3.45	≤11.00	PASS
	5200	2.55	≤11.00	PASS
	5240	1.75	≤11.00	PASS
11AC40SISO	5190	0.33	≤11.00	PASS
	5230	-1.97	≤11.00	PASS
11AC80SISO	5210	-2.26	≤11.00	PASS

Remark:

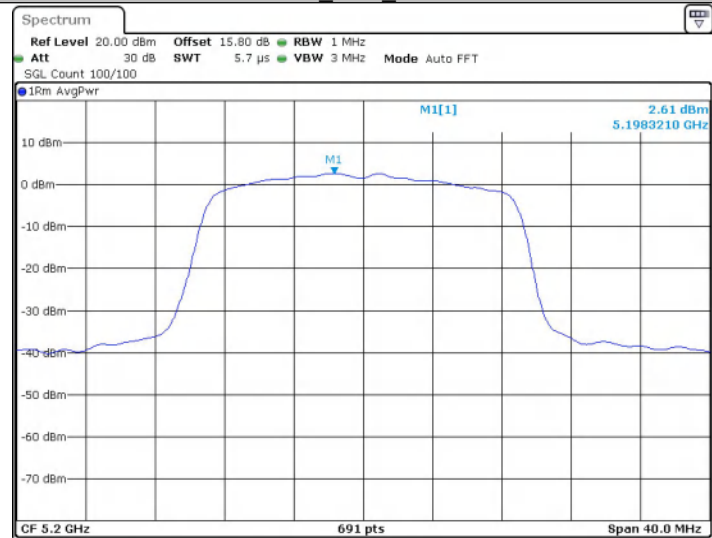
PSD = Meas PSD + Duty Cycle Factor

11A_Ant1_5180



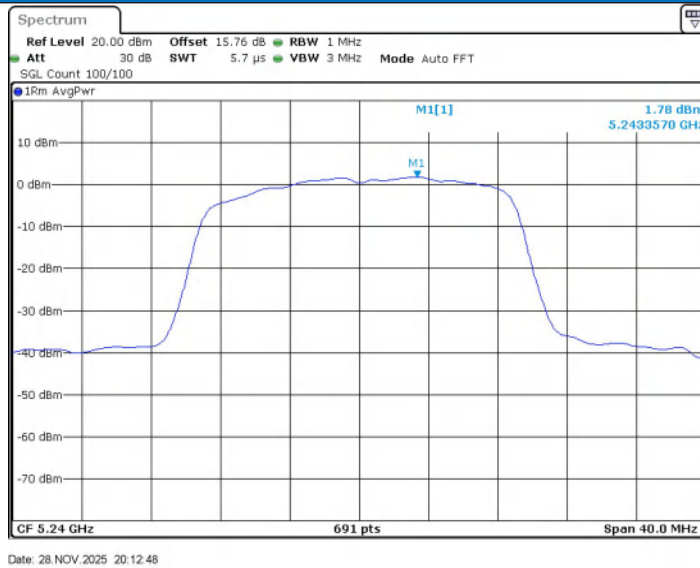
Date: 28.NOV.2025 20:09:38

11A_Ant1_5200

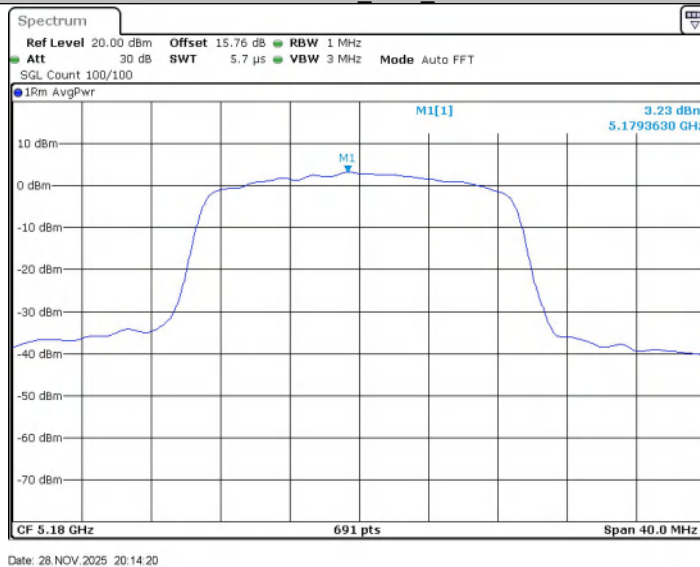


Date: 28.NOV.2025 20:11:37

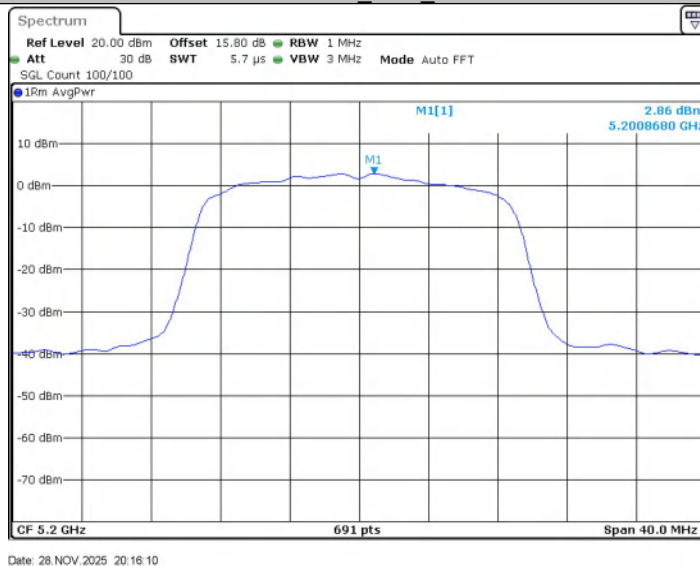
11A_Ant1_5240



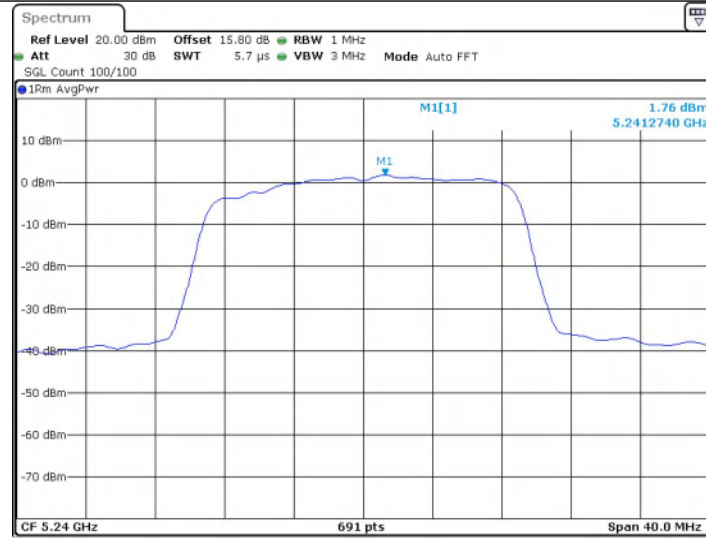
11N20SISO_Ant1_5180



11N20SISO_Ant1_5200

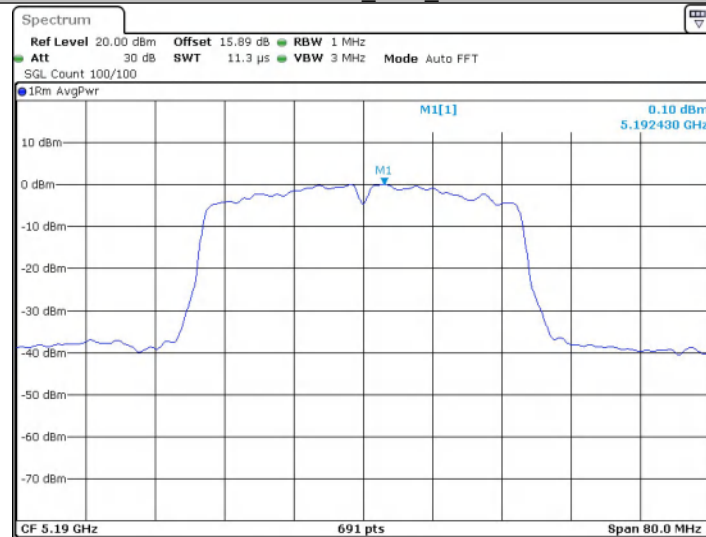


11N20SISO_Ant1_5240



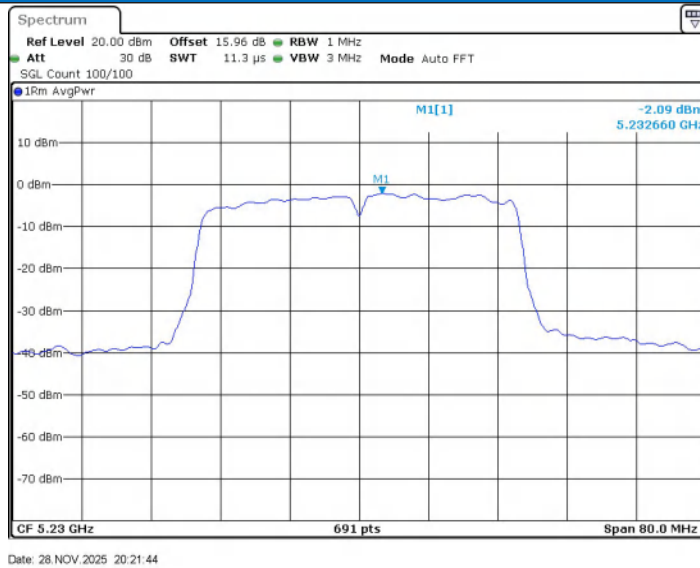
Date: 28.NOV.2025 20:17:13

11N40SISO_Ant1_5190

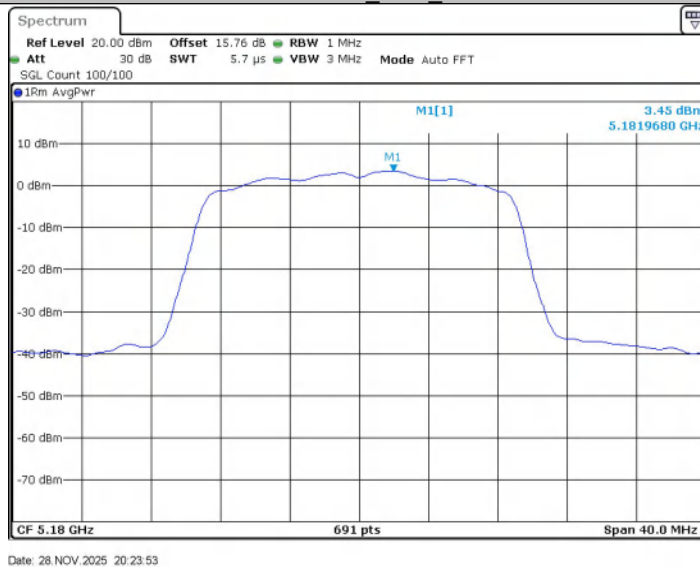


Date: 28.NOV.2025 20:19:12

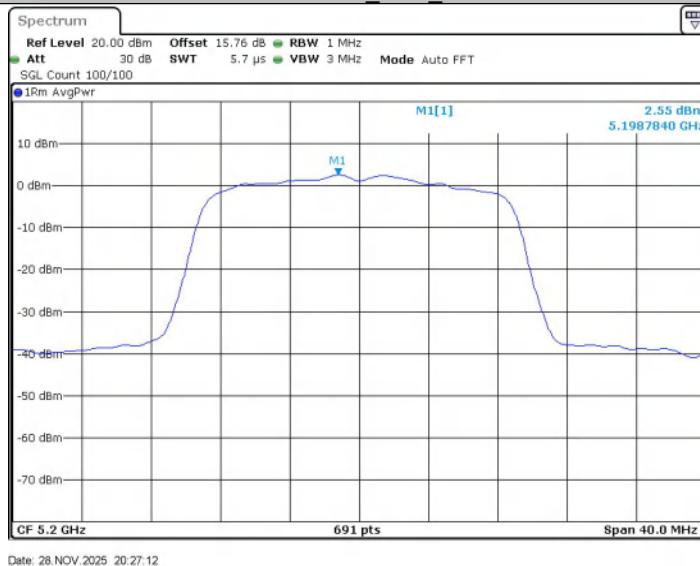
11N40SISO_Ant1_5230



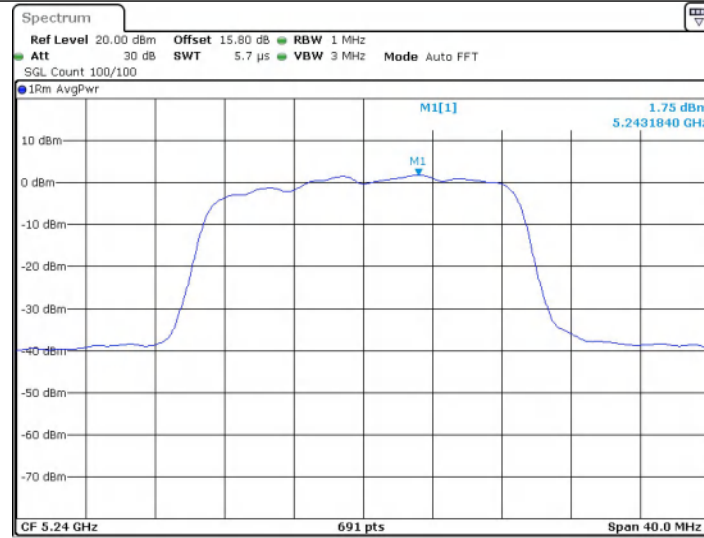
11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200

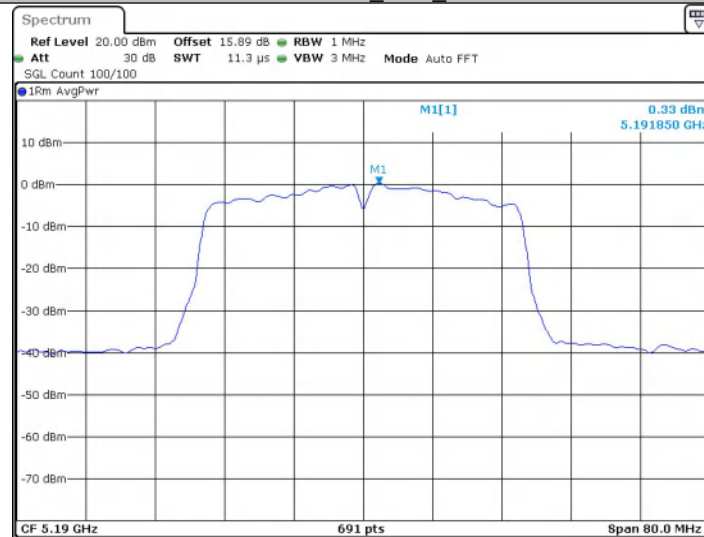


11AC20SISO_Ant1_5240



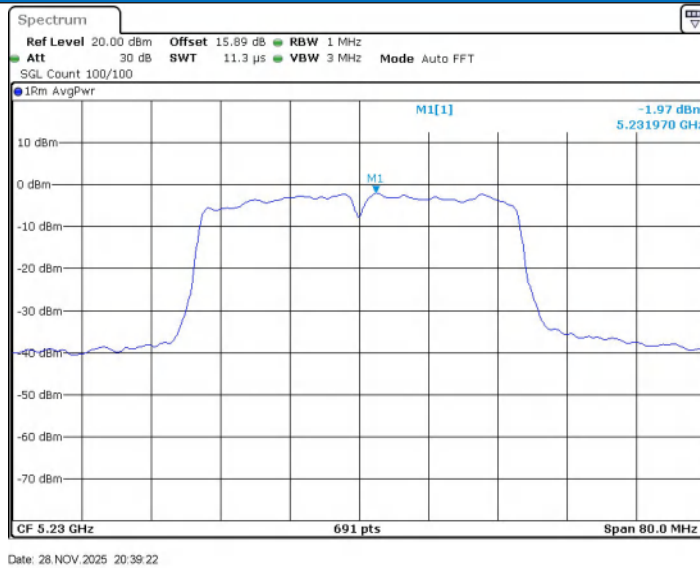
Date: 28 NOV. 2025 20:30:30

11AC40SISO_Ant1_5190

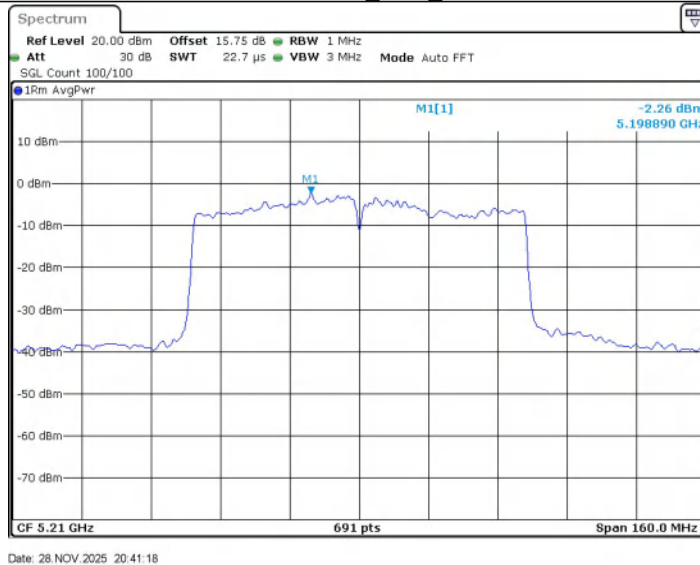


Date: 28 NOV. 2025 20:36:46

11AC40SISO_Ant1_5230



11AC80SISO_Ant1_5210



Appendix D): Band Edge Measurements

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

Test Method: KDB 789033 D02 II G

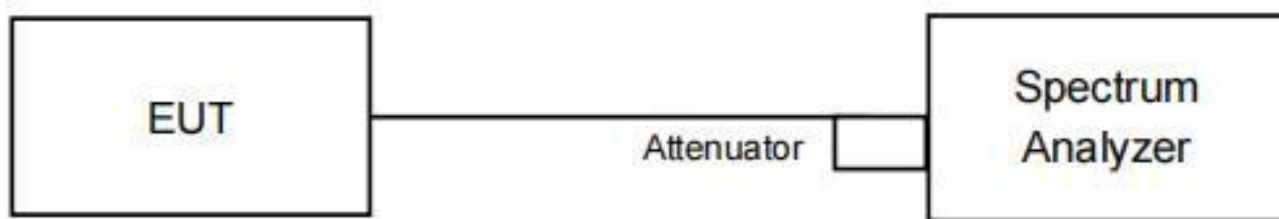
Test Procedure:

1. The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz ; VBW=1/on time(1KHz) / Sweep=AUTO

Limit:

For transmitters operating in the 5.15-5.25 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.25-5.35 GHz band:	All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.47-5.725 GHz band:	All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.2dBuV/m).
For transmitters operating in the 5.725-5.85 GHz band:	(i) All emissions shall be limited to a level of -27 dBm/MHz (68.2dBuV/m) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz (105.2dBuV/m) at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz (110.8dBuV/m) at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz (122.2dBuV/m) at the band edge.

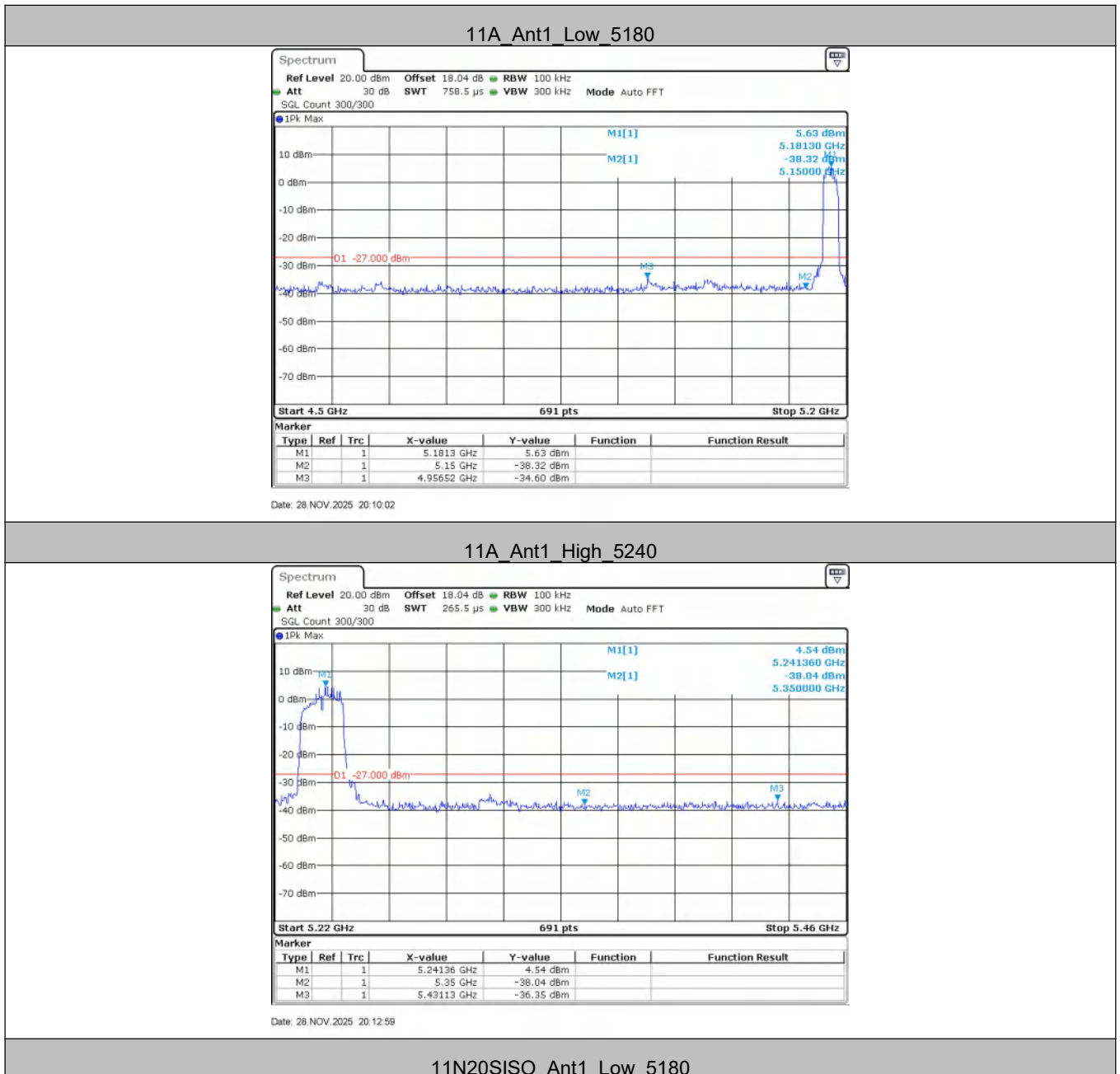
Test Setup Diagram

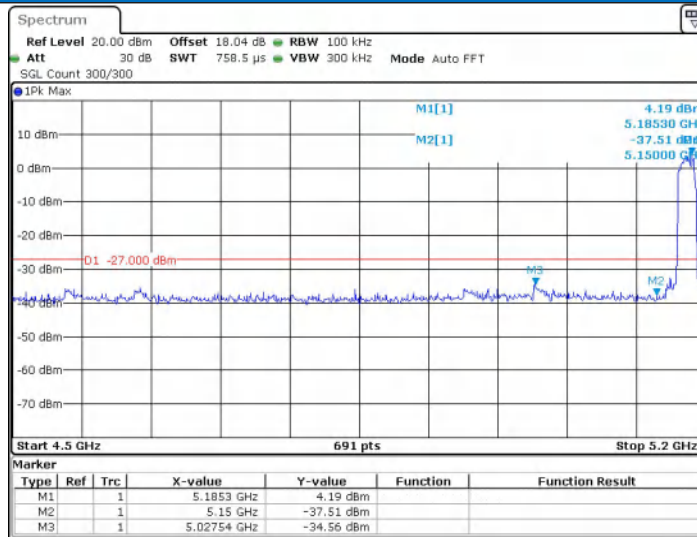


7.1.1 Test Result B1

TestMode	ChName	Freq(MHz)	Result[dBm]	Limit[dBm]	Verdict
11A	Low	5180	-34.6	≤ -27	PASS
	High	5240	-36.35	≤ -27	PASS
11N20SISO	Low	5180	-34.56	≤ -27	PASS
	High	5240	-35.61	≤ -27	PASS
11N40SISO	Low	5190	-34.96	≤ -27	PASS
	High	5230	-35.71	≤ -27	PASS
11AC20SISO	Low	5180	-34.73	≤ -27	PASS
	High	5240	-36.02	≤ -27	PASS
11AC40SISO	Low	5190	-34.7	≤ -27	PASS
	High	5230	-36.71	≤ -27	PASS
11AC80SISO	Low	5210	-34.65	≤ -27	PASS
	High	5210	-36.32	≤ -27	PASS

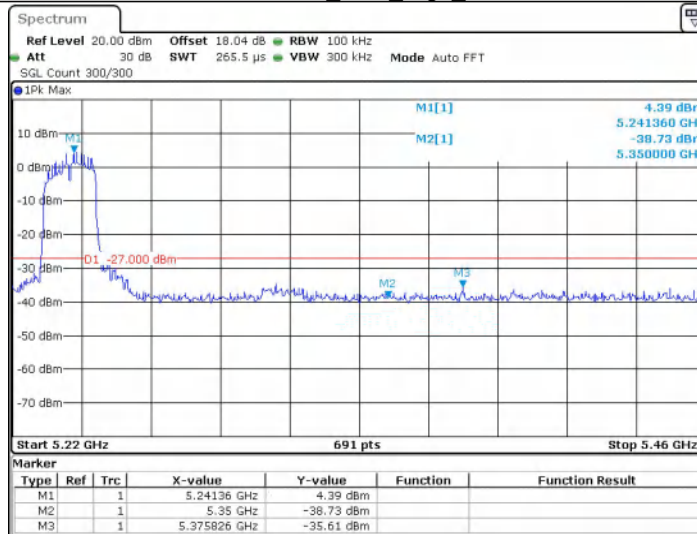
7.1.2 Test Graphs B1





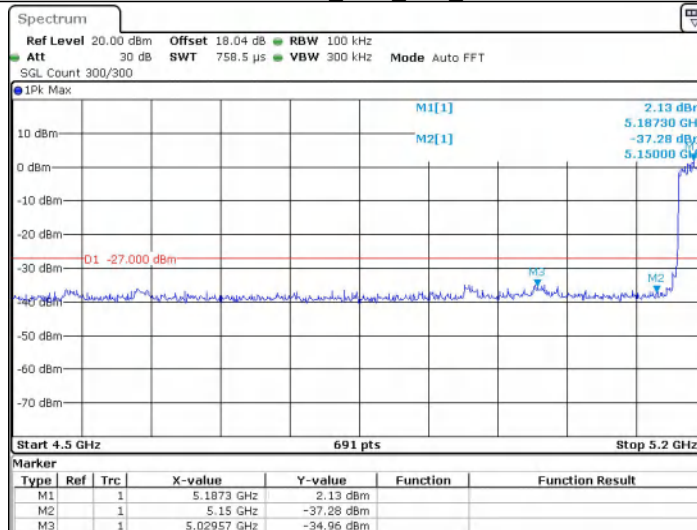
Date: 28 NOV. 2025 20:14:44

11N20SISO_Ant1_High_5240



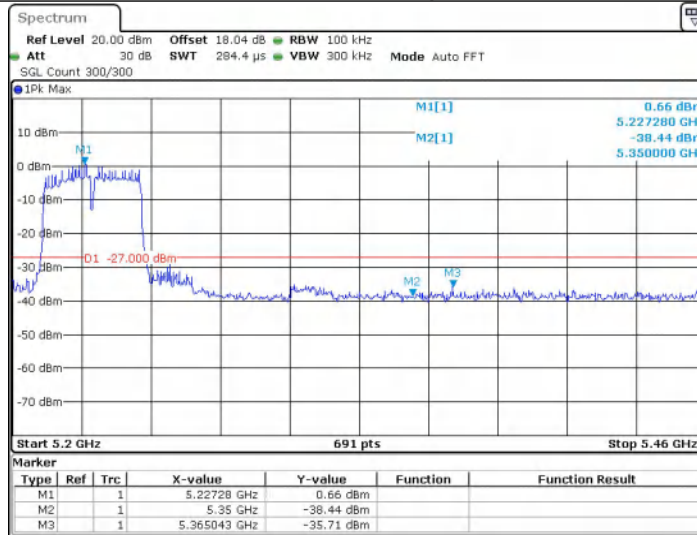
Date: 28 NOV. 2025 20:17:24

11N40SISO_Ant1_Low_5190



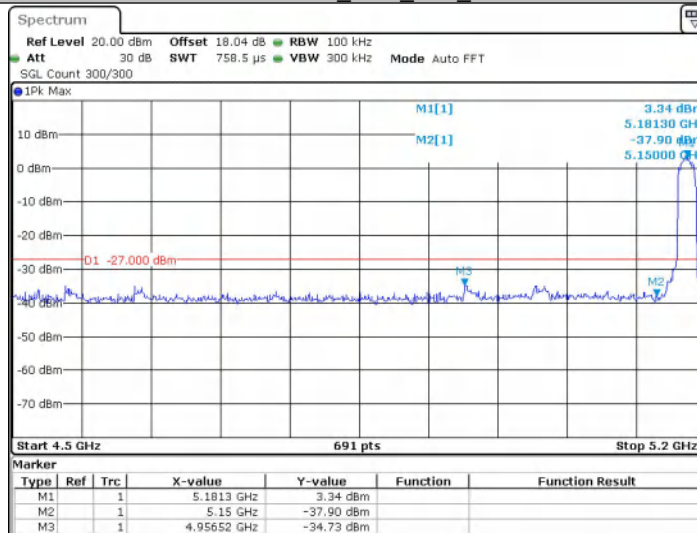
Date: 28 NOV. 2025 20:19:36

11N40SISO_Ant1_High_5230



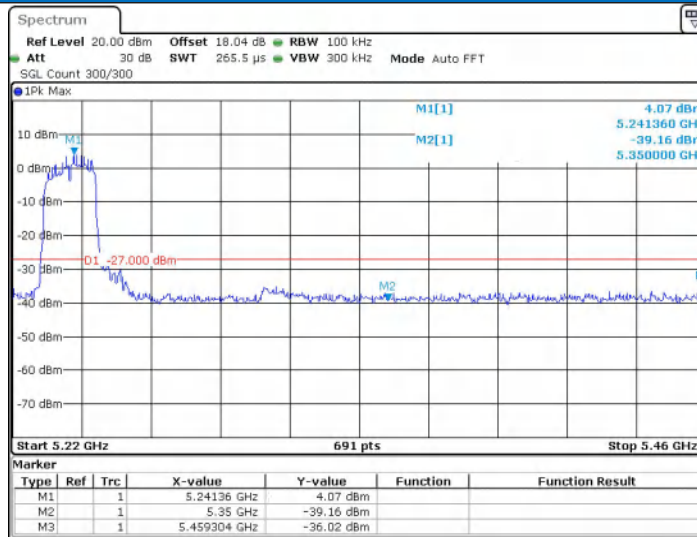
Date: 28 NOV. 2025 20:21:55

11AC20SISO_Ant1_Low_5180



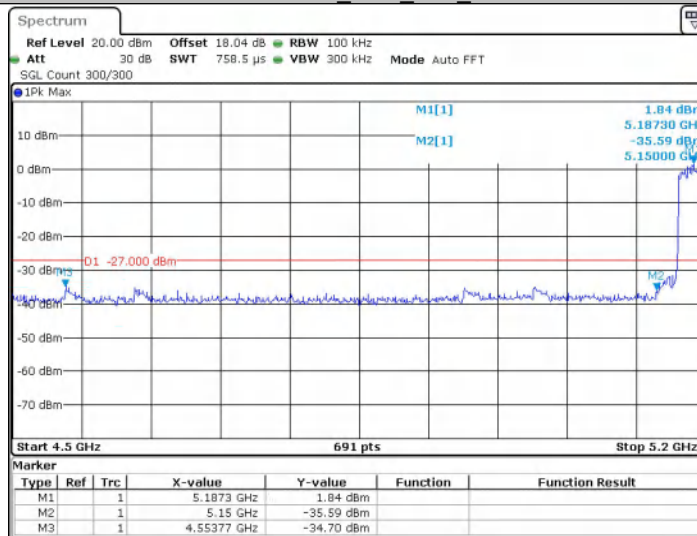
Date: 28 NOV. 2025 20:24:17

11AC20SISO_Ant1_High_5240



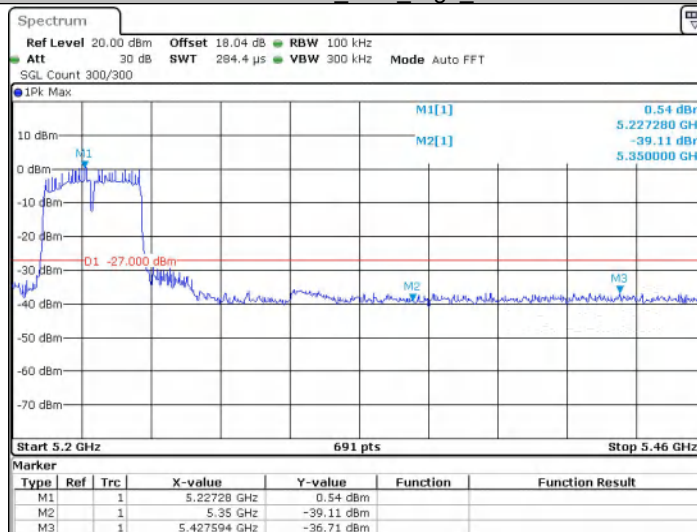
Date: 28 NOV. 2025 20:30:41

11AC40SISO_Ant1_Low_5190



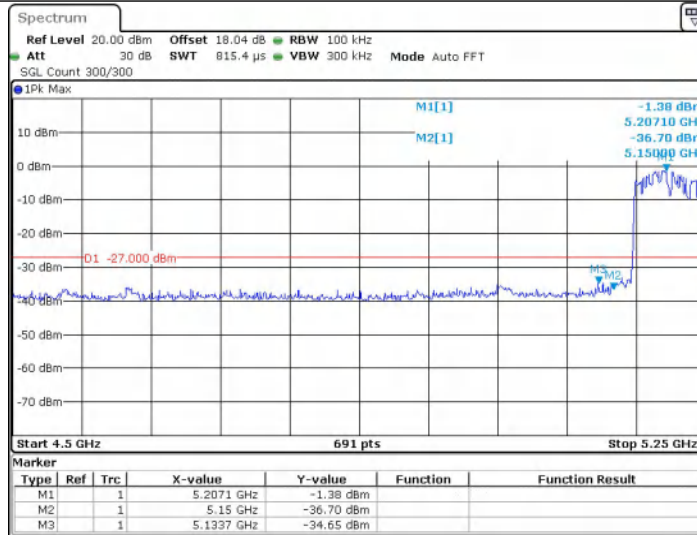
Date: 28 NOV. 2025 20:37:10

11AC40SISO_Ant1_High_5230



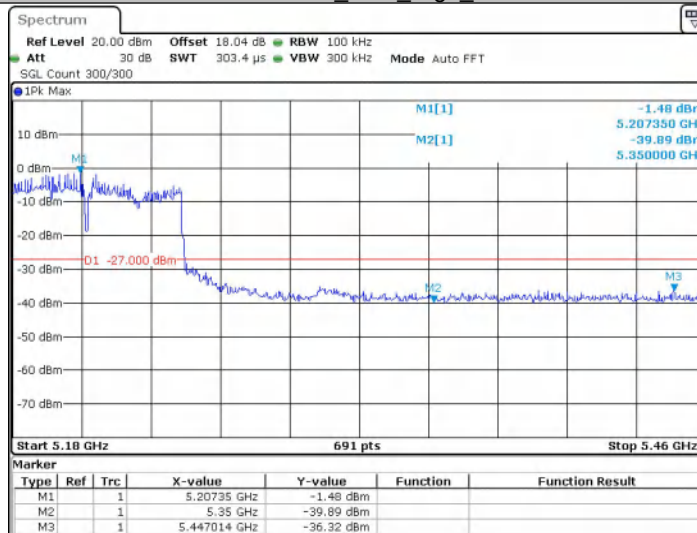
Date: 28 NOV. 2025 20:39:33

11AC80SISO_Ant1_Low_5210



Date: 28 NOV. 2025 20:41:43

11AC80SISO_Ant1_High_5210



Date: 28 NOV. 2025 20:41:56

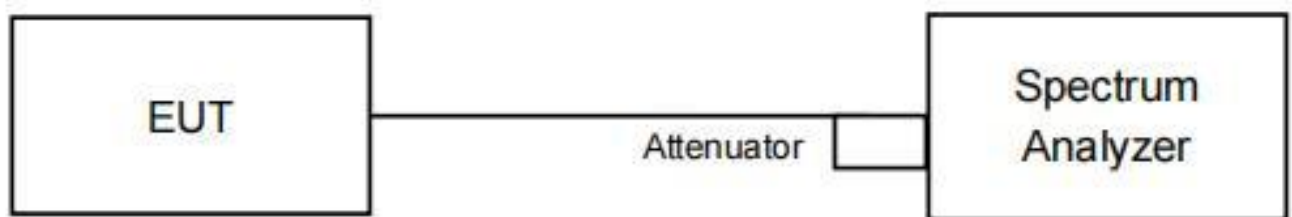
Appendix E): Frequency Stability

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

Test Method: ANSI C63.10 (2020) Section 6.8

Limit: The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

Test Setup Diagram



Measurement Data

Frequency Stability Versus Temp.			
Operating Frequency: 5240 MHz			
Temp	Voltage	Measured Frequency	Limit
(°C)		(MHz)	(MHz)
50	VN	5240.14	5150-5250
40		5240.65	5150-5250
30		5240.25	5150-5250
20		5240.47	5150-5250
10		5240.12	5150-5250
0		5240.65	5150-5250
-10		5240.54	5150-5250
-30		5240.52	5150-5250

Frequency Stability Versus Temp.			
Operating Frequency: 5210 MHz			
Temp.	Voltage	Measured Frequency	Limit
		(MHz)	(MHz)
TN	VL	5210.54	5150-5250
	VN	5210.35	5150-5250
	VH	5210.25	5150-5250

Note: All the modulation and channels had been tested, but only the worst data recorded in the report.

Appendix F): 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:



The antenna is FPC antenna.

The connection/connection type between the antenna to the EUT's antenna port is: unique coupling.

This is either permanently attachment or a unique coupling that satisfies the requirement.

Appendix G): 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 H): AC Power Line Conducted Emission

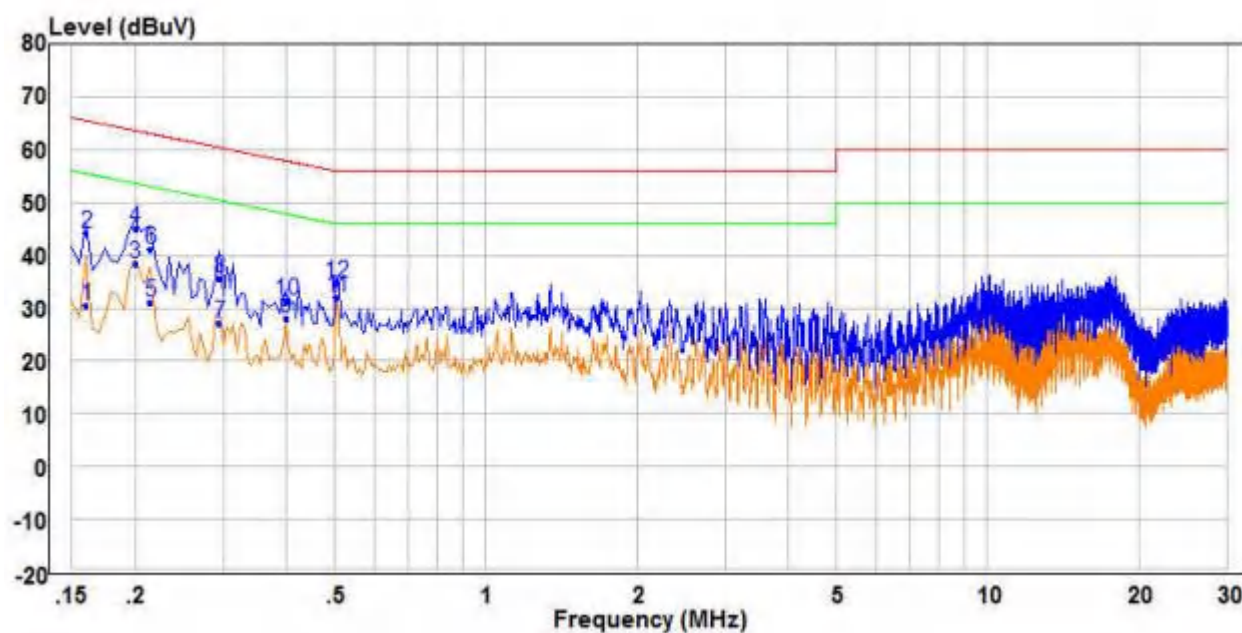
Test Procedure:	Test frequency range :150KHz-30MHz 1)The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 5\Omega$ linear impedance. 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:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBμV)</th></tr> <tr> <th>Quasi-peak</th><th>Average</th></tr> </thead> <tbody> <tr> <td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr> <tr> <td>0.5-5</td><td>56</td><td>46</td></tr> <tr> <td>5-30</td><td>60</td><td>50</td></tr> </tbody> </table> * 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		Frequency range (MHz)	Limit (dB μ V)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dB μ V)															
	Quasi-peak	Average														
0.15-0.5	66 to 56*	56 to 46*														
0.5-5	56	46														
5-30	60	50														

Measurement Data

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

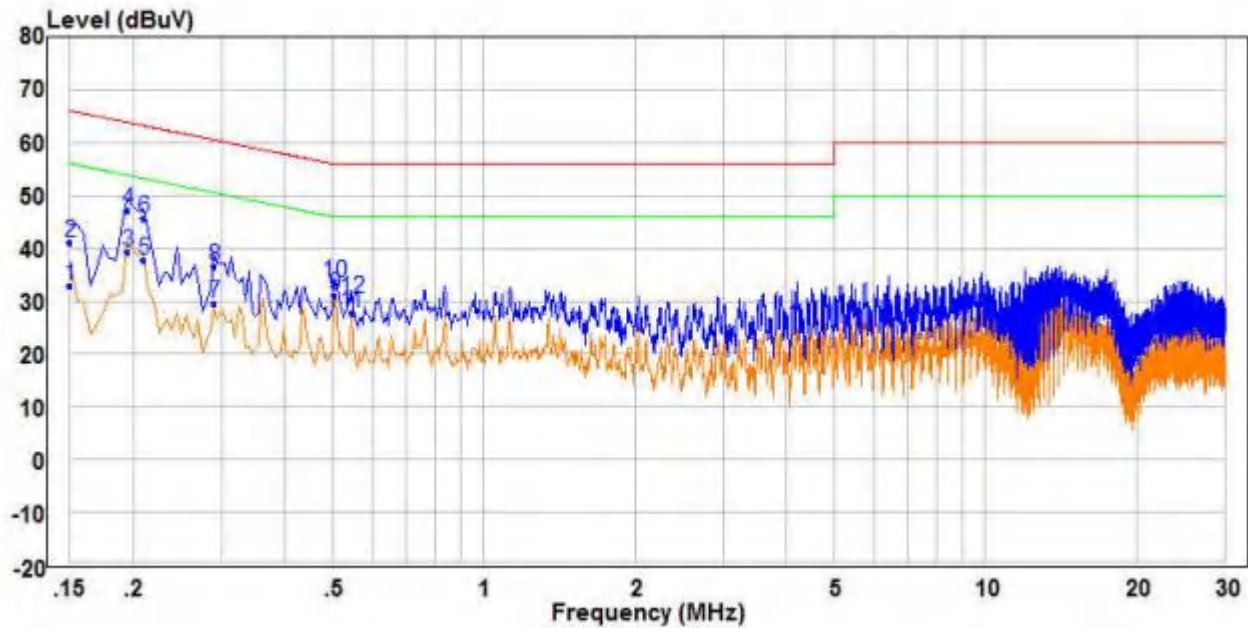
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live line:



	Freq	Read	Factor	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.160	20.87	9.68	30.55	55.46	-24.91	Average	Line
2	0.160	34.39	9.68	44.07	65.46	-21.39	QP	Line
3	0.200	28.88	9.61	38.49	53.61	-15.12	Average	Line
4 QP	0.200	35.60	9.61	45.21	63.61	-18.40	QP	Line
5	0.215	21.60	9.59	31.19	53.01	-21.82	Average	Line
6	0.215	31.46	9.59	41.05	63.01	-21.96	QP	Line
7	0.295	17.71	9.50	27.21	50.38	-23.17	Average	Line
8	0.295	26.00	9.50	35.50	60.38	-24.88	QP	Line
9	0.400	18.43	9.61	28.04	47.85	-19.81	Average	Line
10	0.400	21.80	9.61	31.41	57.85	-26.44	QP	Line
11 PP	0.505	22.39	9.71	32.10	46.00	-13.90	Average	Line
12	0.505	25.02	9.71	34.73	56.00	-21.27	QP	Line

Neutral line:



	Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.150	23.17	9.70	32.87	56.00	-23.13	Average	Neutral
2	0.150	31.35	9.70	41.05	66.00	-24.95	QP	Neutral
3 PP	0.195	29.68	9.62	39.30	53.82	-14.52	Average	Neutral
4 QP	0.195	37.55	9.62	47.17	63.82	-16.65	QP	Neutral
5	0.210	28.24	9.59	37.83	53.21	-15.38	Average	Neutral
6	0.210	36.12	9.59	45.71	63.21	-17.50	QP	Neutral
7	0.290	20.22	9.49	29.71	50.52	-20.81	Average	Neutral
8	0.290	27.04	9.49	36.53	60.52	-23.99	QP	Neutral
9	0.505	21.25	9.71	30.96	46.00	-15.04	Average	Neutral
10	0.505	23.81	9.71	33.52	56.00	-22.48	QP	Neutral
11	0.545	17.89	9.75	27.64	46.00	-18.36	Average	Neutral
12	0.545	20.60	9.75	30.35	56.00	-25.65	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.
3. The 6Mbps of rate of 802.11A_5240 is the worst case, only the worst data recorded in the report.

Appendix I): 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: - The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. - The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. - 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. - 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. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - 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: - 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). - Test the EUT in the lowest channel , the Highest channel - 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. - Repeat above procedures until all frequencies measured was complete.				
Limit:	Frequency	Limit (dB μ V/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		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	59.02	-3.63	55.39	74	-18.61	peak	H	1.5	118
5150.00	43.99	-3.63	40.36	54	-13.64	AVG	H	1.5	5
5150.00	59.52	-3.63	55.89	74	-18.11	peak	V	1.5	96
5150.00	46.22	-3.63	42.59	54	-11.41	AVG	V	1.5	234

Worse case mode:		802.11a		Test channel:		48			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.33	-3.59	54.74	74	-19.26	peak	H	1.5	248
5350.00	44.79	-3.59	41.20	54	-12.80	AVG	H	1.5	308
5350.00	59.30	-3.59	55.71	74	-18.29	peak	V	1.5	76
5350.00	46.62	-3.59	43.03	54	-10.97	AVG	V	1.5	269

Worse case mode:		802.11n(HT20)		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.29	-3.63	54.66	74	-19.34	peak	H	1.5	344
5150.00	44.86	-3.63	41.23	54	-12.77	AVG	H	1.5	192
5150.00	59.60	-3.63	55.97	74	-18.03	peak	V	1.5	175
5150.00	46.15	-3.63	42.52	54	-11.48	AVG	V	1.5	211

Worse case mode:		802.11n(HT20)		Test channel:		48			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	58.53	-3.59	54.94	74	-19.06	peak	H	1.5	311
5350.00	44.34	-3.59	40.75	54	-13.25	AVG	H	1.5	153
5350.00	59.84	-3.59	56.25	74	-17.75	peak	V	1.5	117
5350.00	46.71	-3.59	43.12	54	-10.88	AVG	V	1.5	132

Worse case mode:		802.11n(HT40)		Test channel:		38			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.90	-3.63	55.27	74	-18.73	peak	H	1.5	87
5150.00	44.90	-3.63	41.27	54	-12.73	AVG	H	1.5	55
5150.00	60.00	-3.63	56.37	74	-17.63	peak	V	1.5	314
5150.00	46.16	-3.63	42.53	54	-11.47	AVG	V	1.5	54

Worse case mode:		802.11n(HT40)		Test channel:		48			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	59.23	-3.59	55.64	74	-18.36	peak	H	1.5	327
5350.00	44.49	-3.59	40.90	54	-13.10	AVG	H	1.5	97
5350.00	59.79	-3.59	56.20	74	-17.80	peak	V	1.5	214
5350.00	46.27	-3.59	42.68	54	-11.32	AVG	V	1.5	307

Worse case mode:		802.11ac(VHT20)		Test channel:		36			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	Type	H/V	(m)	(Degree)
5150.00	58.90	-3.63	55.27	74	-18.73	peak	H	1.5	41
5150.00	44.85	-3.63	41.22	54	-12.78	AVG	H	1.5	360
5150.00	59.45	-3.63	55.82	74	-18.18	peak	V	1.5	9
5150.00	45.99	-3.63	42.36	54	-11.64	AVG	V	1.5	94

Worse case mode:		802.11ac(VHT20)		Test channel:		48			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	Type	H/V	(m)	(Degree)
5350.00	58.97	-3.59	55.38	74	-18.62	peak	H	1.5	203
5350.00	44.28	-3.59	40.69	54	-13.31	AVG	H	1.5	327
5350.00	60.16	-3.59	56.57	74	-17.43	peak	V	1.5	350
5350.00	46.63	-3.59	43.04	54	-10.96	AVG	V	1.5	151

Worse case mode:		802.11ac(VHT40)		Test channel:		38			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	Type	H/V	(m)	(Degree)
5150.00	59.14	-3.63	55.51	74	-18.49	peak	H	1.5	352
5150.00	44.76	-3.63	41.13	54	-12.87	AVG	H	1.5	354
5150.00	59.89	-3.63	56.26	74	-17.74	peak	V	1.5	171
5150.00	46.71	-3.63	43.08	54	-10.92	AVG	V	1.5	78

Worse case mode:		802.11ac(VHT40)		Test channel:		48			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	59.21	-3.59	55.62	74	-18.38	peak	H	1.5	348
5350.00	44.38	-3.59	40.79	54	-13.21	AVG	H	1.5	92
5350.00	59.51	-3.59	55.92	74	-18.08	peak	V	1.5	25
5350.00	46.58	-3.59	42.99	54	-11.01	AVG	V	1.5	200

Worse case mode:		802.11ac(VHT80)		Test channel:		42			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5150.00	58.99	-3.63	55.36	74	-18.64	peak	H	1.5	306
5150.00	44.54	-3.63	40.91	54	-13.09	AVG	H	1.5	91
5150.00	59.98	-3.63	56.35	74	-17.65	peak	V	1.5	340
5150.00	46.80	-3.63	43.17	54	-10.83	AVG	V	1.5	188

Worse case mode:		802.11ac(VHT80)		Test channel:		42			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
5350.00	59.00	-3.59	55.41	74	-18.59	peak	H	1.5	310
5350.00	44.56	-3.59	40.97	54	-13.03	AVG	H	1.5	100
5350.00	59.81	-3.59	56.22	74	-17.78	peak	V	1.5	5
5350.00	46.79	-3.59	43.20	54	-10.80	AVG	V	1.5	167

Note:

1) Through Pre-scan transmitting mode with all kind of modulation and data rate, 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

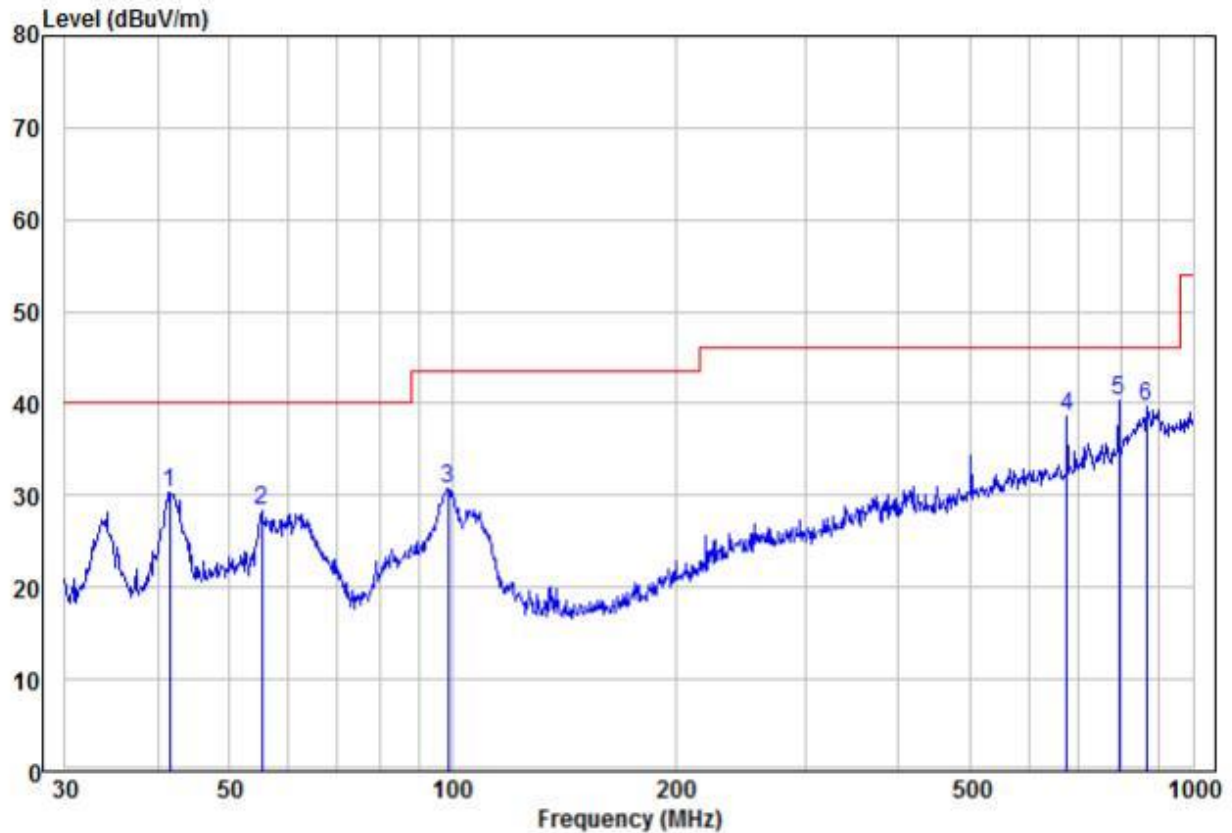
Appendix J): Radiated Spurious Emissions

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:

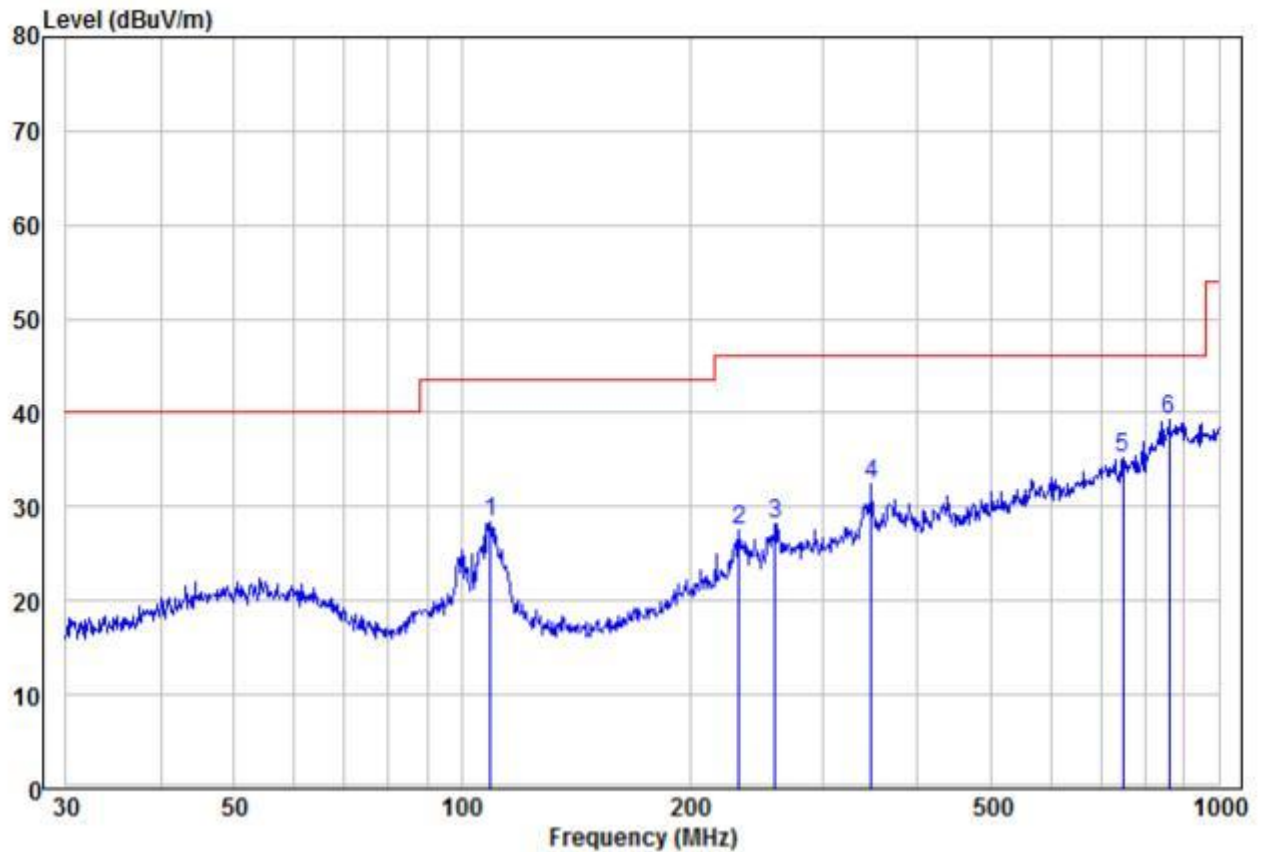
Radiated Emission below 1GHz

30MHz~1GHz		
Test mode:	Transmitting (802.11a 36CH)	Vertical



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase	APos	TPos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB			cm	deg
1	41.57	19.21	11.09	30.30	40.00	-9.70	Peak	VERTICAL	100	144
2	55.22	15.68	12.79	28.47	40.00	-11.53	Peak	VERTICAL	100	284
3	98.83	19.08	11.68	30.76	43.50	-12.74	Peak	VERTICAL	100	127
4	675.21	15.61	23.04	38.65	46.00	-7.35	Peak	VERTICAL	100	95
5 pp	793.40	14.93	25.48	40.41	46.00	-5.59	Peak	VERTICAL	100	47
6	866.09	11.00	28.73	39.73	46.00	-6.27	Peak	VERTICAL	100	25

Test mode:	Transmitting (802.11a 36CH)	Horizontal
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	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase	APos	TPos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB			cm	deg
1	109.03	16.55	11.85	28.40	43.50	-15.10	Peak	HORIZONTAL	100	185
2	232.53	13.07	14.44	27.51	46.00	-18.49	Peak	HORIZONTAL	100	133
3	259.23	12.20	15.93	28.13	46.00	-17.87	Peak	HORIZONTAL	100	61
4	348.03	14.29	18.09	32.38	46.00	-13.62	Peak	HORIZONTAL	100	78
5	747.48	10.35	24.77	35.12	46.00	-10.88	Peak	HORIZONTAL	100	265
6 pp	860.04	10.55	28.63	39.18	46.00	-6.82	Peak	HORIZONTAL	100	2

Transmitter Emission above 1GHz

Test mode:	802.11a(6Mbps)			Test channel:		36 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
10360	52.82	2.26	55.08	74	-18.92	peak	H	1.5	126
10360	36.89	2.26	39.15	54	-14.85	AVG	H	1.5	44
15540	51.96	3.75	55.71	74	-18.29	peak	H	1.5	4
15540	37.92	3.75	41.67	54	-12.33	AVG	H	1.5	316
10360	55.43	2.26	57.69	74	-16.31	peak	V	1.5	244
10360	38.22	2.26	40.48	54	-13.52	AVG	V	1.5	178
15540	52.09	3.75	55.84	74	-18.16	peak	V	1.5	143
15540	35.24	3.75	38.99	54	-15.01	AVG	V	1.5	305

Test mode:	802.11a(6Mbps)			Test channel:		48 CH			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V	(m)	(Degree)
10480	51.42	2.31	53.73	74	-20.27	peak	H	1.5	12
10480	37.70	2.31	40.01	54	-13.99	AVG	H	1.5	278
15720	48.83	3.79	52.62	74	-21.38	peak	H	1.5	35
15720	35.96	3.79	39.75	54	-14.25	AVG	H	1.5	106
10480	52.89	2.31	55.20	74	-18.80	peak	V	1.5	140
10480	36.69	2.31	39.00	54	-15.00	AVG	V	1.5	126
15720	49.81	3.79	53.60	74	-20.40	peak	V	1.5	41
15720	36.49	3.79	40.28	54	-13.72	AVG	V	1.5	120

Remark:

- 1) The 802.11a 6Mbps of rate 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.

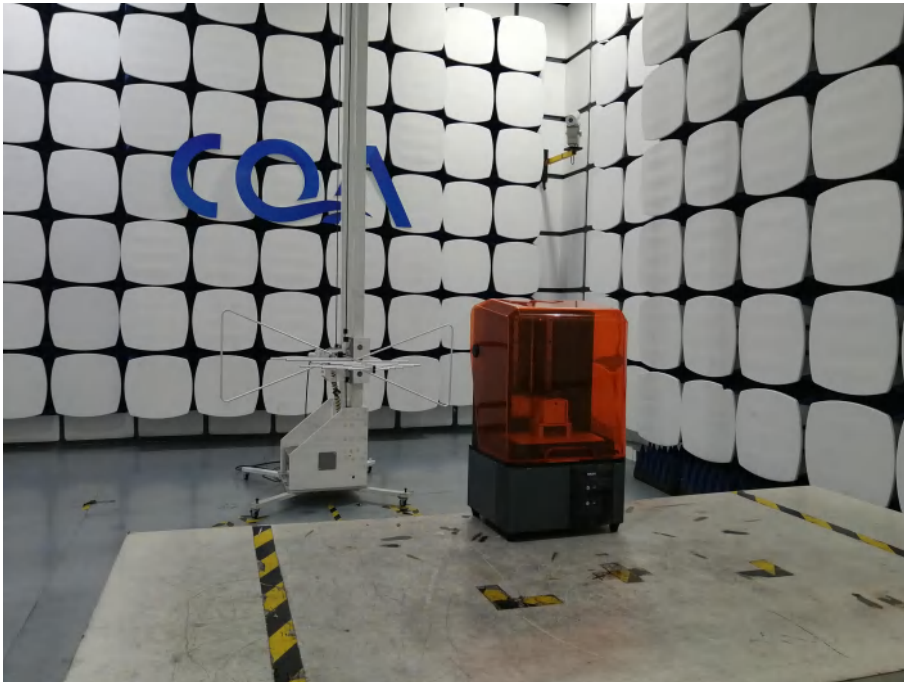
8 Photographs - EUT Test Setup

8.1 Radiated Spurious Emission

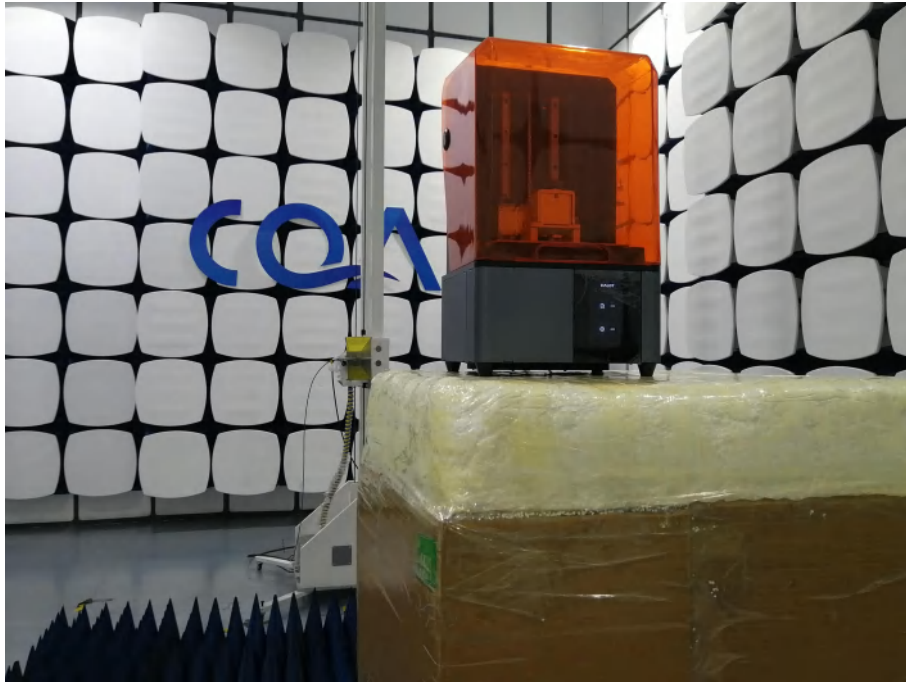
9kHz~30MHz:



30MHz~1GHz:



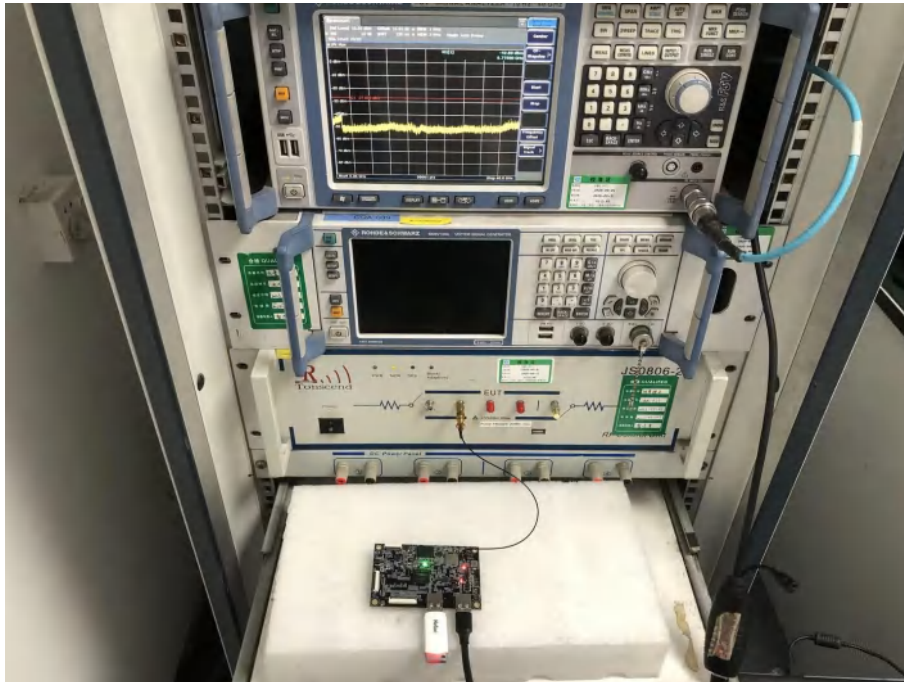
Above 1GHz:



8.2 Conducted Emission



8.3 RF Conducted measurement



9 Photographs - EUT Constructional Details

Refer to PHOTOGRAPHS OF EUT for CQASZ20251102695E-01.

*** END OF REPORT ***