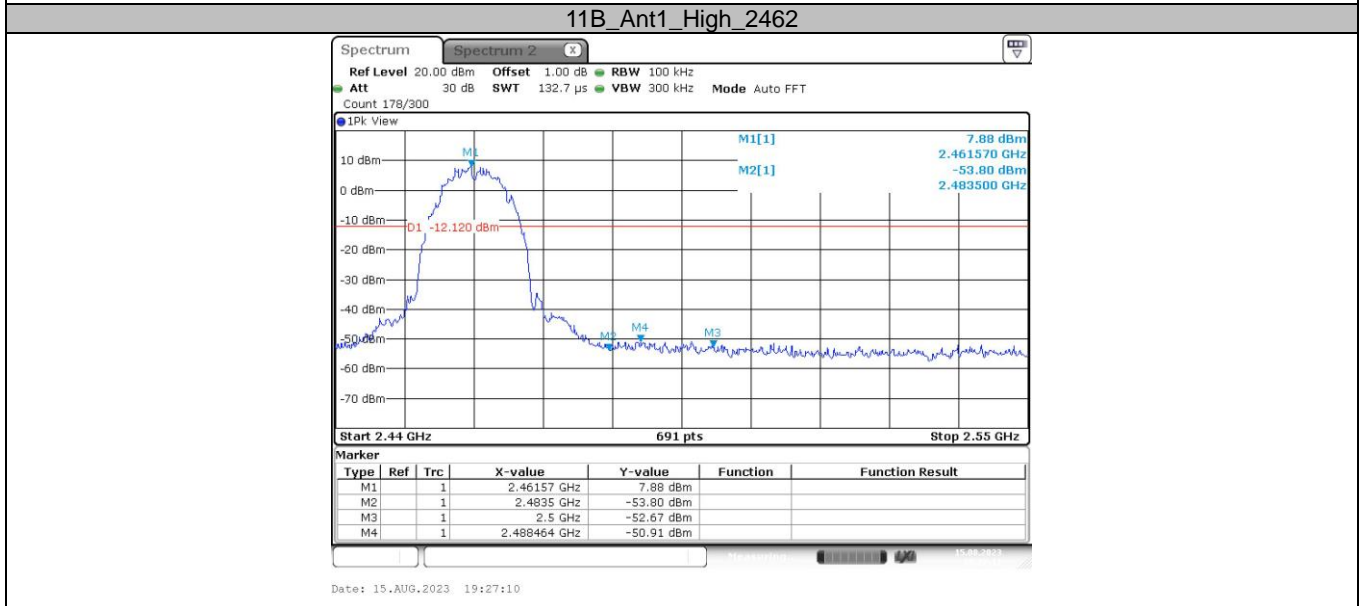
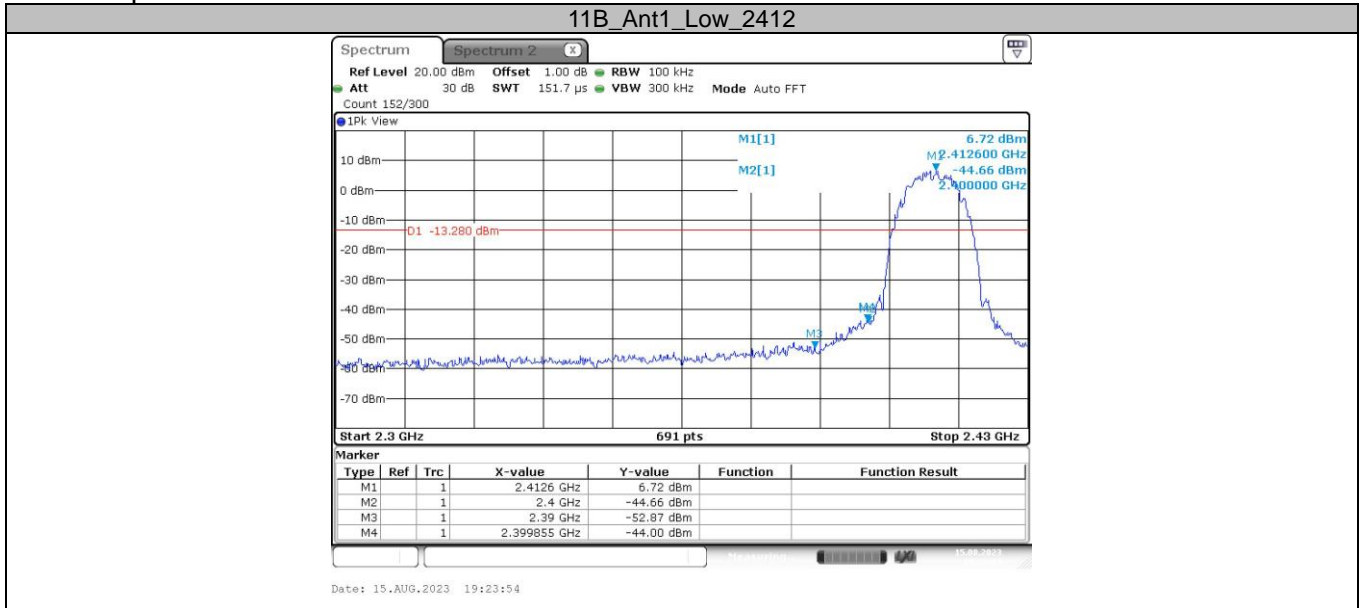




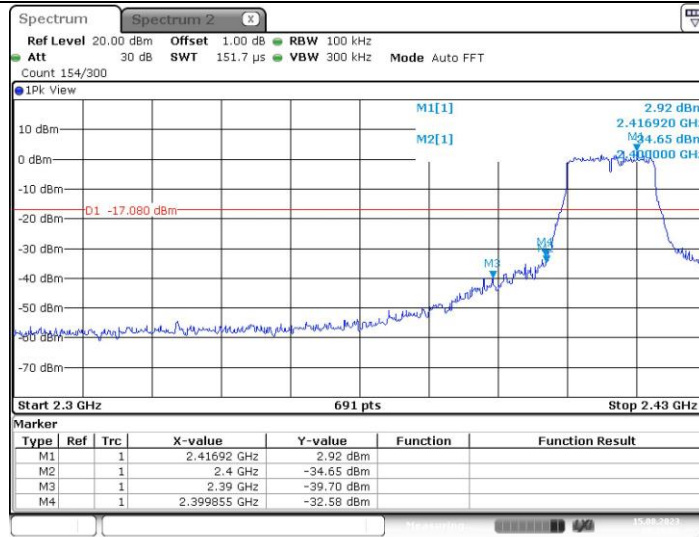
(2) Conducted Band Edge

Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	6.72	-44.00	≤-13.28	PASS
		High	2462	7.88	-50.91	≤-12.12	PASS
11G	Ant1	Low	2412	2.92	-32.58	≤-17.08	PASS
		High	2462	1.91	-36.79	≤-18.09	PASS
11N20SISO	Ant1	Low	2412	-0.26	-33.44	≤-20.26	PASS
		High	2462	1.48	-38.39	≤-18.52	PASS
11N40SISO	Ant1	Low	2422	-0.12	-41.52	≤-20.12	PASS
		High	2452	0.34	-36.22	≤-19.66	PASS

Test Graphs:

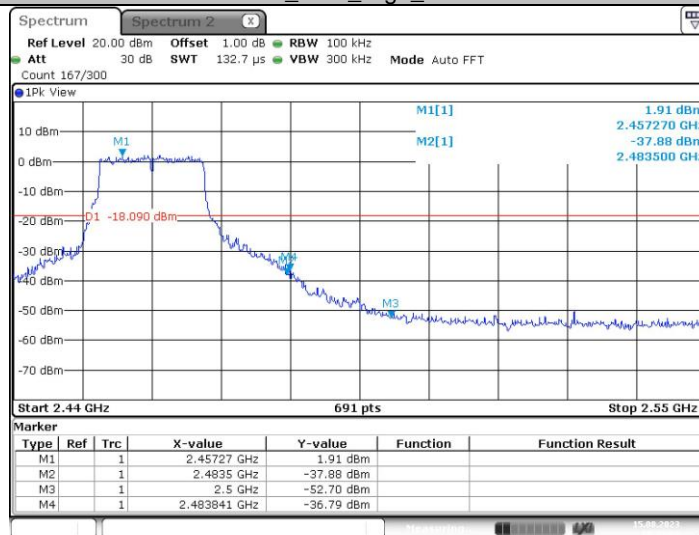


11G_Ant1_Low_2412



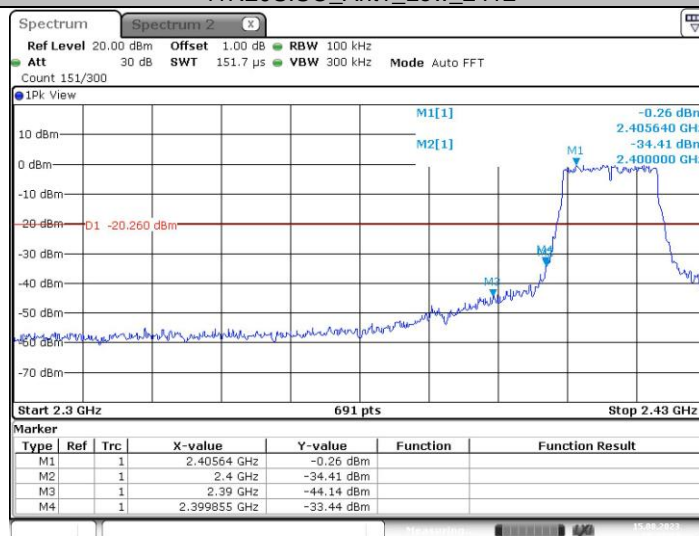
Date: 15.AUG.2023 19:29:02

11G_Ant1_High_2462



Date: 15.AUG.2023 19:33:00

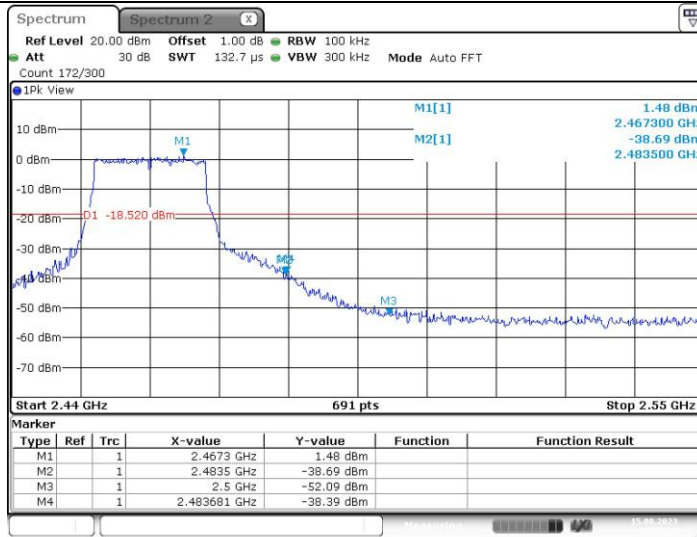
11N20SISO_Ant1_Low_2412



Date: 15.AUG.2023 19:34:53

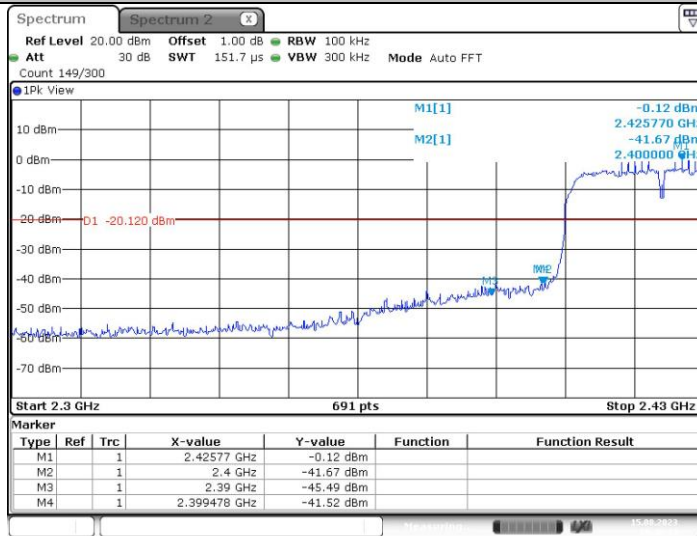
11N20SISO_Ant1_High_2462





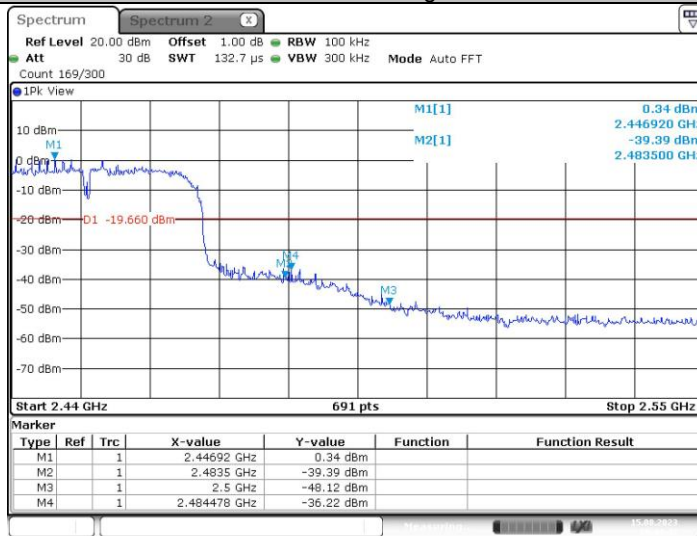
Date: 15.AUG.2023 19:38:21

11N40SISO_Ant1_Low_2422



Date: 15.AUG.2023 19:40:14

11N40SISO_Ant1_High_2452



Date: 15.AUG.2023 19:44:47



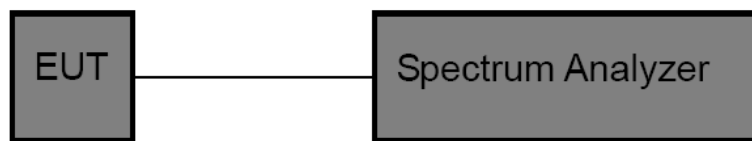
3.5. DTS Bandwidth

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2) / RSS-247 5.2 a

Test Item	Limit	Frequency Range (MHz)
DTS Bandwidth	≥500 kHz (6dB bandwidth)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. DTS Spectrum Setting:
 - (1) Set RBW = 100 kHz.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.OCB Spectrum Setting:
 - (1) Set RBW = 1% ~ 5% occupied bandwidth.
 - (2) Set the video bandwidth (VBW) ≥ 3 RBW.
 - (3) Detector = Peak.
 - (4) Trace mode = Max hold.
 - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

Test Mode

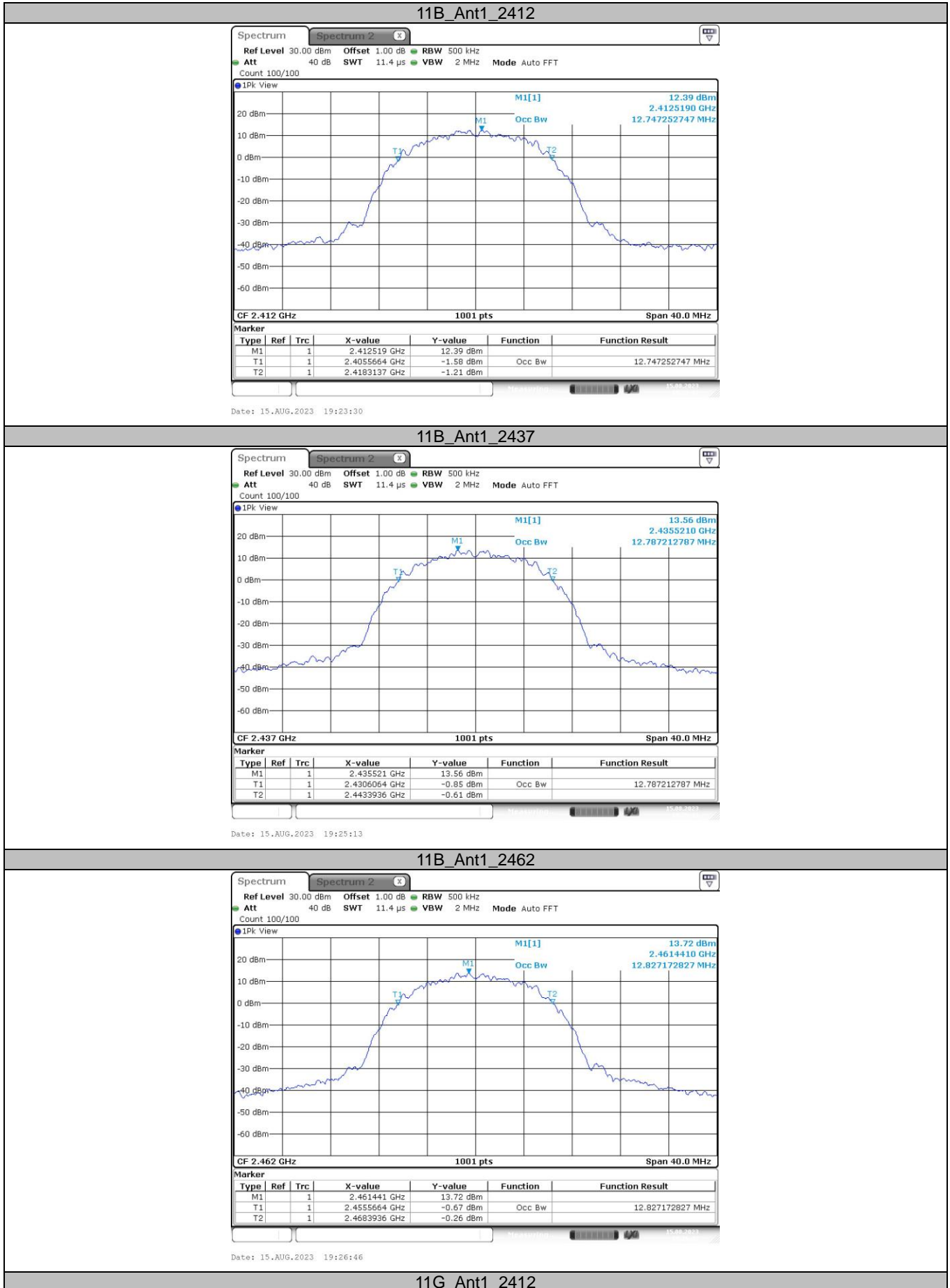
Please refer to the clause 2.4.

**Test Result**

Test Mode	Antenna	Channel	OCB [MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.747	7.96	0.5	PASS
		2437	12.787	8.08	0.5	PASS
		2462	12.827	9.08	0.5	PASS
11G	Ant1	2412	17.463	16.60	0.5	PASS
		2437	17.822	16.52	0.5	PASS
		2462	18.422	16.48	0.5	PASS
11N20SISO	Ant1	2412	18.781	17.84	0.5	PASS
		2437	18.941	17.64	0.5	PASS
		2462	18.501	17.64	0.5	PASS
11N40SISO	Ant1	2422	34.605	32.96	0.5	PASS
		2437	34.605	33.12	0.5	PASS
		2452	34.605	31.60	0.5	PASS



Occupied Bandwidth:

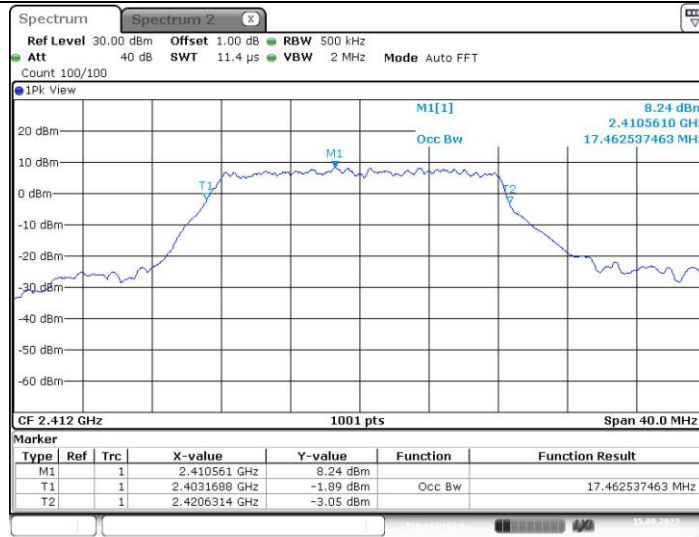


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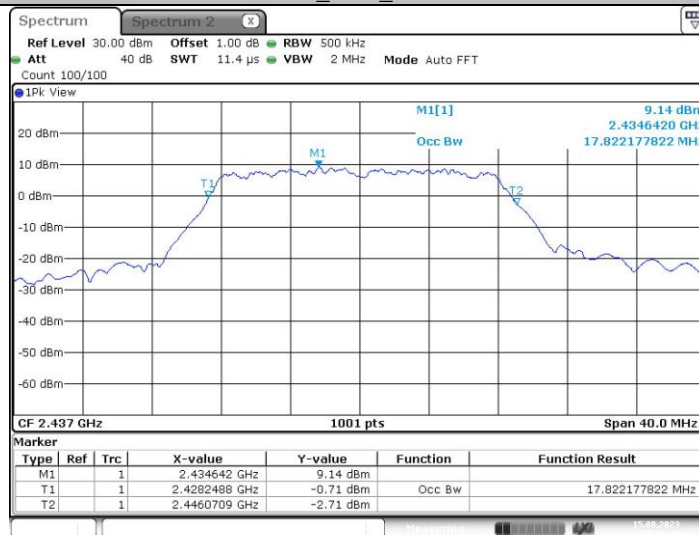


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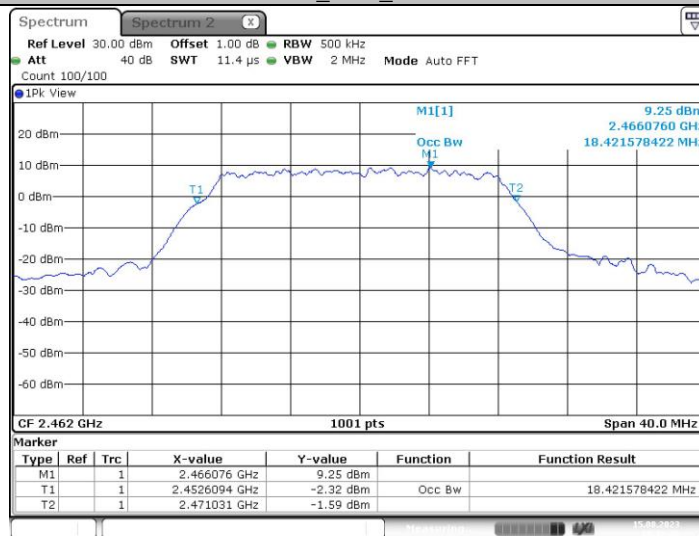
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11G_Ant1_2437



Date: 15.AUG.2023 19:30:43

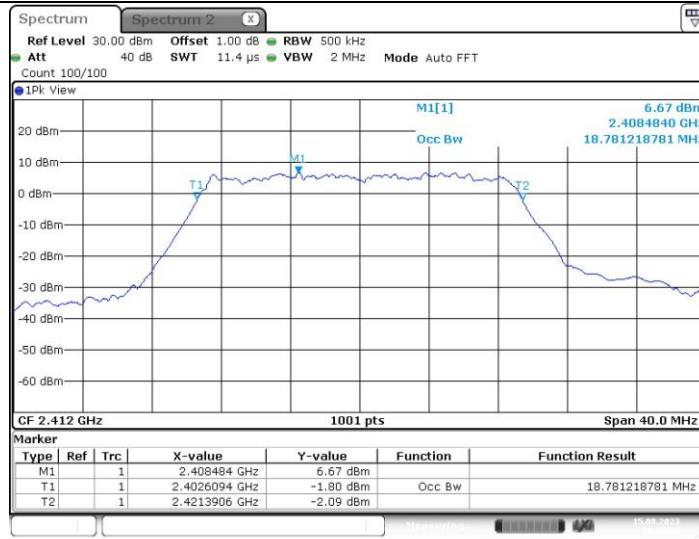
11G_Ant1_2462



Date: 15.AUG.2023 19:32:36

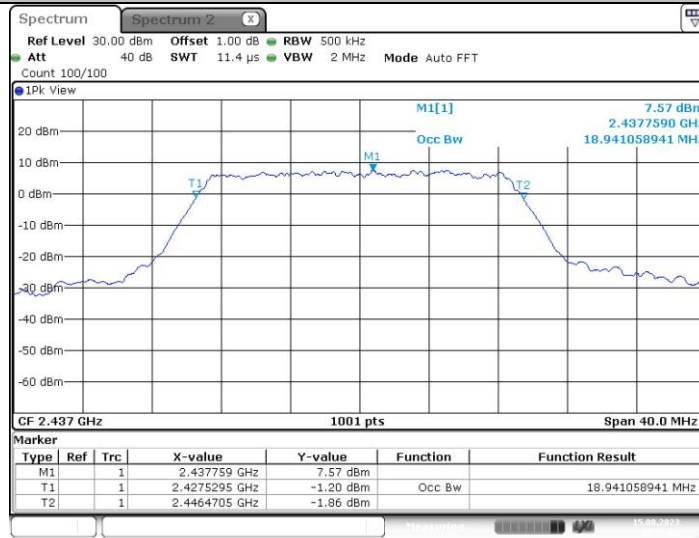
11N20SISO_Ant1_2412





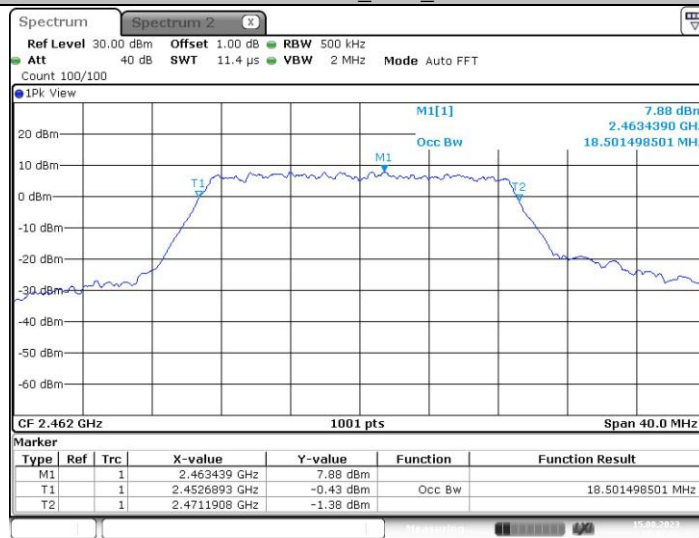
Date: 15.AUG.2023 19:34:29

11N20SISO_Ant1_2437



Date: 15.AUG.2023 19:36:21

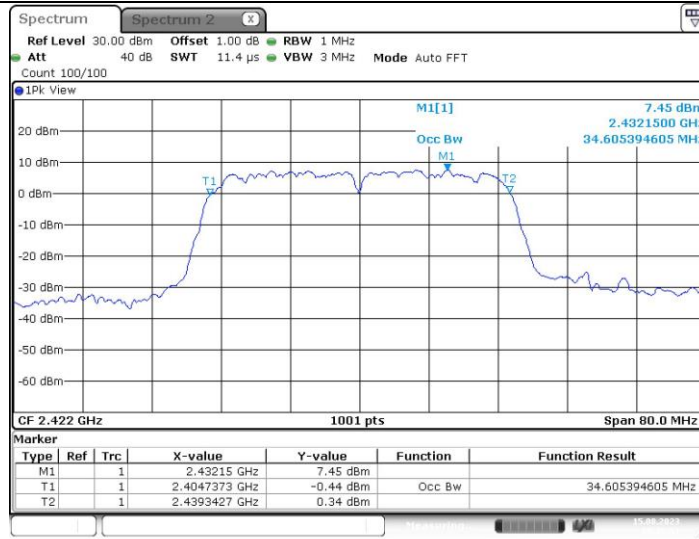
11N20SISO_Ant1_2462



Date: 15.AUG.2023 19:37:58

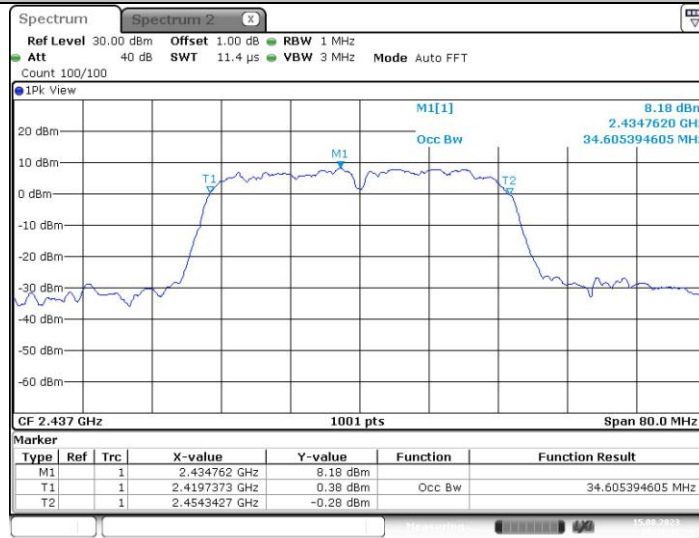
11N40SISO_Ant1_2422





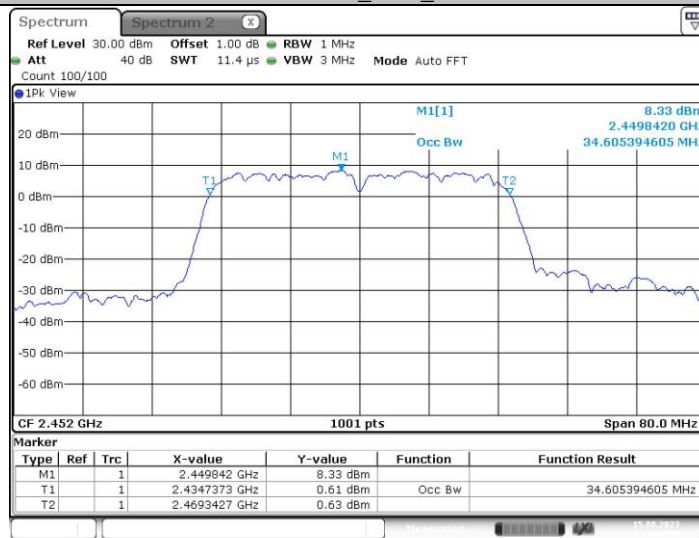
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11N40SISO_Ant1_2437



Date: 15.AUG.2023 19:41:48

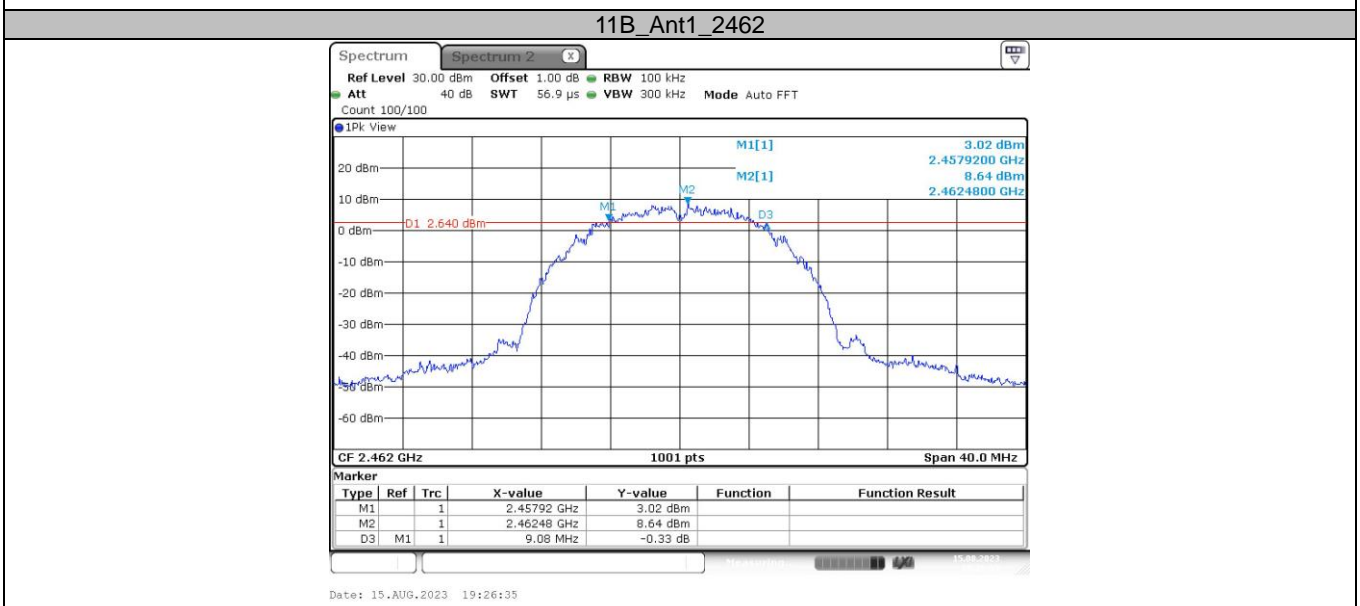
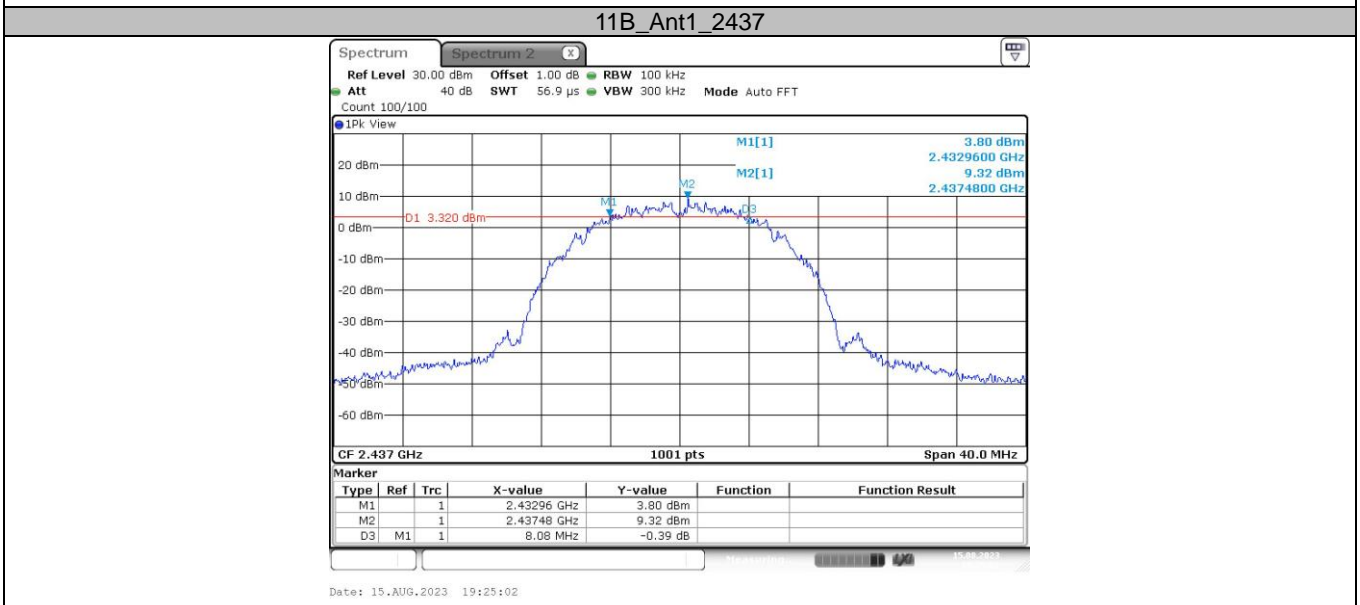
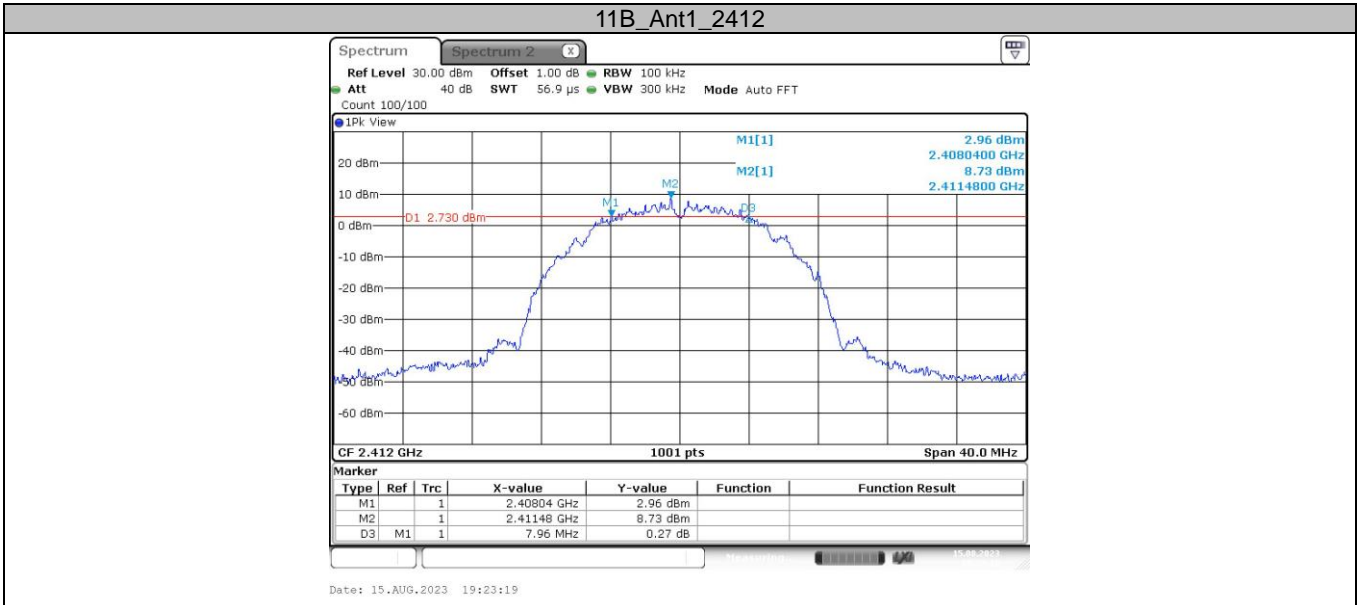
11N40SISO_Ant1_2452



Date: 15.AUG.2023 19:44:23

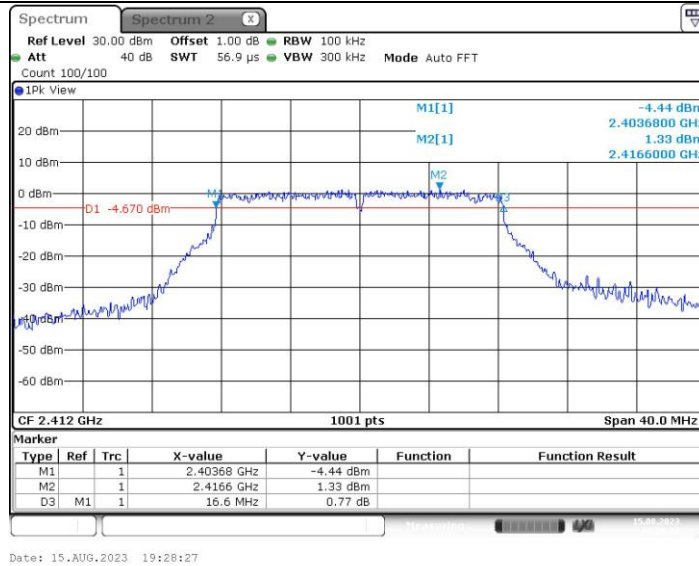


DTS Bandwidth:

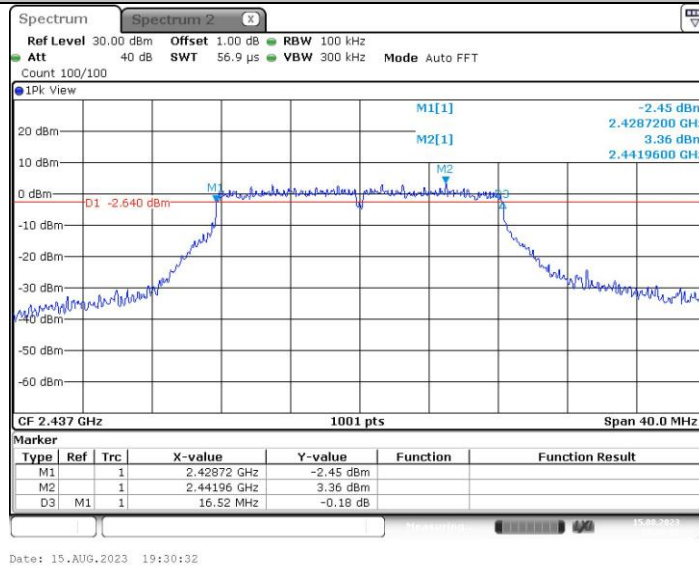


11G_Ant1_2412

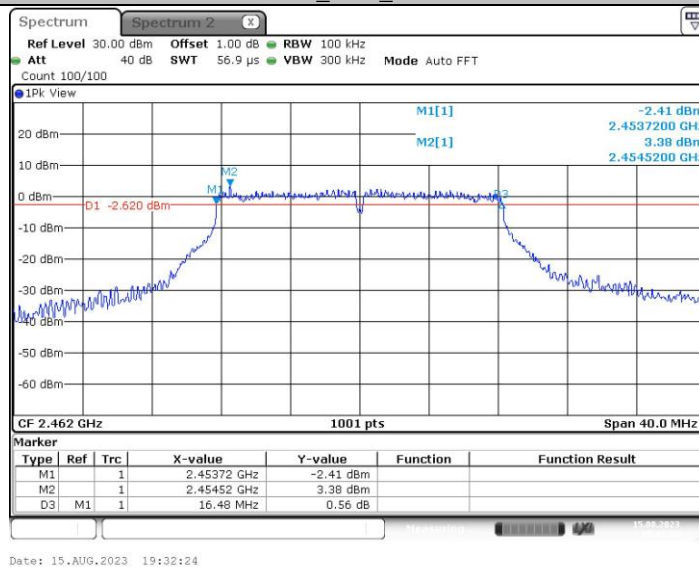




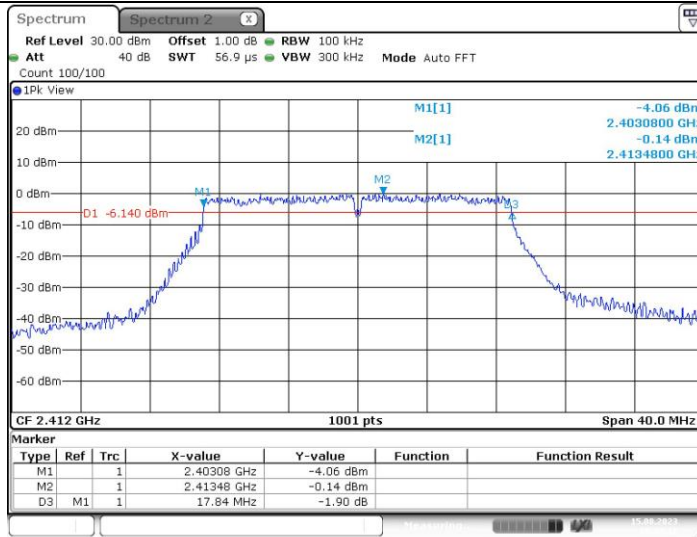
11G_Ant1_2437



11G_Ant1_2462

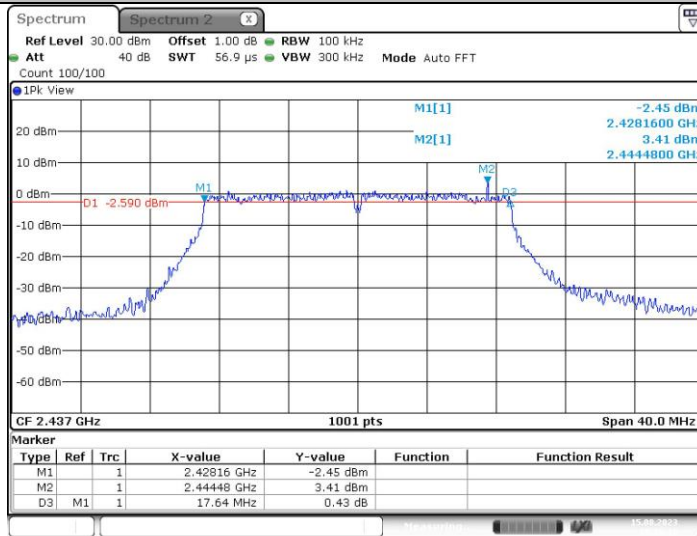


11N20SISO_Ant1_2412



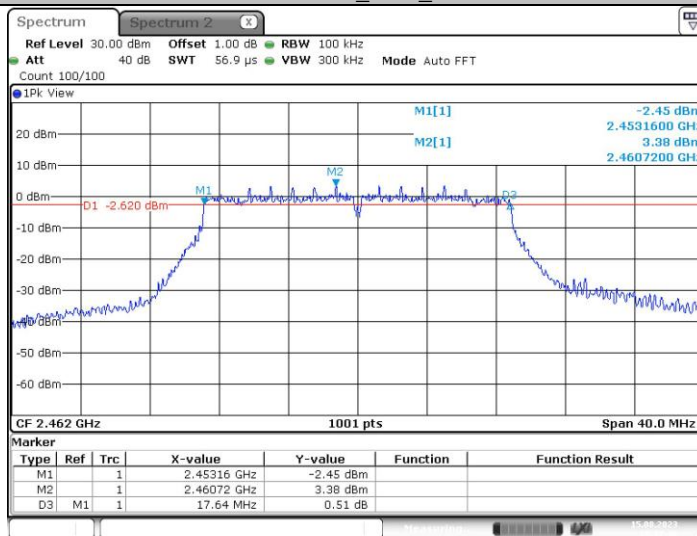
Date: 15.AUG.2023 19:34:18

11N20SISO_Ant1_2437



Date: 15.AUG.2023 19:36:10

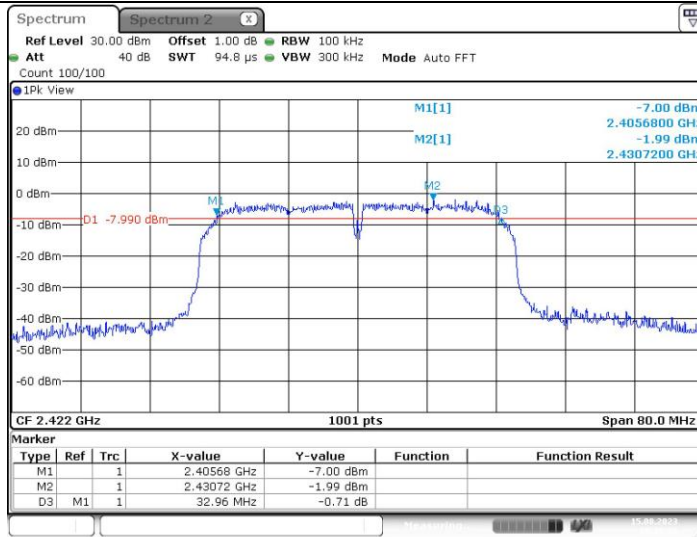
11N20SISO_Ant1_2462



Date: 15.AUG.2023 19:37:46

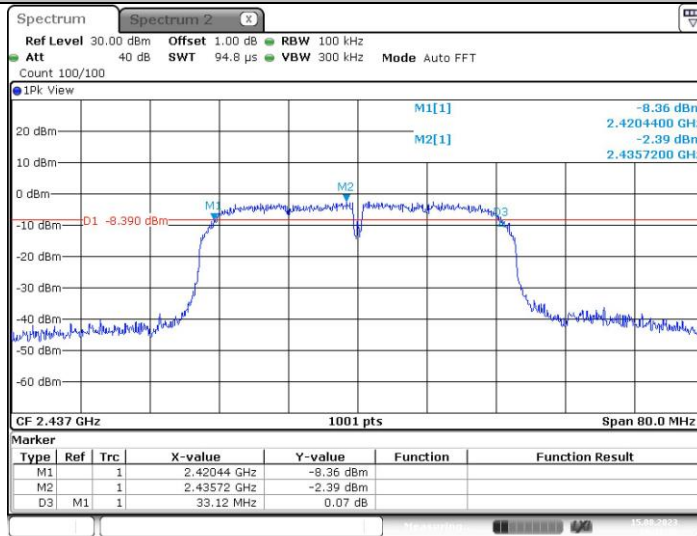
11N40SISO_Ant1_2422





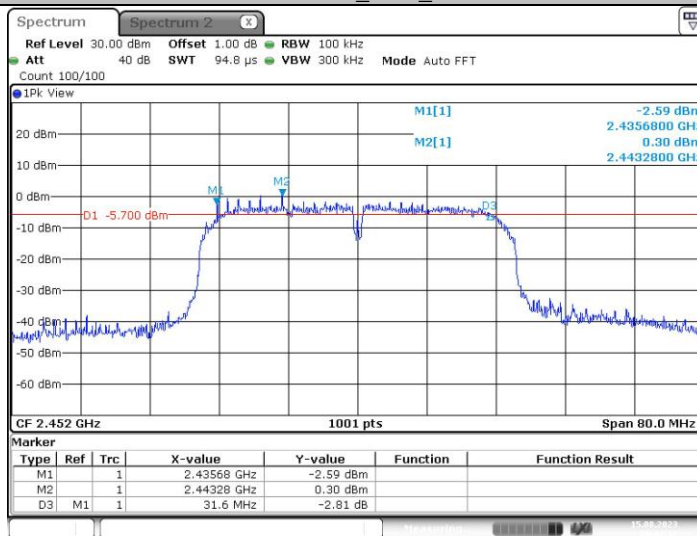
Date: 15.AUG.2023 19:39:39

11N40SISO_Ant1_2437



Date: 15.AUG.2023 19:41:36

11N40SISO_Ant1_2452



Date: 15.AUG.2023 19:44:11





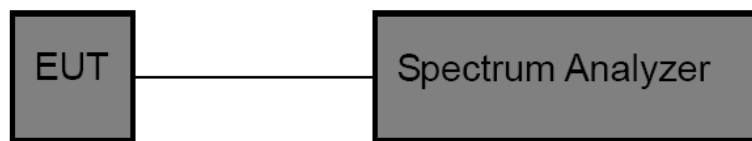
3.6. Peak Output Power

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3) / RSS-247 5.4 d

Section	Test Item	Limit	Frequency Range (MHz)
FCC CFR 47 Part 15.247 (b)(3)	Maximum Conducted Output Power	1 Watt or 30dBm	2400~2483.5
ISED RSS-247 5.4 d	EIRP	4 Watt or 36dBm	2400~2483.5

Test Configuration



Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- Spectrum Setting:
 - Set RBW \geq DTS Bandwidth.
 - Set VBW \geq 3*RBW.
 - Set Span \geq 3*RBW.
 - Sweep time = Auto couple.
 - Detector = Peak.
 - Trace mode = Max hold.
 Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

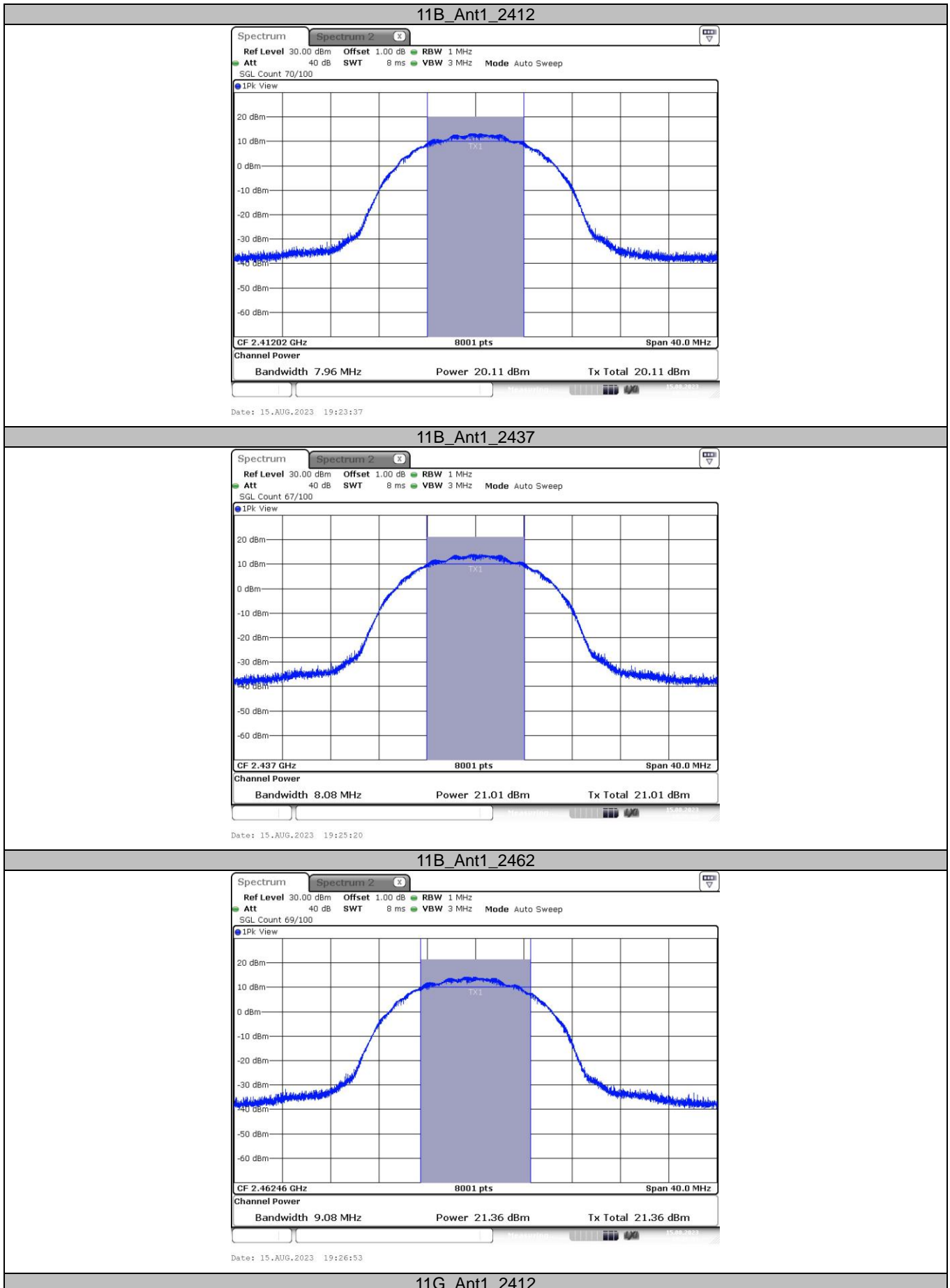
**Test Result**

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	20.11	≤30	PASS
		2437	21.01	≤30	PASS
		2462	21.36	≤30	PASS
11G	Ant1	2412	20.85	≤30	PASS
		2437	21.48	≤30	PASS
		2462	21.58	≤30	PASS
11N20SISO	Ant1	2412	19.79	≤30	PASS
		2437	20.51	≤30	PASS
		2462	20.81	≤30	PASS
11N40SISO	Ant1	2422	19.57	≤30	PASS
		2437	19.90	≤30	PASS
		2452	19.98	≤30	PASS

Test Mode	Antenna	Channel	Result[dBm]	EIRP[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	20.11	19.31	≤30	PASS
		2437	21.01	20.21	≤30	PASS
		2462	21.36	20.56	≤30	PASS
11G	Ant1	2412	20.85	20.05	≤30	PASS
		2437	21.48	20.68	≤30	PASS
		2462	21.58	20.78	≤30	PASS
11N20SISO	Ant1	2412	19.79	18.99	≤30	PASS
		2437	20.51	19.71	≤30	PASS
		2462	20.81	20.01	≤30	PASS
11N40SISO	Ant1	2422	19.57	18.77	≤30	PASS
		2437	19.90	19.10	≤30	PASS
		2452	19.98	19.18	≤30	PASS



Test Graphs:

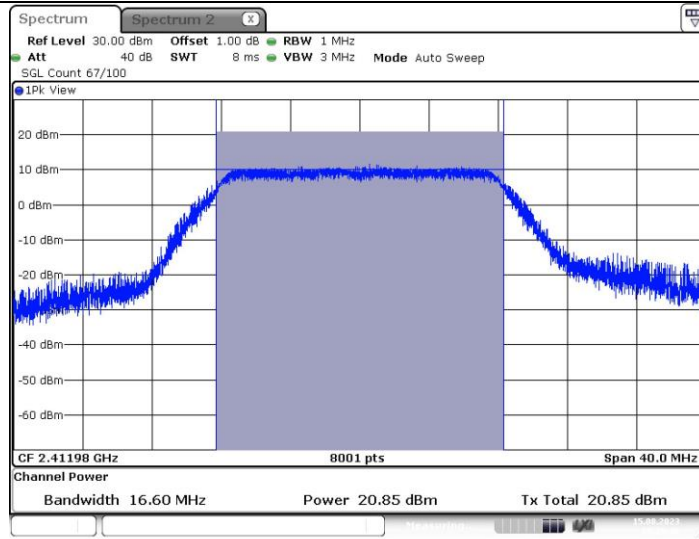


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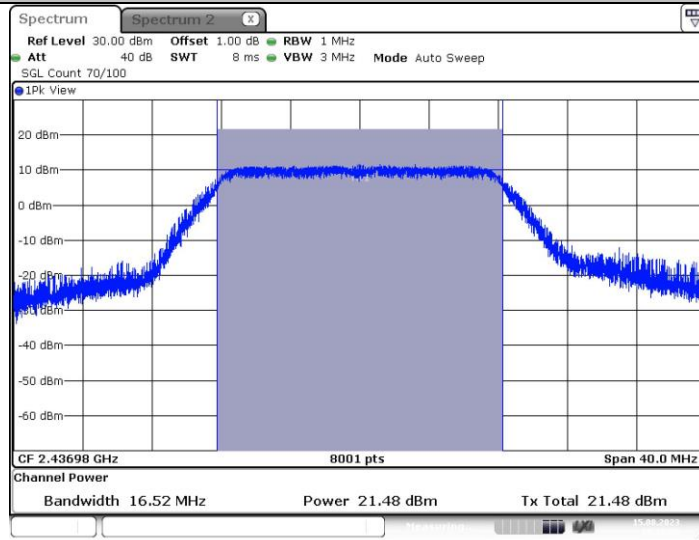
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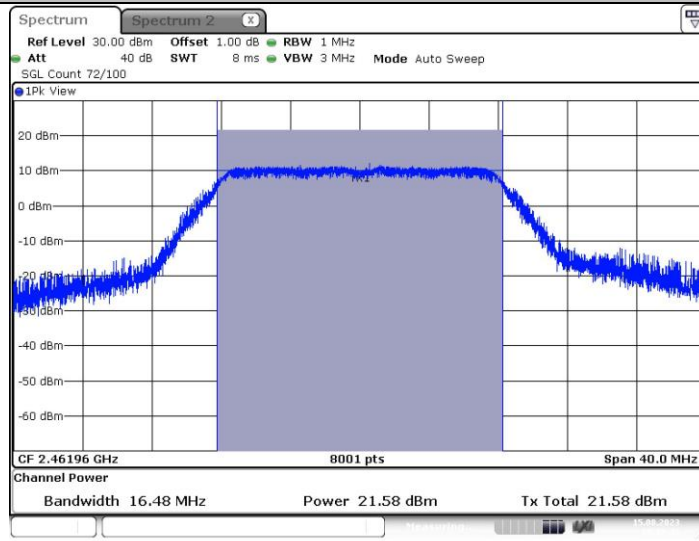
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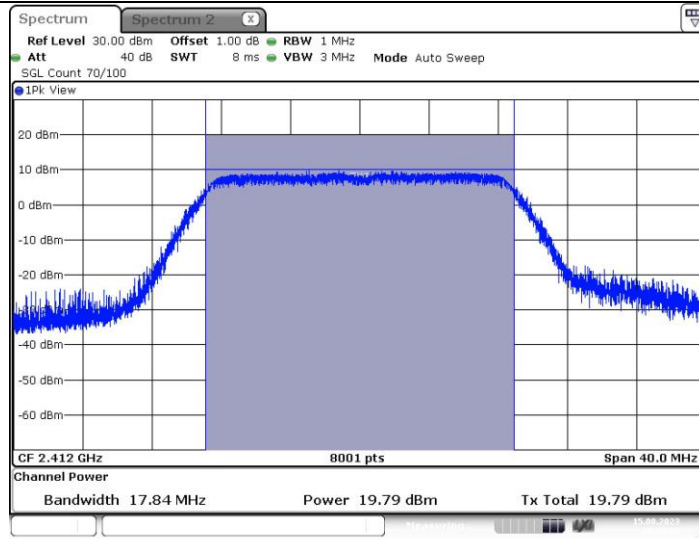
11G_Ant1_2437



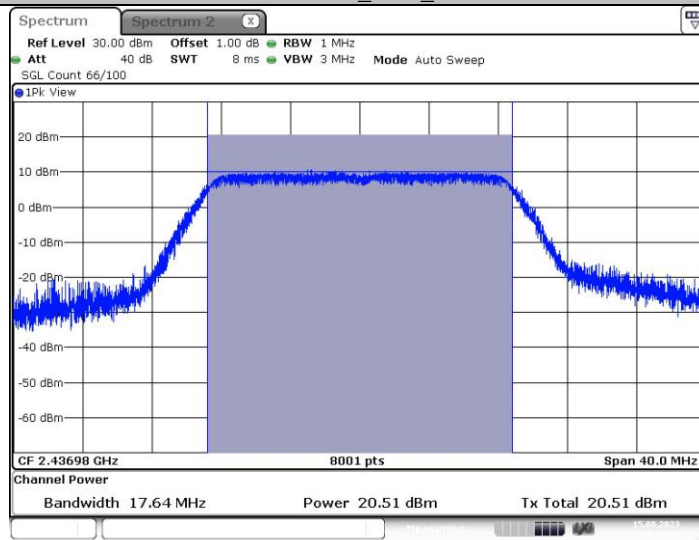
11G_Ant1_2462



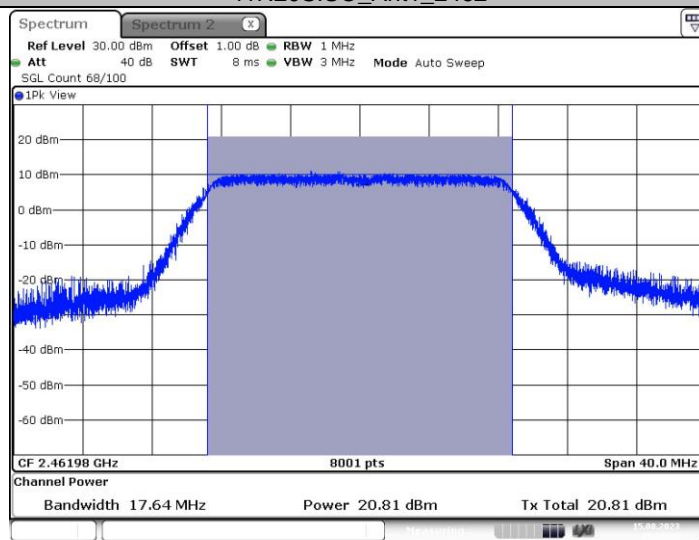
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

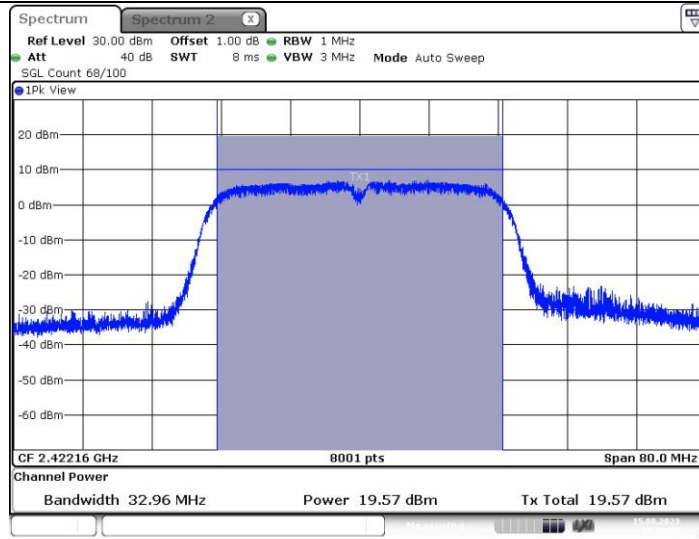


11N20SISO_Ant1_2462



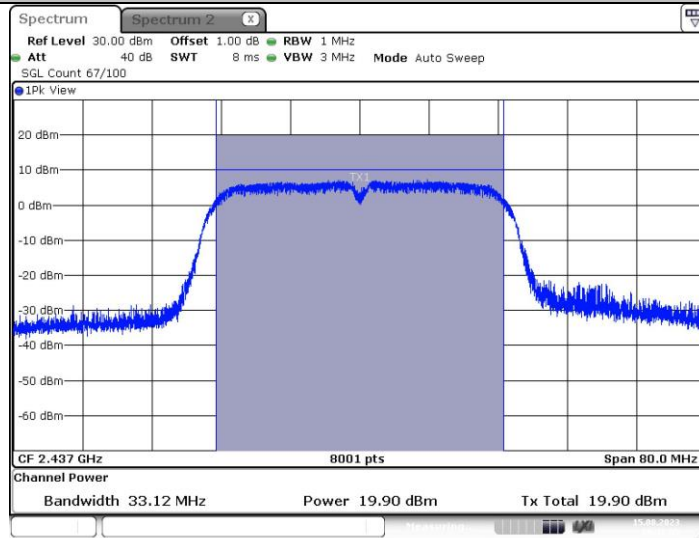
11N40SISO_Ant1_2422





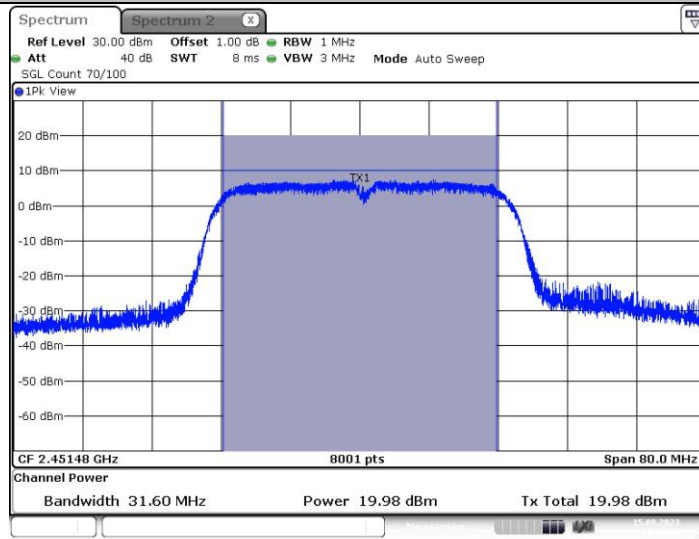
Date: 15.AUG.2023 19:39:57

11N40SISO_Ant1_2437



Date: 15.AUG.2023 19:41:54

11N40SISO_Ant1_2452



Date: 15.AUG.2023 19:44:30



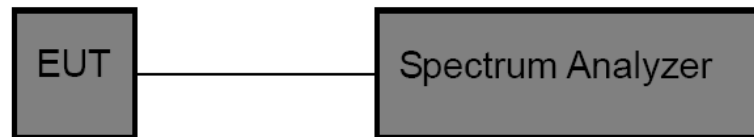
3.7. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e) / RSS-247 5.2 b

Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	8 dBm (in any 3 kHz)	2400~2483.5

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:
Set analyzer center frequency to DTS channel center frequency.
Set the span to 1.5 times the DTS bandwidth.
Set the RBW to: 3 kHz.
Set the VBW to: 10 kHz.
Detector: peak.
Sweep time: auto.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

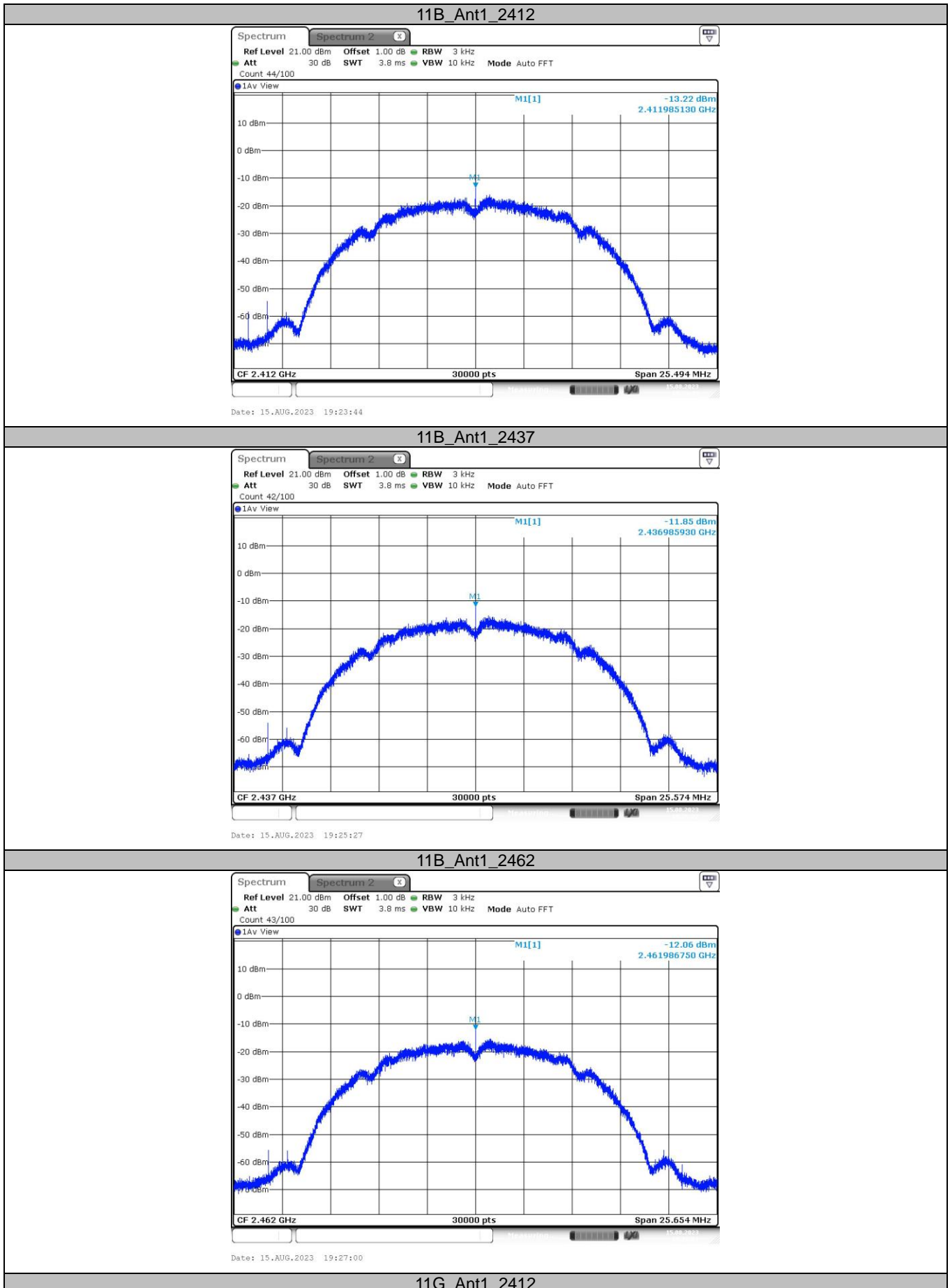


Test Result

Test Mode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.22	≤8	PASS
		2437	-11.85	≤8	PASS
		2462	-12.06	≤8	PASS
11G	Ant1	2412	-13.21	≤8	PASS
		2437	-12.90	≤8	PASS
		2462	-12.37	≤8	PASS
11N20SISO	Ant1	2412	-14.61	≤8	PASS
		2437	-13.73	≤8	PASS
		2462	-13.66	≤8	PASS
11N40SISO	Ant1	2422	-15.17	≤8	PASS
		2437	-14.59	≤8	PASS
		2452	-14.02	≤8	PASS



Test Graphs:

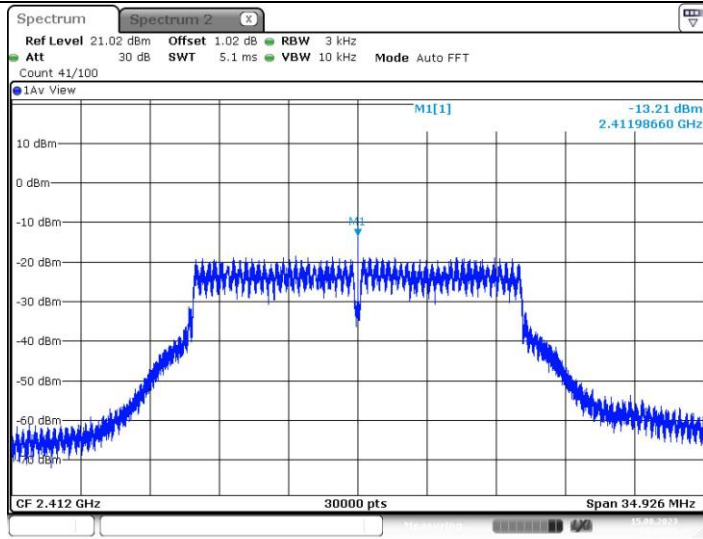


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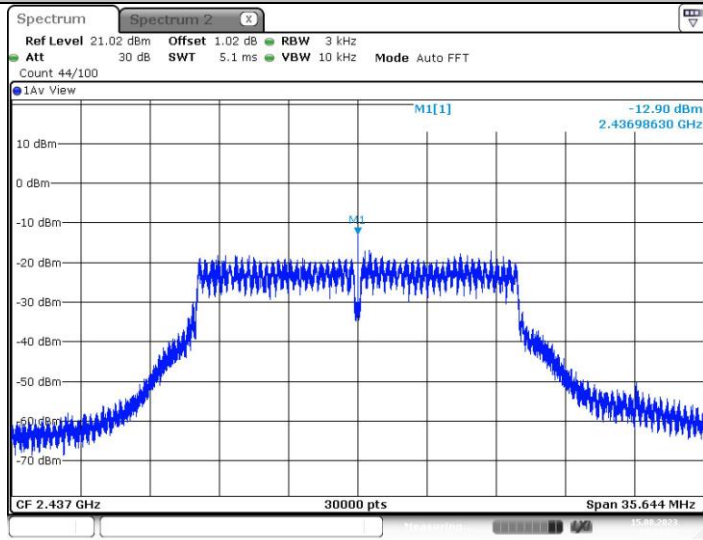
2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China
Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn



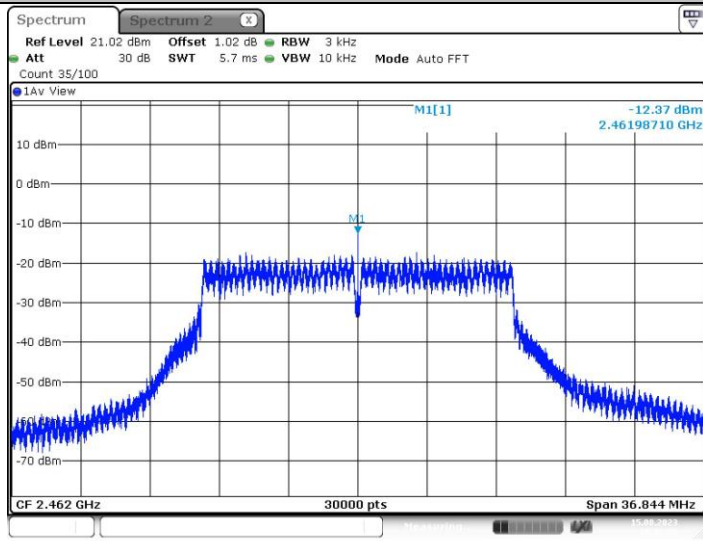
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11G_Ant1_2437

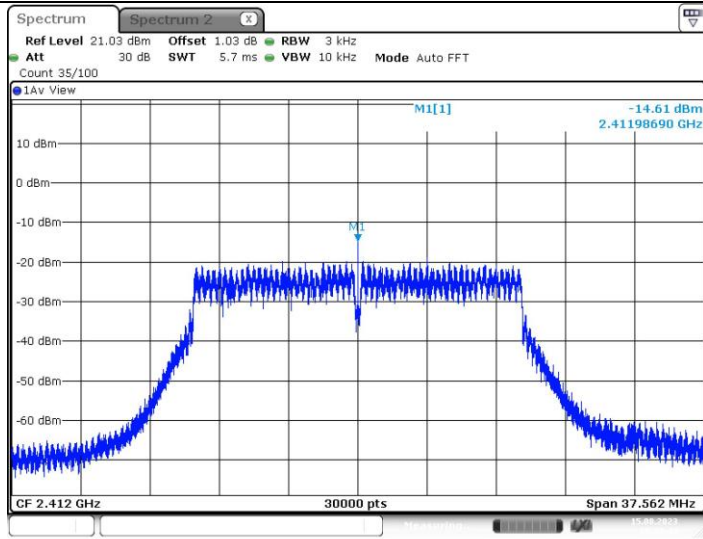


11G_Ant1_2462

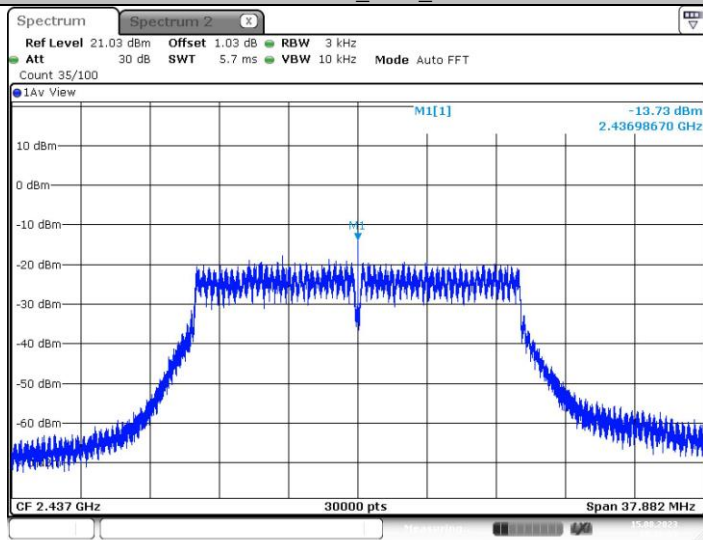


11N20SISO_Ant1_2412

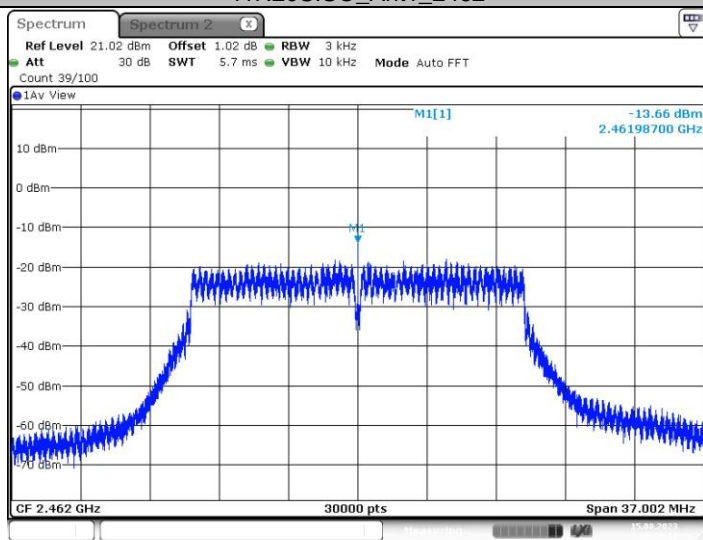




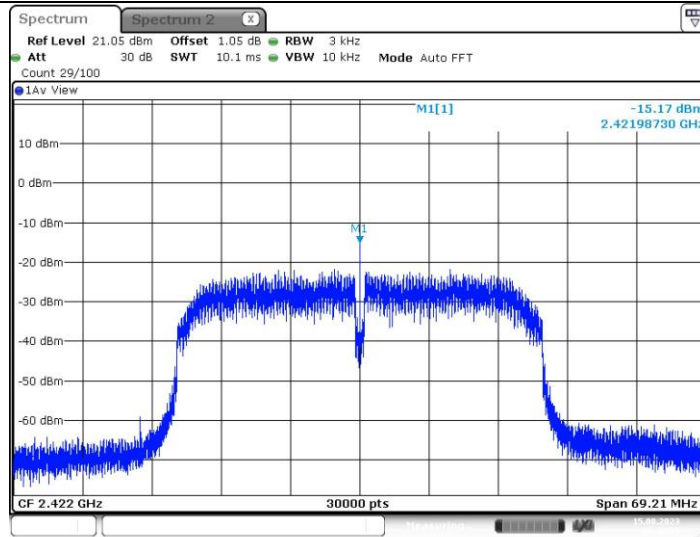
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462

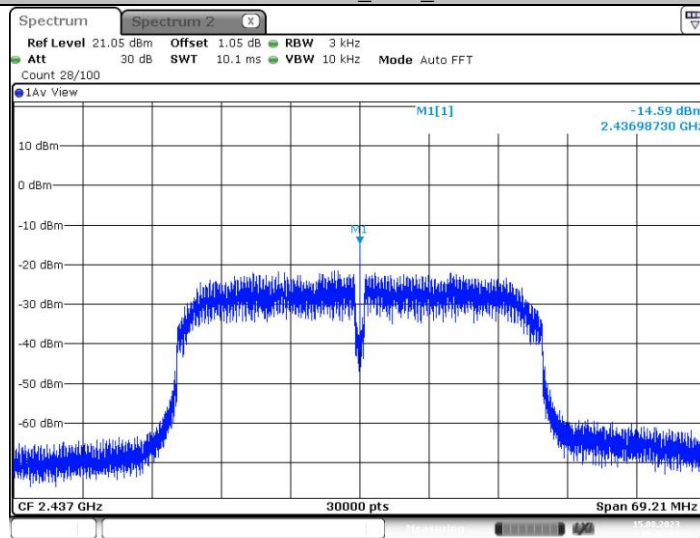


11N40SISO_Ant1_2422



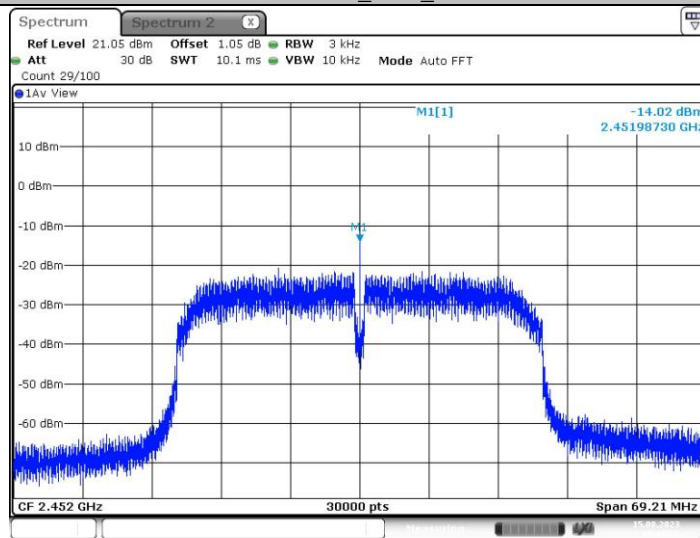
Date: 15.AUG.2023 19:40:04

11N40SISO_Ant1_2437



Date: 15.AUG.2023 19:42:02

11N40SISO_Ant1_2452



Date: 15.AUG.2023 19:44:37

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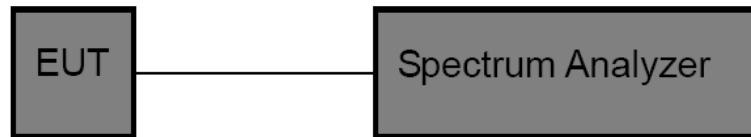


3.8. Duty Cycle

Limit

None, for report purposes only.

Test Configuration



Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:
Set analyzer center frequency to test channel center frequency.
Set the span to 0Hz.
Set the RBW to 10MHz.
Set the VBW to 10MHz.
Detector: Peak.
Sweep time: Auto.
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

Test Mode

Please refer to the clause 2.4.

**Test Result**

Test Mode	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T Minimum VBW (kHz)	Final Setting for VBW (kHz)
11B	2412	1.00	1.09	91.74	1.00	1
	2437	1.00	1.09	91.74	1.00	1
	2462	1.01	1.11	90.99	0.99	1
11G	2412	0.62	0.73	84.93	1.61	1
	2437	0.61	0.86	70.93	0.64	1
	2462	0.61	0.64	95.31	0.64	1
11N20SISO	2412	0.60	0.67	89.55	0.67	1
	2437	0.61	0.68	89.71	0.64	1
	2462	0.61	0.72	84.72	0.64	1
11N40SISO	2422	2.45	2.48	98.79	0.41	1
	2437	2.45	2.47	99.19	0.41	1
	2452	2.45	2.48	98.79	0.41	1

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Test Graphs:

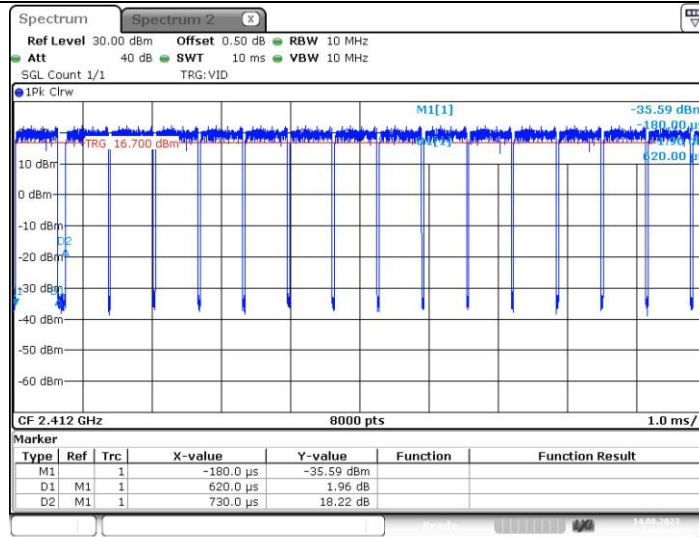


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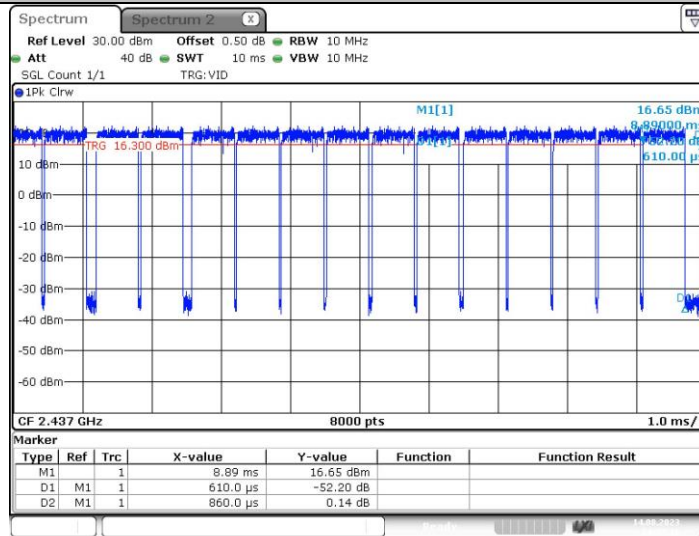


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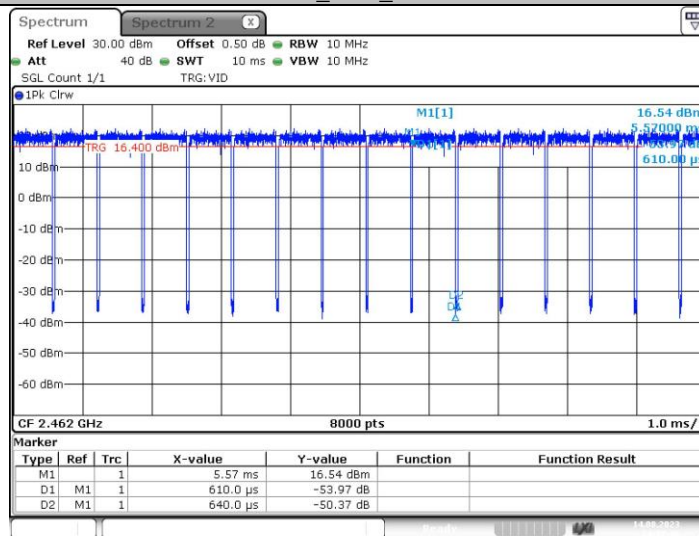
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11G_Ant1_2437



Date: 14.AUG.2023 14:34:17

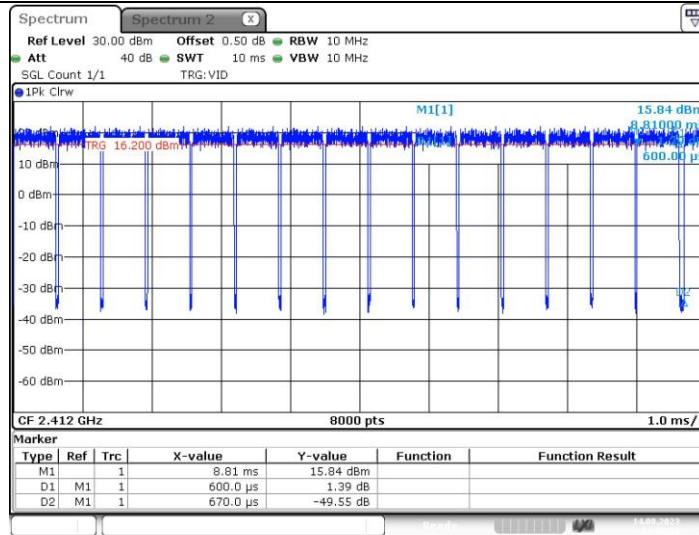
11G_Ant1_2462



Date: 14.AUG.2023 14:37:48

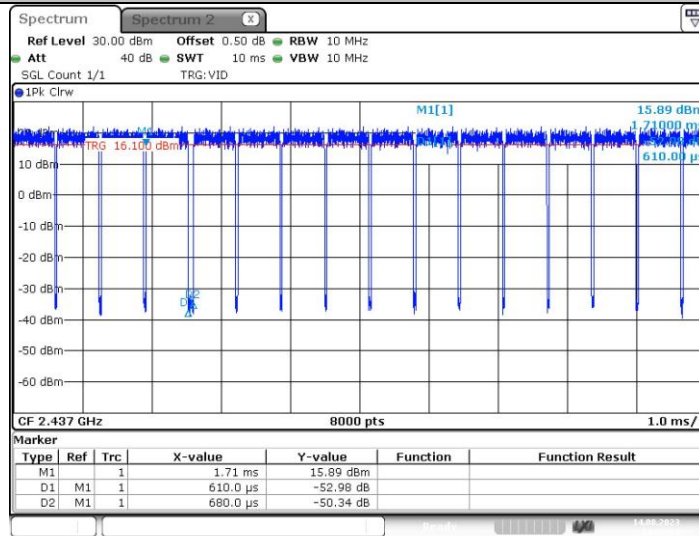
11N20SISO_Ant1_2412





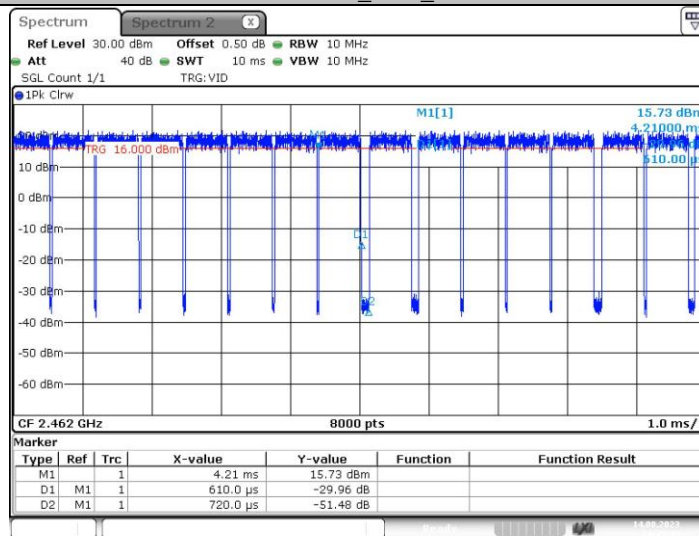
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11N20SISO_Ant1_2437



Date: 14.AUG.2023 14:43:55

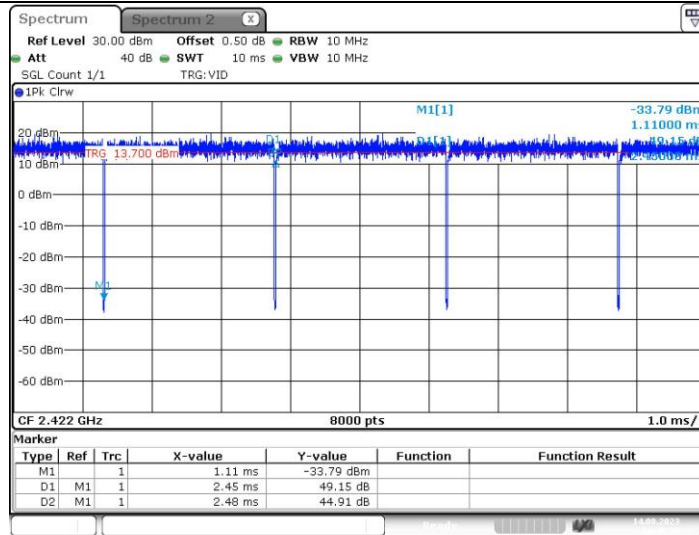
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Date: 14.AUG.2023 14:45:46

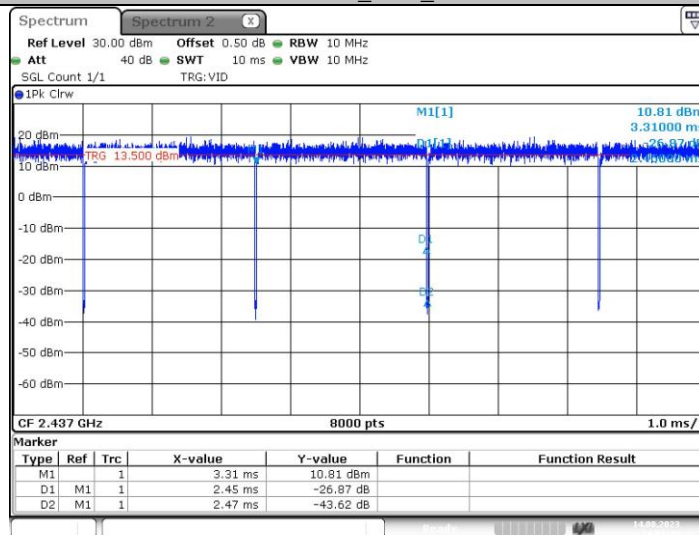
11N40SISO_Ant1_2422





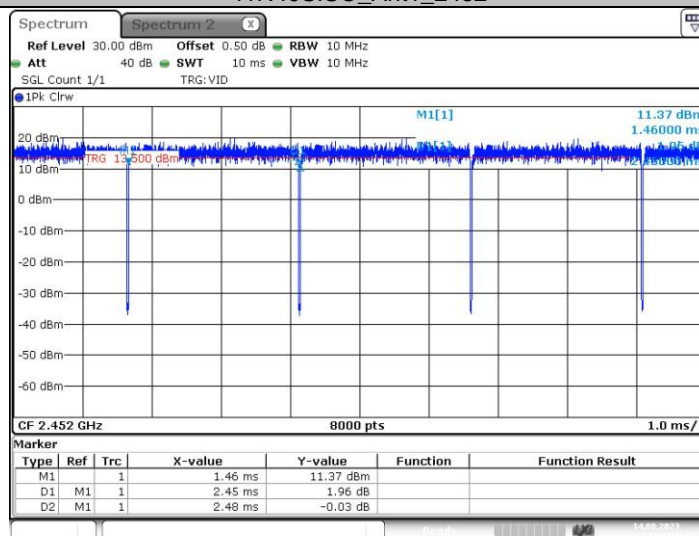
Date: 14.AUG.2023 14:49:34

11N40SISO_Ant1_2437



Date: 14.AUG.2023 14:51:48

11N40SISO_Ant1_2452



Date: 14.AUG.2023 14:54:03





3.9. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203

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 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.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i)

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The directional gain of the antenna is less than 6dBi, please refer to the EUT internal photographs antenna photo.

*****THE END*****