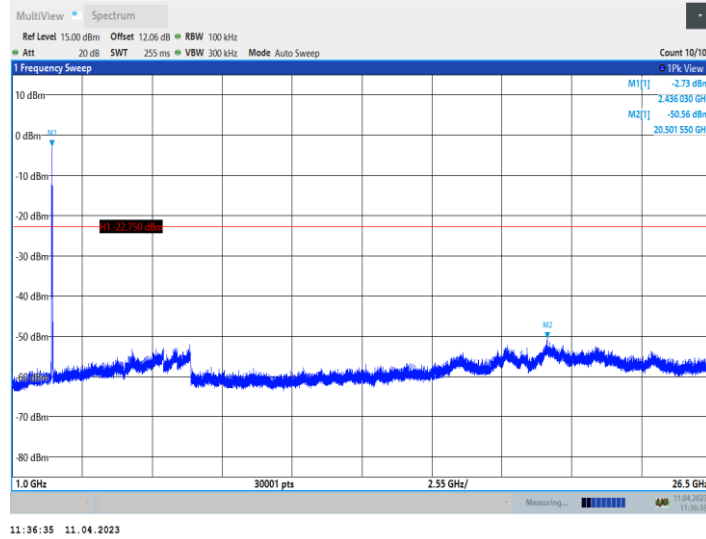
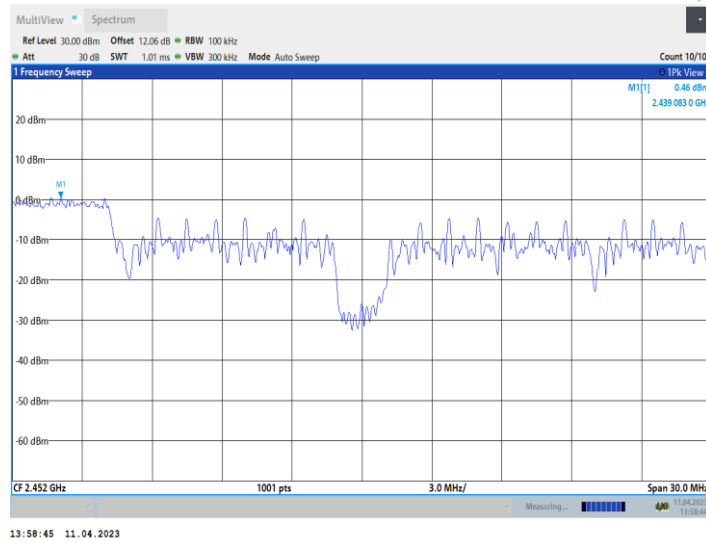


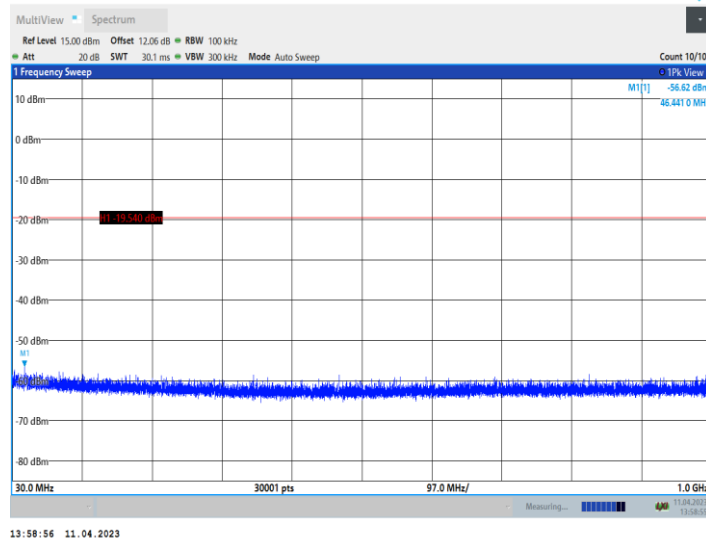
11AX40\_Ant10\_2452\_52Tone\_RU37\_1000~26500



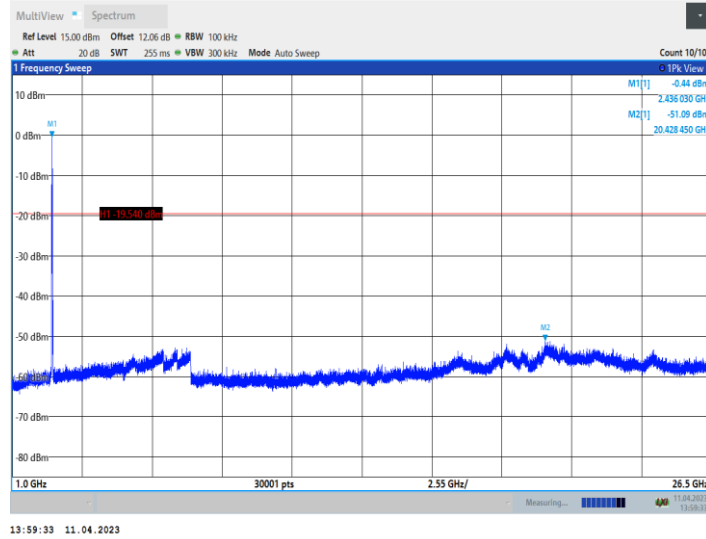
11AX40\_Ant10\_2452\_106Tone\_RU53\_0~Reference



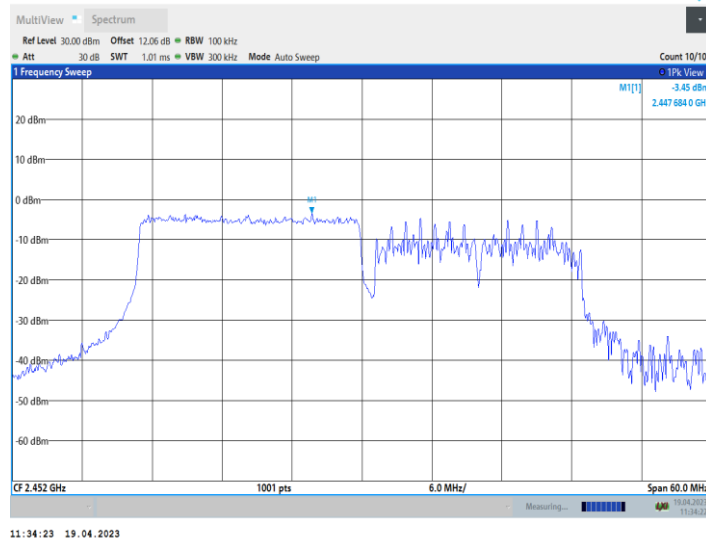
11AX40\_Ant10\_2452\_106Tone\_RU53\_30~1000



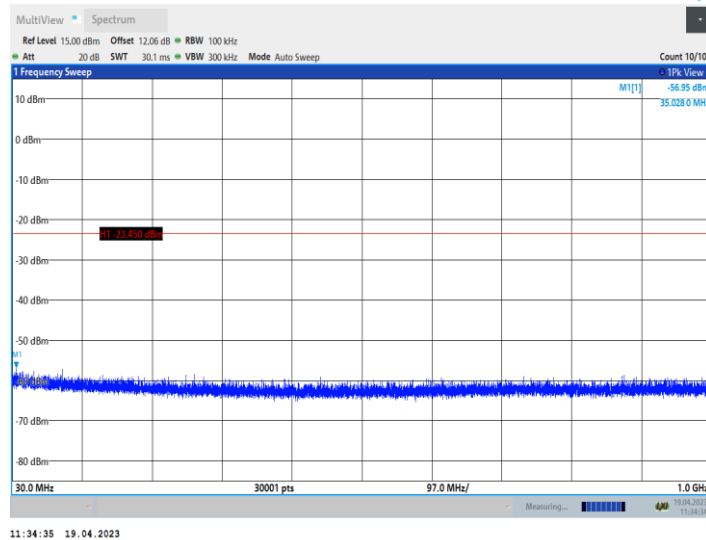
11AX40\_Ant10\_2452\_106Tone\_RU53\_1000~26500



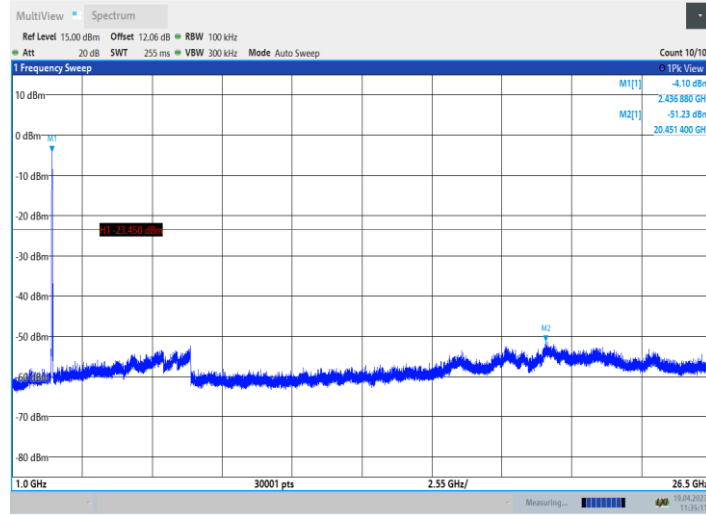
11AX40\_Ant10\_2452\_242Tone\_RU61\_0~Reference



11AX40\_Ant10\_2452\_242Tone\_RU61\_30~1000



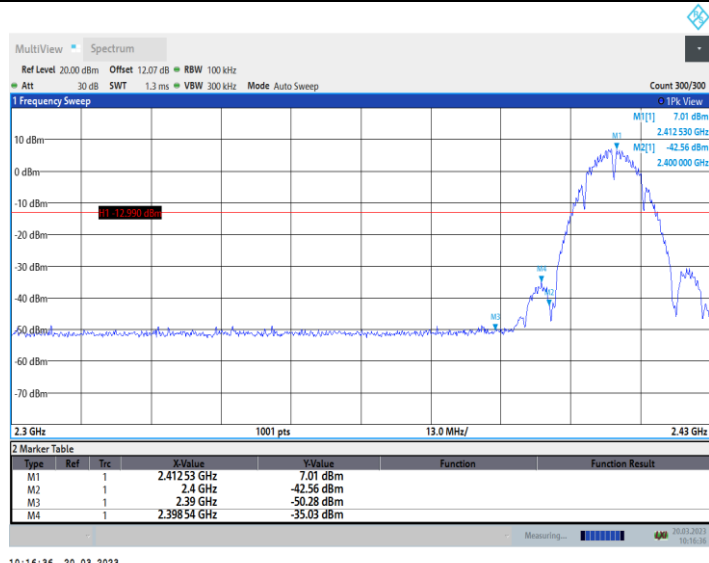
11AX40\_Ant10\_2452\_242Tone\_RU61\_1000~26500



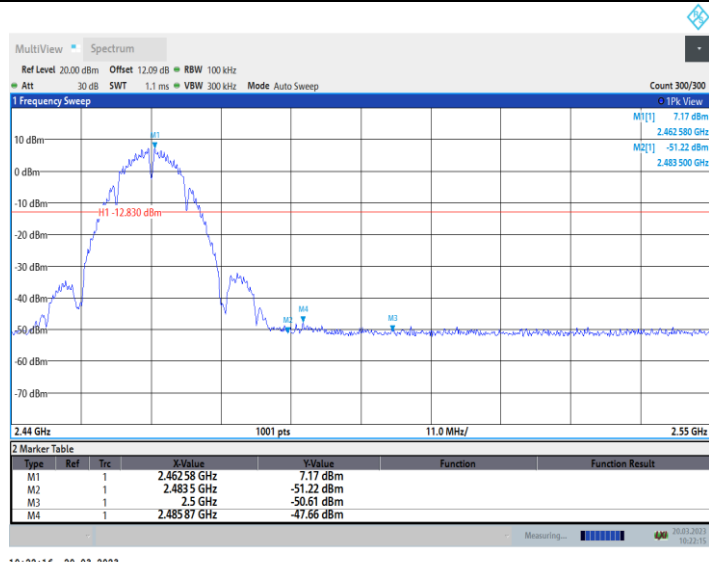
Band Edge

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant9	Low	2412	7.01	-35.03	≤-12.99	PASS
		High	2462	7.17	-47.66	≤-12.83	PASS
11G	Ant9	Low	2412	6.80	-24.8	≤-13.2	PASS
		High	2462	5.08	-41.26	≤-14.92	PASS
11N20	Ant9	Low	2412	3.86	-29.3	≤-16.14	PASS
		High	2462	3.69	-43.88	≤-16.31	PASS
11N40	Ant9	Low	2422	0.30	-31.59	≤-19.7	PASS
		High	2452	-1.95	-42.51	≤-21.95	PASS
11AC20	Ant9	Low	2412	5.89	-25.16	≤-14.11	PASS
		High	2462	3.67	-42.81	≤-16.33	PASS
11AC40	Ant9	Low	2422	2.61	-29.33	≤-17.39	PASS
		High	2452	2.89	-27.58	≤-17.11	PASS
11AX20	Ant9	Low	2412	2.18	-31.94	≤-17.82	PASS
		High	2462	1.31	-37.41	≤-18.69	PASS
11AX40	Ant9	Low	2422	-1.66	-31.97	≤-21.66	PASS
		High	2452	-4.55	-40.14	≤-24.55	PASS

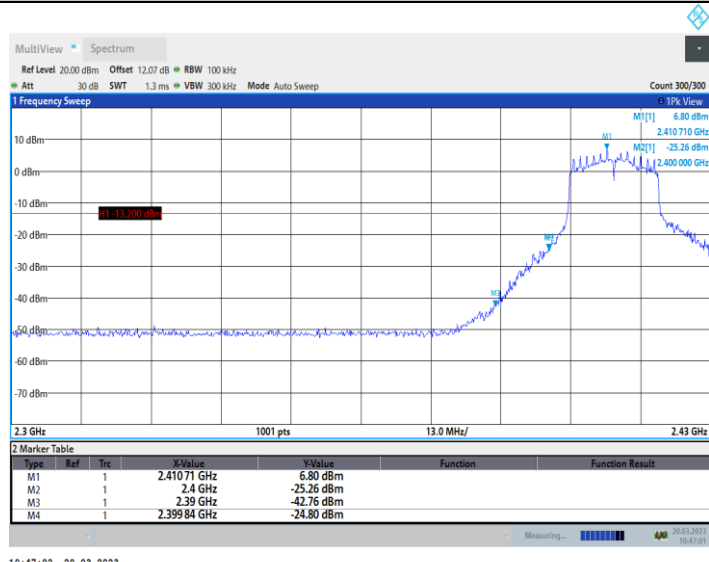
11B\_Ant9\_Low\_2412



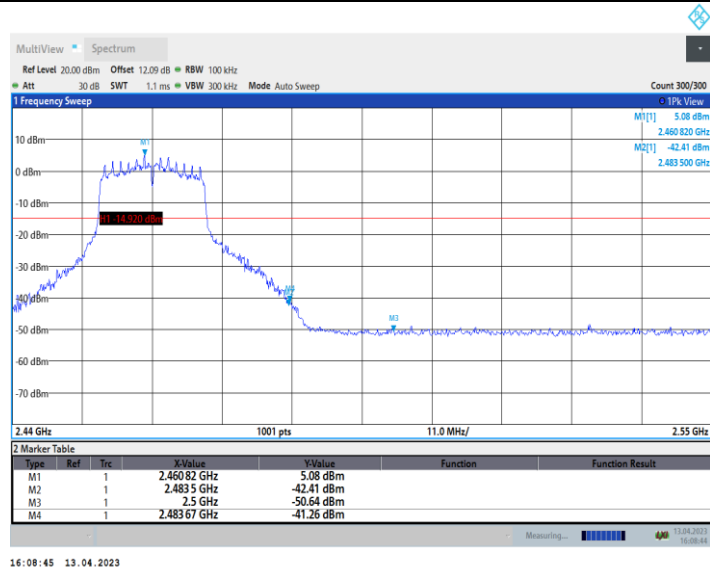
11B\_Ant9\_High\_2462



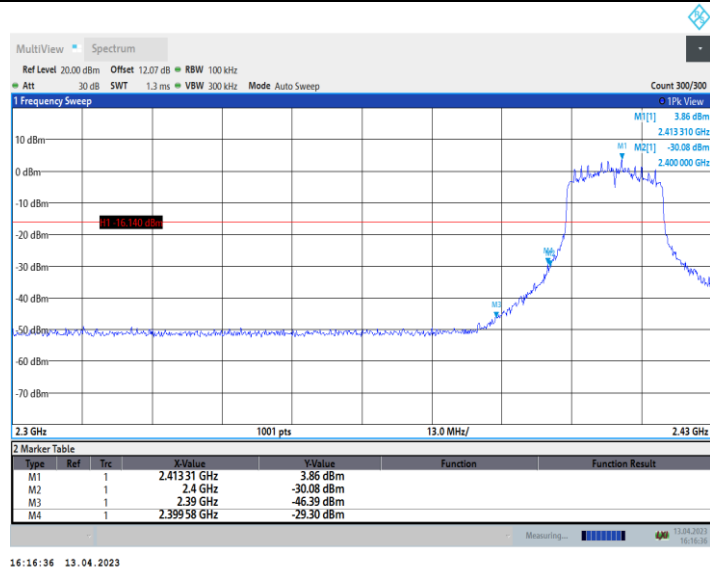
11G\_Ant9\_Low\_2412



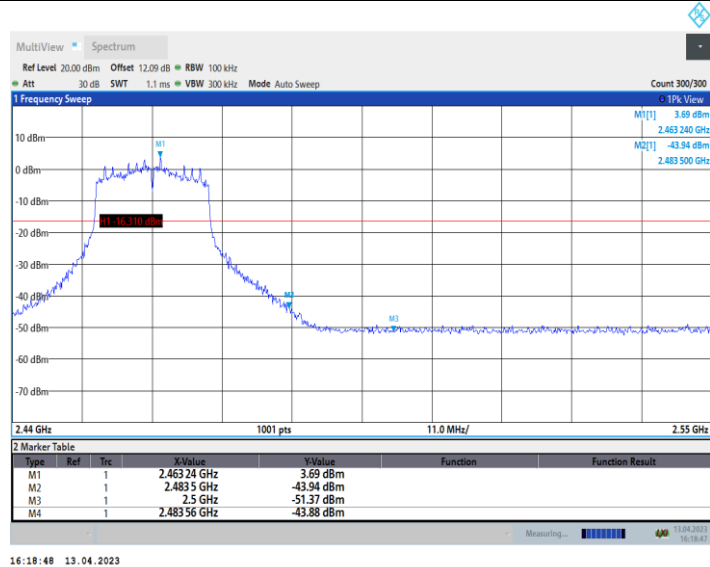
11G\_Ant9\_High\_2462



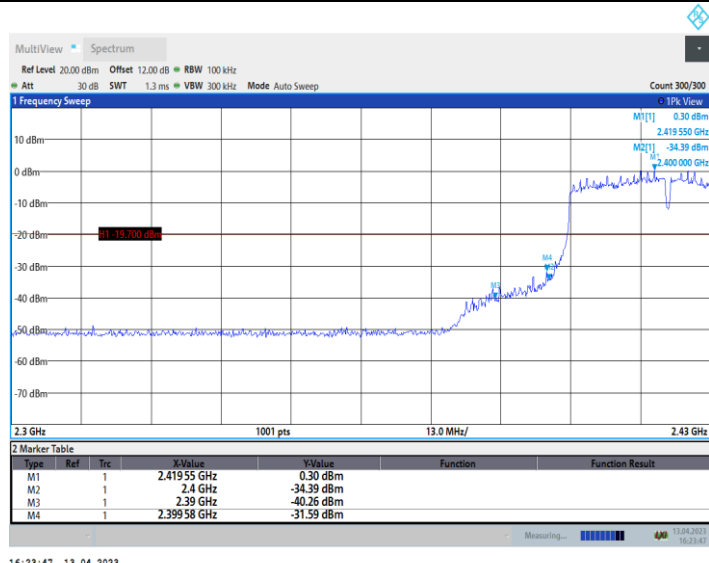
11N20\_Ant9\_Low\_2412



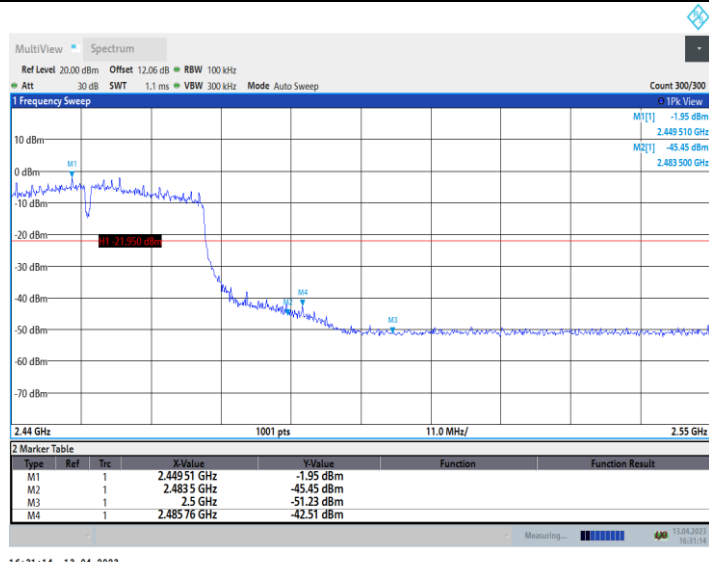
11N20\_Ant9\_High\_2462



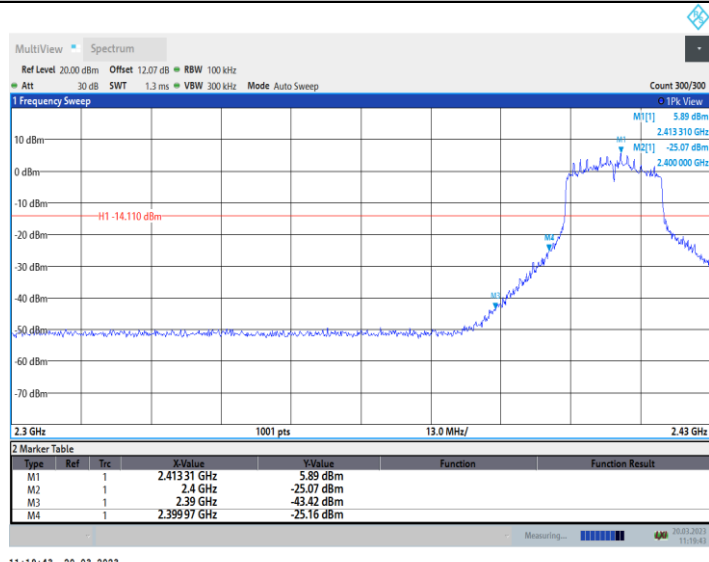
11N40\_Ant9\_Low\_2422



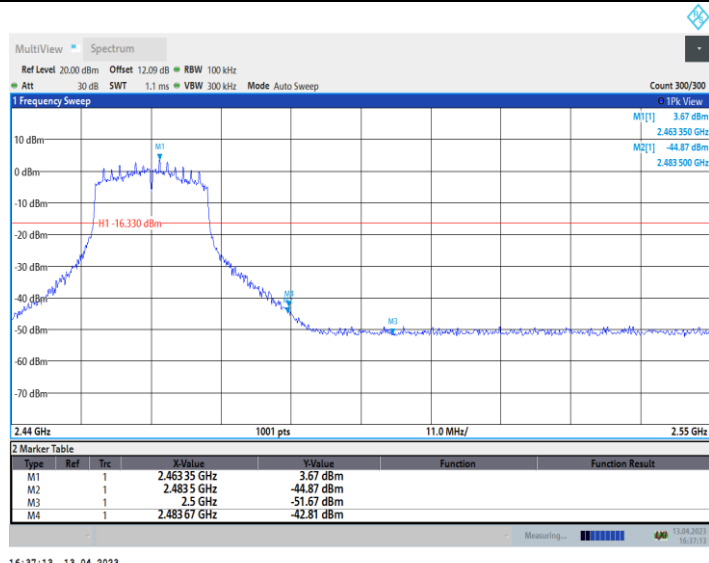
11N40\_Ant9\_High\_2452



11AC20\_Ant9\_Low\_2412



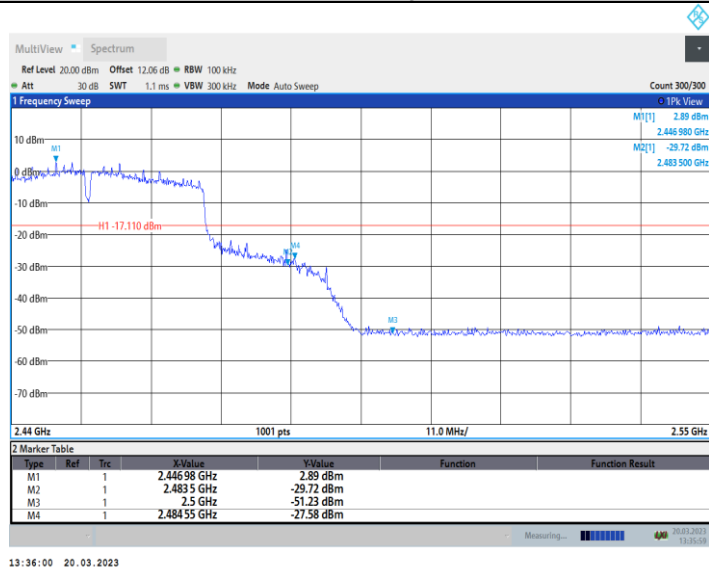
11AC20\_Ant9\_High\_2462



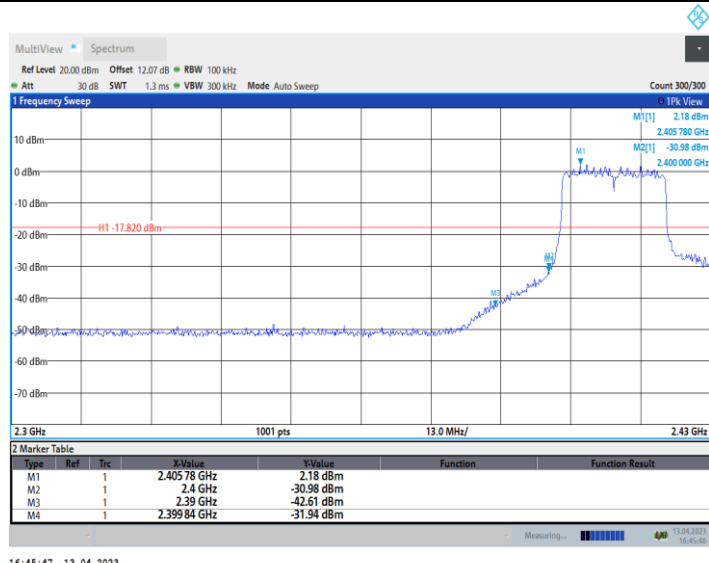
11AC40\_Ant9\_Low\_2422



11AC40\_Ant9\_High\_2452

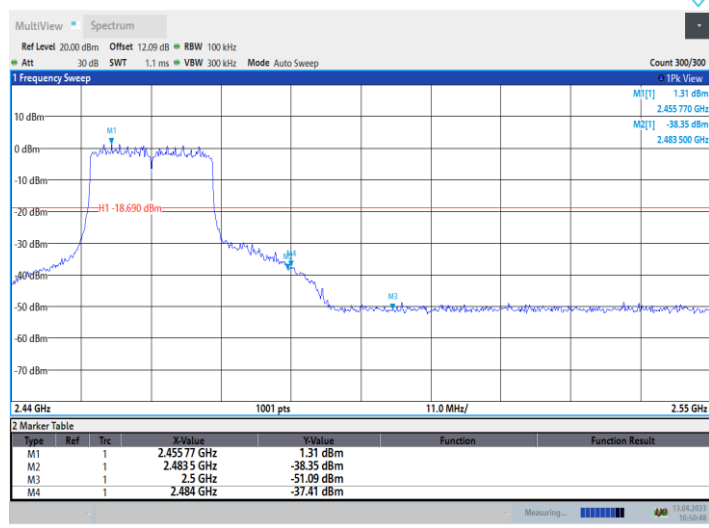


11AX20\_Ant9\_Low\_2412



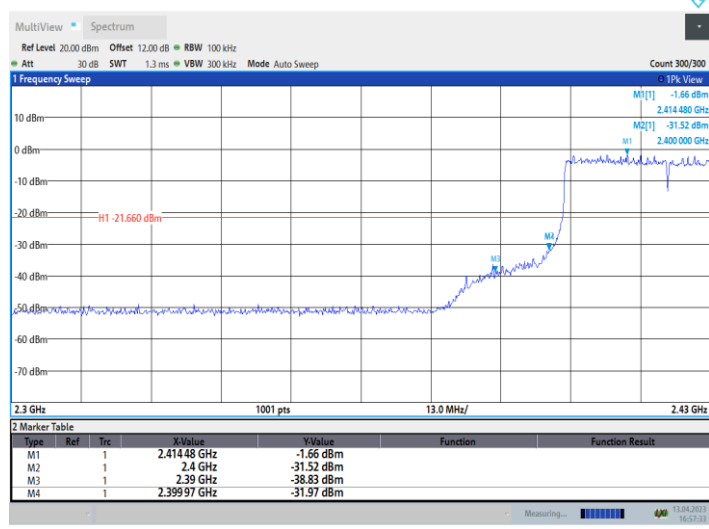
16:45:47 13.04.2023

11AX20\_Ant9\_High\_2462



16:50:48 13.04.2023

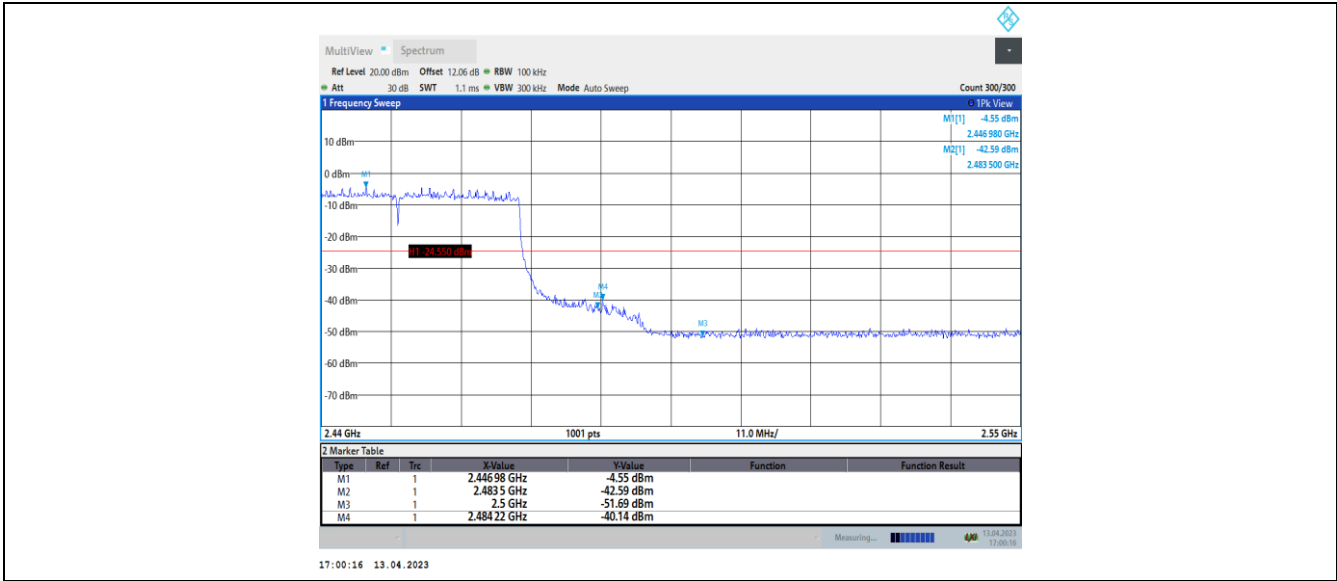
11AX40\_Ant9\_Low\_2422



16:57:34 13.04.2023

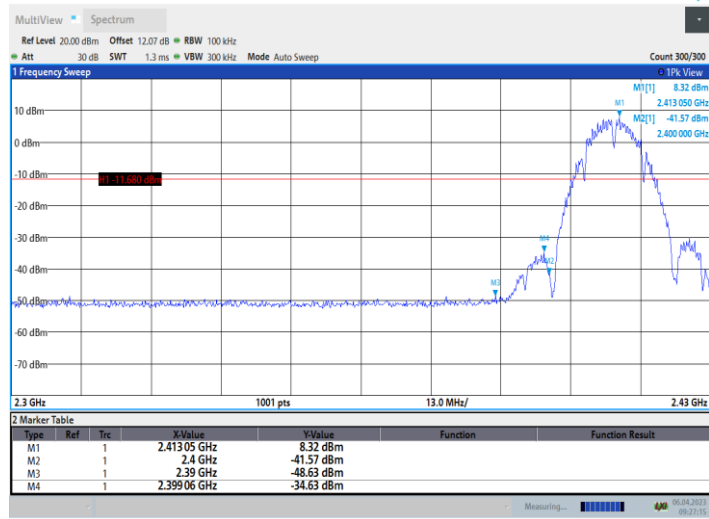
11AX40\_Ant9\_High\_2452





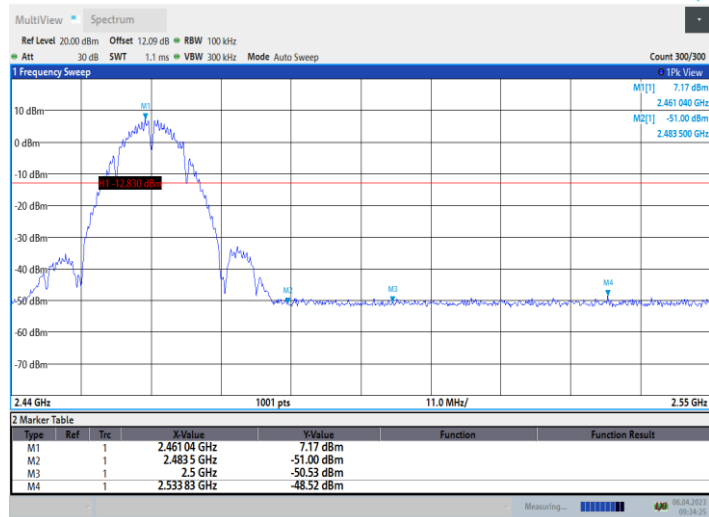
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant10	Low	2412	8.32	-34.63	≤-11.68	PASS
		High	2462	7.17	-48.52	≤-12.83	PASS
11G	Ant10	Low	2412	6.97	-35.93	≤-13.03	PASS
		High	2462	5.49	-39.81	≤-14.51	PASS
11N20	Ant10	Low	2412	3.88	-30	≤-16.12	PASS
		High	2462	3.73	-43.74	≤-16.27	PASS
11N40	Ant10	Low	2422	0.15	-31.02	≤-19.85	PASS
		High	2452	-1.68	-40.87	≤-21.68	PASS
11AC20	Ant10	Low	2412	6.12	-26.36	≤-13.88	PASS
		High	2462	3.65	-43.31	≤-16.35	PASS
11AC40	Ant10	Low	2422	0.32	-32.64	≤-19.68	PASS
		High	2452	-1.79	-42.11	≤-21.79	PASS
11AX20	Ant10	Low	2412	2.29	-32.14	≤-17.71	PASS
		High	2462	1.39	-37.21	≤-18.61	PASS
11AX40	Ant10	Low	2422	-0.77	-30.77	≤-20.77	PASS
		High	2452	-4.72	-40.35	≤-24.72	PASS

11B\_Ant10\_Low\_2412



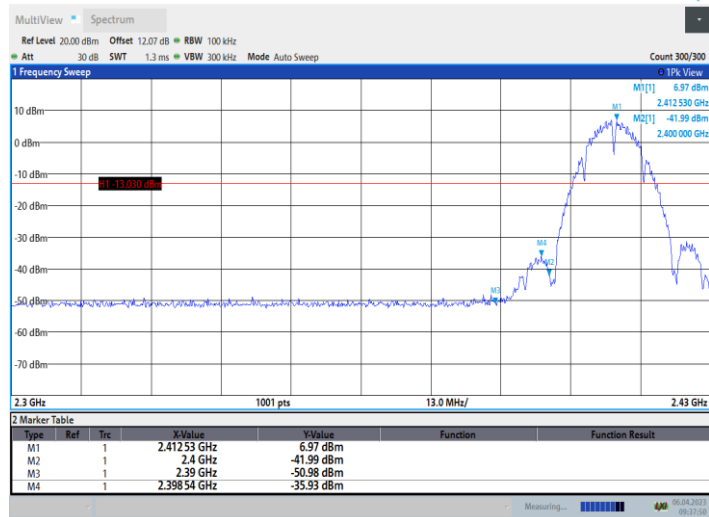
09:27:16 06.04.2023

11B\_Ant10\_High\_2462



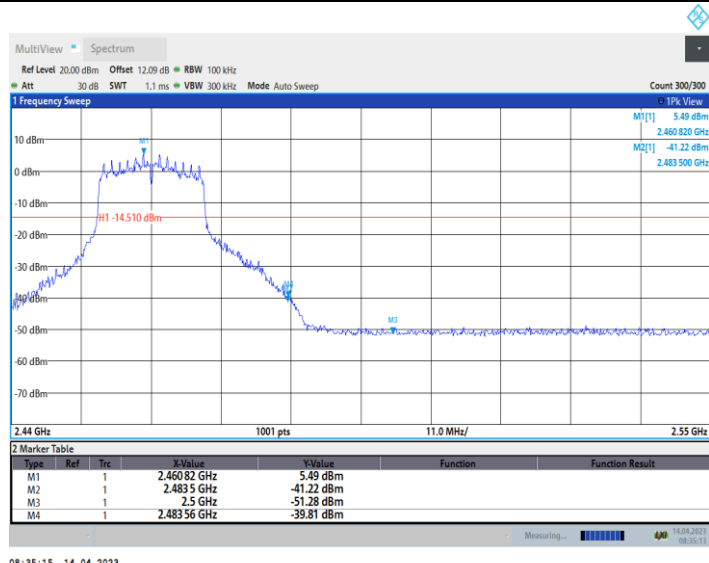
09:34:25 06.04.2023

11G\_Ant10\_Low\_2412

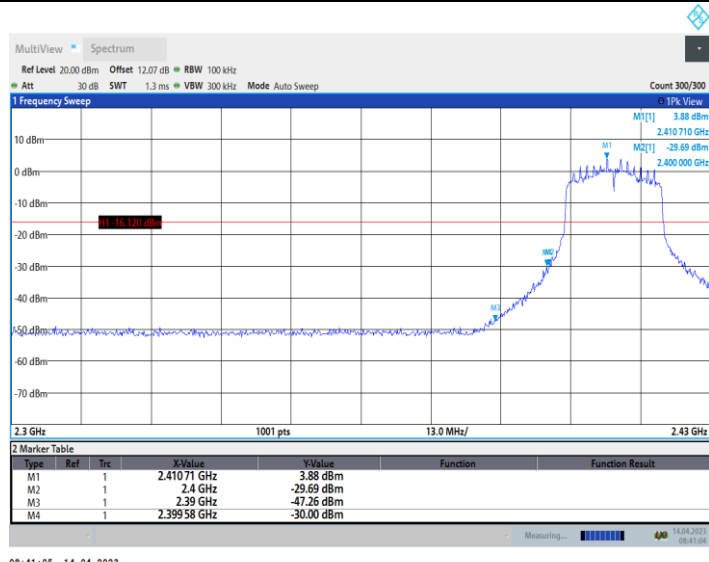


09:37:51 06.04.2023

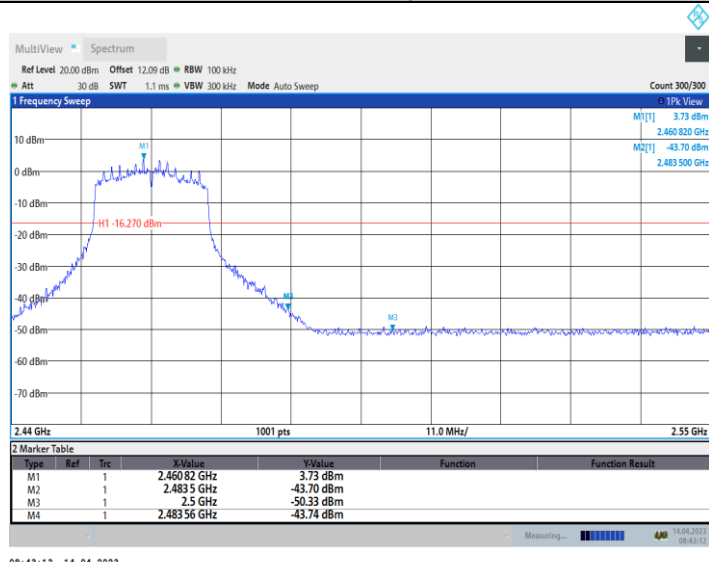
11G\_Ant10\_High\_2462



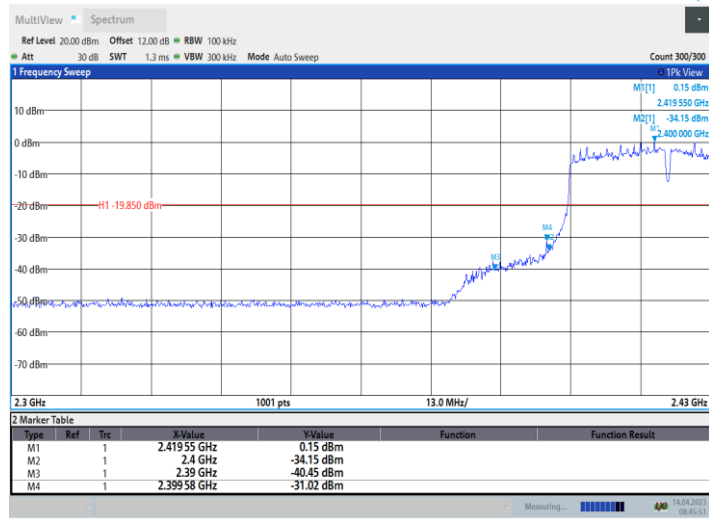
11N20\_Ant10\_Low\_2412



11N20\_Ant10\_High\_2462

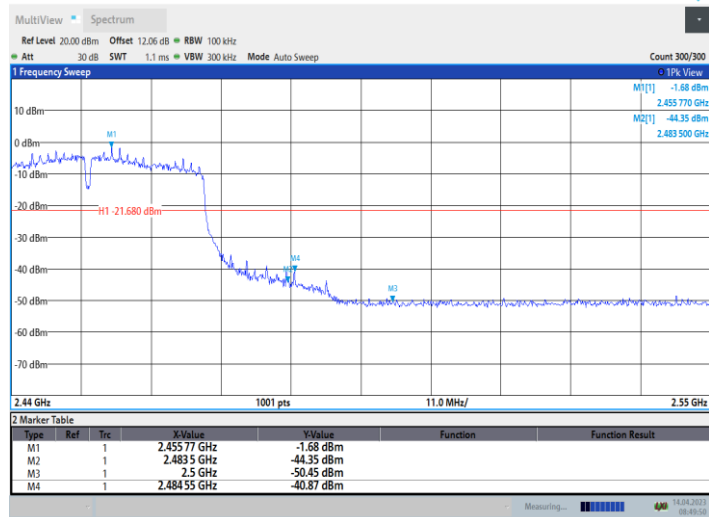


11N40\_Ant10\_Low\_2422



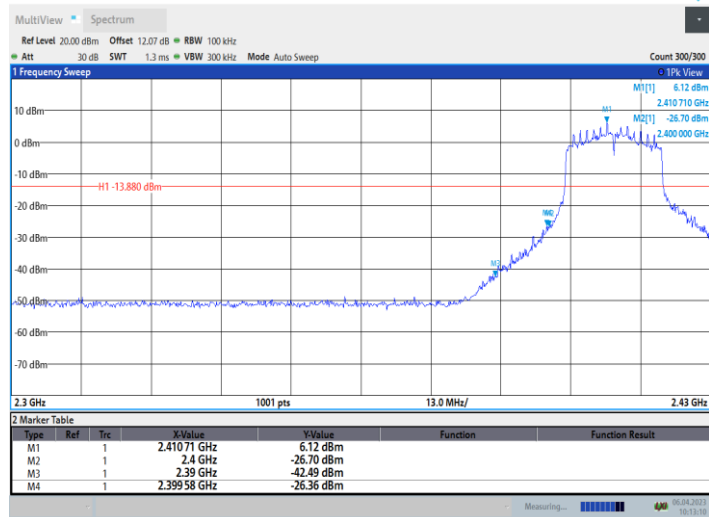
08:45:52 14.04.2023

### 11N40\_Ant10\_High\_2452



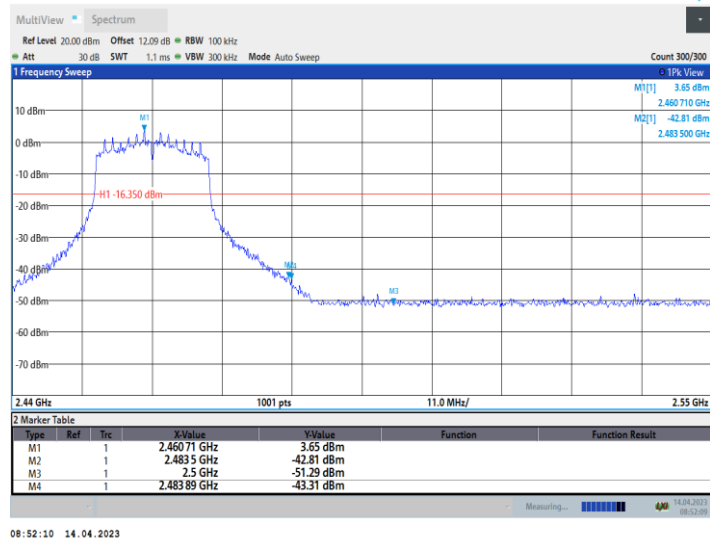
08:49:51 14.04.2023

### 11AC20\_Ant10\_Low\_2412



10:13:11 06.04.2023

### 11AC20\_Ant10\_High\_2462



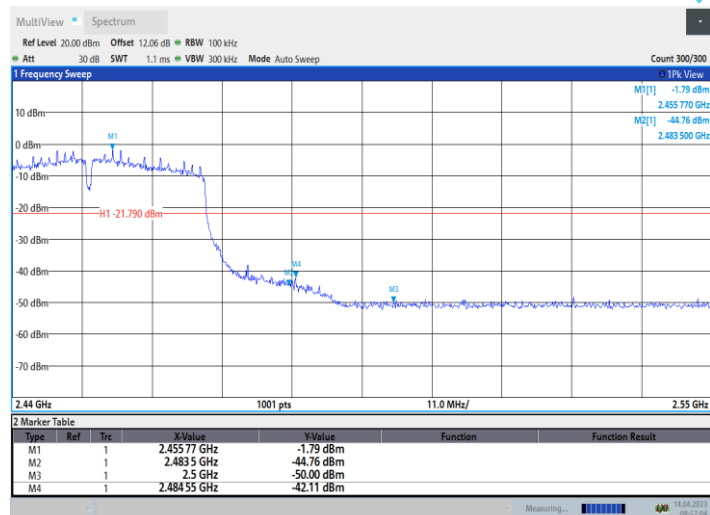
08:52:10 14.04.2023

### 11AC40\_Ant10\_Low\_2422



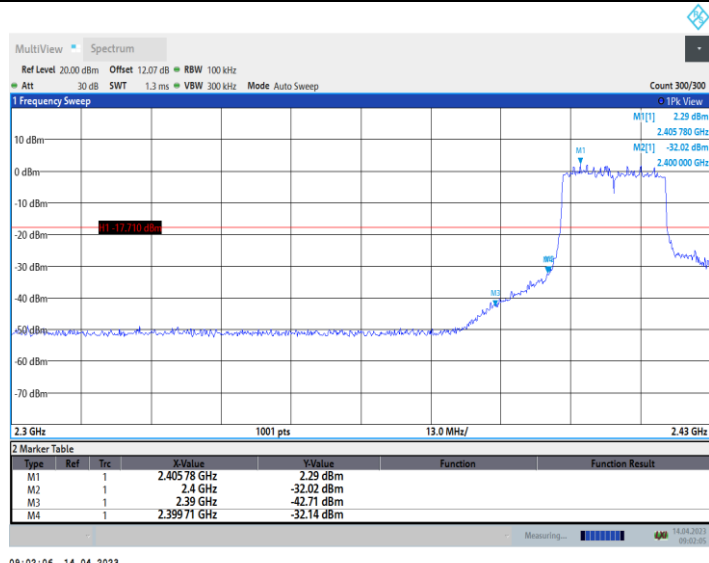
08:54:43 14.04.2023

### 11AC40\_Ant10\_High\_2452



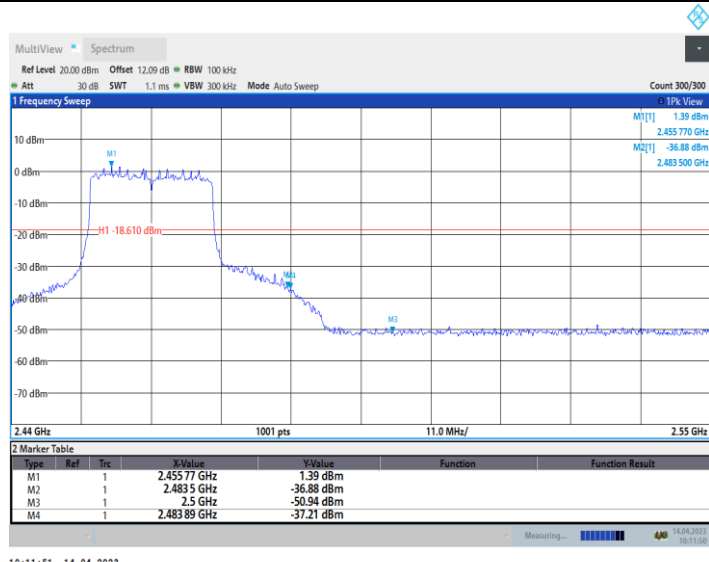
08:57:04 14.04.2023

### 11AX20\_Ant10\_Low\_2412



09:02:06 14.04.2023

11AX20\_Ant10\_High\_2462



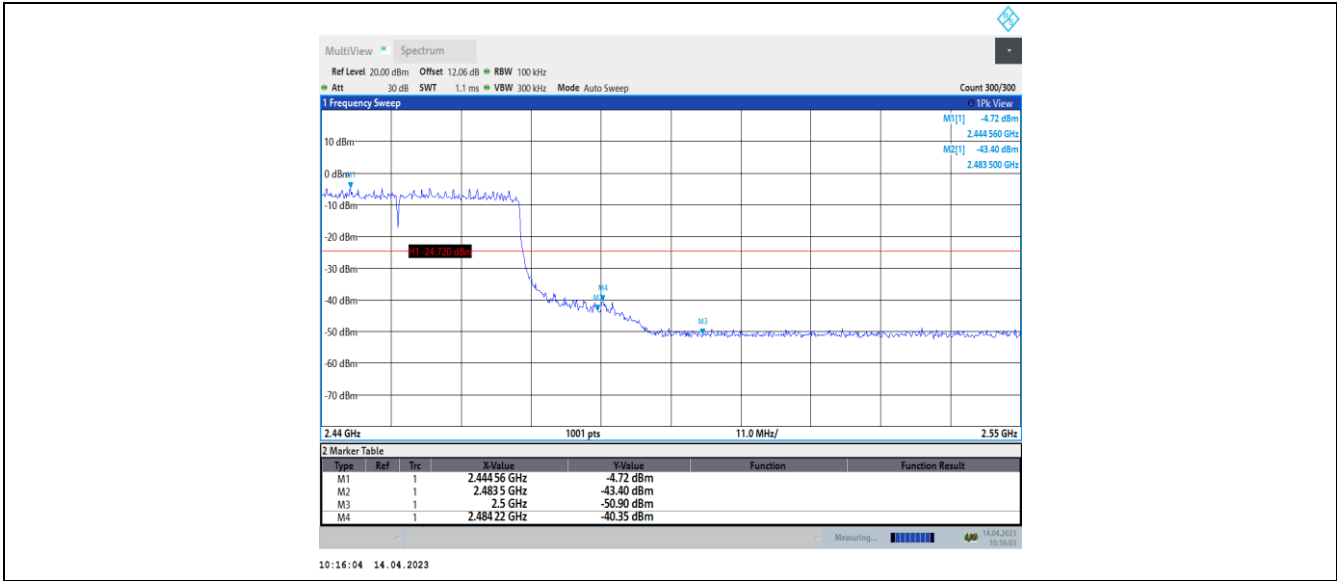
10:11:51 14.04.2023

11AX40\_Ant10\_Low\_2422



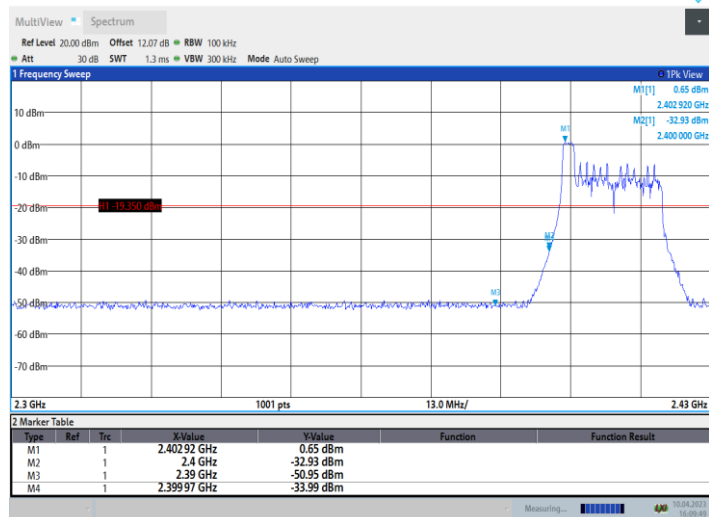
10:13:57 14.04.2023

11AX40\_Ant10\_High\_2452



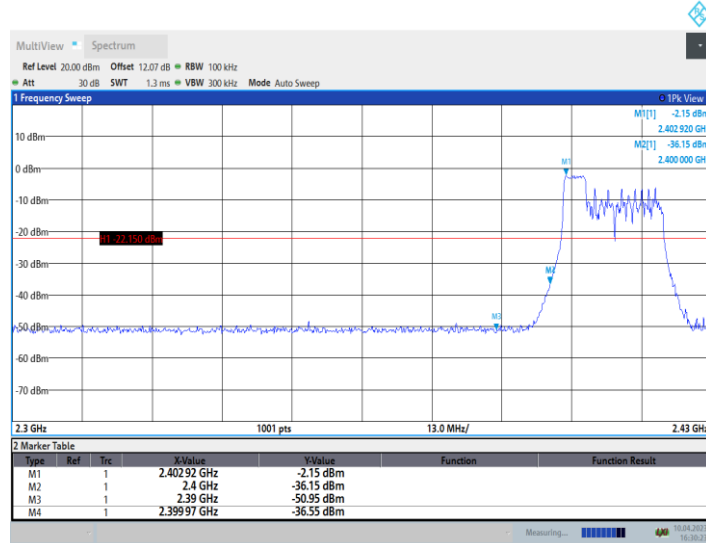
TestMode	Antenna	ChName	Frequency[MHz]	Ru Size	Ru Index	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20	Ant9	Low	2412	26Tone	RU0	0.65	-33.99	≤-19.35	PASS
				52Tone	RU37	-2.15	-36.55	≤-22.15	PASS
				106Tone	RU53	0.19	-33.4	≤-19.81	PASS
		High	2462	26Tone	RU0	1.17	-47.97	≤-18.83	PASS
				52Tone	RU37	-2.08	-48.75	≤-22.08	PASS
				106Tone	RU53	0.69	-48.41	≤-19.31	PASS
11AX40	Ant9	Low	2422	26Tone	RU0	1.00	-32.36	≤-19	PASS
				52Tone	RU37	-0.96	-32.93	≤-20.96	PASS
				106Tone	RU53	0.89	-32.22	≤-19.11	PASS
				242Tone	RU61	-0.02	-29.92	≤-20.02	PASS
		High	2452	26Tone	RU0	-9.05	-47.8	≤-29.05	PASS
				52Tone	RU37	-9.03	-48.81	≤-29.03	PASS
				106Tone	RU53	0.23	-39.58	≤-19.77	PASS
				242Tone	RU61	-0.14	-31	≤-20.14	PASS

11AX20\_Ant9\_Low\_2412\_26Tone\_RU0



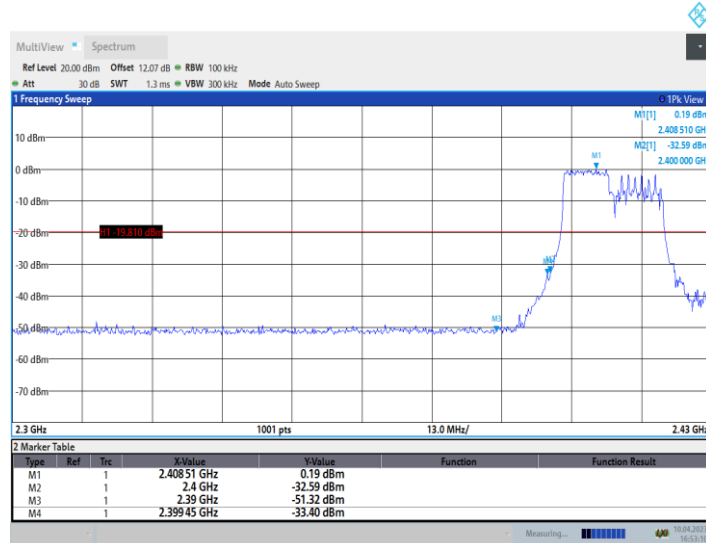


11AX20\_Ant9\_Low\_2412\_52Tone\_RU37



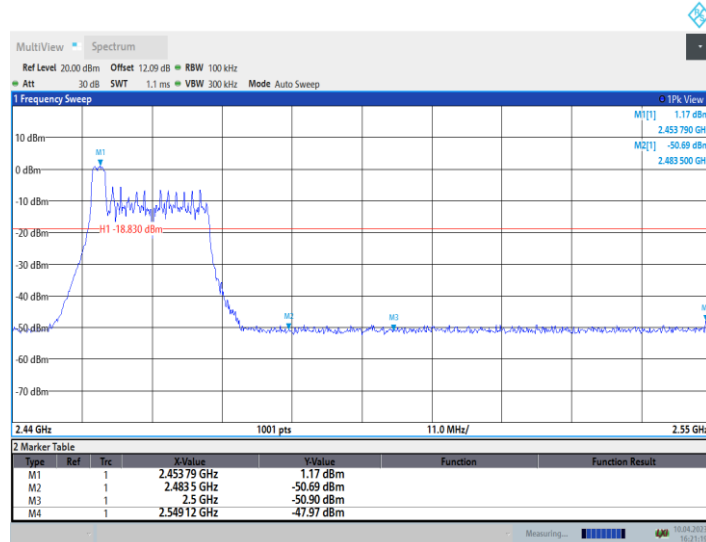
16:30:24 10.04.2023

11AX20\_Ant9\_Low\_2412\_106Tone\_RU53



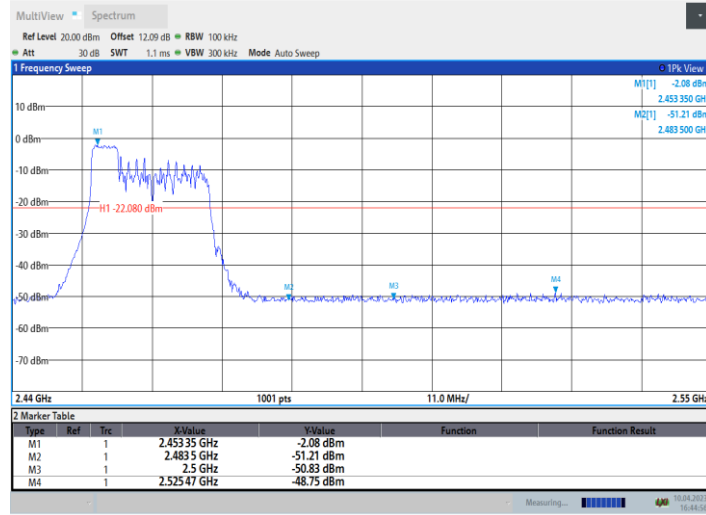
16:53:10 10.04.2023

11AX20\_Ant9\_High\_2462\_26Tone\_RU0

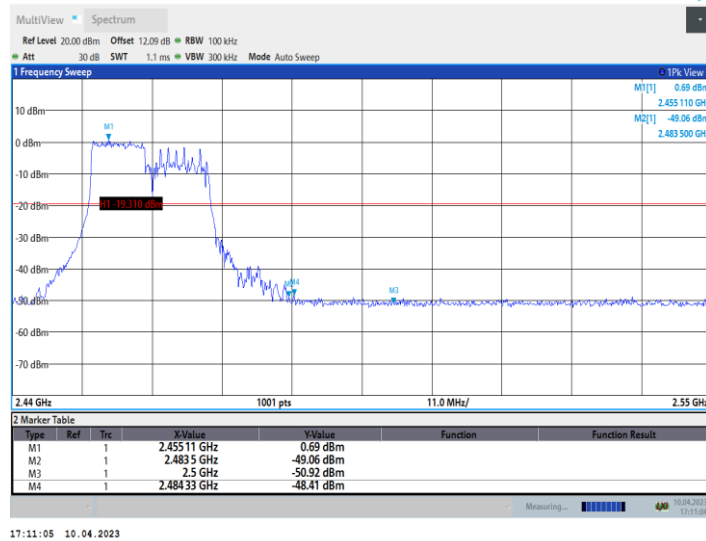


16:21:20 10.04.2023

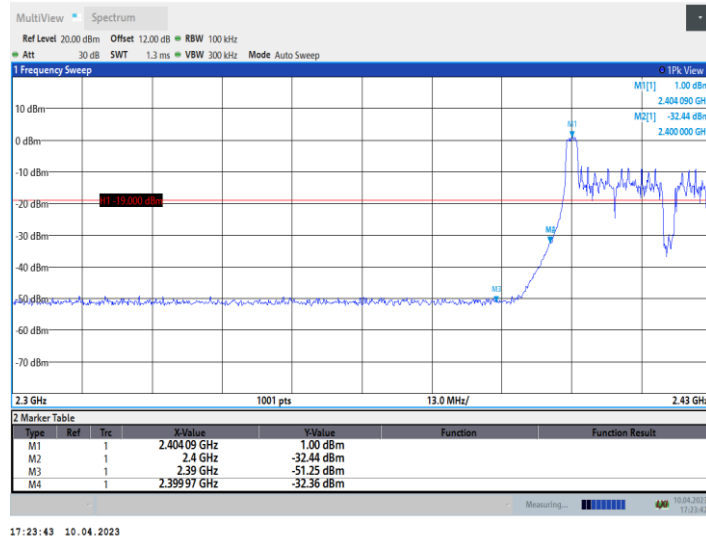
11AX20\_Ant9\_High\_2462\_52Tone\_RU37



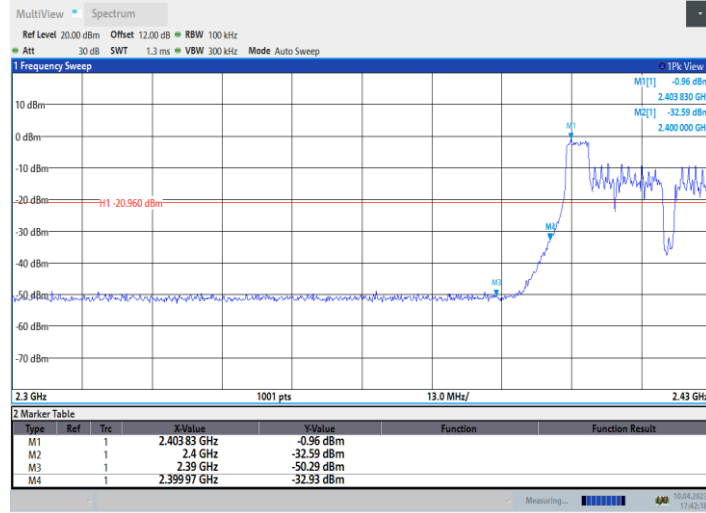
11AX20\_Ant9\_High\_2462\_106Tone\_RU53



11AX40\_Ant9\_Low\_2422\_26Tone\_RU0

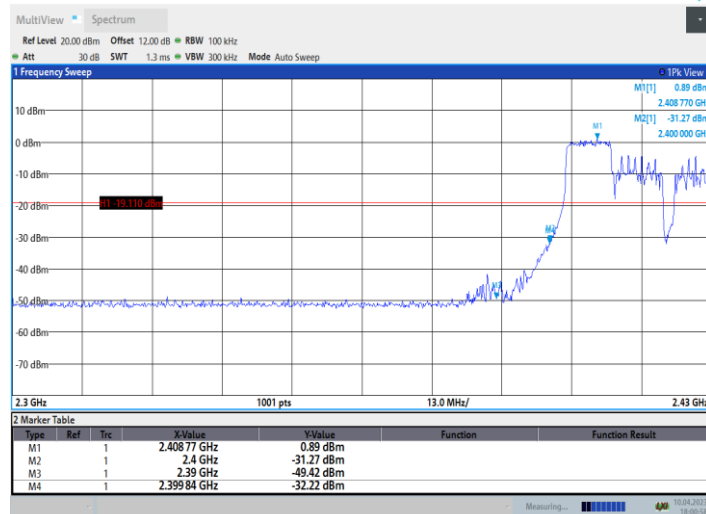


11AX40\_Ant9\_Low\_2422\_52Tone\_RU37



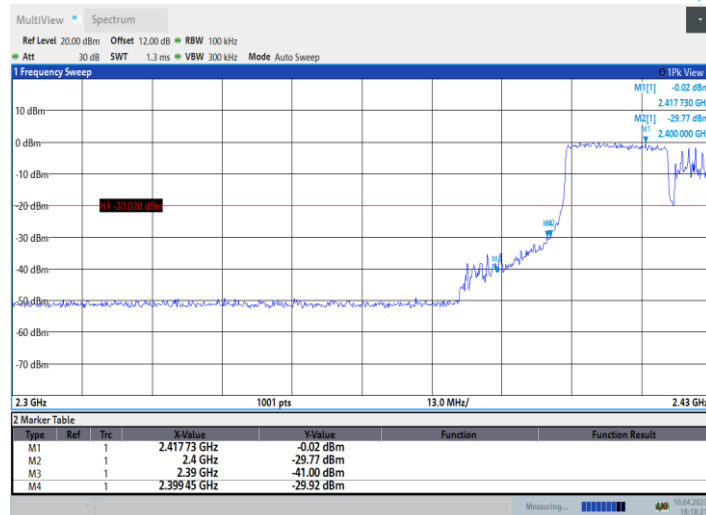
17:42:19 10.04.2023

11AX40\_Ant9\_Low\_2422\_106Tone\_RU53



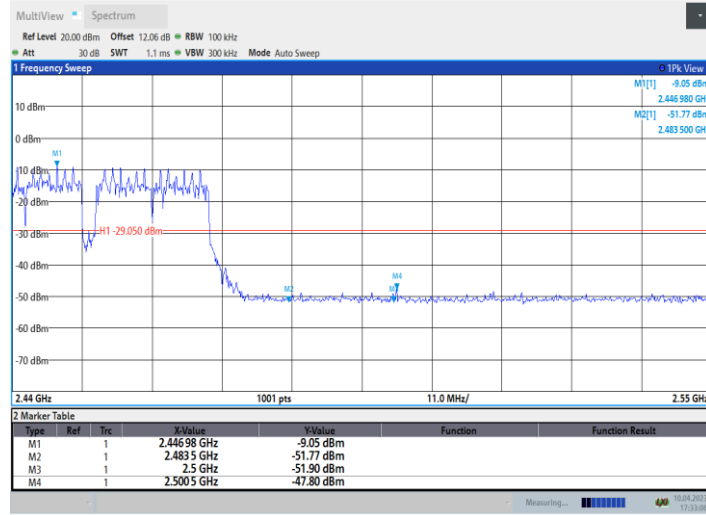
18:00:59 10.04.2023

11AX40\_Ant9\_Low\_2422\_242Tone\_RU61

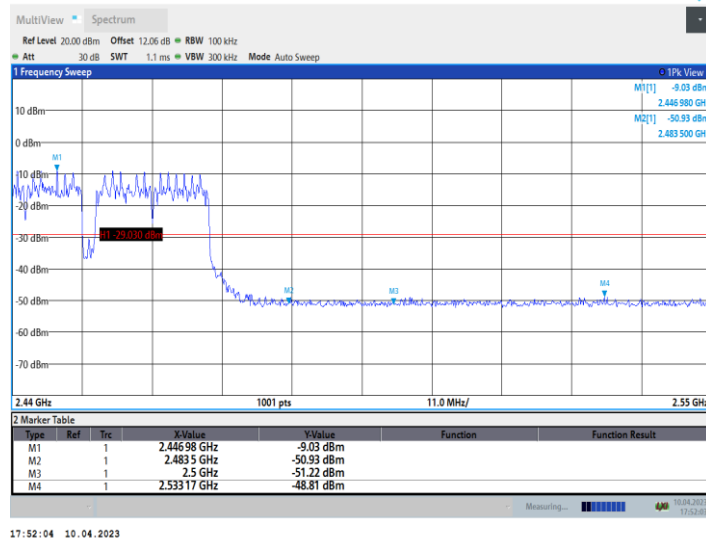


18:18:21 10.04.2023

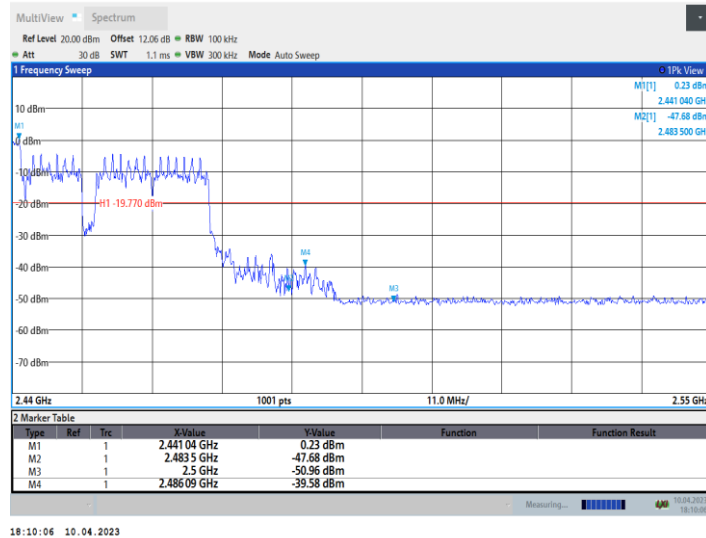
### 11AX40\_Ant9\_High\_2452\_26Tone\_RU0



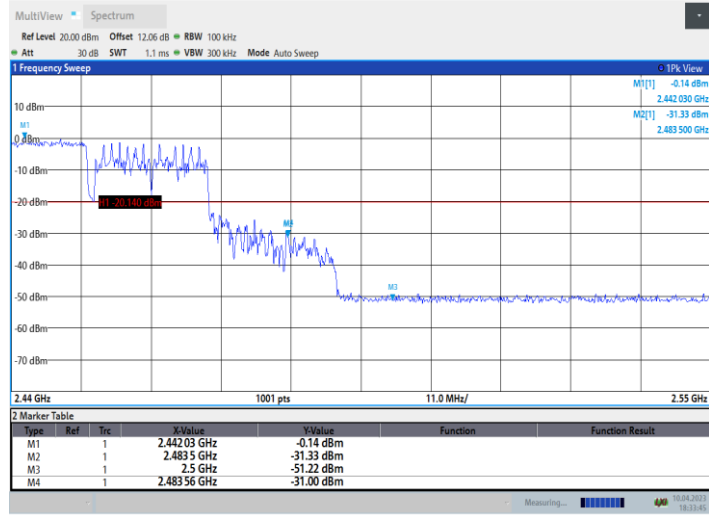
### 11AX40\_Ant9\_High\_2452\_52Tone\_RU37



### 11AX40\_Ant9\_High\_2452\_106Tone\_RU53

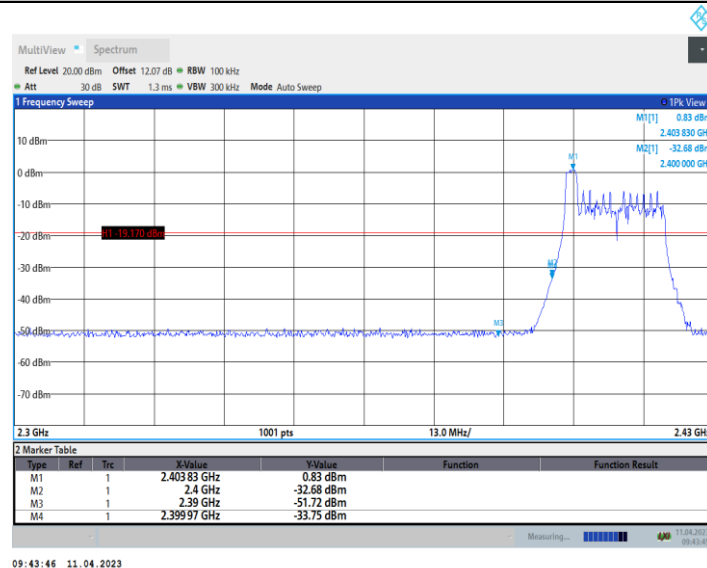


11AX40\_Ant9\_High\_2452\_242Tone\_RU61



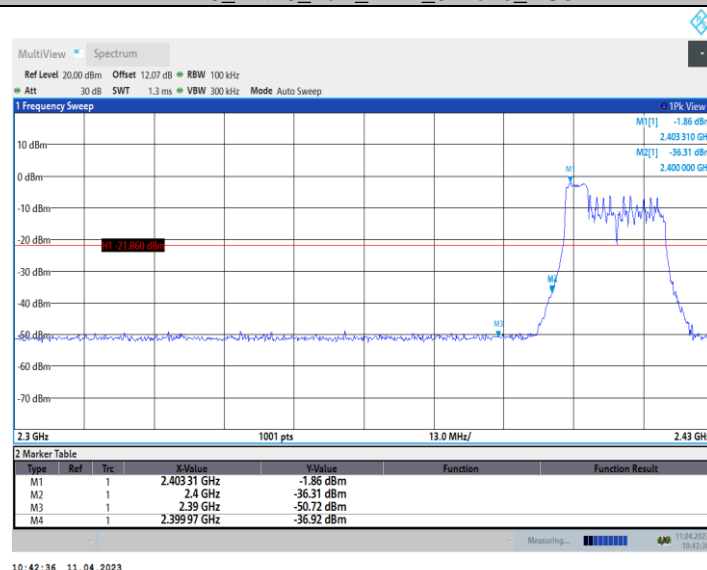
TestMode	Antenna	ChName	Frequency[MHz]	Ru Size	Ru Index	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20	Ant10	Low	2412	26Tone	RU0	0.83	-33.75	≤-19.17	PASS
				52Tone	RU37	-1.86	-36.92	≤-21.86	PASS
				106Tone	RU53	0.50	-33.88	≤-19.5	PASS
		High	2462	26Tone	RU0	0.96	-48.8	≤-19.04	PASS
				52Tone	RU37	-1.66	-48.61	≤-21.66	PASS
				106Tone	RU53	0.83	-48.71	≤-19.17	PASS
11AX40	Ant10	Low	2422	26Tone	RU0	1.02	-32.58	≤-18.98	PASS
				52Tone	RU37	-1.57	-33.35	≤-21.57	PASS
				106Tone	RU53	0.83	-31.58	≤-19.17	PASS
		High	2452	26Tone	RU0	-9.08	-48.89	≤-29.08	PASS
				52Tone	RU37	-9.15	-48.83	≤-29.15	PASS
				106Tone	RU53	0.09	-39.72	≤-19.91	PASS
				242Tone	RU61	-3.67	-38.94	≤-23.67	PASS

11AX20\_Ant10\_Low\_2412\_26Tone\_RU0



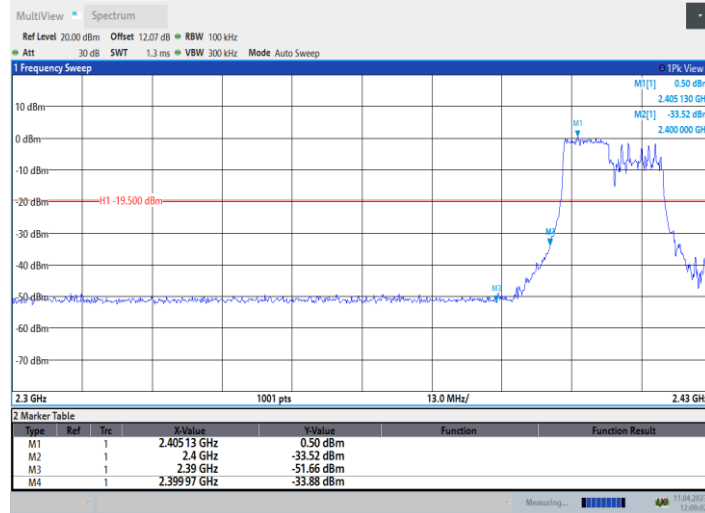
09:43:46 11.04.2023

11AX20\_Ant10\_Low\_2412\_52Tone\_RU37

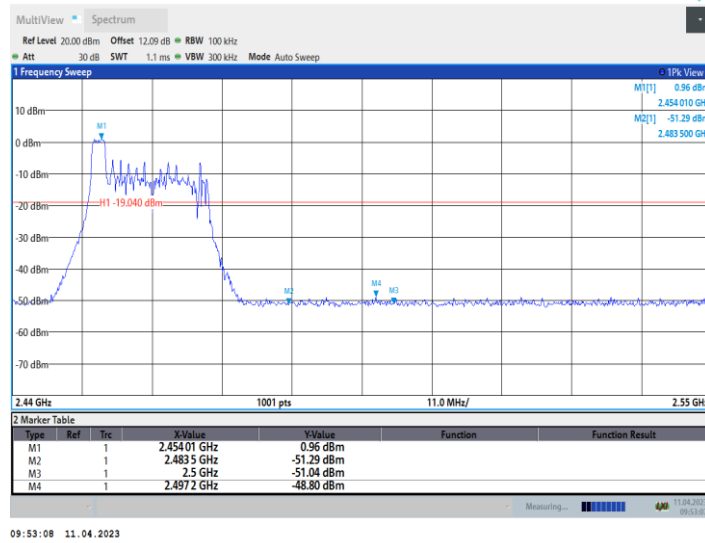


10:42:36 11.04.2023

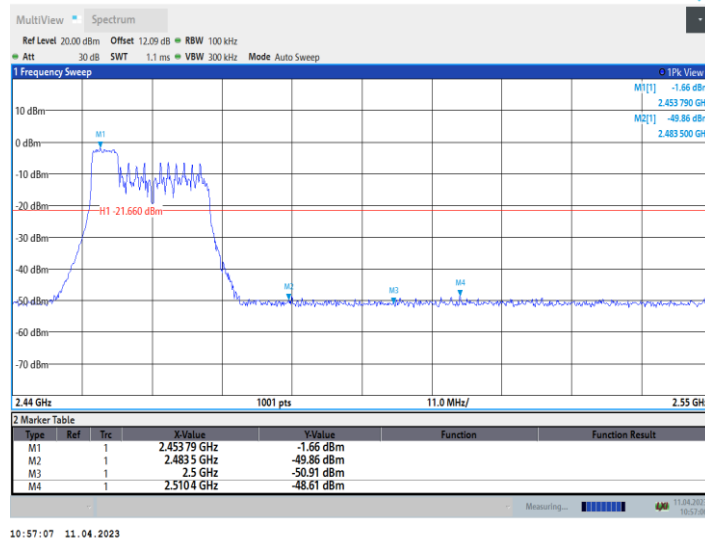
### 11AX20\_Ant10\_Low\_2412\_106Tone\_RU53



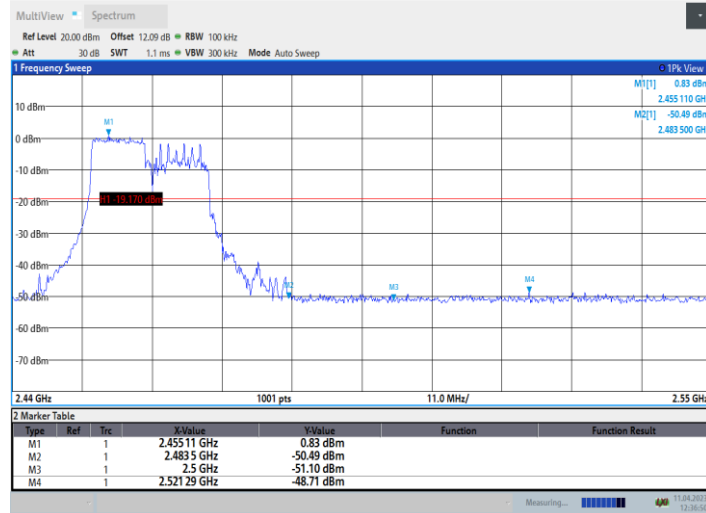
### 11AX20\_Ant10\_High\_2462\_26Tone\_RU0



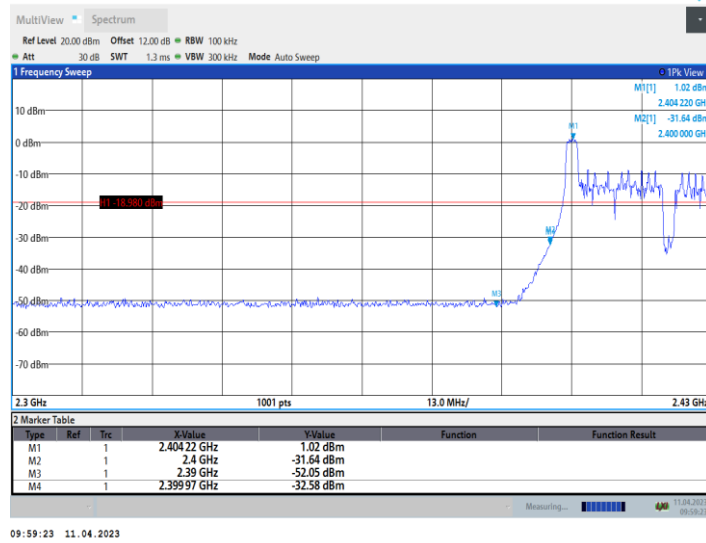
### 11AX20\_Ant10\_High\_2462\_52Tone\_RU37



### 11AX20\_Ant10\_High\_2462\_106Tone\_RU53



### 11AX40\_Ant10\_Low\_2422\_26Tone\_RU0

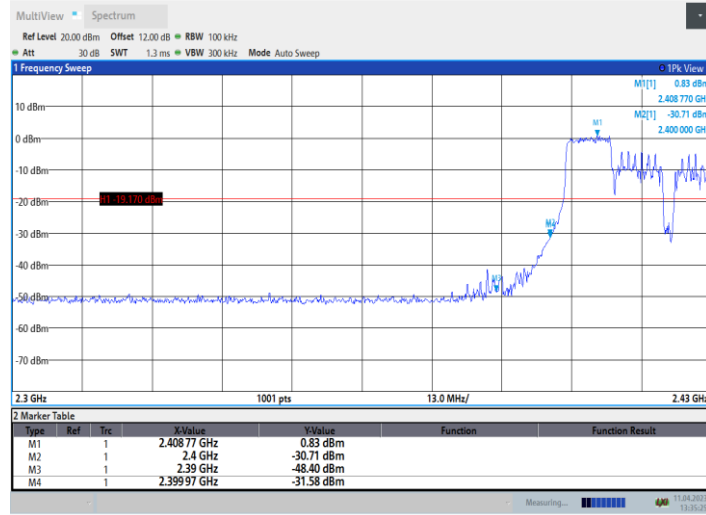


### 11AX40\_Ant10\_Low\_2422\_52Tone\_RU37



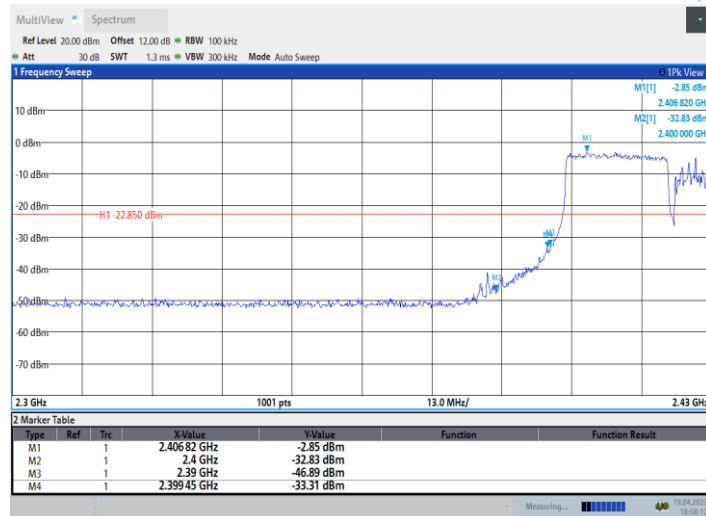


11AX40\_Ant10\_Low\_2422\_106Tone\_RU53



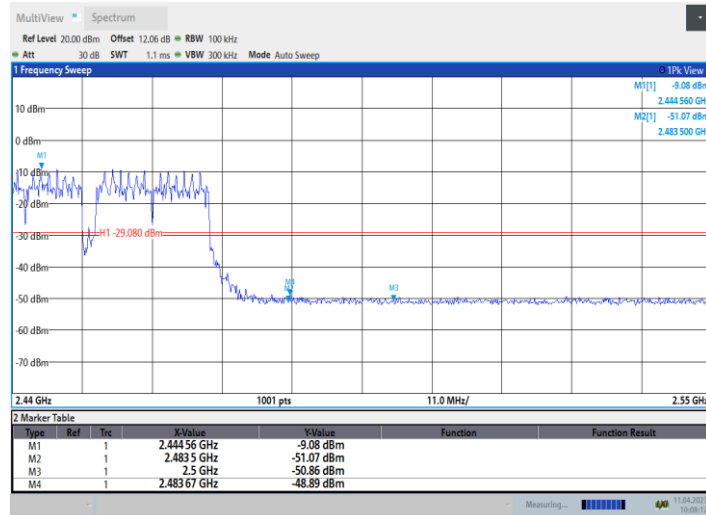
13:35:25 11.04.2023

11AX40\_Ant10\_Low\_2422\_242Tone\_RU61



18:58:13 19.04.2023

11AX40\_Ant10\_High\_2452\_26Tone\_RU0



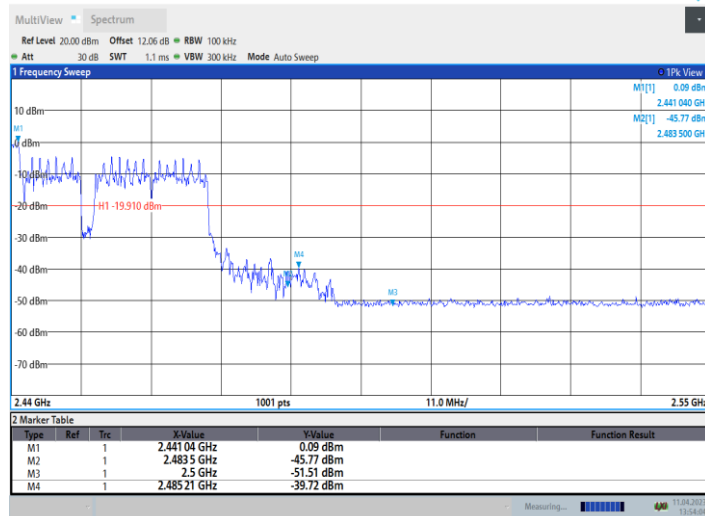
10:08:12 11.04.2023

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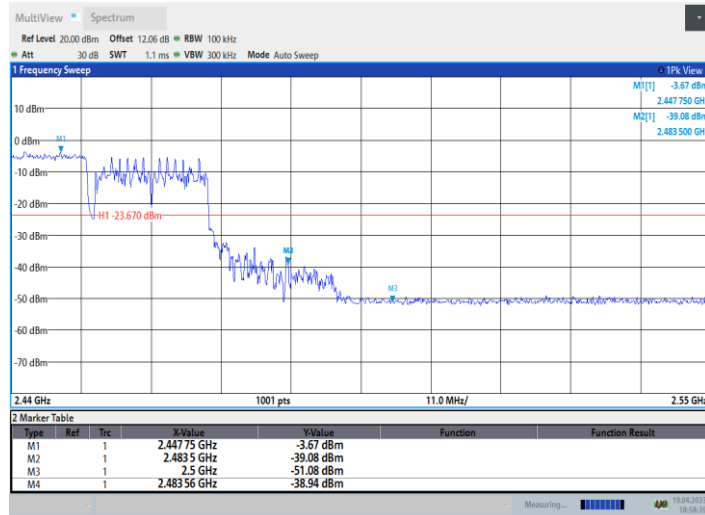
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11AX40\_Ant10\_High\_2452\_106Tone\_RU53



13:54:05 11.04.2023

11AX40\_Ant10\_High\_2452\_242Tone\_RU61



18:58:39 19.04.2023

## 10. RADIATED BANDEDGE AND SPURIOUS MEASUREMENT

### 10.1. LIMITS OF Radiated Bandedge and Spurious Measurement

Table 8 Radiation Emission Test Limit for FCC (9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Table 9 Radiation Emission Test Limit for FCC (Above 1G)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

\* The lower limit shall apply at the transition frequency.

\* The test distance is 3m.

### 10.2. TEST PROCEDURE

ANSI C63.10-2013 Clause 11.12

1. The testing follows the guidelines in ANSI C63.10-2013.
2. 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.
3. For measurement below 1GHz, the EUT was placed on a turntable with 0.8 meter, above ground. For measurement above 1 GHz, test at FAR, the EUT is placed on a non-conductive table, which is 1.5 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, 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.
7. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for  $f < 1$  GHz; VBW  $\geq$  RBW; Sweep = auto; Detector function = peak; Trace = max hold;

(3) Set RBW = 1 MHz, VBW= 3MHz for f > 1 GHz for peak measurement.  
 Set RBW = 1 MHz, and VBW= 1/T (on time) for average measurement.

**10.3.TEST DATA**

9 kHz-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.

Table 10 Radiated Emission Test Data 9k Hz-30MHz

Frequency (MHz)	Cable Loss +preamp (dB)	Antenna Factor (dB)	Reading (dBµV/m)	Level (dBµV/m)	Polarity (H/V)	Limit (dBµV/m)	Margin (dB)	Note
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

30MHz-1GHz

Worst case is shown below for 30MHz-1GHz only.

The emissions don't show in following result tables are more than 20dB below the limits.

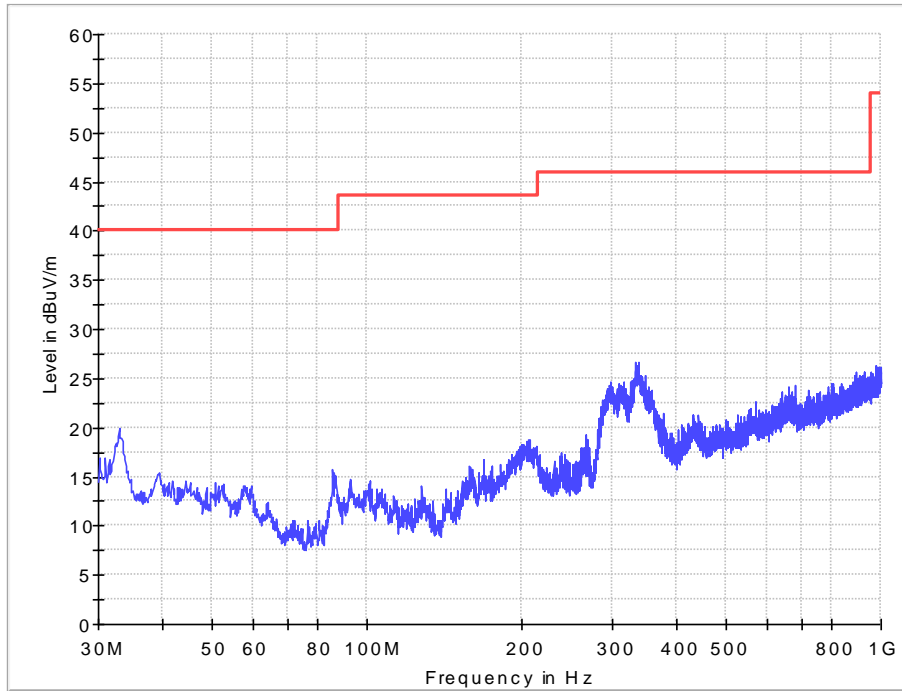
Table 11 Radiated Emission Test Data 30MHz-1GHz

Frequency (MHz)	Cable Loss +preamp (dB)	Antenna Factor (dB)	Reading (dBµV/m)	Level (dBµV/m)	Polarity (Horizontal/Vertical)	Limit (dBµV/m)	Margin (dB)	Note
33.031	0.7	12.3	18.6	31.6	Vertical	40.0	8.4	QP
38.973	0.7	12.3	10.5	23.5	Vertical	40.0	16.5	QP
57.645	0.8	13.0	7.7	21.5	Vertical	40.0	18.5	QP
85.533	1.0	10.3	9.0	20.3	Vertical	40.0	19.7	QP
202.539	1.6	10.6	9.6	21.8	Vertical	43.5	21.7	QP
296.144	2.0	12.7	9.2	23.9	Vertical	46.0	22.1	QP
32.91	0.7	12.3	6.9	19.9	Horizontal	40	20.1	QP
85.896	1.0	10.3	4.5	15.8	Horizontal	40	24.2	QP
168.831	1.5	8.7	6.6	16.8	Horizontal	43.5	26.7	QP
206.282	1.6	10.6	6.5	18.7	Horizontal	43.5	24.8	QP
298.811	2.1	12.7	9.8	24.6	Horizontal	46	21.4	QP
337.975	2.1	13.3	11.2	26.6	Horizontal	46	19.4	QP

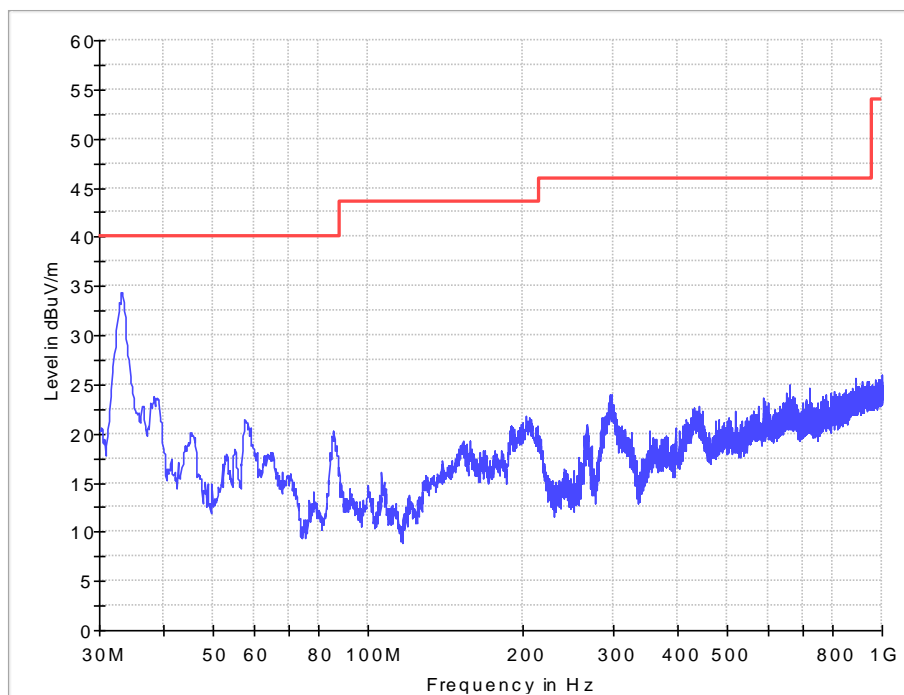
Remark: Emission level (dBuV)=Read Value(dBuV/m) + Antenna Factor(dB)+ Cable Loss +preamp(dB)

30MHz-1GHz

Horizontal



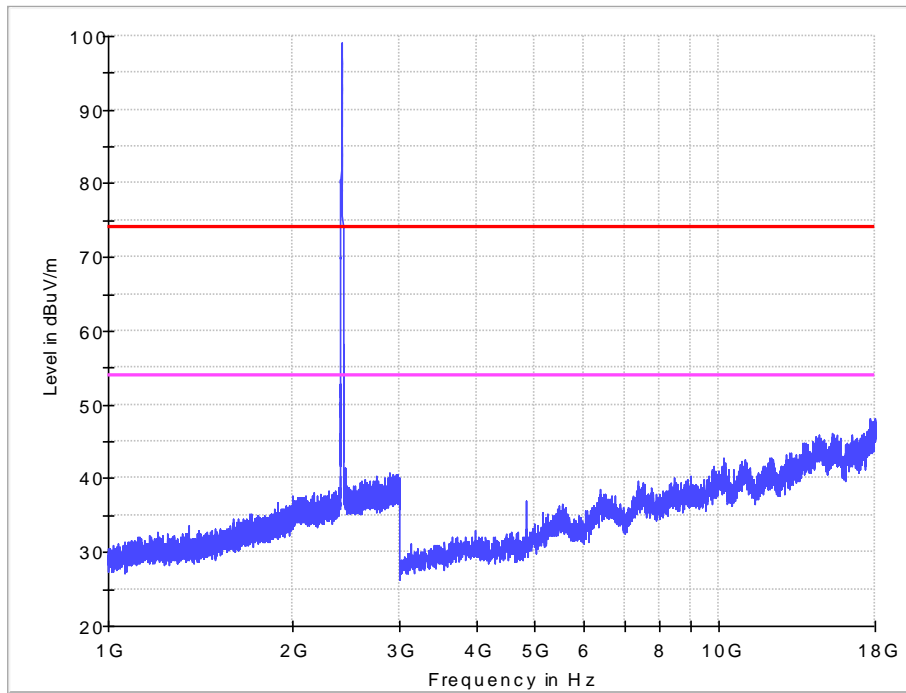
Vertical



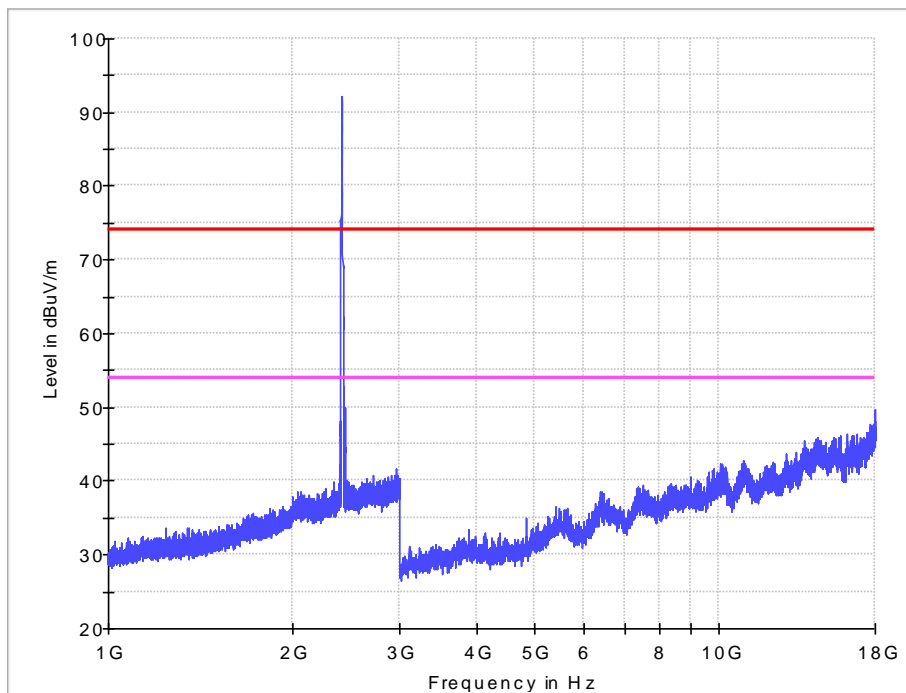
1-18G

802.11b CH1

Horizontal



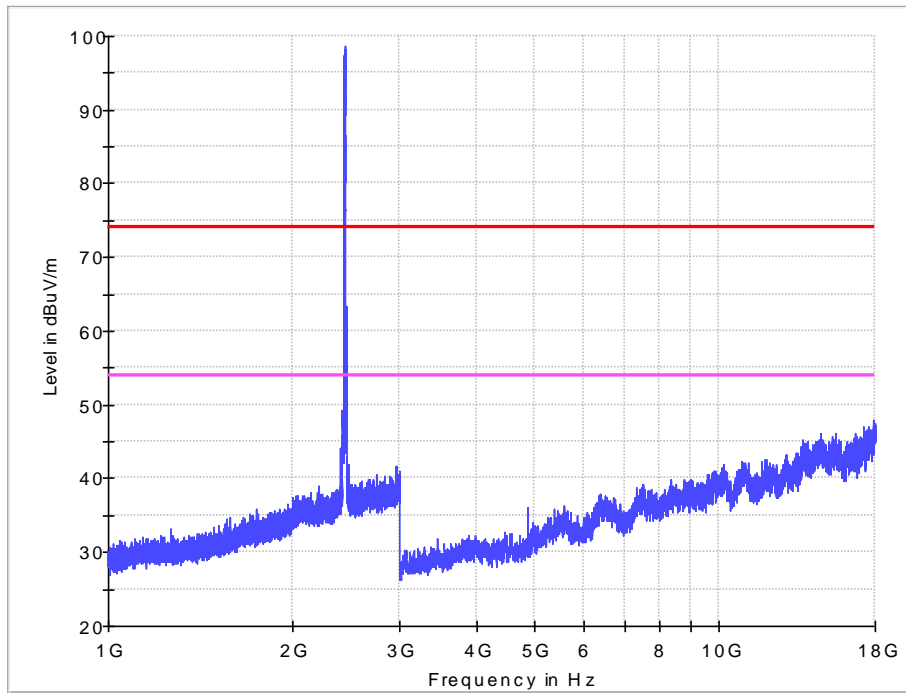
Vertical



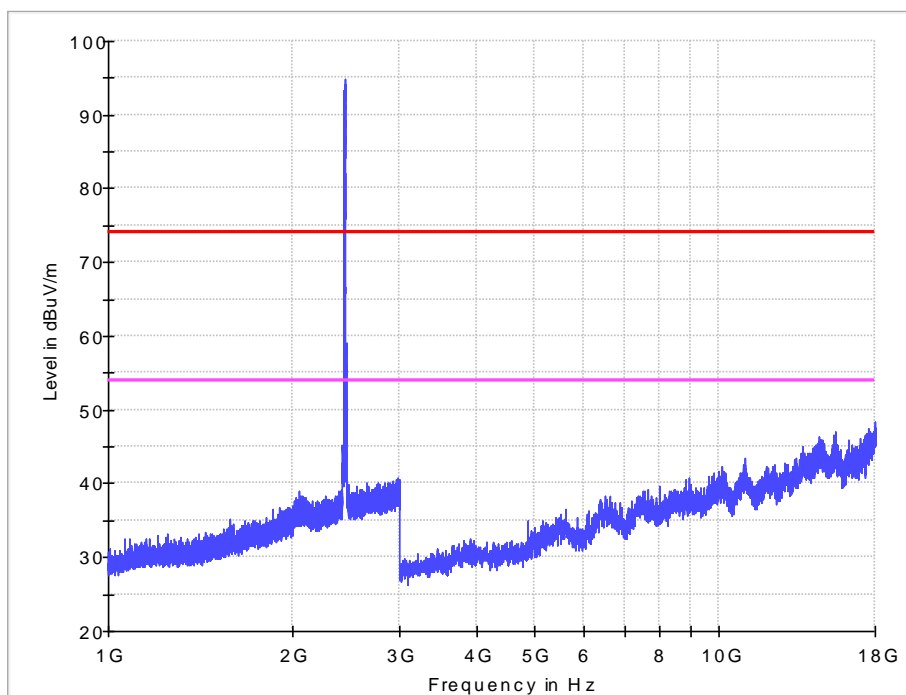
1-18G

802.11b CH6

Horizontal



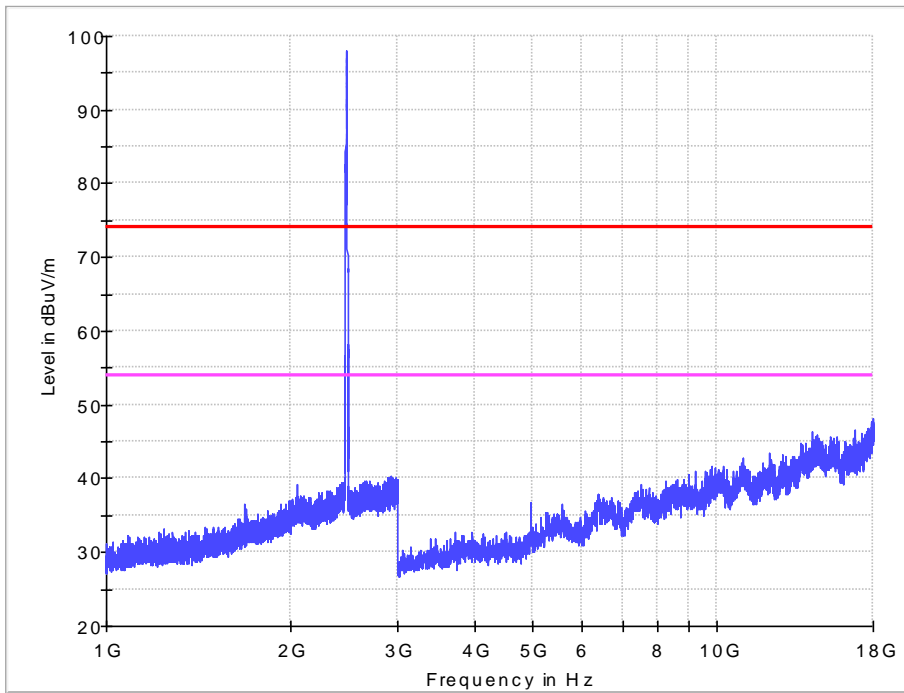
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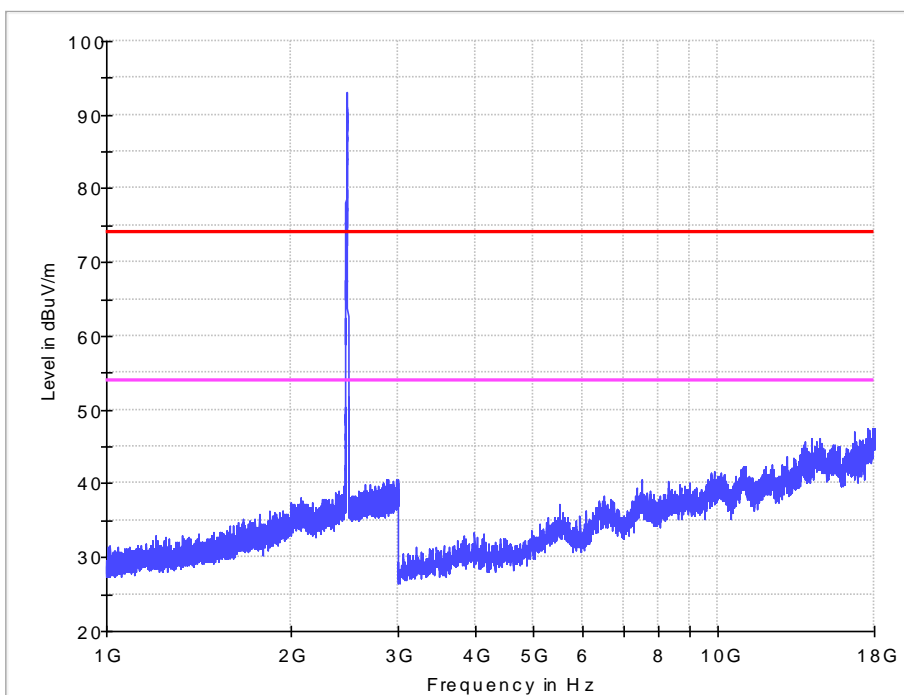
1-18G

802.11b CH11

Horizontal



Vertical

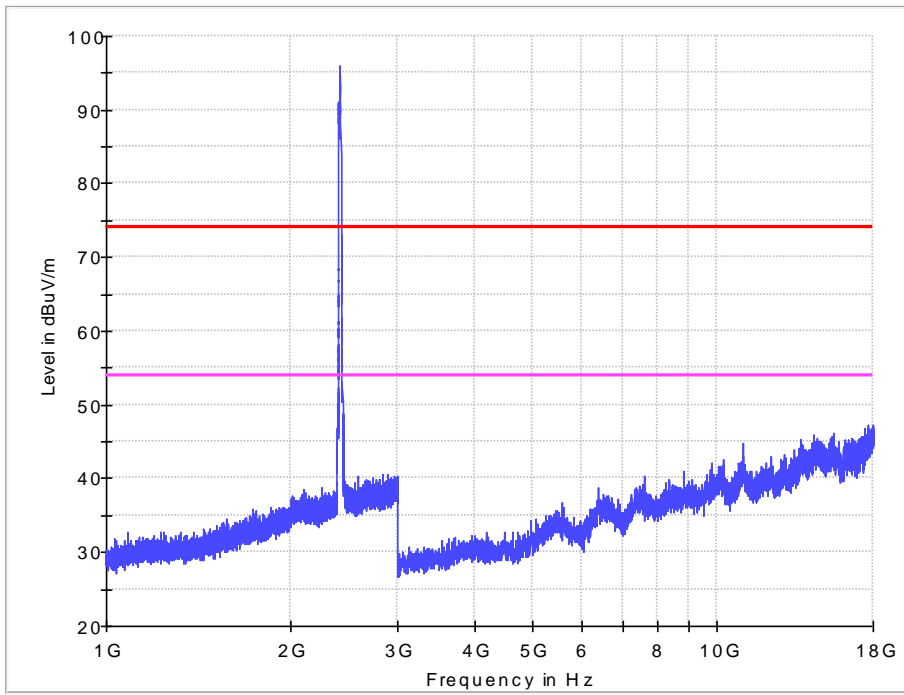




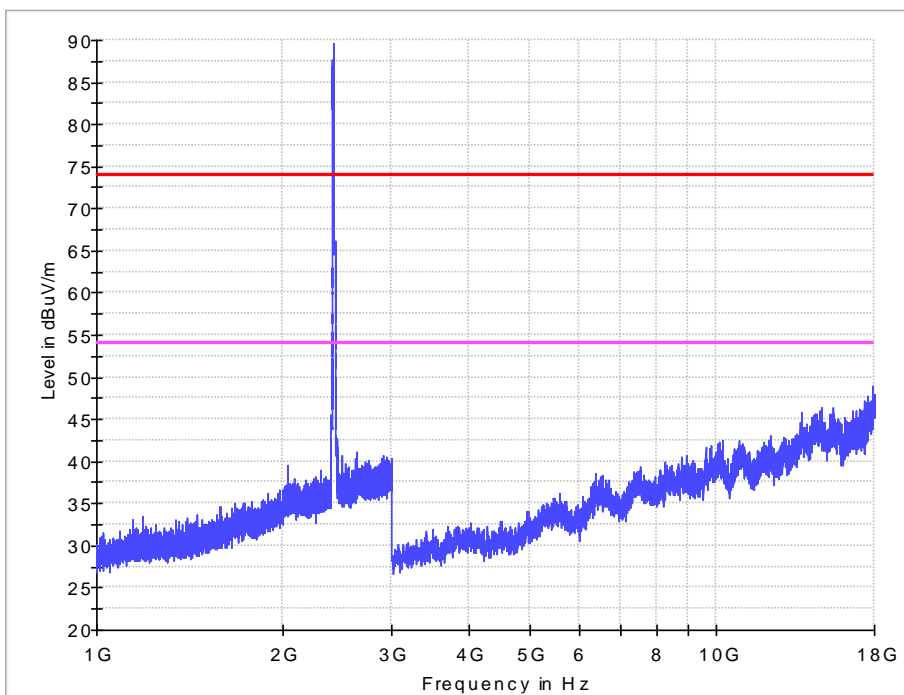
1-18G

802.11g CH1

Horizontal



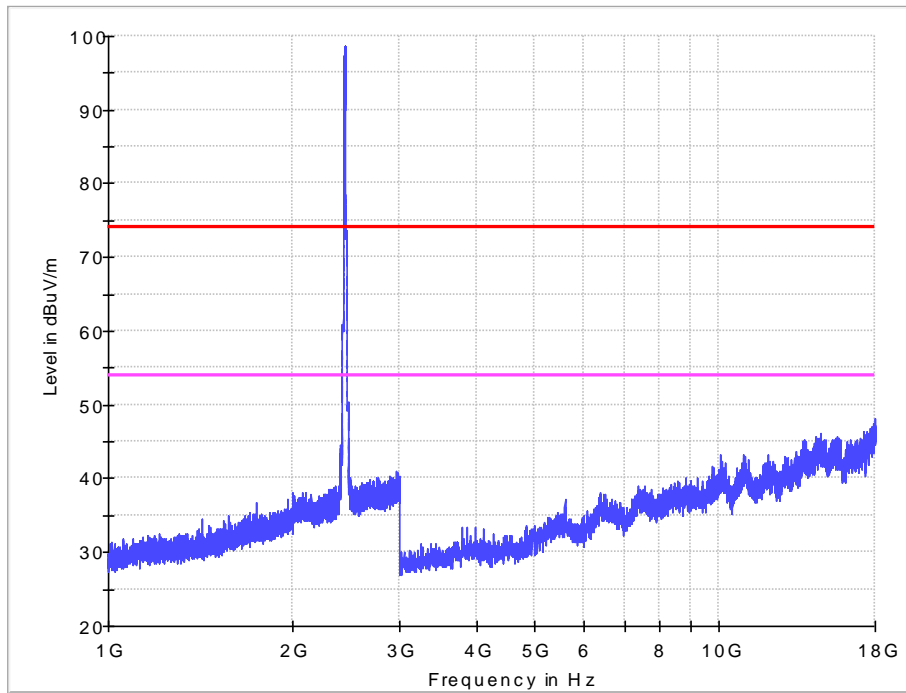
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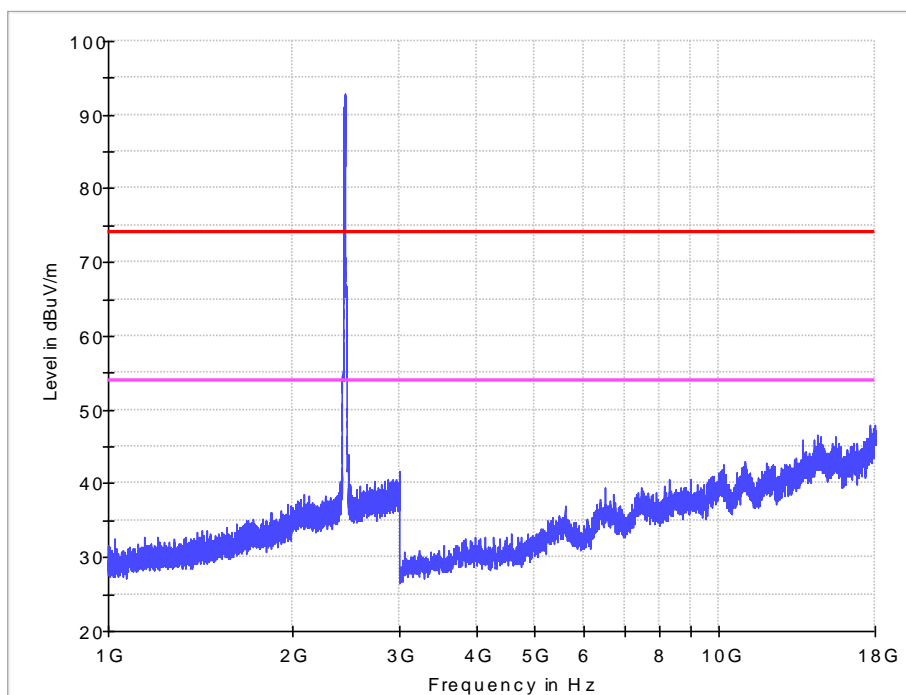
1-18G

802.11g CH6

Horizontal



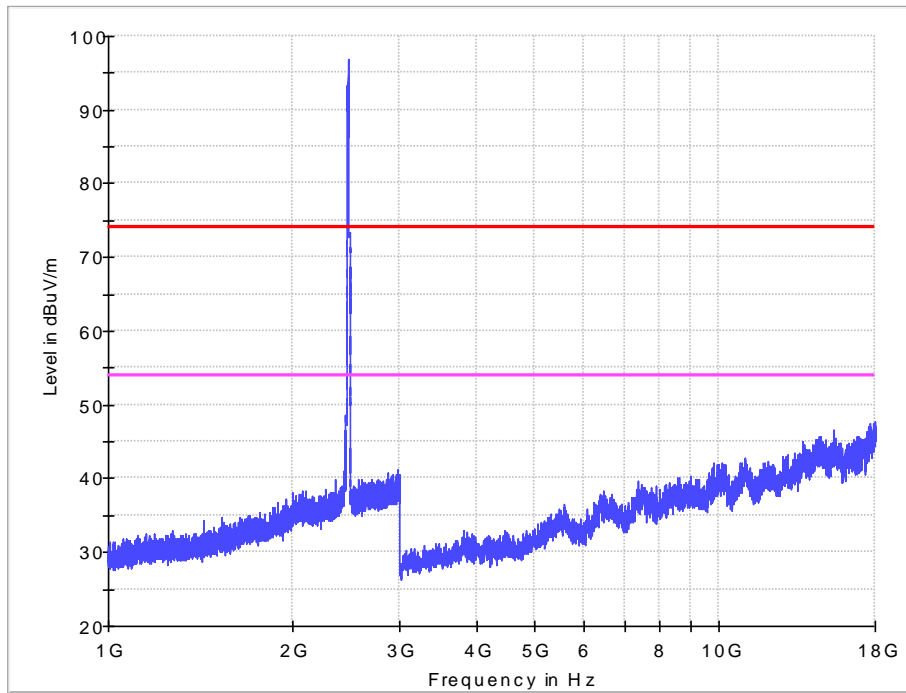
Vertical



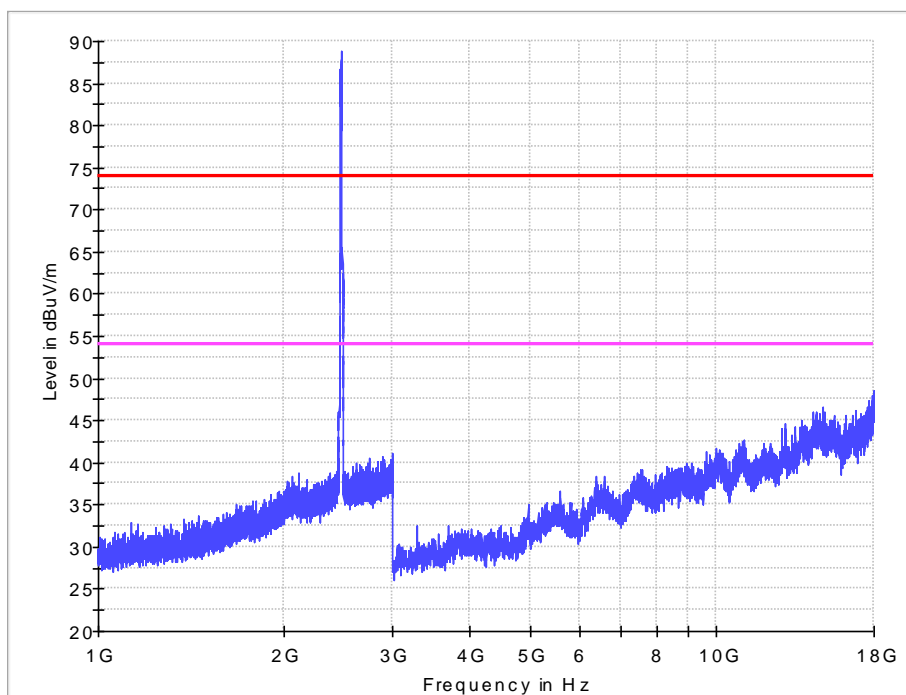
1-18G

802.11g CH11

Horizontal



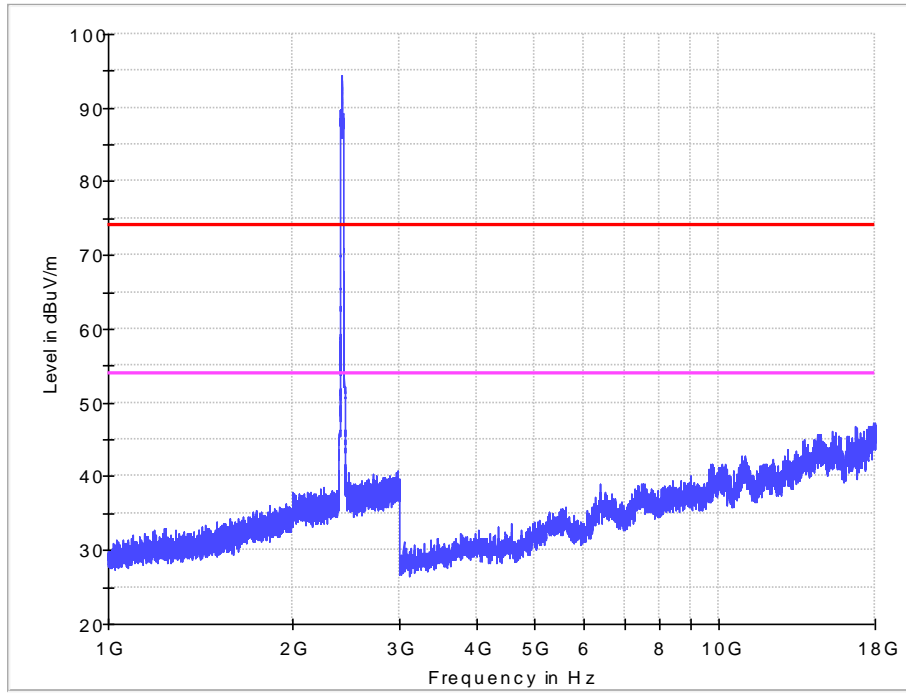
Vertical



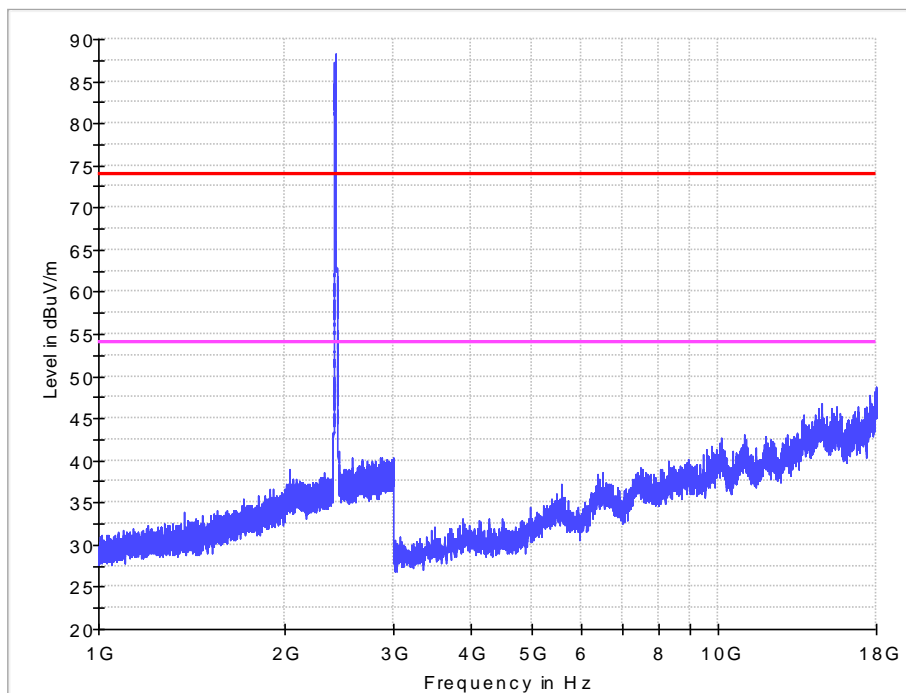
1-18G

802.11n-HT20 CH1

Horizontal



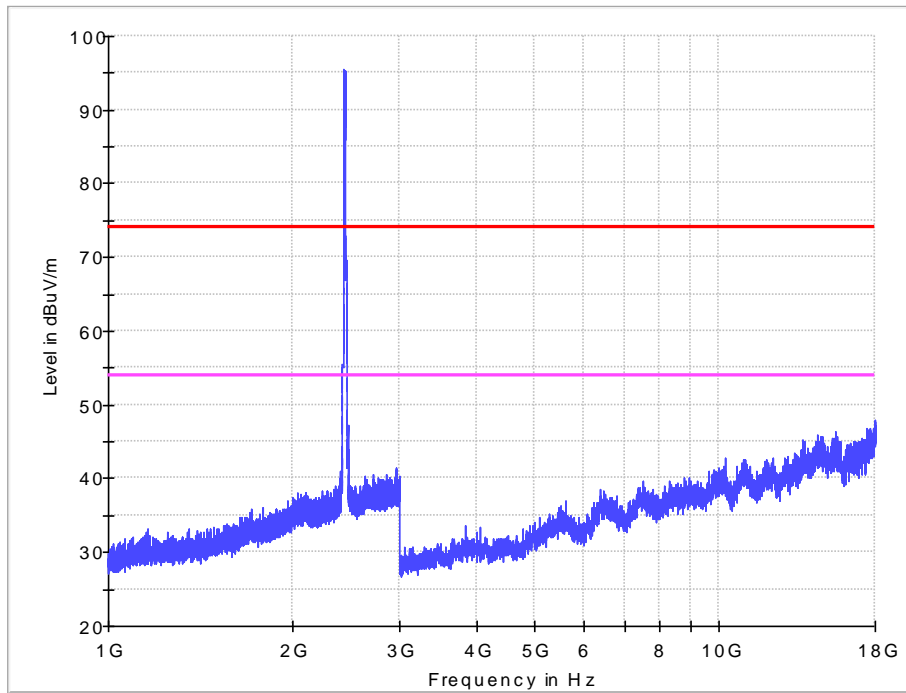
Vertical



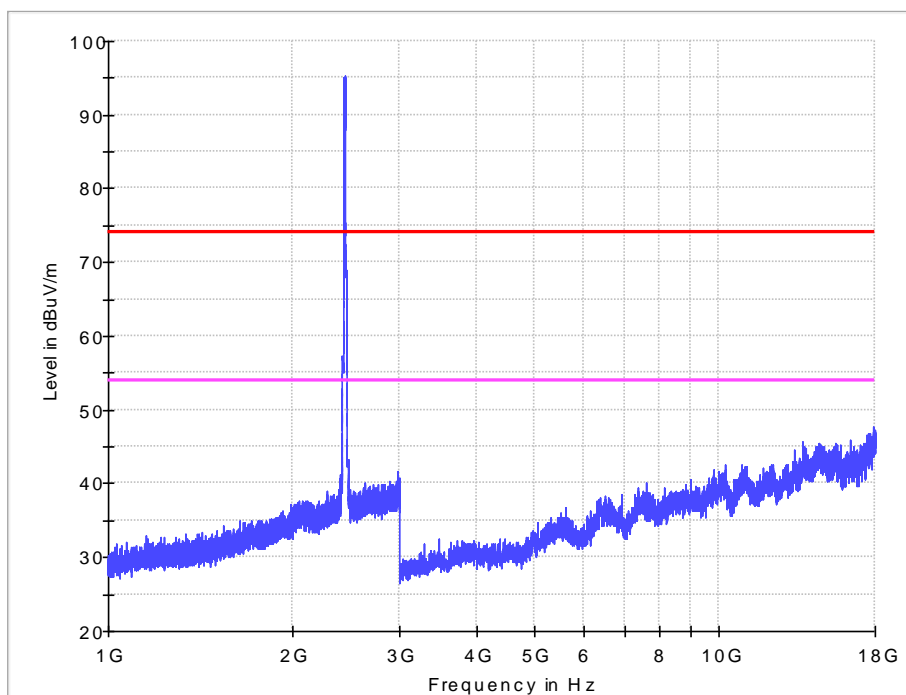
1-18G

802.11n-HT20 CH6

Horizontal



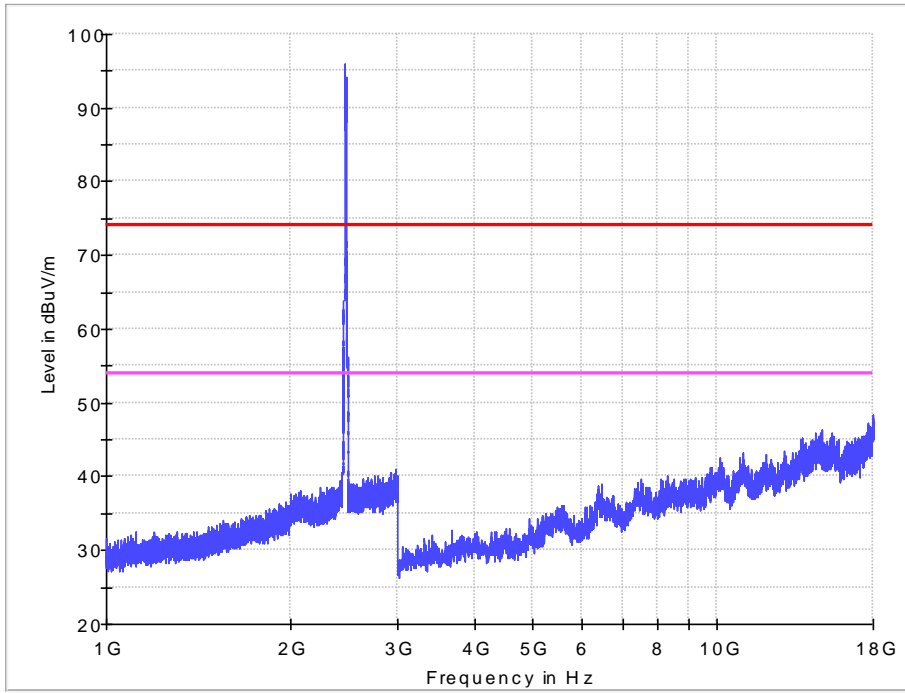
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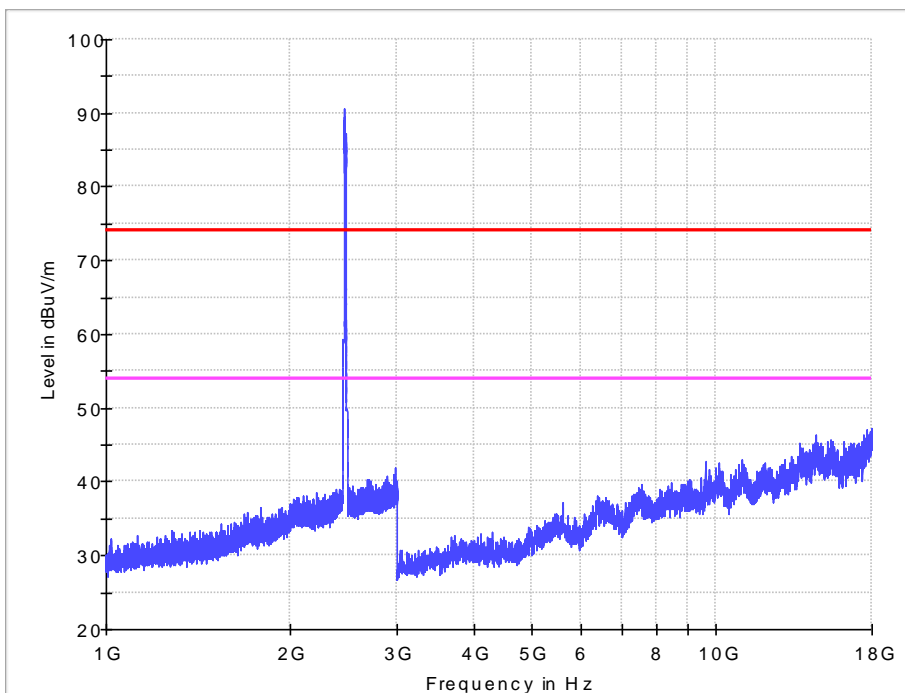
1-18G

802.11n-HT20 CH11

Horizontal



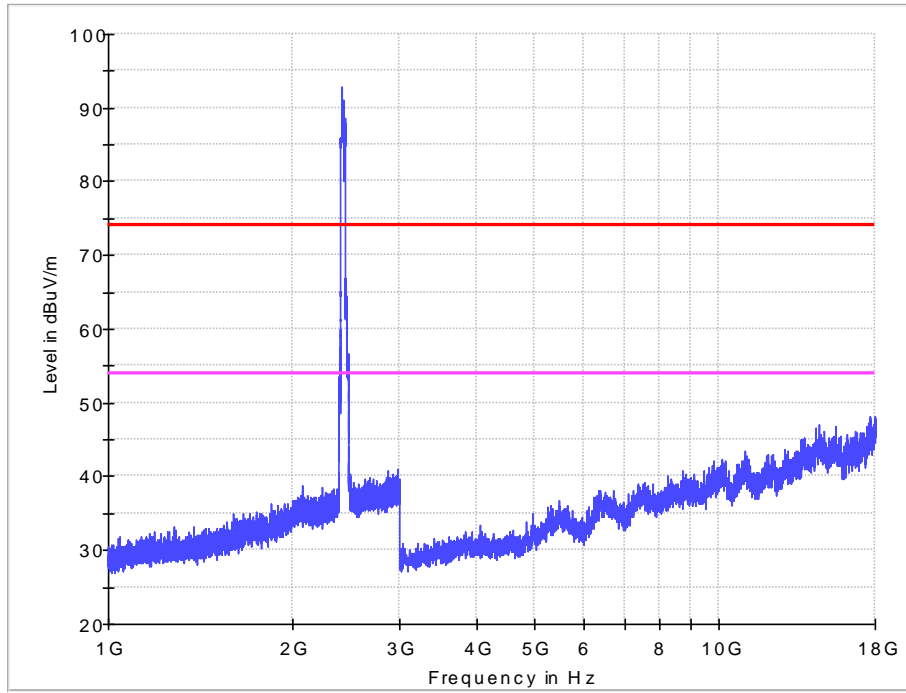
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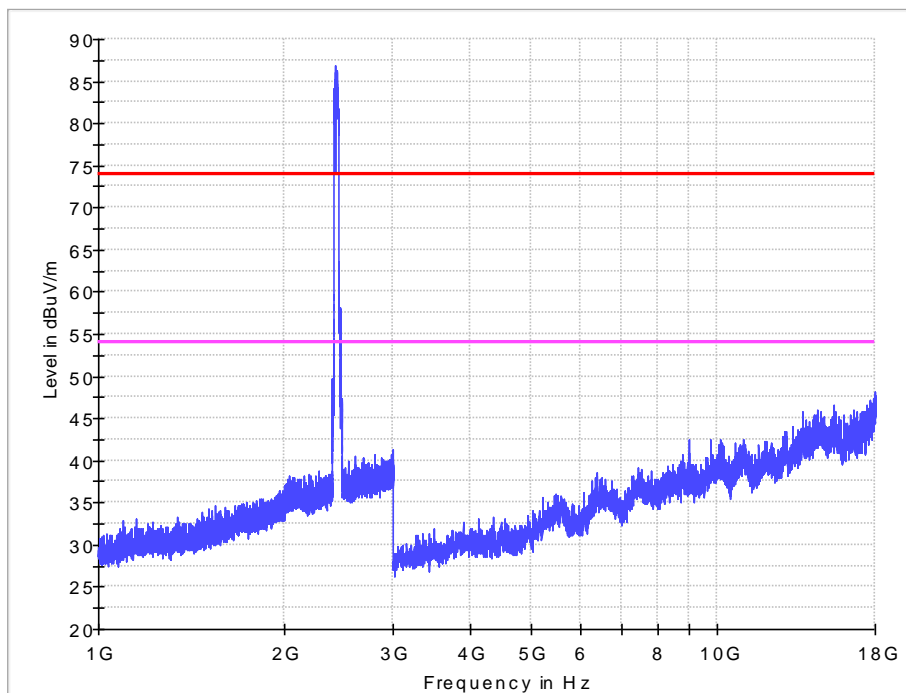
1-18G

802.11n-HT40 CH3

Horizontal



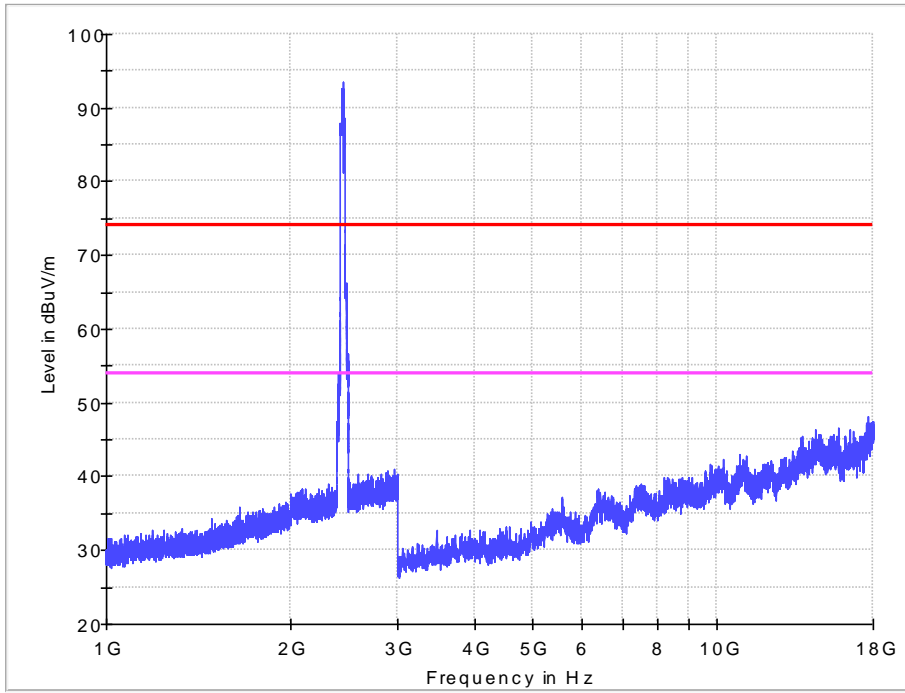
Vertical



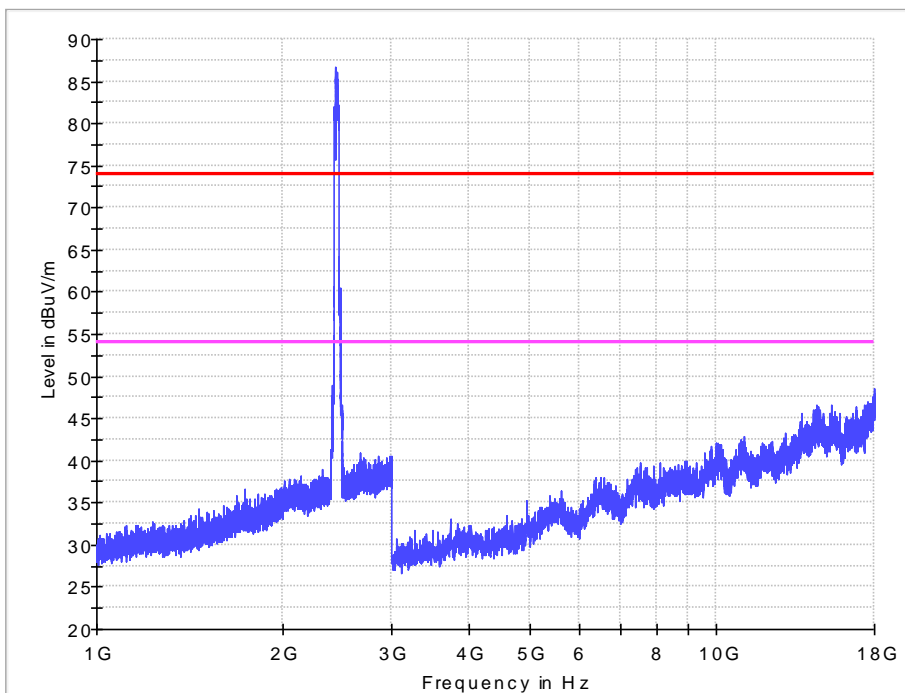
1-18G

802.11n-HT40 CH6

Horizontal



Vertical

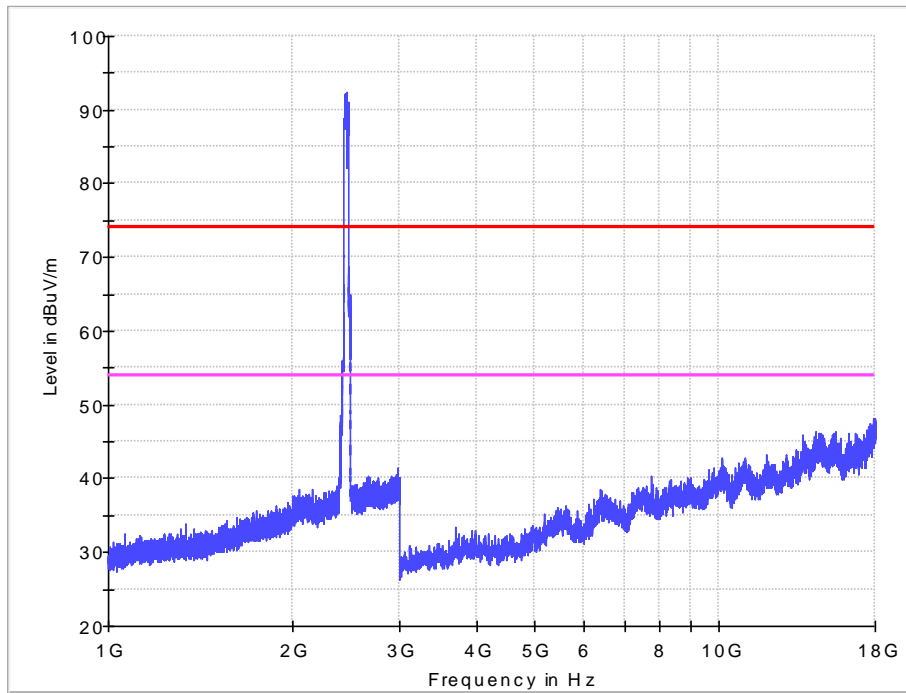




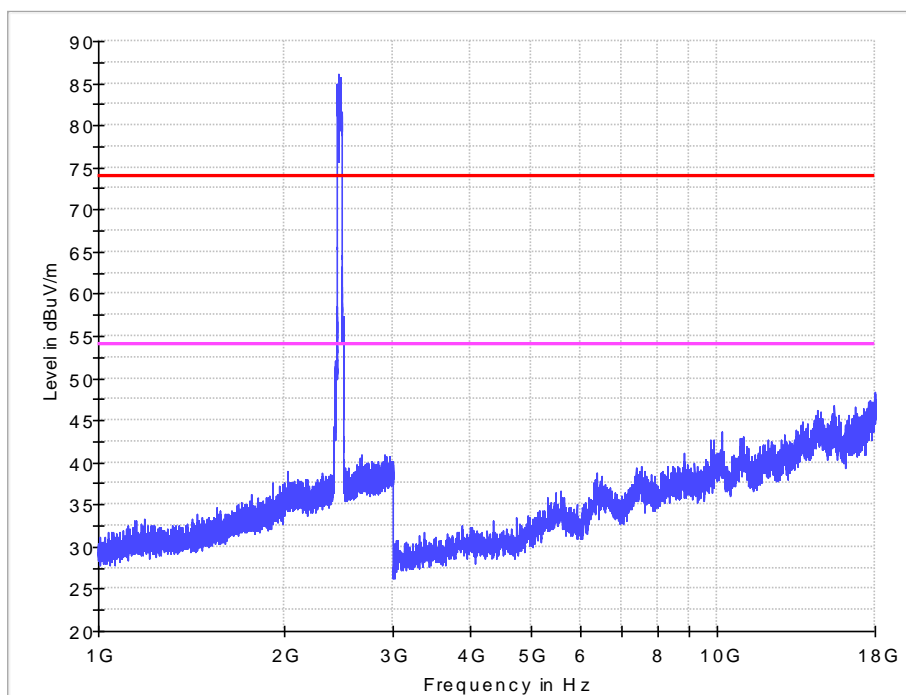
1-18G

802.11n-HT40 CH9

Horizontal



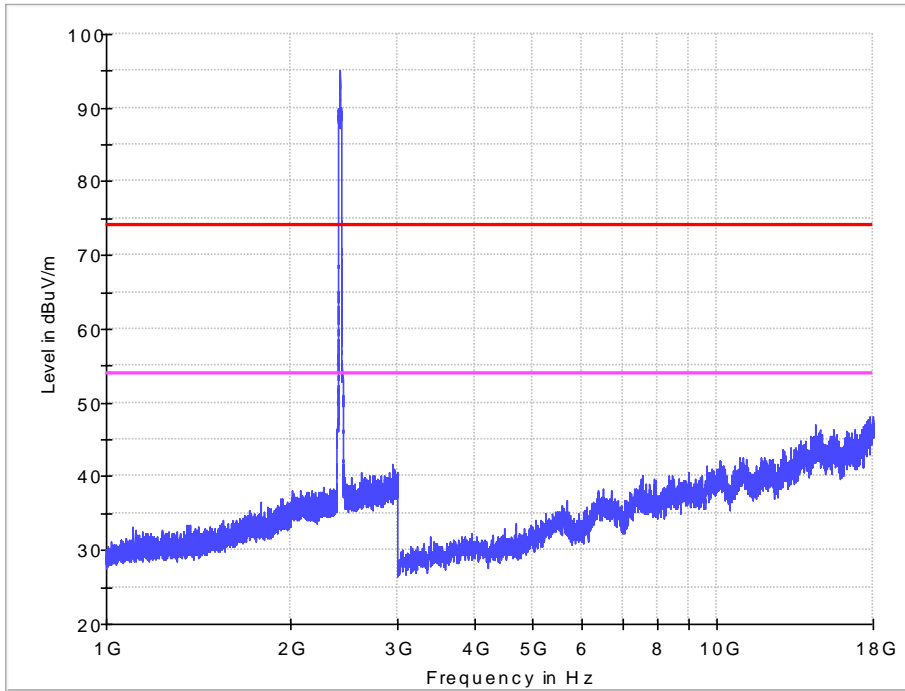
Vertical



1-18G

802.11ac-VHT20 CH1

Horizontal



Vertical

