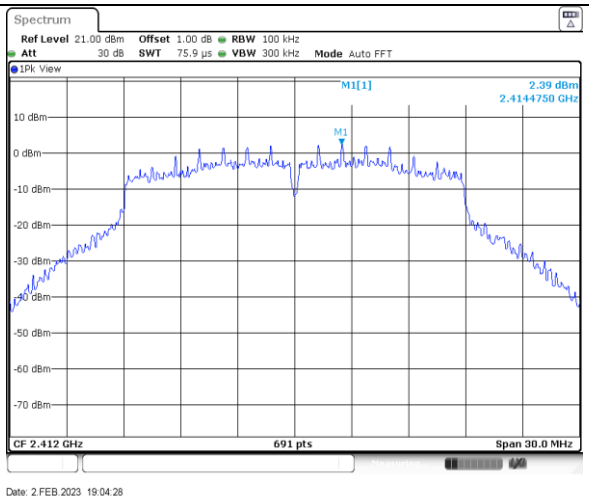

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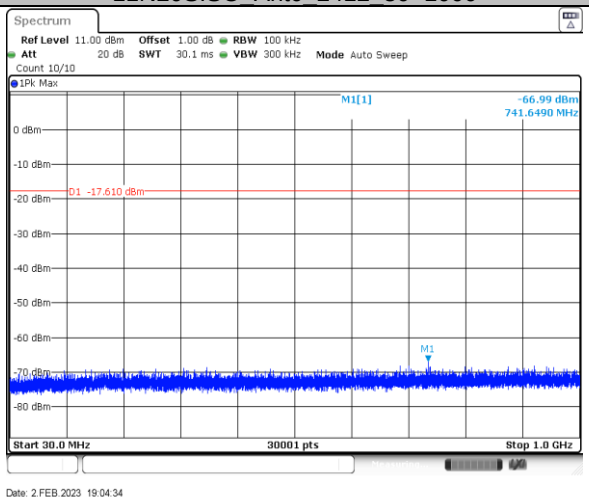

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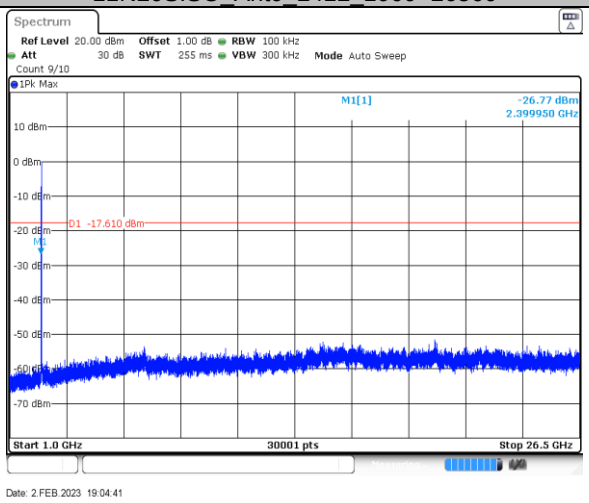

11N20SISO_Ant0_2437_0~Reference

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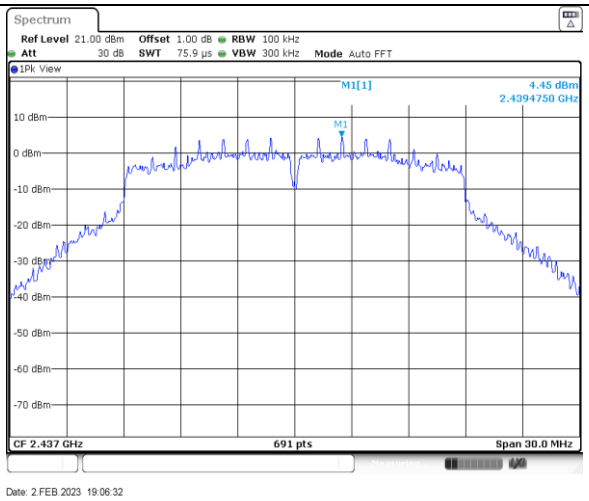

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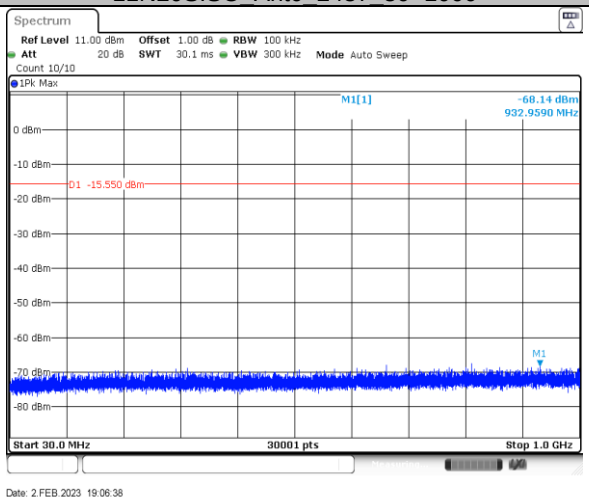

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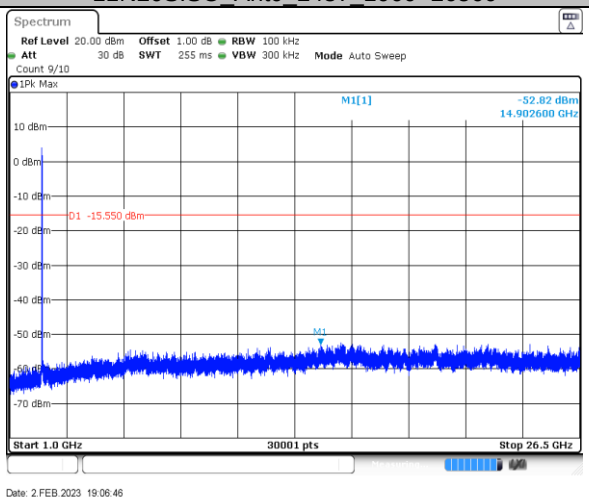

11N20SISO_Ant0_2462_0~Reference

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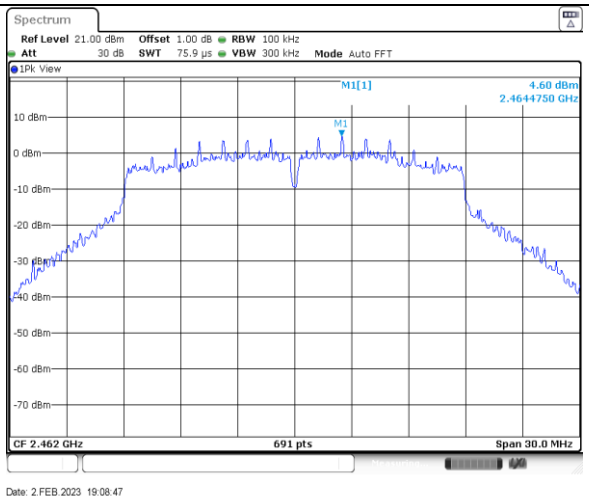

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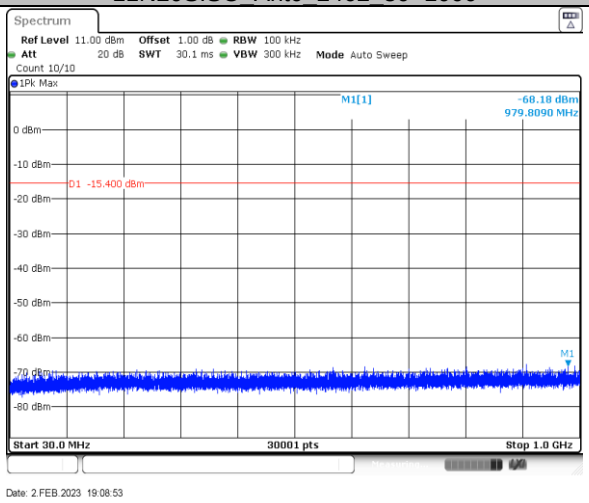

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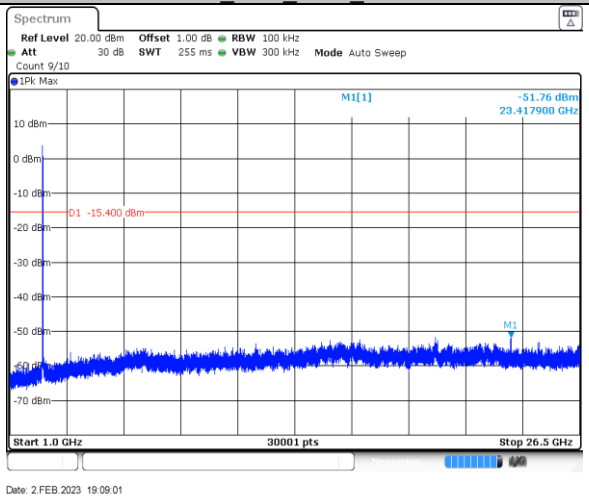

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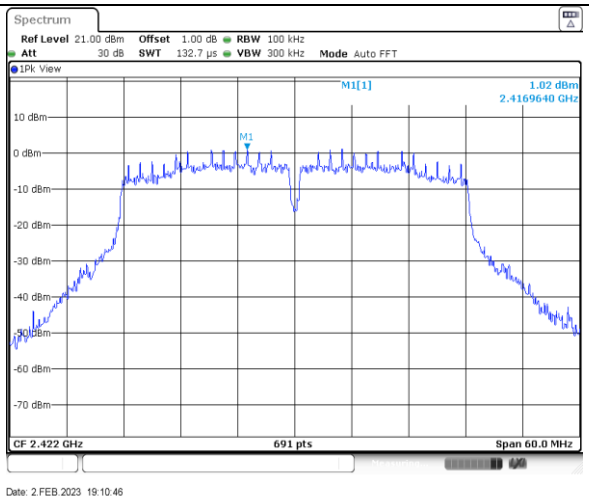

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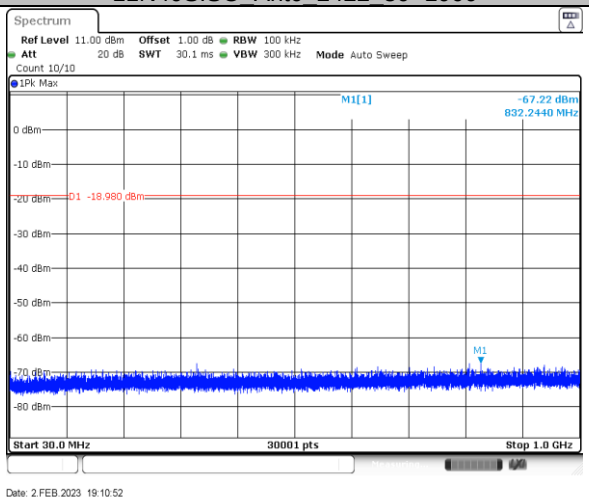

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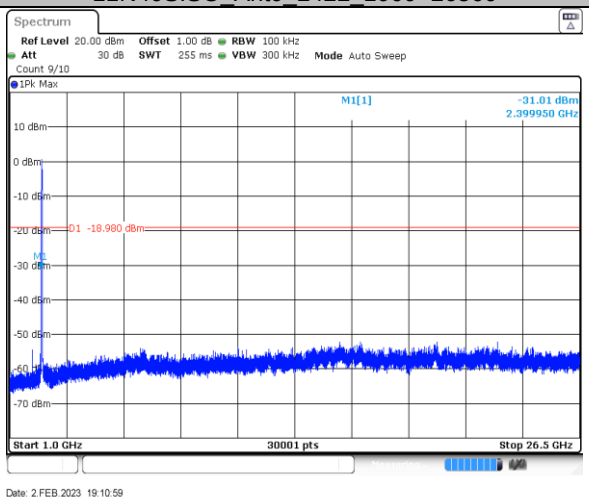

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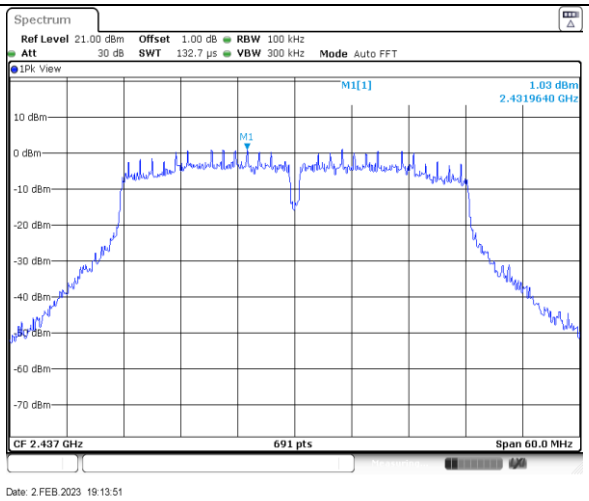

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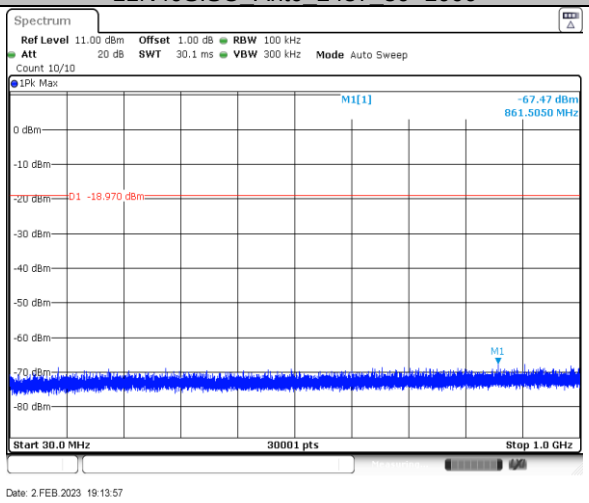

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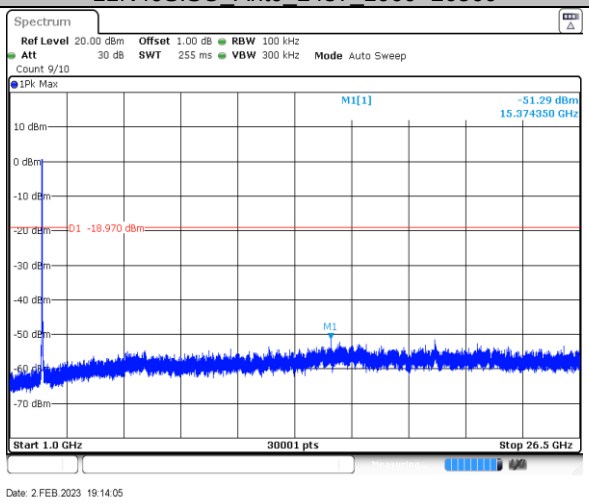

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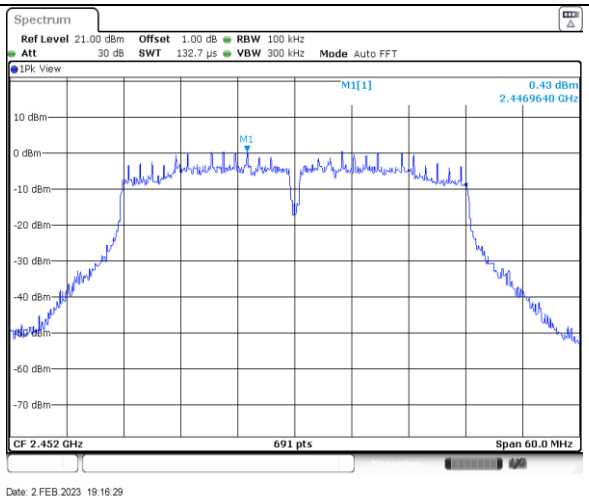

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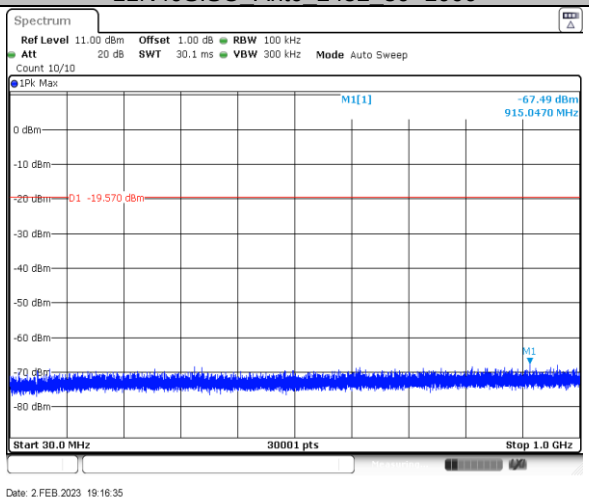

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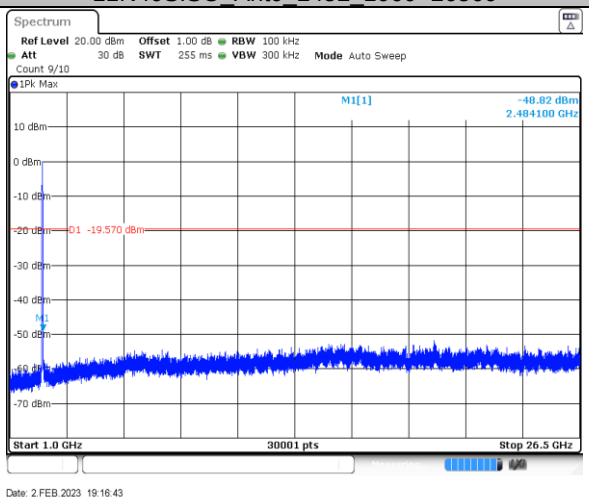

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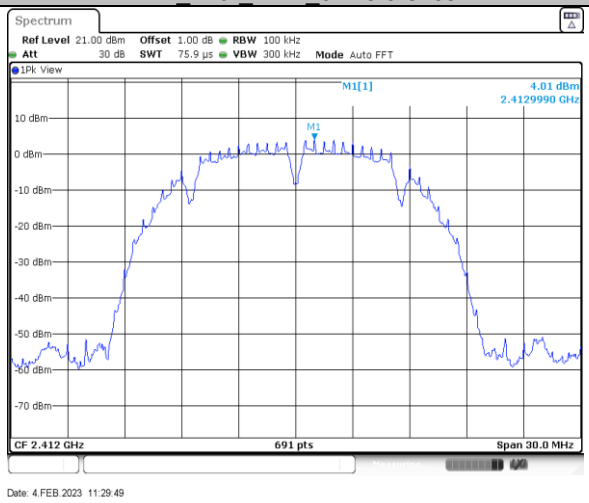
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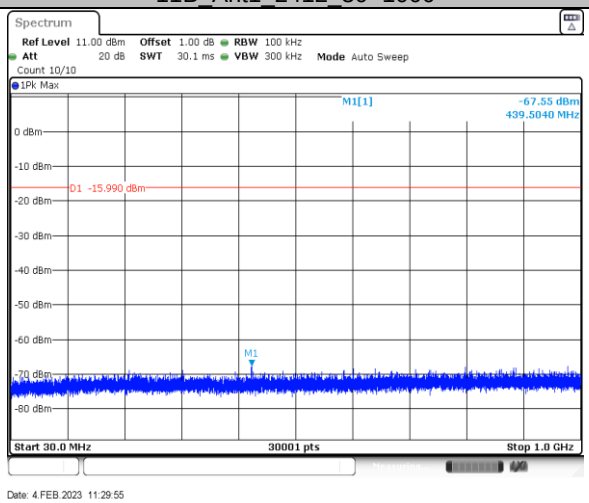
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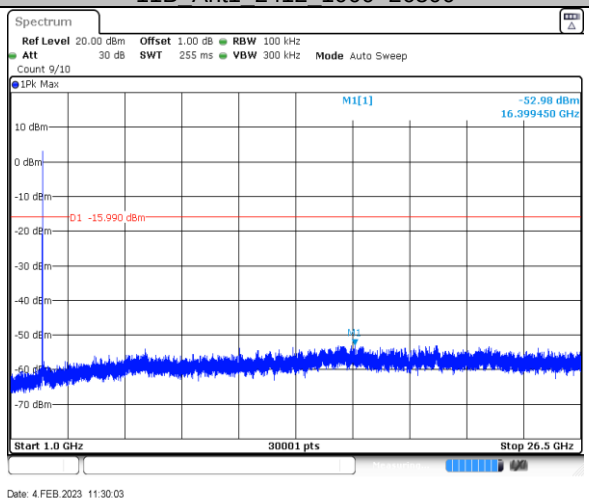
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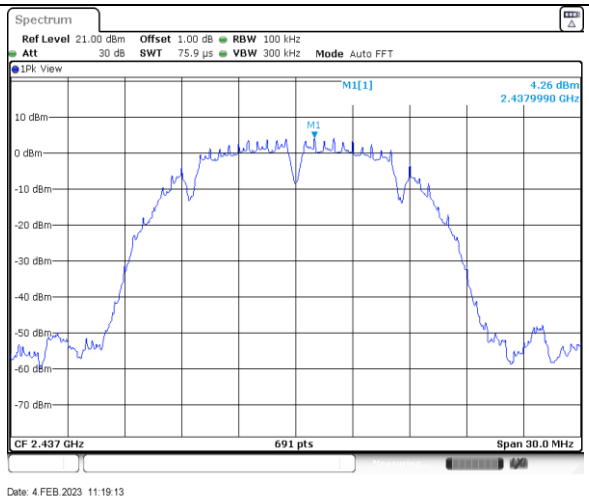

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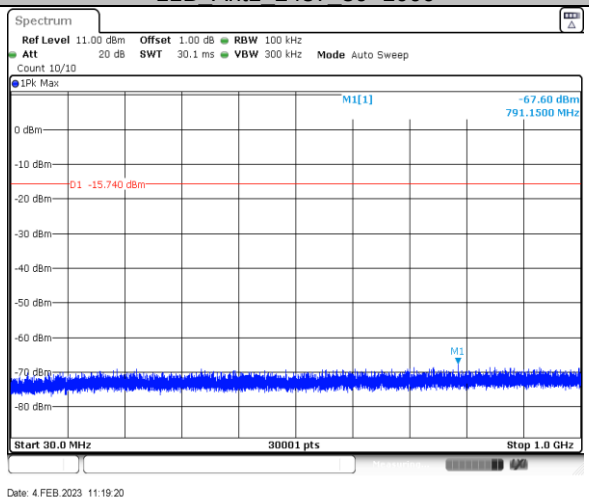

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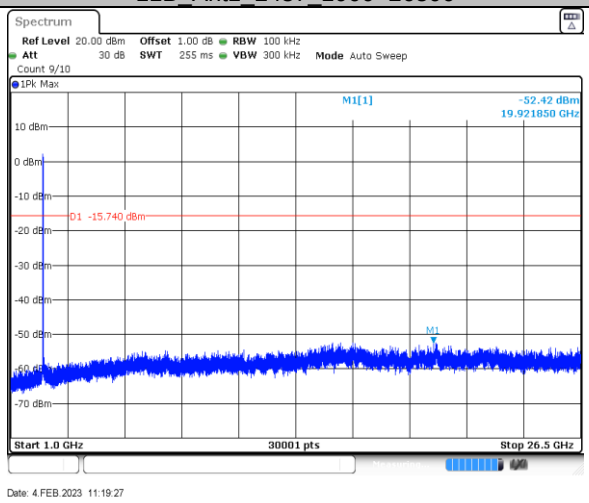

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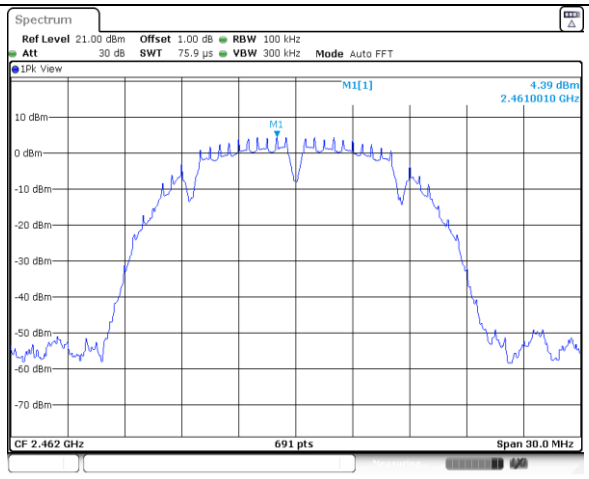
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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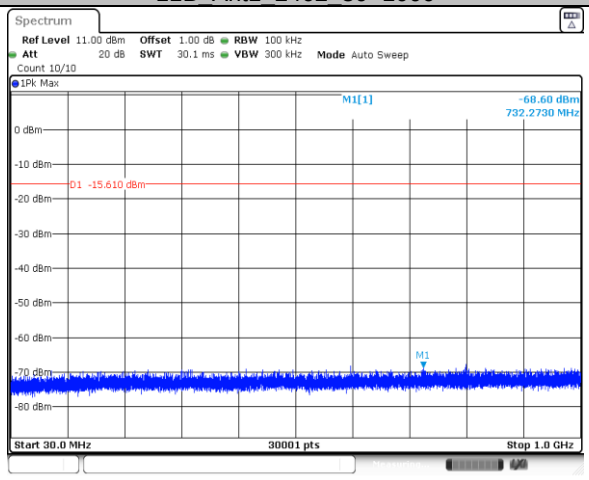

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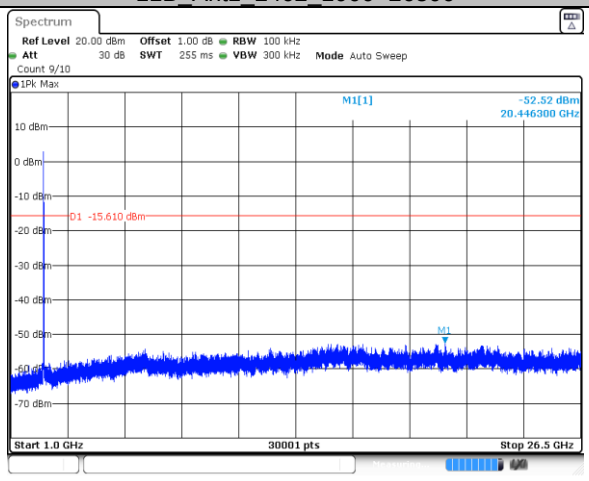

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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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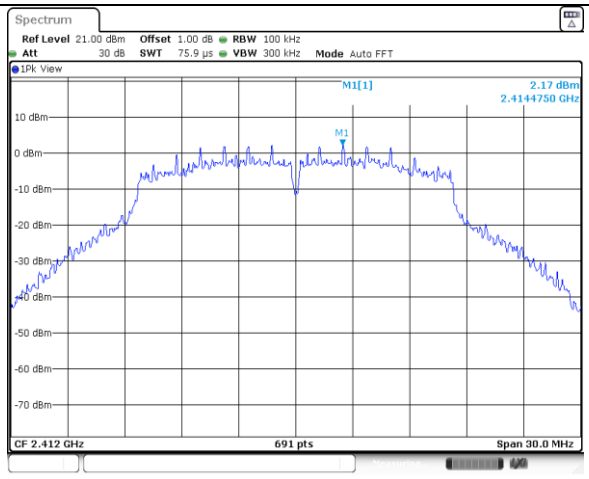

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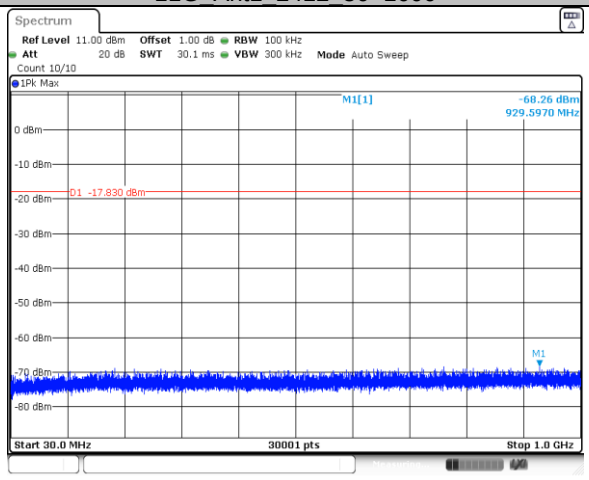

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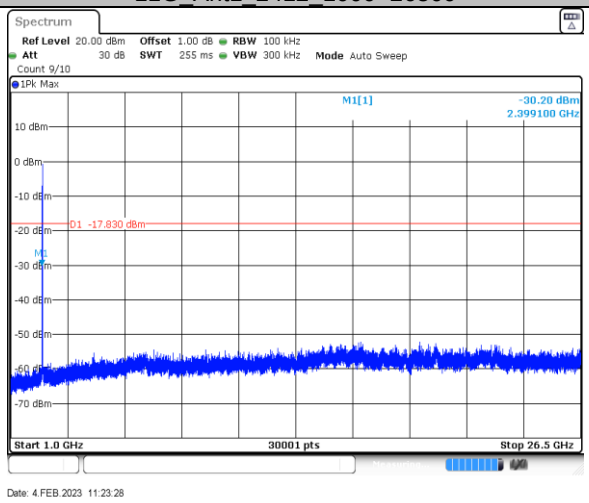

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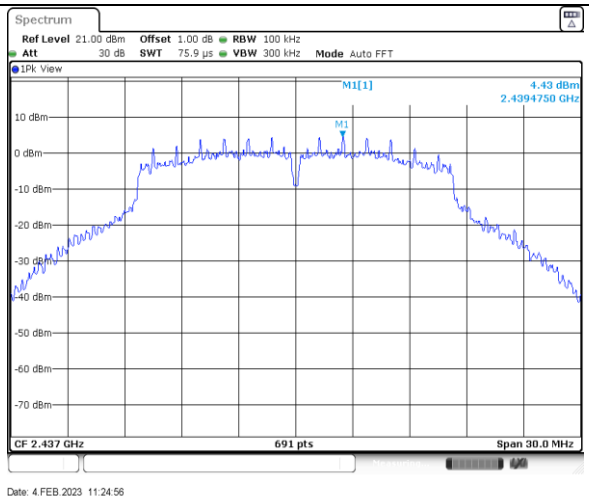

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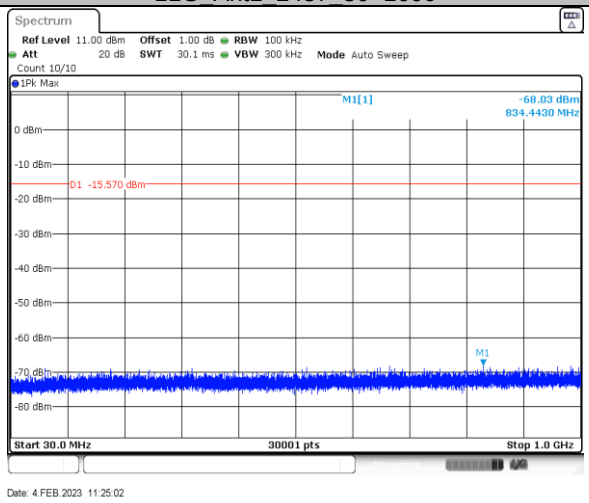

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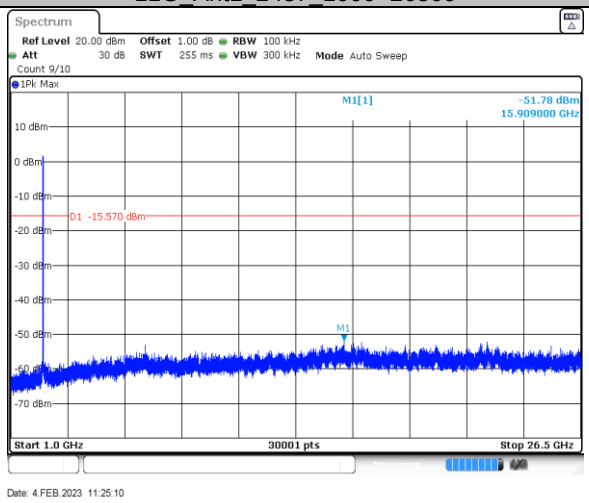

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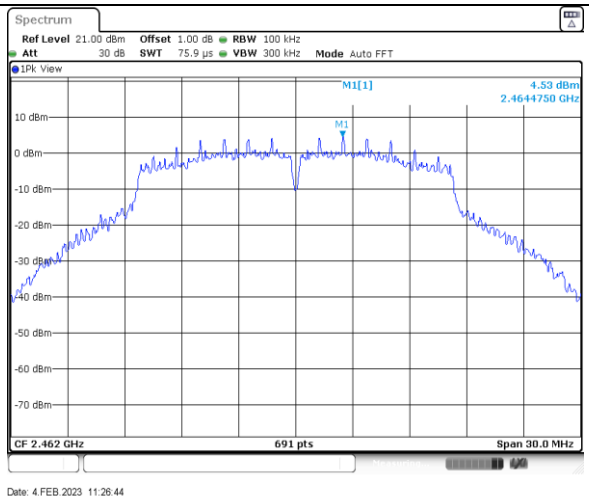

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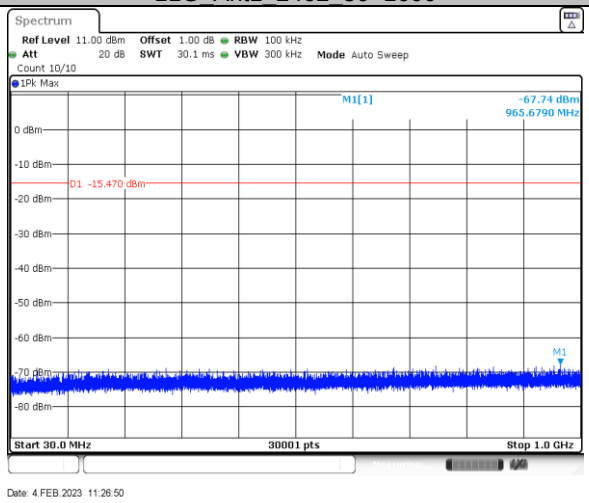

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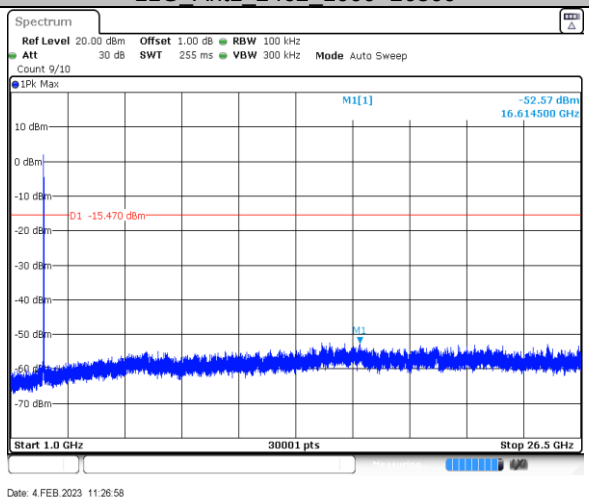

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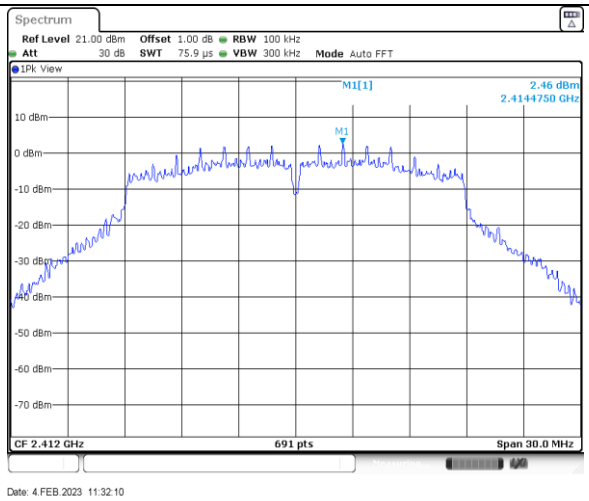

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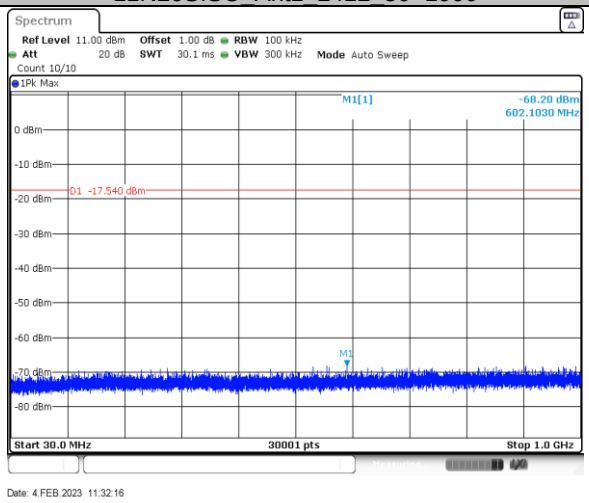

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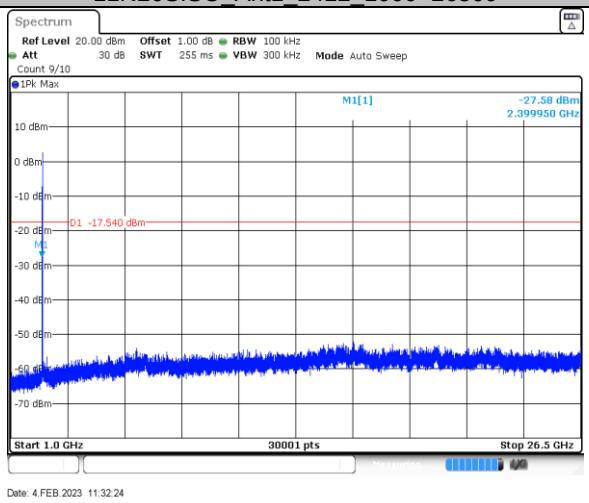

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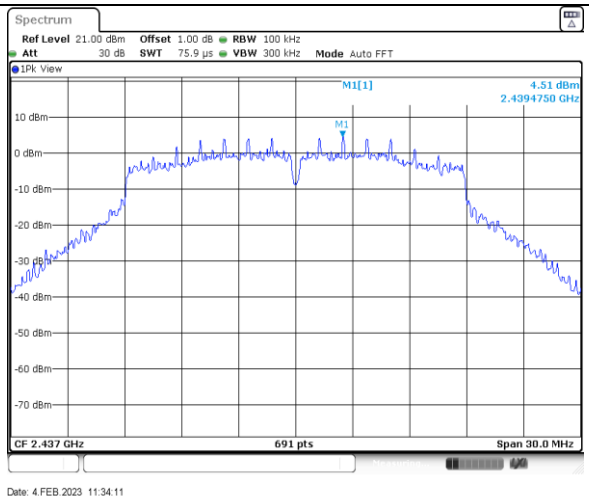

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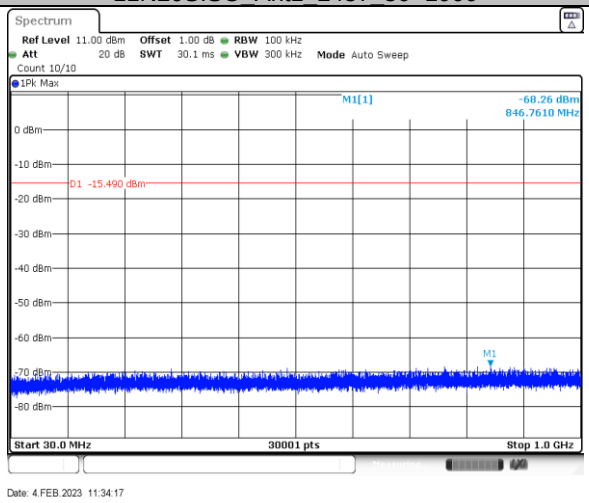

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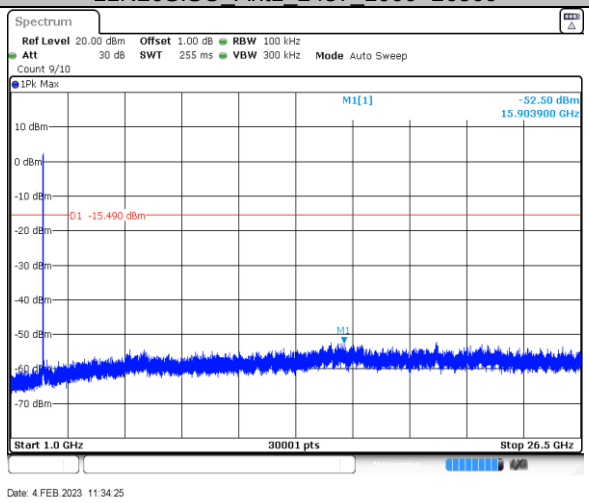

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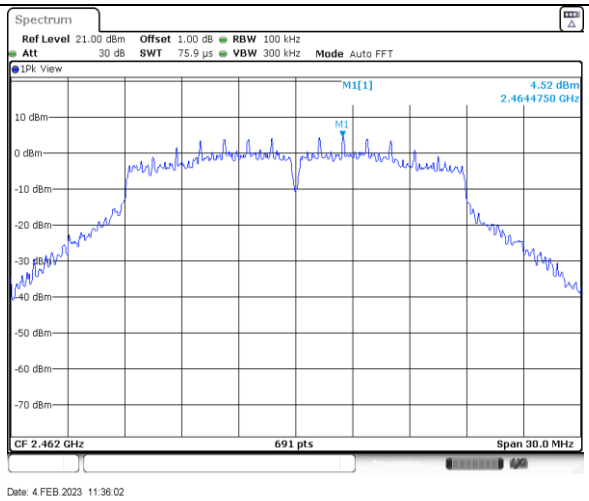

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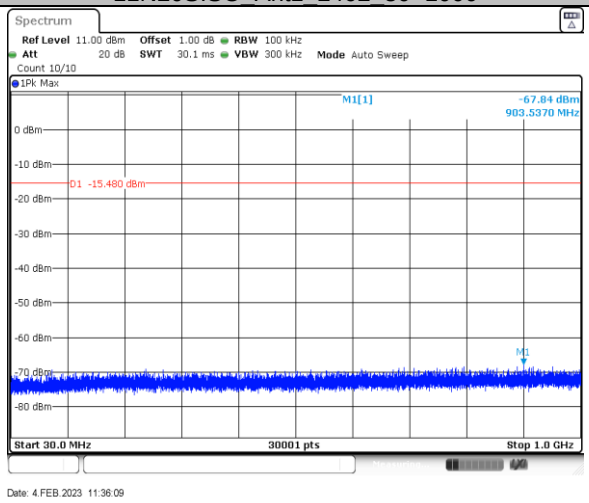

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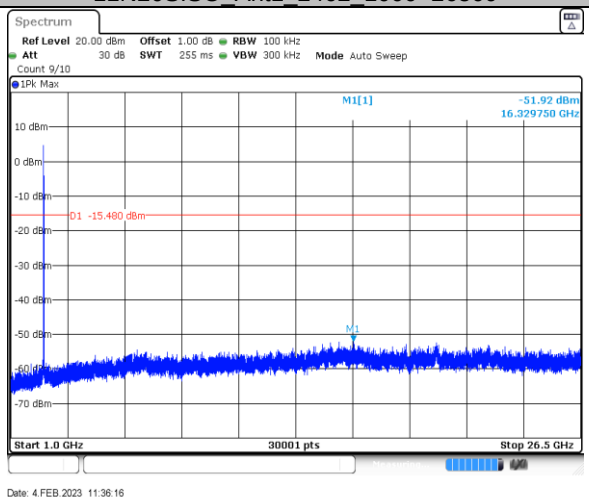

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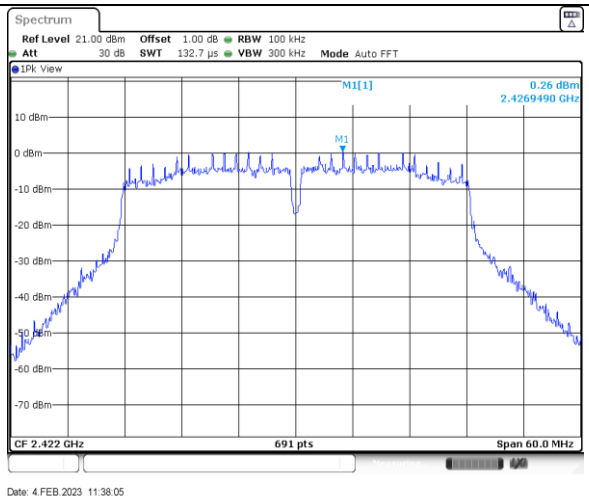

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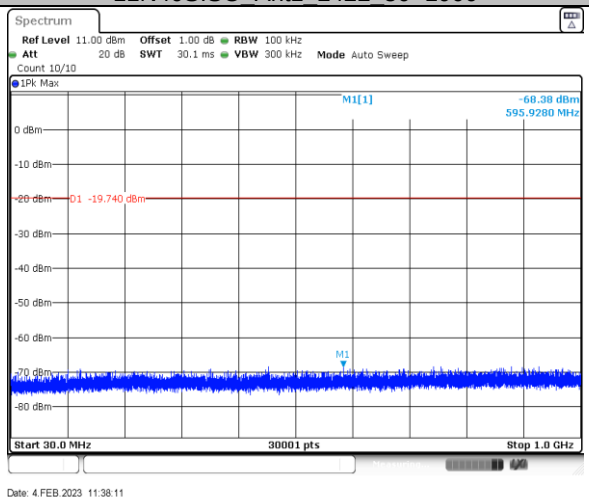

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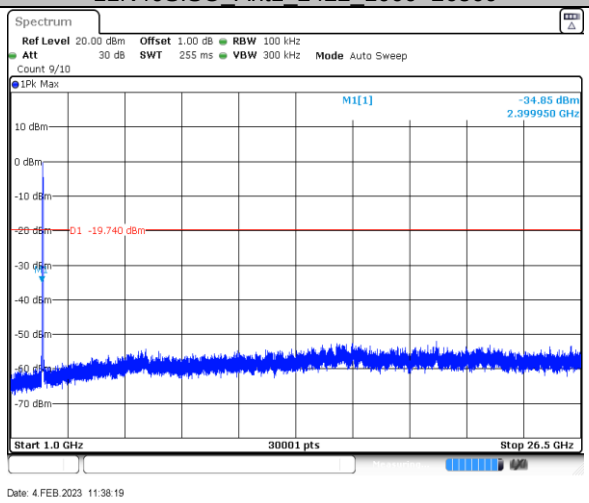

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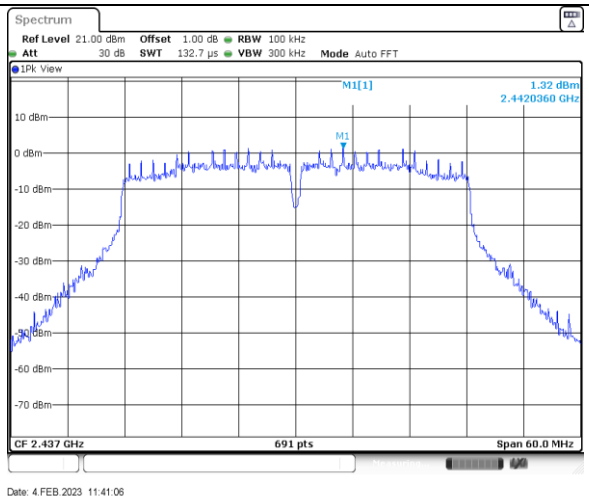

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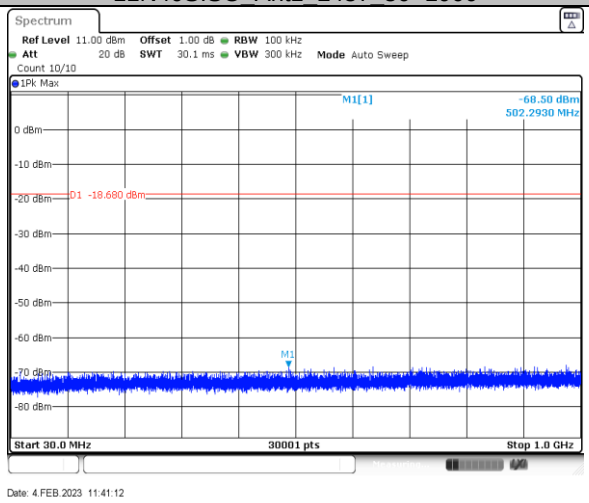
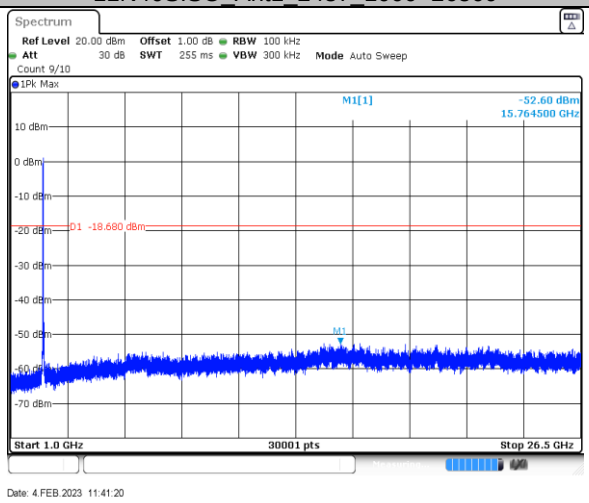
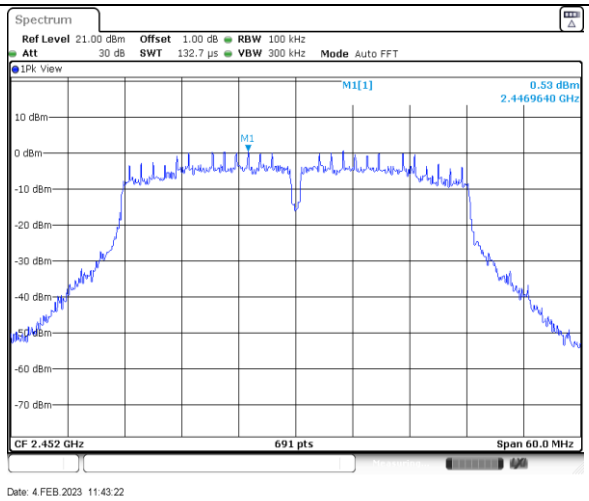


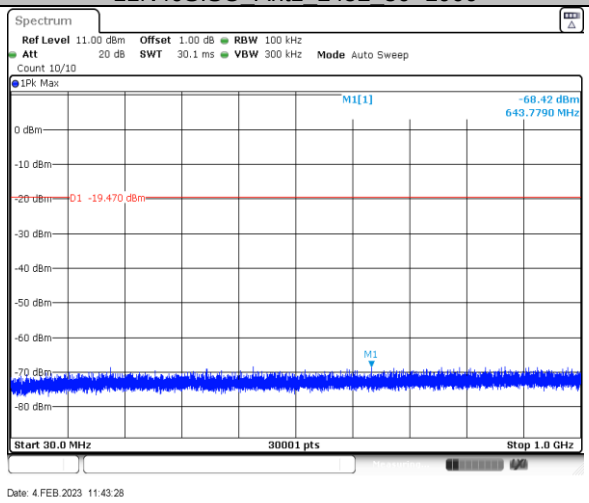
11N40SISO_Ant1_2437_1000~26500



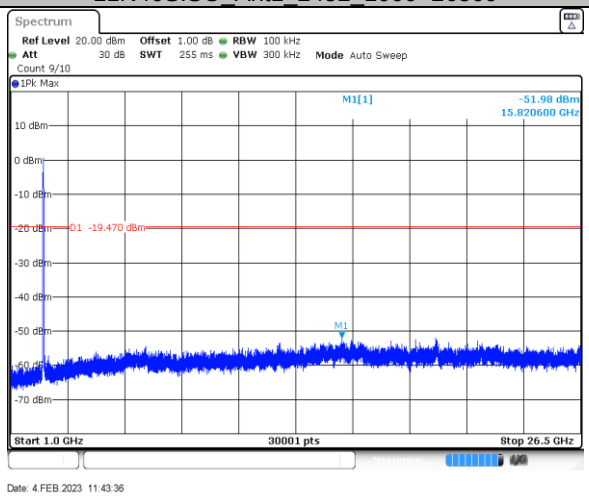
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



9.6 Band Edge Testing

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 100 kHz, VBW≥RBW, Sweep = auto, Detector function = peak, Trace = max hold
3. Allow the trace to stabilize, use the peak and delta measurement to record the result.
4. The level displayed must comply with the limit specified in this Section. .
5. Repeat the test at the hopping off and hopping on mode, submit all the plots.

Limit:

According to §15.247(d) and RSS-247 5.5, in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a) and RSS-Gen 8.10, must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)) and RSS-Gen.

Frequency Range MHz	Limit (dBc)
30-25000	-20

Note: we test Ant0 and Ant1 respectively for 802.11b/g/n20 mode and only the worst case recorded in this report.

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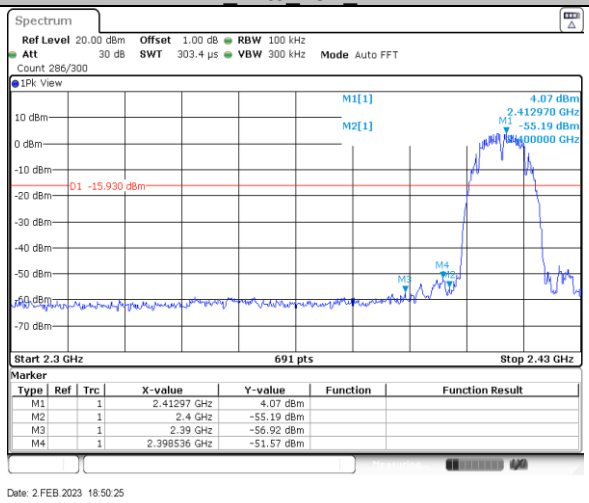
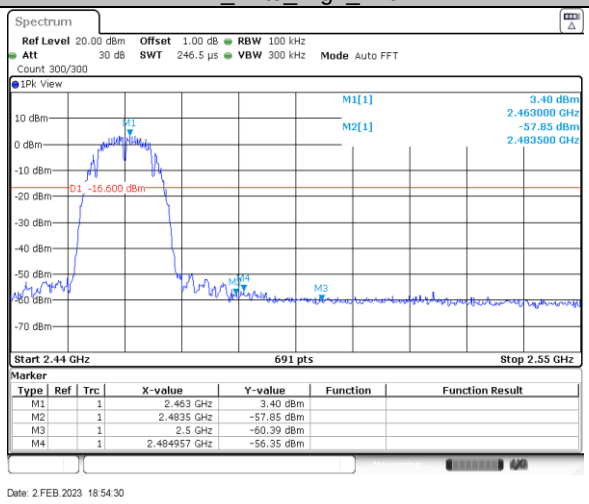
Band edge testing

Test Mode	Antenna	Channel Name	Channel (MHz)	Reference Level (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B	Ant0	Low	2412	4.07	-51.57	<=-15.93	PASS
		High	2462	3.40	-56.35	<=-16.6	PASS
11G	Ant0	Low	2412	2.39	-28.89	<=-17.61	PASS
		High	2462	4.31	-53.00	<=-15.69	PASS
11N20	Ant0	Low	2412	2.42	-30.22	<=-17.58	PASS
		High	2462	4.40	-51.69	<=-15.6	PASS
11N40	Ant0	Low	2422	1.04	-32.24	<=-18.96	PASS
		High	2452	0.41	-47.22	<=-19.59	PASS
11B	Ant1	Low	2412	4.00	-51.83	<=-16.00	PASS
		High	2462	4.27	-56.07	<=-15.73	PASS
11G	Ant1	Low	2412	2.48	-29.42	<=-17.52	PASS
		High	2462	4.24	-54.31	<=-15.76	PASS
11N20	Ant1	Low	2412	2.42	-28.00	<=-17.58	PASS
		High	2462	4.32	-55.17	<=-15.68	PASS
11N40	Ant1	Low	2422	0.53	-31.77	<=-19.47	PASS
		High	2452	0.67	-51.48	<=-19.33	PASS

11B_Ant0_Low_2412



11B_Ant0_High_2462



11G_Ant0_Low_2412

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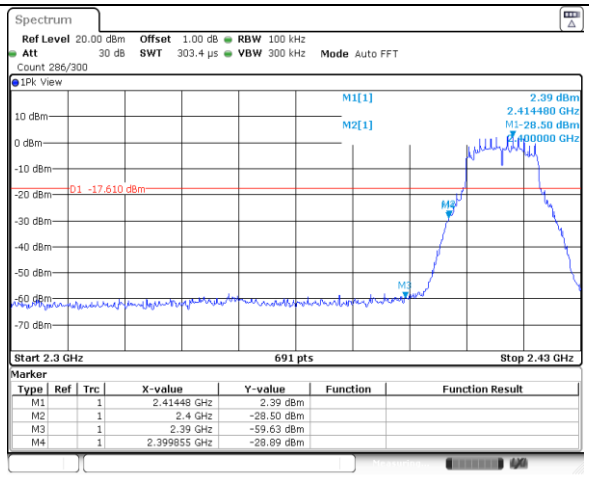
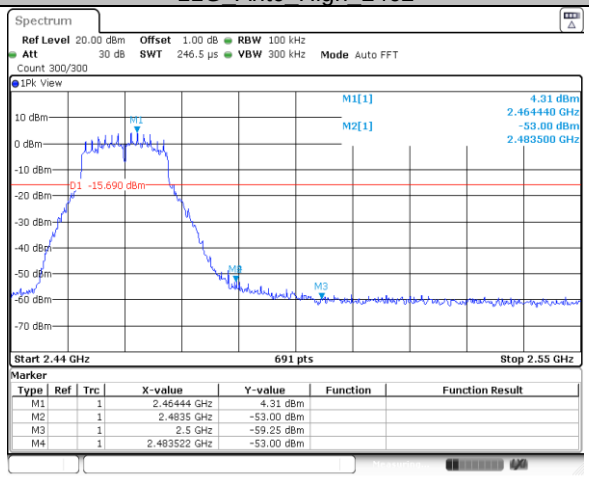


11G_Ant0_High_2462



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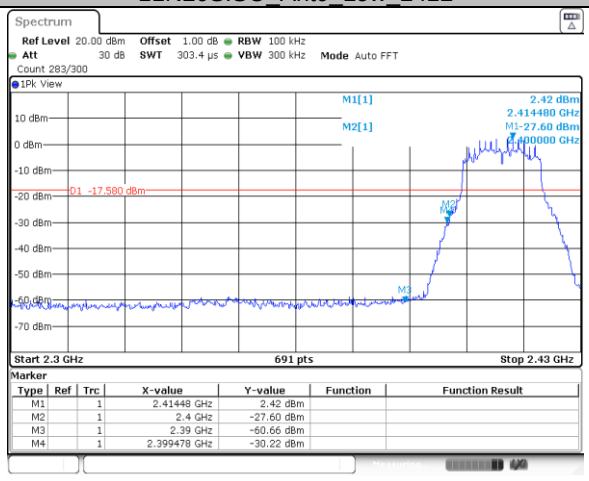

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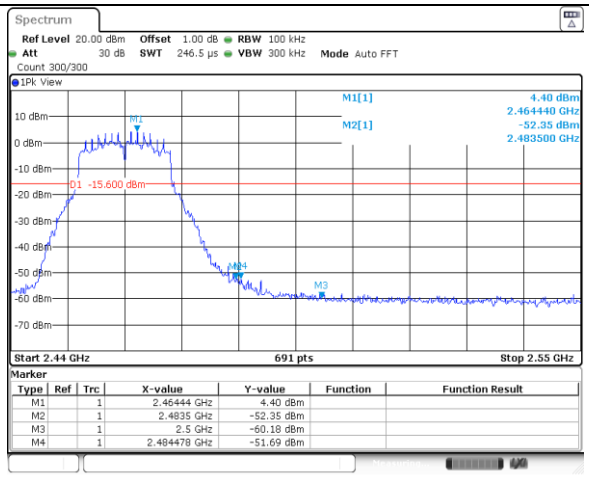

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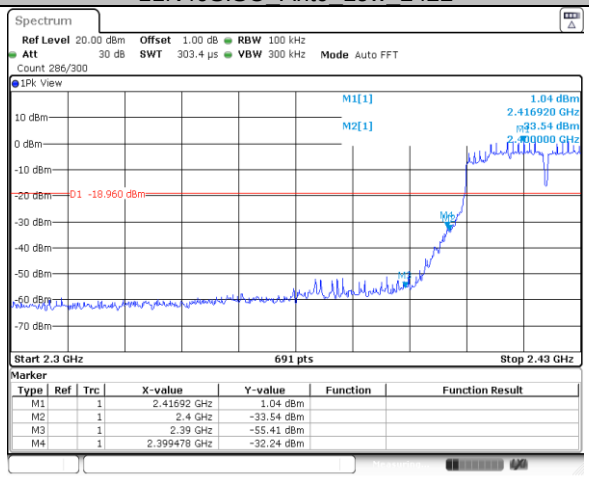
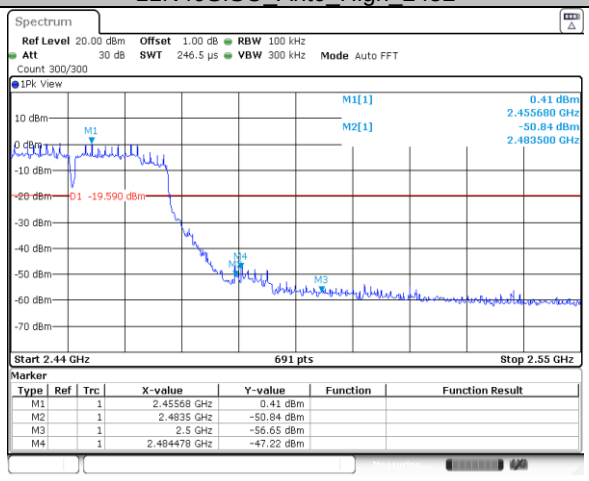
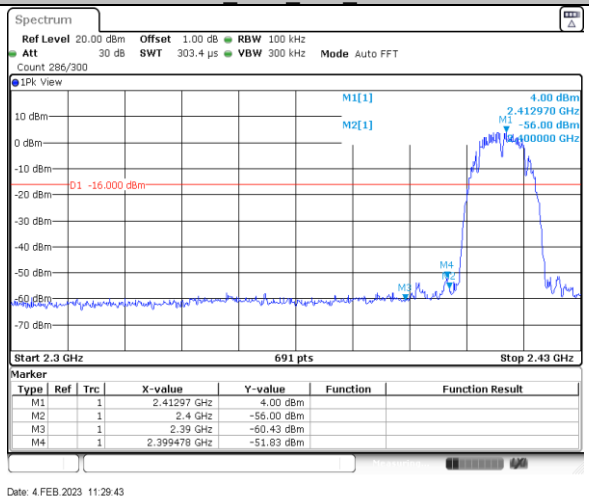


11N40SISO_Ant0_High_2452



11B_Ant1_Low_2412



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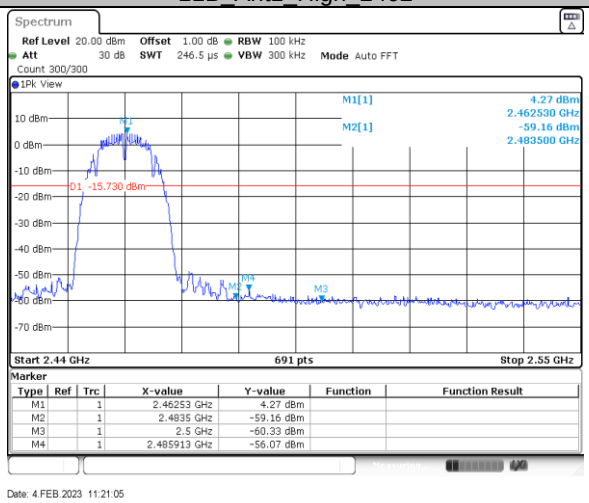

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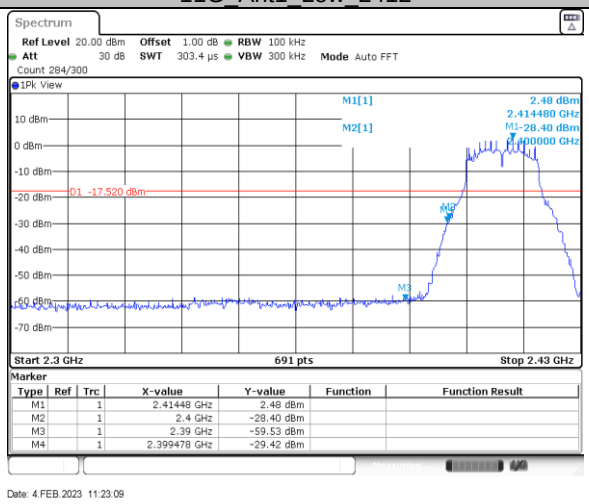

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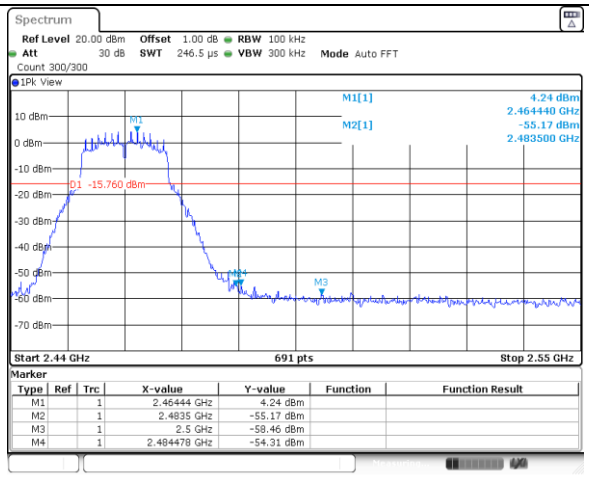

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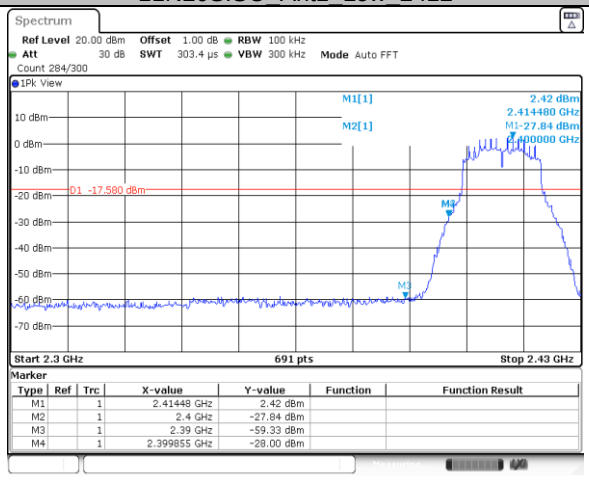

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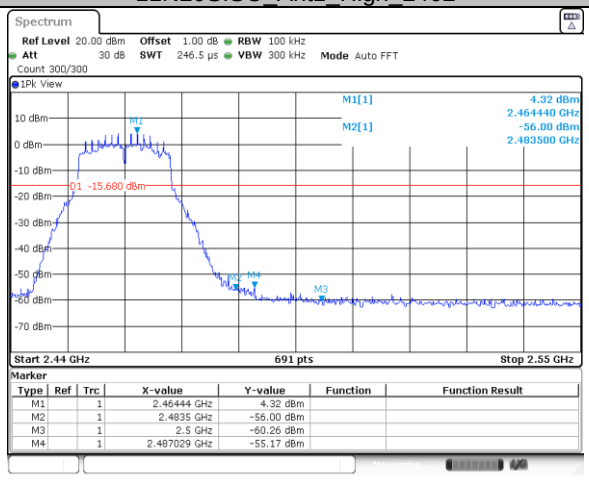

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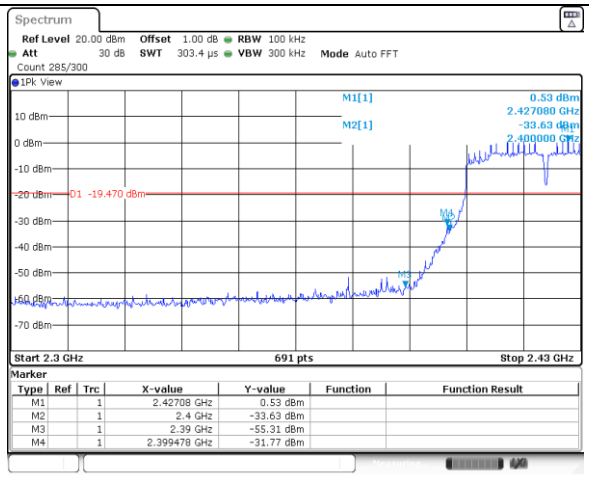
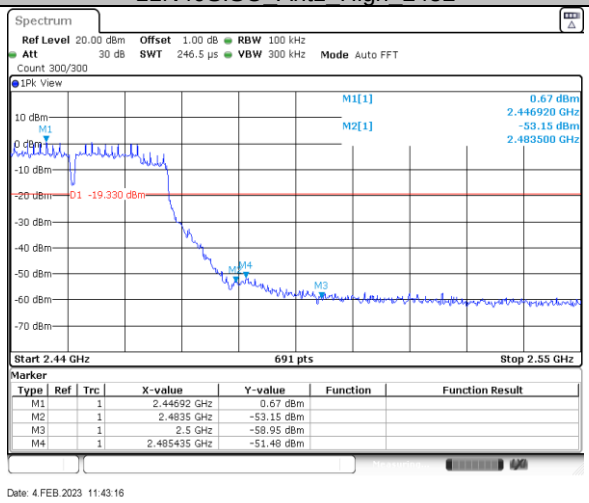


11N40SISO_Ant1_High_2452



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9.7 Spurious Radiated Emissions for Transmitter

Test Method

1. The EUT was place on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
4. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
5. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned
6. Use the following spectrum analyzer settings According to C63.10:
   For Above 1GHz
   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 1MHz, VBW≥RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.
   For Below 1GHz
   Use the following spectrum analyzer settings:
   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 100 KHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.
7. Repeat above procedures until all frequencies measured were complete.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (20log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

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Spurious Radiated Emissions for Transmitter

Limit

The radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted bands, as defined in section15.205 & RSS-GEN 8.10, must comply with the radiated emission limits specified in section 15.209 & RSS-Gen 6.13.

Frequency MHz	Field Strength uV/m	Field Strength dBµV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

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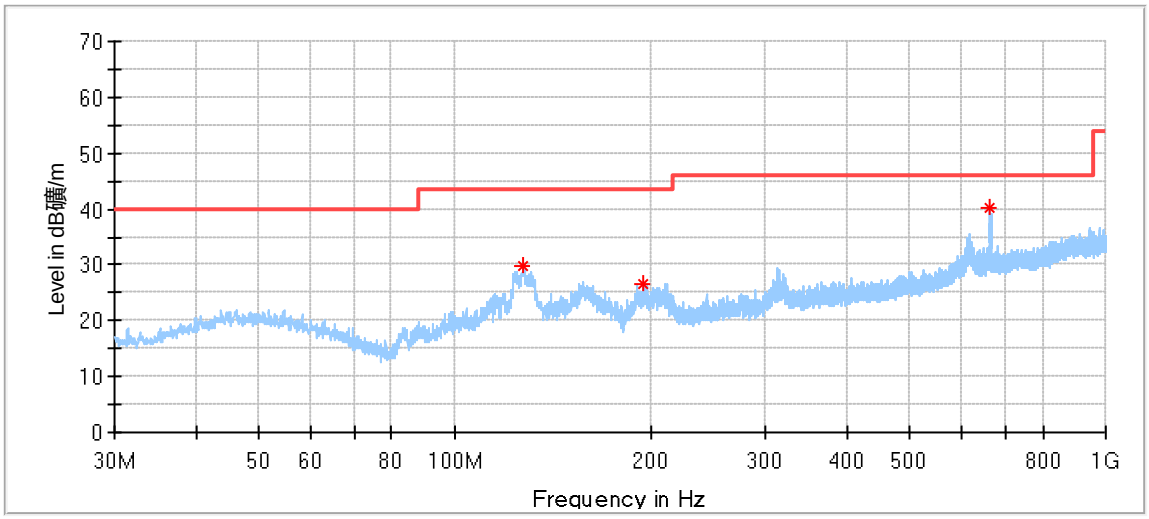
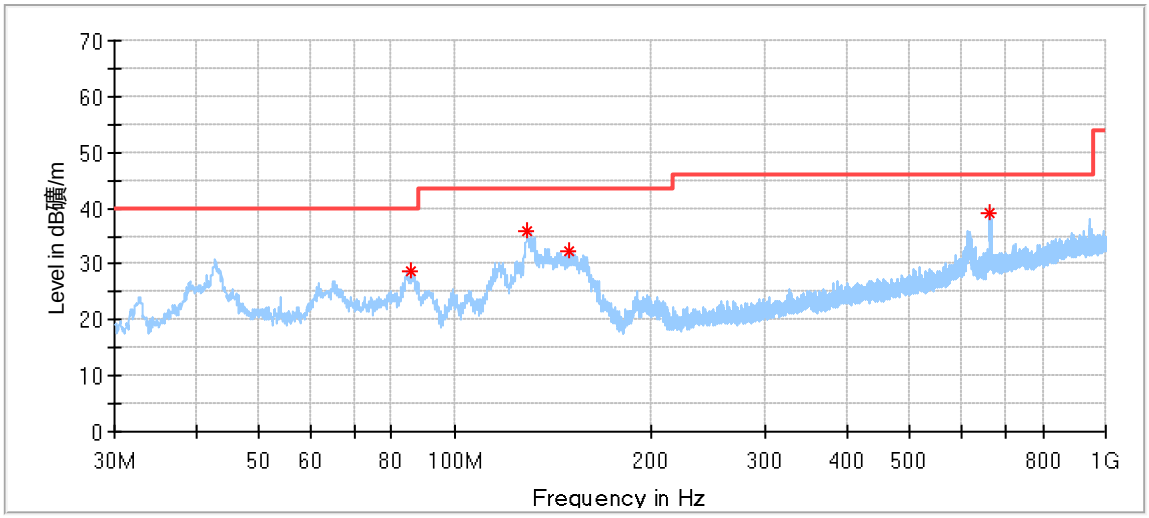
Spurious Radiated Emissions for Transmitter

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Transmitting spurious emission test result as below:
30MHz – 1000MHz:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
127.269444*	29.88	43.50	13.62	200.0	H	189.0	15.97
194.361111	26.72	43.50	16.78	100.0	H	209.0	18.57
663.787222	40.22	46.00	5.78	100.0	H	193.0	28.15



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
85.882778	28.75	40.00	11.25	100.0	V	356.0	15.00
129.047778*	36.07	43.50	7.43	100.0	V	318.0	15.94
149.363889	32.42	43.50	11.08	100.0	V	107.0	15.15
663.841111	39.10	46.00	6.90	100.0	V	239.0	28.15

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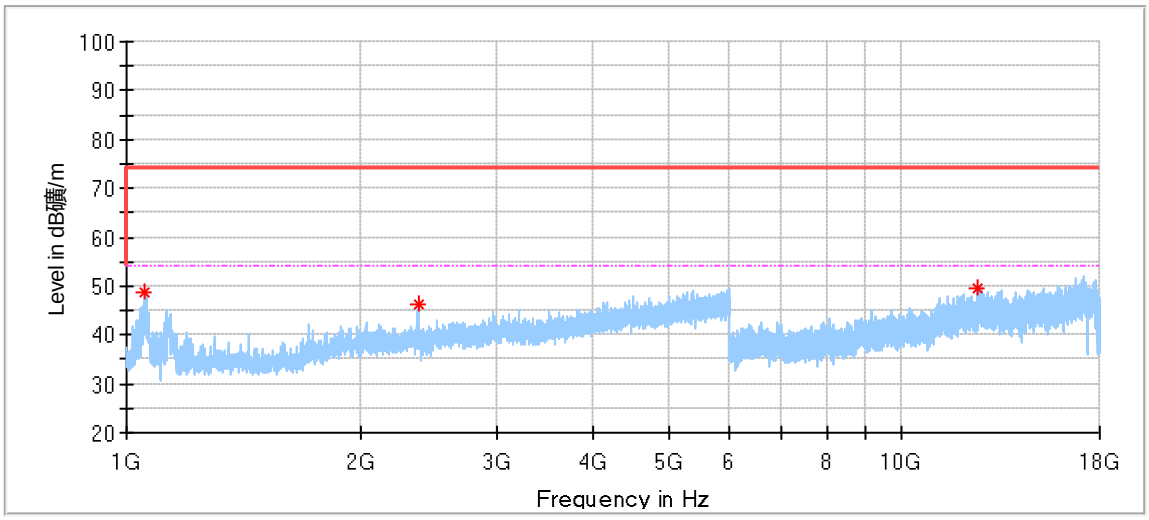
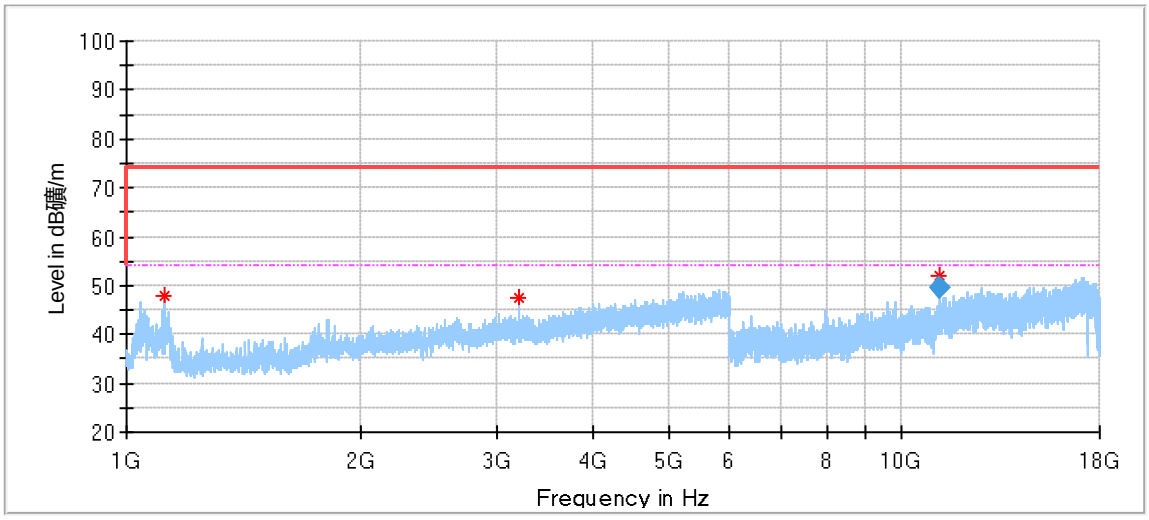
1GHz -18GHz:

11b_2412MHz_Ant0:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1058.000000	48.66	74.00	25.34	150.0	H	115.0	-10.48
2376.000000*	46.27	74.00	27.73	150.0	H	320.0	-3.14
12540.000000*	49.35	74.00	24.65	150.0	H	109.0	17.58



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1117.000000	47.78	74.00	26.22	150.0	V	294.0	-10.65
3200.000000	47.64	74.00	26.36	150.0	V	338.0	-0.69
11198.500000*	52.12	74.00	21.88	150.0	V	55.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11198.500000*	49.47	54.00	4.53	150.0	V	55.0	15.48

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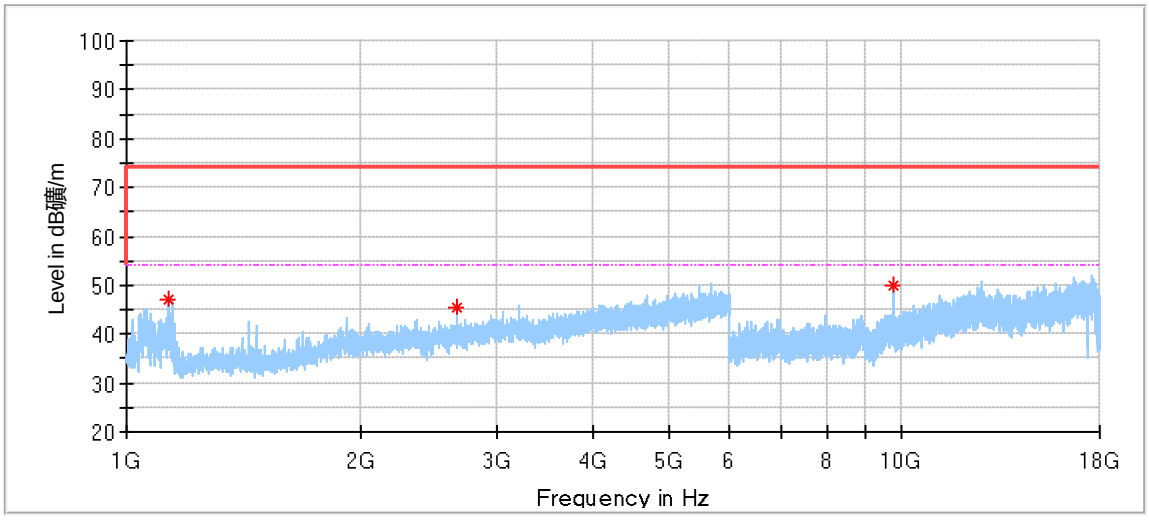
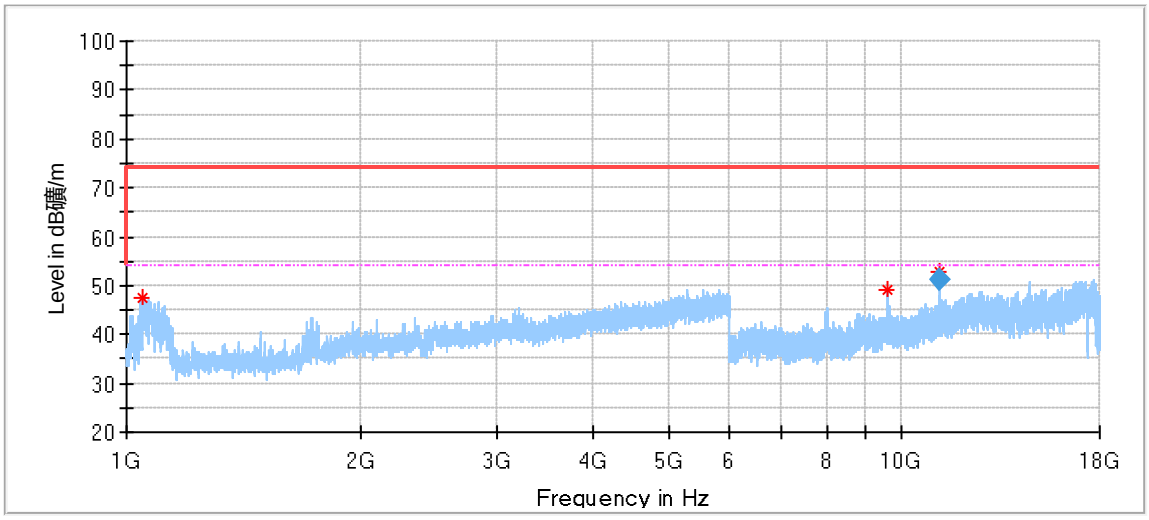
11b_2437MHz_Ant0:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1131.500000*	47.27	74.00	26.73	150.0	H	218.0	-10.48
2666.500000	45.41	74.00	28.59	150.0	H	50.0	-2.08
9748.500000	49.77	74.00	24.23	150.0	H	356.0	13.55



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1049.500000	47.58	74.00	26.42	150.0	V	85.0	-10.43
9598.500000	49.32	74.00	24.68	150.0	V	327.0	13.11
11198.000000*	52.87	74.00	21.13	150.0	V	52.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11198.000000*	51.13	54.00	2.87	150.0	V	52.0	15.48

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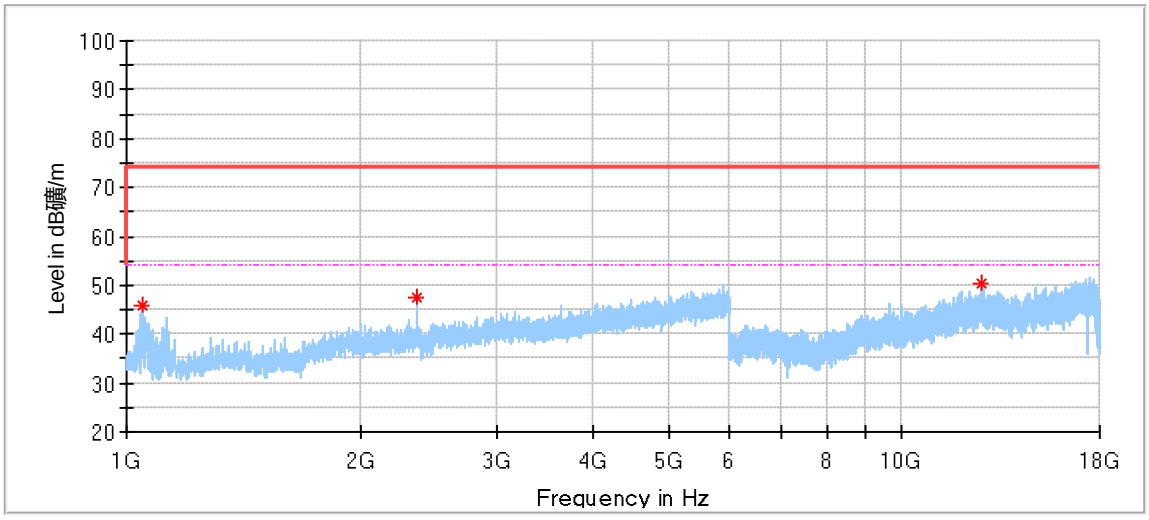
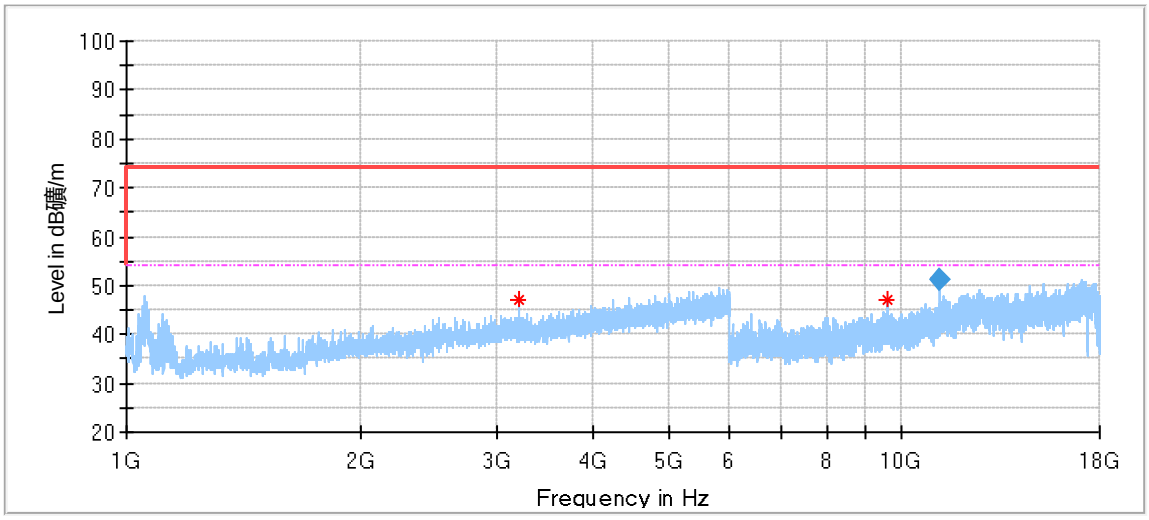
11b_2462MHz_Ant0:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1046.500000	45.81	74.00	28.19	150.0	H	328.0	-10.34
2374.500000*	47.51	74.00	26.49	150.0	H	319.0	-3.16
12636.000000*	50.54	74.00	23.46	150.0	H	277.0	18.57



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3200.000000	46.87	74.00	27.13	150.0	V	328.0	-0.69
9598.500000	46.93	74.00	27.07	150.0	V	30.0	13.11
11198.500000*	51.55	74.00	22.45	150.0	V	355.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11198.500000*	51.04	54.00	2.86	150.0	V	355.0	15.48

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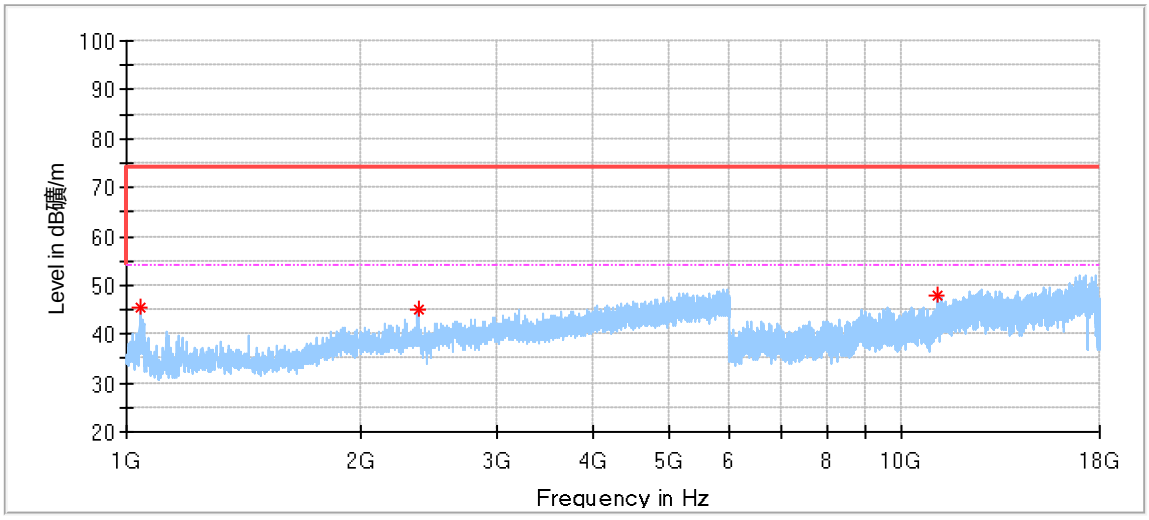
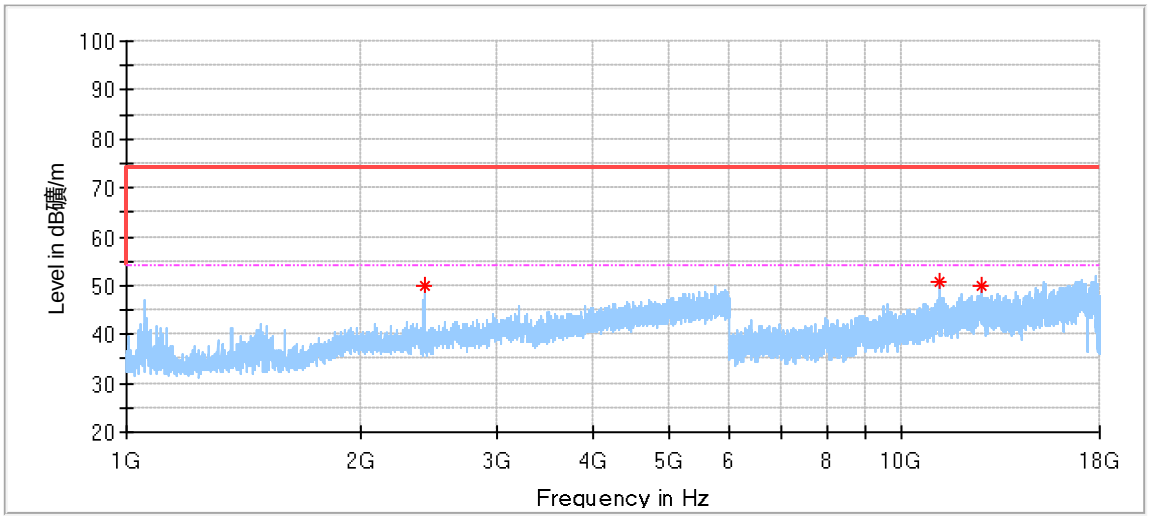
11b_2412MHz_Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1043.500000	45.25	74.00	28.75	150.0	H	276.0	-10.26
2376.000000*	45.11	74.00	28.89	150.0	H	329.0	-3.14
11093.000000*	47.95	74.00	26.05	150.0	H	8.0	15.48



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2423.000000	49.97	74.00	24.03	150.0	V	291.0	-2.57
11198.000000*	50.74	74.00	23.26	150.0	V	7.0	15.48
12678.000000*	49.85	74.00	24.15	150.0	V	356.0	18.23

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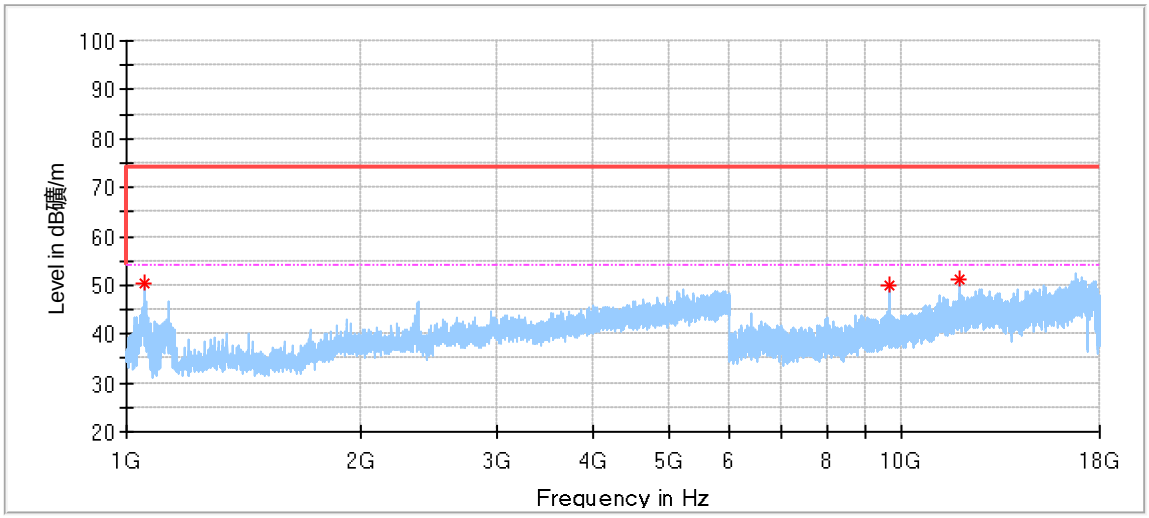
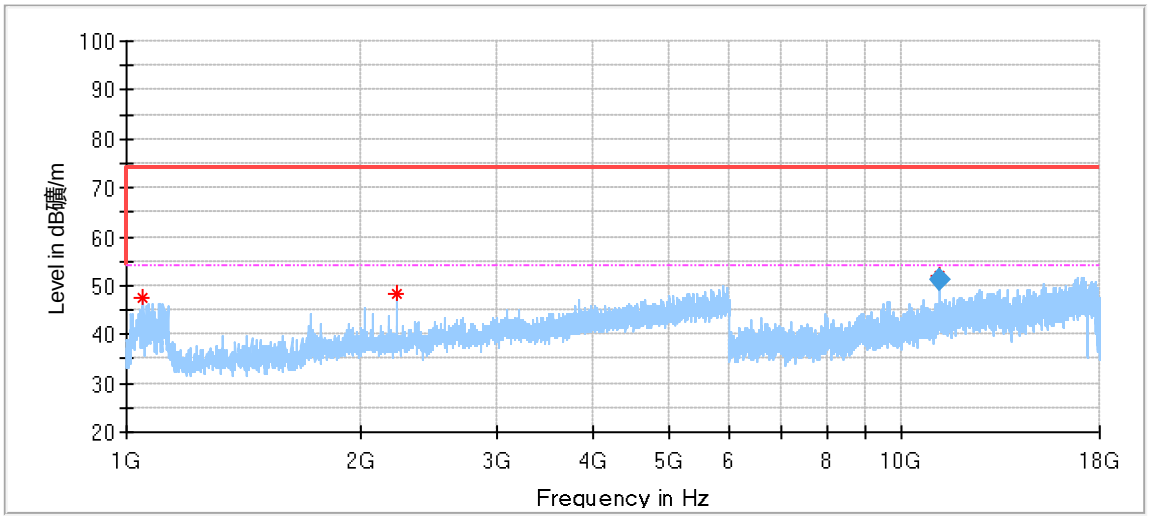
11b_2437MHz_Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1056.500000*	50.36	74.00	23.64	150.0	H	67.0	-10.47
9648.000000	49.84	74.00	24.16	150.0	H	356.0	13.31
11888.500000*	51.00	74.00	23.00	150.0	H	274.0	16.85



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1051.500000*	47.38	74.00	26.62	150.0	V	355.0	-10.45
2227.500000	48.47	74.00	25.53	150.0	V	59.0	-3.65
11198.500000*	51.81	74.00	22.19	150.0	V	106.0	15.48

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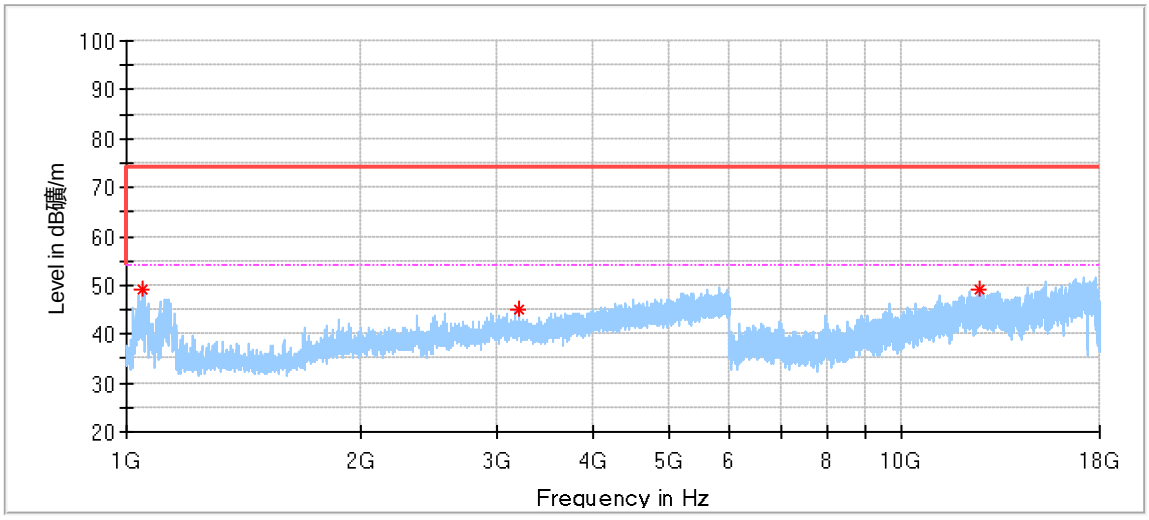
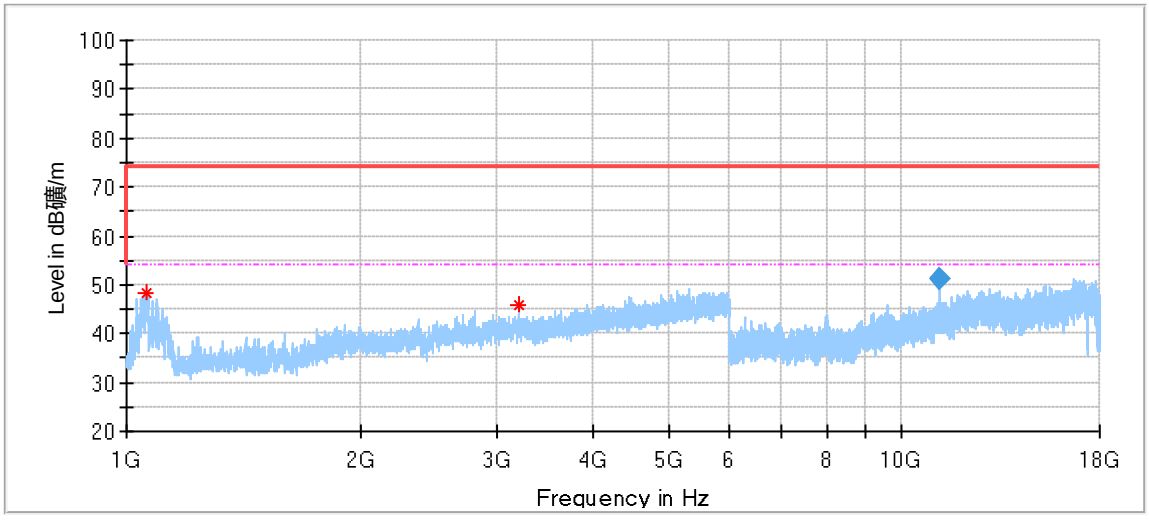
11b_2462MHz_Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1048.000000*	49.07	74.00	24.93	150.0	H	57.0	-10.38
3200.000000	45.21	74.00	28.79	150.0	H	8.0	-0.69
12633.000000*	49.21	74.00	24.79	150.0	H	4.0	18.54



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1063.000000*	48.12	74.00	25.88	150.0	V	8.0	-10.50
3200.000000	45.90	74.00	28.11	150.0	V	8.0	-0.69
11199.000000*	51.43	74.00	22.57	150.0	V	30.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11199.000000*	51.01	54.00	2.99	150.0	V	30.0	15.48

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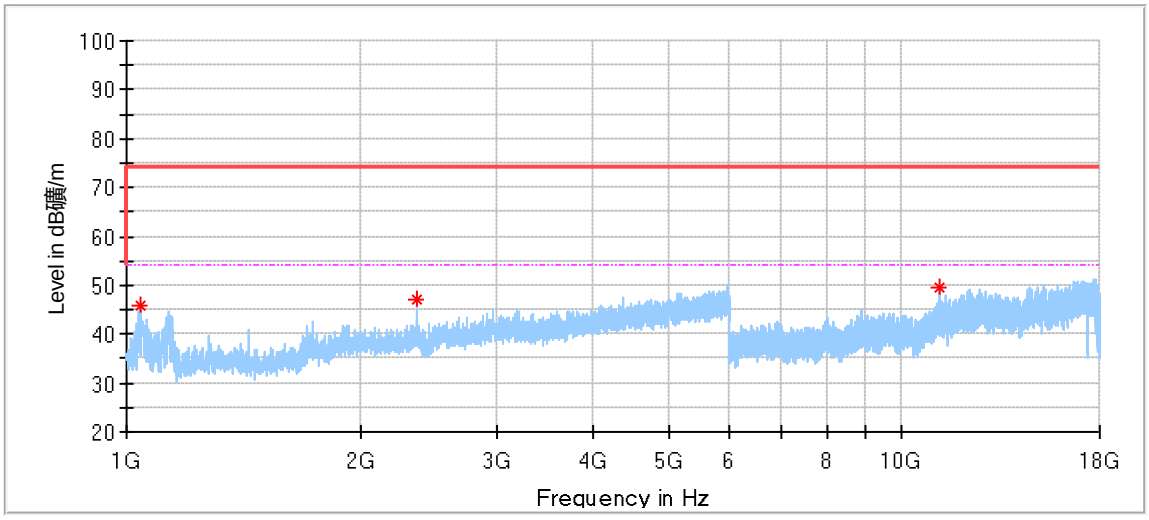
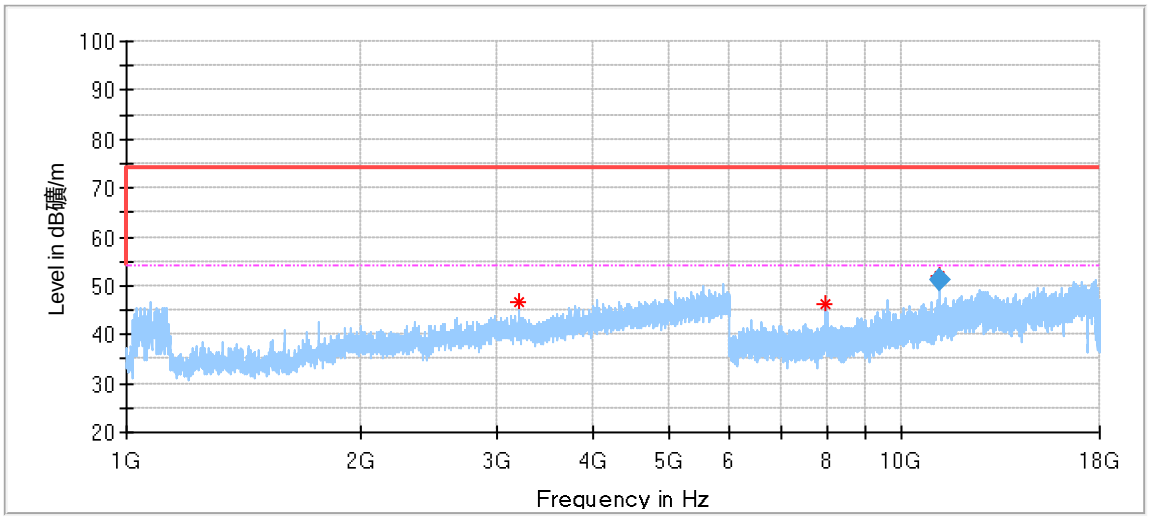
11g_2412MHz_Ant0:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1043.000000*	45.91	74.00	28.09	150.0	H	34.0	-10.24
2375.000000	47.09	74.00	26.91	150.0	H	328.0	-3.15
11198.500000*	49.65	74.00	24.35	150.0	H	354.0	15.48



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3200.000000	46.69	74.00	27.31	150.0	V	345.0	-0.69
7986.500000	46.27	74.00	27.73	150.0	V	147.0	10.98
11198.000000*	52.10	74.00	21.90	150.0	V	33.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11198.000000*	51.02	54.00	3.98	150.0	V	33.0	15.48

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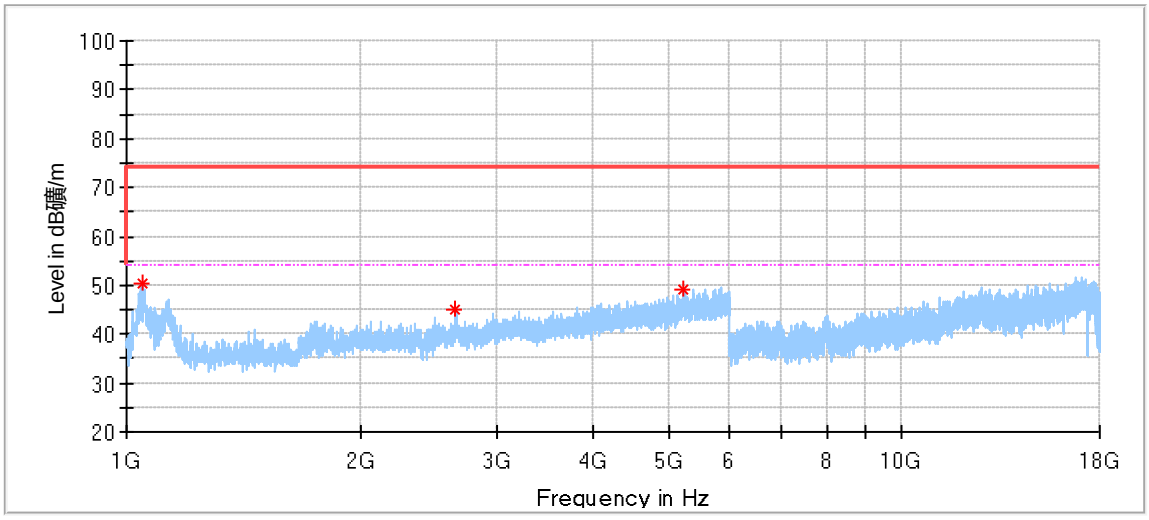
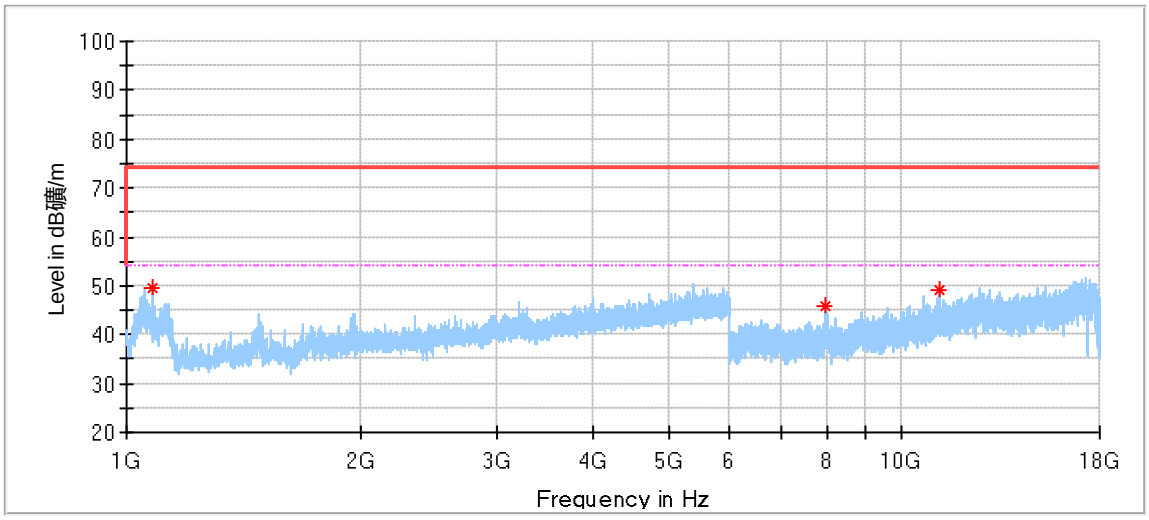
11g_2437MHz_Ant0:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1047.500000*	50.39	74.00	23.61	150.0	H	294.0	-10.37
2655.000000	44.88	74.00	29.12	150.0	H	124.0	-2.02
5217.500000	49.31	74.00	24.69	150.0	H	276.0	5.47



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1082.000000*	49.42	74.00	24.58	150.0	V	94.0	-10.67
7963.500000	45.82	74.00	28.18	150.0	V	187.0	10.71
11198.000000*	49.08	74.00	24.92	150.0	V	27.0	15.48

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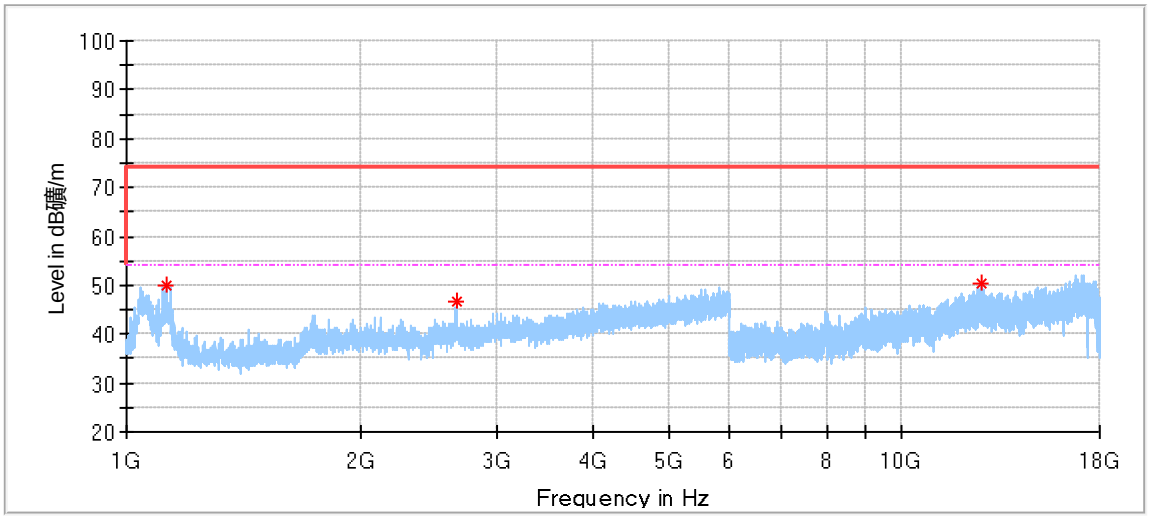
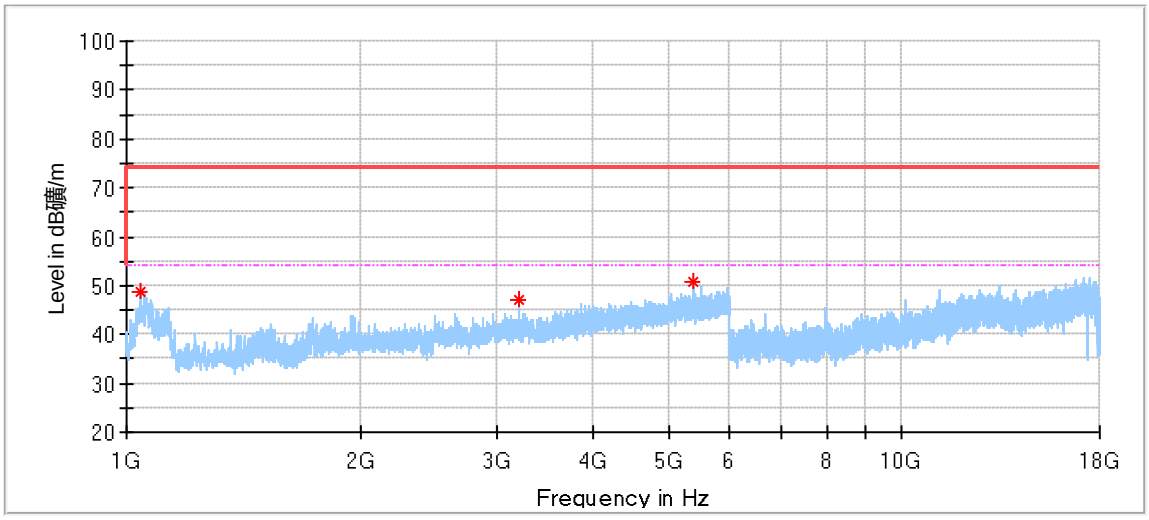
11g_2462MHz_Ant0:

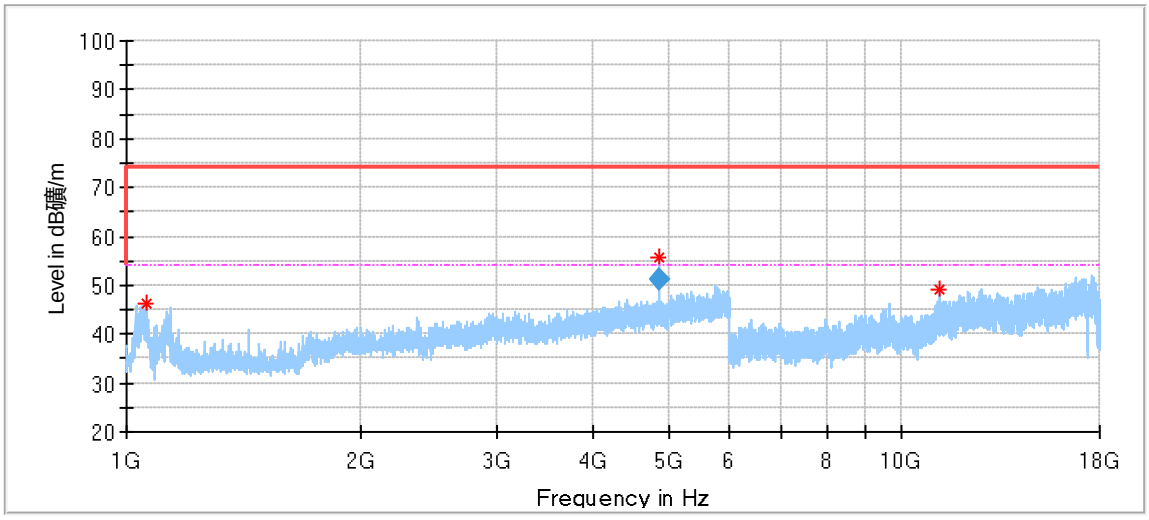


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1128.000000*	49.91	74.00	24.09	150.0	H	157.0	-10.54
2661.500000	46.85	74.00	27.15	150.0	H	112.0	-2.05
12679.000000*	50.19	74.00	23.81	150.0	H	272.0	18.22

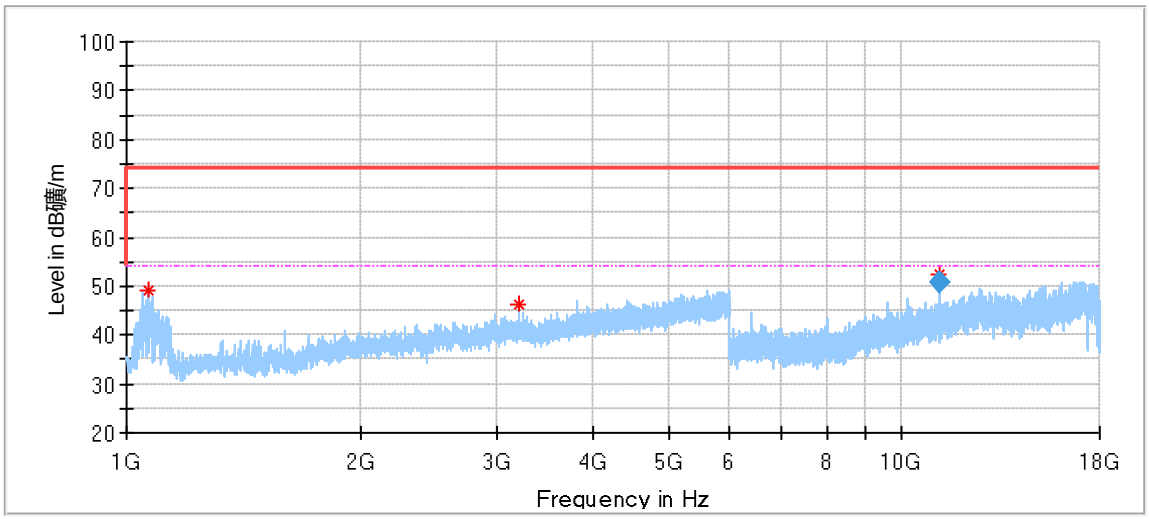


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1044.500000*	48.56	74.00	25.44	150.0	V	240.0	-10.28
3200.000000	46.91	74.00	27.09	150.0	V	0.0	-0.69
5381.500000*	50.85	74.00	23.15	150.0	V	32.0	5.33

11g_2412MHz_Ant1:

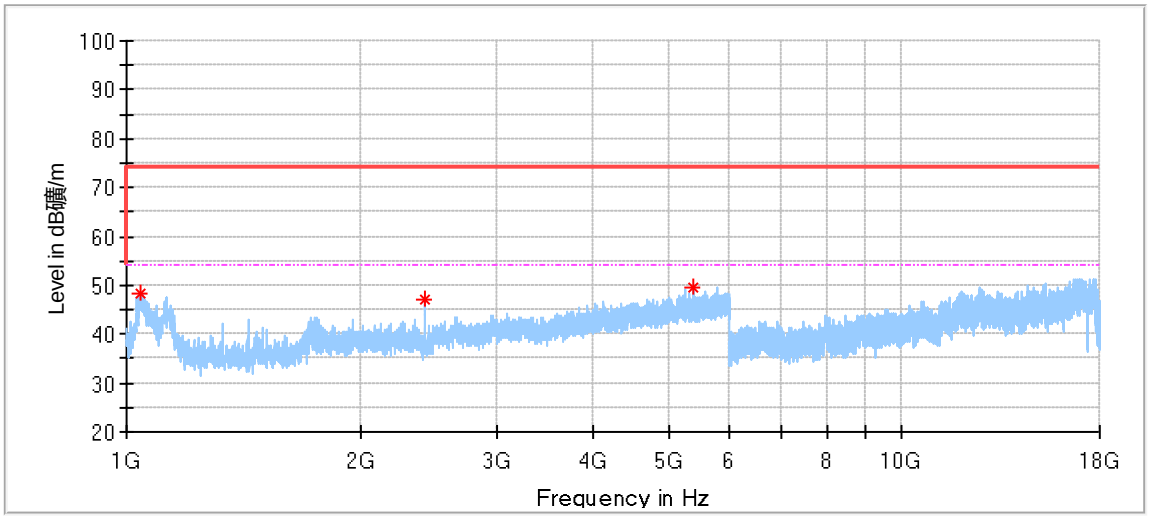


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1059.000000*	46.39	74.00	27.61	150.0	H	67.0	-10.48
4874.500000*	55.52	74.00	18.48	150.0	H	112.0	3.90
11198.500000*	49.31	74.00	24.69	150.0	H	331.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
4874.500000*	51.16	54.00	2.84	150.0	H	112.0	3.90

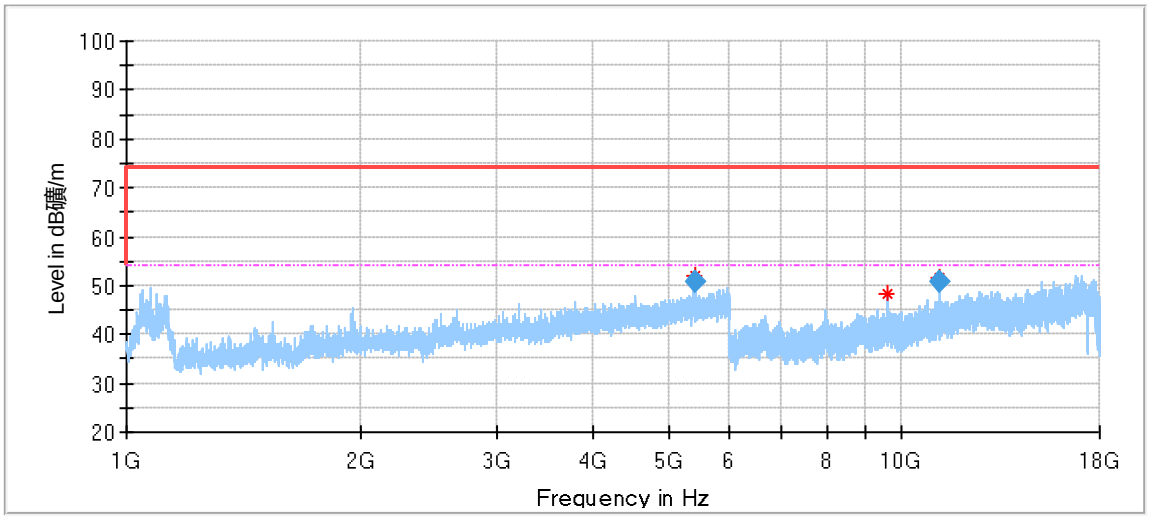


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1065.000000*	49.07	74.00	24.93	150.0	V	0.0	-10.52
3200.000000	46.39	74.00	27.61	150.0	V	337.0	-0.69
11198.500000*	52.44	74.00	21.56	150.0	V	29.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11198.500000*	50.66	54.00	3.34	150.0	V	29.0	15.48

11g_2437MHz_Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1045.000000*	48.13	74.00	25.87	150.0	H	352.0	-10.30
2427.000000	47.25	74.00	26.75	150.0	H	183.0	-2.53
5379.500000*	49.74	74.00	24.26	150.0	H	0.0	5.33



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5400.500000*	52.12	74.00	21.88	150.0	V	32.0	5.34
9599.000000	48.21	74.00	25.79	150.0	V	26.0	13.12
11198.000000*	51.46	74.00	22.54	150.0	V	157.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5400.500000*	50.78	54.00	3.22	150.0	V	32.0	5.34
11198.000000*	50.69	54.00	3.31	150.0	V	157.0	15.48

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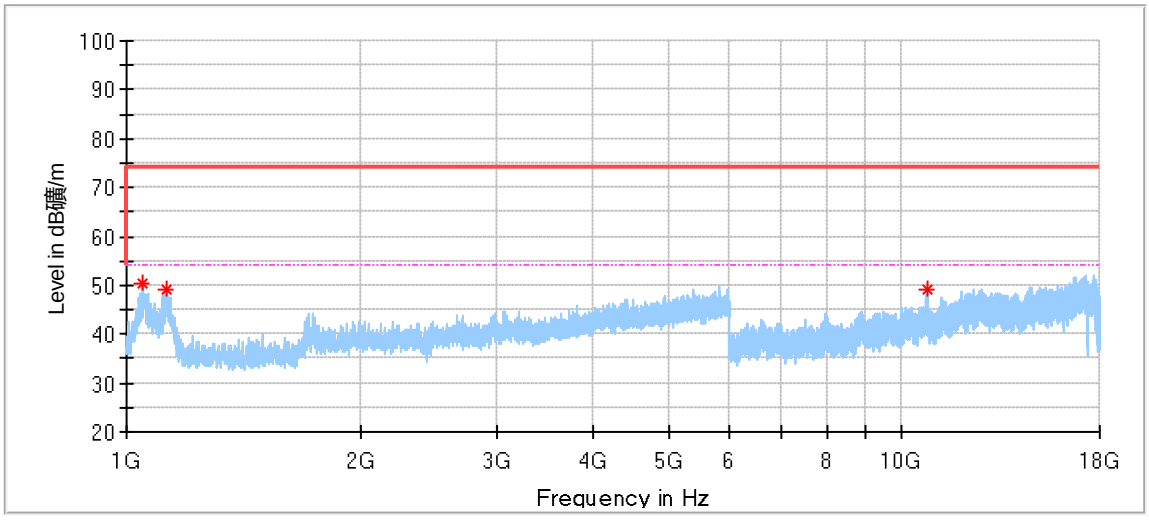
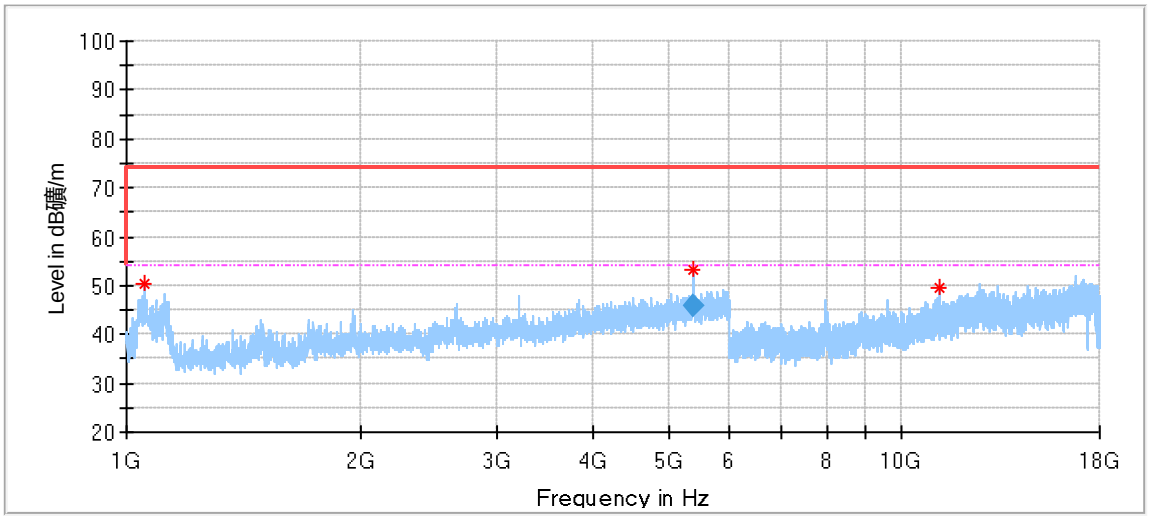
11g_2462MHz_Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1047.500000*	50.38	74.00	23.62	150.0	H	351.0	-10.37
1127.500000*	49.24	74.00	24.76	150.0	H	176.0	-10.54
10761.500000*	49.02	74.00	24.98	150.0	H	30.0	14.29



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1055.000000*	50.43	74.00	23.57	150.0	V	245.0	-10.47
5394.000000*	53.04	74.00	20.96	150.0	V	40.0	5.33
11198.500000*	49.35	74.00	24.65	150.0	V	4.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5394.000000*	45.69	54.00	8.31	150.0	V	40.0	5.33

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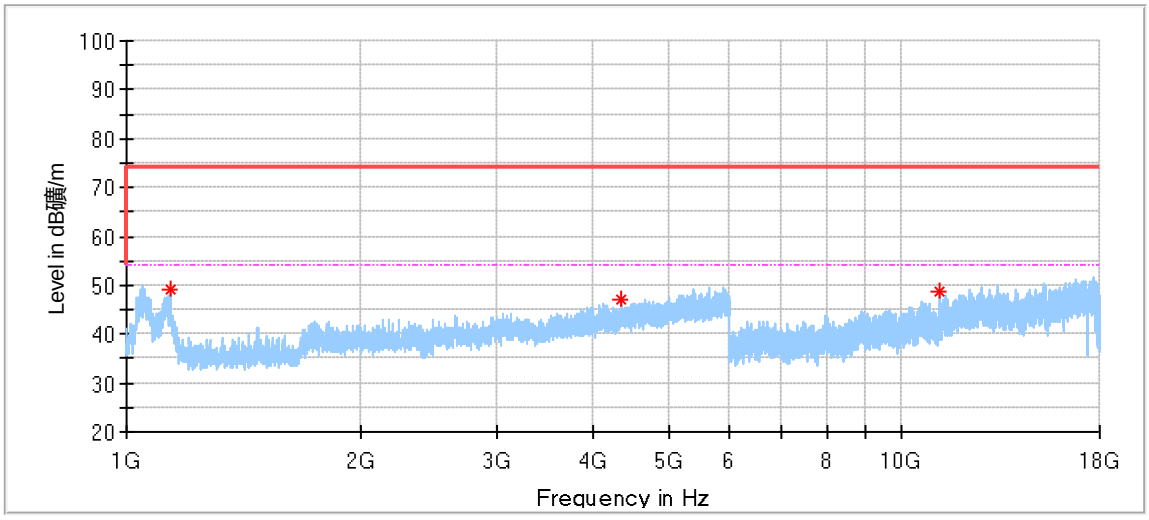
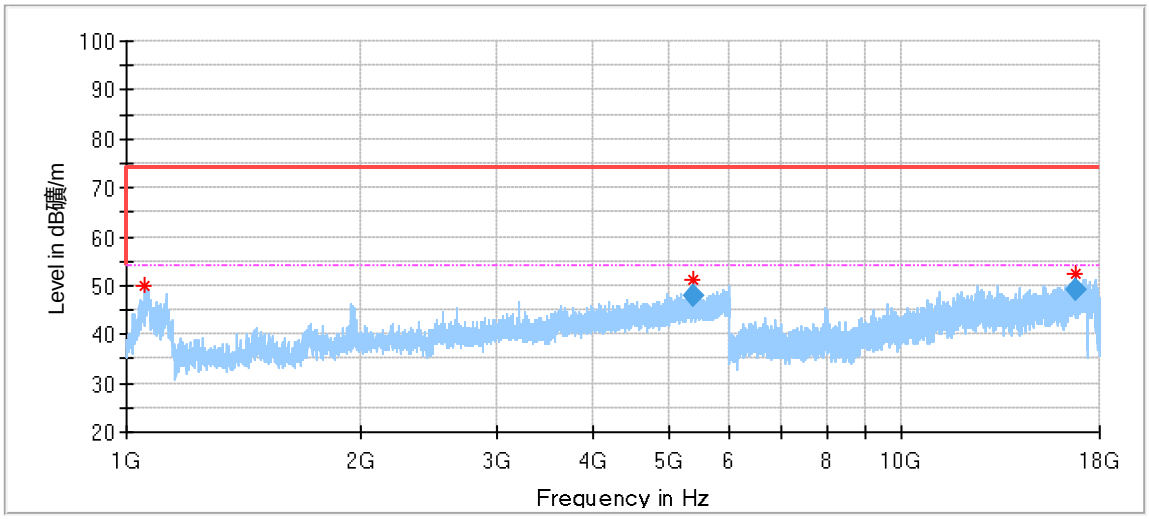
11n20_2412MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1139.000000*	49.00	74.00	25.00	150.0	H	166.0	-10.35
4337.000000*	47.13	74.00	26.87	150.0	H	121.0	2.37
11199.000000*	48.67	74.00	25.33	150.0	H	29.0	15.48



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1057.500000*	49.84	74.00	24.16	150.0	V	228.0	-10.47
5384.000000*	51.33	74.00	22.67	150.0	V	32.0	5.33
16801.000000	52.44	74.00	21.56	150.0	V	331.0	23.81
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5384.000000*	47.87	54.00	6.13	150.0	V	32.0	5.33
16801.000000	48.98	54.00	5.02	150.0	V	331.0	23.81

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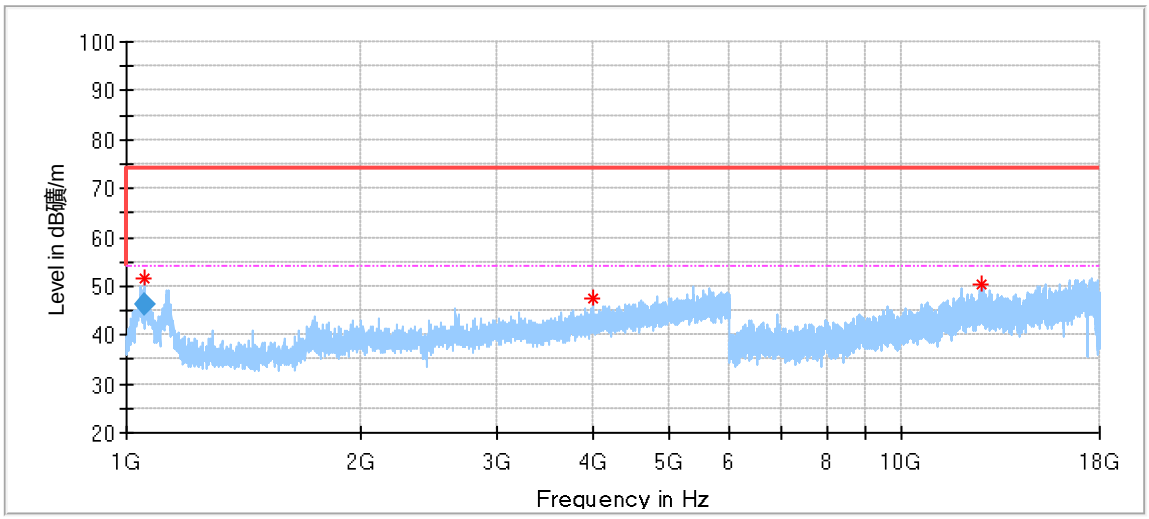
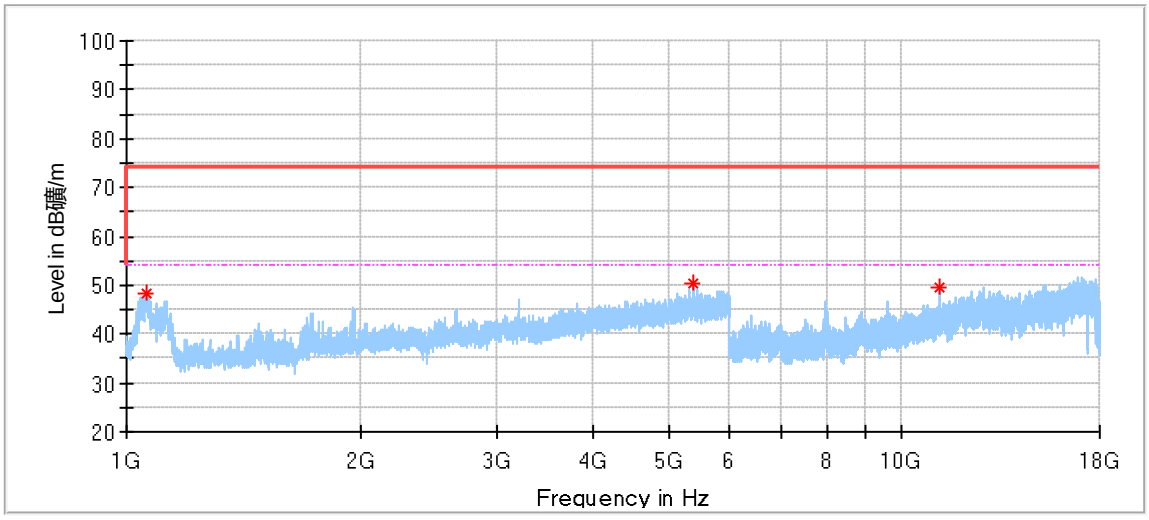
11n20_2437MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1052.500000	51.48	74.00	22.52	150.0	H	76.0	-10.46
4000.500000*	47.37	74.00	26.63	150.0	H	148.0	1.37
12688.500000*	50.49	74.00	23.51	150.0	H	52.0	18.09
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
1052.500000	46.23	54.00	7.77	150.0	H	76.0	-10.46



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1059.500000	48.17	74.00	25.83	150.0	V	26.0	-10.48
5380.000000	50.32	74.00	23.68	150.0	V	35.0	5.33
11198.500000*	49.34	74.00	24.66	150.0	V	24.0	15.48

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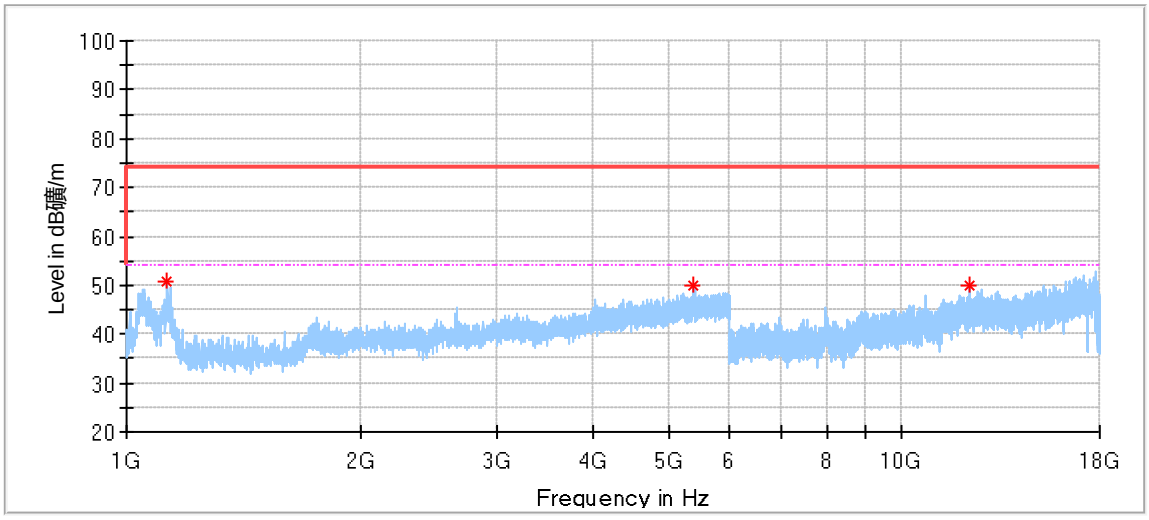
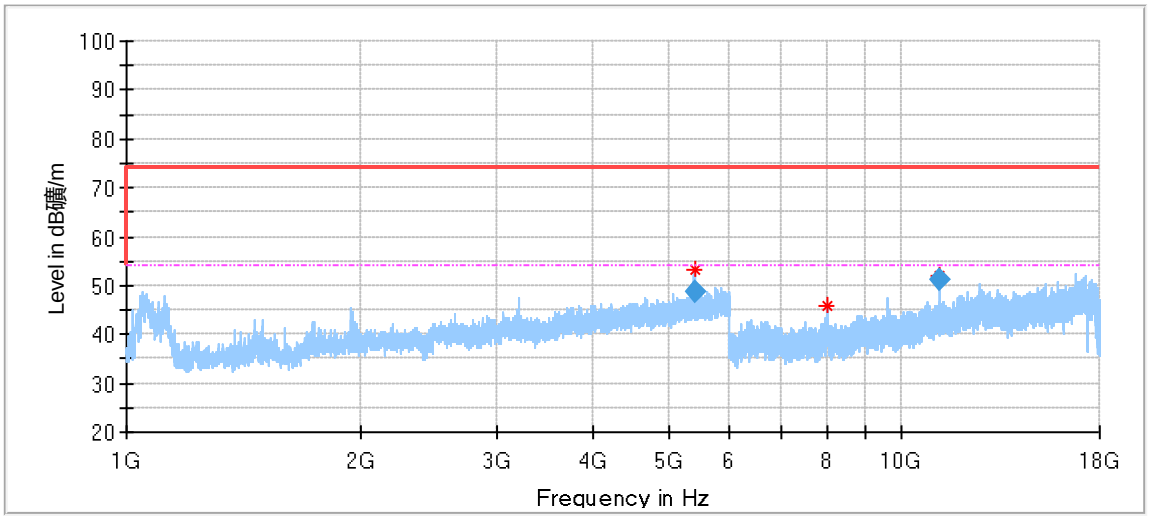
11n20_2462MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1129.500000	50.62	74.00	23.38	150.0	H	175.0	-10.51
5388.000000	50.02	74.00	23.98	150.0	H	103.0	5.33
12263.000000*	49.92	74.00	24.08	150.0	H	188.0	17.38



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5398.500000*	53.04	74.00	20.96	150.0	V	32.0	5.34
7998.500000	45.90	74.00	28.10	150.0	V	55.0	11.13
11199.000000	51.97	74.00	22.03	150.0	V	29.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5398.500000	48.63	54.00	5.37	150.0	V	32.0	5.34
11199.000000*	51.25	54.00	2.75	150.0	V	29.0	15.48

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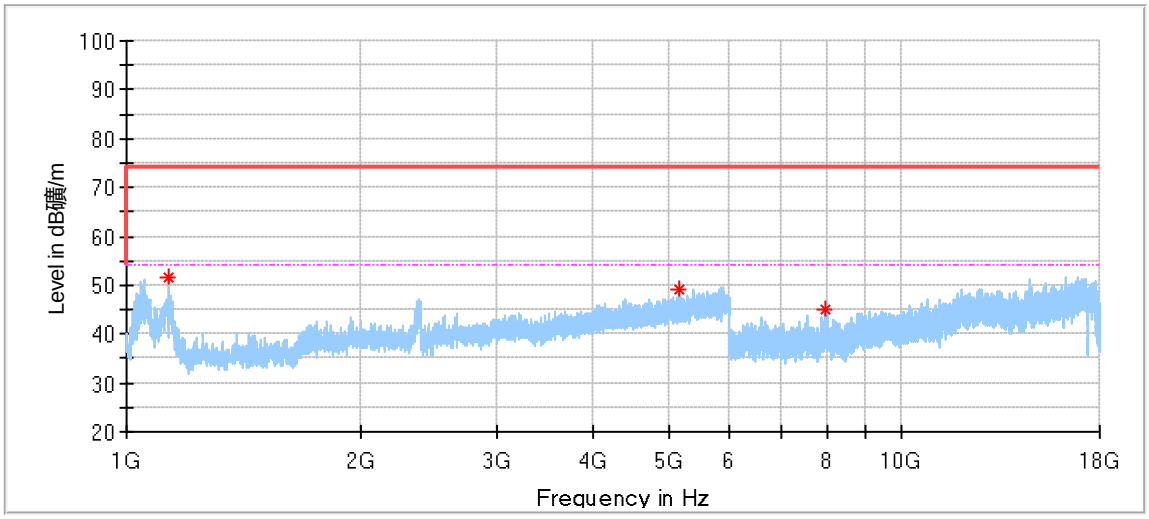
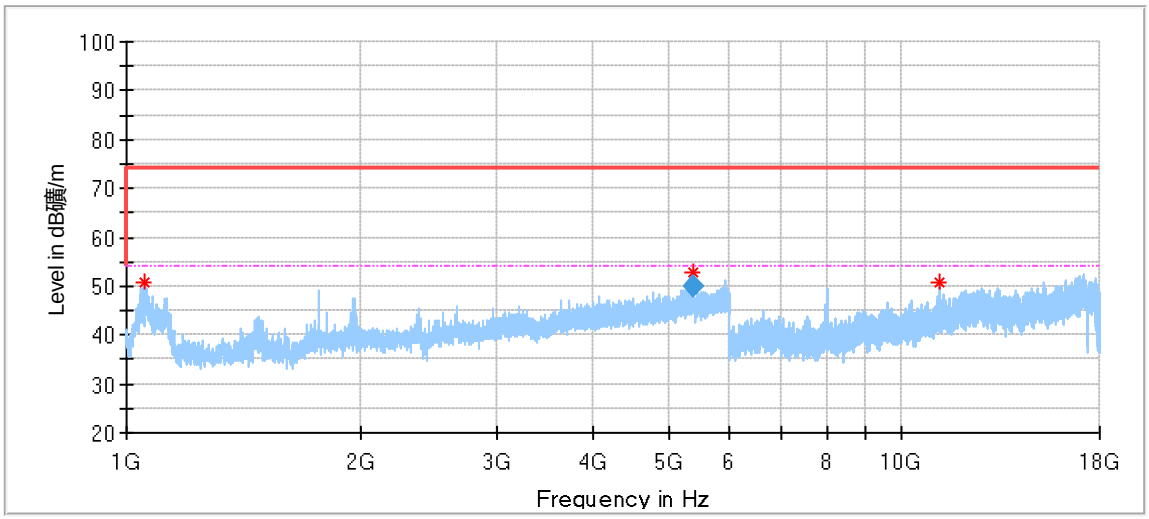
11n40_2422MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1134.500000	51.39	74.00	22.61	150.0	H	159.0	-10.42
5174.500000	49.18	74.00	24.82	150.0	H	284.0	5.33
7985.500000	44.84	74.00	29.16	150.0	H	275.0	10.97



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1058.000000	50.73	74.00	23.27	150.0	V	221.0	-10.48
5394.500000	52.90	74.00	21.10	150.0	V	34.0	5.33
11198.500000*	50.85	74.00	23.15	150.0	V	60.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5394.500000	50.12	54.00	3.88	150.0	V	34.0	5.33

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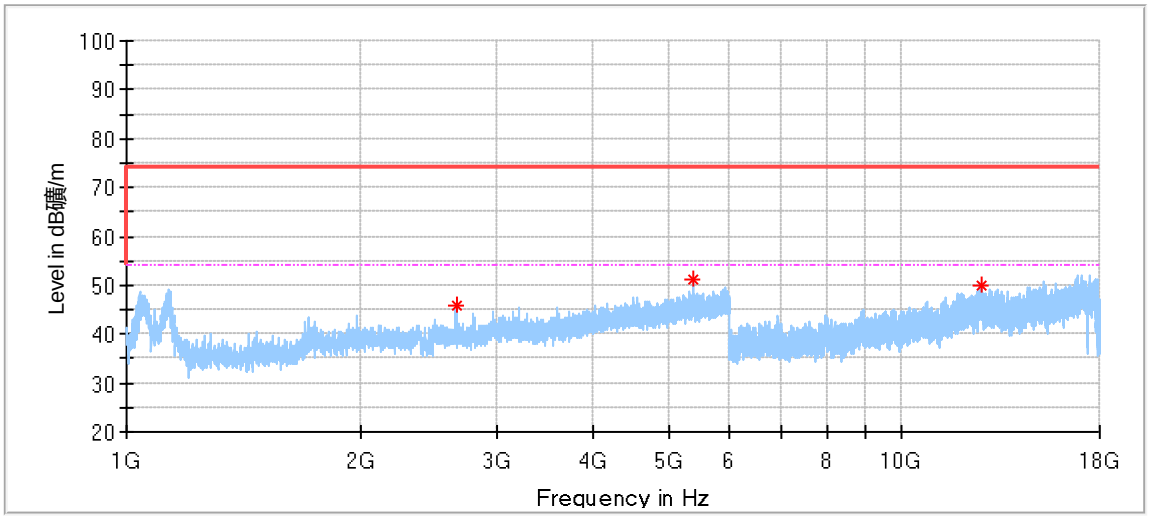
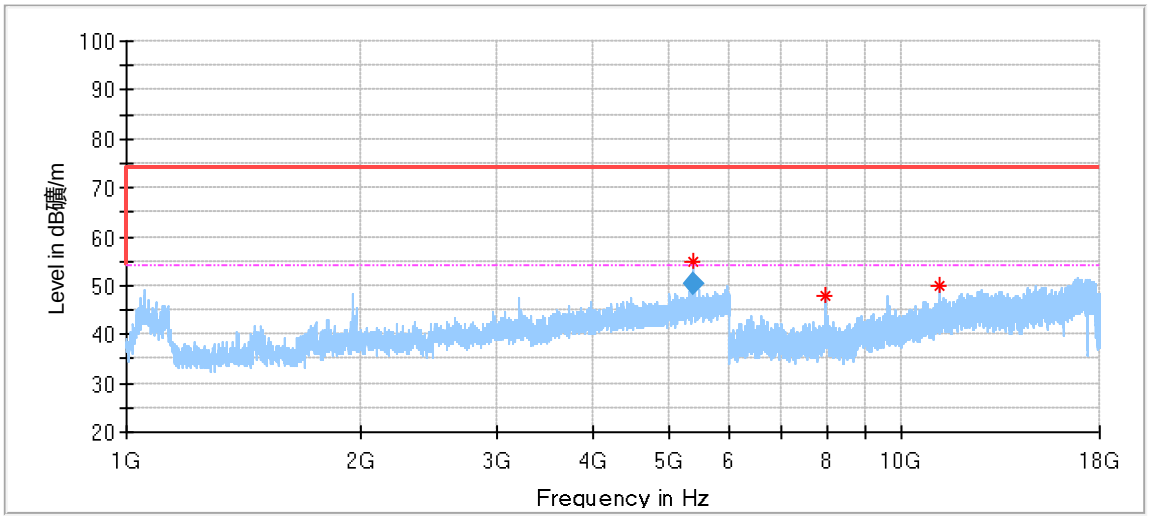
11n40_2437MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2666.000000	45.93	74.00	28.07	150.0	H	105.0	-2.08
5384.000000	51.13	74.00	22.87	150.0	H	5.0	5.33
12642.500000*	50.03	74.00	23.97	150.0	H	252.0	18.64



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
5394.500000	54.76	74.00	19.24	150.0	V	34.0	5.33
7966.000000	48.03	74.00	25.97	150.0	V	352.0	10.74
11198.000000*	49.96	74.00	24.04	150.0	V	4.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
5394.500000	50.21	54.00	3.79	150.0	V	34.0	5.33

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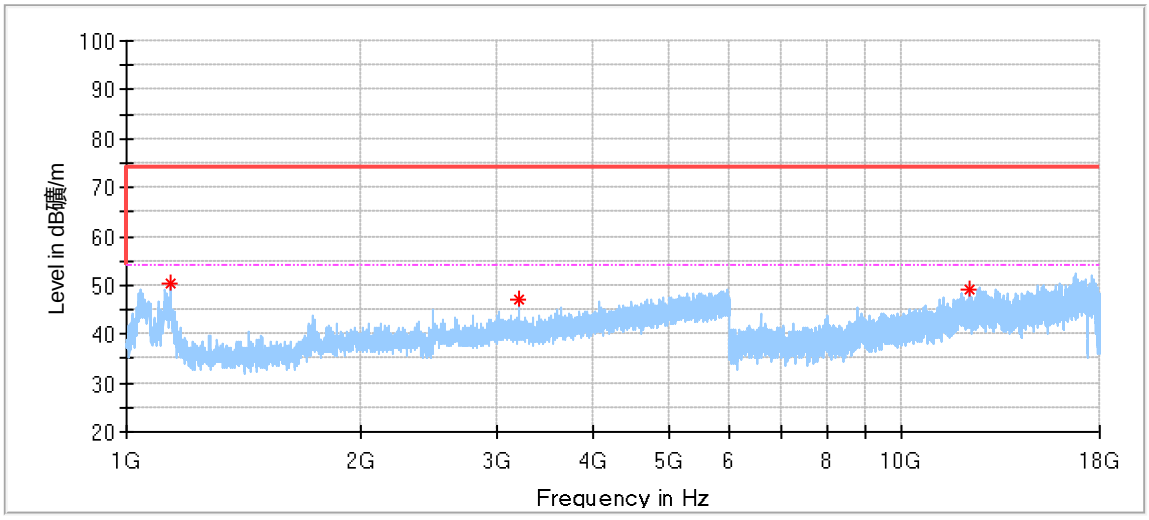
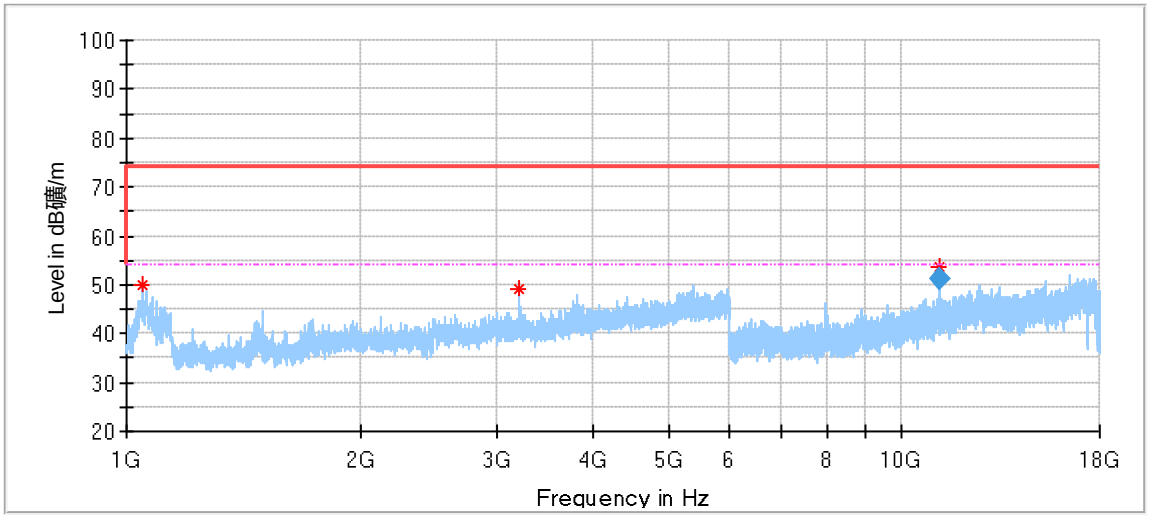
11n40_2452MHz_ Ant0+Ant1:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1140.000000	50.26	74.00	23.74	150.0	H	159.0	-10.34
3199.500000	46.92	74.00	27.08	150.0	H	31.0	-0.69
12223.500000*	49.22	74.00	24.78	150.0	H	305.0	17.28



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1048.500000	49.99	74.00	24.01	150.0	V	50.0	-10.40
3200.000000	49.33	74.00	24.67	150.0	V	346.0	-0.69
11199.000000*	53.61	74.00	20.39	150.0	V	58.0	15.48
Frequency (MHz)	**Average (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**	**Height (cm)**	**Pol**	**Azimuth (deg)**	**Corr. (dB/m)**
11199.000000*	51.28	54.00	2.72	150.0	V	58.0	15.48

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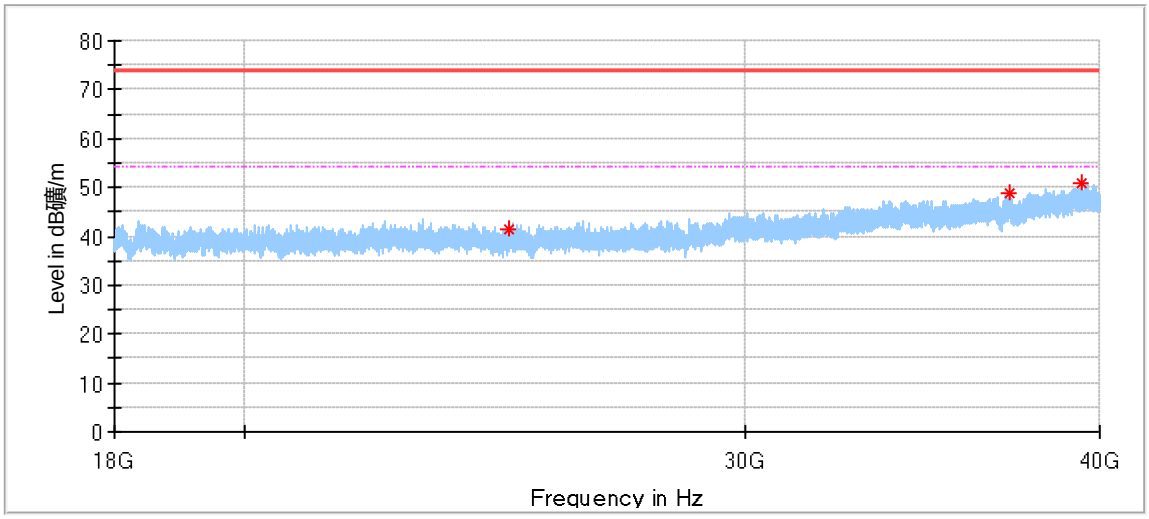
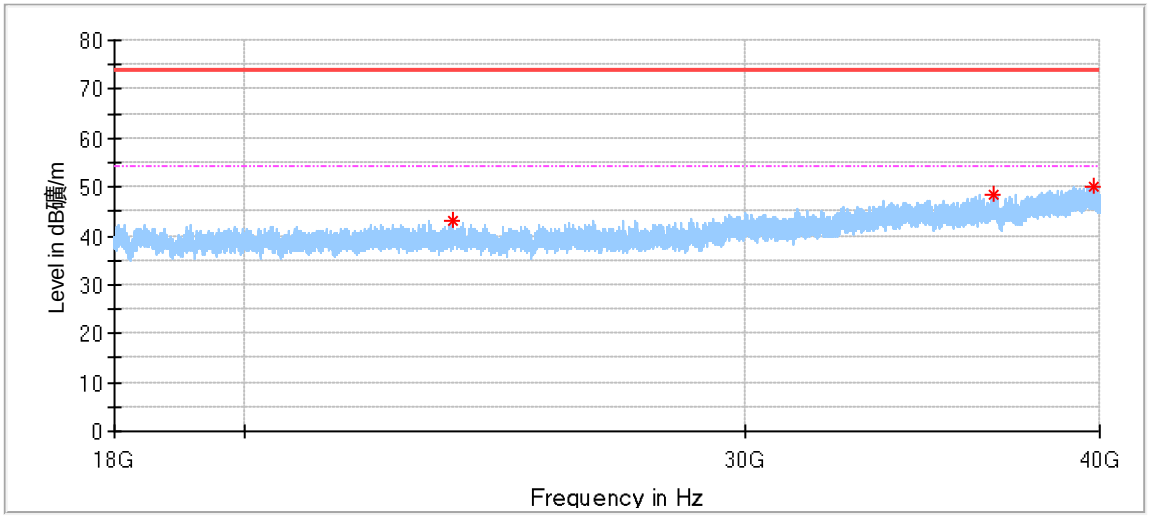
18GHz -40GHz:
11b_2412MHz:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
24769.812500	41.51	74.00	32.49	150.0	H	189.0	1.50
37156.500000	48.74	74.00	25.26	150.0	H	48.0	5.27
39424.562500	51.00	74.00	23.00	150.0	H	0.0	7.91



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
23698.000000*	43.25	74.00	30.75	150.0	V	295.0	1.83
36711.000000	48.47	74.00	25.53	150.0	V	124.0	5.63
39815.750000	49.98	74.00	24.02	150.0	V	345.0	8.68

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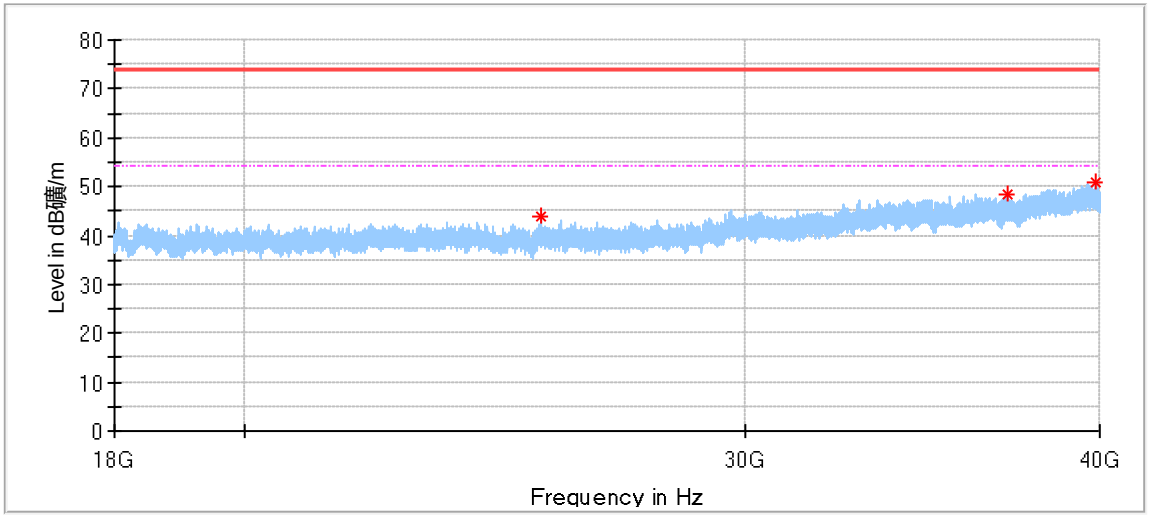
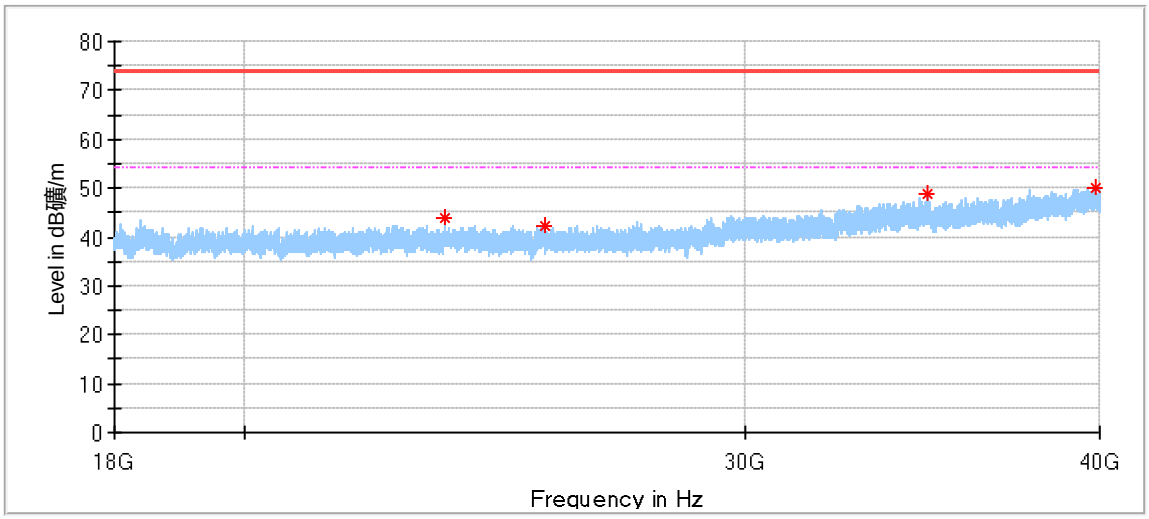
11b_2437MHz

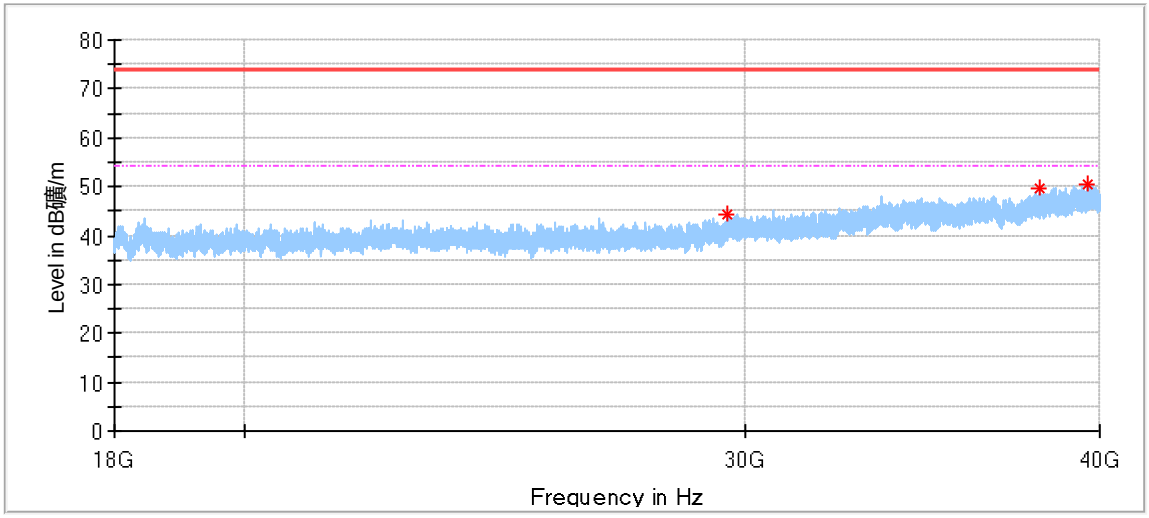


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
25444.937500	43.82	74.00	30.18	150.0	H	19.0	2.27
37125.562500	48.55	74.00	25.45	150.0	H	263.0	5.29
39862.500000	51.02	74.00	22.98	150.0	H	263.0	8.78

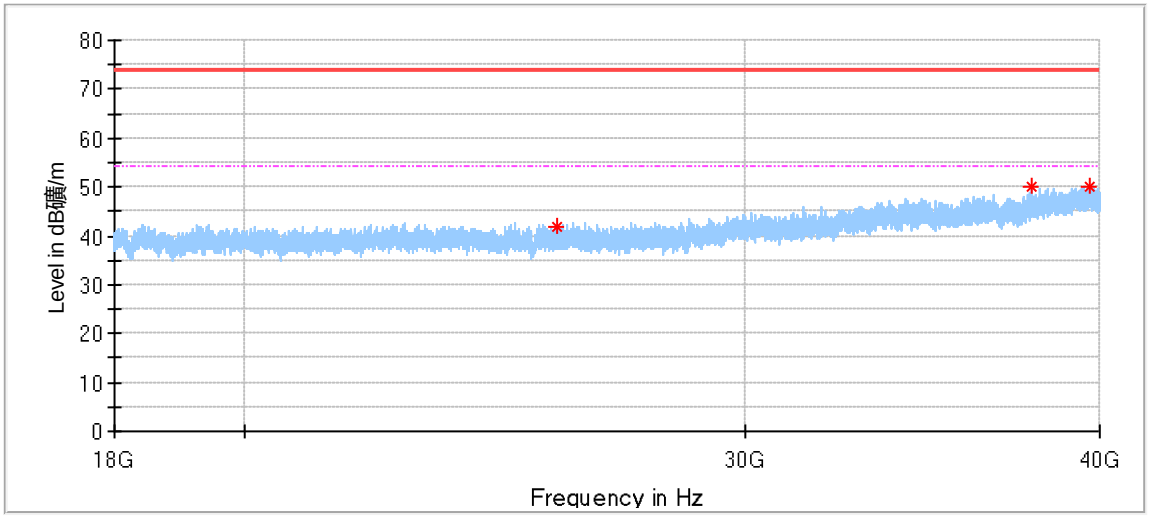


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
23527.500000*	43.77	74.00	30.23	150.0	V	148.0	1.70
25525.375000	42.42	74.00	31.58	150.0	V	65.0	2.32
34794.250000	48.75	74.00	25.25	150.0	V	31.0	5.00
39898.937500	50.08	74.00	23.92	150.0	V	15.0	8.85

11b_2462MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
29583.000000	44.24	74.00	29.76	150.0	H	342.0	2.70
38077.750000	49.58	74.00	24.42	150.0	H	4.0	6.24
39615.000000	50.37	74.00	23.63	150.0	H	279.0	8.32



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
25769.437500	41.72	74.00	32.28	150.0	V	155.0	2.51
37837.812500	50.03	74.00	23.97	150.0	V	93.0	5.85
39682.375000	49.95	74.00	24.05	150.0	V	231.0	8.43

Remark:

(1) "*" means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205 & RSS-GEN 8.10.

(2) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

(3) Corrected Amplitude = Read level + Corrector factor
Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss

10 Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2023-5-28
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2023-7-12
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	1	2023-5-9
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	100745	1	2023-5-28
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-002	100746	1	2023-5-28
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	12827	1	2023-7-12
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	1	2023-7-27
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	1	2023-5-27
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	2	2023-5-28
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-19-002	102590	1	2023-5-27
LISN	Rohde & Schwarz	ENV216	68-4-87-19-001	102472	1	2023-5-27
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2023-5-27
Test software	Rohde & Schwarz	EMC32	68-4-90-19-005-A01	Version10.35.02	N/A	N/A
Shielding Room	TDK	CSR #2	68-4-90-19-005	----	3	2025-10-15

Conducted RF Test System

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	1	2023-5-27
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157	68-4-93-14-003	101226/100851	1	2023-5-27
Power Splitter	Weinschel	1580	68-4-85-14-001	SC319	1	2023-5-28
10dB Attenuator	Weinschel	4M-10	68-4-81-14-003	43152	1	2023-5-28
10dB Attenuator	R&S	DNF	68-4-81-14-004	DNF-001	1	2023-5-27
10dB Attenuator	R&S	DNF	68-4-81-14-005	DNF-002	1	2023-5-27
10dB Attenuator	R&S	DNF	68-4-81-14-006	DNF-003	1	2023-5-27
10dB Attenuator	R&S	DNF	68-4-81-14-007	DNF-004	1	2023-5-27
Test software	Tonscend	System for BT/WIFI	68-4-74-14-006-A13	Version 2.6.77.0518	N/A	N/A
Shielding Room	TDK	TS8997	68-4-90-19-003	----	3	2025-10-15

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11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission 150kHz-30MHz (for test using AMN ENV432 or ENV4200)	3.57dB
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 30MHz-1000MHz	Horizontal: 4.59dB; Vertical: 4.75dB
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 1000MHz-18000MHz	Horizontal: 5.08dB; Vertical: 5.09dB;
Uncertainty for Radiated Emission 18000MHz-40000MHz	Horizontal: 4.52dB; Vertical: 4.51dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.31dB Frequency test involved: 0.6×10-8 or 1%

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2021, clause 4.4.3 and 4.5.1.

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