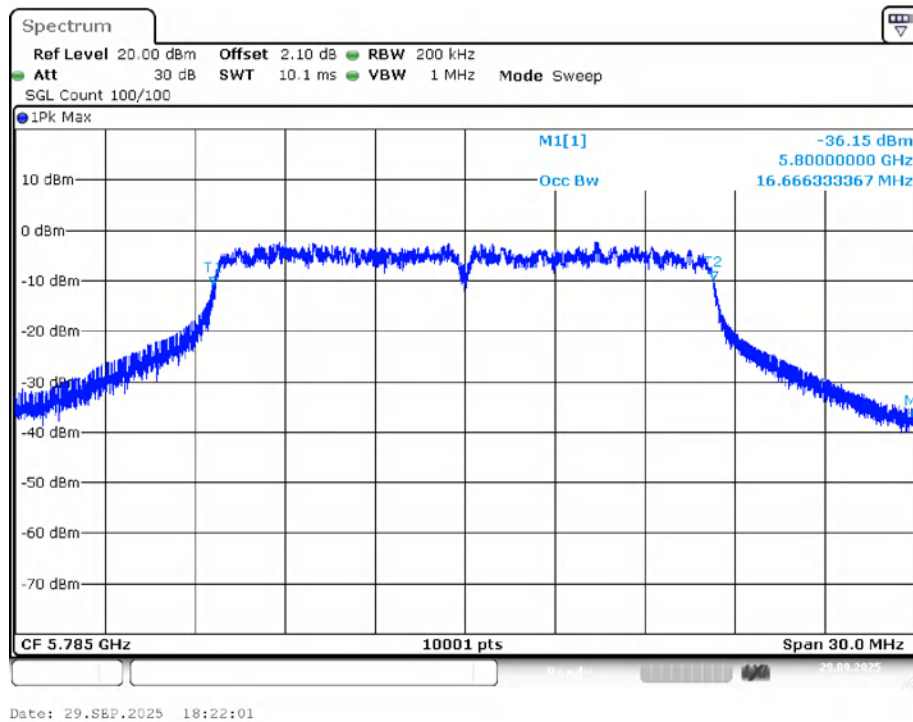
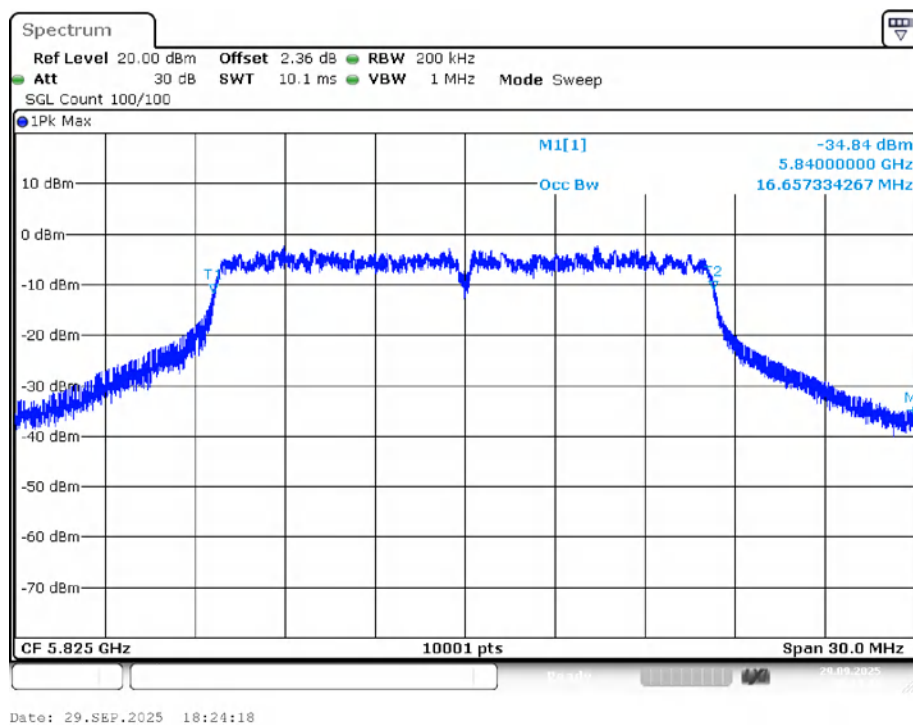
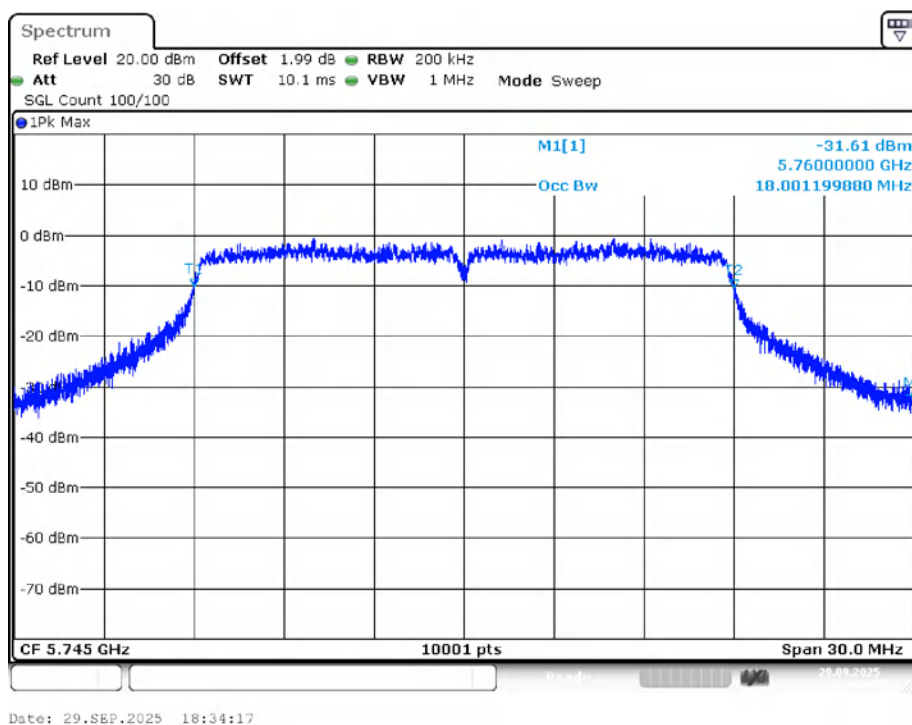




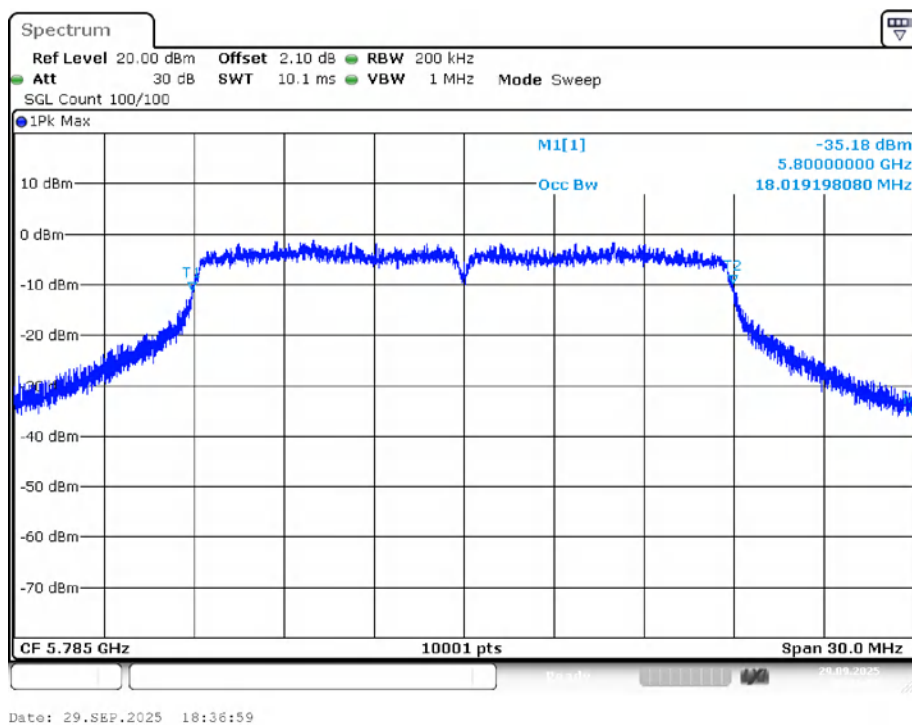
OBW NVNT a 5785MHz Ant1



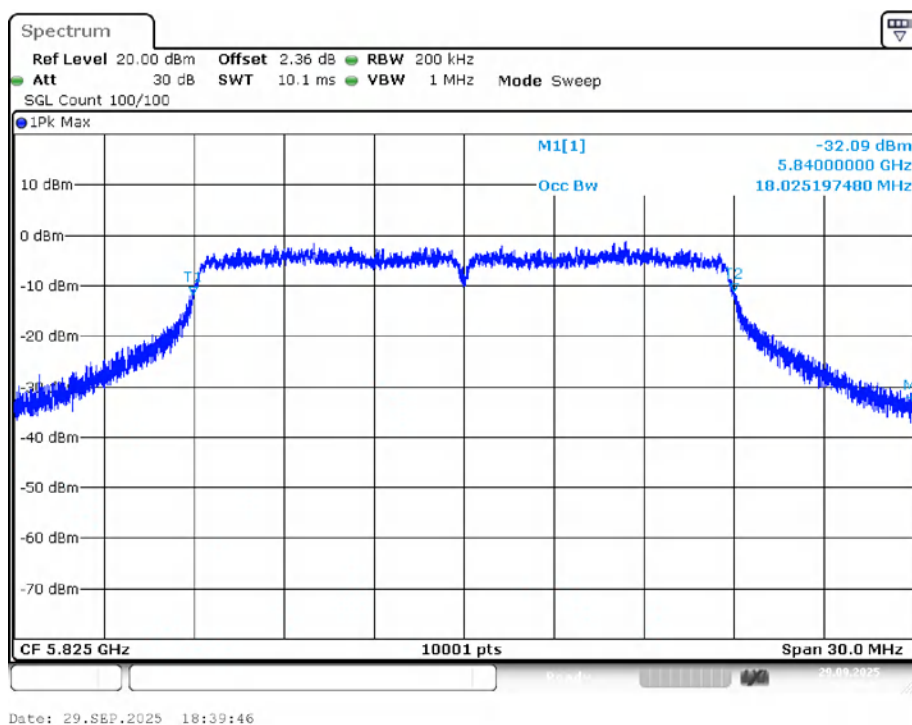
OBW NVNT a 5825MHz Ant1



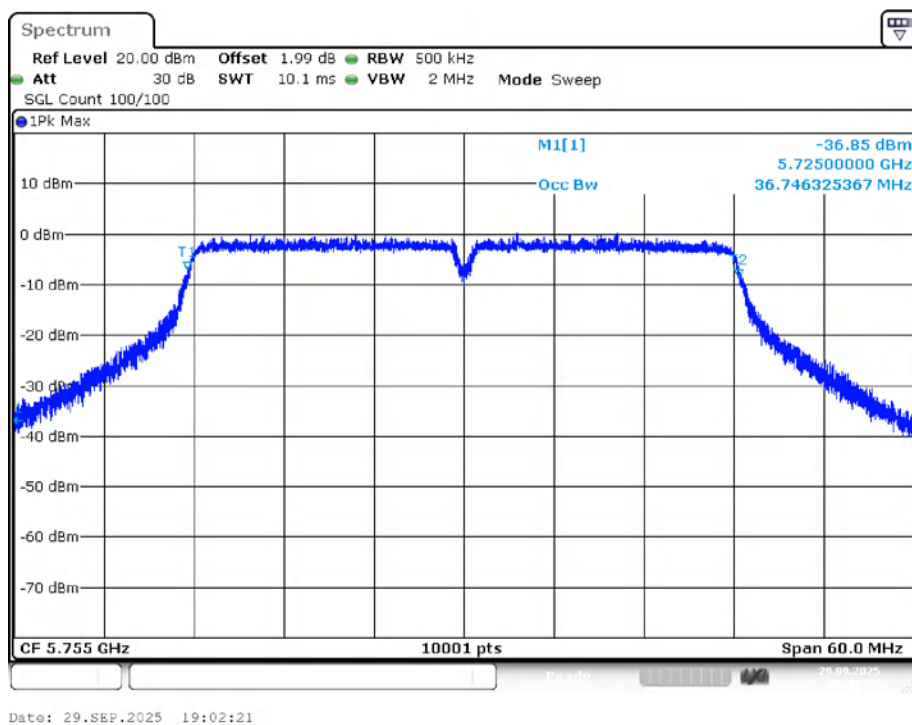
OBW NVNT ac20 5745MHz Ant1



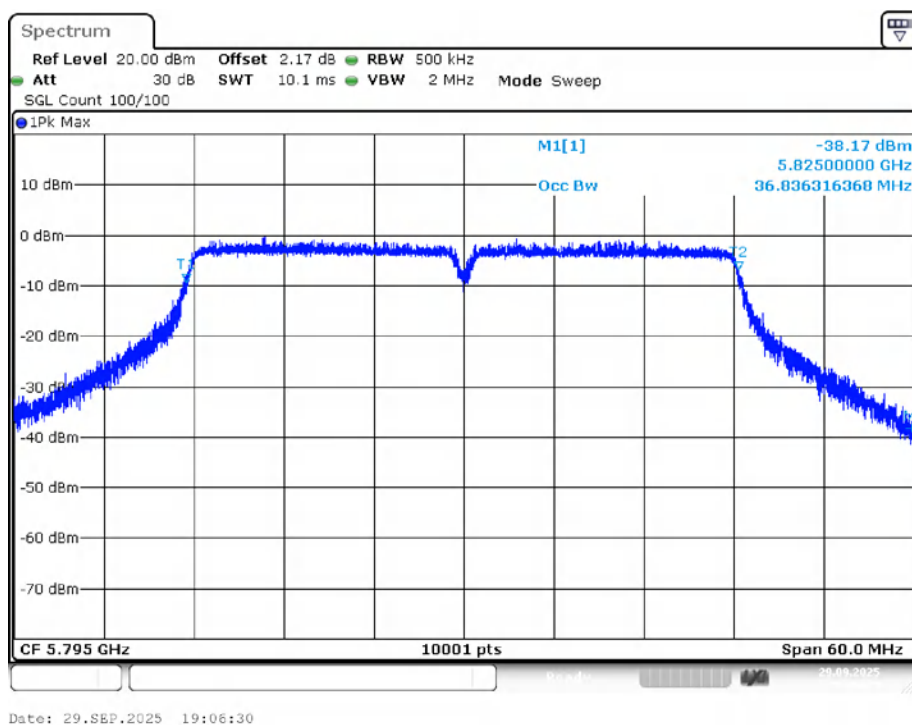
OBW NVNT ac20 5785MHz Ant1



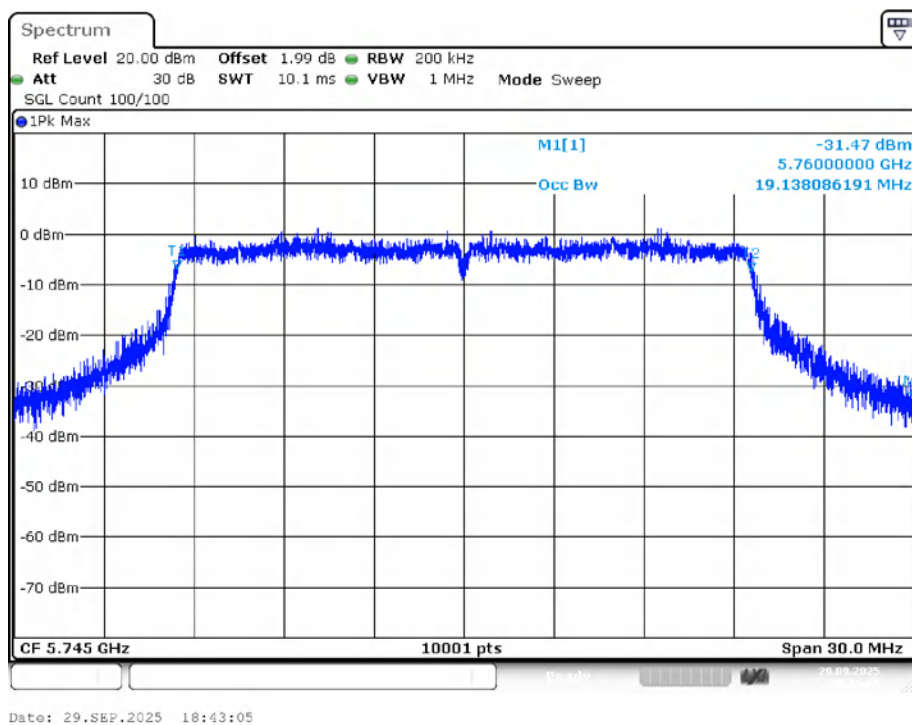
OBW NVNT ac20 5825MHz Ant1



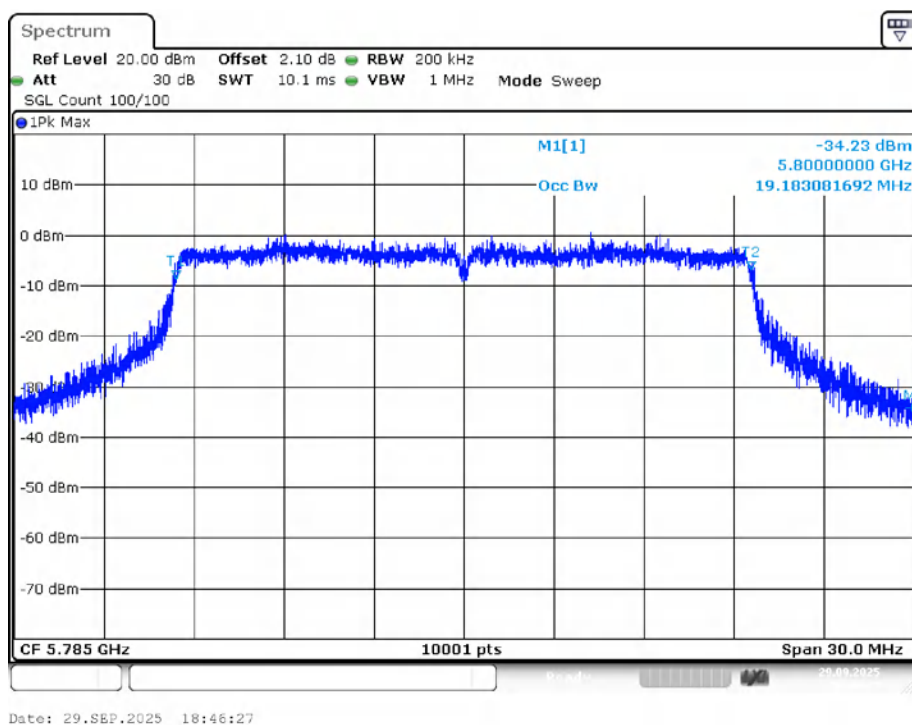
OBW NVNT ac40 5755MHz Ant1



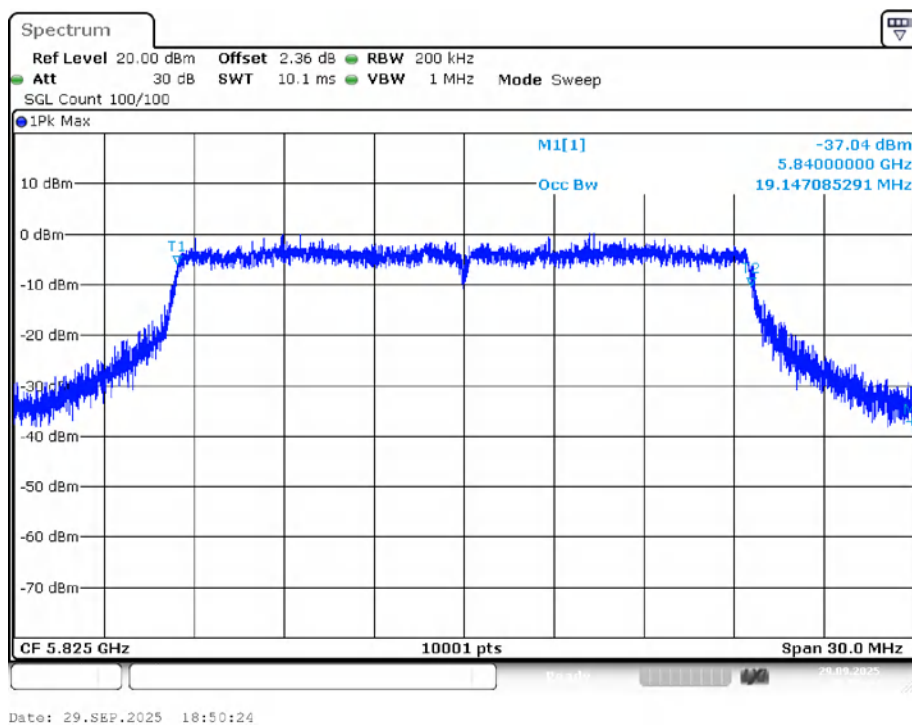
OBW NVNT ac40 5795MHz Ant1



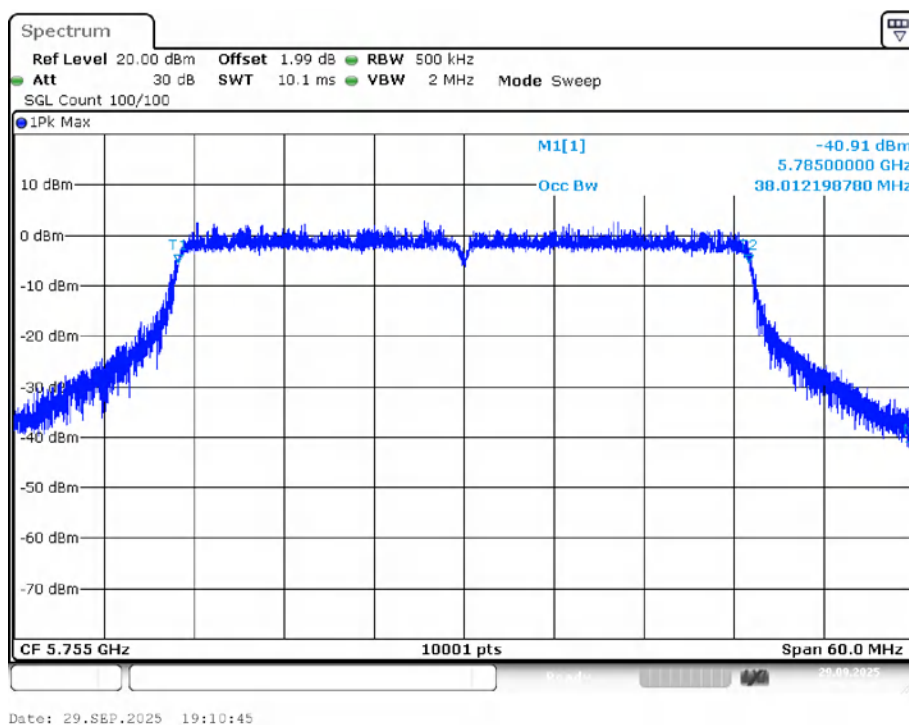
OBW NVNT ax20 5745MHz Ant1



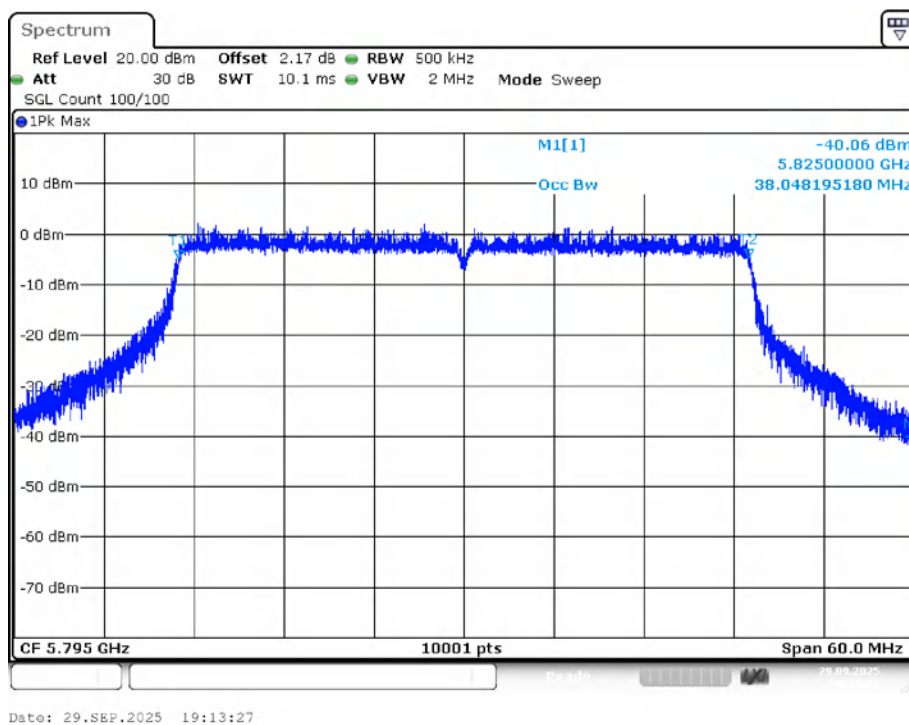
OBW NVNT ax20 5785MHz Ant1



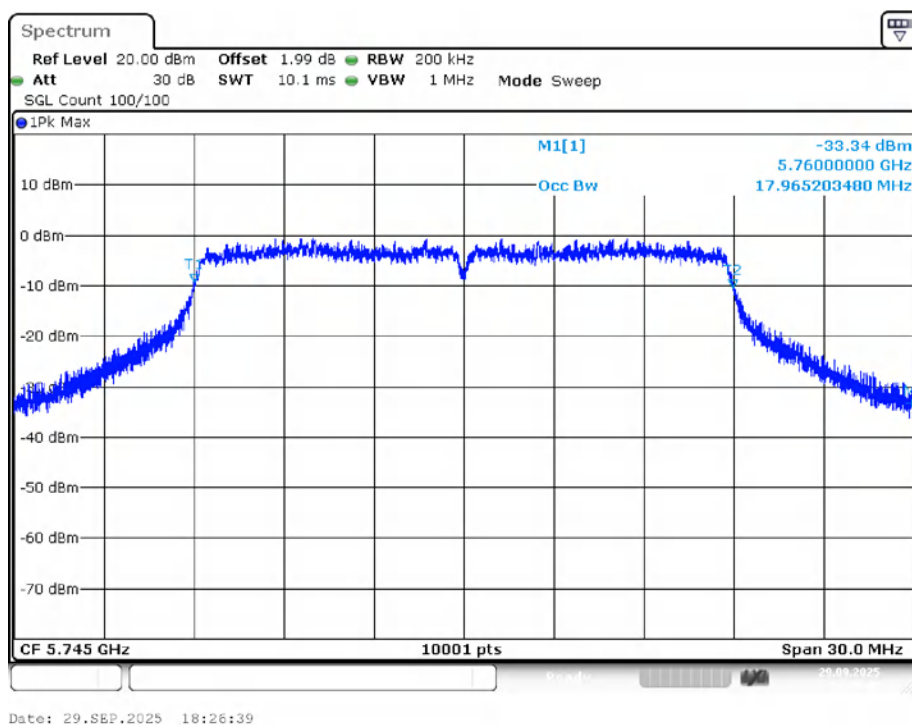
OBW NVNT ax20 5825MHz Ant1



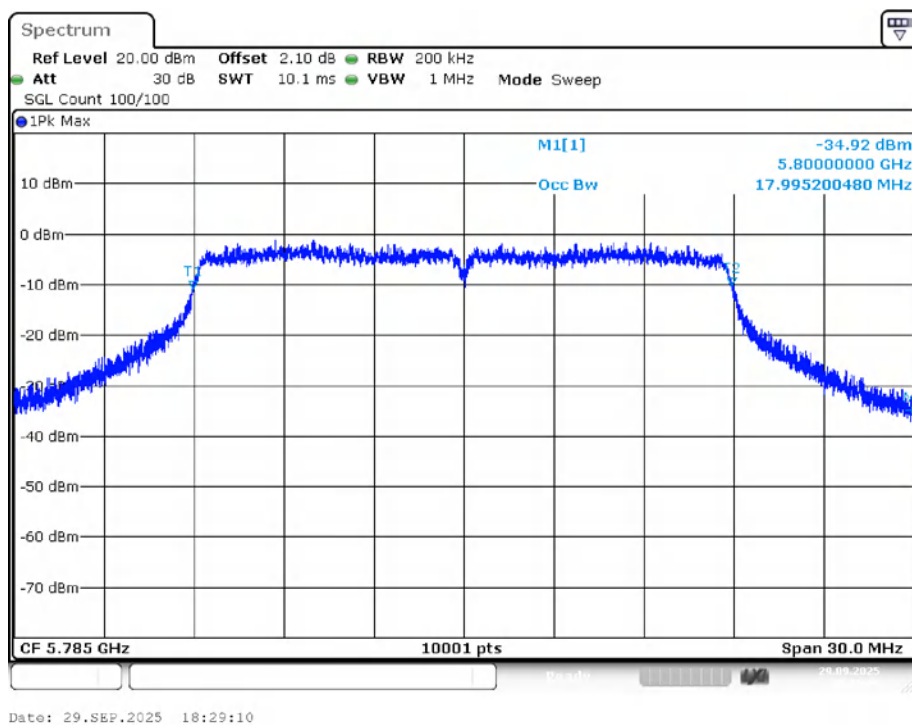
OBW NVNT ax40 5755MHz Ant1



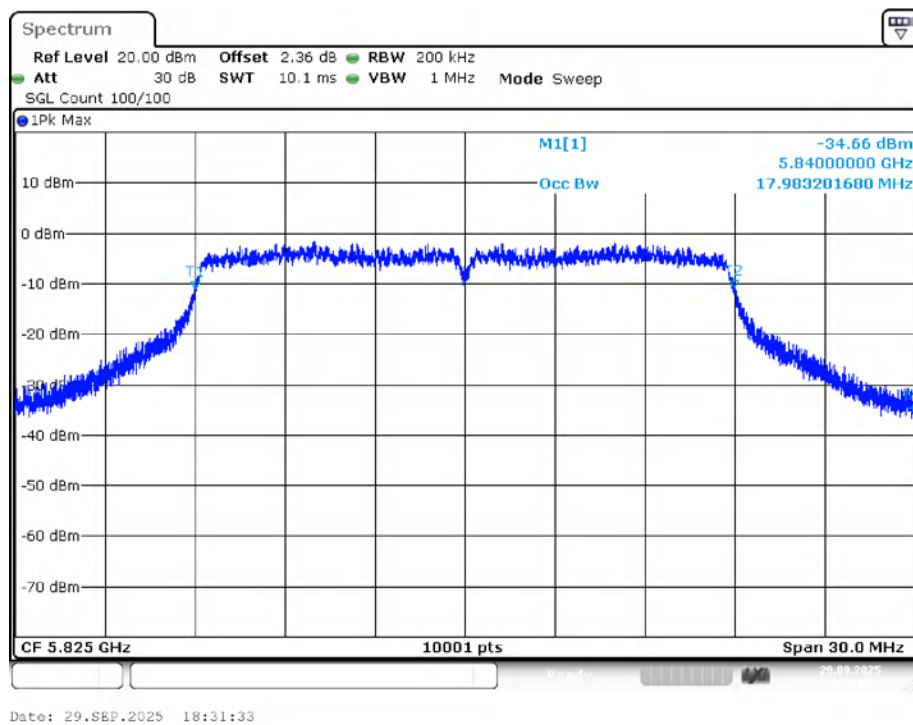
OBW NVNT ax40 5795MHz Ant1



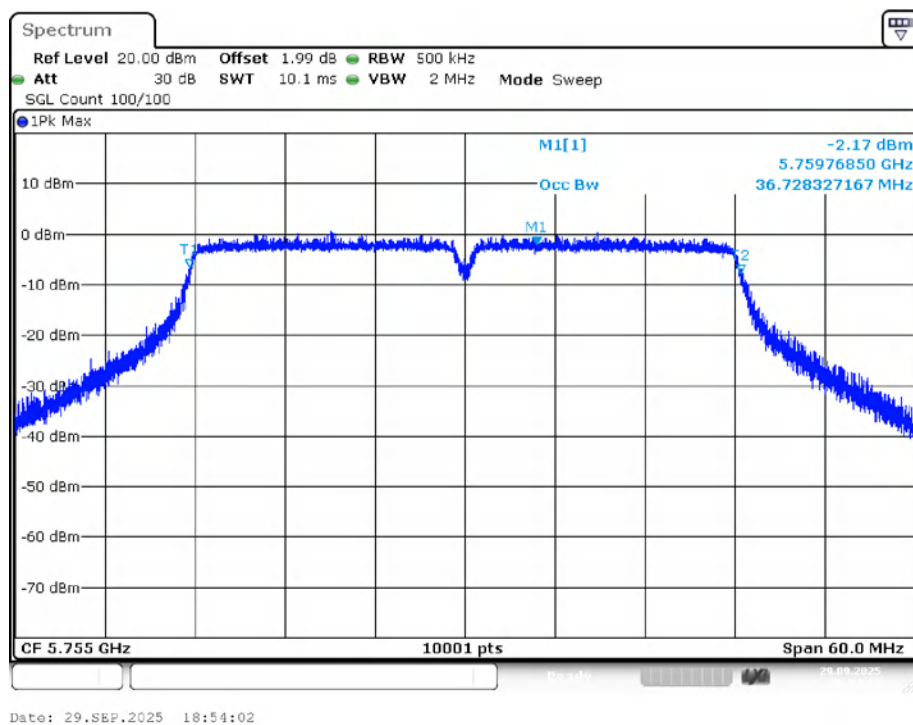
OBW NVNT n20 5745MHz Ant1



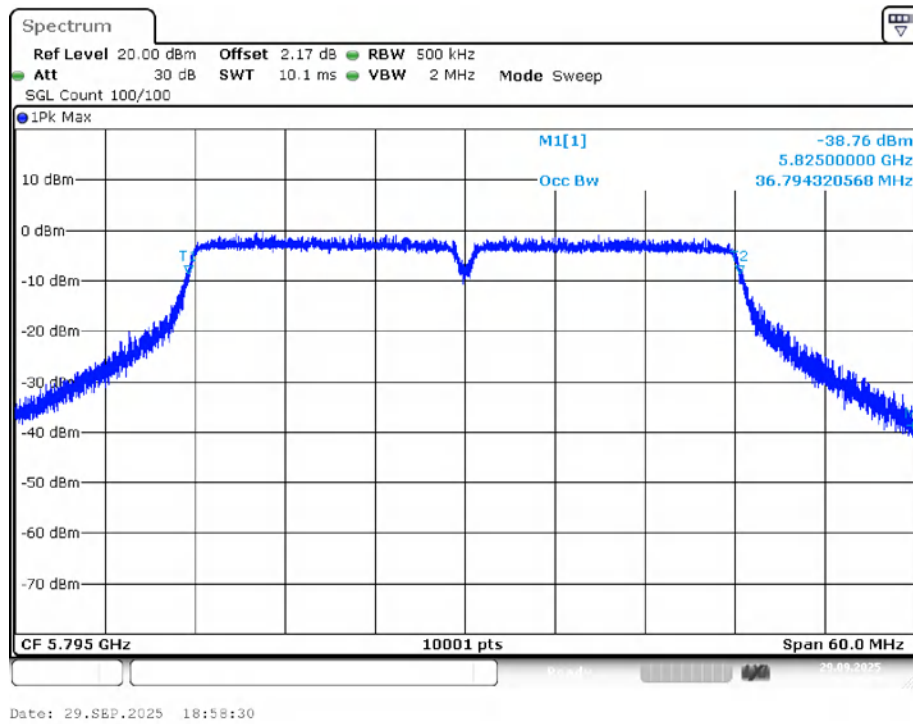
OBW NVNT n20 5785MHz Ant1



OBW NVNT n20 5825MHz Ant1



OBW NVNT n40 5755MHz Ant1



OBW NVNT n40 5795MHz Ant1

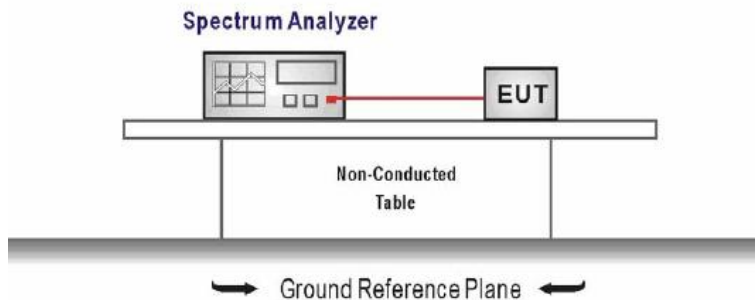
5.6. -6dB Bandwidth

LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

TEST CONFIGURATION



TEST PROCEDURE

1. The testing follows the KDB 789033 D02 v02r01 Section I.C.D and ANSI C63.10-2013Section 12.4.
2. The RF output of EUT was connected to spectrum analyzer by RF cable and attenuator, the path loss was compensated to the results for each measurement.
3. Use the spectrum analyzer "Channel Bandwidth" functions to measurement the 26dB EBW, 6dB EBW and 99% OBW.
4. Set center frequency to the nominal EUT channel center frequency.
5. Set span = 1.5 times to 5.0 times the OBW or EBW.
6. For 26dB EBW and 99% OBW Measurement: Set RBW = approximately 1% EBW or 1.5 times to 5.0 times the OBW, $VBW \geq 3 \times RBW$.
7. For 6dB EBW Measurement: Set RBW=100kHz. $VBW > 3 \times RBW$.
8. Set Detector = Peak, Trace mode = max hold and Sweep time = auto couple.
9. Allow the trace to stabilize.
10. Replace the EUT center frequency and repeat steps 3~9.

TEST MODE:

Please refer to the clause 3.3

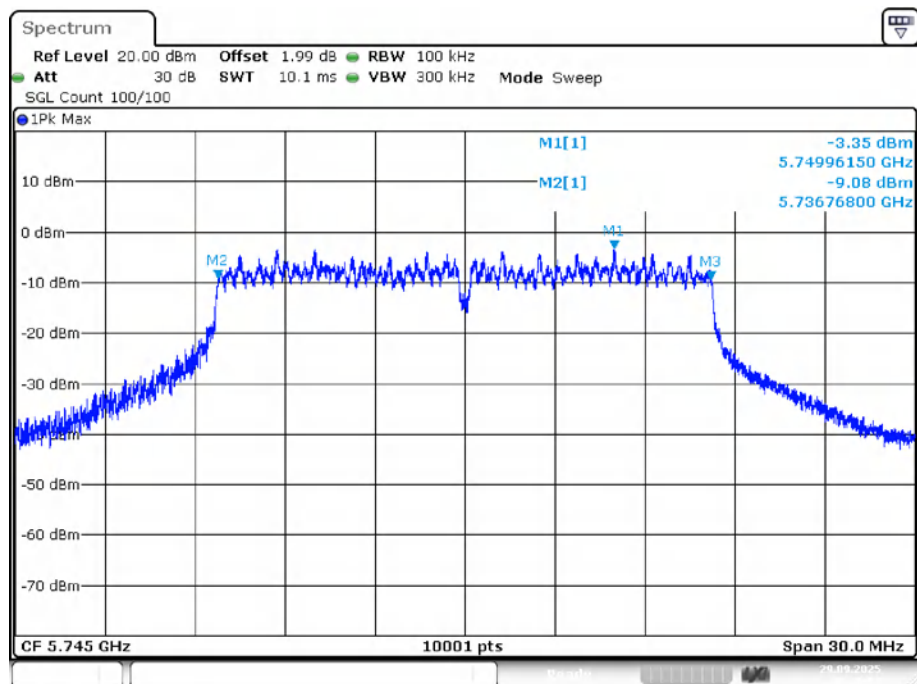
TEST RESULTS

☒ Passed ☐ Not Applicable

-6dB Bandwidth

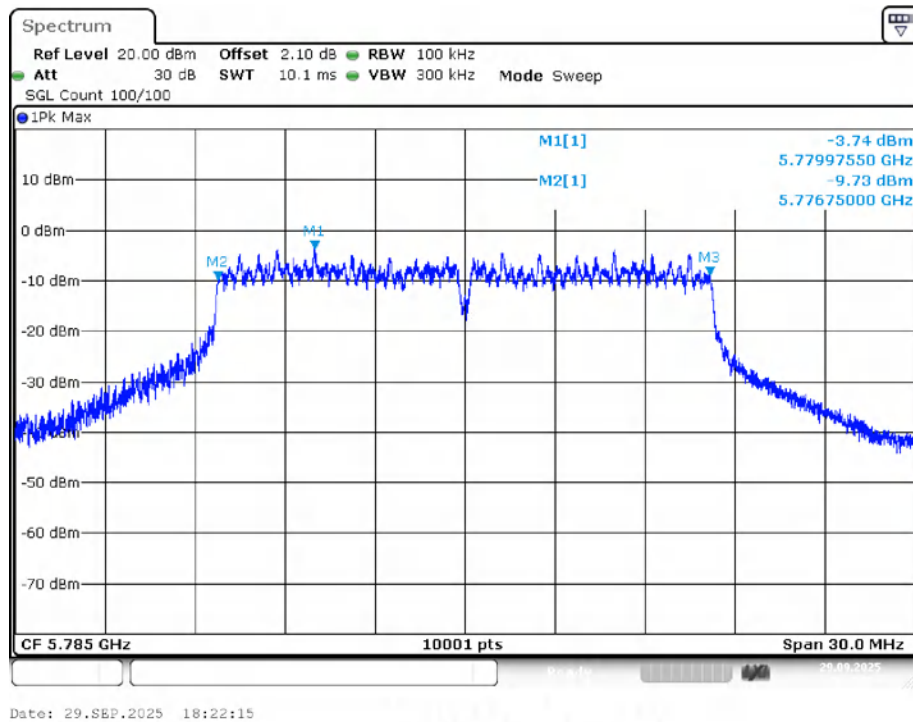
Band IV

Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	16.443	0.5	Pass
a	5785	16.428	0.5	Pass
a	5825	16.41	0.5	Pass
ac20	5745	17.568	0.5	Pass
ac20	5785	17.571	0.5	Pass
ac20	5825	17.562	0.5	Pass
ac40	5755	36.306	0.5	Pass
ac40	5795	36.33	0.5	Pass
ax20	5745	18.969	0.5	Pass
ax20	5785	18.915	0.5	Pass
ax20	5825	18.942	0.5	Pass
ax40	5755	37.848	0.5	Pass
ax40	5795	38.046	0.5	Pass
n20	5745	17.568	0.5	Pass
n20	5785	17.556	0.5	Pass
n20	5825	17.568	0.5	Pass
n40	5755	36.312	0.5	Pass
n40	5795	36.324	0.5	Pass

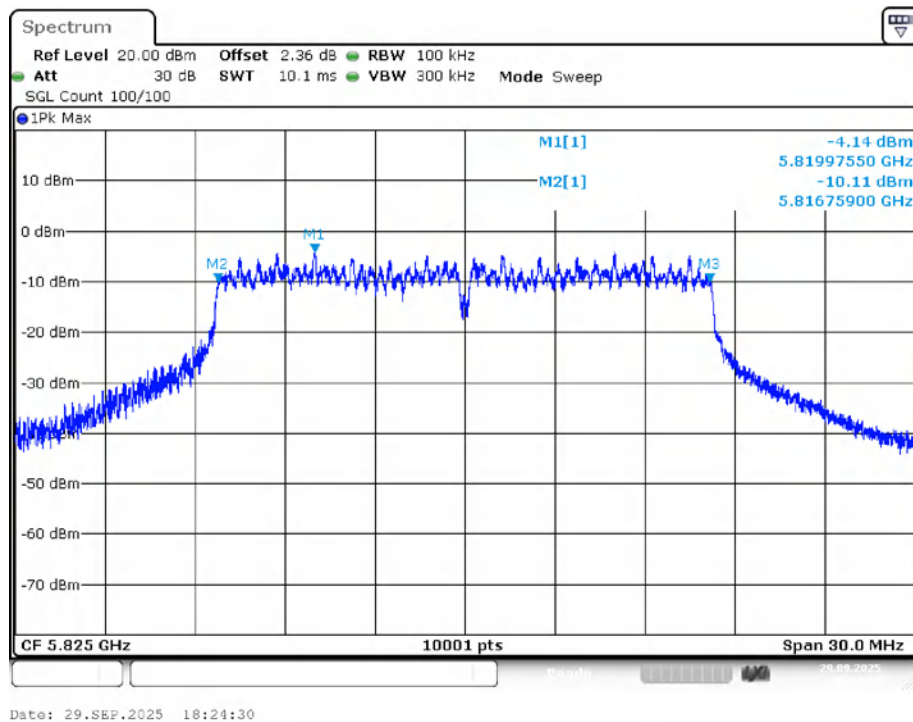


Date: 29.SEP.2025 18:19:53

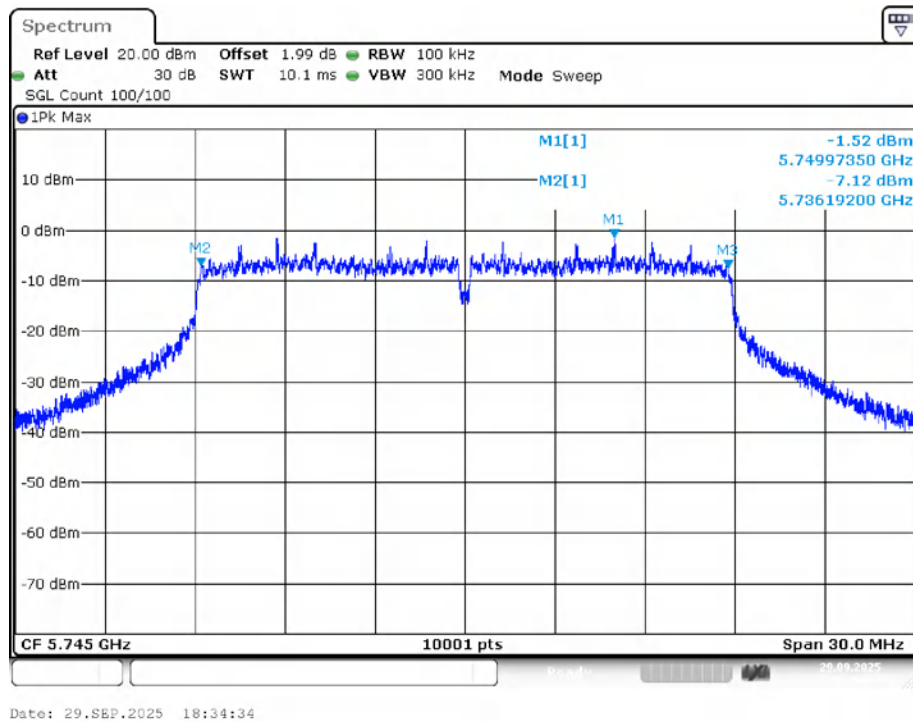
-6dB Bandwidth NVNT a 5745MHz Ant1



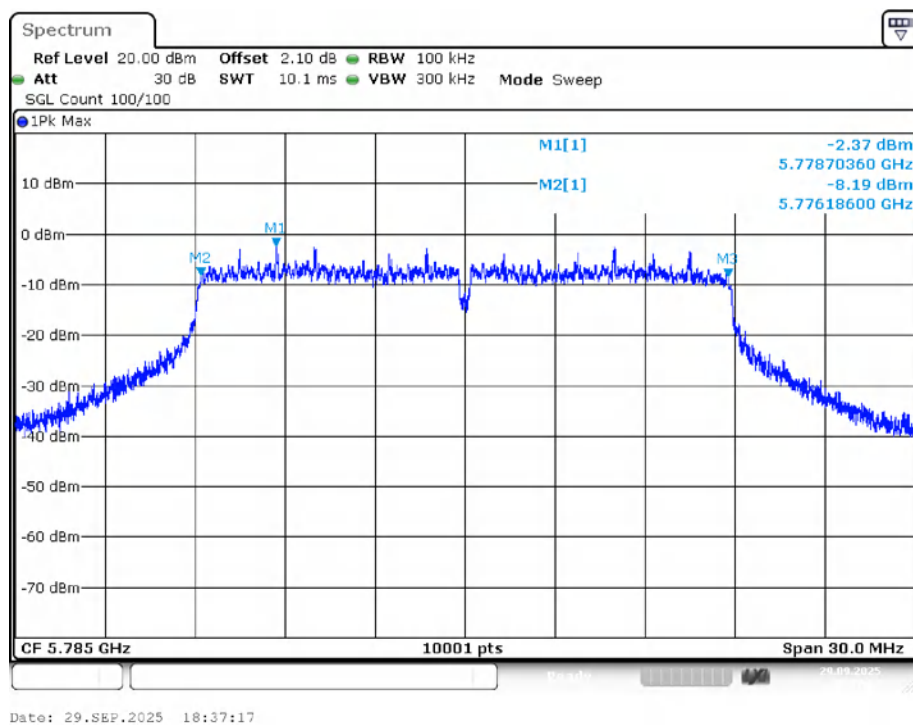
-6dB Bandwidth NVNT a 5785MHz Ant1



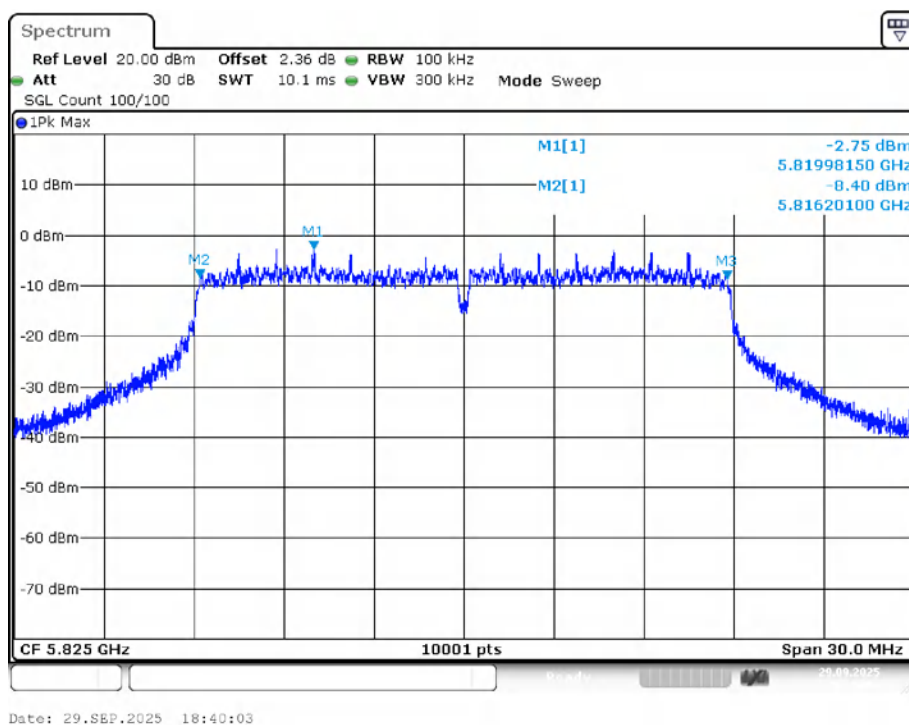
-6dB Bandwidth NVNT a 5825MHz Ant1



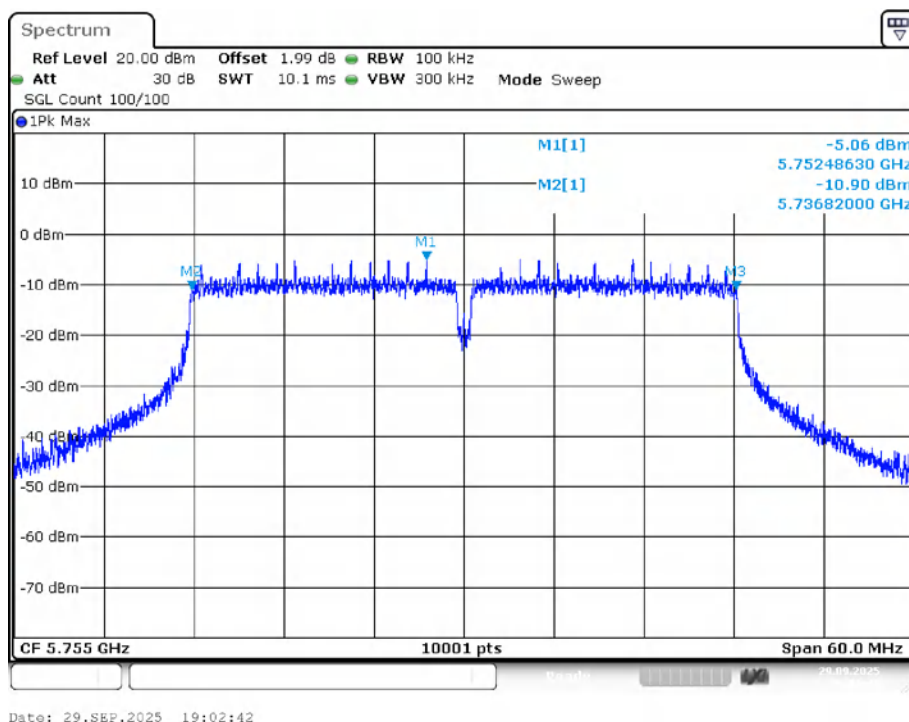
-6dB Bandwidth NVNT ac20 5745MHz Ant1



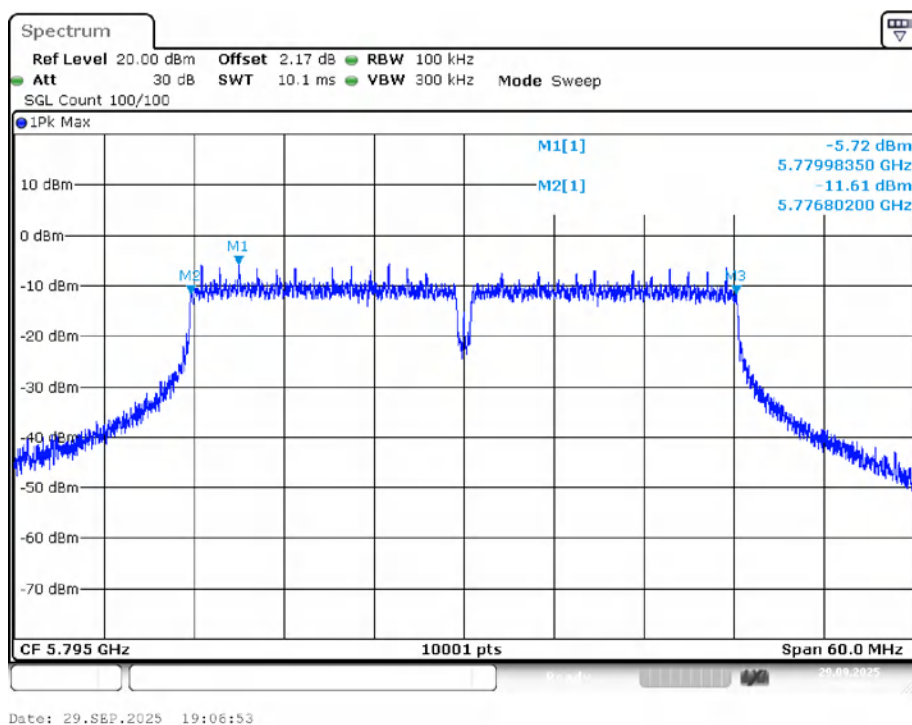
-6dB Bandwidth NVNT ac20 5785MHz Ant1



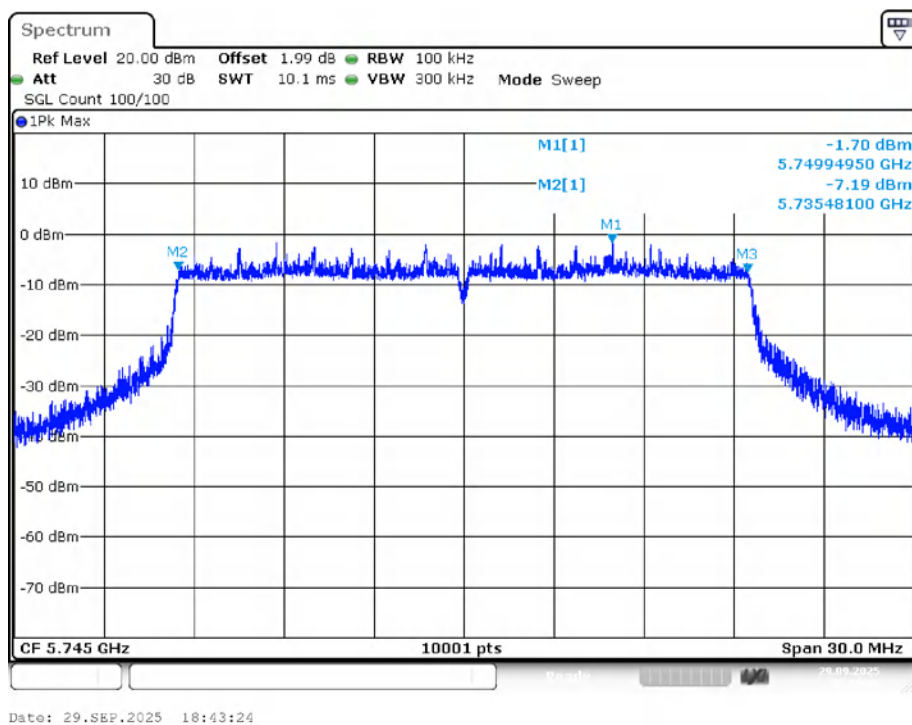
-6dB Bandwidth NVNT ac20 5825MHz Ant1



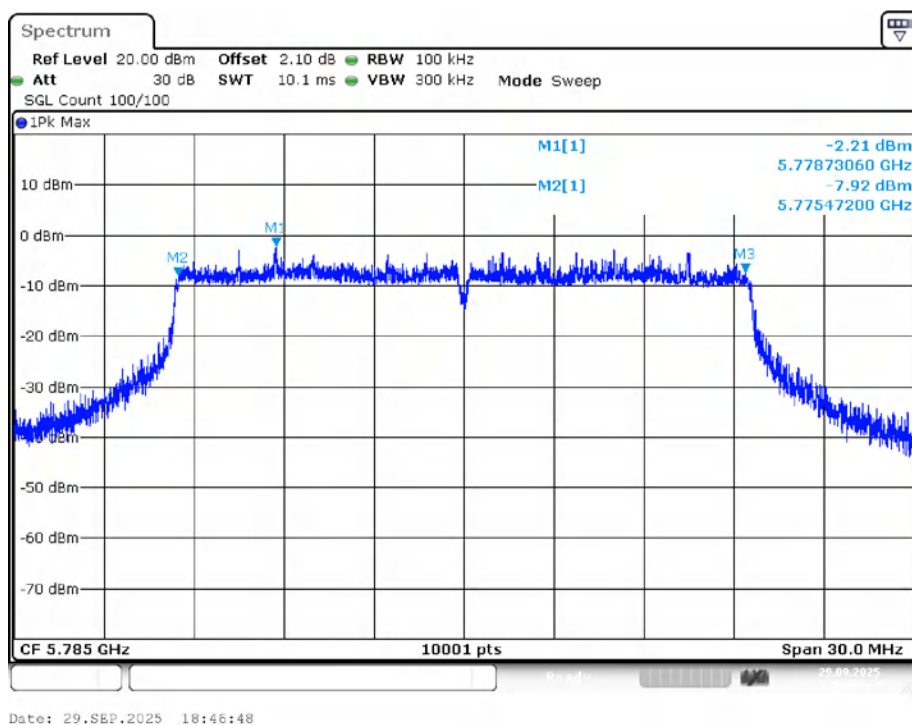
-6dB Bandwidth NVNT ac40 5755MHz Ant1



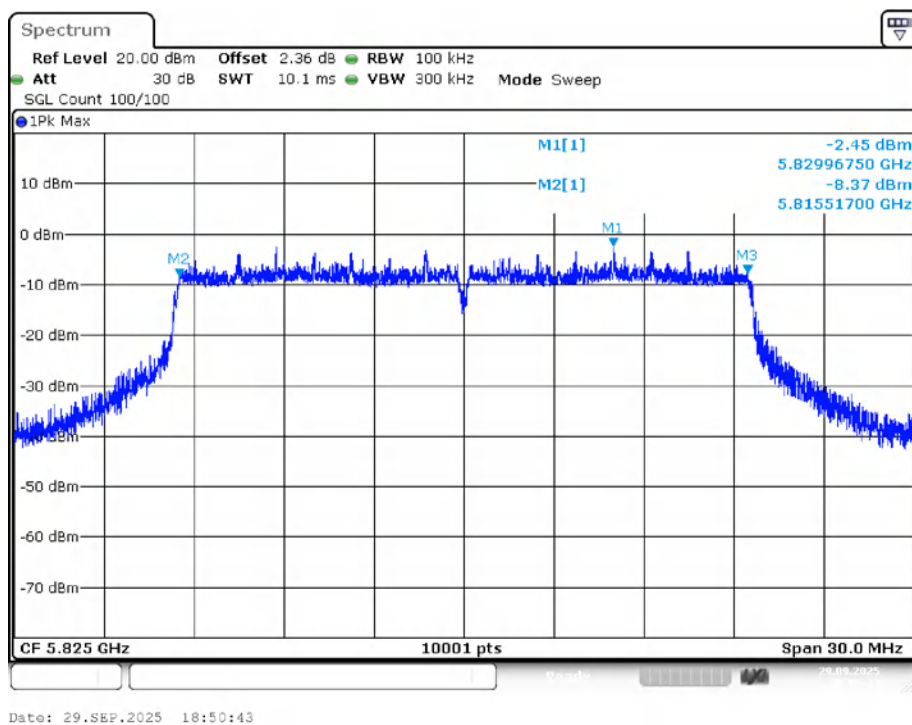
-6dB Bandwidth NVNT ac40 5795MHz Ant1



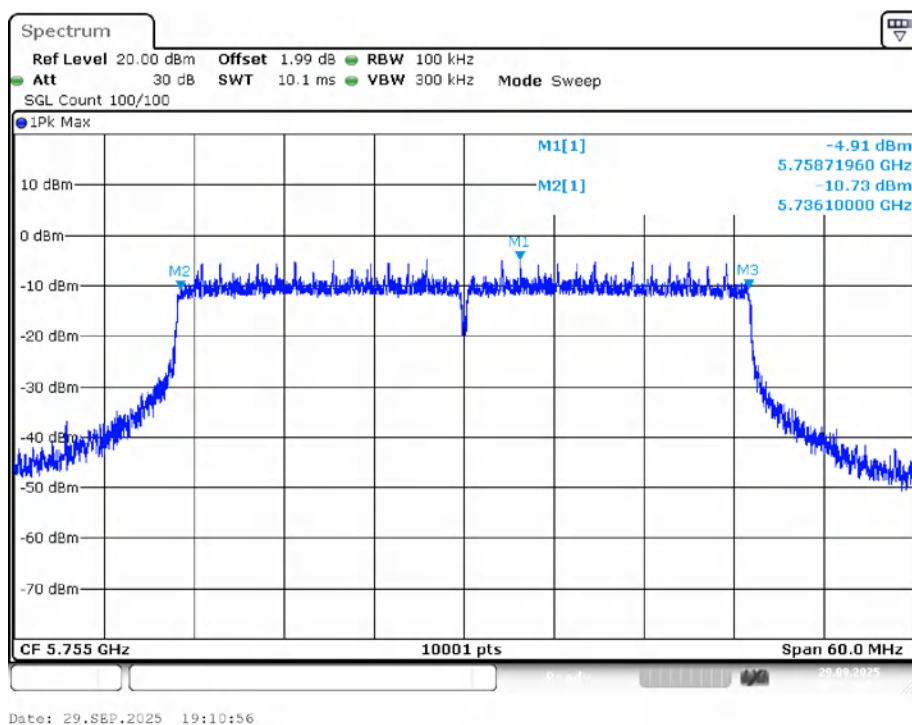
-6dB Bandwidth NVNT ax20 5745MHz Ant1



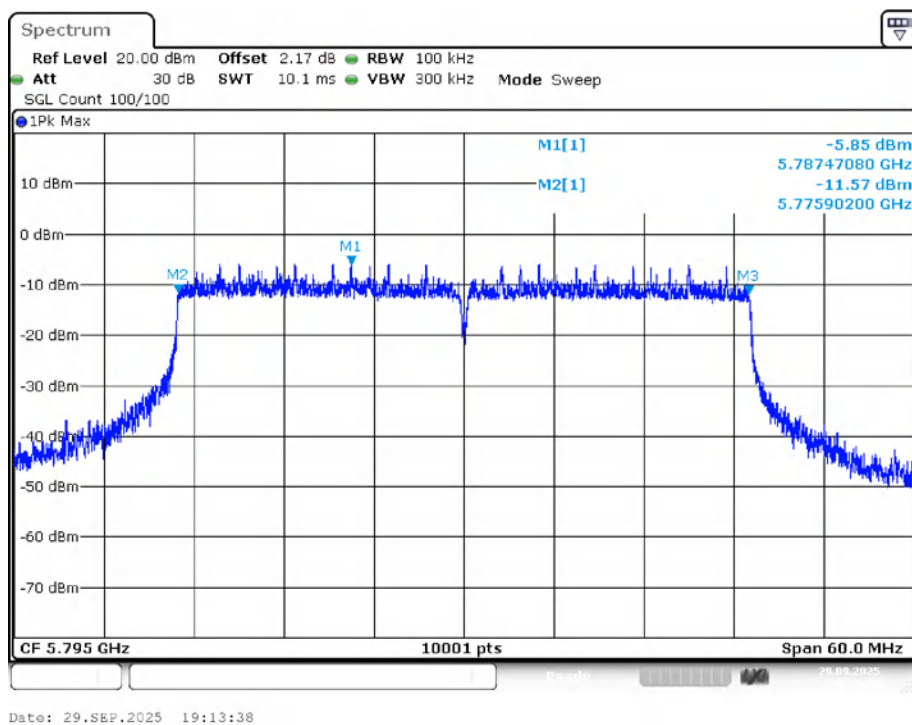
-6dB Bandwidth NVNT ax20 5785MHz Ant1



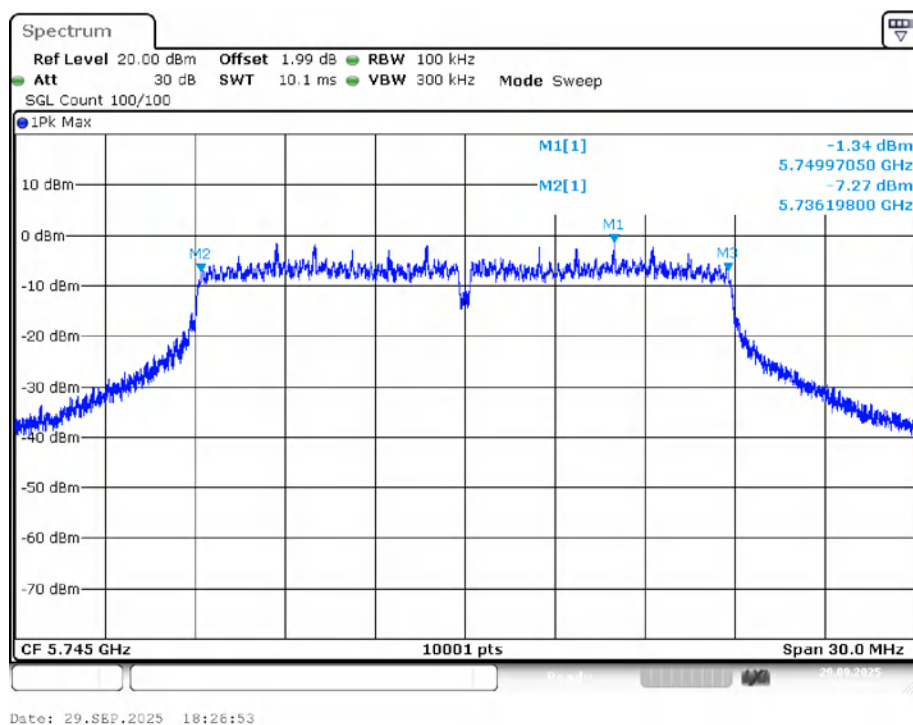
-6dB Bandwidth NVNT ax20 5825MHz Ant1



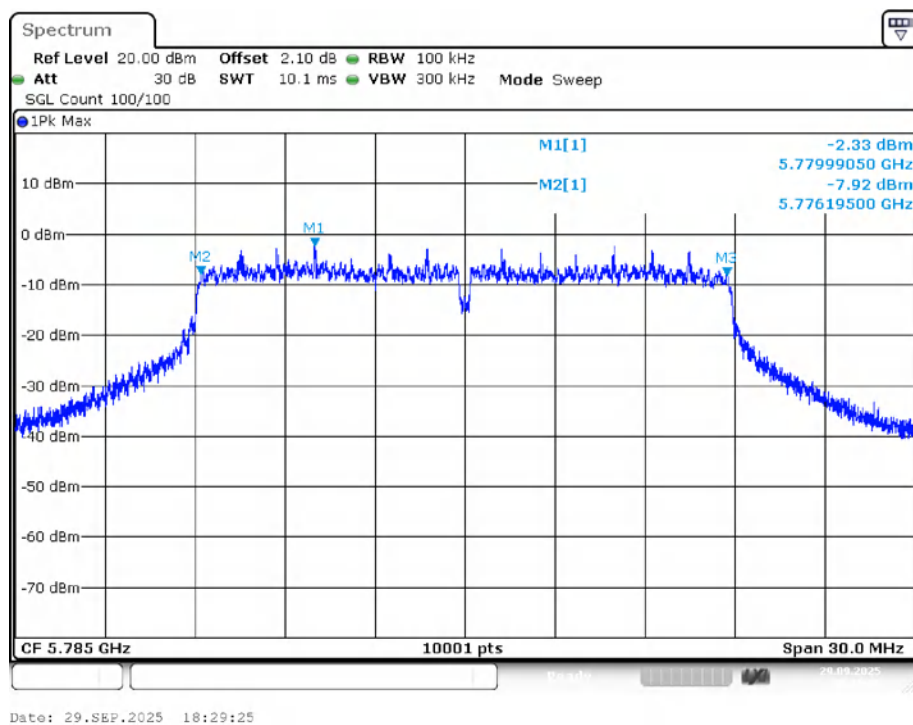
-6dB Bandwidth NVNT ax40 5755MHz Ant1



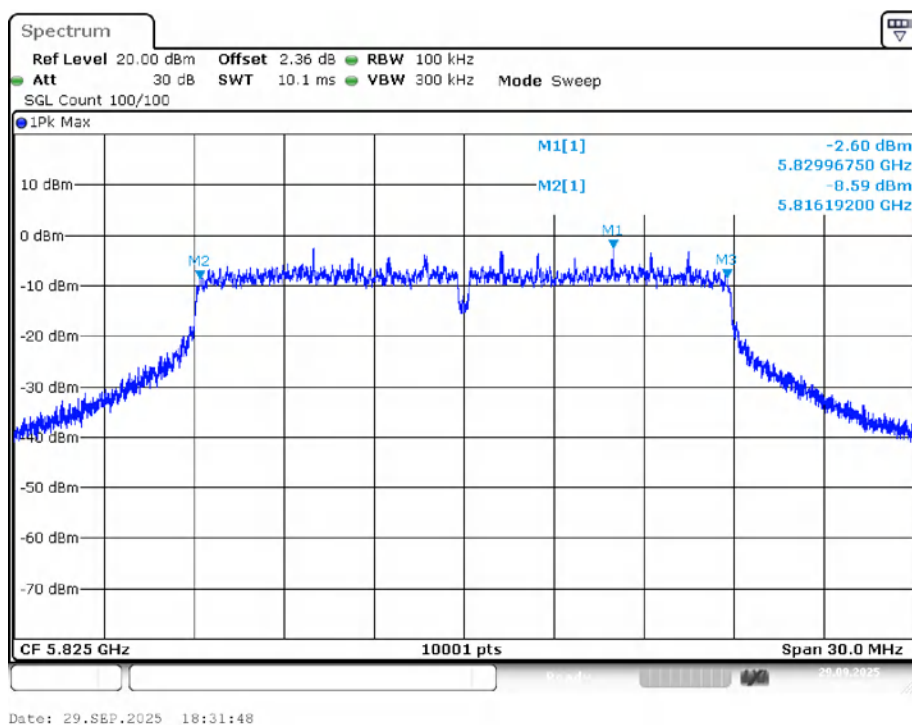
-6dB Bandwidth NVNT ax40 5795MHz Ant1



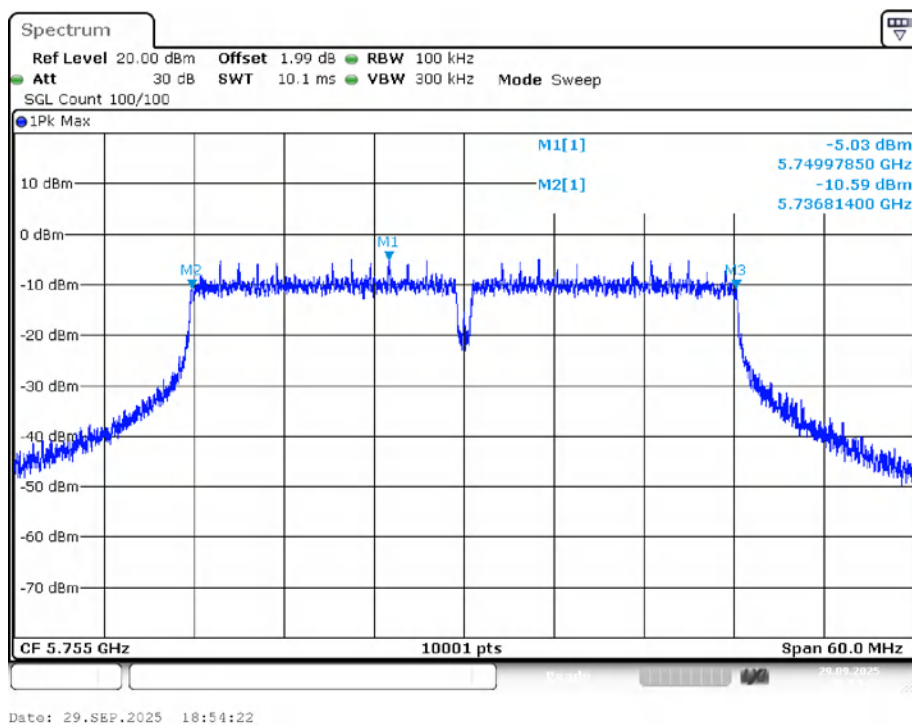
-6dB Bandwidth NVNT n20 5745MHz Ant1



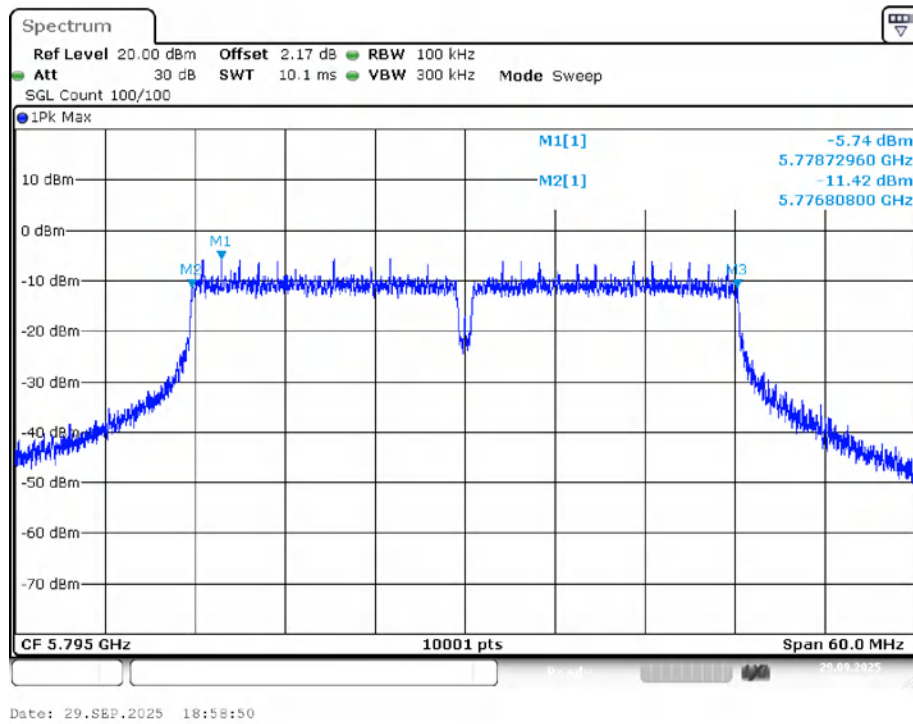
-6dB Bandwidth NVNT n20 5785MHz Ant1



-6dB Bandwidth NVNT n20 5825MHz Ant1



-6dB Bandwidth NVNT n40 5755MHz Ant1



-6dB Bandwidth NVNT n40 5795MHz Ant1

5.7. Band Edge

LIMIT

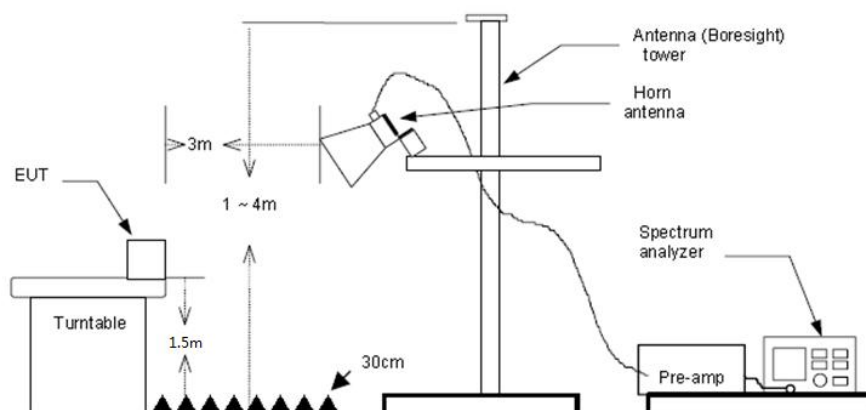
FCC CFR Title 47 Part 15 Subpart E Section 15.407(b)

Un-restricted band emissions above 1GHz			
Operating Band	Frequency	EIRP Limit	Value
5150-5250MHz	Above 1GHz	-27dBm/MHz (68.2dBuV/m@3m)	Peak
5250-5350MHz	Above 1GHz	-27dBm/MHz (68.2dBuV/m@3m)	Peak
5470-5725MHz	Above 1GHz	-27dBm/MHz (68.2dBuV/m@3m)	Peak
5725-5850 MHz	1GHz-5.65GHz	-27dBm/MHz (68.2dBuV/m@3m)	Peak
	5.65GHz-5.7GHz	-27*dBm/MHz to 10dBm/MHz (68.2* dBuV/m to 105.6dBuV/m@3m)	Peak
	5.7GHz-5.72GHz	10*dBm/MHz to 15.6dBm/MHz (105.6*dBuV/m to 110.8dBuV/m@3m)	Peak
	5.72GHz-5.725GHz	15.6*dBm/MHz to 27dBm/MHz (110.8dBuV/m to * 122.2dBuV/m@3m)	Peak
	5.85GHz-5.855GHz	27dBm/MHz to 15.6*dBm/MHz (122.2dBuV/m to 110.8* dBuV/m@3m)	Peak
	5.855GHz-5.875GHz	15.6dBm/MHz to 10*dBm/MHz (110.8dBuV/m to 105.6* dBuV/m@3m)	Peak
	5.875GHz-5.925GHz	10dBm/MHz to -27*dBm/MHz (105.6dBuV/m to 68.2* dBuV/m@3m)	Peak
	Above 5.925GHz	-27dBm/MHz (68.2dBuV/m@3m)	Peak

* Increase/Decreases with the linearity of the frequency.

For emission above 1GHz and in restricted band, according to FCC KDB 789033 D02 General UNII Test Procedure, all emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit. $E[dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:
RBW=1 MHz, VBW=3 MHz Peak detector for Peak value.
RBW=1 MHz, VBW=3 MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Band: I&II					Worst mode: 802.11a		Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5150	16.09	31.40	10.05	0.00	57.54	74.00	-16.46	Vertical	Peak
5150	15.54	31.70	9.79	0.00	57.03	74.00	-16.97	Horizontal	Peak
5150	6.76	31.70	9.79	0.00	48.25	54.00	-5.75	Vertical	Average
5150	6.95	31.70	9.79	0.00	48.44	54.00	-5.56	Horizontal	Average

Band: I&II					Worst mode: 802.11a		Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5350	18.65	31.40	10.05	0.00	60.10	74.00	-13.90	Vertical	Peak
5350	17.33	31.40	10.05	0.00	58.78	74.00	-15.22	Horizontal	Peak
5350	5.38	31.40	10.05	0.00	46.83	54.00	-7.17	Vertical	Average
5350	4.53	31.40	10.05	0.00	45.98	54.00	-8.02	Horizontal	Average

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Test 802.11a, 802.11n, 802.11ac mode, all modulations and antennas have been tested, only worst case is reported

Band: III			Worst mode: 802.11a				Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5460	9.79	31.82	10.19	0.00	51.80	74.00	-22.20	Vertical	Peak
5460	9.45	31.82	10.19	0.00	51.46	74.00	-22.54	Horizontal	Peak
5460	4.62	31.82	10.19	0.00	46.63	54.00	-7.37	Vertical	Average
5460	6.35	31.82	10.19	0.00	48.36	54.00	-5.64	Horizontal	Average

Band: III			Worst mode: 802.11a				Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5725	8.60	31.73	10.47	0.00	50.80	74.00	-23.20	Vertical	Peak
5725	10.65	31.73	10.47	0.00	52.85	74.00	-21.15	Horizontal	Peak
5725	5.97	31.73	10.47	0.00	48.17	54.00	-5.83	Vertical	Average
5725	3.73	31.73	10.47	0.00	45.93	54.00	-8.07	Horizontal	Average

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Test 802.11a, 802.11n, 802.11ac mode, all modulations and antennas have been tested, only worst case is reported

Band: IV		Worst mode: 802.11a					Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5725	10.44	31.73	10.47	0.00	52.64	74.00	-21.36	Vertical	Peak
5725	12.07	31.73	10.47	0.00	54.27	74.00	-19.73	Horizontal	Peak
5725	1.23	31.73	10.47	0.00	43.43	54.00	-10.57	Vertical	Average
5725	3.86	31.73	10.47	0.00	46.06	54.00	-7.94	Horizontal	Average

Band: IV		Worst mode: 802.11a					Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
5850	10.21	32.20	10.61	0.00	53.02	74.00	-20.98	Vertical	Peak
5850	8.74	32.20	10.61	0.00	51.55	74.00	-22.45	Horizontal	Peak
5850	5.94	32.20	10.61	0.00	48.75	54.00	-5.25	Vertical	Average
5850	4.15	32.20	10.61	0.00	46.96	54.00	-7.04	Horizontal	Average

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Test 802.11a, 802.11n, 802.11ac mode, all modulations and antennas have been tested, only worst case is reported

5.8. Radiated Spurious Emissions

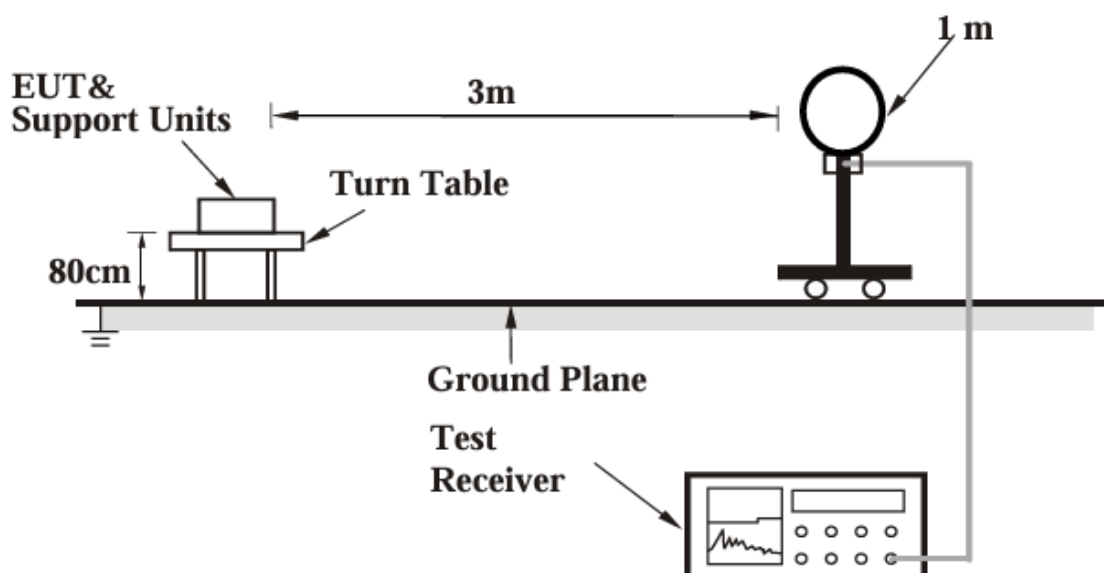
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209 and Part 15 Subpart E Section 15.407

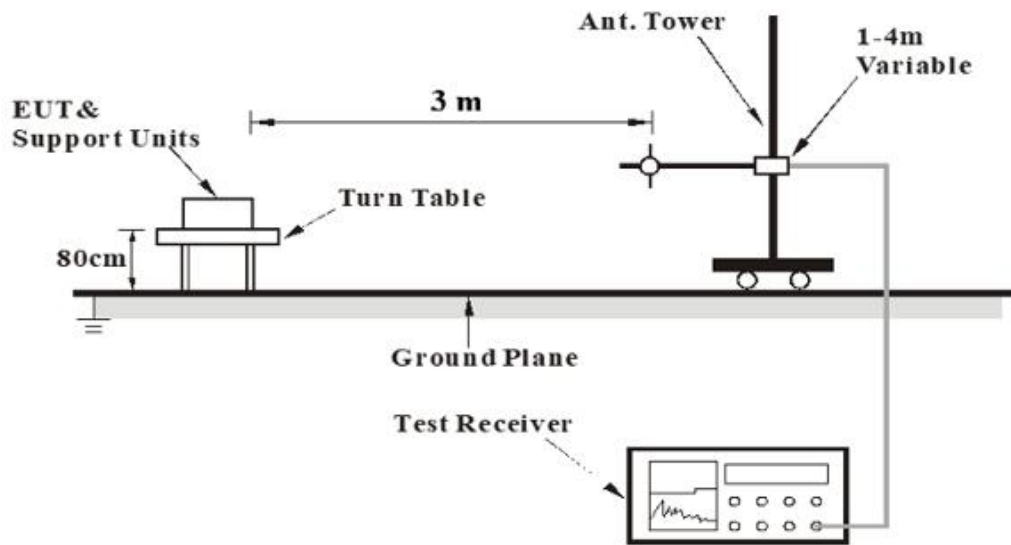
Unwanted emissions below 1GHz and Restricted band emissions above 1GHz		
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

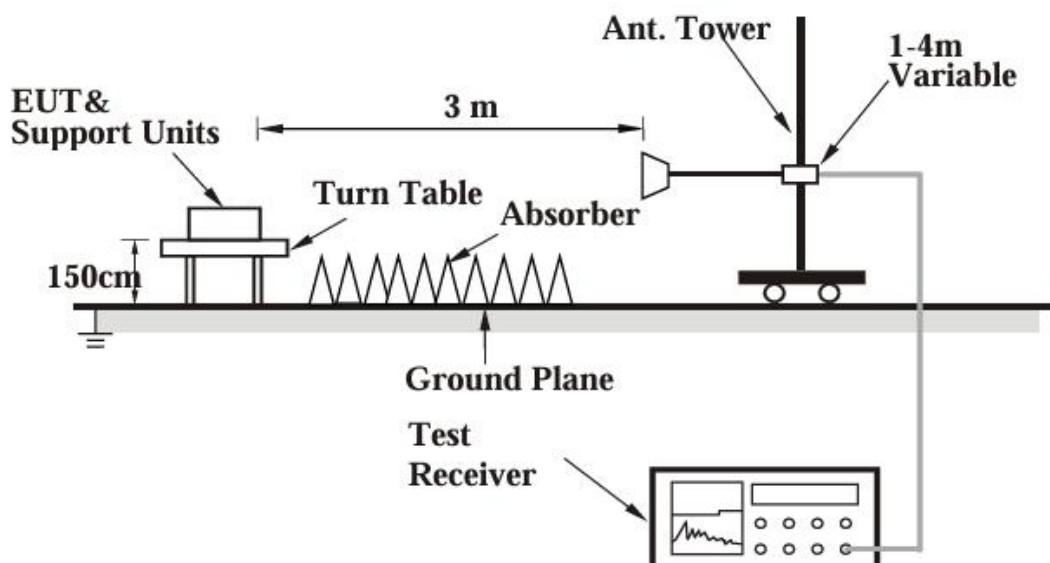
- 9KHz ~30MHz



- 30MHz ~ 1GHz



- Above 1GHz



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10:2013
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

- (3) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ Passed ☐ Not Applicable

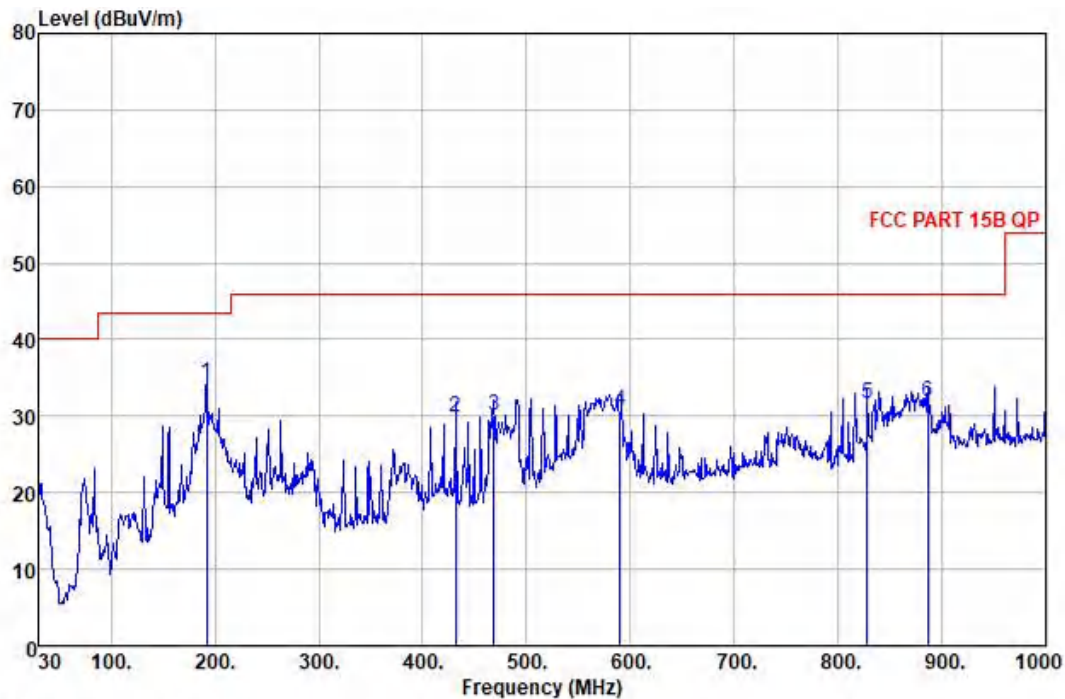
Measurement data:**■ 9kHz ~ 30MHz**

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

■ 30MHz ~ 1GHz Spurious Emissions .Quasi-Peak Measurement

Worst Case Test Mode: 802.11 a

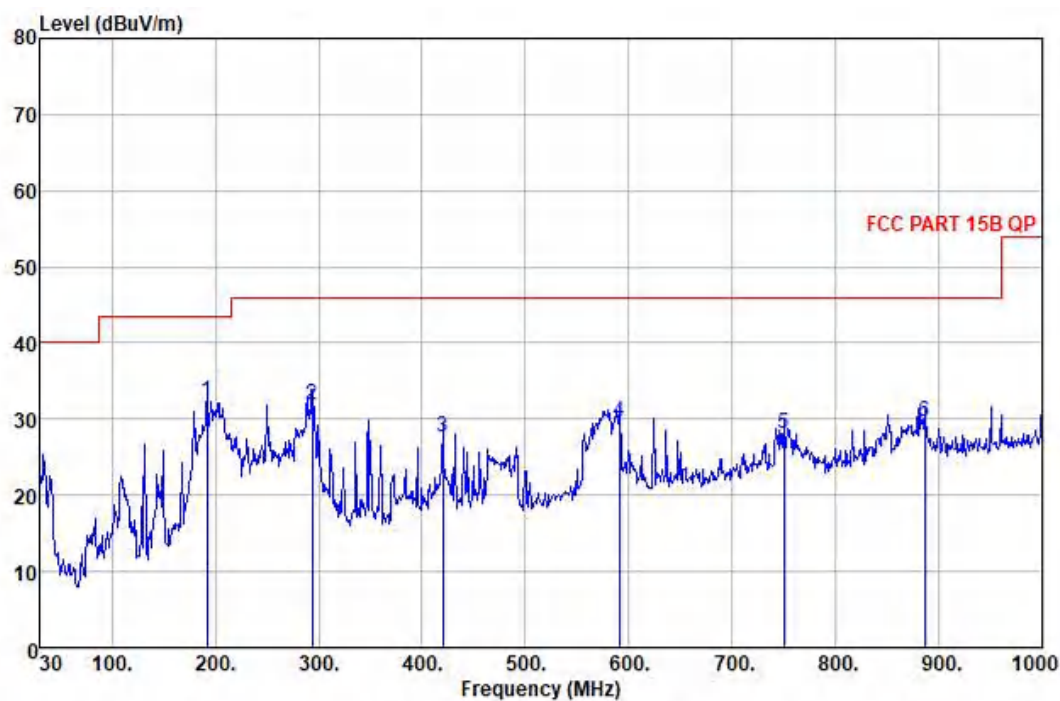
Horizontal:



No.	Freq MHz	Read Level dBuV	Antenna Factor dB	Cable Loss dB	Preamplifier Factor dB	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Pol/Phase	Remark
1	191.990	49.82	10.50	1.67	27.66	34.33	43.50	-9.17	HORIZONTAL	QP
2	431.580	39.77	15.77	2.57	28.23	29.88	46.00	-16.12	HORIZONTAL	QP
3	468.440	39.35	16.57	2.68	28.45	30.15	46.00	-15.85	HORIZONTAL	QP
4	589.690	37.03	19.18	3.03	28.40	30.84	46.00	-15.16	HORIZONTAL	QP
5	828.310	34.26	21.23	3.64	27.51	31.62	46.00	-14.38	HORIZONTAL	QP
6	886.510	33.03	22.27	3.76	27.20	31.86	46.00	-14.14	HORIZONTAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Vertical:



No.	Freq MHz	Read Level dBuV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Pol/Phase	Remark
1	191.990	47.74	10.50	1.67	27.66	32.25	43.50	-11.25	VERTICAL	QP
2	293.840	44.49	12.92	2.10	27.51	31.97	46.00	-14.03	VERTICAL	QP
3	419.940	37.74	15.60	2.52	28.12	27.74	46.00	-18.26	VERTICAL	QP
4	590.660	35.78	19.19	3.03	28.38	29.62	46.00	-16.38	VERTICAL	QP
5	749.740	31.62	20.60	3.44	27.50	28.16	46.00	-17.84	VERTICAL	QP
6	886.510	30.86	22.27	3.76	27.20	29.69	46.00	-16.31	VERTICAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

■ Above 1GHz

Band: I					Worst mode: 802.11a		Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1732	38.81	25.31	5.87	37.36	32.63	74.00	-41.37	Vertical	Peak
3121	37.99	28.80	7.66	37.44	37.01	74.00	-36.99	Vertical	Peak
4124	38.89	29.96	8.91	36.60	41.16	74.00	-32.84	Vertical	Peak
7323	32.92	36.30	11.99	33.32	47.89	74.00	-26.11	Vertical	Peak
1222	37.79	26.27	4.71	37.21	31.56	74.00	-42.44	Horizontal	Peak
2234	36.33	28.06	6.59	37.59	33.39	74.00	-40.61	Horizontal	Peak
3003	37.35	28.61	7.48	37.58	35.86	74.00	-38.14	Horizontal	Peak
8012	31.89	37.06	12.40	33.06	48.29	74.00	-25.71	Horizontal	Peak

Band: I					Worst mode: 802.11a		Test channel: CH _M		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1235	39.02	26.26	4.72	37.20	32.80	74.00	-41.20	Vertical	Peak
1742	38.81	25.31	5.87	37.36	32.63	74.00	-41.37	Vertical	Peak
3142	37.99	28.80	7.66	37.44	37.01	74.00	-36.99	Vertical	Peak
6521	33.14	34.09	11.26	33.64	44.85	74.00	-29.15	Vertical	Peak
1245	37.79	26.27	4.71	37.21	31.56	74.00	-42.44	Horizontal	Peak
2223	36.33	28.06	6.59	37.59	33.39	74.00	-40.61	Horizontal	Peak
3003	37.35	28.61	7.48	37.58	35.86	74.00	-38.14	Horizontal	Peak
4615	34.12	31.13	9.49	35.96	38.78	74.00	-35.22	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz.
4. Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.

Band: I					Worst mode: 802.11a		Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1242	39.02	26.26	4.72	37.20	32.80	74.00	-41.20	Vertical	Peak
1723	38.81	25.31	5.87	37.36	32.63	74.00	-41.37	Vertical	Peak
2232	37.44	28.02	6.58	37.59	34.45	74.00	-39.55	Vertical	Peak
7321	32.92	36.30	11.99	33.32	47.89	74.00	-26.11	Vertical	Peak
2625	36.22	27.91	7.00	37.59	33.54	74.00	-40.46	Horizontal	Peak
3003	37.35	28.61	7.48	37.58	35.86	74.00	-38.14	Horizontal	Peak
6223	32.94	33.03	11.00	33.86	43.11	74.00	-30.89	Horizontal	Peak
8653	31.33	37.52	12.93	32.94	48.84	74.00	-25.16	Horizontal	Peak

Band: II					Worst mode: 802.11a		Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1723	38.81	25.31	5.87	37.36	32.63	74.00	-41.37	Vertical	Peak
3123	37.99	28.80	7.66	37.44	37.01	74.00	-36.99	Vertical	Peak
4252	38.89	29.96	8.91	36.60	41.16	74.00	-32.84	Vertical	Peak
7323	32.92	36.30	11.99	33.32	47.89	74.00	-26.11	Vertical	Peak
1222	37.79	26.27	4.71	37.21	31.56	74.00	-42.44	Horizontal	Peak
3003	37.35	28.61	7.48	37.58	35.86	74.00	-38.14	Horizontal	Peak
3862	35.07	29.63	8.55	36.88	36.37	74.00	-37.63	Horizontal	Peak
6612	32.25	34.20	11.39	33.69	44.15	74.00	-29.85	Horizontal	Peak

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *Measuring frequencies from 1 GHz to 40GHz.*
4. *Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.*

Band: II					Worst mode: 802.11a		Test channel: CH _M		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1652	36.52	25.03	5.65	37.24	29.96	74.00	-44.04	Vertical	Peak
3102	36.91	28.80	7.61	37.48	35.84	74.00	-38.16	Vertical	Peak
4222	36.53	30.05	8.96	36.54	39.00	74.00	-35.00	Vertical	Peak
7753	29.83	36.10	13.00	33.04	45.89	74.00	-28.11	Vertical	Peak
2311	34.44	28.05	6.62	37.59	31.52	74.00	-42.48	Horizontal	Peak
2752	33.59	28.10	7.18	37.59	31.28	74.00	-42.72	Horizontal	Peak
3435	34.10	28.36	7.99	37.21	33.24	74.00	-40.76	Horizontal	Peak
7223	29.83	36.23	11.89	33.48	44.47	74.00	-29.53	Horizontal	Peak

Band: II					Worst mode: 802.11a		Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1623	37.00	24.97	5.61	37.21	30.37	74.00	-43.63	Vertical	Peak
3153	37.99	28.80	7.66	37.44	37.01	74.00	-36.99	Vertical	Peak
5766	32.62	32.06	10.58	34.26	41.00	74.00	-33.00	Vertical	Peak
8123	30.18	36.86	12.64	33.02	46.66	74.00	-27.34	Vertical	Peak
1474	34.61	25.83	5.19	37.09	28.54	74.00	-45.46	Horizontal	Peak
2533	35.99	27.55	6.88	37.59	32.83	74.00	-41.17	Horizontal	Peak
3641	34.37	29.30	8.34	37.01	35.00	74.00	-39.00	Horizontal	Peak
6722	31.24	34.04	11.58	33.77	43.09	74.00	-30.91	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz.
4. Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.

Band: III					Worst mode: 802.11a		Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1252	38.06	26.27	4.71	37.21	31.83	74.00	-42.17	Vertical	Peak
2835	35.41	28.43	7.42	37.58	33.68	74.00	-40.32	Vertical	Peak
4467	33.60	30.52	9.15	36.37	36.90	74.00	-37.10	Vertical	Peak
8744	30.20	37.89	13.00	32.96	48.13	74.00	-25.87	Vertical	Peak
1529	35.06	25.53	5.37	37.11	28.85	74.00	-45.15	Horizontal	Peak
2225	35.34	27.68	6.49	37.60	31.91	74.00	-42.09	Horizontal	Peak
3454	34.11	28.64	8.04	37.18	33.61	74.00	-40.39	Horizontal	Peak
6379	30.49	33.26	10.99	33.74	41.00	74.00	-33.00	Horizontal	Peak

Band: III					Worst mode: 802.11a		Test channel: CH _M		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
2835	38.12	28.32	7.40	37.58	36.26	74.00	-37.74	Vertical	Peak
3934	37.55	29.70	8.73	36.79	39.19	74.00	-34.81	Vertical	Peak
6903	35.02	34.72	11.73	33.83	47.64	74.00	-26.36	Vertical	Peak
8637	32.91	37.52	12.93	32.94	50.42	74.00	-23.58	Vertical	Peak
2292	36.33	28.06	6.59	37.59	33.39	74.00	-40.61	Horizontal	Peak
3834	35.07	29.63	8.55	36.88	36.37	74.00	-37.63	Horizontal	Peak
5821	33.23	32.14	10.60	34.24	41.73	74.00	-32.27	Horizontal	Peak
7376	31.33	36.30	12.04	33.23	46.44	74.00	-27.56	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz.
4. Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.

Band: III				Worst mode: 802.11a			Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1664	37.21	25.11	5.70	37.27	30.75	74.00	-43.25	Vertical	Peak
2982	35.12	28.59	7.47	37.58	33.60	74.00	-40.40	Vertical	Peak
3692	36.58	29.30	8.37	36.99	37.26	74.00	-36.74	Vertical	Peak
4721	33.46	31.30	9.51	35.87	38.40	74.00	-35.60	Vertical	Peak
2887	35.55	28.43	7.42	37.58	33.82	74.00	-40.18	Horizontal	Peak
4184	33.08	29.98	8.92	36.58	35.40	74.00	-38.60	Horizontal	Peak
5772	32.28	31.99	10.55	34.27	40.55	74.00	-33.45	Horizontal	Peak
8276	30.39	36.49	12.80	32.98	46.70	74.00	-27.30	Horizontal	Peak

Band: IV				Worst mode: 802.11a			Test channel: CH _L		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1635	36.50	24.99	5.63	37.22	29.90	74.00	-44.10	Vertical	Peak
3142	36.45	28.80	7.65	37.45	35.45	74.00	-38.55	Vertical	Peak
5797	32.62	32.06	10.58	34.26	41.00	74.00	-33.00	Vertical	Peak
8103	29.97	36.99	12.55	33.04	46.47	74.00	-27.53	Vertical	Peak
2261	36.32	27.89	6.55	37.59	33.17	74.00	-40.83	Horizontal	Peak
2946	36.64	28.54	7.45	37.58	35.05	74.00	-38.95	Horizontal	Peak
3891	33.48	29.69	8.63	36.84	34.96	74.00	-39.04	Horizontal	Peak
7224	29.83	36.23	11.89	33.48	44.47	74.00	-29.53	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz.
4. Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.

Band: IV				Worst mode: 802.11a			Test channel: CH _M		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1355	35.89	25.92	4.99	37.12	29.68	74.00	-44.32	Vertical	Peak
2903	35.28	28.51	7.43	37.58	33.64	74.00	-40.36	Vertical	Peak
5765	32.62	32.06	10.58	34.26	41.00	74.00	-33.00	Vertical	Peak
7932	31.11	36.87	12.58	33.06	47.50	74.00	-26.50	Vertical	Peak
1334	36.50	26.13	4.87	37.16	30.34	74.00	-43.66	Horizontal	Peak
2176	35.59	26.90	6.38	37.60	31.27	74.00	-42.73	Horizontal	Peak
2943	34.83	28.51	7.43	37.58	33.19	74.00	-40.81	Horizontal	Peak
6754	31.24	34.04	11.58	33.77	43.09	74.00	-30.91	Horizontal	Peak

Band: IV				Worst mode: 802.11a			Test channel: CH _H		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1665	37.84	25.12	5.71	37.27	31.40	74.00	-42.60	Vertical	Peak
3203	35.66	28.80	7.72	37.40	34.78	74.00	-39.22	Vertical	Peak
7026	31.78	35.38	11.85	33.83	45.18	74.00	-28.82	Vertical	Peak
9634	30.73	39.10	13.70	33.98	49.55	74.00	-24.45	Vertical	Peak
1542	34.77	25.42	5.40	37.12	28.47	74.00	-45.53	Horizontal	Peak
2274	36.13	27.96	6.56	37.59	33.06	74.00	-40.94	Horizontal	Peak
3224	35.02	28.65	7.75	37.37	34.05	74.00	-39.95	Horizontal	Peak
6097	32.14	32.50	10.83	34.05	41.42	74.00	-32.58	Horizontal	Peak

Remark:

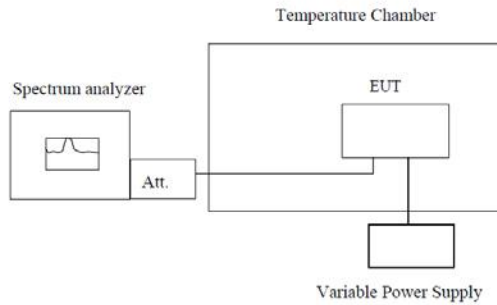
1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz.
4. Test 802.11a, 802.11n, 802.11ac, 802.11ax mode, all modulations and antennas have been tested, only worst case is reported.

5.9. Frequency stability

LIMIT

Within Operation Band

TEST CONFIGURATION



Note : Measurement setup for testing on Antenna connector

TEST PROCEDURE

1. The equipment under test was connected to an external power supply.
2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
3. The EUT was placed inside the temperature chamber.
4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.
5. Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.
6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

TEST MODE:

Transmitting with unmodulation

TEST RESULTS

☒ Passed ☐ Not Applicable

Note: We tested all antennas, and recorded the worst data for this item.

Normal Temp. Frequency stability

Band: I			Test Frequency: 5180.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
25	5	2000	3.86	Pass
25	5	2000	3.86	Pass
25	5	2000	3.86	Pass

Band: II			Test Frequency: 5260.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
25	5	2000	3.80	Pass
25	5	2000	3.80	Pass
25	5	2000	3.80	Pass

Band: III			Test Frequency: 5500.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
25	5	4000	7.27	Pass
25	5	4000	7.27	Pass
25	5	4000	7.27	Pass

Band: IV			Test Frequency: 5745.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
25	5	2700	4.70	Pass
25	5	2700	4.70	Pass
25	5	2700	4.70	Pass

Temperature VS Frequency stability

Band: I			Test Frequency: 5180.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
5	-20	2000	3.86	Pass
5	-10	2000	3.86	Pass
5	0	2000	3.86	Pass
5	10	2000	3.86	Pass
5	20	2000	3.86	Pass
5	30	2000	3.86	Pass
5	40	2500	4.83	Pass
5	50	2600	5.02	Pass

Band: II			Test Frequency: 5260.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
5	-20	2000	3.80	Pass
5	-10	2000	3.80	Pass
5	0	2000	3.80	Pass
5	10	2000	3.80	Pass
5	20	2000	3.80	Pass
5	30	2000	3.80	Pass
5	40	2100	3.99	Pass
5	50	2100	3.99	Pass

Band: III			Test Frequency: 5500.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
5	-20	4000	7.27	Pass
5	-10	4000	7.27	Pass
5	0	4000	7.27	Pass
5	10	4000	7.27	Pass
5	20	4000	7.27	Pass
5	30	4000	7.27	Pass
5	40	4100	7.45	Pass
5	50	4100	7.45	Pass

Band: IV			Test Frequency: 5745.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
5	-20	2700	4.70	Pass
5	-10	2700	4.70	Pass
5	0	2700	4.70	Pass
5	10	2700	4.70	Pass
5	20	2700	4.70	Pass
5	30	2800	4.87	Pass
5	40	2800	4.87	Pass
5	50	2800	4.87	Pass

5.10. Radiated Emissions which fall in the restricted bands

Test Requirement:	FCC Part 15 C section 15.247 (d) In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).
Test Method:	ANSI C63.10:2013
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, channels and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	(Semi-Anechoic Chamber)
Measurement Distance:	3m
Limit:	40.0 dB μ V/m between 30 MHz & 88MHz; 43.5 dB μ V/m between 88MHz & 216MHz; 46.0 dB μ V/m between 216MHz & 960MHz; 54.0 dB μ V/m above 960MHz.
Detector:	For PK value: RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz VBW $\geq$ RBW Sweep = auto Detector function = peak Trace = max hold For AV value: RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz VBW =10Hz Sweep = auto Detector function = peak Trace = max hold

Section 15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section. Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		

5.10.1 Test Result

Pre-test under all modes; choose the worst case mode record on the report.

Test mode: 802.11a

Frequency (MHz)	Reading Level (dBμV/m)	Correct (dB/m)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Antenna polarization	Detector
Low Channel							
4500.000	36.19	8.15	40.56	74.00	-33.44	H	PK
4500.000	27.16	8.19	29.15	54.00	-24.85	H	AV
5150.000	40.62	8.26	42.94	74.00	-31.06	V	PK
5150.000	22.95	8.27	25.75	54.00	-28.25	V	AV
High Channel							
5350.000	38.26	8.44	41.15	74.00	-32.85	H	PK
5350.000	27.16	8.45	29.83	54.00	-24.17	H	AV
5460.000	39.67	8.96	42.11	74.00	-31.89	V	PK
5460.000	22.62	8.96	27.50	54.00	-26.5	V	AV

5.11. Dynamic Frequency Selection(DFS)

Requirement

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

LIMIT

1. DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

2. DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

RADAR TEST WAVEFORMS

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup} \left\{ \left(\frac{1}{360} \right), \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 μ sec is selected, the number of pulses

$$\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\}$$

would be Round up $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{3066} \right) \right\} = \text{Round up } \{17.2\} = 18$.

Table 5a - Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658
9	1474.9	678
10	1432.7	698
11	1392.8	718
12	1355	738
13	1319.3	758
14	1285.3	778
15	1253.1	798
16	1222.5	818
17	1193.3	838
18	1165.6	858
19	1139	878
20	1113.6	898
21	1089.3	918
22	1066.1	938
23	326.2	3066

Table 6 – Long Pulse Radar Test Waveform

Radar Type	Pulse Width (µsec)	Chip Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

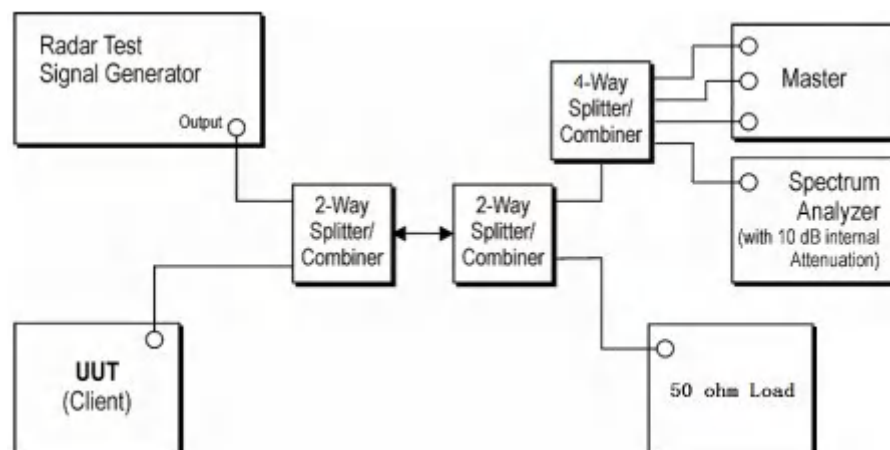
The parameters for this waveforms are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type wave forms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Calibration of Radar Waveform

Radar Waveform Calibration Procedure

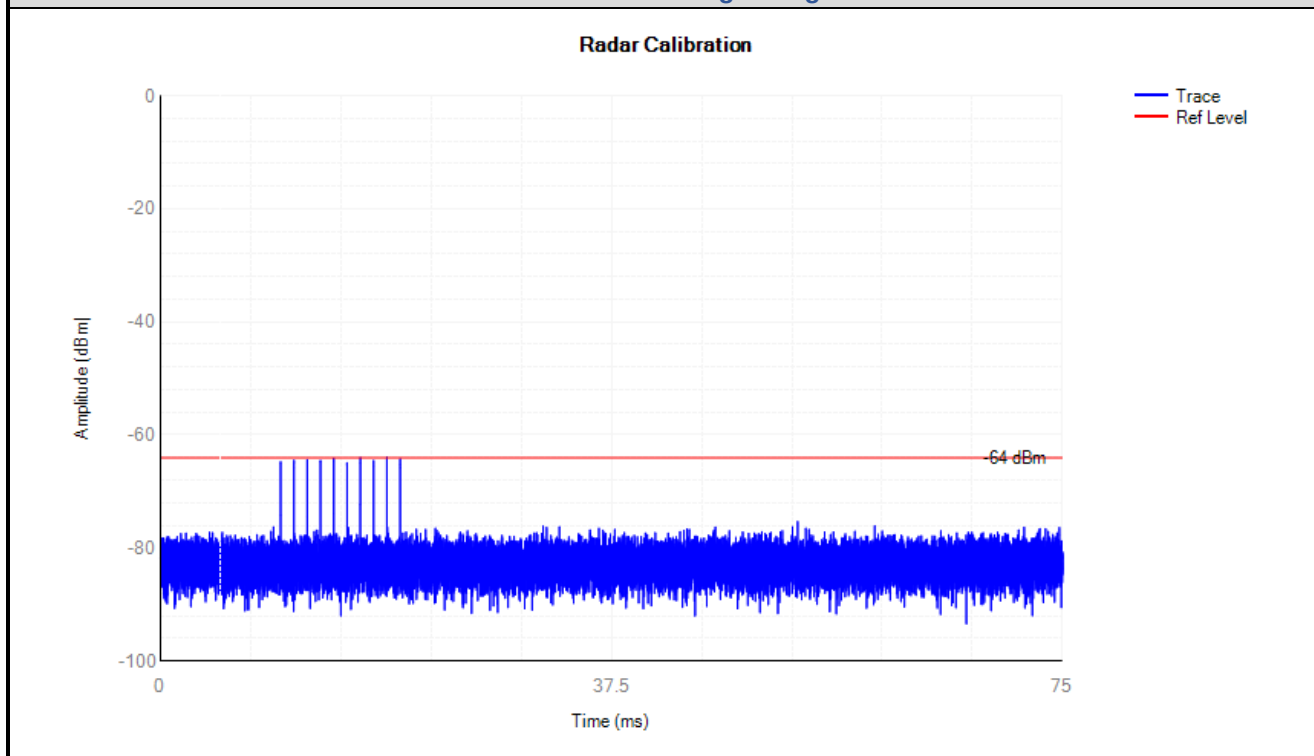
- 1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master
- 2) The interference Radar Detection Threshold Level is $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$ that had been taken into account the output power range and antenna gain.
- 3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB .
- 4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup

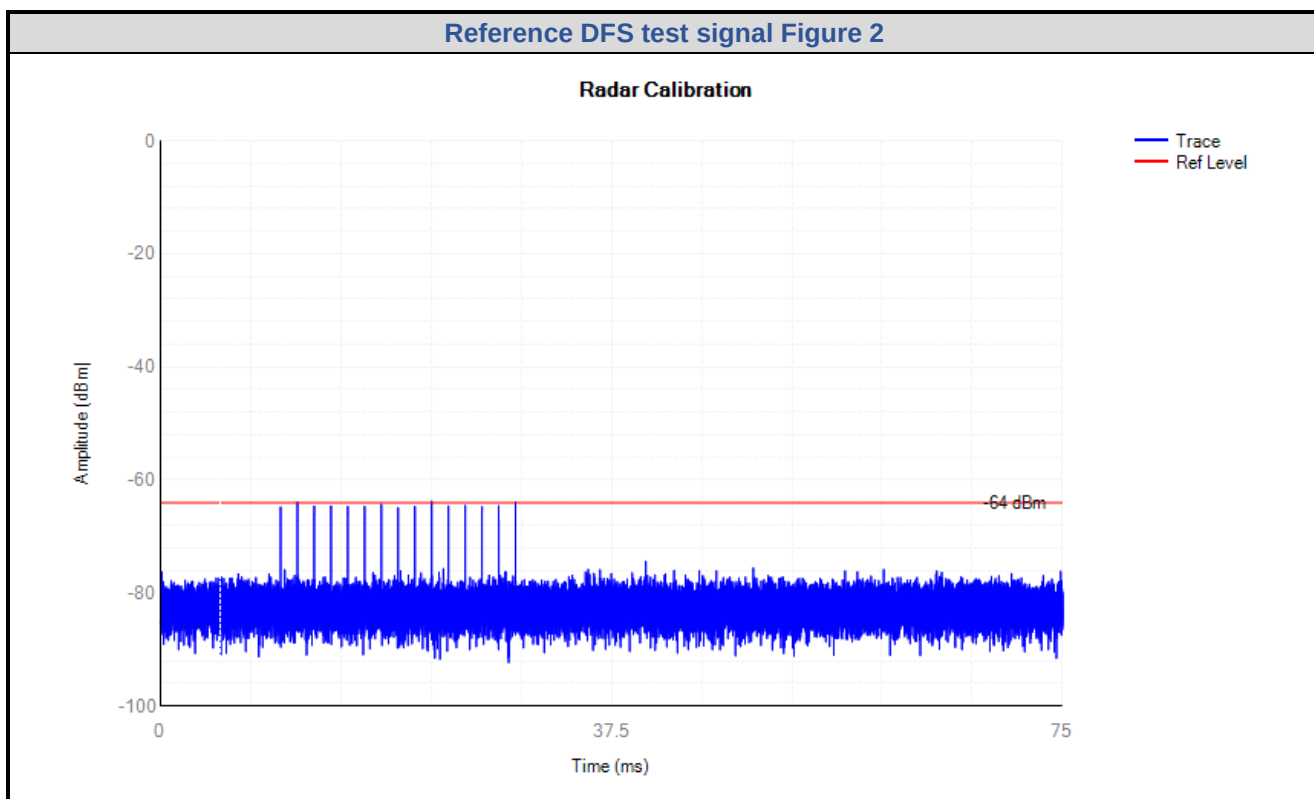


**Radar Waveform
Calibration Result**

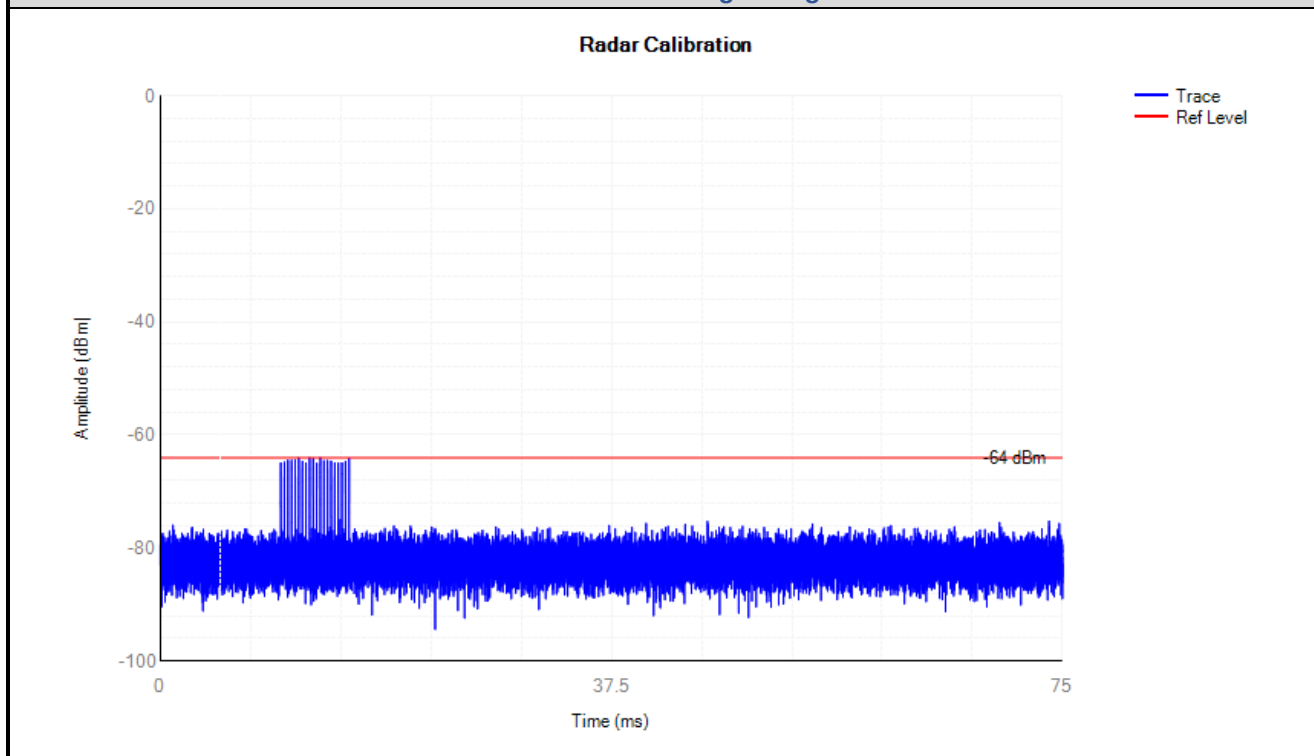
Reference DFS test signal Figure 1



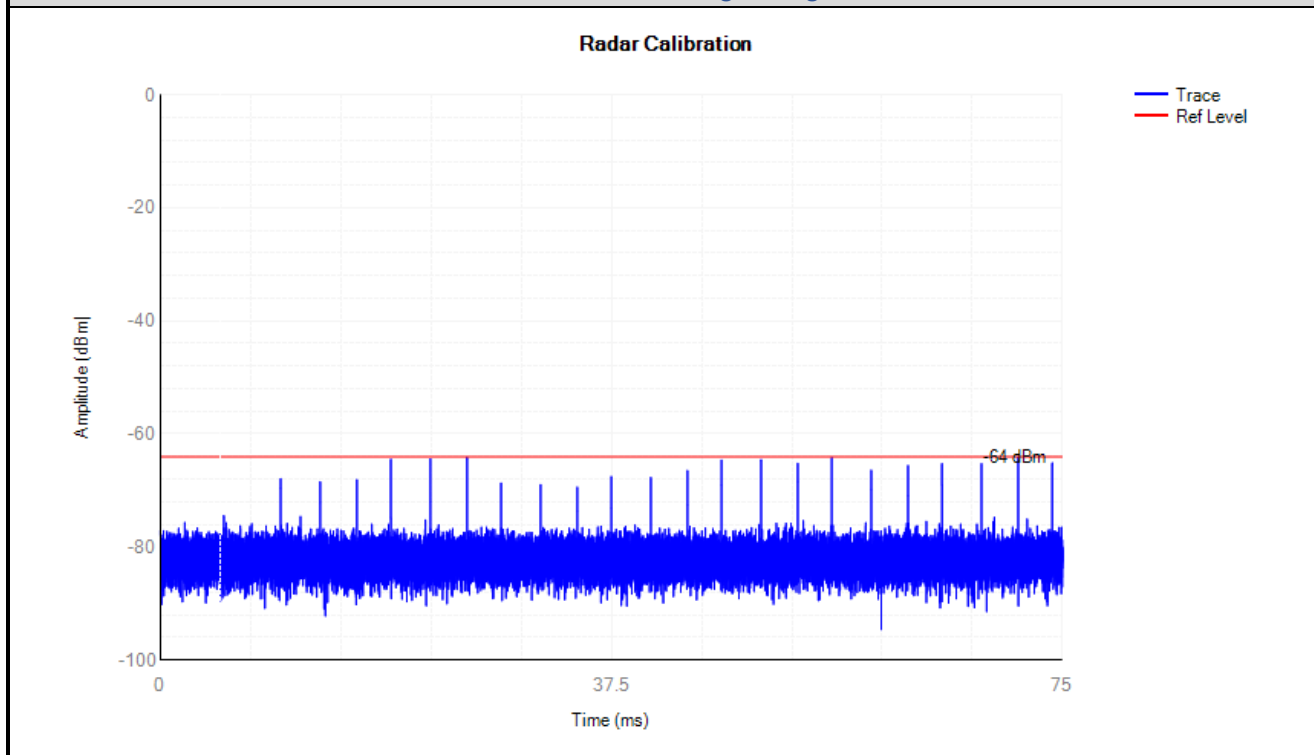
Reference DFS test signal Figure 2



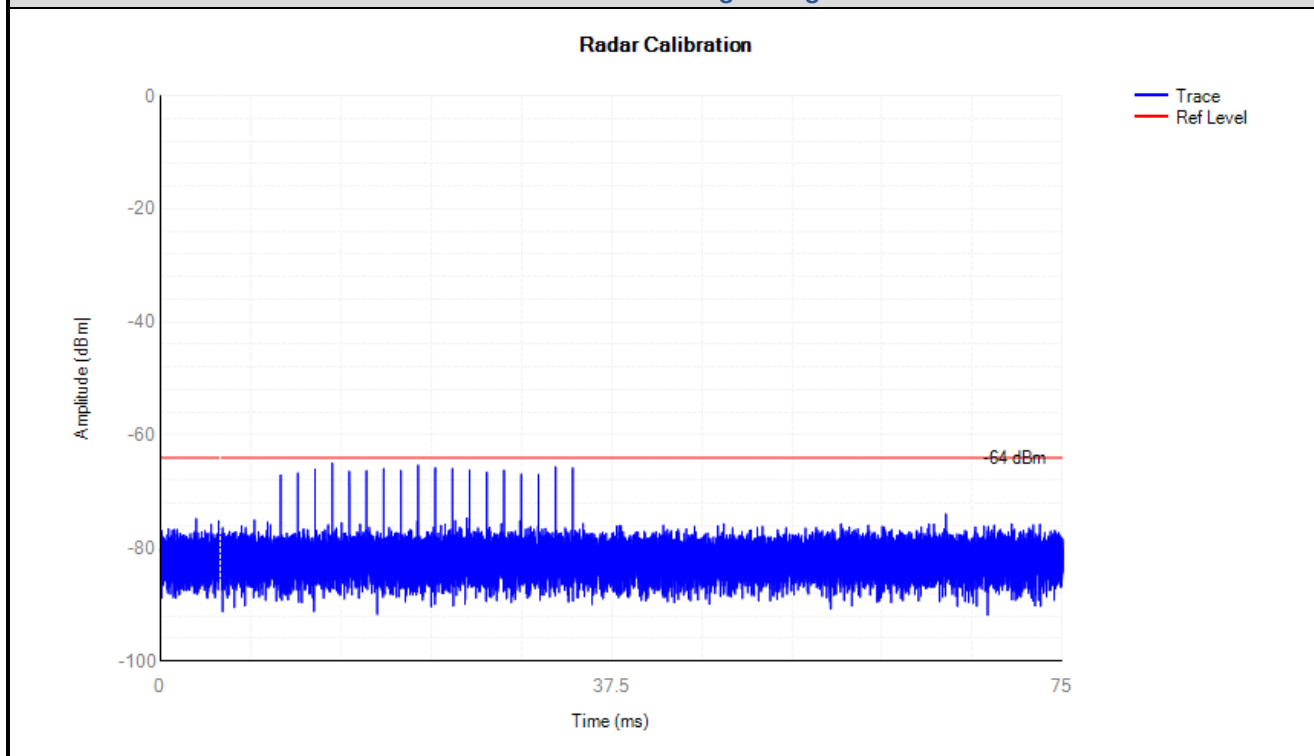
Reference DFS test signal Figure 3



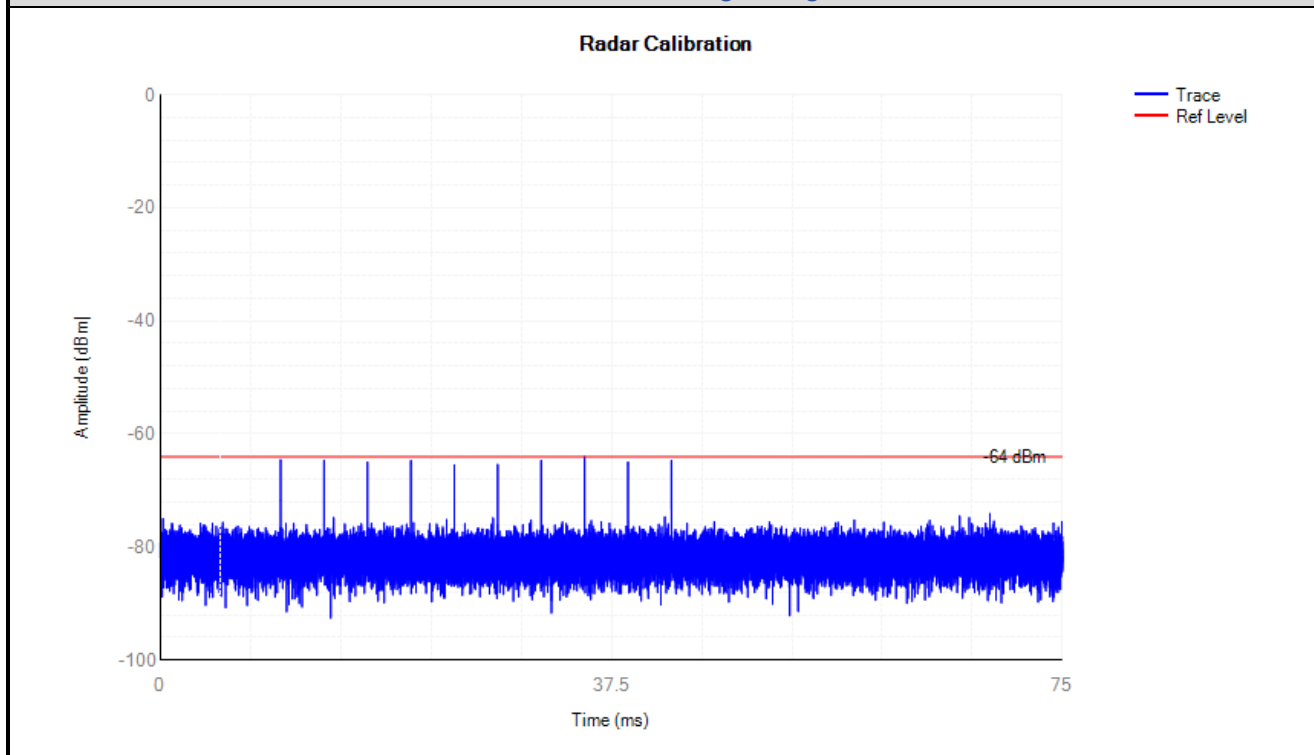
Reference DFS test signal Figure 4



Reference DFS test signal Figure 5

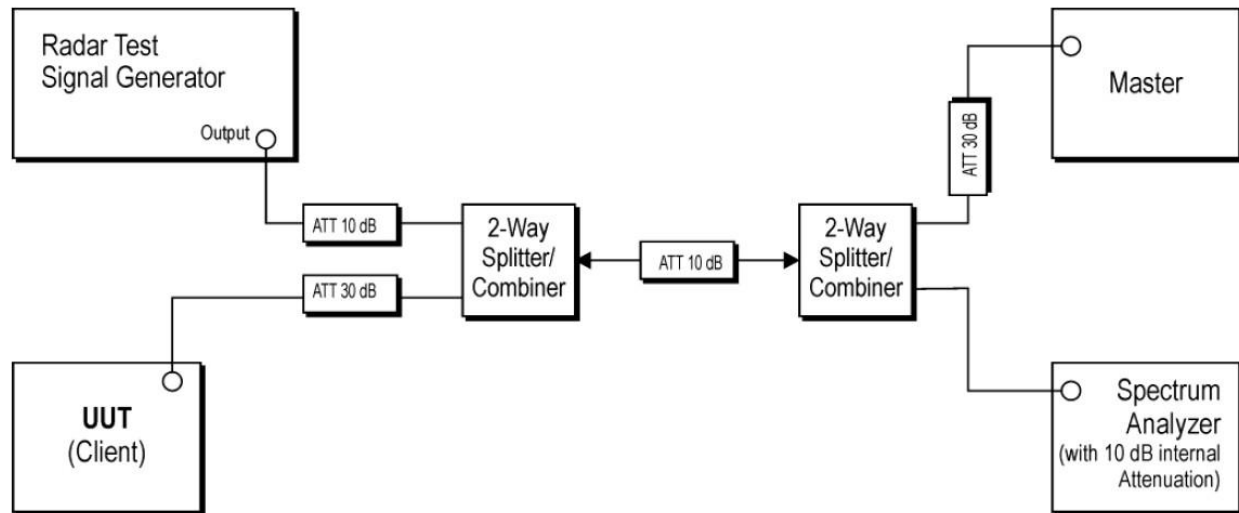


Reference DFS test signal Figure 6



TEST CONFIGURATION

Setup for Client with injection at the Master



TEST PROCEDURE

1. The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
2. The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device
3. A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
4. EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
5. When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
6. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type
7. Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) = $S (12000ms) / B (4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the

aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C \text{ (ms)} = N \times \text{Dwell (0.3ms)}$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

8. Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

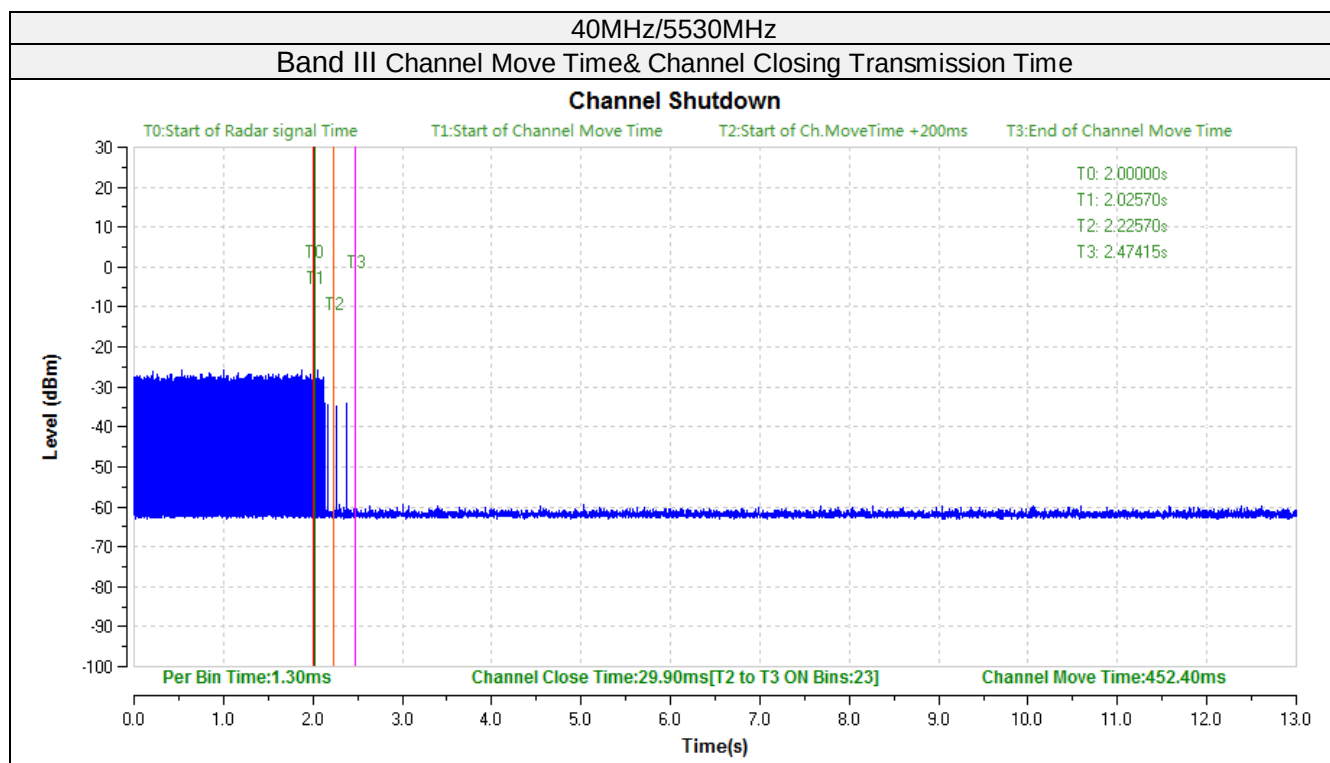
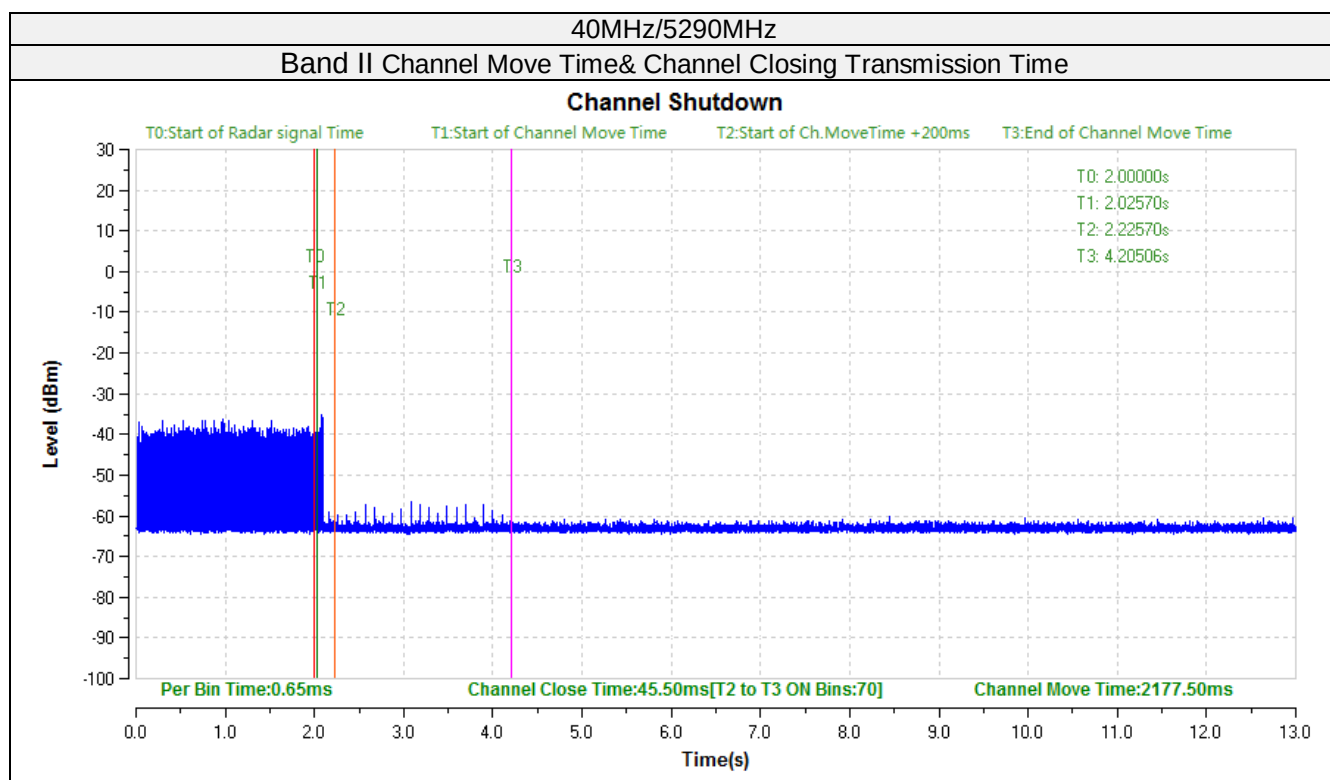
TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ Passed ☐ Not Applicable

BW/ Channel	Maximum EIRP Power(dBm)	Test Item	Test Result	Limit	Result
40MHz/ 5290MHz	18.76	Channel Move Time	0.476s	<10s	Pass
		Channel Closing Transmission Time	17.2ms	<60ms	Pass
40MHz/ 5530MHz	17.47	Channel Move Time	0.452s	<10s	Pass
		Channel Closing Transmission Time	29.90ms	<60ms	Pass



-----End of Report-----