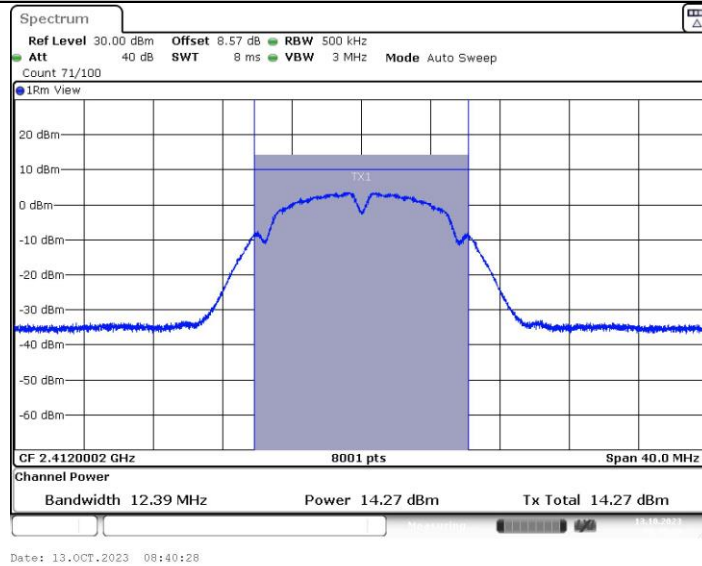
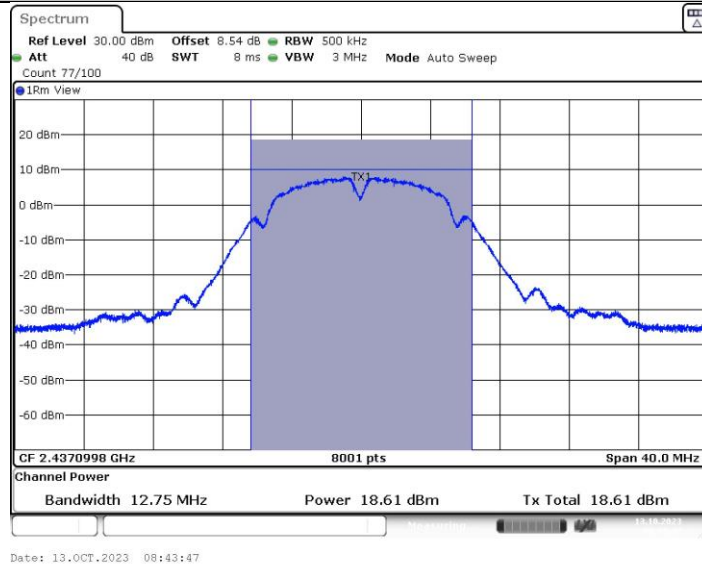


Mode	Frequency (MHz)	Power(dBm)	Limit (dBm)	Result
IEEE 802.11 b	CH1: 2412	14.27	30	PASS
	CH6: 2437	18.61	30	PASS
	CH11: 2462	12.68	30	PASS
IEEE 802.11 g	CH1: 2412	14.08	30	PASS
	CH6: 2437	16.60	30	PASS
	CH11: 2462	12.50	30	PASS
IEEE 802.11 n/HT20	CH1: 2412	12.40	30	PASS
	CH6: 2437	12.41	30	PASS
	CH11: 2462	12.50	30	PASS
IEEE 802.11 n/HT40	CH3: 2422	12.18	30	PASS
	CH6: 2437	12.42	30	PASS
	CH9: 2452	10.29	30	PASS

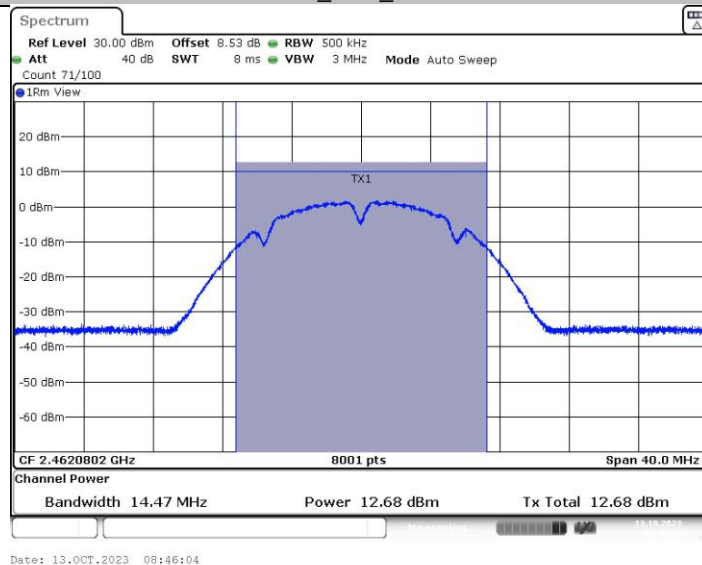
11B_Ant1_2412



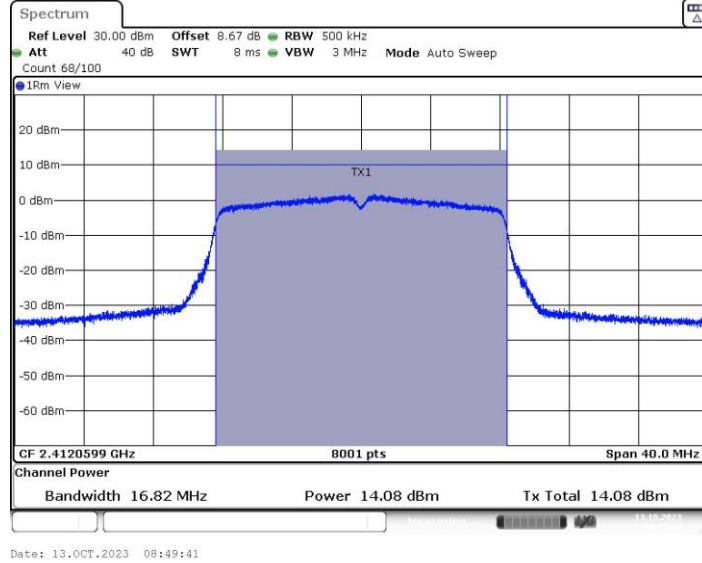
11B_Ant1_2437



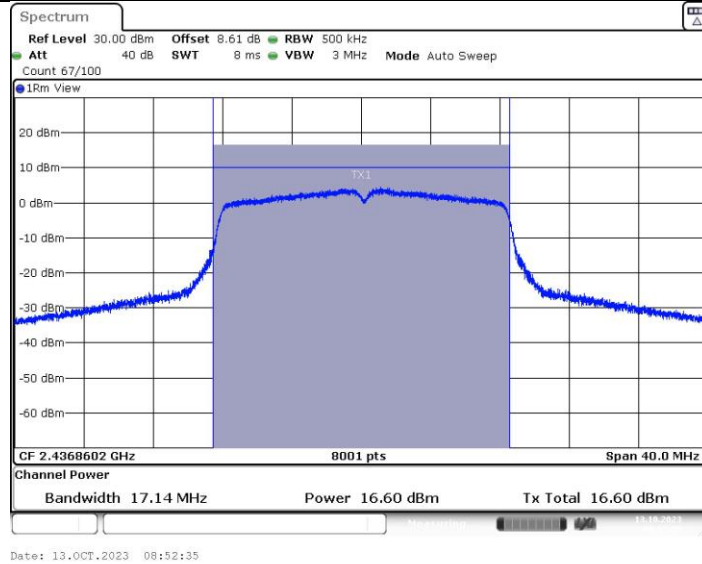
11B_Ant1_2462



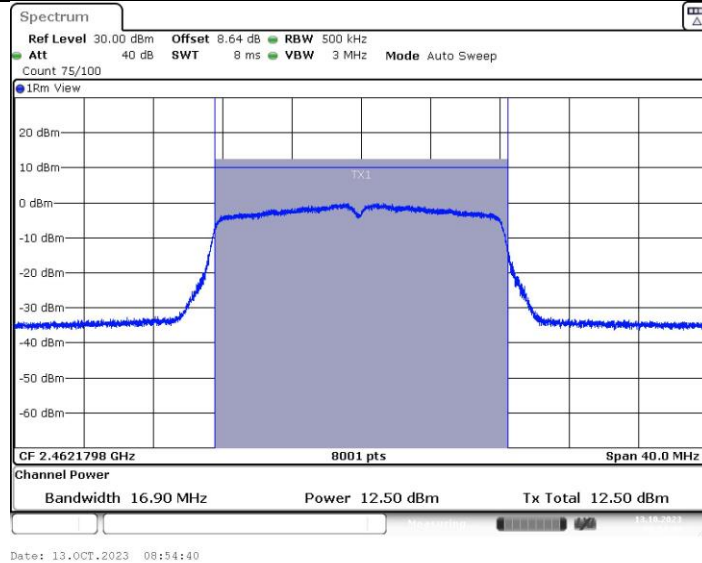
11G_Ant1_2412

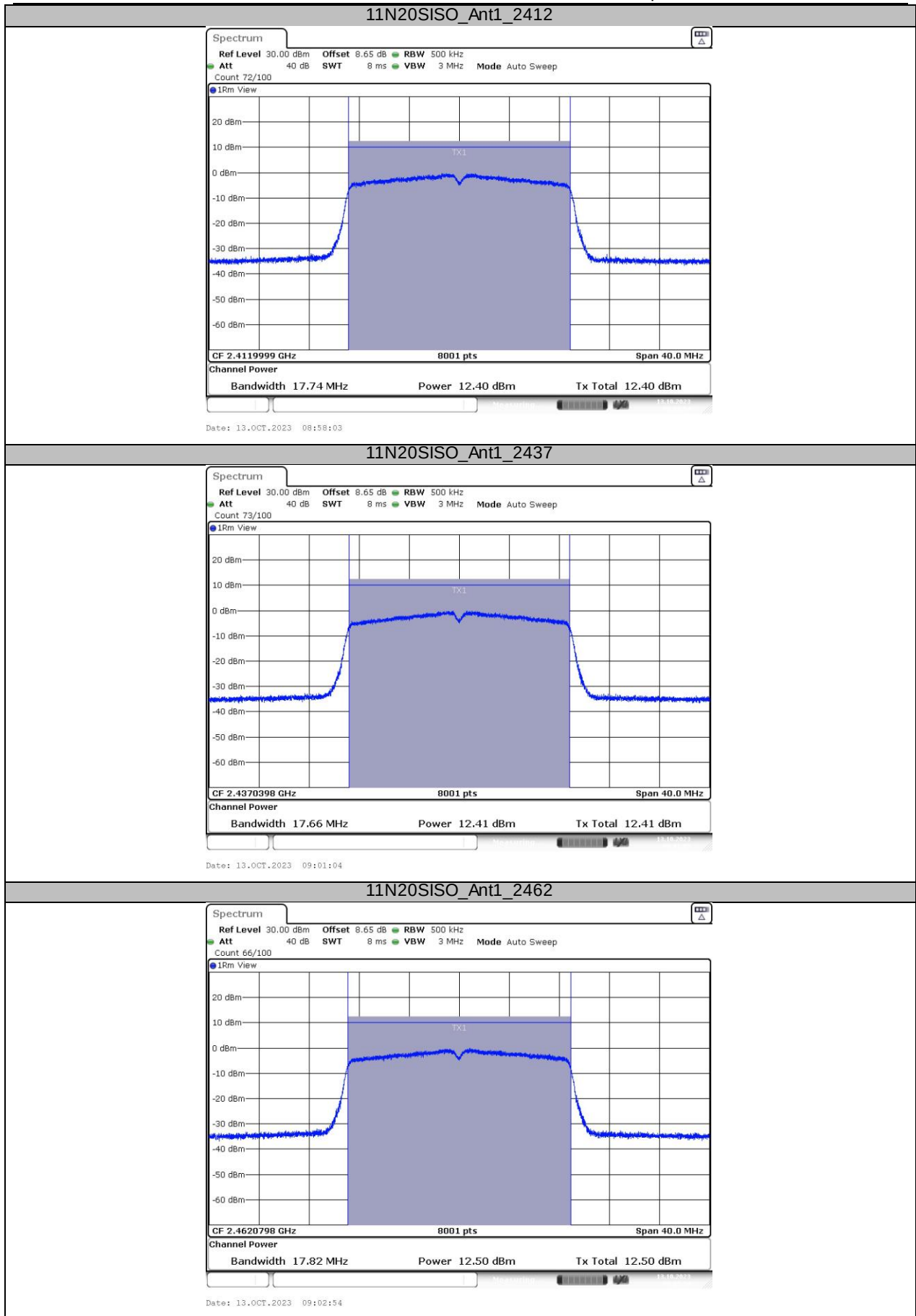


11G_Ant1_2437

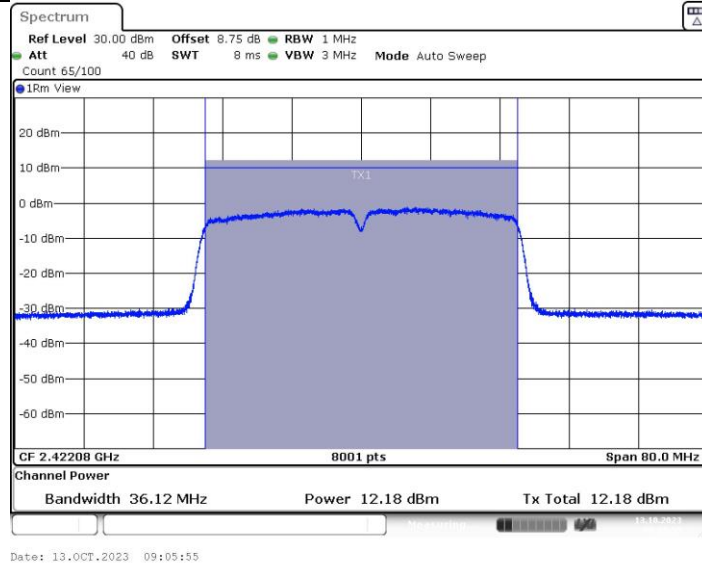


11G_Ant1_2462

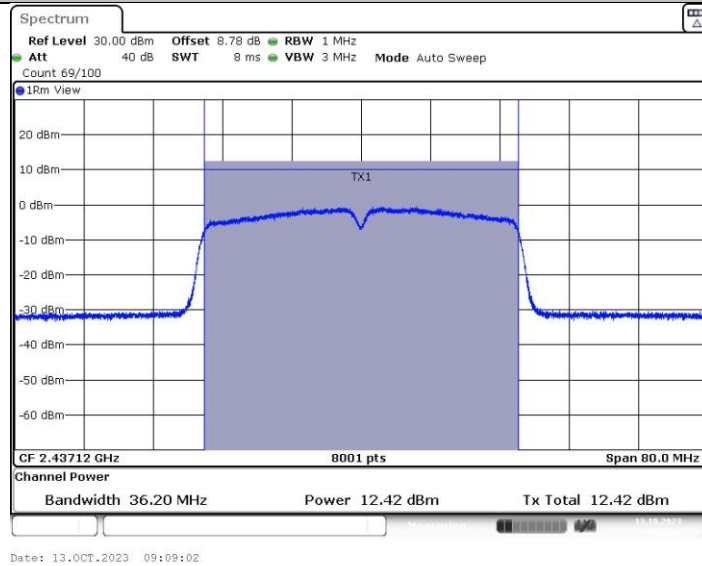




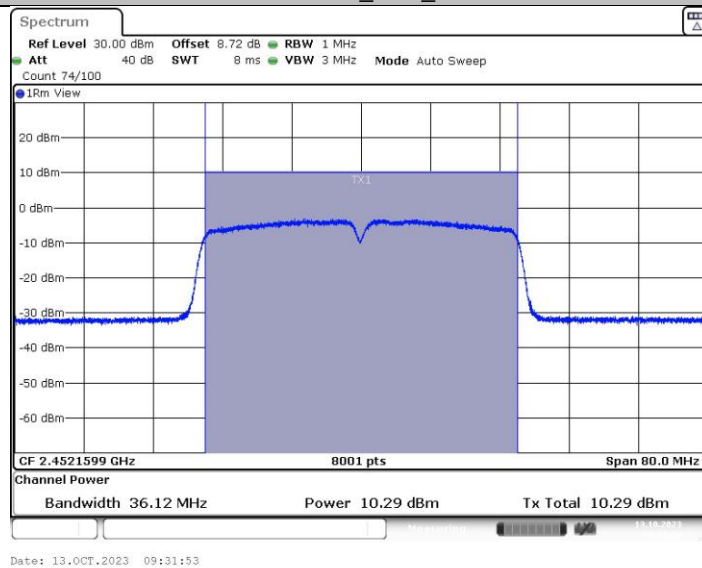
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



6. PEAK POWER SPECTRAL DENSITY

6.1. Test limits

6.1.1 Please refer RSS-247 & FCC PART 15: 15.247.

6.1.2 For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

6.1.3 The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

6.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

6.2.1 Place the EUT on the table and set it in transmitting mode.

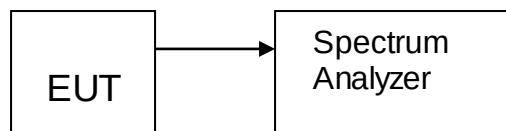
6.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

6.2.3 Set the spectrum analyzer as RBW = 3kHz (Set the RBW to: $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$), VBW = 10kHz (Set the VBW $\geq 3 \times \text{RBW}$), span $\geq 1.5 \times \text{DTS bandwidth}$., detail see the test plot.

6.2.4 Record the max reading.

6.2.5 Repeat the above procedure until the measurements for all frequencies are completed.

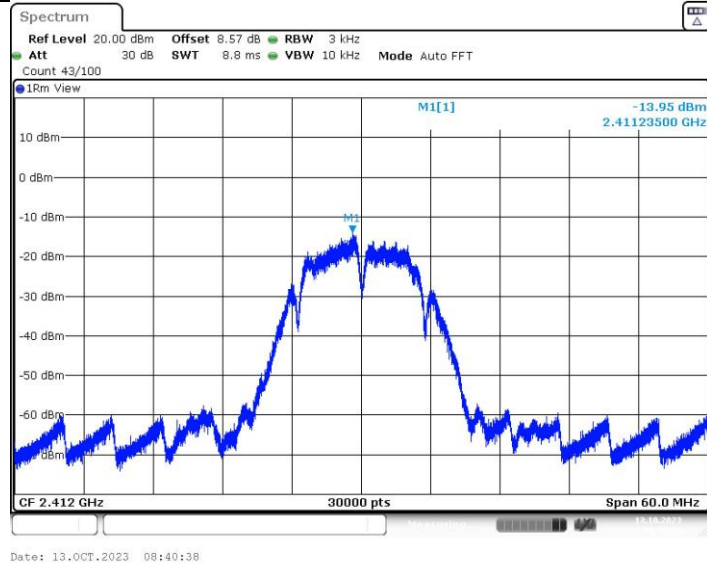
6.3. Test Setup



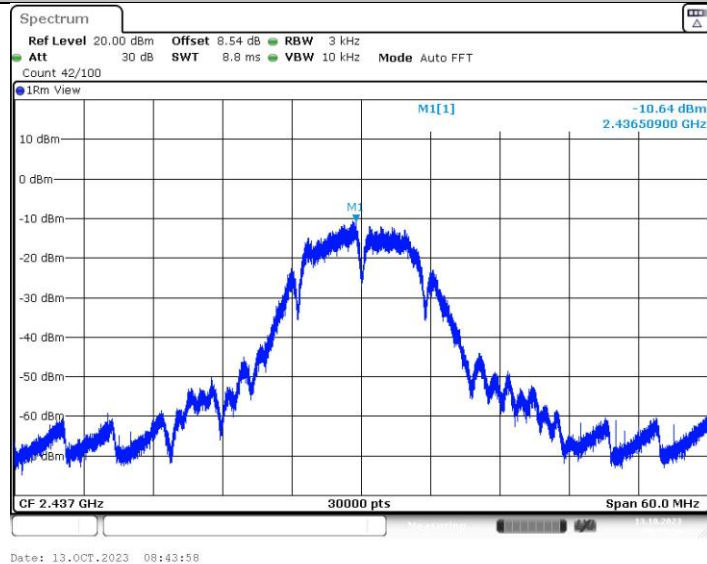
6.4. Test Results

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.95	≤8.00	PASS
		2437	-10.64	≤8.00	PASS
		2462	-17.39	≤8.00	PASS
11G	Ant1	2412	-16.91	≤8.00	PASS
		2437	-14.19	≤8.00	PASS
		2462	-18.21	≤8.00	PASS
11N20SISO	Ant1	2412	-18.37	≤8.00	PASS
		2437	-18.12	≤8.00	PASS
		2462	-18.43	≤8.00	PASS
11N40SISO	Ant1	2422	-21.61	≤8.00	PASS
		2437	-20.57	≤8.00	PASS
		2452	-23.04	≤8.00	PASS

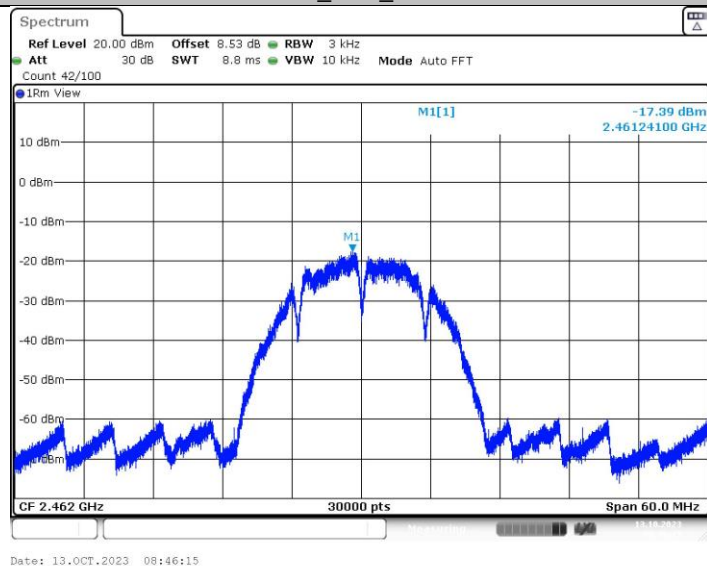
11B_Ant1_2412



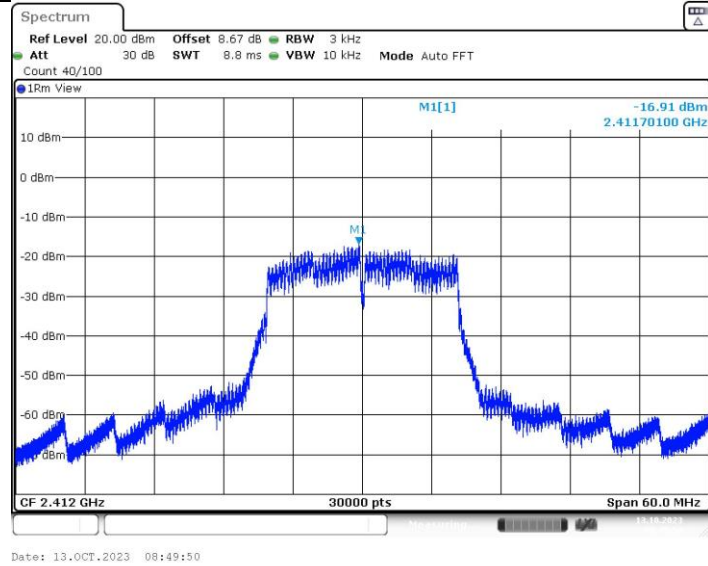
11B_Ant1_2437



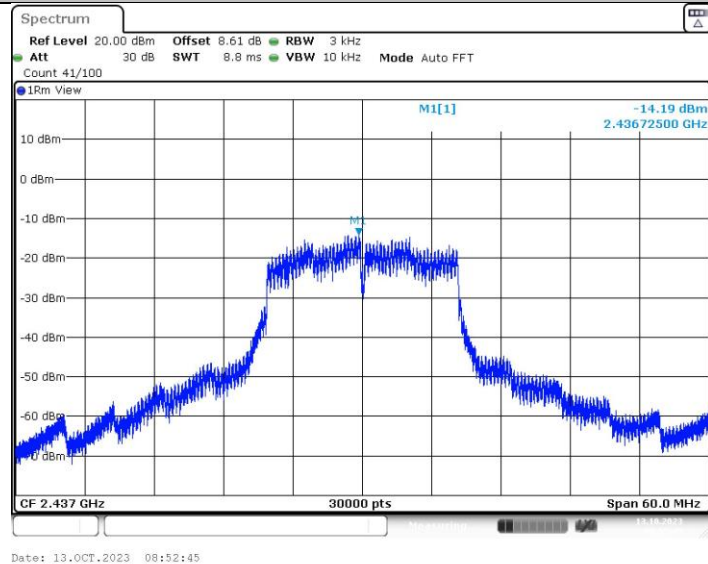
11B_Ant1_2462



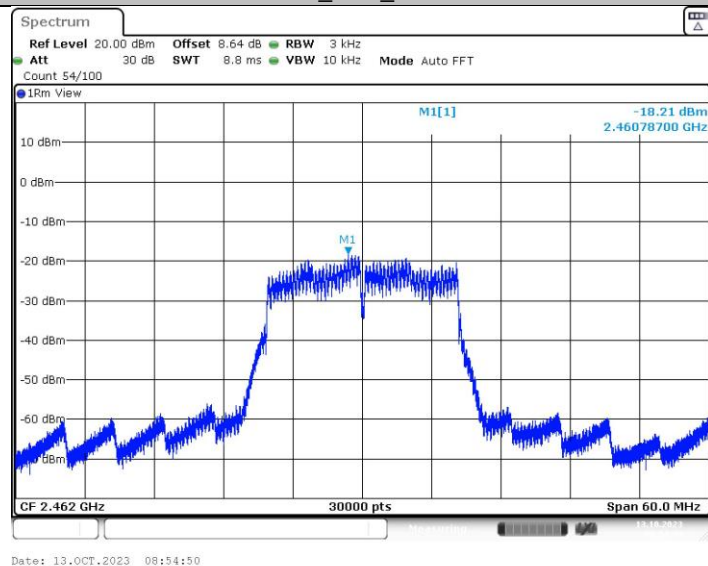
11G_Ant1_2412



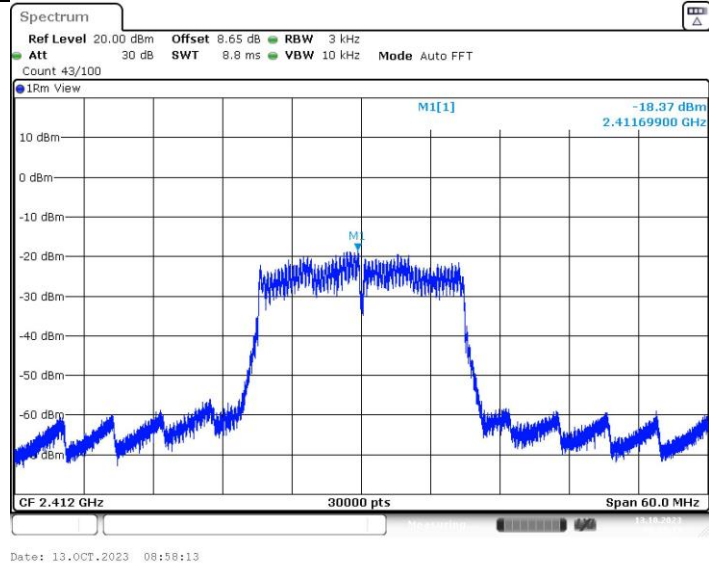
11G_Ant1_2437



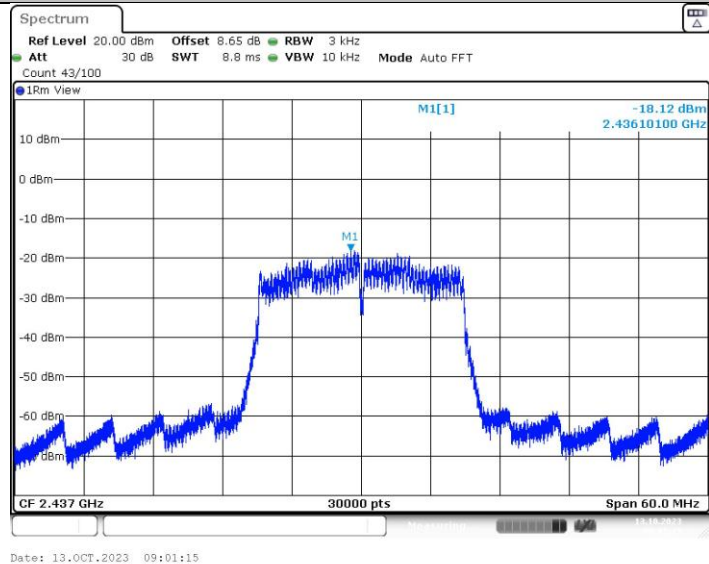
11G_Ant1_2462



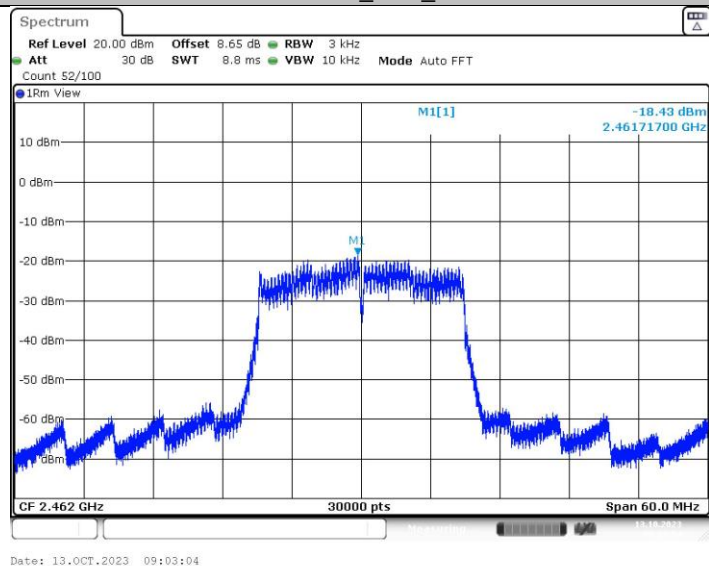
11N20SISO_Ant1_2412



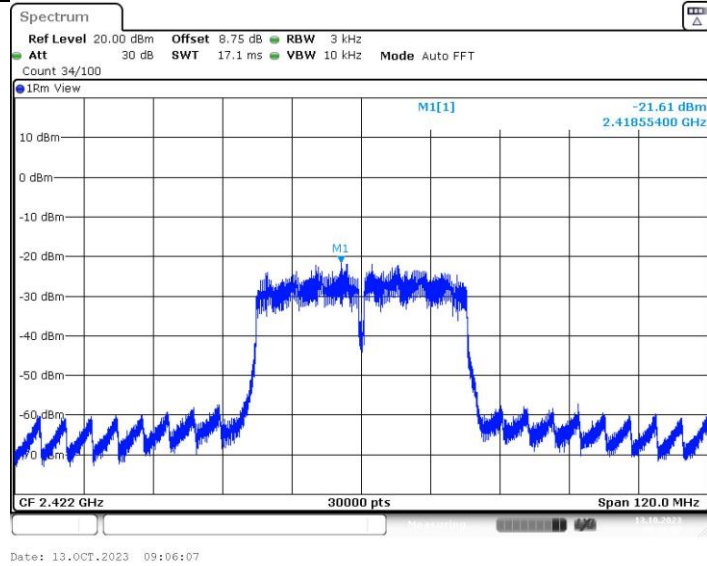
11N20SISO_Ant1_2437



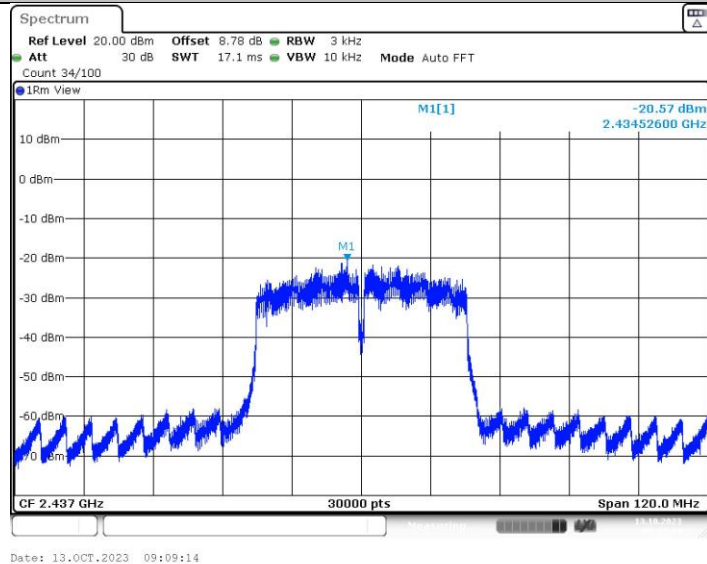
11N20SISO_Ant1_2462



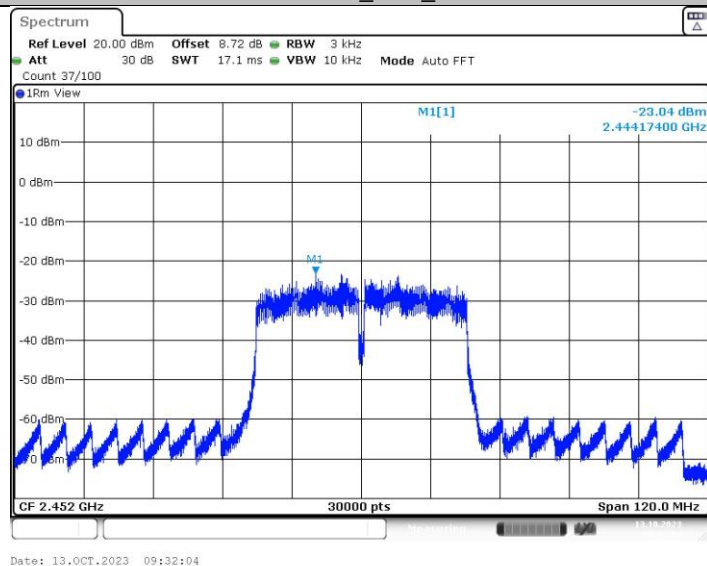
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



7. BANDWIDTH

7.1. Test limits

Please refer RSS-247 & FCC PART 15: 15.247

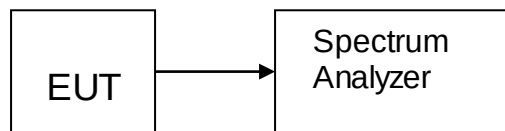
For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz.

7.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

- The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.
- The test receiver set RBW = 100kHz, VBW $\geq$ 3*RBW =300kHz,, Peak Detector, Sweep time set auto, detail see the test plot.

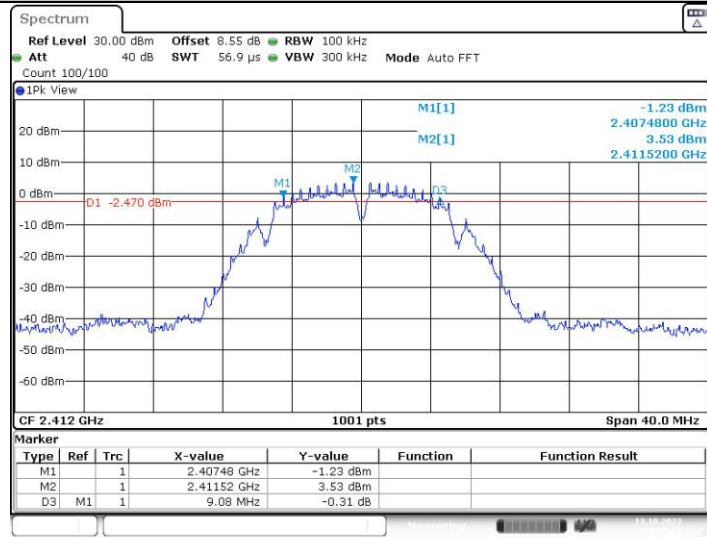
7.3. Test Setup



7.4. Test Results

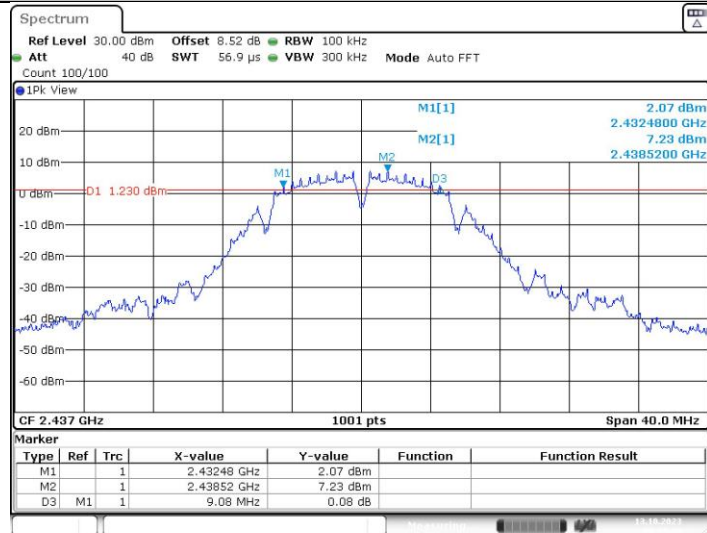
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.08	2407.48	2416.56	0.5	PASS
		2437	9.08	2432.48	2441.56	0.5	PASS
		2462	10.04	2457.00	2467.04	0.5	PASS
11G	Ant1	2412	16.36	2403.84	2420.20	0.5	PASS
		2437	13.92	2430.68	2444.60	0.5	PASS
		2462	16.32	2453.88	2470.20	0.5	PASS
11N20SISO	Ant1	2412	17.56	2403.24	2420.80	0.5	PASS
		2437	16.84	2428.60	2445.44	0.5	PASS
		2462	15.96	2454.44	2470.40	0.5	PASS
11N40SISO	Ant1	2422	35.12	2404.40	2439.52	0.5	PASS
		2437	35.04	2419.56	2454.60	0.5	PASS
		2452	35.20	2434.40	2469.60	0.5	PASS

11B_Ant1_2412



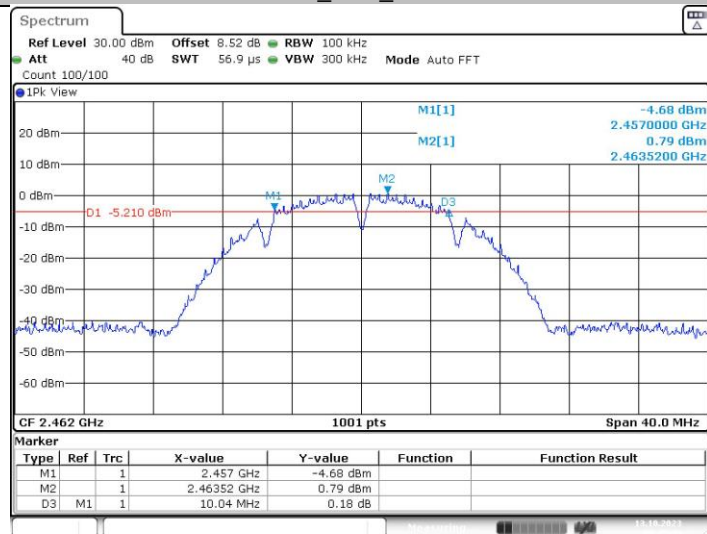
Date: 13.OCT.2023 08:40:11

11B_Ant1_2437



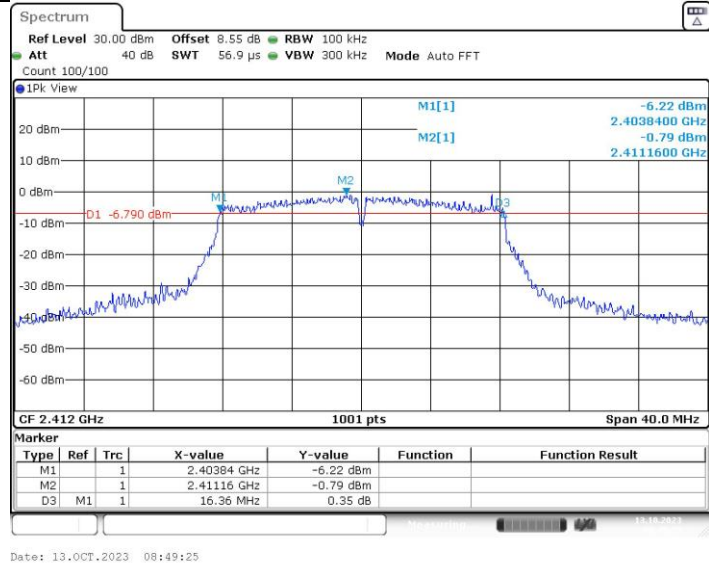
Date: 13.OCT.2023 08:43:30

11B_Ant1_2462

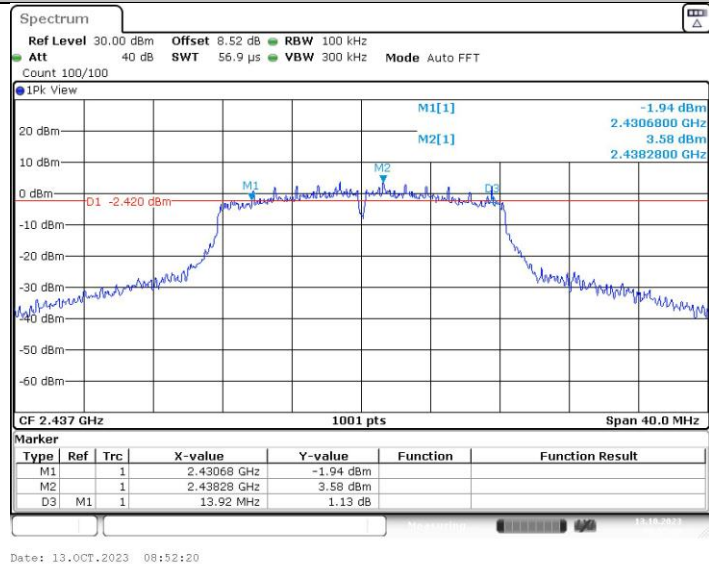


Date: 13.OCT.2023 08:45:47

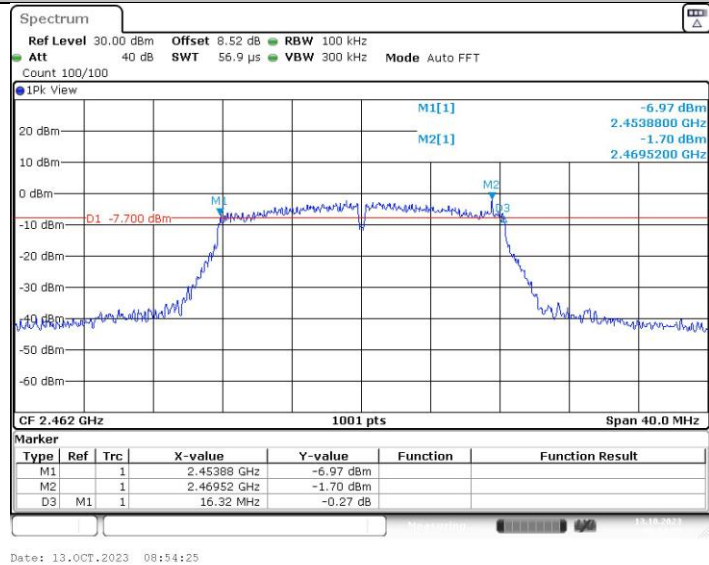
11G_Ant1_2412



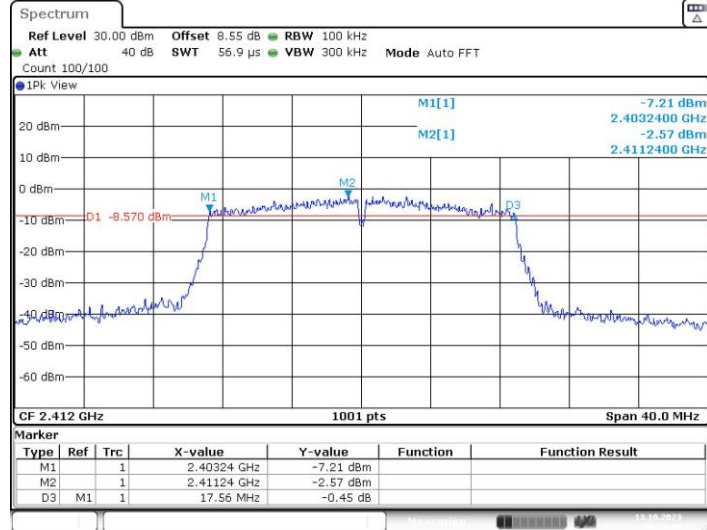
11G_Ant1_2437



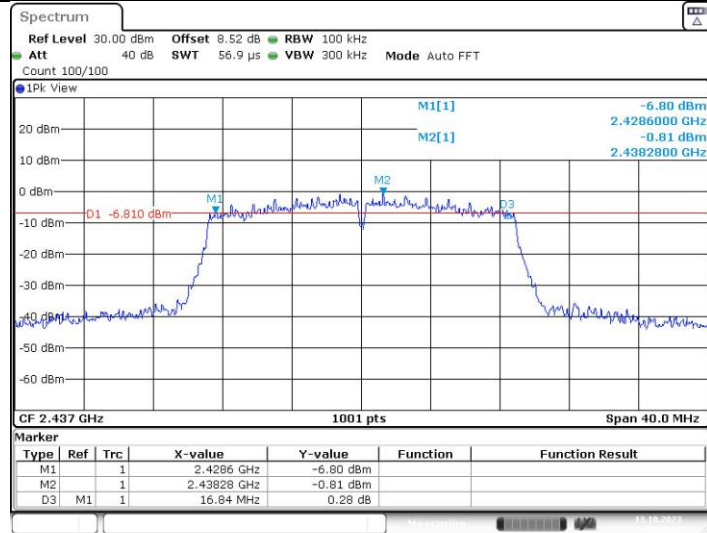
11G_Ant1_2462



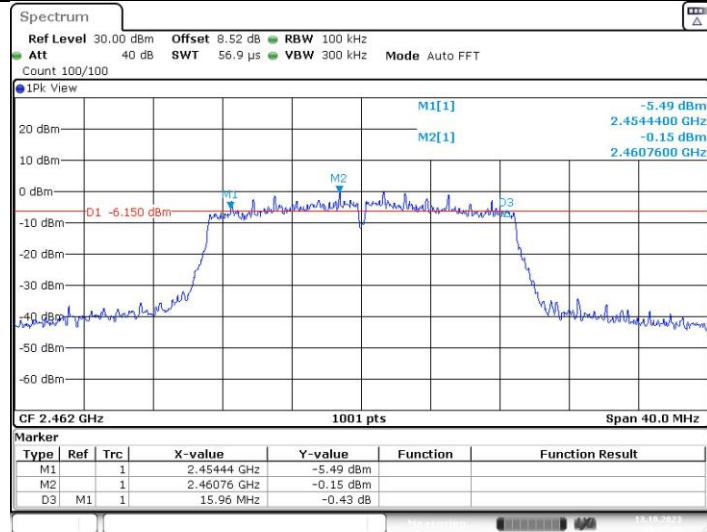
11N20SISO_Ant1_2412



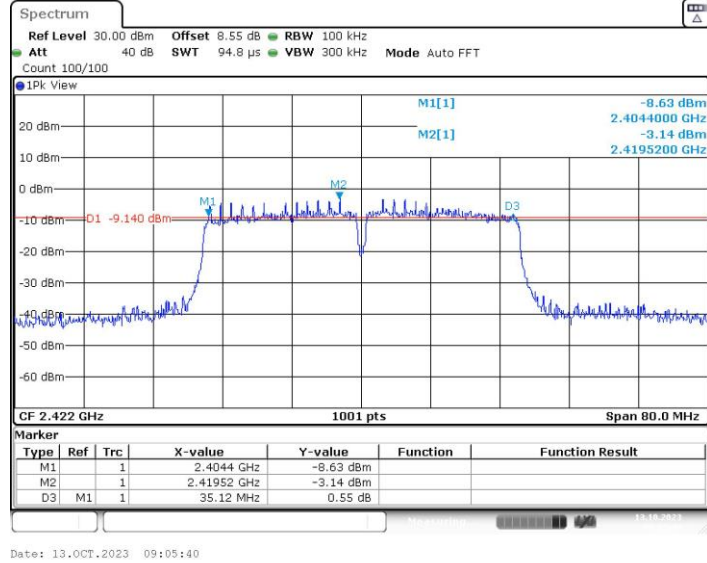
11N20SISO_Ant1_2437



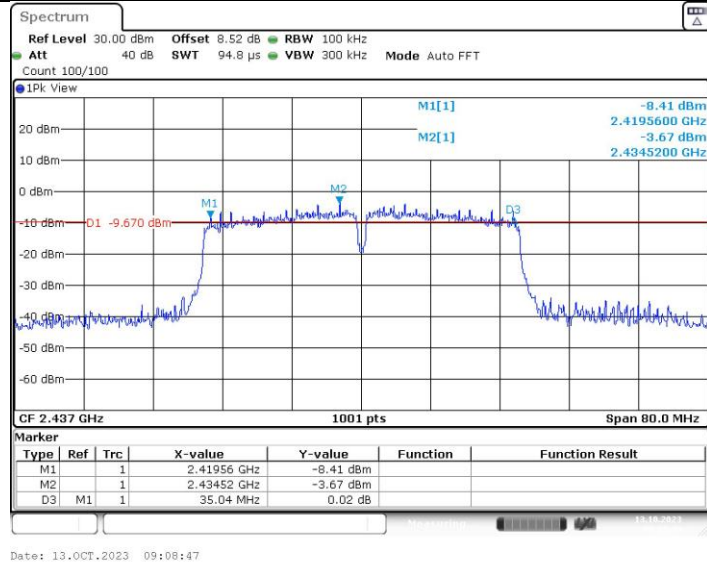
11N20SISO_Ant1_2462



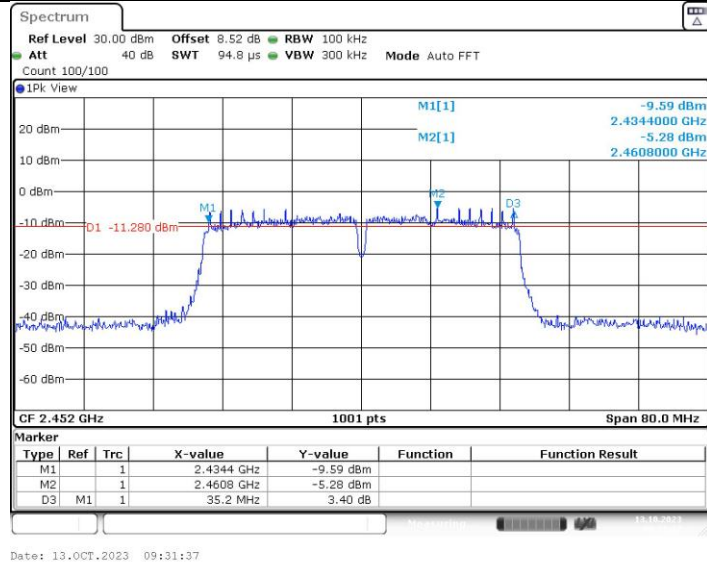
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



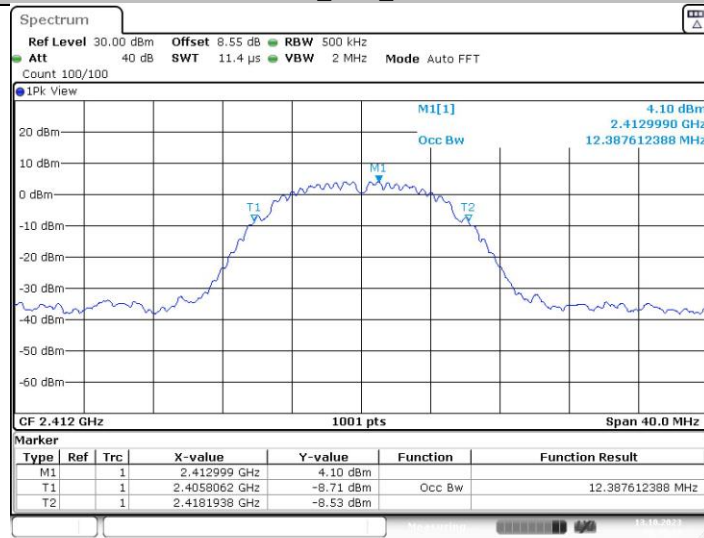
11N40SISO_Ant1_2452



Occupied Channel Bandwidth

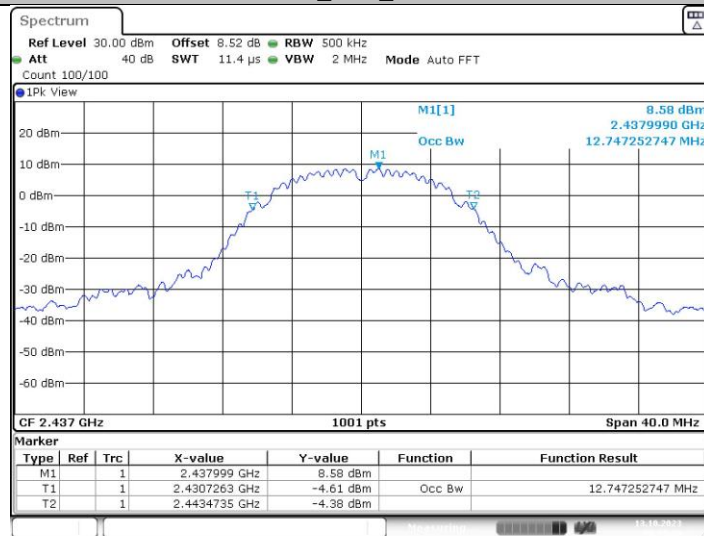
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.388	2405.8062	2418.1938	---	---
		2437	12.747	2430.7263	2443.4735	---	---
		2462	14.466	2454.8472	2469.3127	---	---
11G	Ant1	2412	16.823	2403.6484	2420.4715	---	---
		2437	17.143	2428.2887	2445.4316	---	---
		2462	16.903	2453.7283	2470.6314	---	---
11N20SISO	Ant1	2412	17.742	2403.1289	2420.8711	---	---
		2437	17.662	2428.2088	2445.8711	---	---
		2462	17.822	2453.1688	2470.9910	---	---
11N40SISO	Ant1	2422	36.124	2404.0180	2440.1419	---	---
		2437	36.204	2419.0180	2455.2218	---	---
		2452	36.124	2434.0979	2470.2218	---	---

11B_Ant1_2412



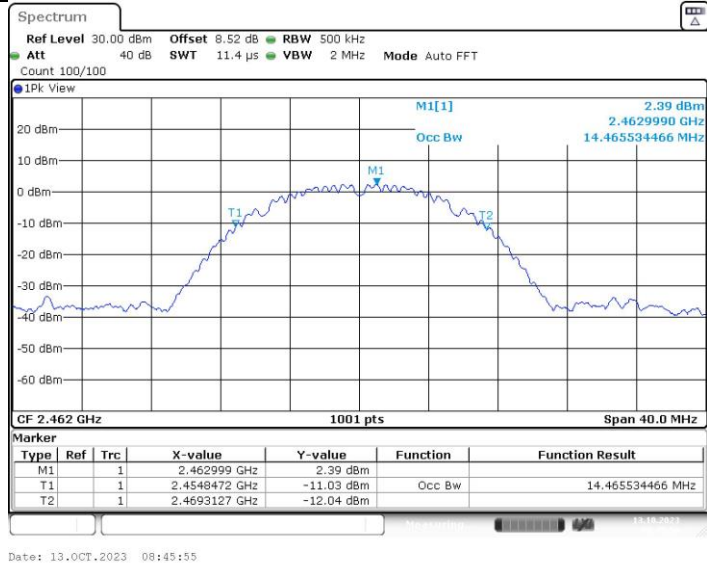
Date: 13.OCT.2023 08:40:19

11B_Ant1_2437

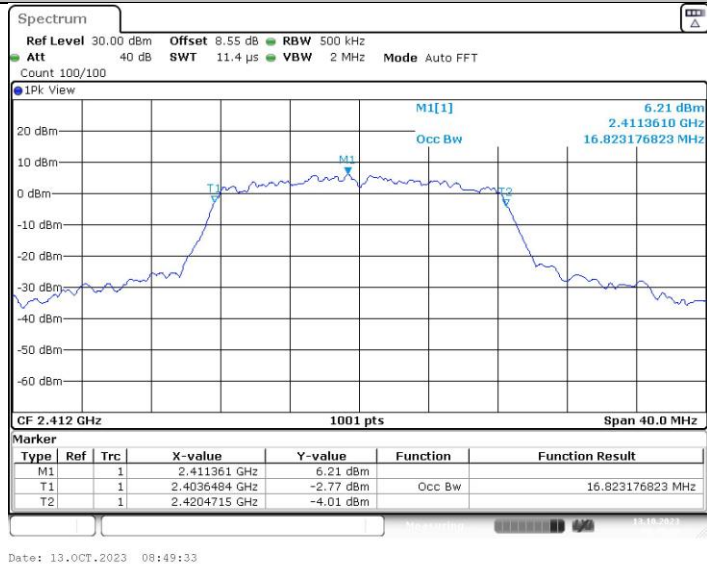


Date: 13.OCT.2023 08:43:38

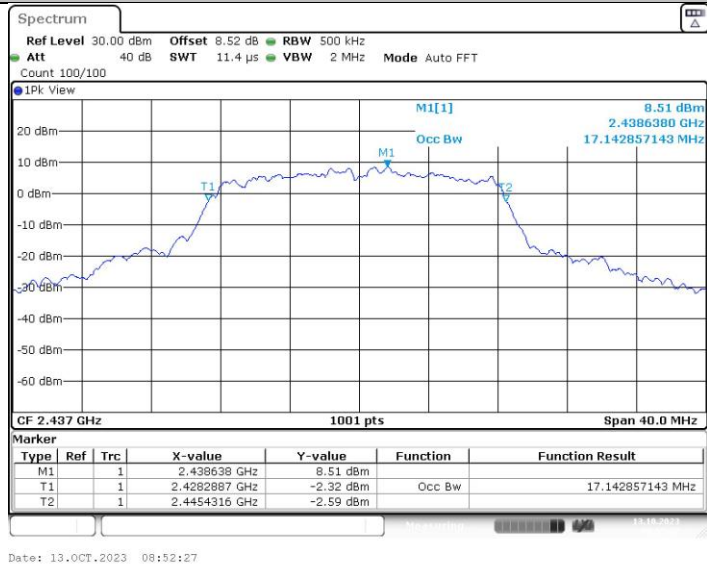
11B_Ant1_2462



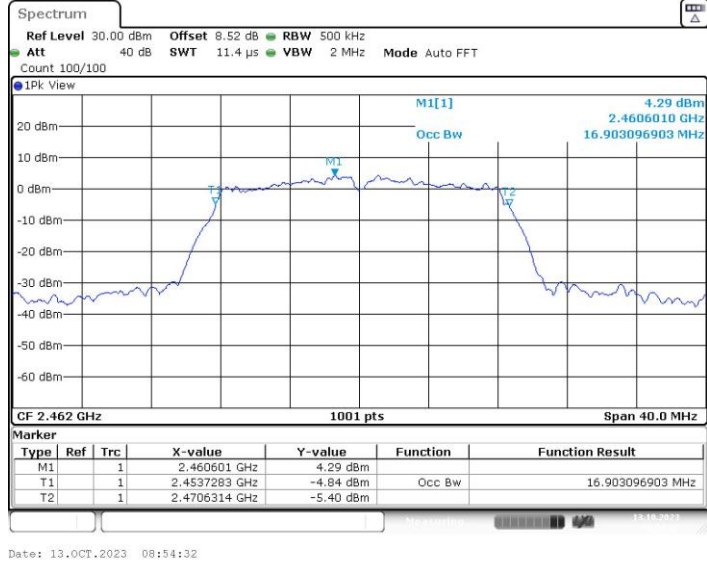
11G_Ant1_2412



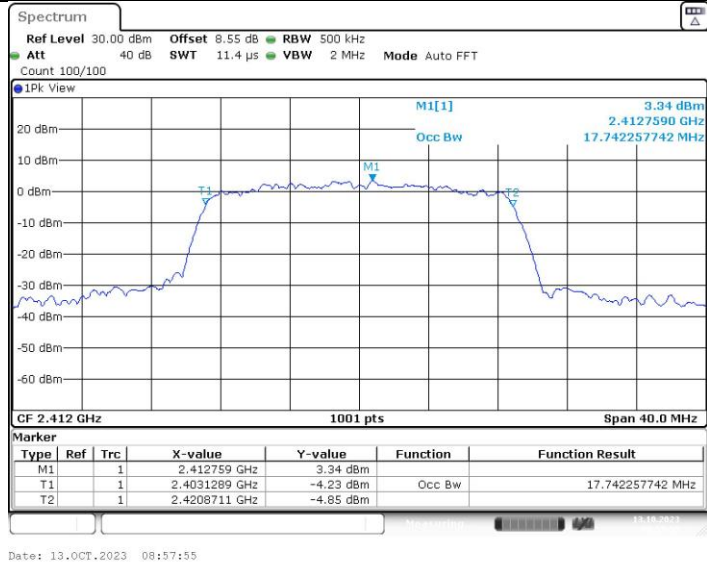
11G_Ant1_2437



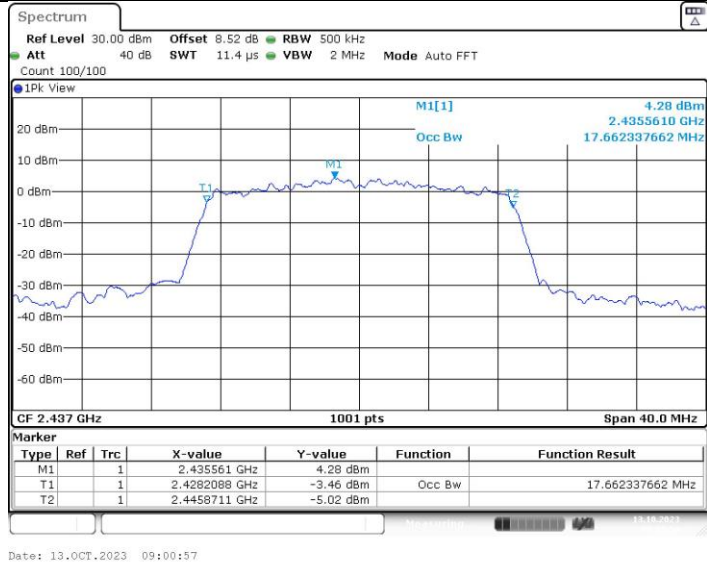
11G_Ant1_2462



11N20SISO_Ant1_2412



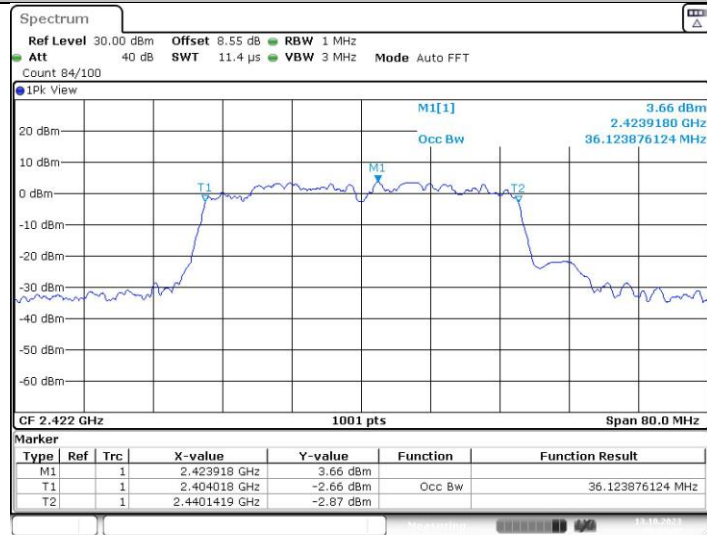
11N20SISO_Ant1_2437



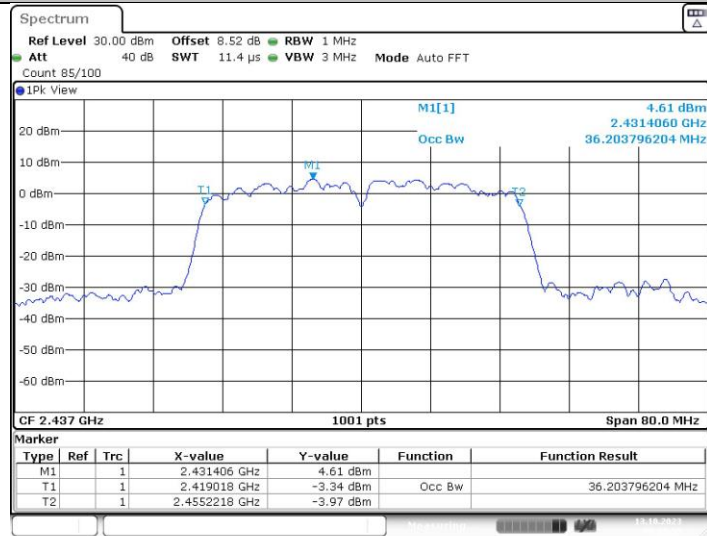
11N20SISO_Ant1_2462

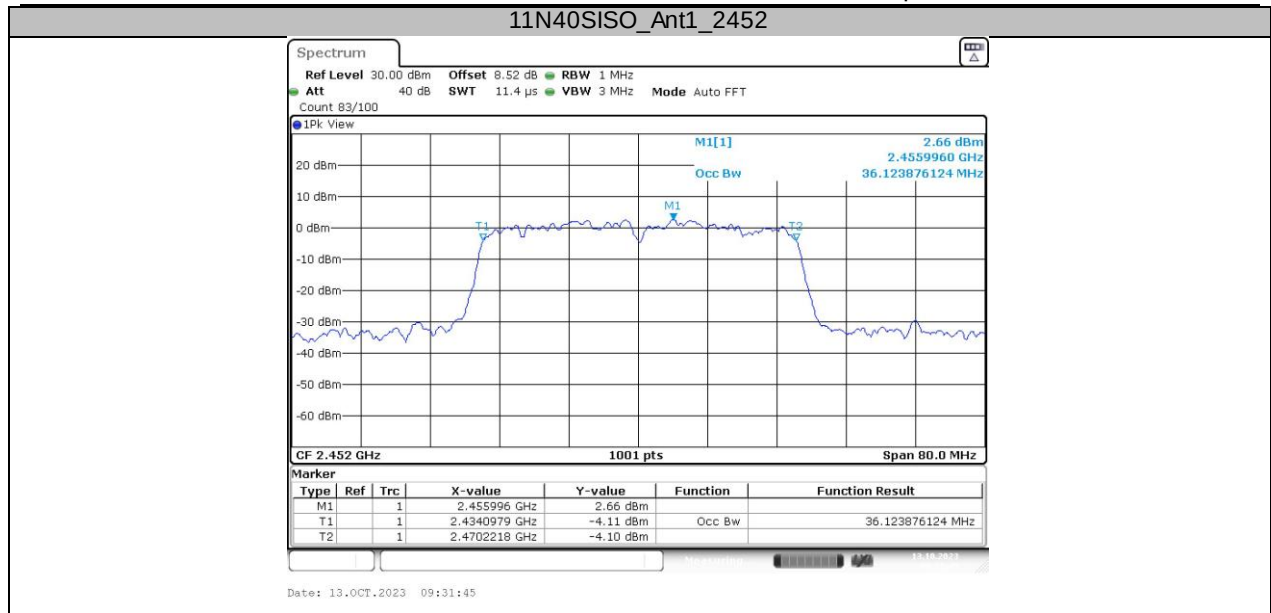


11N40SISO_Ant1_2422



11N40SISO_Ant1_2437





8. BAND EDGE CHECK

8.1. Test limits

Please refer RSS-GEN & FCC PART 15: 15.247

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits and RSS-GEN limits.

8.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

8.2.1 Put the EUT on a 1.5m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

8.2.2 Check the spurious emissions out of band.

8.2.3 RBW 1MHz, VBW 3MHz, peak detector for peak value, RBW 1MHz, VBW 10Hz, RMS detector for AV value.

8.3. Test Setup

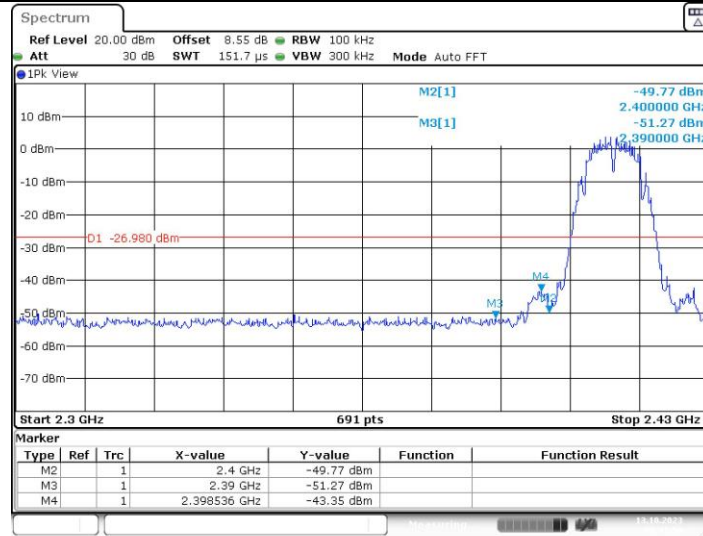
Same as 5.2.2.

8.4. Test Results

PASS.

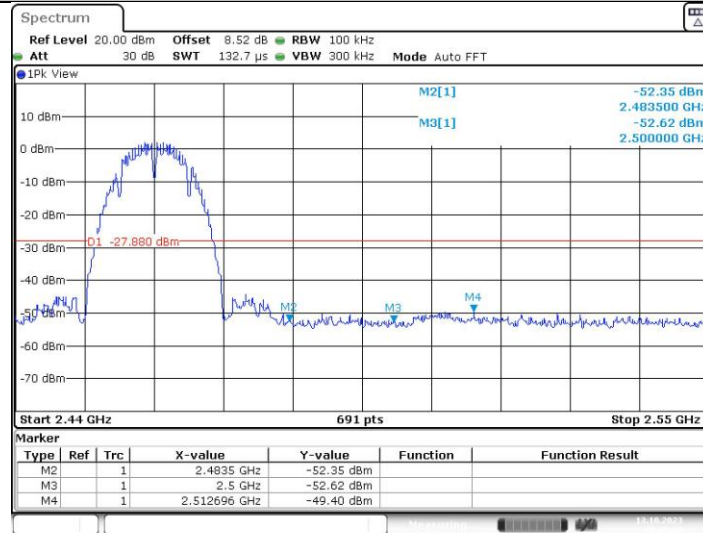
Detailed information please see the following page.

11B_Ant1_Low_2412



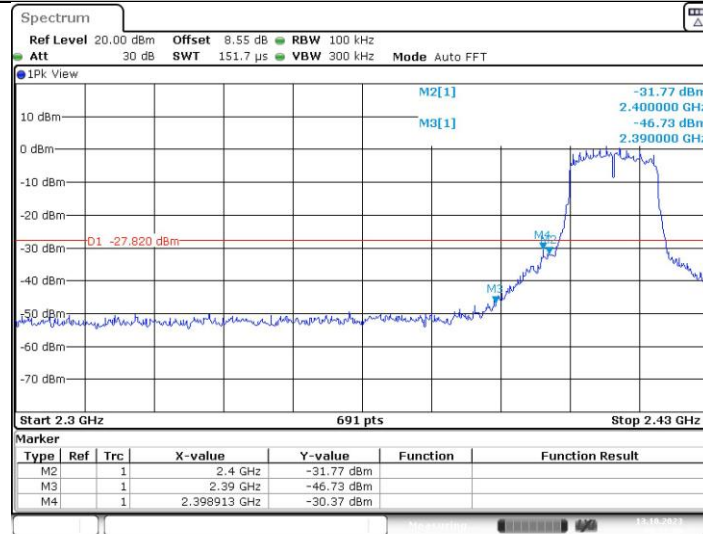
Date: 13.OCT.2023 08:41:56

11B_Ant1_High_2462



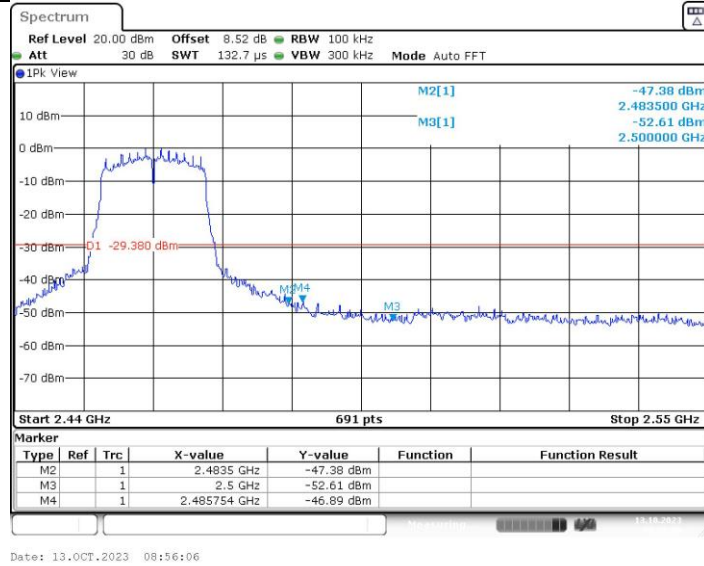
Date: 13.OCT.2023 08:47:33

11G_Ant1_Low_2412

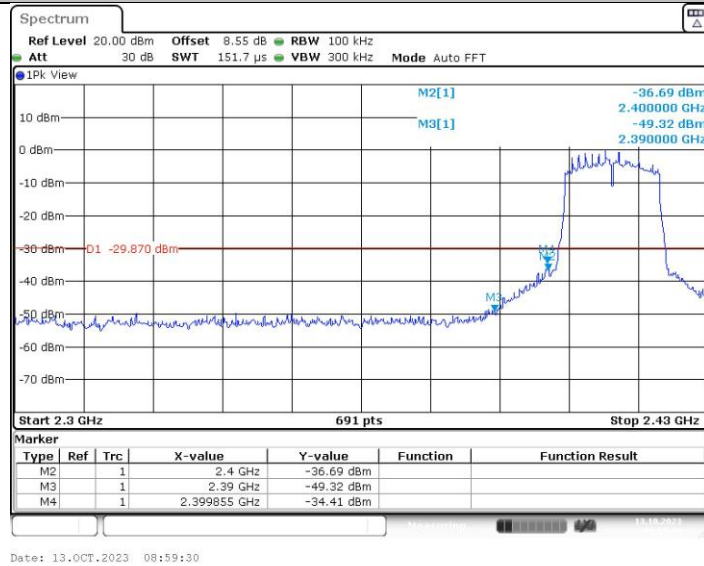


Date: 13.OCT.2023 08:51:07

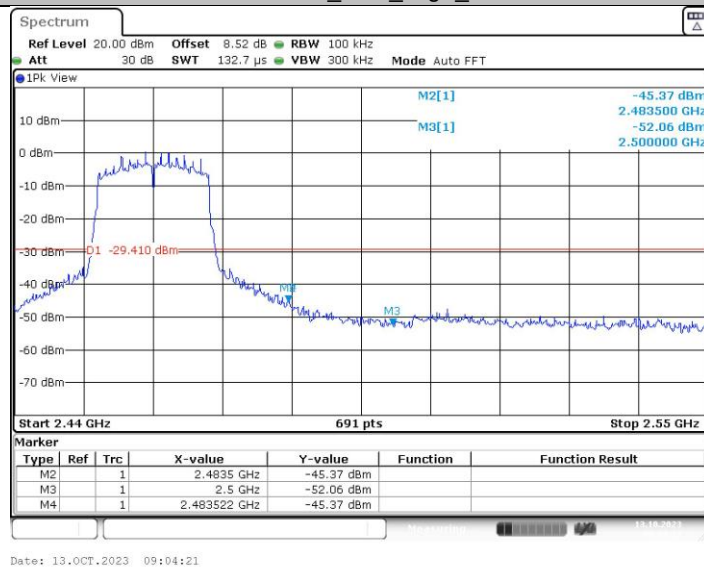
11G_Ant1_High_2462

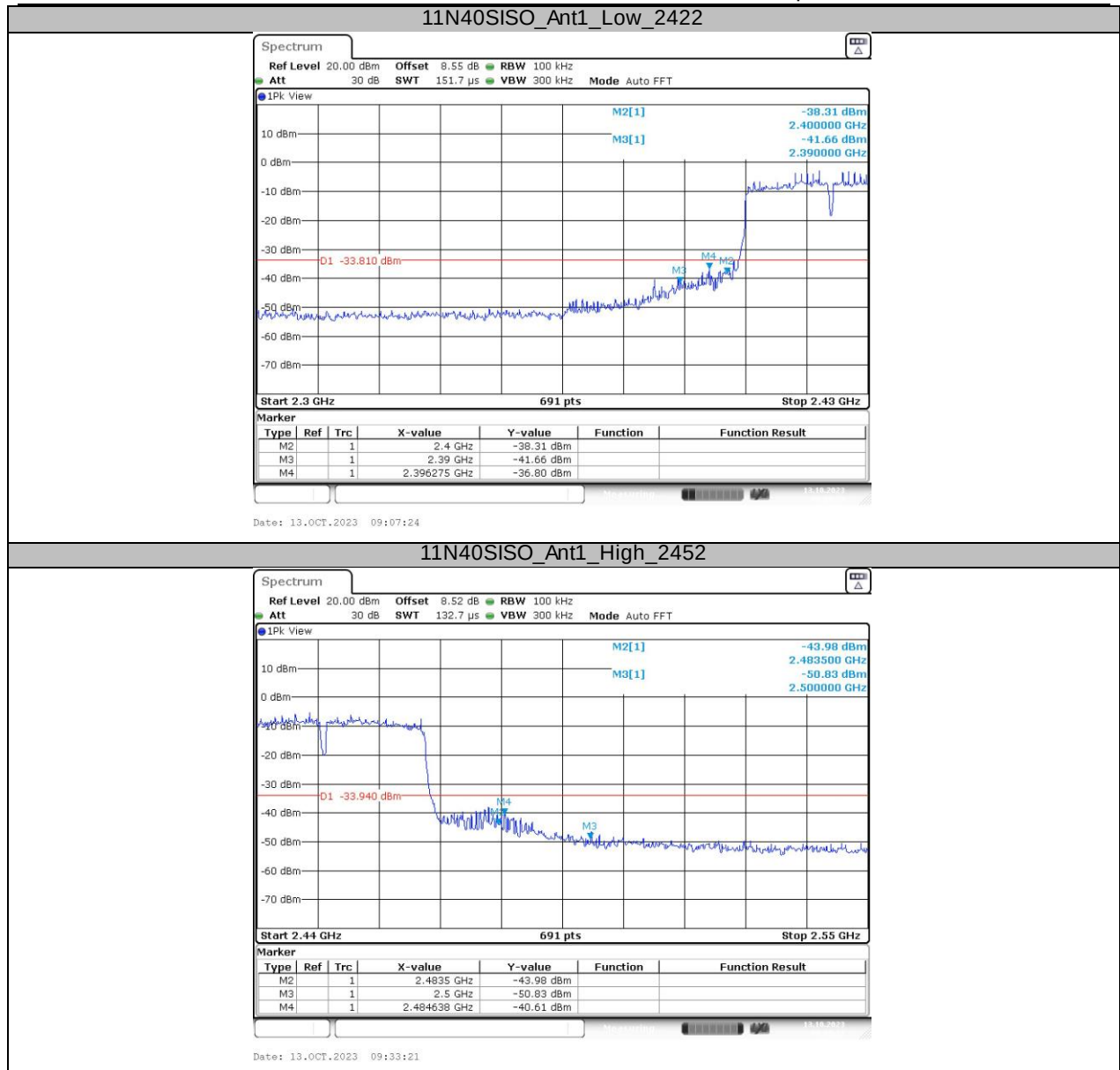


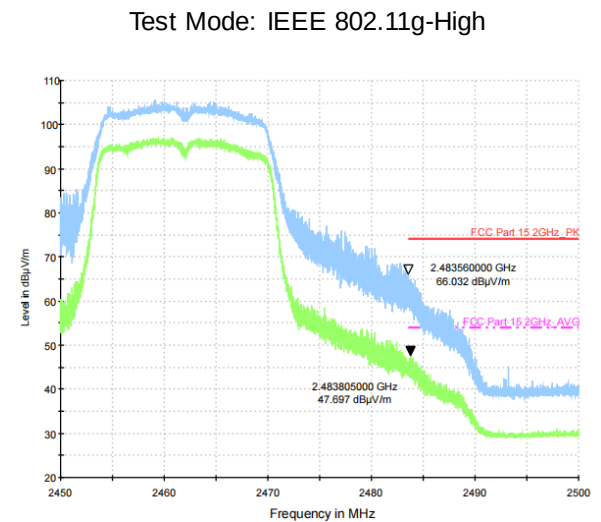
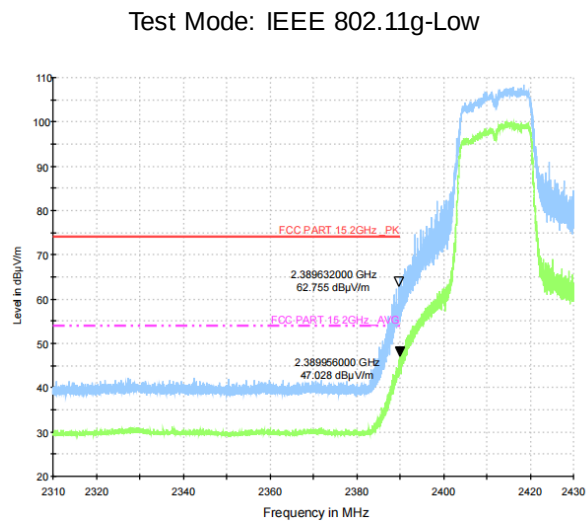
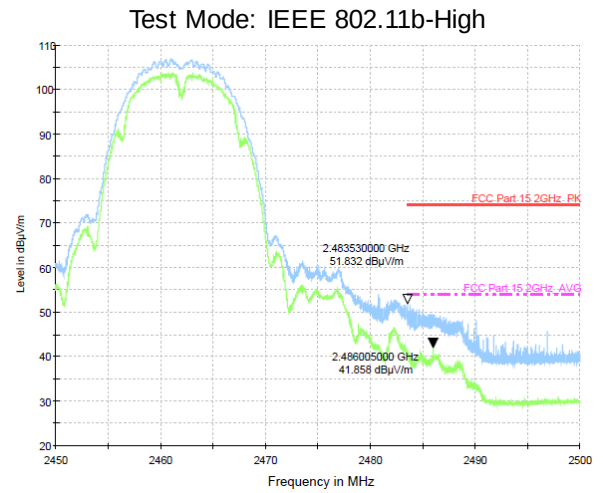
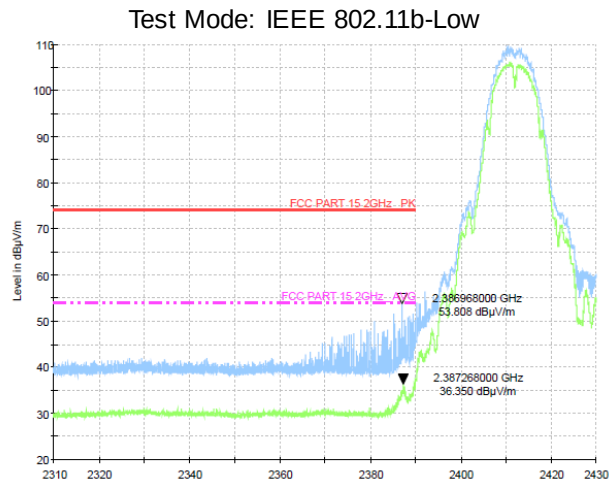
11N20SISO_Ant1_Low_2412



11N20SISO_Ant1_High_2462

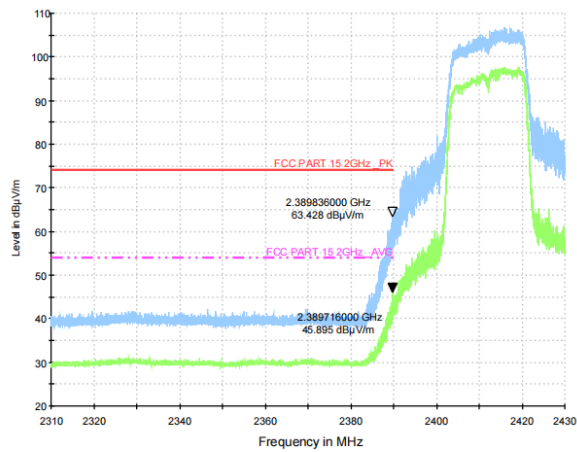




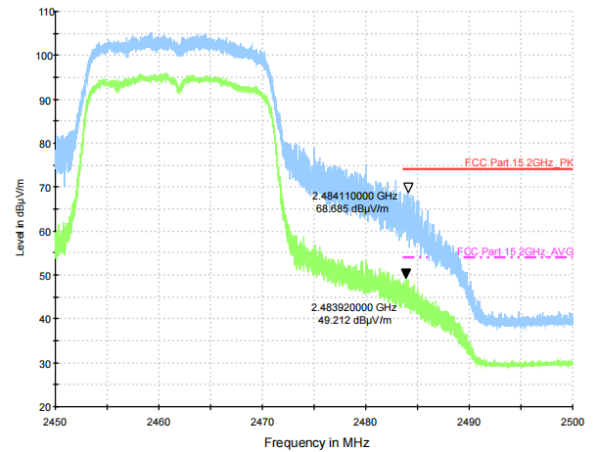


Note: All test plots include horizontal and vertical polarization

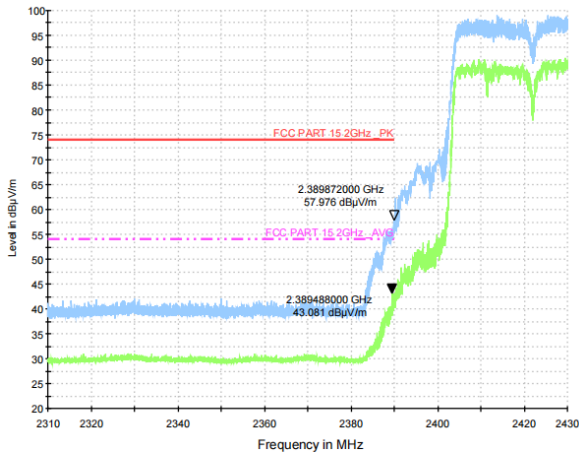
Test Mode: IEEE 802.11n20-Low



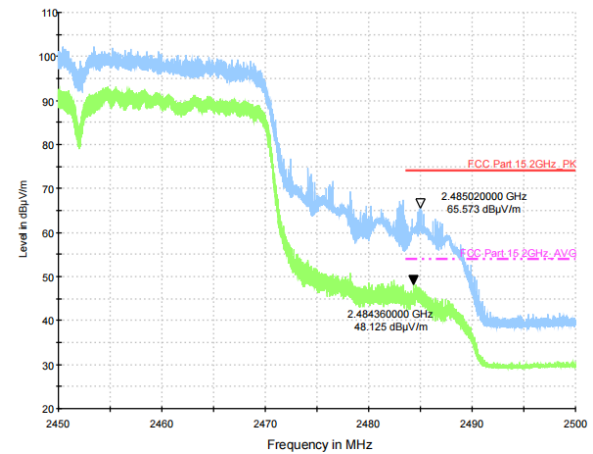
Test Mode: IEEE 802.11n20-High



Test Mode: IEEE 802.11n40-Low



Test Mode: IEEE 802.11n40-High



All test plots include horizontal and vertical polarization

9. ANTENNA REQUIREMENT

9.1. Standard Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. 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.

9.2. Antenna Connected Construction

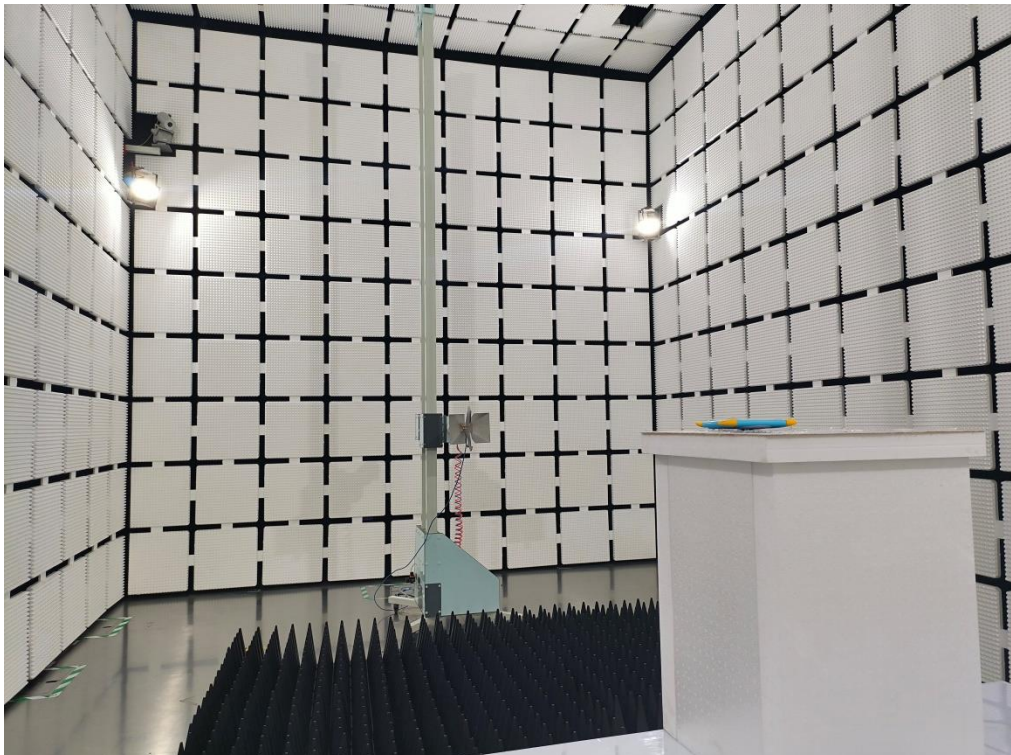
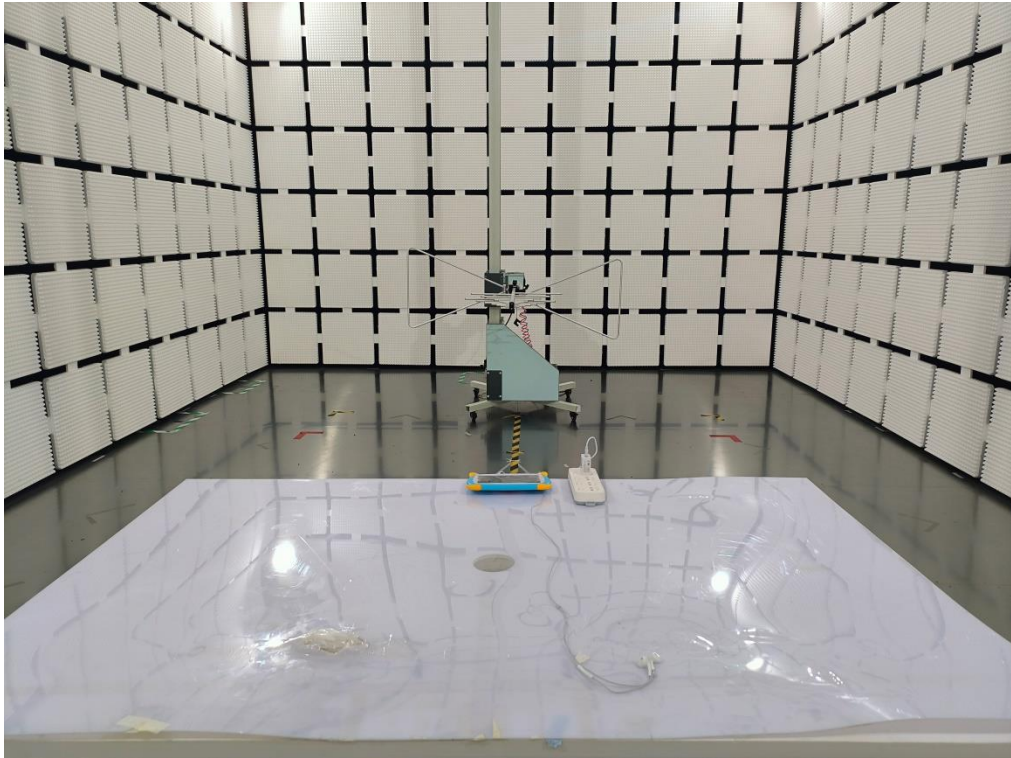
The antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

9.3. Results

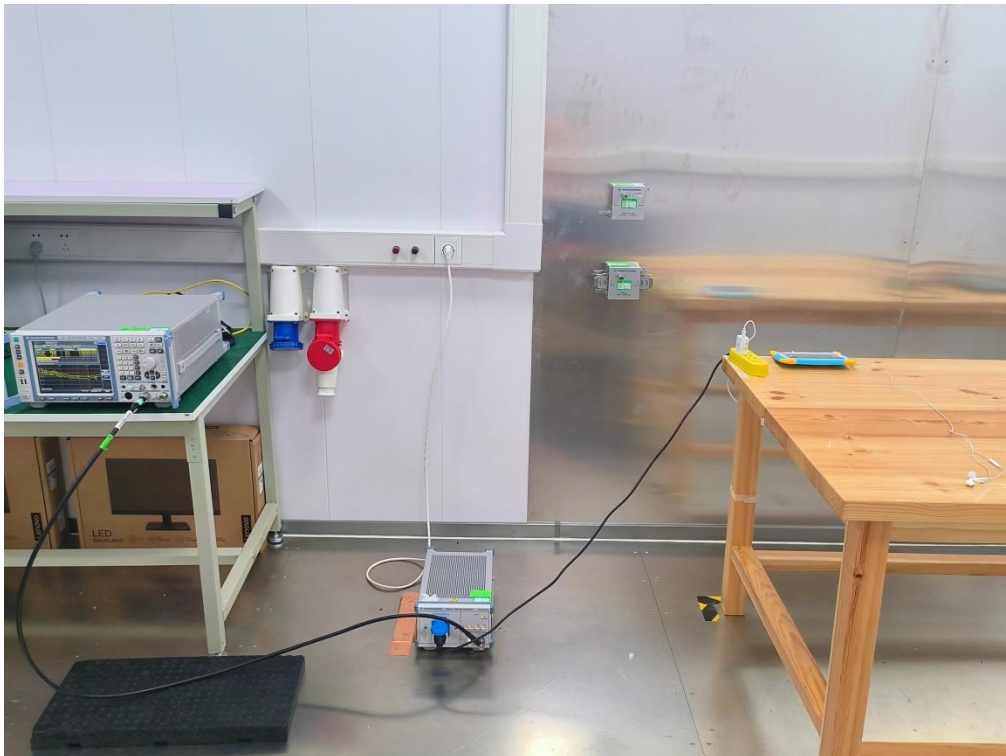
The EUT antenna is PIFA antenna. It complies with the standard requirement.

10. TEST SETUP PHOTO

10.1. Photos of Radiated emission



10.2.Photos of Conducted Emission test



10.3.Conducted Test Photos



-----END OF REPORT-----