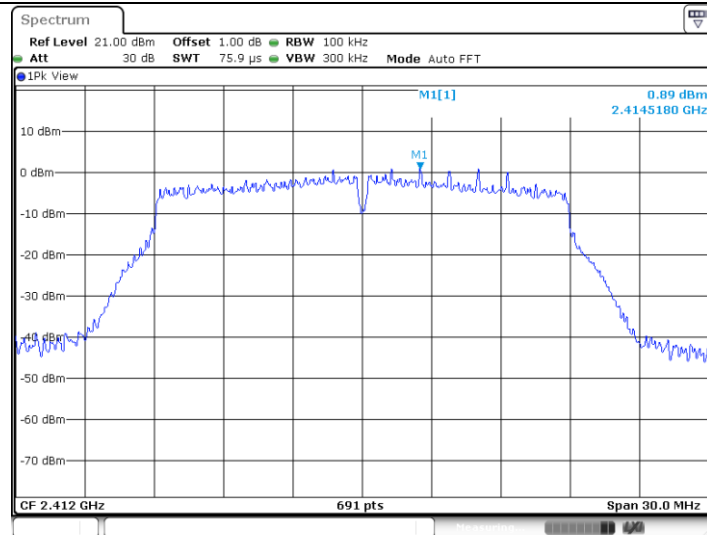
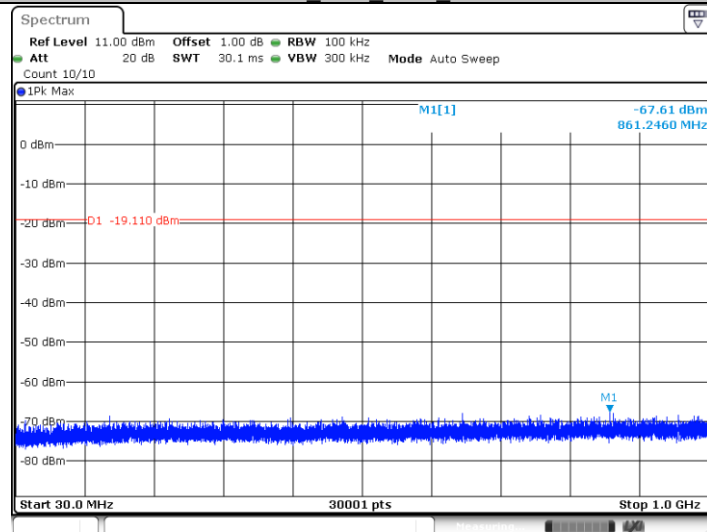




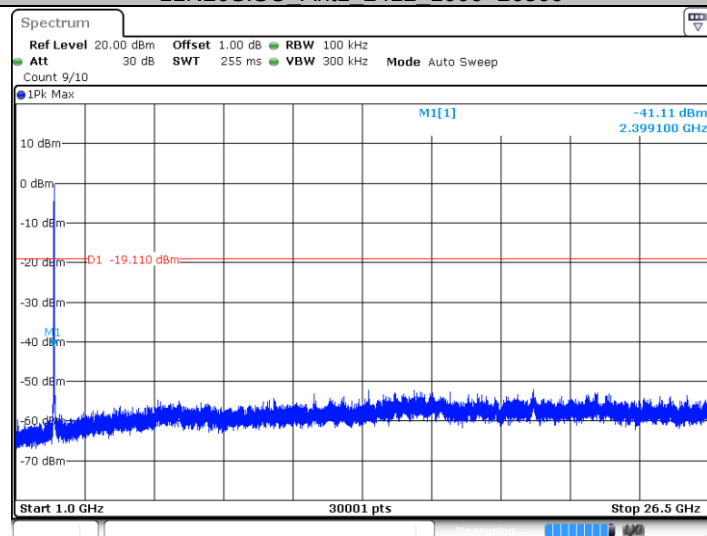
Date: 25 JUN 2021 11:52:03

11N20SISO_Ant1_2412_30~1000



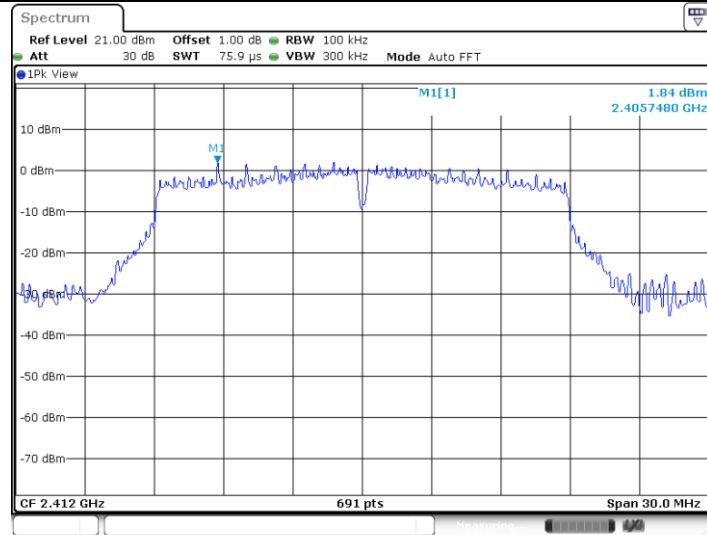
Date: 25 JUN 2021 11:52:09

11N20SISO_Ant1_2412_1000~26500



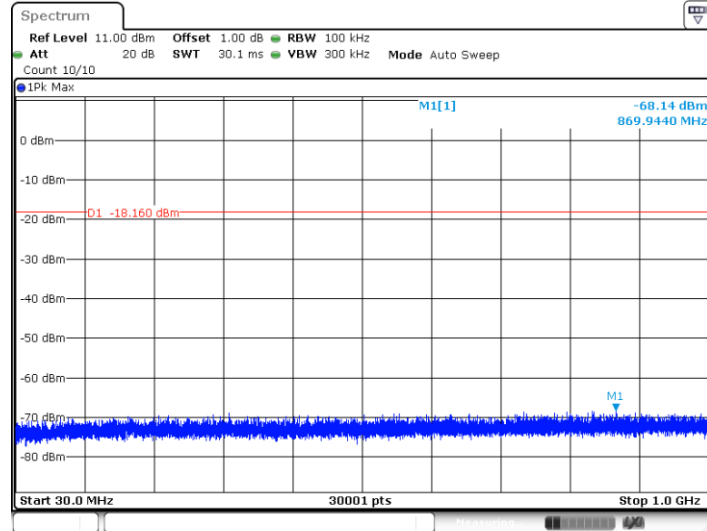
Date: 25 JUN 2021 11:52:17

11N20SISO_Ant2_2412_0~Reference



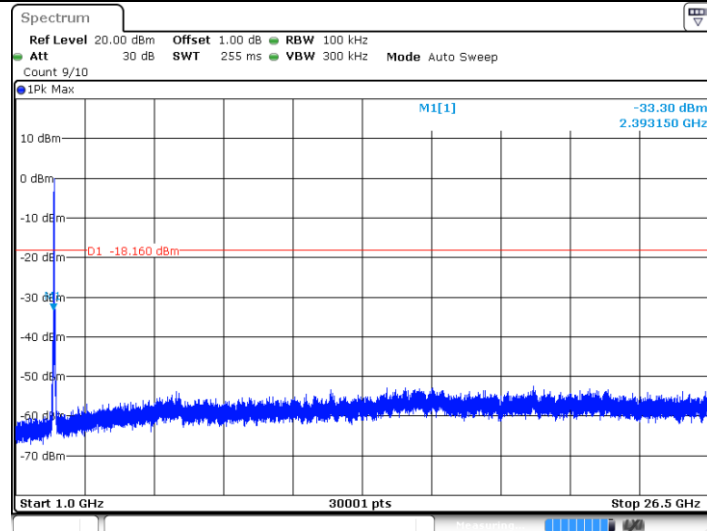
Date: 25 JUN 2021 12:06:07

11N20SISO_Ant2_2412_30~1000



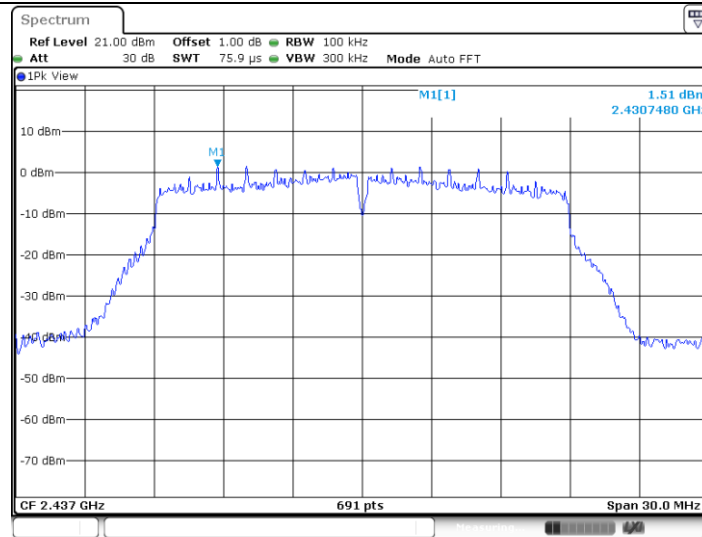
Date: 25 JUN 2021 12:06:13

11N20SISO_Ant2_2412_1000~26500



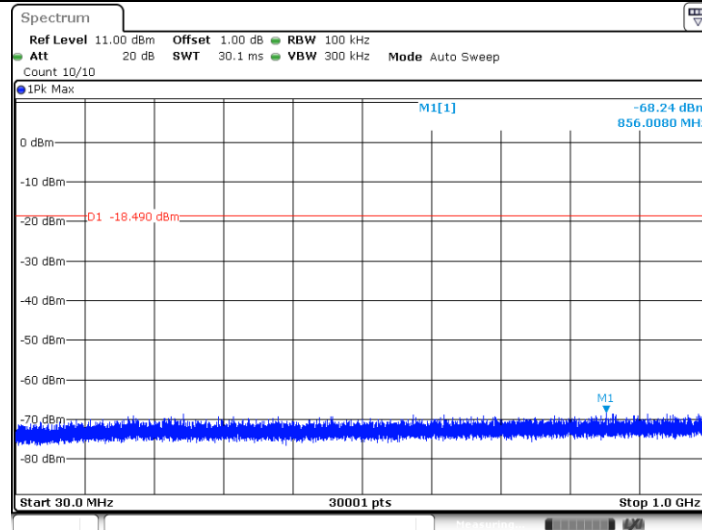
Date: 25 JUN 2021 12:06:21

11N20SISO_Ant1_2437_0~Reference



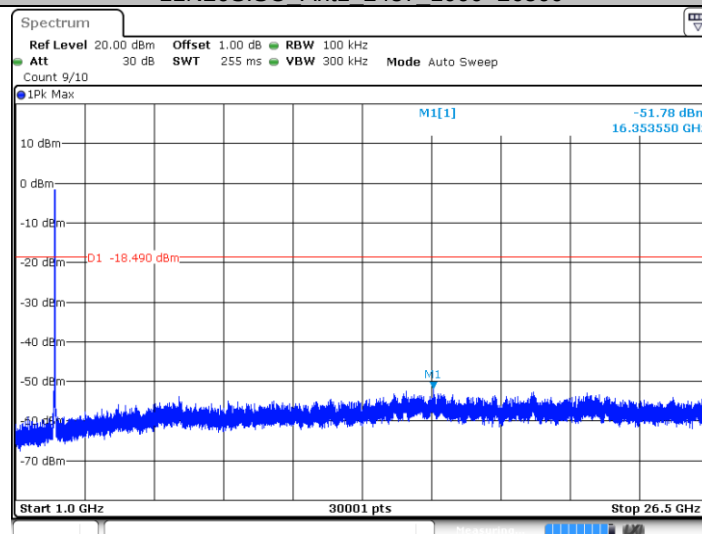
Date: 25 JUN 2021 11:58:45

11N20SISO_Ant1_2437_30~1000



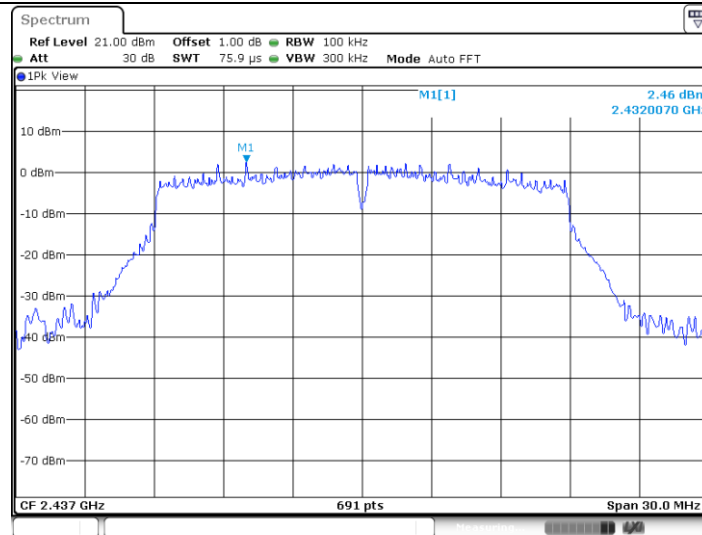
Date: 25 JUN 2021 11:58:51

11N20SISO_Ant1_2437_1000~26500



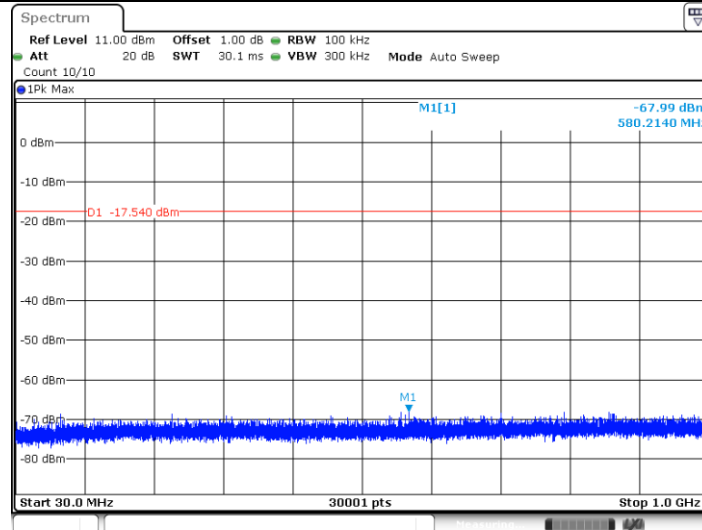
Date: 25 JUN 2021 11:58:59

11N20SISO_Ant2_2437_0~Reference



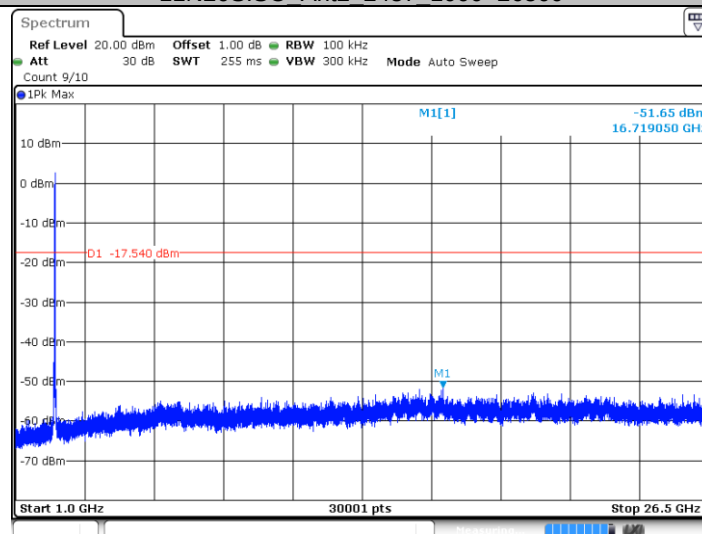
Date: 25 JUN 2021 12:08:38

11N20SISO_Ant2_2437_30~1000



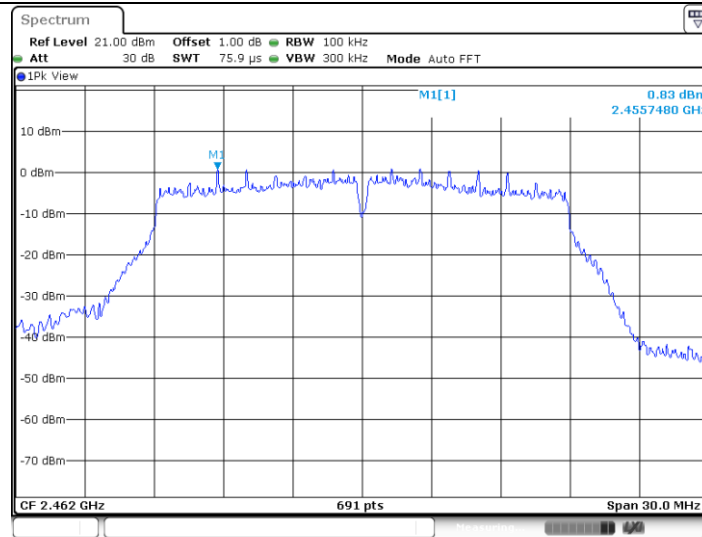
Date: 25 JUN 2021 12:08:44

11N20SISO_Ant2_2437_1000~26500



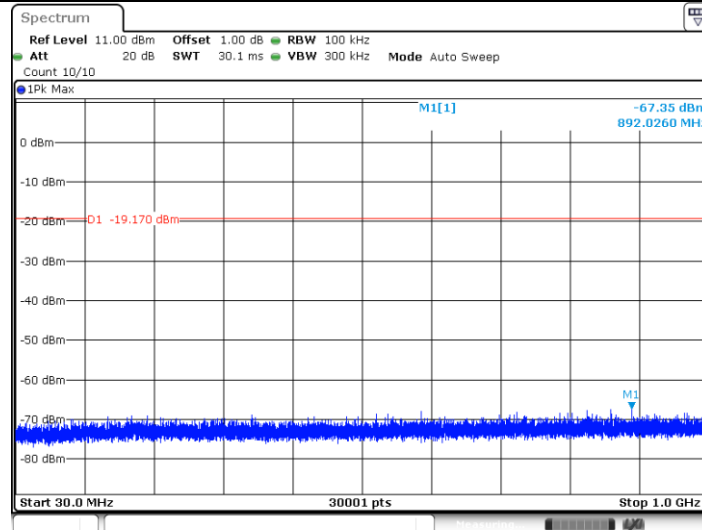
Date: 25 JUN 2021 12:08:52

11N20SISO_Ant1_2462_0~Reference



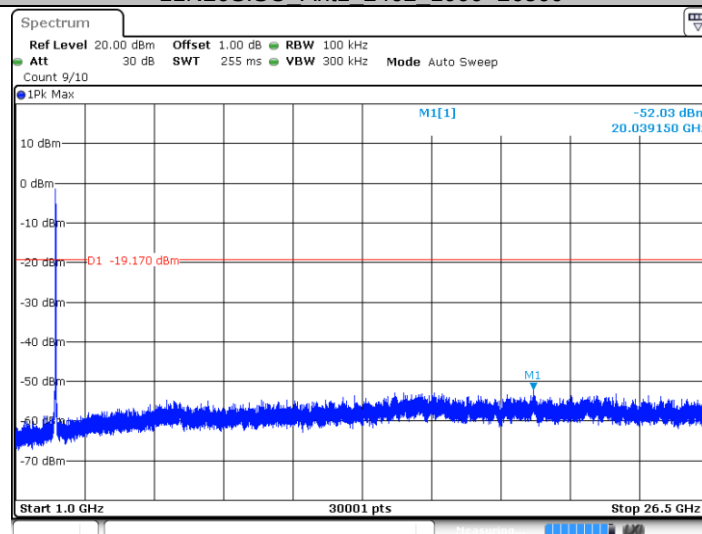
Date: 25 JUN 2021 12:03:39

11N20SISO_Ant1_2462_30~1000



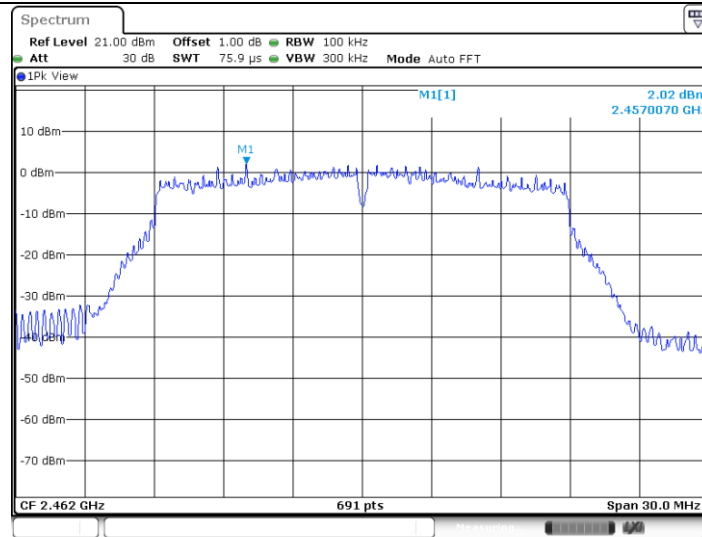
Date: 25 JUN 2021 12:03:45

11N20SISO_Ant1_2462_1000~26500



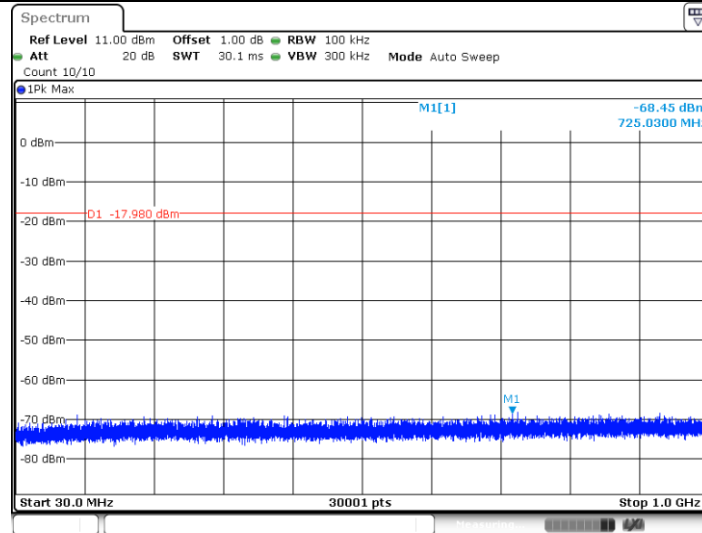
Date: 25 JUN 2021 12:03:53

11N20SISO_Ant2_2462_0~Reference



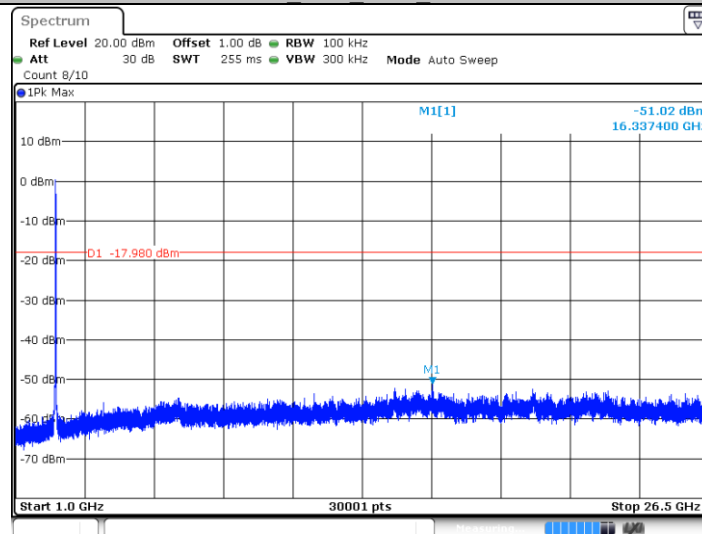
Date: 25 JUN 2021 12:10:54

11N20SISO_Ant2_2462_30~1000



Date: 25 JUN 2021 12:11:00

11N20SISO_Ant2_2462_1000~26500



Date: 25 JUN 2021 12:11:07

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 $\geq$ 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:

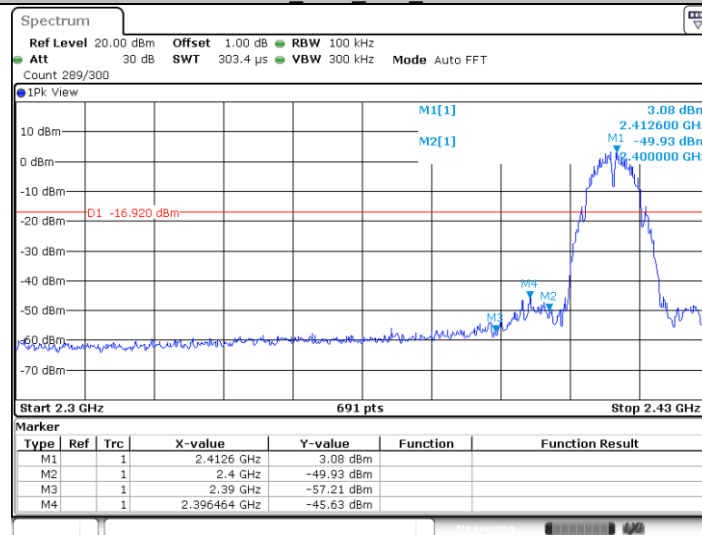
According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains 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), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

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

Band edge testing

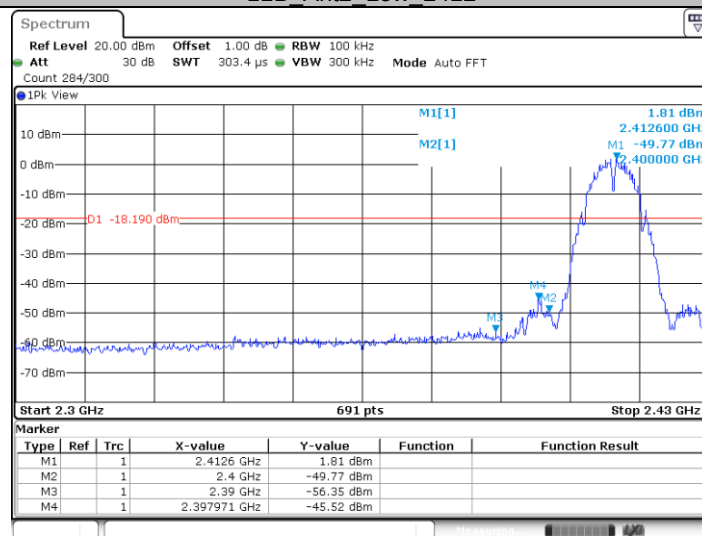
TestMode	Antenna	ChName	Channel (MHz)	RefLevel (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B_SISO	Ant0	Low	2412	3.08	-45.63	<=-16.92	PASS
	Ant1	Low	2412	1.81	-45.52	<=-18.19	PASS
	Ant0	High	2462	1.82	-54.81	<=-18.18	PASS
	Ant1	High	2462	0.97	-57.02	<=-19.03	PASS
11G_SISO	Ant0	Low	2412	0.33	-41.84	<=-19.67	PASS
	Ant1	Low	2412	0.51	-43.05	<=-19.49	PASS
	Ant0	High	2462	0.71	-51.94	<=-19.29	PASS
	Ant1	High	2462	-0.94	-52.08	<=-20.94	PASS
11N20SISO	Ant0	Low	2412	-0.98	-39.47	<=-20.98	PASS
	Ant1	High	2412	1.94	-26.18	<=-18.06	PASS
	Ant0	Low	2462	1.13	-47.9	<=-18.87	PASS
	Ant1	High	2462	1.63	-42.44	<=-18.37	PASS

11B Ant1 Low 2412



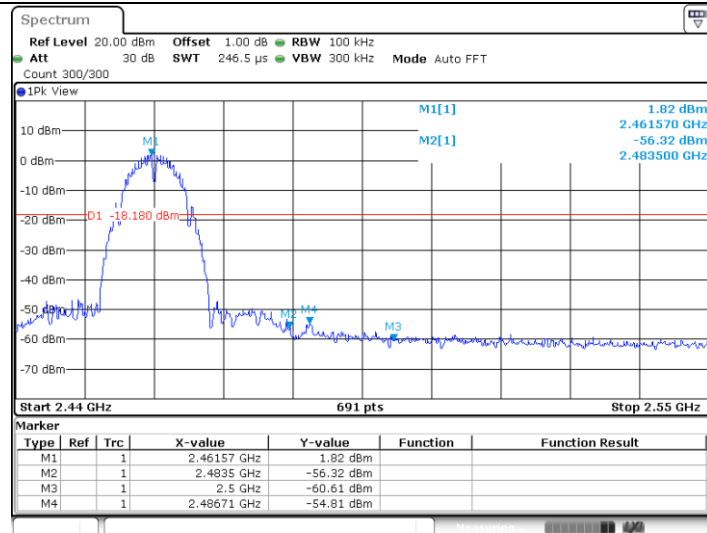
Date: 23 JUN 2021 14:47:45

11B Ant2 Low 2412



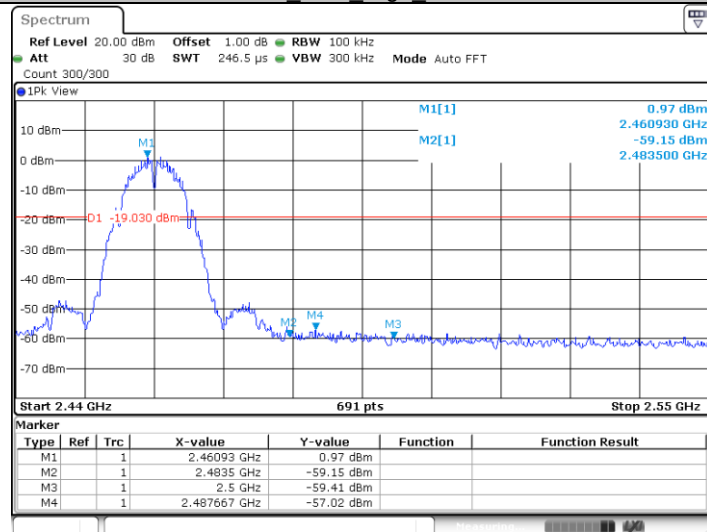
Date: 23 JUN 2021 15:24:31

11B Ant1 High 2462



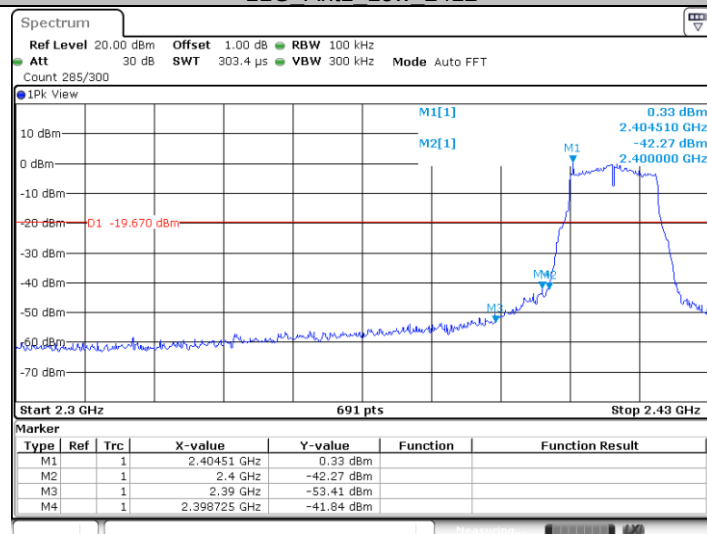
Date: 23 JUN 2021 14:51:15

11B Ant2 High 2462



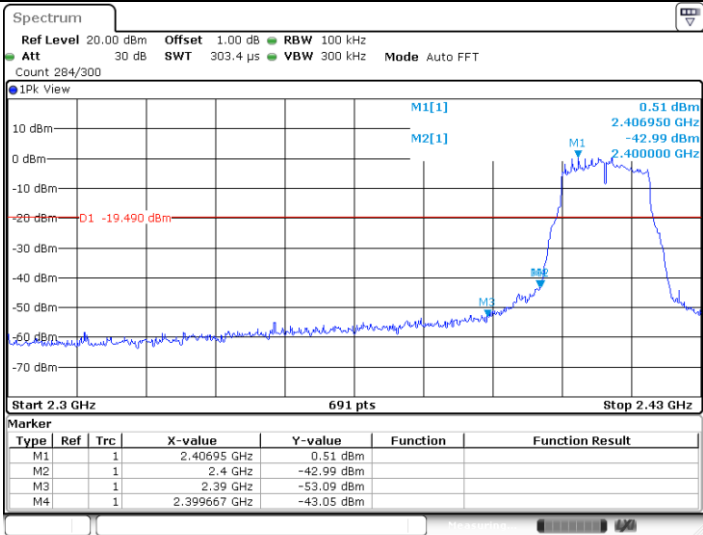
Date: 23 JUN 2021 15:28:08

11G Ant1 Low 2412



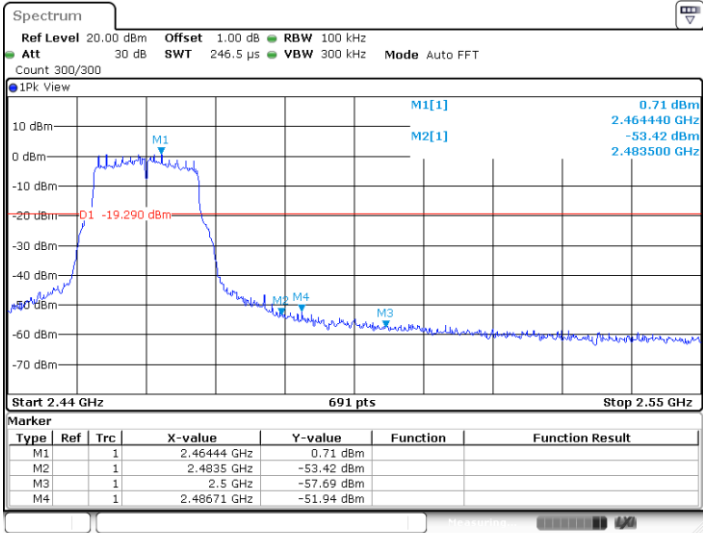
Date: 23 JUN 2021 14:53:59

11G Ant2 Low 2412



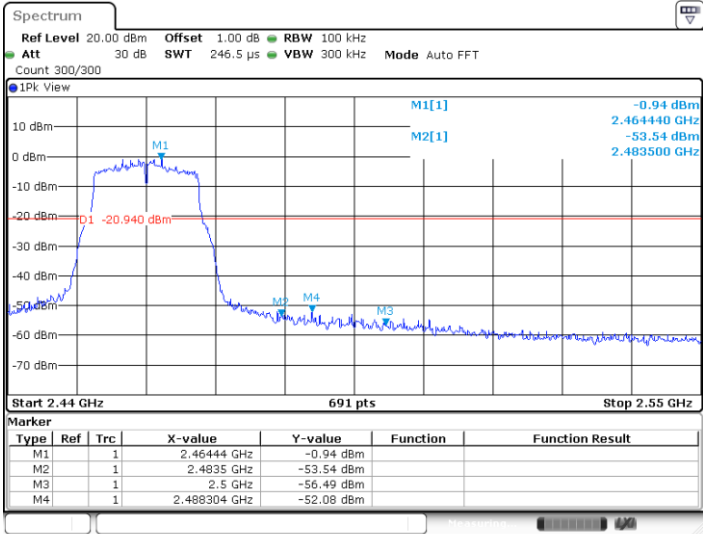
Date: 23 JUN 2021 15:08:23

11G Ant1 High 2462



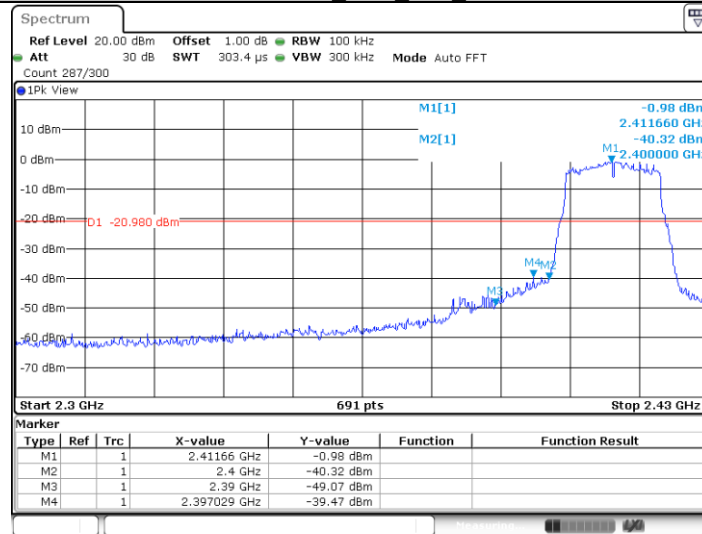
Date: 23 JUN 2021 14:58:40

11G Ant2 High 2462



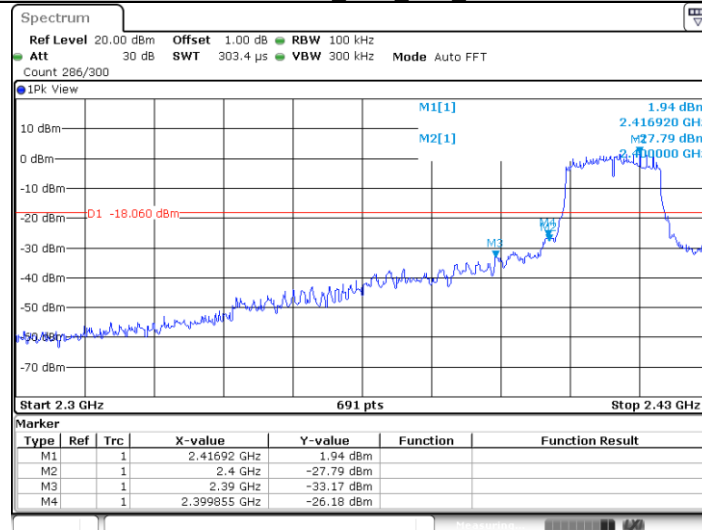
Date: 23 JUN 2021 15:12:17

11N20SISO_Ant1_Low_2412



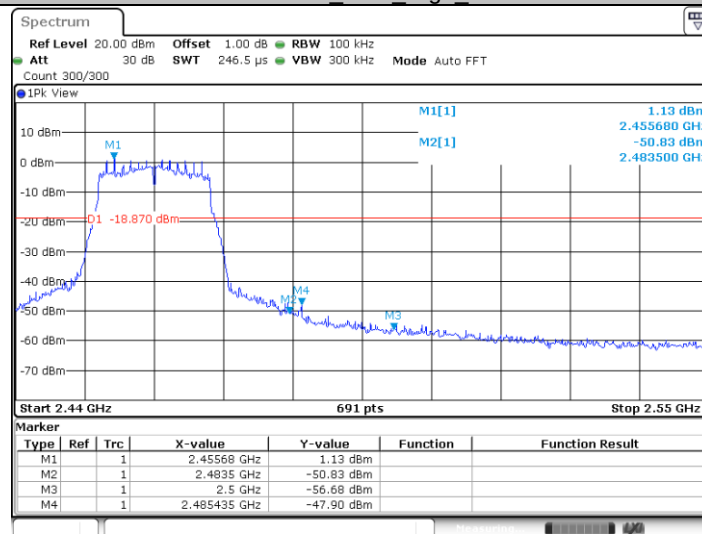
Date: 25 JUN 2021 11:51:57

11N20SISO_Ant2_Low_2412

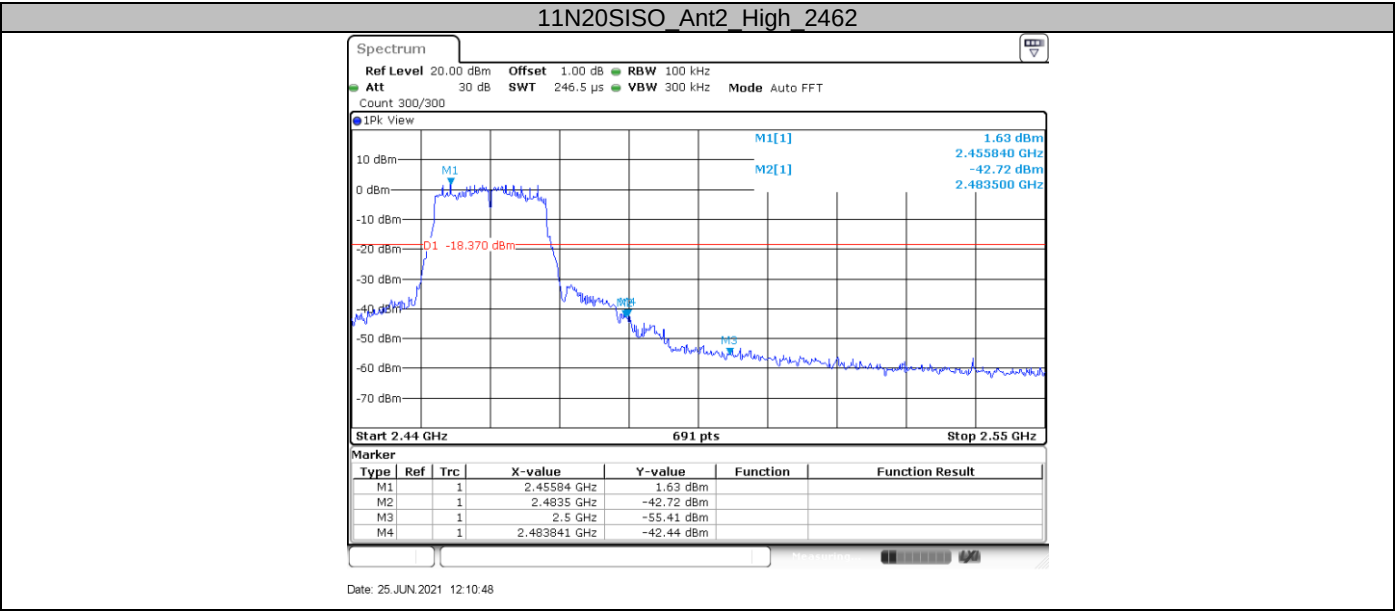


Date: 25 JUN 2021 12:06:01

11N20SISO_Ant1_High_2462



Date: 25 JUN 2021 12:03:33



9.7 Spurious radiated emissions for transmitter

Test Method

1. The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meters 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 from 0 degrees to 360 degrees to find the maximum reading.
6. Use the following spectrum analyzer settings According to C63.10:
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 to 120KHz, VBW ≥ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Peak unwanted emissions 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, Sweep = auto, Detector function = peak, Trace = max hold.

Procedures for average unwanted emissions measurements above 1000 MHz

a) RBW = 1MHz.

b) VBW \ [3 × RBW].

c) Detector = RMS (power averaging), if [span / (# of points in sweep)] \ RBW / 2.

Satisfying this condition can require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, then the detector mode shall be set to peak.

d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)

e) Sweep time = auto.

f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)

g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

- 1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is $[10 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.
- 2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is $[20 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.
- 3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

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 section 15.205, must comply with the radiated emission limits specified in section 15.209.

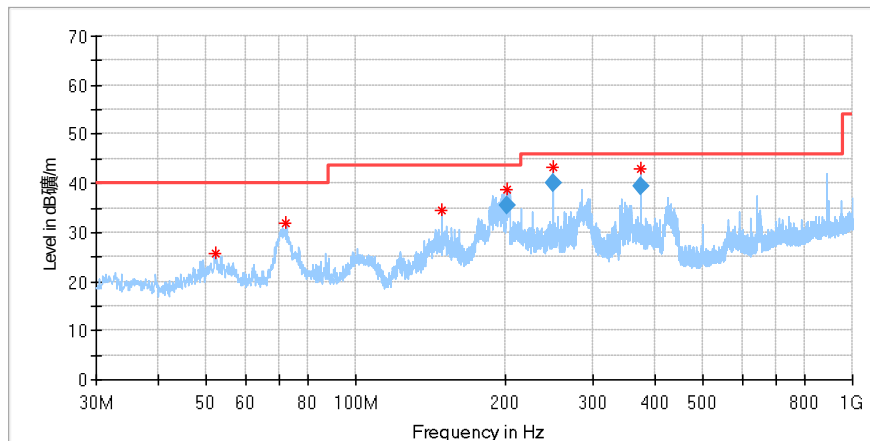
Frequency MHz	Field Strength μ V/m	Field Strength dB μ V/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Spurious radiated emissions for transmitter

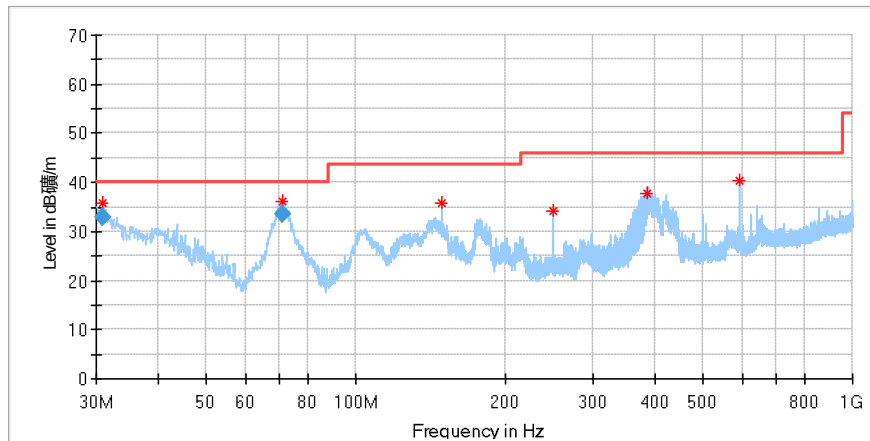
According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Transmitting spurious emission test result as below:

30MHz to 1000MHz:



Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
52.310000	25.59	40.00	14.41	200.0	H	17.0	15.28
72.134375	31.80	40.00	8.20	100.0	H	68.0	10.58
148.461250	34.56	43.50	8.94	200.0	H	243.0	9.91
201.750625	38.91	43.50	4.59	100.0	H	252.0	13.32
250.008125	43.31	46.00	2.69	100.0	H	317.0	14.38
375.016875	42.94	46.00	3.06	100.0	H	353.0	17.67
Frequency	QuasiPeak	Limit	Margin	Height	Pol	Azimuth	Corr.
201.750625	35.39	43.50	7.61	100.0	H	252.0	13.32
250.008125	40.17	46.00	5.83	100.0	H	317.0	14.38
375.016875	39.55	46.00	6.45	100.0	H	353.0	17.67

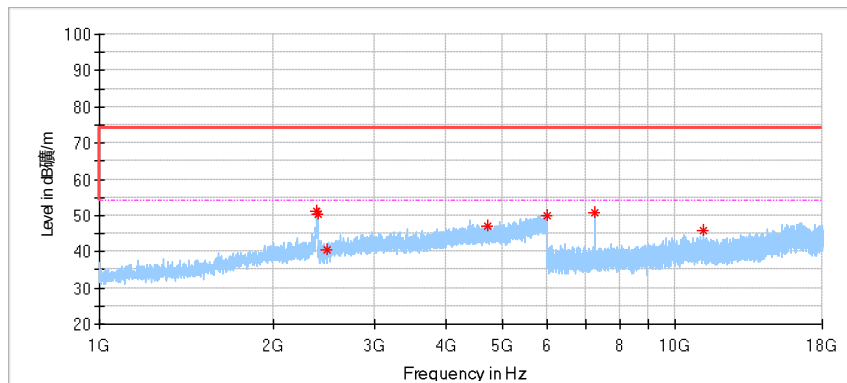


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.970000	35.80	40.00	4.20	100.0	V	78.0	11.49
71.285625	36.26	40.00	3.74	200.0	V	0.0	10.81
148.461250	35.75	43.50	7.75	100.0	V	0.0	9.91
249.947500	34.05	46.00	11.95	100.0	V	154.0	14.37
386.232500	37.91	46.00	8.09	100.0	V	0.0	17.96
593.933750	40.00	46.00	6.00	100.0	V	154.0	22.36
Frequency	QuasiPeak	Limit	Margin	Height	Pol	Azimuth	Corr.
30.970000	32.86	40.00	7.14	100.0	V	78.0	11.49
71.285625	33.58	40.00	6.42	200.0	V	0.0	10.81

1GHz -18GHz:

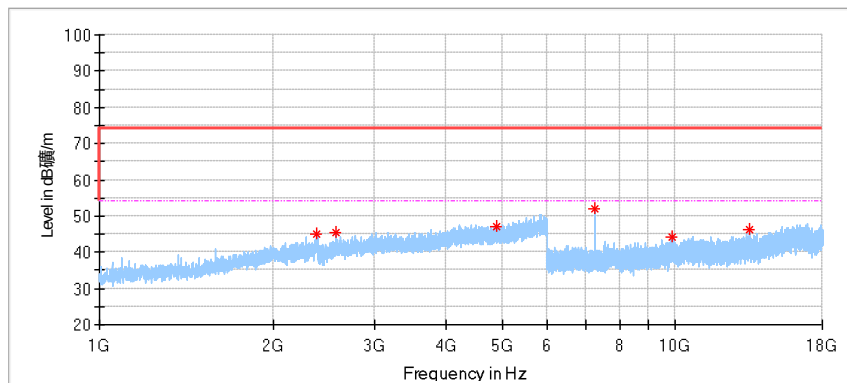
11B-Ant0_2412MHz

Horizontal:



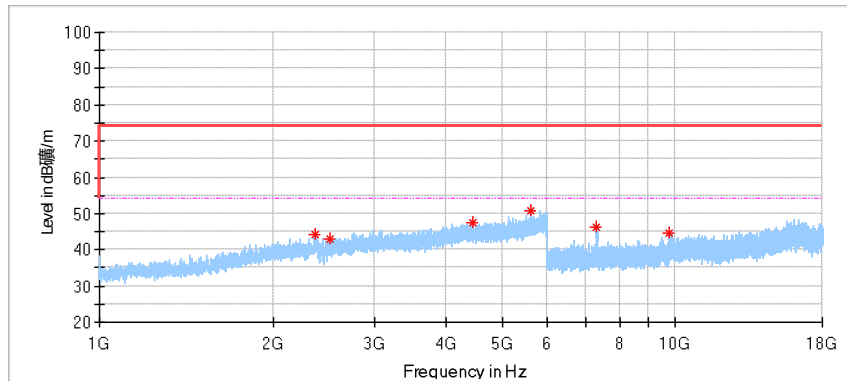
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2384.000000	51.23	74.00	22.77	150.0	H	0.0	-2.09
2393.500000	50.20	74.00	23.80	150.0	H	348.0	-2.05
2481.500000	40.33	74.00	33.67	150.0	H	348.0	-1.76
4711.500000	47.06	74.00	26.94	150.0	H	4.0	3.75
5976.500000	49.84	74.00	24.16	150.0	H	77.0	6.77
7235.000000	50.79	74.00	23.21	150.0	H	356.0	6.91
11161.500000	45.70	74.00	28.30	150.0	H	156.0	10.47

Vertical



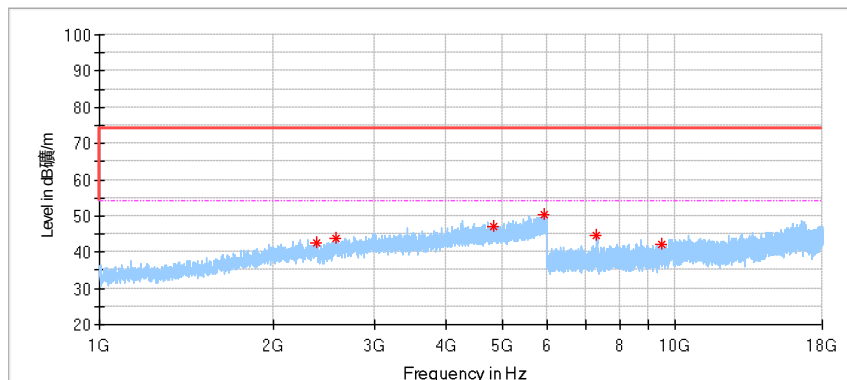
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2384.000000	45.19	74.00	28.81	150.0	V	312.0	-2.09
2579.500000	45.60	74.00	28.40	150.0	V	233.0	-1.46
4887.500000	47.04	74.00	26.96	150.0	V	116.0	4.09
7237.000000	51.97	74.00	22.03	150.0	V	356.0	6.91
9900.500000	44.15	74.00	29.85	150.0	V	356.0	10.72
13450.500000	46.12	74.00	27.88	150.0	V	12.0	11.68

11B-Ant0_2437MHz
Horizontal:



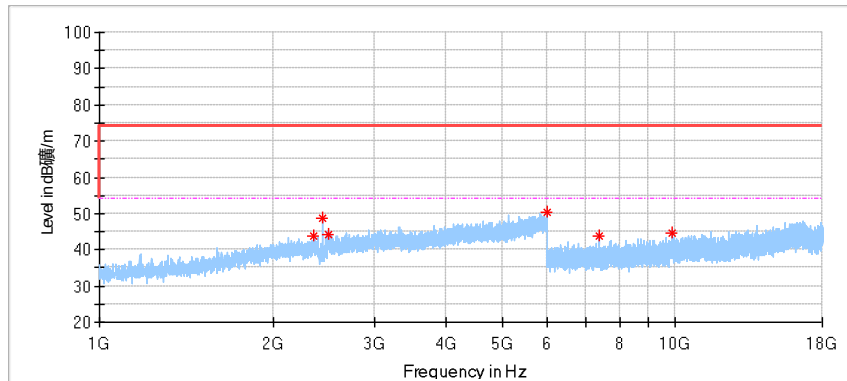
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2370.000000	44.24	74.00	29.76	150.0	H	15.0	-2.14
2515.000000	43.06	74.00	30.94	150.0	H	221.0	-1.72
4441.000000	47.50	74.00	26.50	150.0	H	330.0	3.24
5607.000000	50.70	74.00	23.30	150.0	H	38.0	5.81
7310.000000	46.12	74.00	27.88	150.0	H	2.0	7.03
9748.000000	44.43	74.00	29.57	150.0	H	305.0	9.64

Vertical



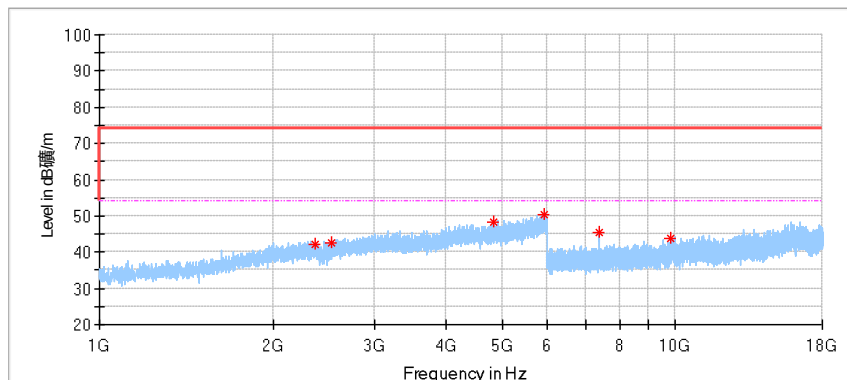
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2383.000000	42.76	74.00	31.24	150.0	V	282.0	-2.09
2574.000000	43.89	74.00	30.11	150.0	V	321.0	-1.48
4827.500000	47.21	74.00	26.79	150.0	V	30.0	3.86
5925.000000	50.33	74.00	23.67	150.0	V	219.0	6.70
7310.000000	44.76	74.00	29.24	150.0	V	356.0	7.03
9466.000000	42.22	74.00	31.78	150.0	V	256.0	9.64

11B-Ant0_2462MHz
Horizontal:



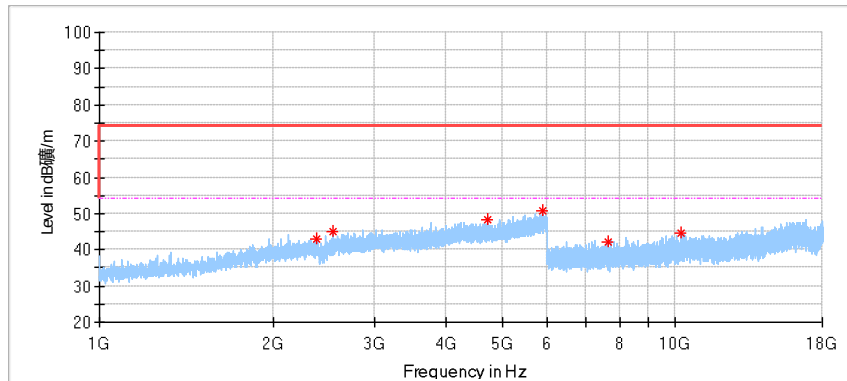
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2358.000000	43.71	74.00	30.29	150.0	H	85.0	-2.18
2437.000000	48.85	74.00	25.15	150.0	H	0.0	-1.92
2495.000000	44.31	74.00	29.69	150.0	H	23.0	-1.76
5999.500000	50.52	74.00	23.48	150.0	H	243.0	6.85
7385.000000	43.98	74.00	30.02	150.0	H	1.0	7.18
9888.000000	44.74	74.00	29.26	150.0	H	134.0	10.95

Vertical



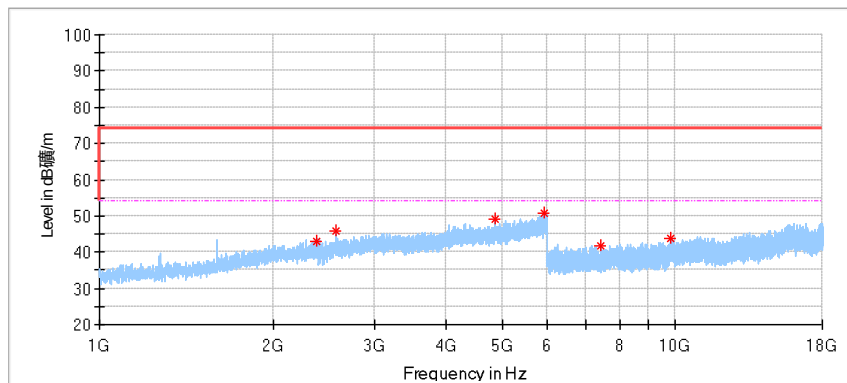
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2370.000000	42.24	74.00	31.76	150.0	V	233.0	-2.14
2528.000000	42.54	74.00	31.46	150.0	V	101.0	-1.67
4840.000000	48.38	74.00	25.62	150.0	V	359.0	3.94
5919.500000	50.49	74.00	23.51	150.0	V	210.0	6.72
7384.500000	45.52	74.00	28.48	150.0	V	356.0	7.18
9841.000000	43.65	74.00	30.35	150.0	V	229.0	11.11

11B-Ant1_2412MHz
Horizontal:



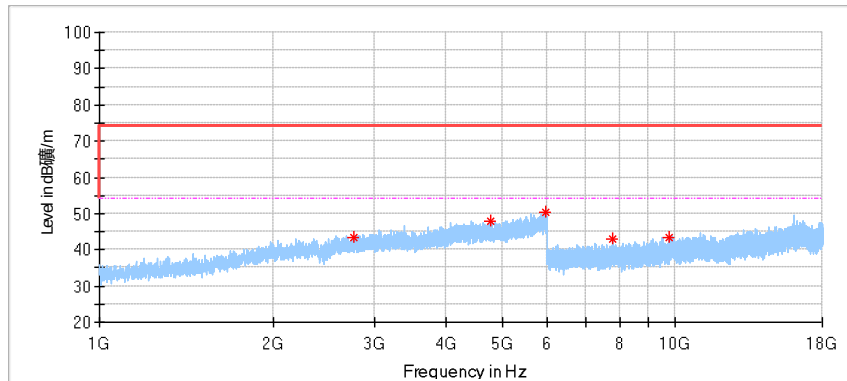
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2387.000000	42.87	74.00	31.13	150.0	H	0.0	-2.08
2547.500000	44.84	74.00	29.16	150.0	H	0.0	-1.53
4719.500000	48.36	74.00	25.64	150.0	H	210.0	3.76
5897.000000	50.63	74.00	23.37	150.0	H	30.0	6.79
7664.000000	42.14	74.00	31.86	150.0	H	131.0	7.72
10254.000000	44.81	74.00	29.19	150.0	H	16.0	10.23

Vertical



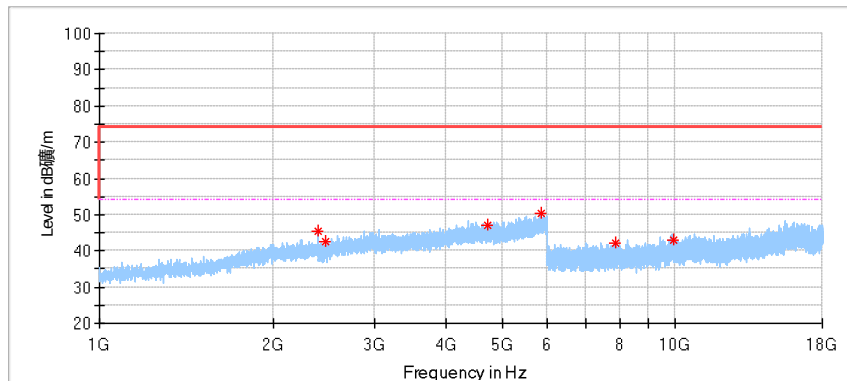
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2384.000000	42.93	74.00	31.07	150.0	V	124.0	-2.09
2568.000000	46.03	74.00	27.97	150.0	V	54.0	-1.49
4864.500000	48.95	74.00	25.05	150.0	V	148.0	4.10
5912.000000	50.57	74.00	23.43	150.0	V	54.0	6.74
7427.500000	41.73	74.00	32.27	150.0	V	232.0	7.21
9818.500000	43.63	74.00	30.37	150.0	V	112.0	10.70

11B-Ant1_2437MHz
Horizontal:



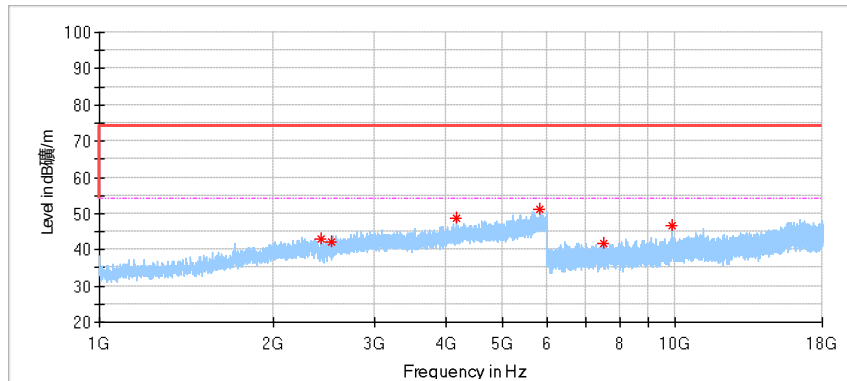
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2761.500000	43.46	74.00	30.54	150.0	H	0.0	-0.85
4790.000000	47.81	74.00	26.19	150.0	H	30.0	3.79
5939.500000	50.27	74.00	23.73	150.0	H	252.0	6.67
7800.000000	42.83	74.00	31.17	150.0	H	42.0	7.80
9748.000000	43.27	74.00	30.73	150.0	H	281.0	9.64

Vertical



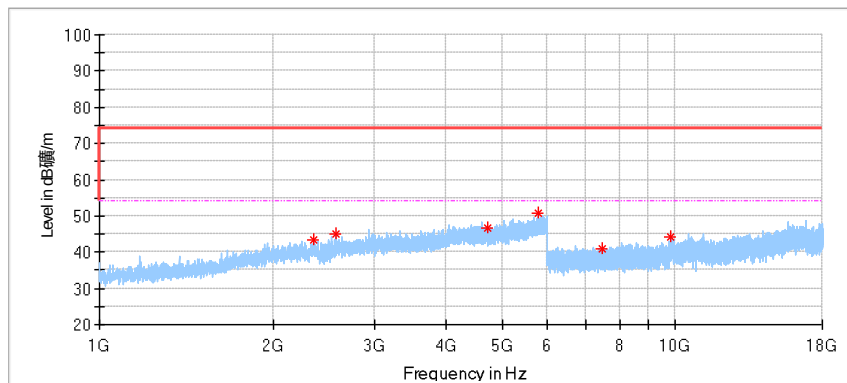
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2391.500000	45.37	74.00	28.63	150.0	V	227.0	-2.06
2471.500000	42.39	74.00	31.61	150.0	V	282.0	-1.76
4727.000000	46.92	74.00	27.08	150.0	V	321.0	3.77
5843.500000	50.27	74.00	23.73	150.0	V	235.0	6.69
7852.500000	42.13	74.00	31.87	150.0	V	207.0	7.94
9916.000000	43.15	74.00	30.85	150.0	V	232.0	10.43

11B-Ant1_2462MHz
Horizontal:



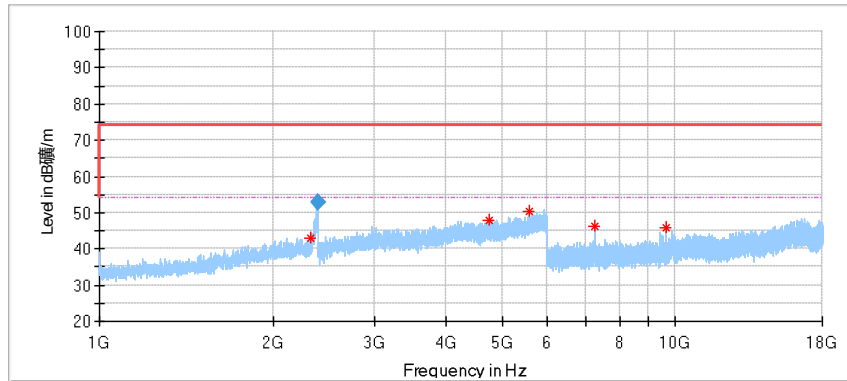
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2429.000000	42.94	74.00	31.06	150.0	H	163.0	-1.96
2521.500000	42.24	74.00	31.76	150.0	H	319.0	-1.71
4163.000000	48.67	74.00	25.33	150.0	H	163.0	2.79
5814.500000	51.17	74.00	22.83	150.0	H	312.0	6.57
7494.500000	41.64	74.00	32.36	150.0	H	42.0	7.43
9848.000000	46.59	74.00	27.41	150.0	H	331.0	11.23

Vertical



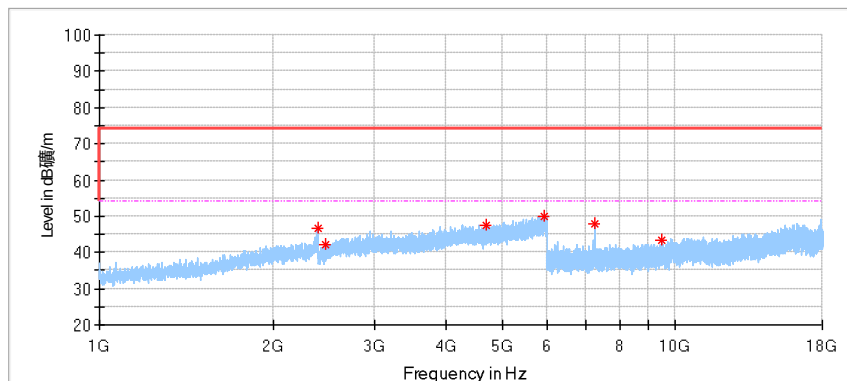
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2352.500000	43.22	74.00	30.78	150.0	V	0.0	-2.19
2579.500000	44.82	74.00	29.18	150.0	V	260.0	-1.46
4732.500000	46.85	74.00	27.15	150.0	V	283.0	3.77
5773.000000	50.80	74.00	23.20	150.0	V	356.0	6.52
7486.500000	40.74	74.00	33.26	150.0	V	305.0	7.38
9803.500000	44.13	74.00	29.87	150.0	V	107.0	10.43

11G-Ant0_2412MHz
Horizontal:



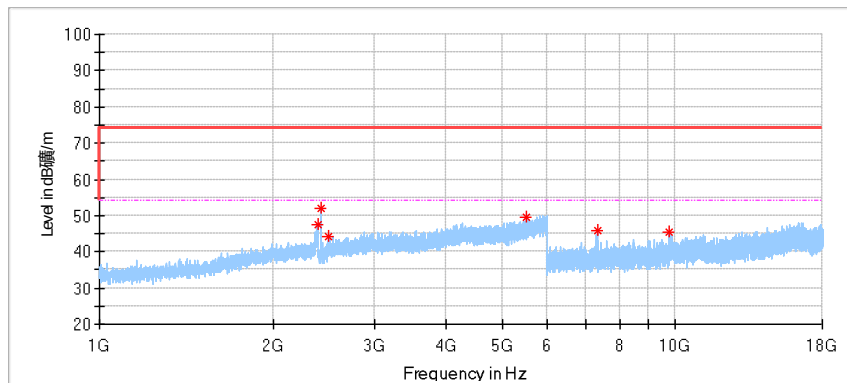
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2322.500000	42.93	74.00	31.07	150.0	H	0.0	-2.16
2393.000000	53.35	74.00	20.65	150.0	H	9.0	-2.06
4757.500000	47.96	74.00	26.04	150.0	H	140.0	3.79
5577.500000	50.44	74.00	23.56	150.0	H	46.0	5.76
7236.500000	46.24	74.00	27.76	150.0	H	1.0	6.91
9648.000000	45.74	74.00	28.26	150.0	H	331.0	9.27
Frequency	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2393.000000	52.96	54.00	1.04	150.0	H	9.0	-2.06

Vertical



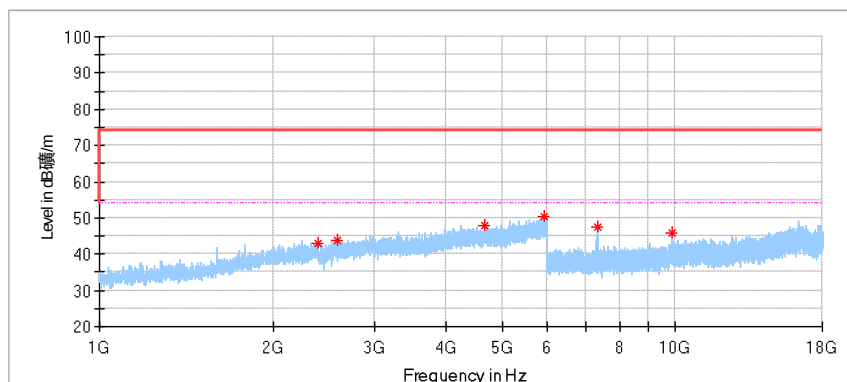
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2393.000000	46.67	74.00	27.33	150.0	V	312.0	-2.06
2462.000000	42.27	74.00	31.73	150.0	V	132.0	-1.76
4703.000000	47.55	74.00	26.45	150.0	V	355.0	3.74
5903.500000	50.03	74.00	23.97	150.0	V	124.0	6.77
7242.500000	47.77	74.00	26.23	150.0	V	356.0	6.93
9481.500000	43.46	74.00	30.54	150.0	V	156.0	9.72

11G-Ant0_2437MHz
Horizontal:



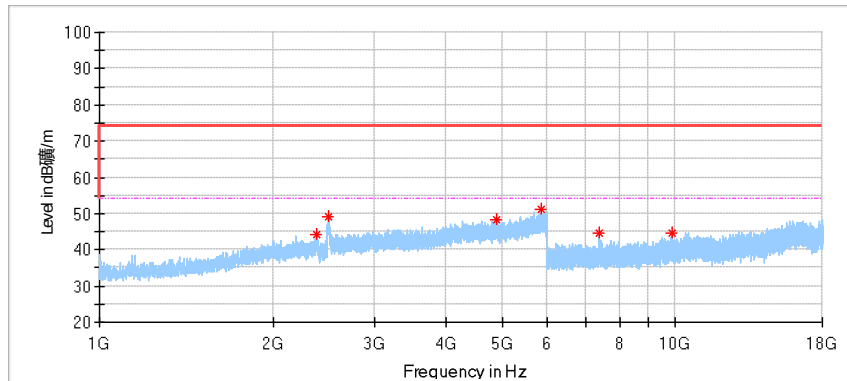
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2390.000000	47.65	74.00	26.35	150.0	H	4.0	-2.07
2426.000000	51.91	74.00	22.09	150.0	H	155.0	-1.98
2505.500000	44.24	74.00	29.76	150.0	H	9.0	-1.75
5514.500000	49.60	74.00	24.40	150.0	H	171.0	5.65
7311.500000	45.85	74.00	28.15	150.0	H	14.0	7.03
9748.500000	45.31	74.00	28.69	150.0	H	328.0	9.64

Vertical



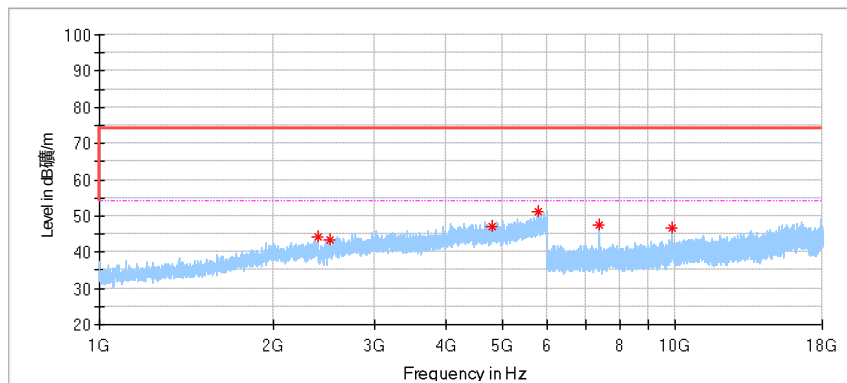
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2391.000000	43.08	74.00	30.92	150.0	V	299.0	-2.06
2594.500000	43.84	74.00	30.16	150.0	V	359.0	-1.42
4658.000000	48.09	74.00	25.91	150.0	V	62.0	3.66
5927.000000	50.35	74.00	23.65	150.0	V	213.0	6.69
7311.000000	47.69	74.00	26.31	150.0	V	356.0	7.03
9886.000000	45.89	74.00	28.11	150.0	V	173.0	10.99

11G-Ant0_2462MHz
Horizontal:



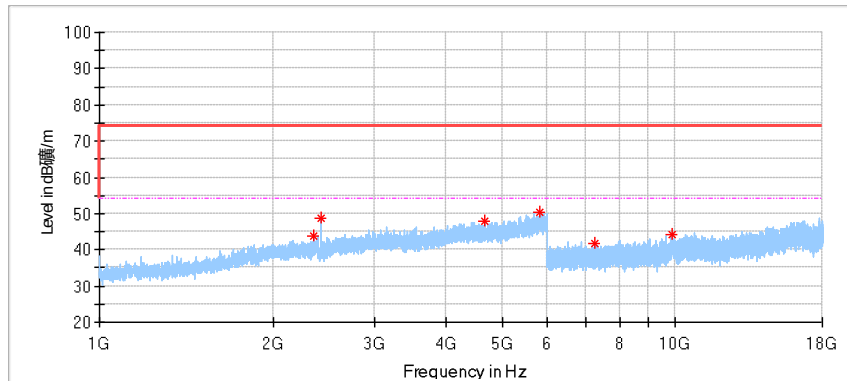
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2387.000000	44.28	74.00	29.72	150.0	H	330.0	-2.08
2495.500000	49.15	74.00	24.85	150.0	H	23.0	-1.76
4904.500000	48.37	74.00	25.63	150.0	H	30.0	4.07
5845.500000	51.06	74.00	22.94	150.0	H	127.0	6.70
7397.500000	44.75	74.00	29.25	150.0	H	39.0	7.20
9848.500000	44.44	74.00	29.56	150.0	H	331.0	11.24

Vertical



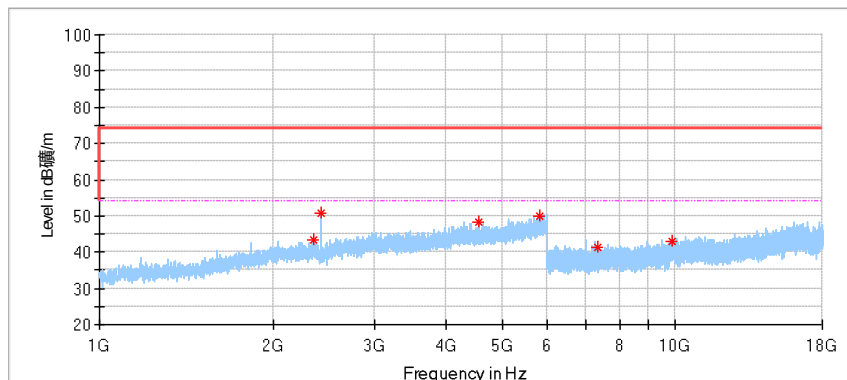
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2391.500000	44.38	74.00	29.62	150.0	V	260.0	-2.06
2506.500000	43.47	74.00	30.53	150.0	V	267.0	-1.74
4808.500000	47.03	74.00	26.97	150.0	V	0.0	3.79
5782.000000	51.24	74.00	22.76	150.0	V	197.0	6.53
7384.500000	47.31	74.00	26.69	150.0	V	2.0	7.18
9849.000000	46.50	74.00	27.50	150.0	V	62.0	11.25

11G-Ant1_2412MHz
Horizontal:



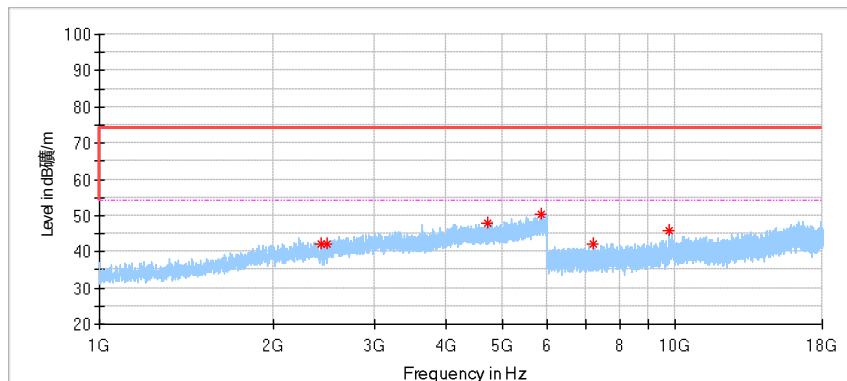
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2356.500000	43.59	74.00	30.41	150.0	H	226.0	-2.18
2426.000000	48.70	74.00	25.30	150.0	H	0.0	-1.98
4670.000000	47.90	74.00	26.10	150.0	H	124.0	3.70
5814.500000	50.42	74.00	23.58	150.0	H	358.0	6.57
7250.000000	41.85	74.00	32.15	150.0	H	331.0	6.95
9869.000000	44.22	74.00	29.78	150.0	H	1.0	11.31

Vertical



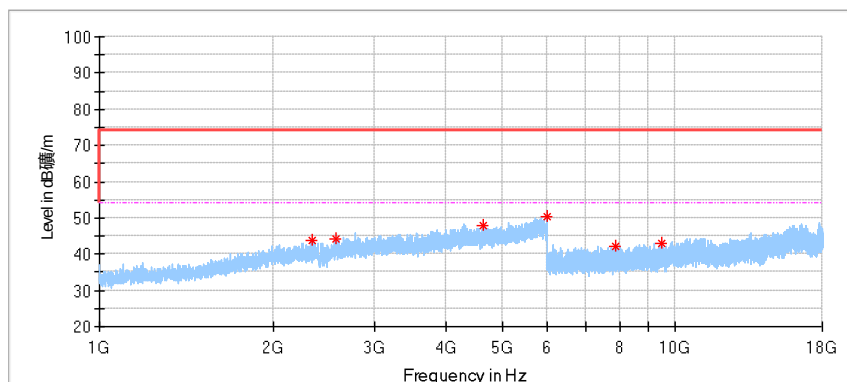
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2358.500000	43.41	74.00	30.59	150.0	V	189.0	-2.17
2426.500000	50.85	74.00	23.15	150.0	V	88.0	-1.98
4559.000000	48.38	74.00	25.62	150.0	V	322.0	3.36
5831.500000	50.00	74.00	24.00	150.0	V	33.0	6.64
7325.500000	41.15	74.00	32.85	150.0	V	156.0	7.06
9871.000000	42.95	74.00	31.05	150.0	V	108.0	11.27

11G-Ant1_2437MHz
Horizontal:



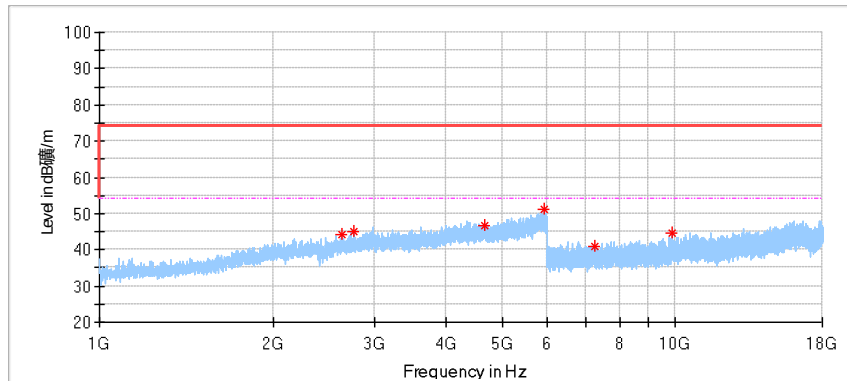
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2421.000000	41.99	74.00	32.01	150.0	H	236.0	-1.99
2488.000000	42.19	74.00	31.81	150.0	H	135.0	-1.76
4711.500000	47.98	74.00	26.02	150.0	H	150.0	3.75
5859.500000	50.40	74.00	23.60	150.0	H	174.0	6.76
7221.500000	42.20	74.00	31.80	150.0	H	305.0	6.86
9748.000000	45.88	74.00	28.12	150.0	H	331.0	9.64

Vertical



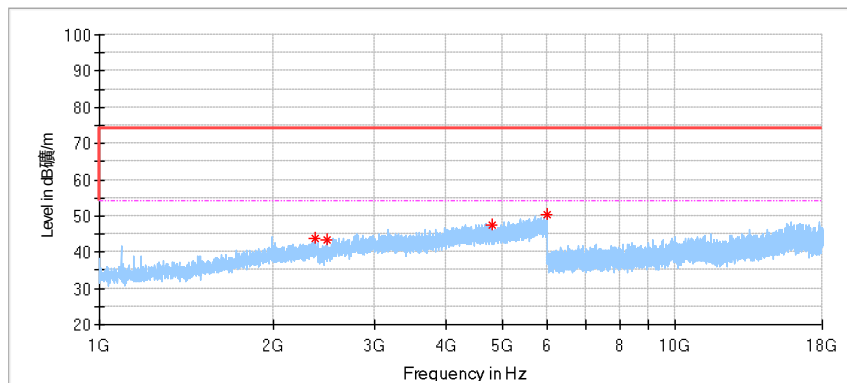
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2344.000000	43.62	74.00	30.38	150.0	V	0.0	-2.15
2575.500000	44.28	74.00	29.72	150.0	V	101.0	-1.48
4639.500000	48.04	74.00	25.96	150.0	V	296.0	3.60
5994.000000	50.33	74.00	23.67	150.0	V	349.0	6.82
7891.500000	42.26	74.00	31.74	150.0	V	356.0	7.89
9471.000000	42.81	74.00	31.20	150.0	V	281.0	9.70

11G-Ant1_2462MHz
Horizontal:



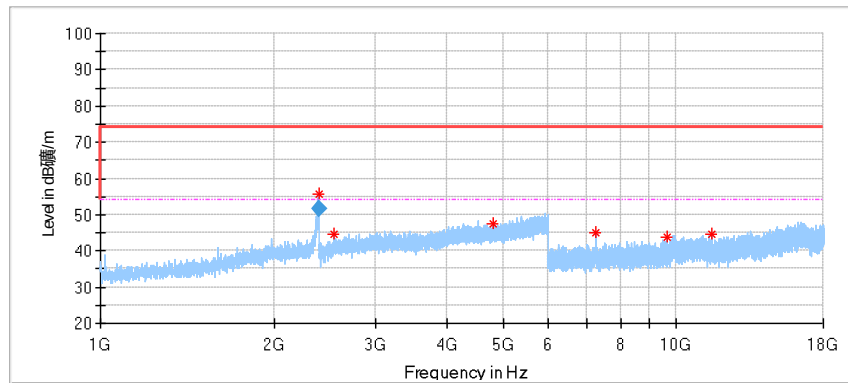
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2644.000000	44.31	74.00	29.69	150.0	H	148.0	-1.22
2760.000000	44.84	74.00	29.16	150.0	H	38.0	-0.85
4673.000000	46.86	74.00	27.14	150.0	H	202.0	3.71
5918.500000	51.12	74.00	22.88	150.0	H	210.0	6.72
7267.500000	40.82	74.00	33.18	150.0	H	112.0	6.97
9848.000000	44.48	74.00	29.52	150.0	H	331.0	11.23

Vertical



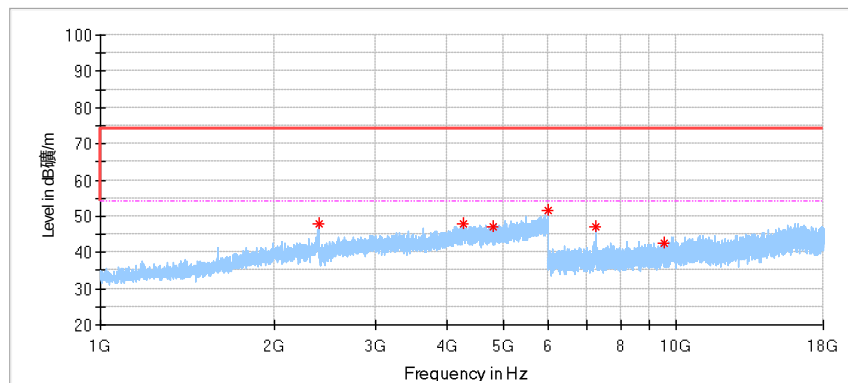
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2375.000000	43.67	74.00	30.33	150.0	V	249.0	-2.12
2489.500000	43.47	74.00	30.53	150.0	V	265.0	-1.76
4817.500000	47.32	74.00	26.68	150.0	V	202.0	3.79
5985.500000	50.43	74.00	23.57	150.0	V	233.0	6.79

11N-HT20-Ant 0+1_2412MHz
Horizontal:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2393.000000	55.74	74.00	18.26	150.0	H	0.0	-2.06
2549.500000	44.64	74.00	29.36	150.0	H	4.0	-1.52
4819.500000	47.33	74.00	26.67	150.0	H	349.0	3.81
7239.500000	45.04	74.00	28.96	150.0	H	16.0	6.92
9648.000000	43.66	74.00	30.34	150.0	H	328.0	9.27
11529.500000	44.63	74.00	29.37	150.0	H	179.0	10.01
Frequency	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2393.000000	51.52	54.00	2.48	150.0	H	0.0	-2.06

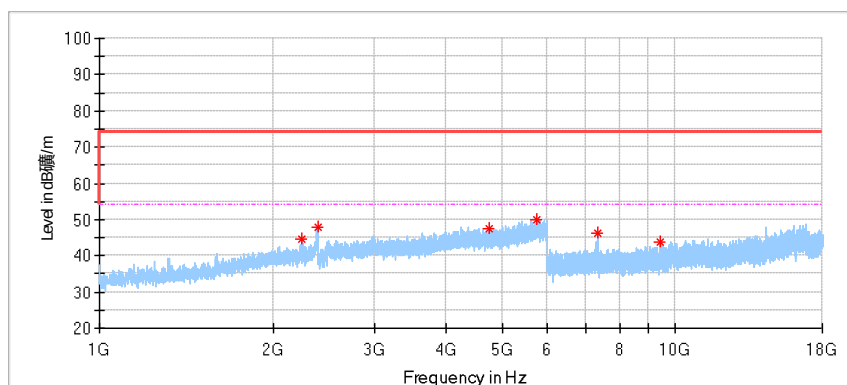
Vertical



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2391.500000	47.77	74.00	26.23	150.0	V	313.0	-2.06
4269.000000	47.82	74.00	26.18	150.0	V	344.0	3.19
4802.000000	47.22	74.00	26.78	150.0	V	250.0	3.79
6000.000000	51.64	74.00	22.36	150.0	V	344.0	6.86
7235.500000	46.94	74.00	27.06	150.0	V	356.0	6.91
9506.500000	42.68	74.00	31.32	150.0	V	183.0	9.57

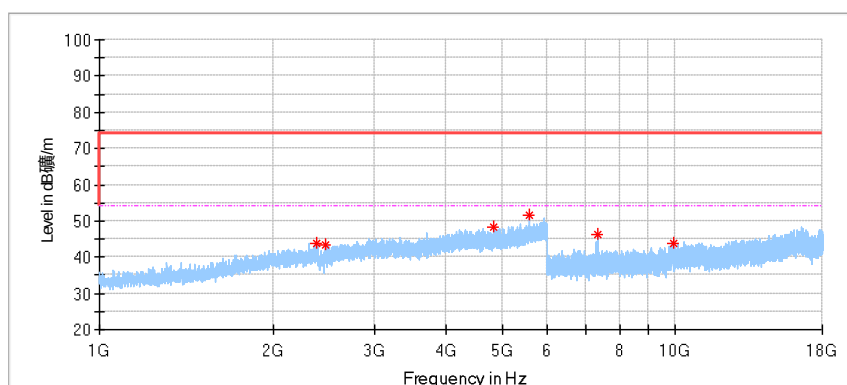
11N-HT20-Ant 0+1_2437MHz

Horizontal:



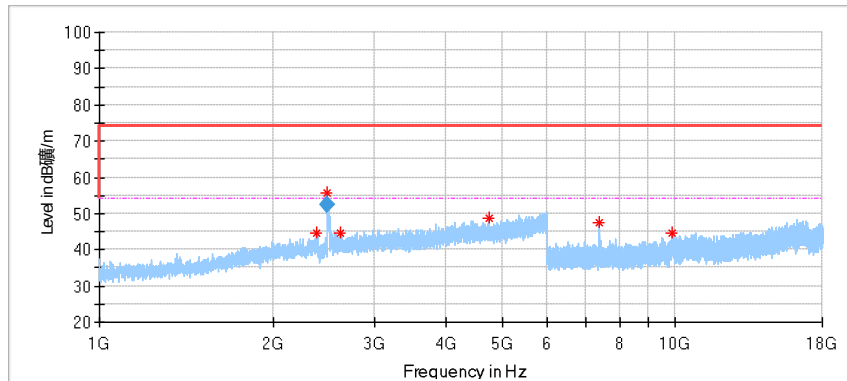
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2240.500000	44.53	74.00	29.47	150.0	H	312.0	-2.47
2391.500000	47.92	74.00	26.08	150.0	H	358.0	-2.06
4762.000000	47.49	74.00	26.51	150.0	H	179.0	3.79
5755.000000	49.94	74.00	24.06	150.0	H	38.0	6.47
7314.000000	46.06	74.00	27.94	150.0	H	356.0	7.03
9402.000000	43.78	74.00	30.22	150.0	H	207.0	8.91

Vertical



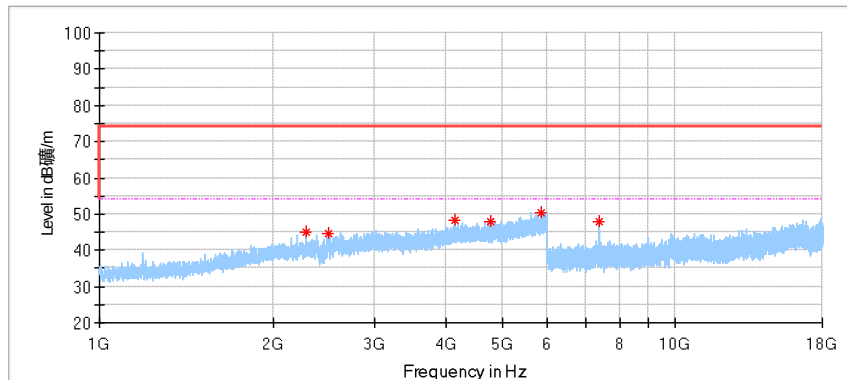
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2379.000000	43.60	74.00	30.40	150.0	V	349.0	-2.11
2475.000000	43.25	74.00	30.75	150.0	V	163.0	-1.76
4849.500000	48.18	74.00	25.82	150.0	V	93.0	4.00
5568.500000	51.61	74.00	22.39	150.0	V	233.0	5.73
7311.500000	46.29	74.00	27.71	150.0	V	356.0	7.03
9929.500000	43.87	74.00	30.13	150.0	V	302.0	10.18

11N-HT20-Ant 0+1_2462MHz
Horizontal:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2377.500000	44.68	74.00	29.32	150.0	H	359.0	-2.11
2491.500000	55.57	74.00	18.43	150.0	H	0.0	-1.76
2624.500000	44.44	74.00	29.56	150.0	H	275.0	-1.30
4741.000000	48.62	74.00	25.38	150.0	H	322.0	3.78
7388.500000	47.39	74.00	26.61	150.0	H	2.0	7.19
9848.500000	44.76	74.00	29.24	150.0	H	305.0	11.24
Frequency	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2491.500000	52.39	54.00	1.61	150.0	H	0.0	-1.76

Vertical

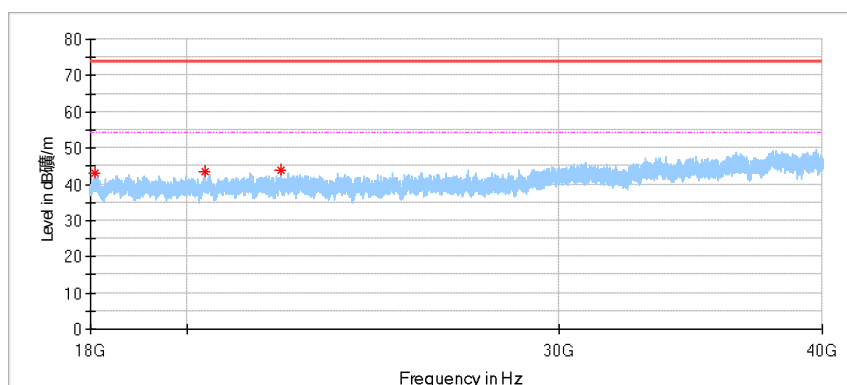


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2285.000000	44.97	74.00	29.03	150.0	V	280.0	-2.38
2497.500000	44.82	74.00	29.18	150.0	V	101.0	-1.76
4138.000000	48.24	74.00	25.76	150.0	V	9.0	2.71
4787.000000	47.91	74.00	26.09	150.0	V	69.0	3.79
5852.500000	50.51	74.00	23.49	150.0	V	155.0	6.73
7387.500000	47.96	74.00	26.04	150.0	V	2.0	7.19

Above 18GHz:

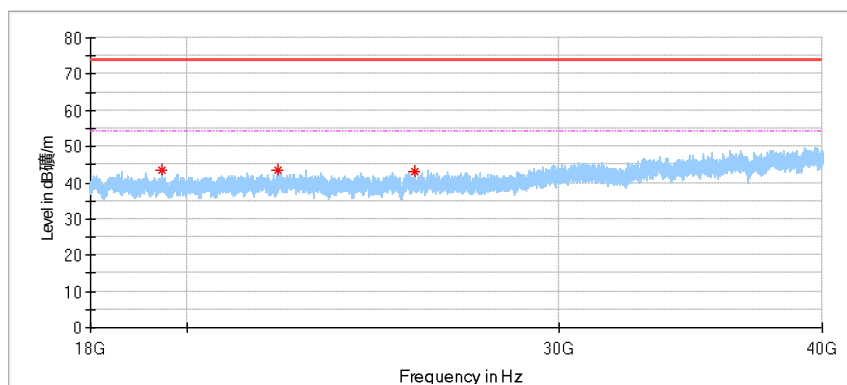
11N-HT20-Ant 0+1_2412MHz

Horizontal:



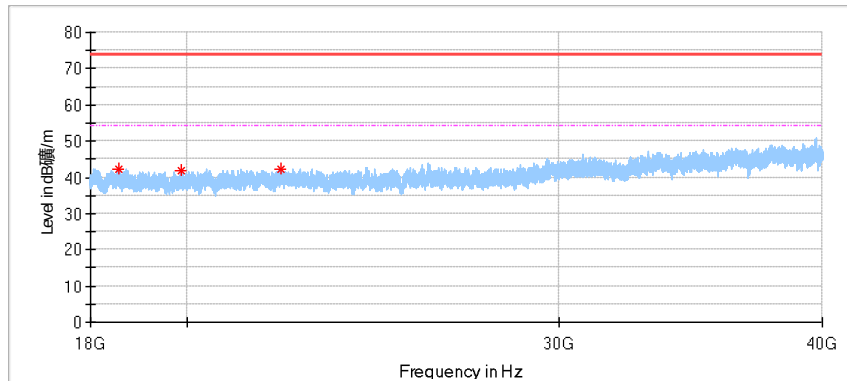
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18097.625000	43.25	74.00	30.75	150.0	H	65.0	-2.04
20390.437500	43.58	74.00	30.42	150.0	H	96.0	-0.69
22140.812500	43.88	74.00	30.12	150.0	H	126.0	0.73

Vertical



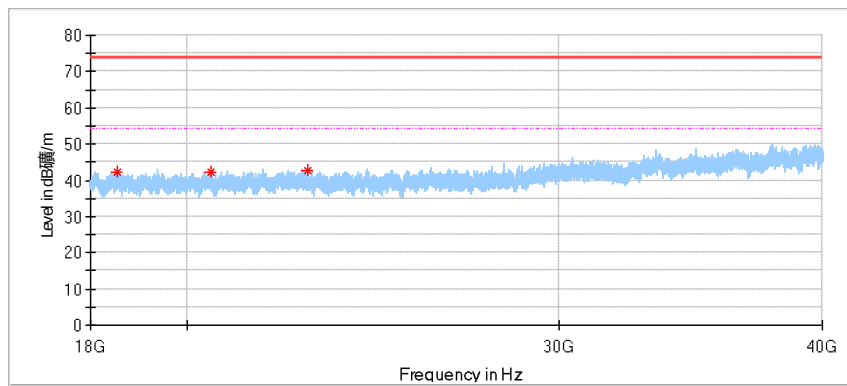
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19465.750000	43.67	74.00	30.33	150.0	V	203.0	-1.42
22096.812500	43.49	74.00	30.51	150.0	V	219.0	0.65
25628.500000	42.94	74.00	31.06	150.0	V	249.0	1.97

11N-HT20-Ant 0+1_2437MHz
Horizontal:



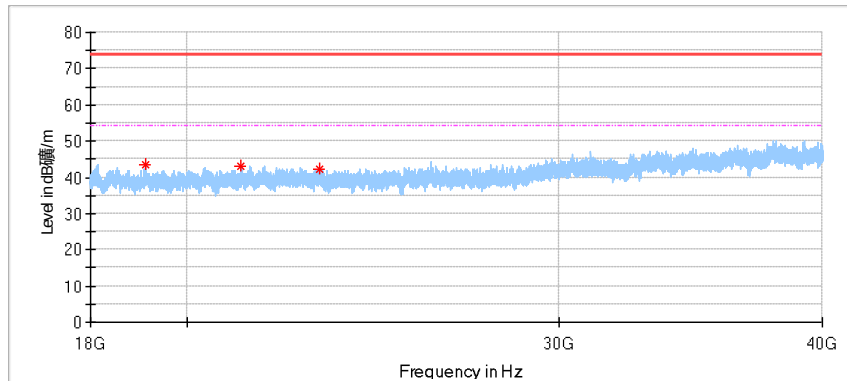
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18552.062500	42.10	74.00	31.90	150.0	H	187.0	-1.68
19882.375000	41.68	74.00	32.32	150.0	H	156.0	-1.27
22148.375000	42.24	74.00	31.76	150.0	H	34.0	0.74

Vertical



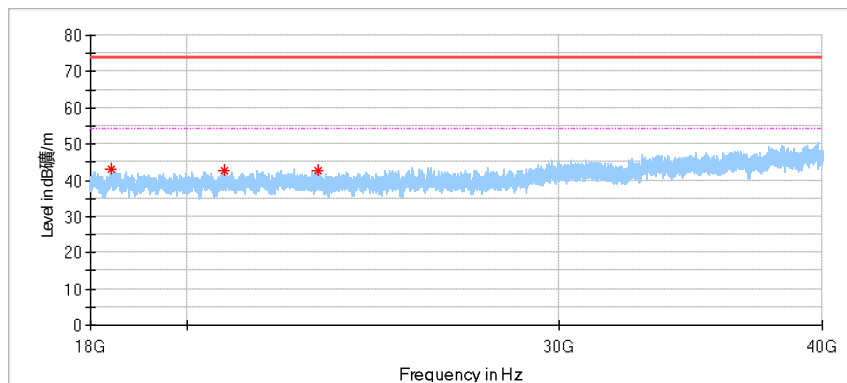
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18544.500000	42.33	74.00	31.67	150.0	V	0.0	-1.67
20537.562500	42.22	74.00	31.78	150.0	V	267.0	-0.48
22820.750000	42.80	74.00	31.20	150.0	V	282.0	1.00

11N-HT20-Ant 0+1_2462MHz
Horizontal:



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19106.187500	43.46	74.00	30.54	150.0	H	353.0	-1.78
21223.000000	43.04	74.00	30.96	150.0	H	51.0	0.28
23099.187500	42.11	74.00	31.89	150.0	H	297.0	1.01

Vertical



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18420.750000	42.93	74.00	31.07	150.0	V	51.0	-1.91
20821.500000	42.83	74.00	31.17	150.0	V	36.0	-0.12
23068.250000	42.78	74.00	31.22	150.0	V	356.0	1.05

10 Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2022-6-4
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2022-2-2
Wave Guide Antenna	ETS	3117	68-4-80-19-001	2022-5-24
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	2021-8-5
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	2021-10-25
Pre-amplifier	Rohde & Schwarz	SCU 08F2	68-4-29-19-004	2021-10-25
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	2021-7-30
3m Semi-anechoic chamber	TDK	9X6X6	----	2022-12-29

Conducted Emission Test

Description	Manufacturer	Model no.	Serial no.	cal. due date
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	2022-6-4
LISN	Rohde & Schwarz	ENV4200	100249	2022-6-5
Attenuator	Shanghai Huaxiang	TS2-26-3	080928189	2022-6-5
Test software	Rohde & Schwarz	EMC32	Version9.15.00	N/A

Conducted RF Test System

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Signal Analyzer	Rohde & Schwarz	FSV40	101030	2022-6-3
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157	101226/100851	2022-6-3
Power Splitter	Weinschel	1580	SC319	2022-6-3
Test software	Tonscend	System for BT/WIFI	Version 2.5.77.0418	N/A

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)	3.62dB
Uncertainty for Radiated Spurious Emission 25MHz-3000MHz	Horizontal: 4.70dB; Vertical: 4.67dB;
Uncertainty for Radiated Spurious Emission 3000MHz-18000MHz	Horizontal: 4.65dB; Vertical: 4.63dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 5.05dB; Vertical: 5.04dB;
Uncertainty for Conducted RF test with TS 8997	RF Power Conducted: 1.16dB Frequency test involved: 0.6×10^{-7} or 1%
Uncertainty Evaluation for Humidity	0.936%
Uncertainty Evaluation for Temperature	0.195 °C