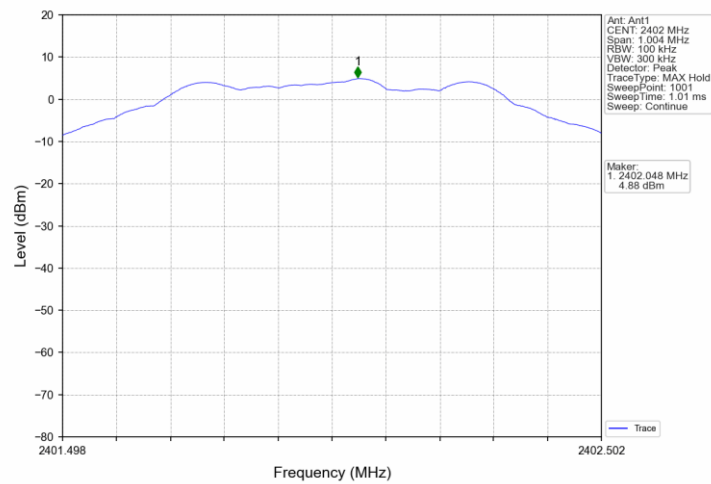
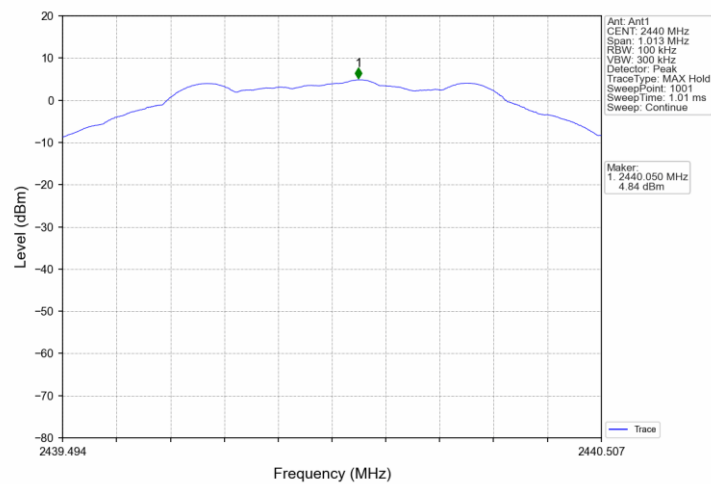


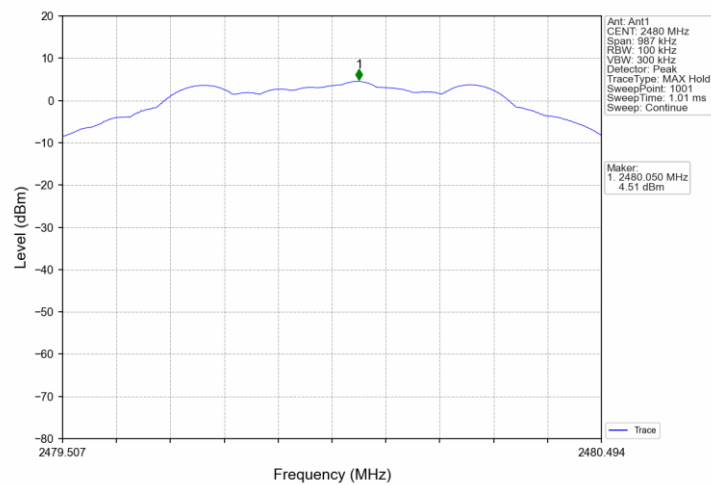
1M_LCH_2402MHz_Ant2_NTNV



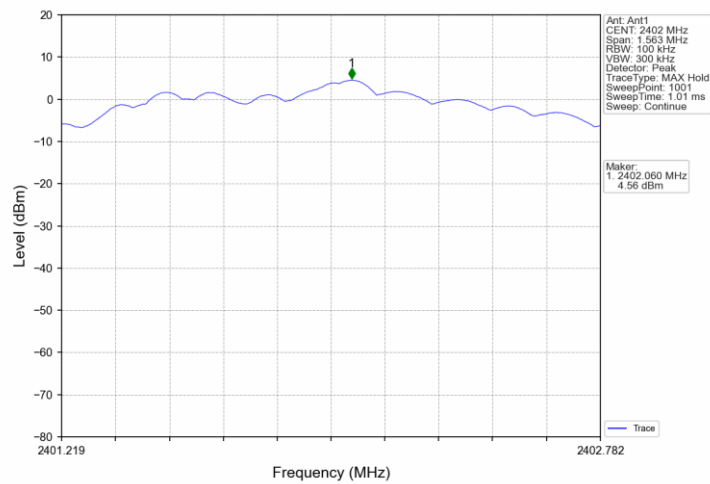
1M_MCH_2440MHz_Ant2_NTNV



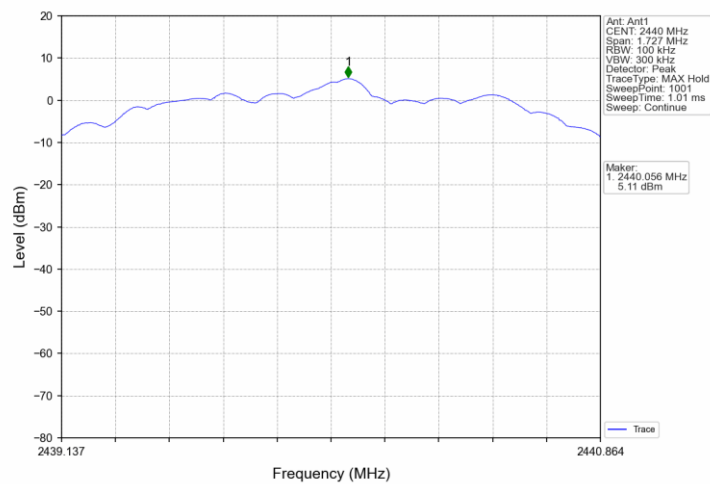
1M_HCH_2480MHz_Ant2_NTNV



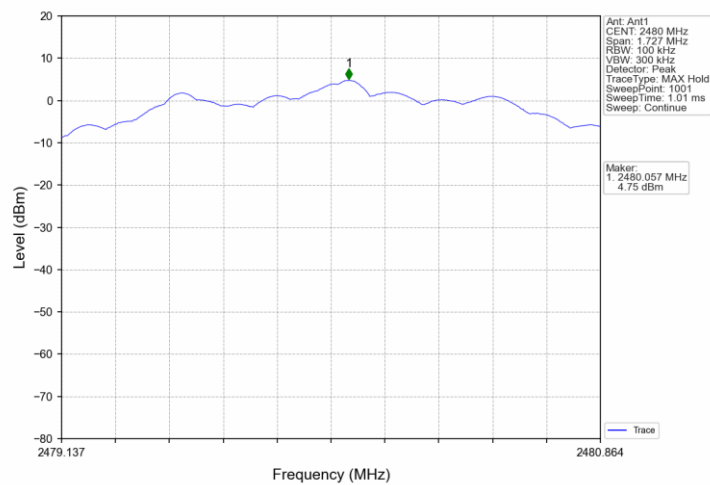
2M_LCH_2402MHz_Ant2_NTNV



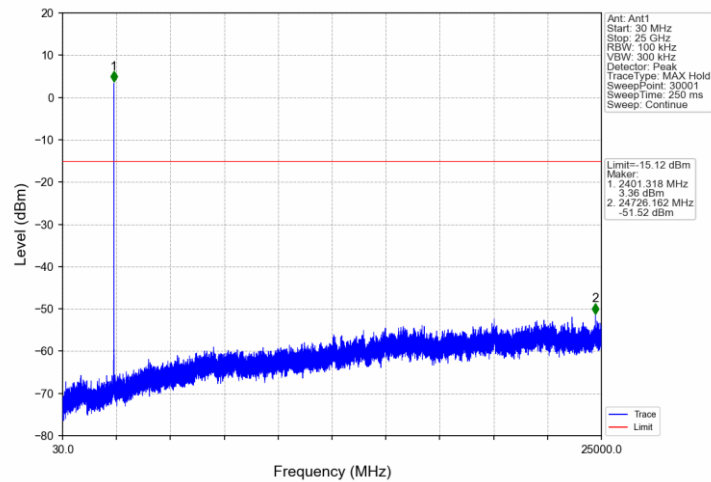
2M_MCH_2440MHz_Ant2_NTNV



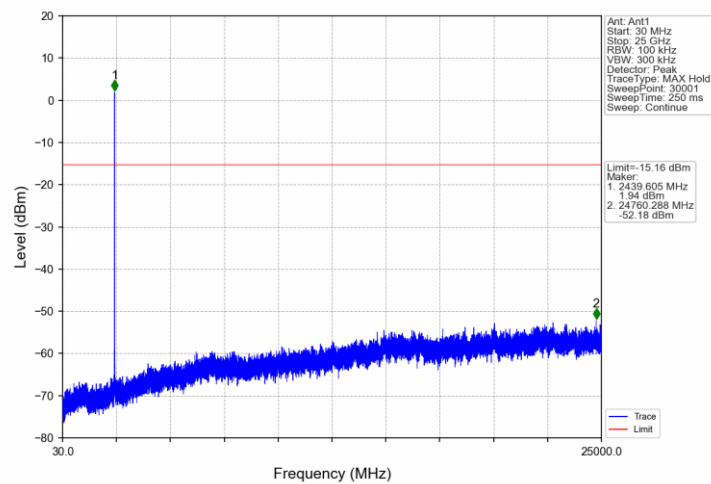
2M_HCH_2480MHz_Ant2_NTNV



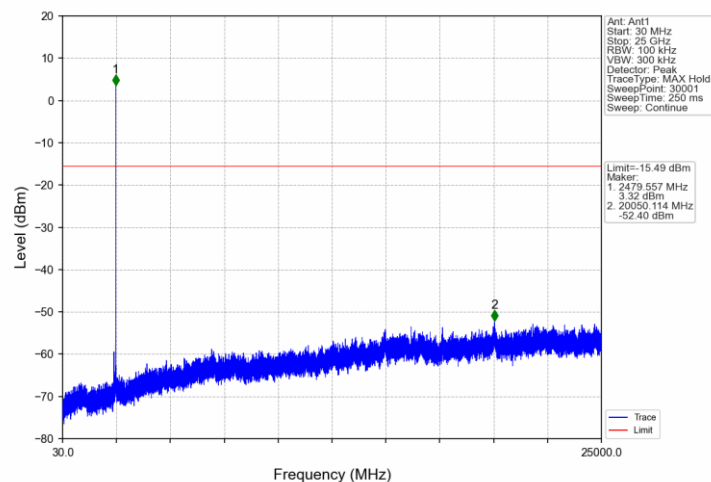
1M_LCH_2402MHz_Ant2_NTNV



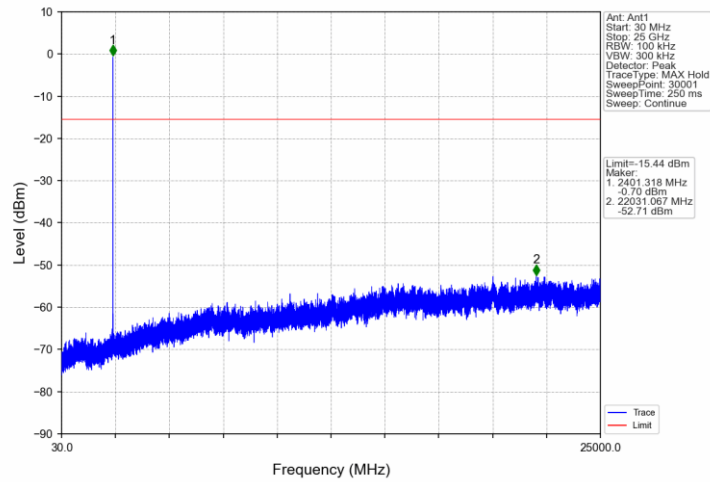
1M_MCH_2440MHz_Ant2_NTNV



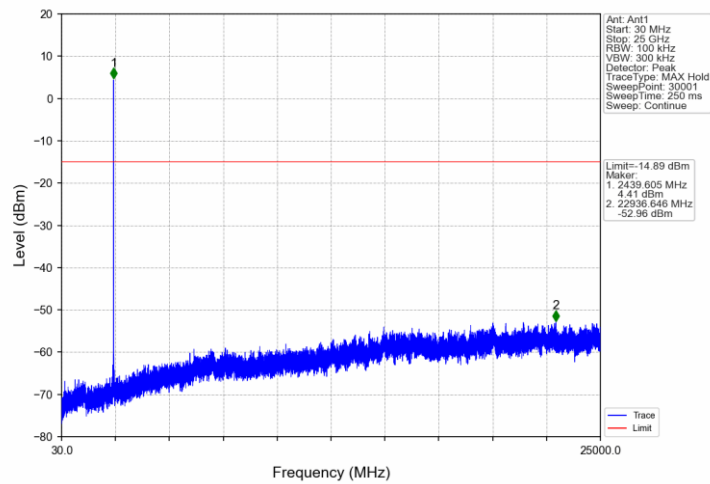
1M_HCH_2480MHz_Ant2_NTNV



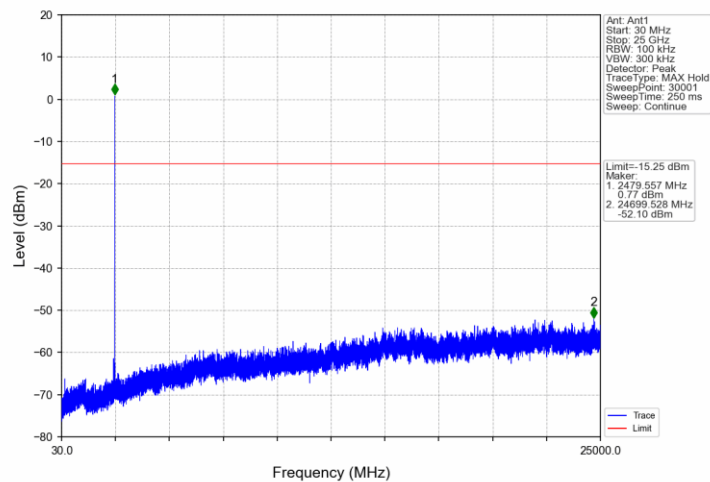
2M_LCH_2402MHz_Ant2_NTNV



2M_MCH_2440MHz_Ant2_NTNV



2M_HCH_2480MHz_Ant2_NTNV



9.6 Band Edge

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. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
5. The level displayed must comply with the limit specified in this Section. Submit these plots.
6. Repeat above procedures until all frequencies measured were complete.

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under § 15.247(b)(3) and RSS-247 section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB.

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

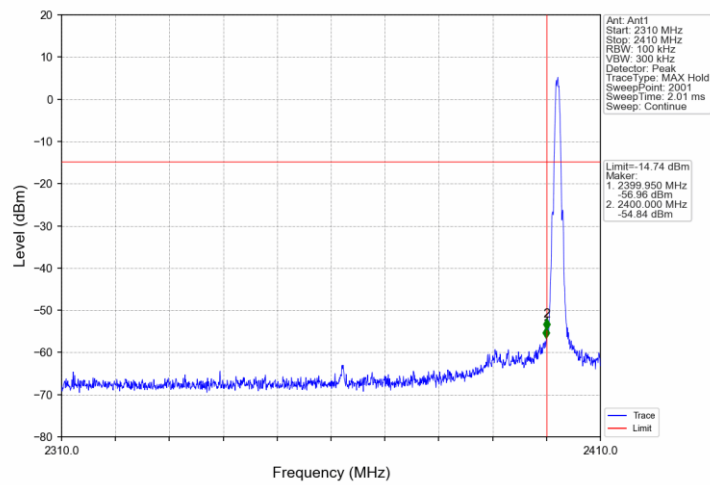
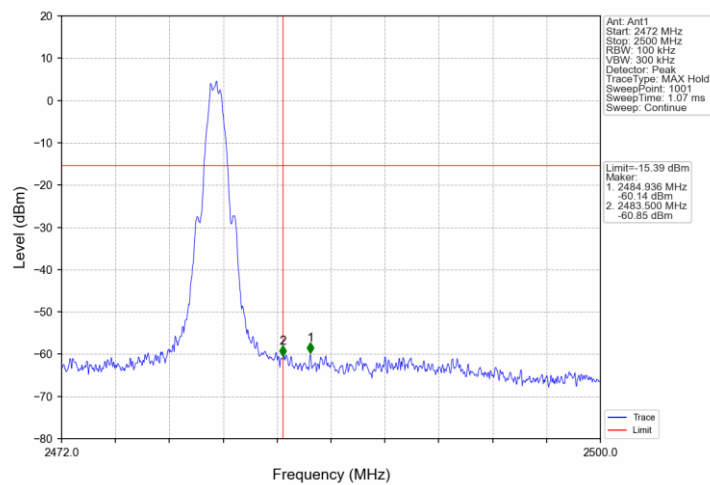
Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	5.26	-14.74	Pass
		2440	1	5.06	-14.94	Pass
		2480	1	4.61	-15.39	Pass
2M	SISO	2402	1	4.90	-15.10	Pass
		2440	1	4.97	-15.03	Pass
		2480	1	4.54	-15.46	Pass

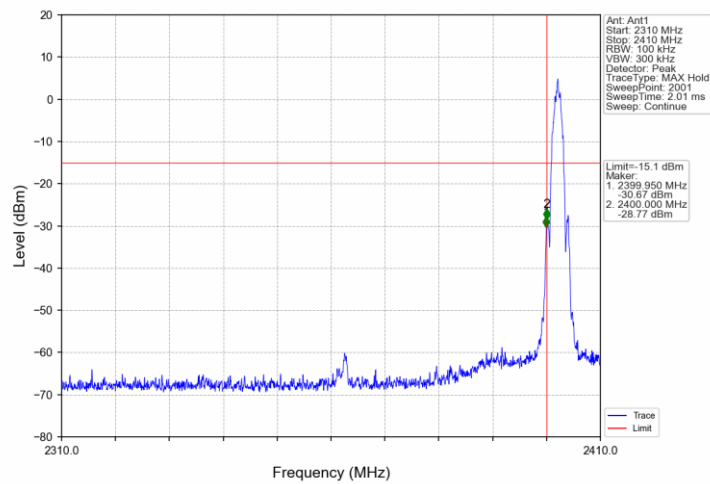
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	2	4.88	-15.12	Pass
		2440	2	4.84	-15.16	Pass
		2480	2	4.51	-15.49	Pass
2M	SISO	2402	2	4.56	-15.44	Pass
		2440	2	5.11	-14.89	Pass
		2480	2	4.75	-15.25	Pass

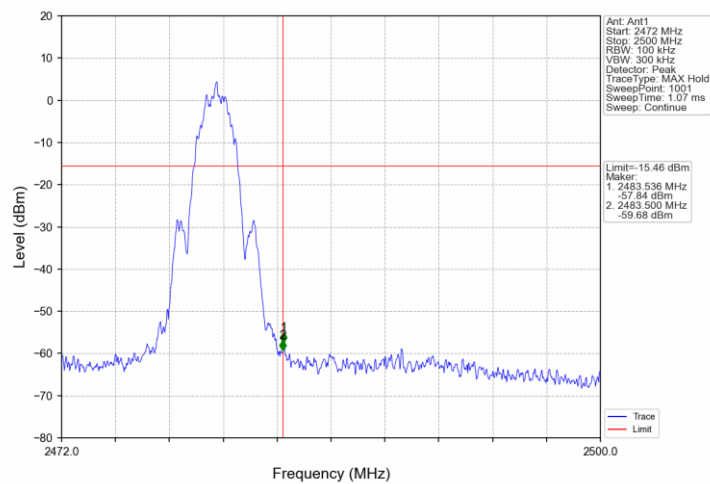
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Band edge testing**1M LCH 2402MHz Ant1 NTV****1M HCH 2480MHz Ant1 NTV**

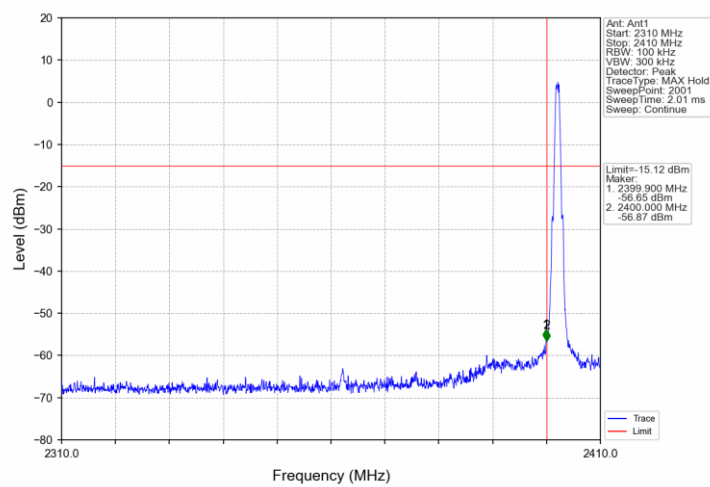
2M_LCH_2402MHz_Ant1_NTNV



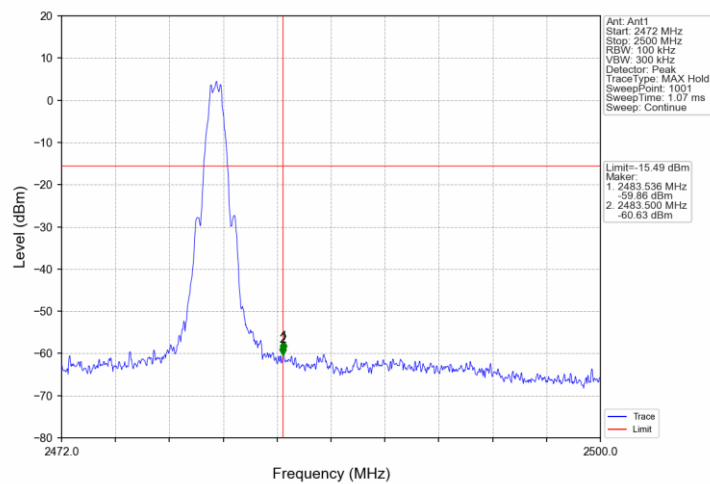
2M_HCH_2480MHz_Ant1_NTNV



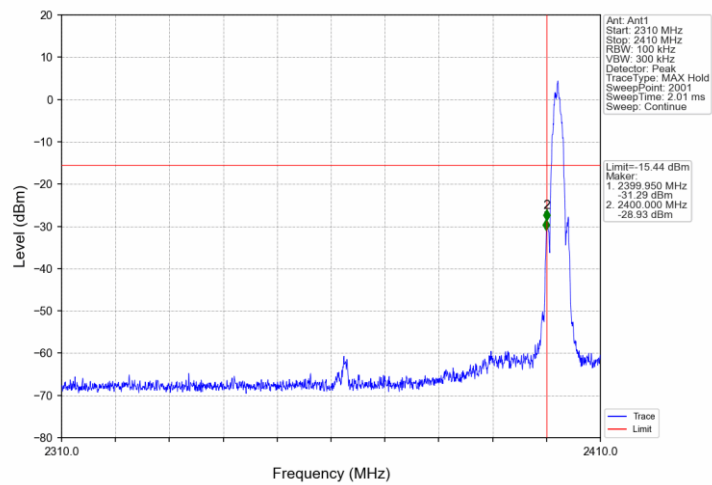
1M_LCH_2402MHz_Ant2_NTNV



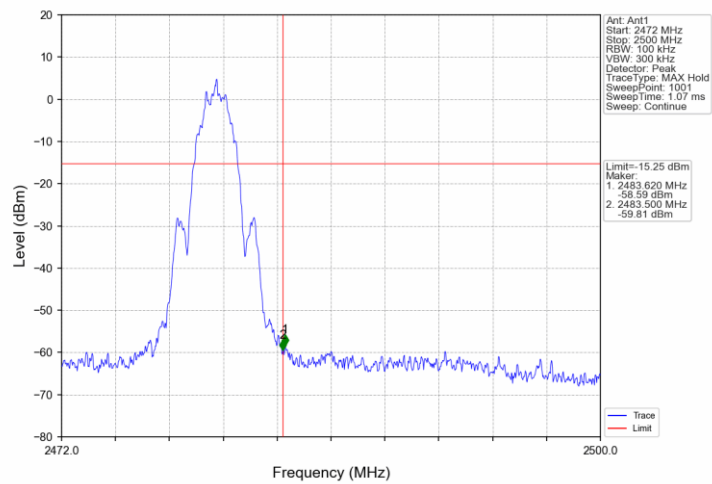
1M_HCH_2480MHz_Ant2_NTNV



2M_LCH_2402MHz_Ant2_NTNV



2M_HCH_2480MHz_Ant2_NTNV



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 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3. 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.
4. 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.
5. Use the following spectrum analyzer settings According to C63.10:

For Below 1GHz

Use the following test receiver 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 = $[3 \times \text{RBW}]$.

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

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 (AV) at frequency above 1GHz.

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under § 15.247(b)(3) and RSS 247 section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in § 15.209(a) and RSS-Gen is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a) and RSS-Gen section 8.9, must also comply with the radiated emission limits specified in § 15.209(a) and RSS-Gen section 8.10.

Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength dB $\mu\text{V/m}$	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	AV	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

Note 1: Limit 3m(dB $\mu\text{V/m}$)=Limit 300m(dB $\mu\text{V/m}$)+40Log(300m/3m) (Below 30MHz)

Note 2: Limit 3m(dB $\mu\text{V/m}$)=Limit 30m(dB $\mu\text{V/m}$)+40Log(30m/3m) (Below 30MHz)

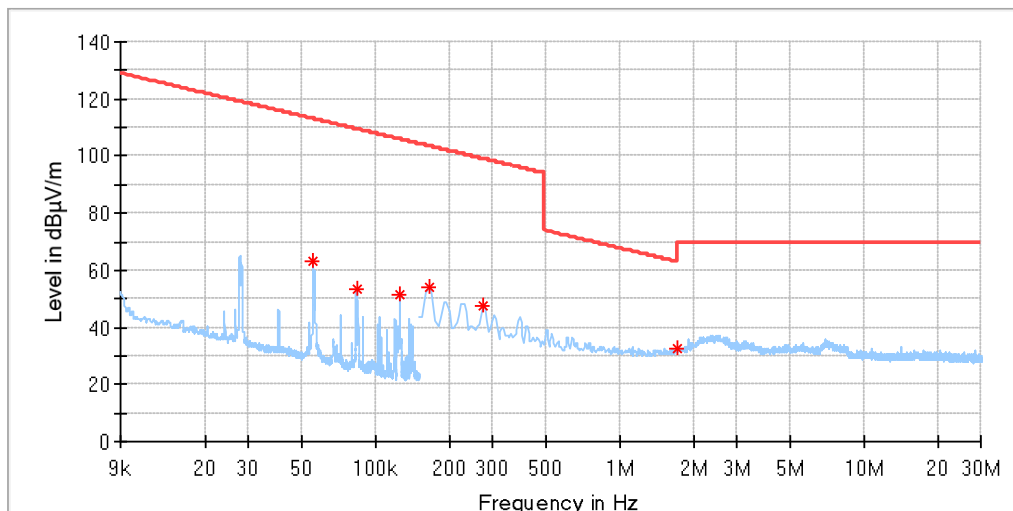
According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Spurious radiated emissions for transmitter

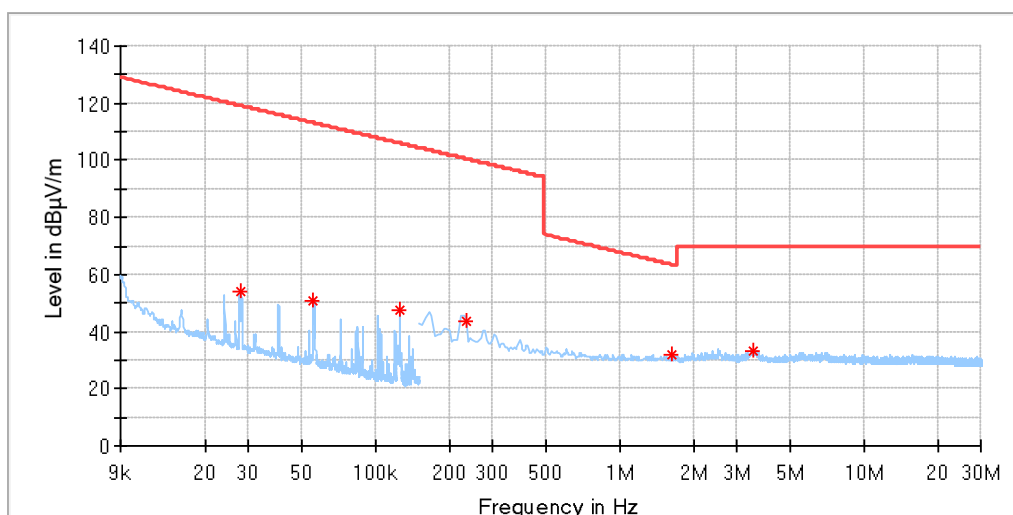
Only the worst case (BLE_2Mbps) test result is listed in the report.

Transmitting spurious emission test result as below:

BLE_2Mbps_2402_ANT1 (9kHz-30MHz)

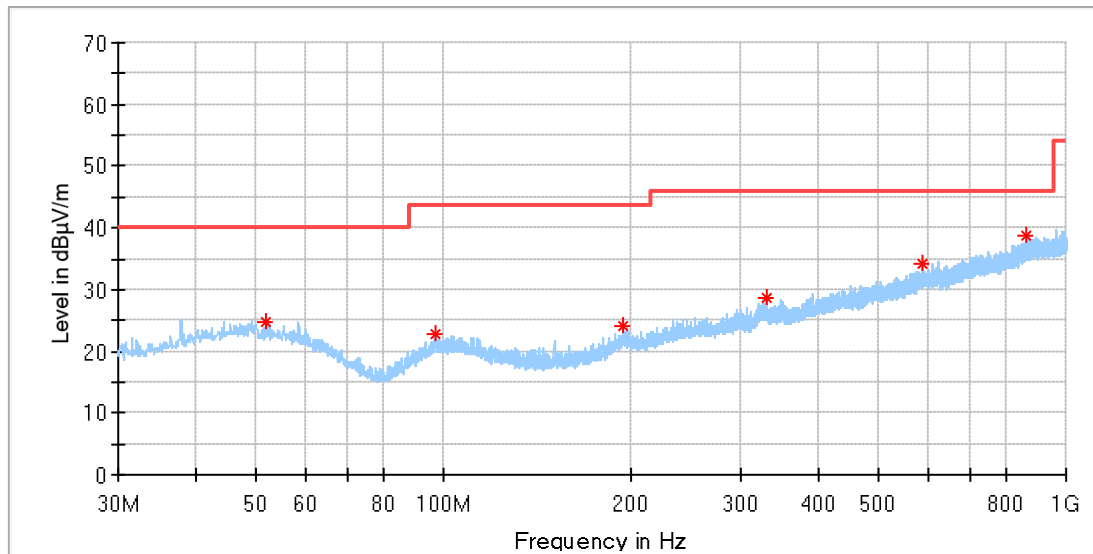


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.055577	62.86	113.06	50.19	H	136.0	19.92
0.083307	53.38	109.52	56.13	H	200.0	19.92
0.124620	51.27	105.99	54.72	H	264.0	19.92
0.164925	54.06	103.54	49.48	H	0.0	19.89
0.274375	47.57	99.08	51.51	H	0.0	19.90
1.702200	32.36	63.01	30.65	H	322.0	20.02

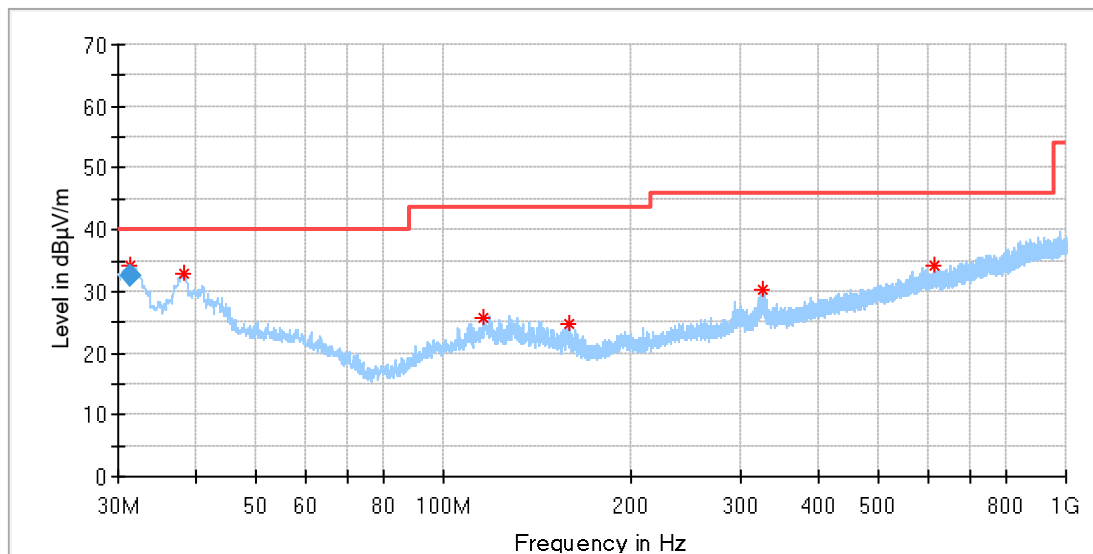


Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.027753	53.84	119.14	65.30	V	278.0	19.88
0.055624	50.99	113.05	62.06	V	270.0	19.92
0.124573	47.27	105.99	58.72	V	9.0	19.92
0.234575	43.46	100.45	56.99	V	196.0	19.88
1.642500	31.98	63.33	31.35	V	179.0	20.01
3.528025	32.90	70.00	37.10	V	22.0	20.13

BLE_2Mbps_2402_ANT1 (30MHz-1GHz)



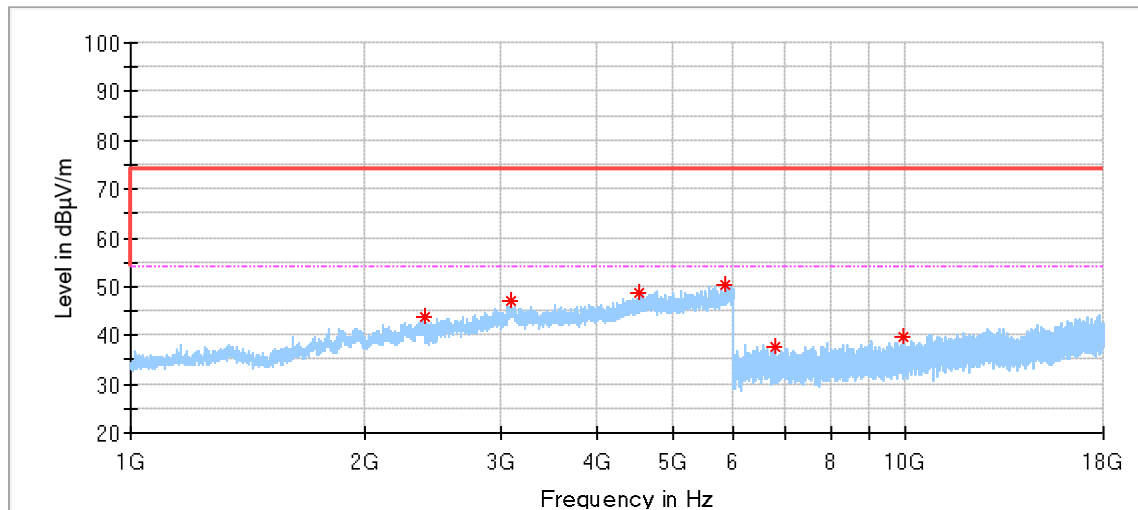
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
51.825000	24.85	40.00	15.15	200.0	H	218.0	20.89
96.687500	22.80	43.50	20.70	200.0	H	0.0	18.32
194.111875	24.03	43.50	19.47	100.0	H	219.0	18.89
330.154375	28.71	46.00	17.29	100.0	H	338.0	22.08
588.416875	34.14	46.00	11.86	100.0	H	167.0	27.66
863.290625	38.63	46.00	7.37	100.0	H	227.0	31.67



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
38.305625	32.80	40.00	7.20	100.0	V	107.0	19.20
115.905625	25.86	43.50	17.64	100.0	V	39.0	17.47
159.555625	24.69	43.50	18.81	100.0	V	253.0	15.82
324.819375	30.25	46.00	15.75	200.0	V	305.0	21.92
612.606250	34.13	46.00	11.87	200.0	V	253.0	28.02

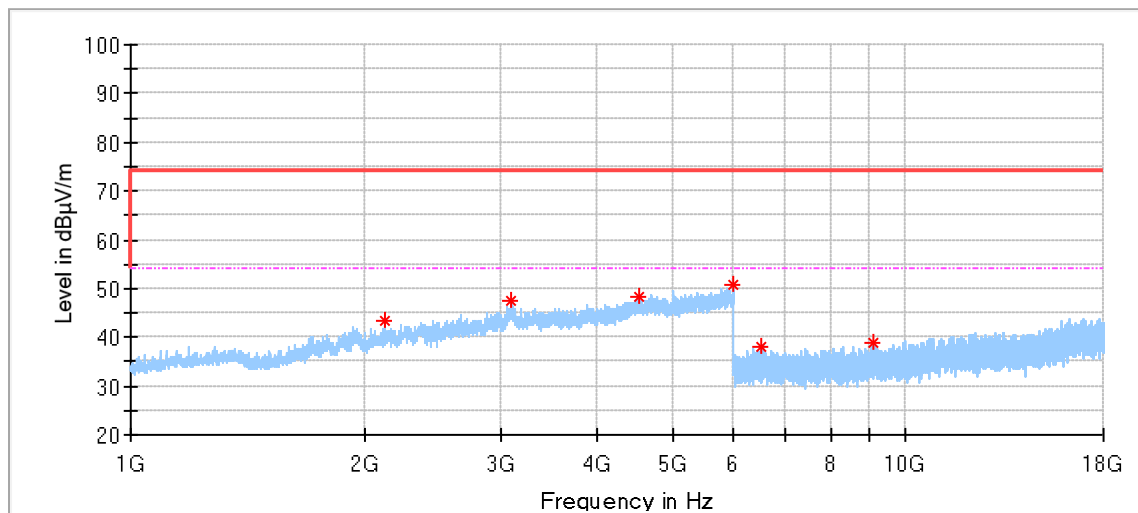
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.455000	32.40	40.00	7.60	100.0	V	193.0	16.91

BLE_2Mbps_2402_ANT1 (1GHz -18GHz)



Critical Freqs

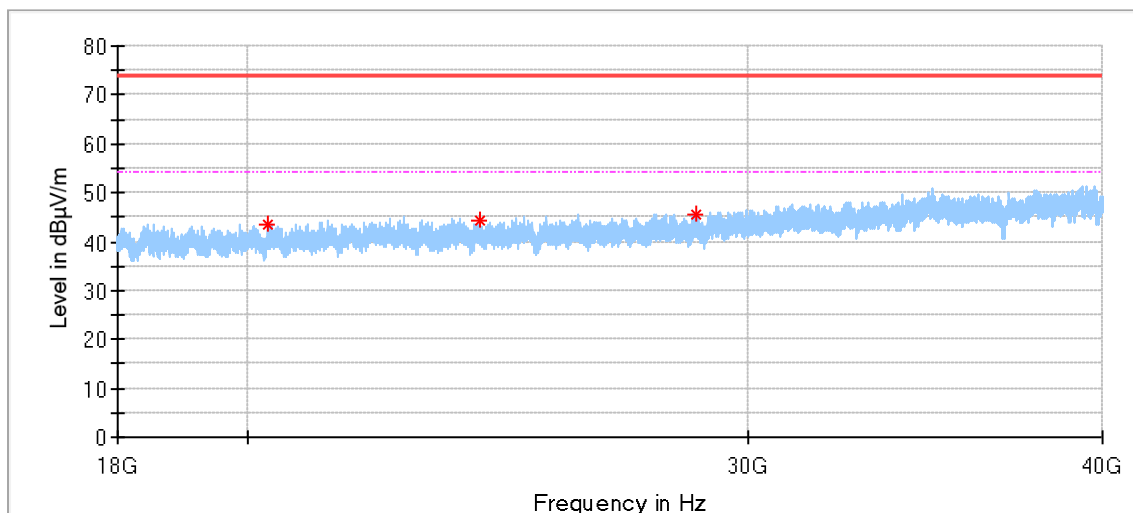
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2392.000000	43.82	74.00	30.18	150.0	H	339.0	-2.48
3099.000000	47.28	74.00	26.72	150.0	H	0.0	1.54
4528.000000	48.59	74.00	25.41	150.0	H	175.0	3.59
5859.000000	50.55	74.00	23.45	150.0	H	203.0	6.65
6796.500000	37.71	74.00	36.29	150.0	H	356.0	5.24
9920.000000	39.84	74.00	34.16	150.0	H	72.0	8.35



Critical Freqs

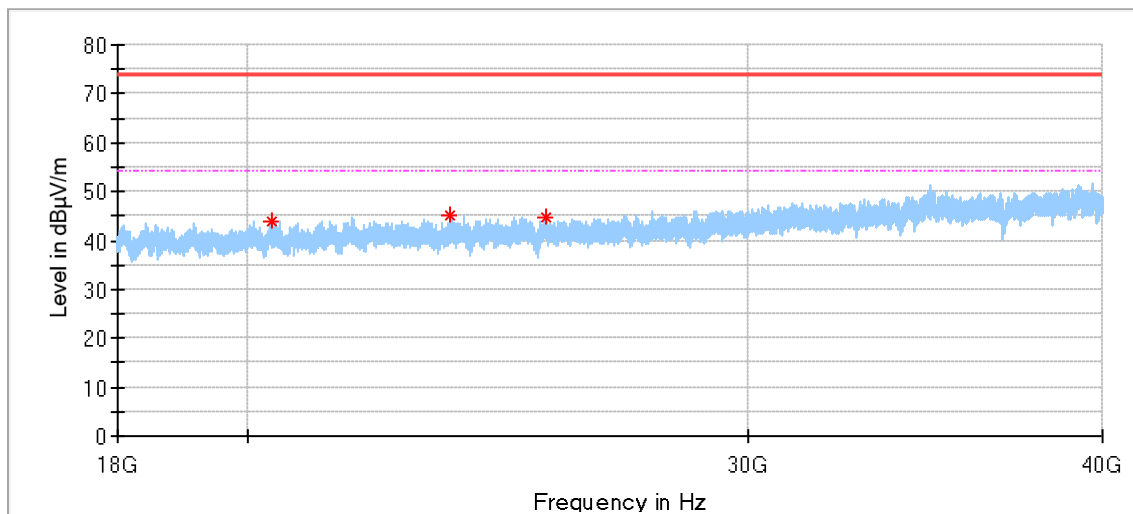
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2123.000000	43.58	74.00	30.42	150.0	V	317.0	-3.95
3101.500000	47.37	74.00	26.63	150.0	V	232.0	1.53
4539.500000	48.42	74.00	25.58	150.0	V	232.0	3.66
5998.500000	50.68	74.00	23.32	150.0	V	262.0	7.14
6513.000000	38.02	74.00	35.98	150.0	V	269.0	5.29
9089.000000	38.98	74.00	35.02	150.0	V	184.0	7.85

BLE_2Mbps_2402_ANT1 (18GHz -40GHz)



Critical Freqs

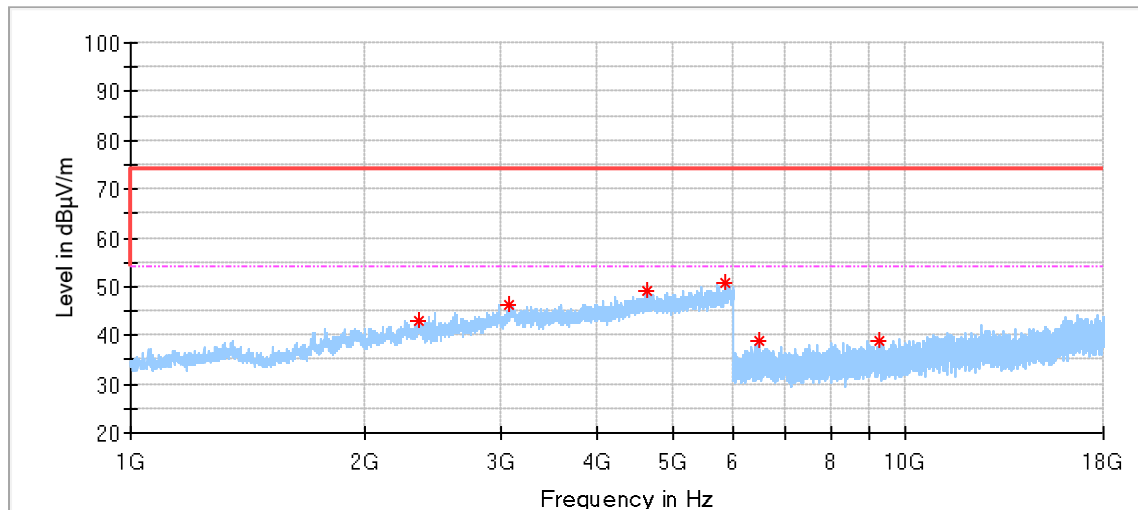
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20332.000000	43.30	74.00	30.70	150.0	H	93.0	0.0
24133.187500	44.33	74.00	29.67	150.0	H	170.0	2.6
28776.562500	45.53	74.00	28.47	150.0	H	246.0	3.8



Critical Freqs

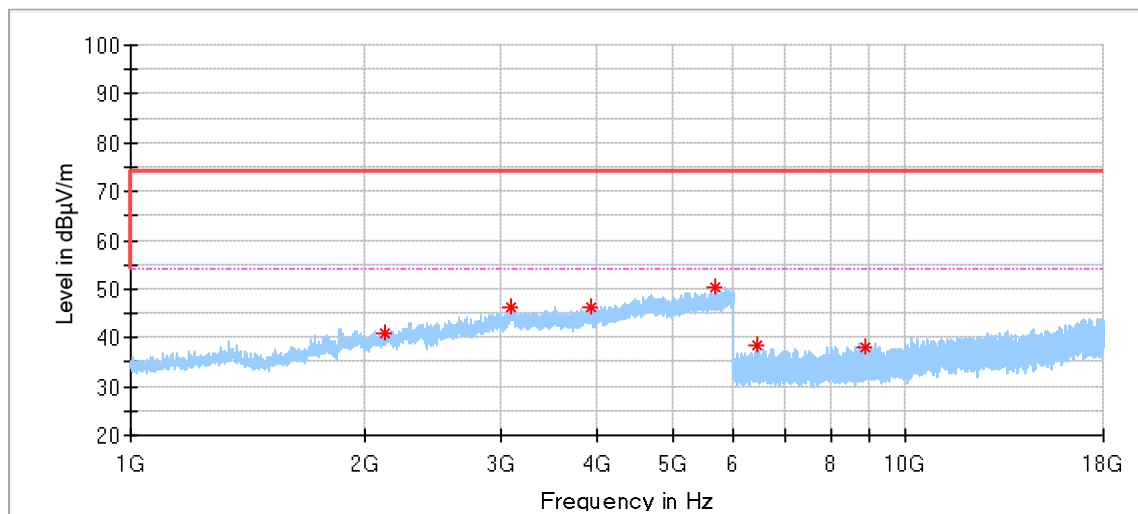
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20395.250000	43.74	74.00	30.26	150.0	V	207.0	0.1
23574.250000	45.11	74.00	28.89	150.0	V	207.0	2.2
25475.875000	44.89	74.00	29.11	150.0	V	31.0	3.5

BLE_2Mbps_2440_ANT1 (1GHz -18GHz)



Critical Freqs

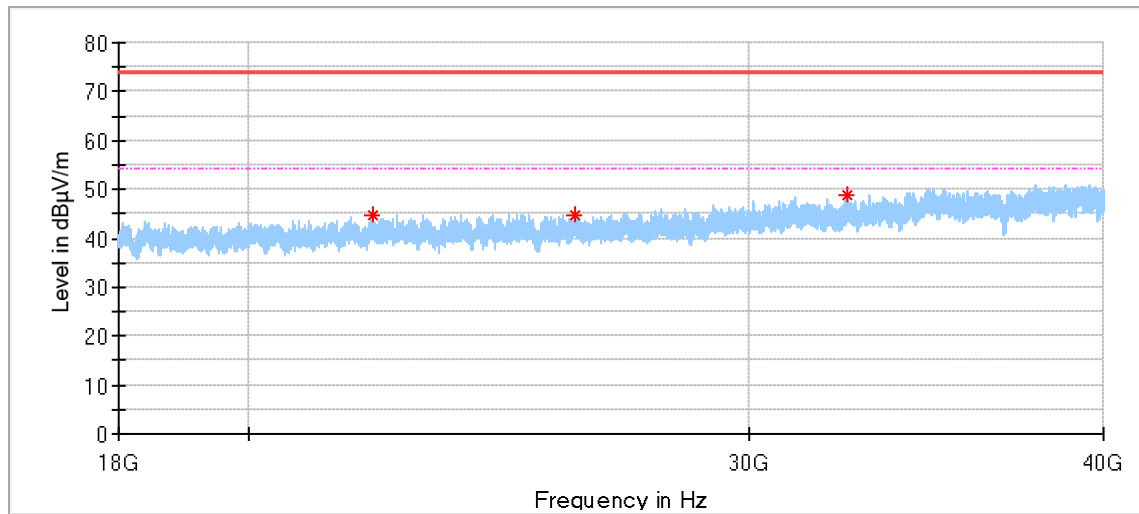
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2354.500000	42.92	74.00	31.08	150.0	H	232.0	-2.74
3078.500000	46.21	74.00	27.79	150.0	H	273.0	0.74
4645.000000	48.97	74.00	25.03	150.0	H	286.0	4.29
5849.500000	50.73	74.00	23.27	150.0	H	300.0	6.58
6462.500000	38.73	74.00	35.27	150.0	H	181.0	5.09
9232.500000	38.69	74.00	35.31	150.0	H	208.0	7.79



Critical_Freqs

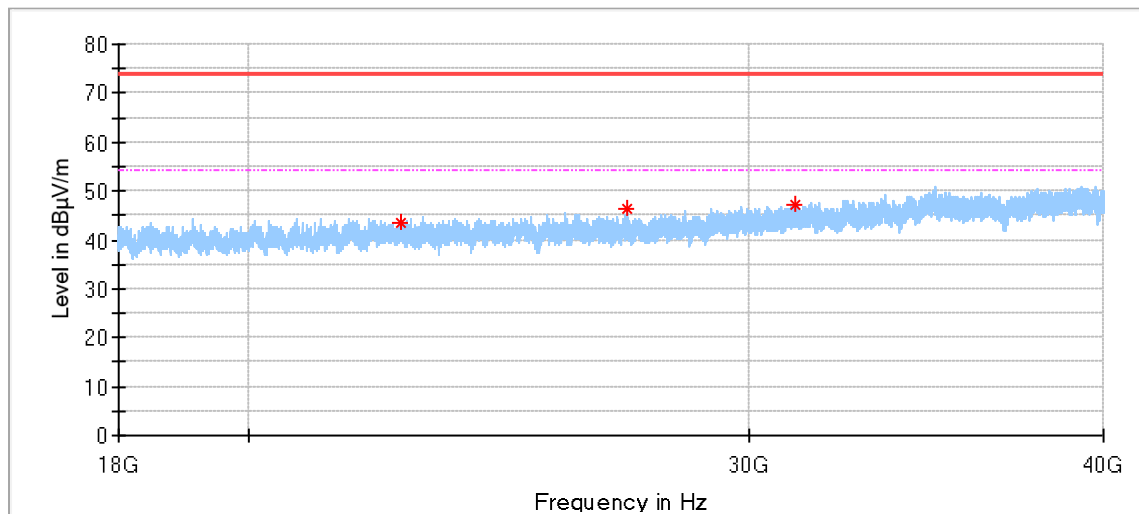
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2129.500000	41.07	74.00	32.93	150.0	V	66.0	-3.87
3090.500000	46.12	74.00	27.88	150.0	V	312.0	1.21
3933.000000	46.41	74.00	27.59	150.0	V	0.0	1.22
5690.500000	50.26	74.00	23.74	150.0	V	13.0	5.88
6431.000000	38.35	74.00	35.65	150.0	V	94.0	5.03
8885.000000	38.18	74.00	35.82	150.0	V	238.0	7.57

BLE_2Mbps_2440_ANT1 (18GHz -40GHz)



Critical Freqs

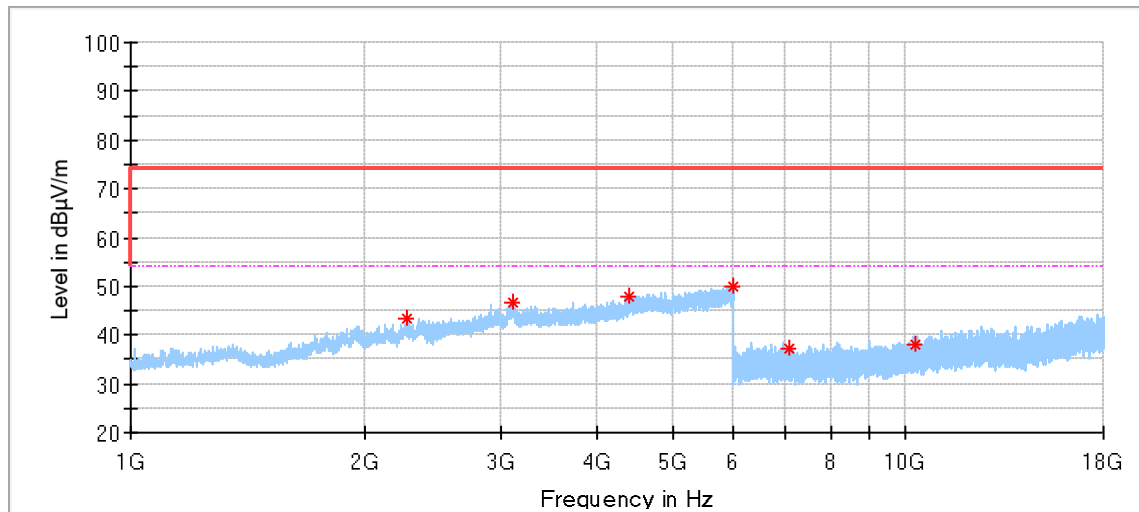
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
22127.062500	44.90	74.00	29.10	150.0	H	63.0	2.0
26045.125000	44.76	74.00	29.24	150.0	H	78.0	3.5
32495.937500	48.63	74.00	25.37	150.0	H	295.0	5.3



Critical Freqs

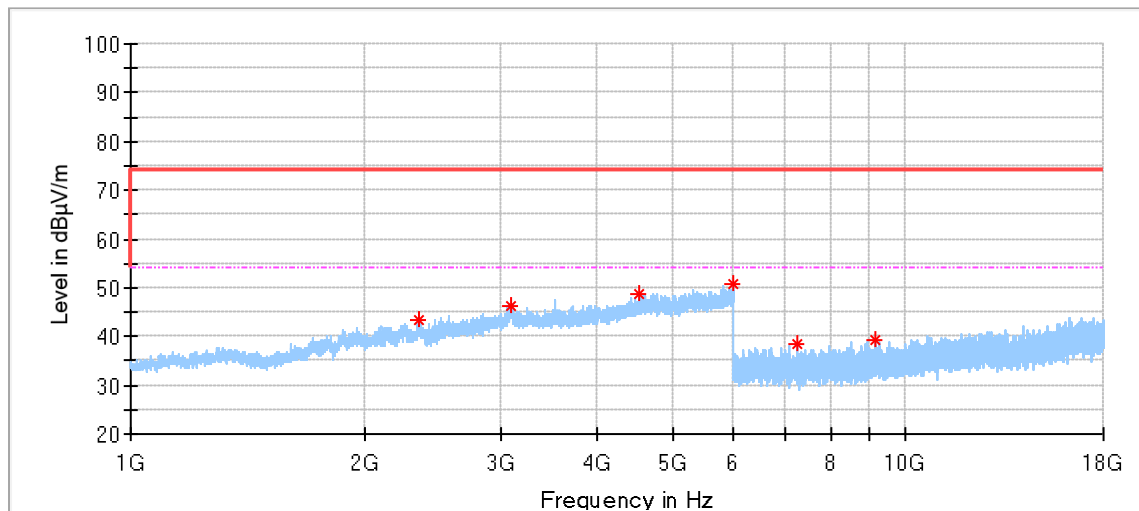
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
22614.500000	43.34	74.00	30.66	150.0	V	99.0	2.3
27166.437500	46.24	74.00	27.76	150.0	V	347.0	3.9
31147.062500	47.09	74.00	26.91	150.0	V	254.0	4.0

BLE_2Mbps_2480_ANT1 (1GHz -18GHz)



Critical Freqs

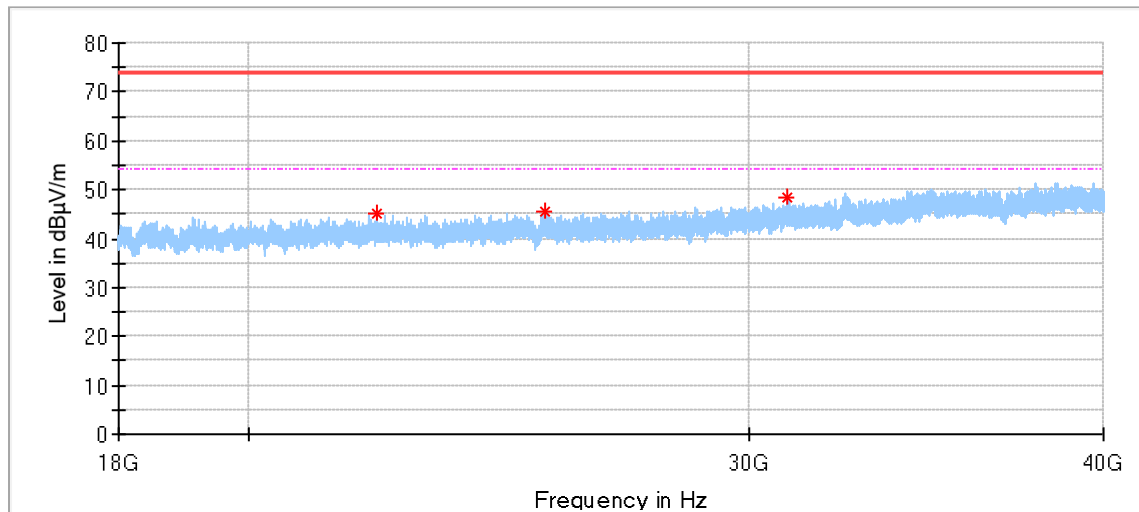
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2268.500000	43.49	74.00	30.51	150.0	H	218.0	-3.08
3113.500000	46.61	74.00	27.39	150.0	H	68.0	1.08
4409.500000	47.75	74.00	26.25	150.0	H	54.0	3.08
5990.000000	49.92	74.00	24.08	150.0	H	163.0	7.09
7067.000000	37.34	74.00	36.66	150.0	H	2.0	5.26
10291.500000	38.13	74.00	35.87	150.0	H	240.0	8.80



Critical Freqs

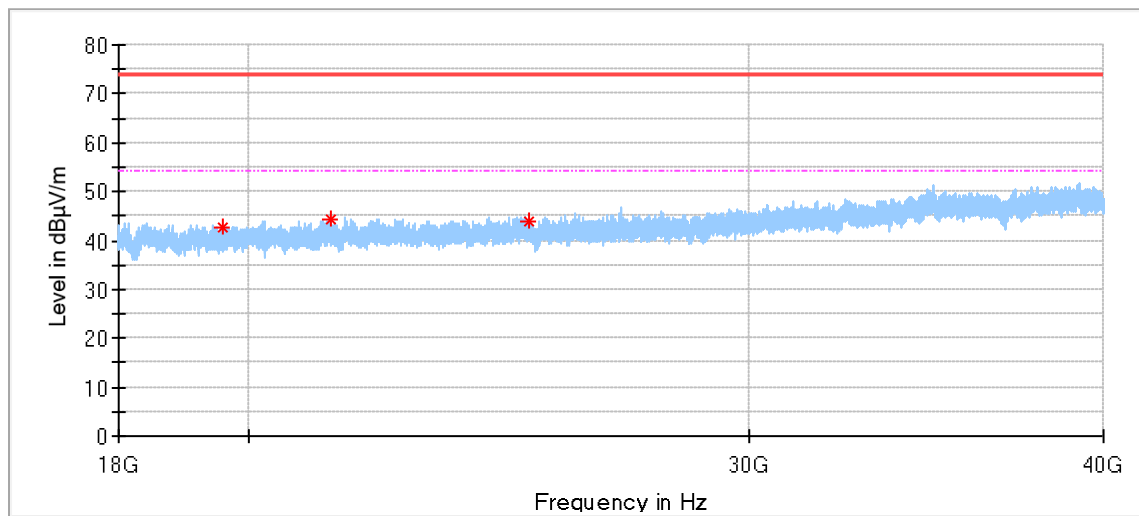
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2235.600000	43.48	74.00	30.52	150.0	V	191.0	-2.73
3103.500000	46.46	74.00	27.54	150.0	V	358.0	1.46
4537.500000	48.84	74.00	25.16	150.0	V	109.0	3.64
5979.500000	50.61	74.00	23.39	150.0	V	290.0	7.06
7228.000000	38.32	74.00	35.68	150.0	V	72.0	5.36
9158.500000	39.25	74.00	34.75	150.0	V	240.0	7.81

BLE_2Mbps_2480_ANT1 (18GHz -40GHz)



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
22204.062500	45.03	74.00	28.97	150.0	H	65.0	2.1
25418.125000	45.48	74.00	28.52	150.0	H	156.0	3.5
30959.375000	48.27	74.00	25.73	150.0	H	356.0	4.0

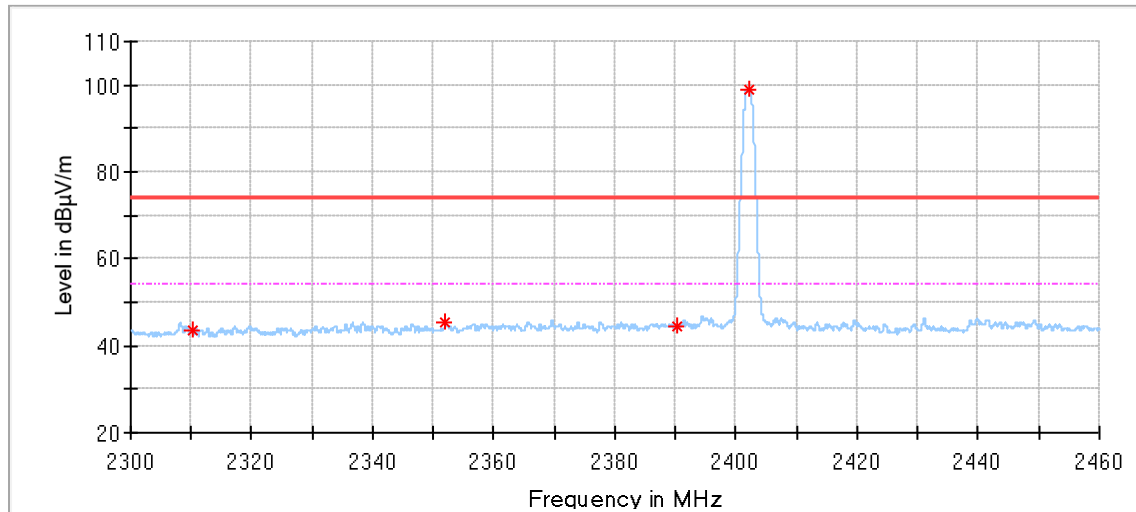


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19577.125000	42.53	74.00	31.47	150.0	V	4.0	-0.7
21370.812500	44.35	74.00	29.65	150.0	V	219.0	1.3
25096.375000	43.71	74.00	30.29	150.0	V	311.0	3.5

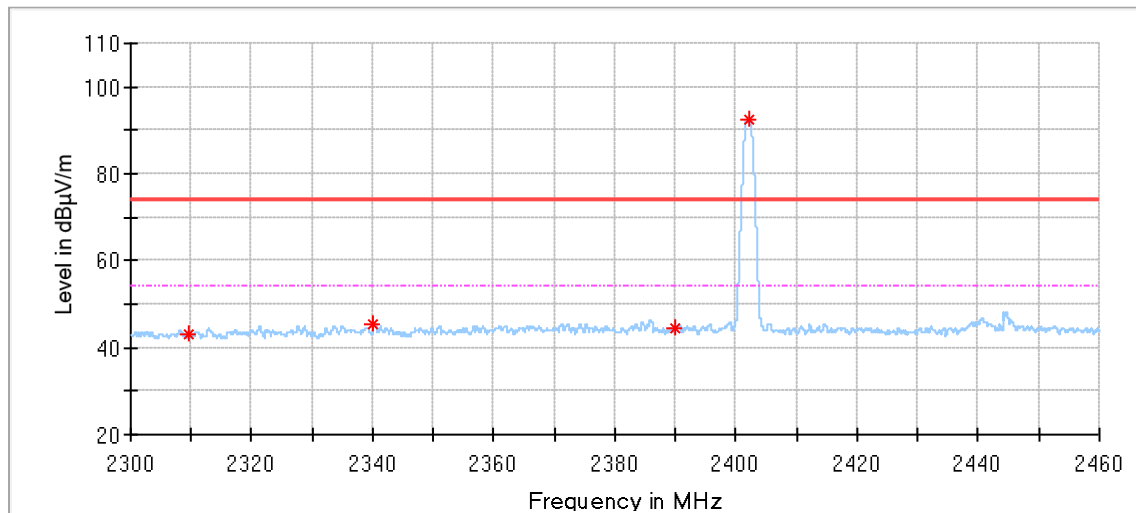
Restricted-band band-edge

BLE_1Mbps_2402_ANT1



Critical Freqs

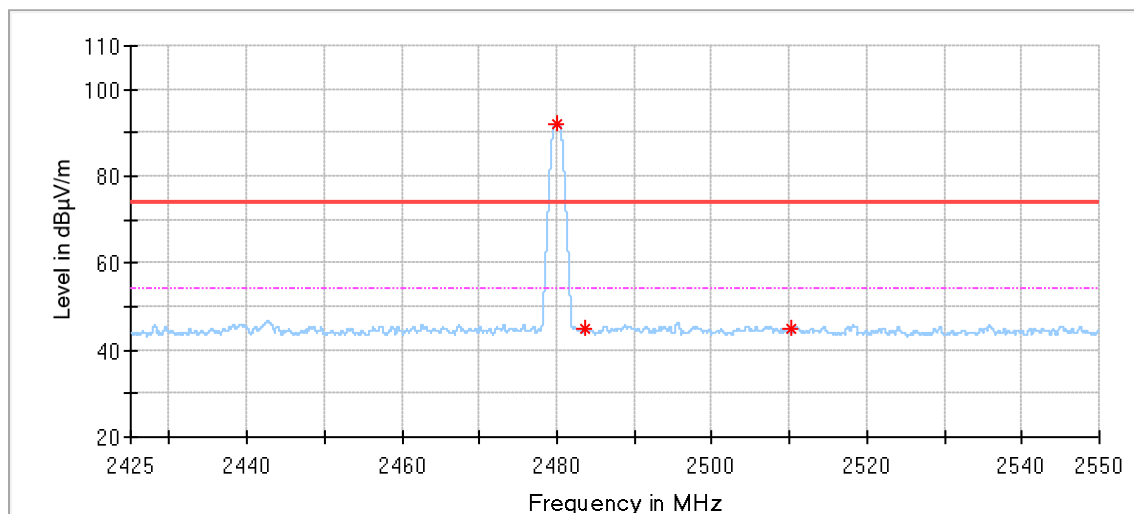
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.192000	43.53	74.00	30.47	150.0	H	328.0	-3.74	Spurious
2352.000000	45.19	74.00	28.81	150.0	H	44.0	-3.41	Spurious
2390.272000	44.50	74.00	29.50	150.0	H	358.0	-3.05	Spurious
2402.032000	99.02	74.00	-25.02	150.0	H	328.0	-3.03	Fundamental Frequency



Critical Freqs

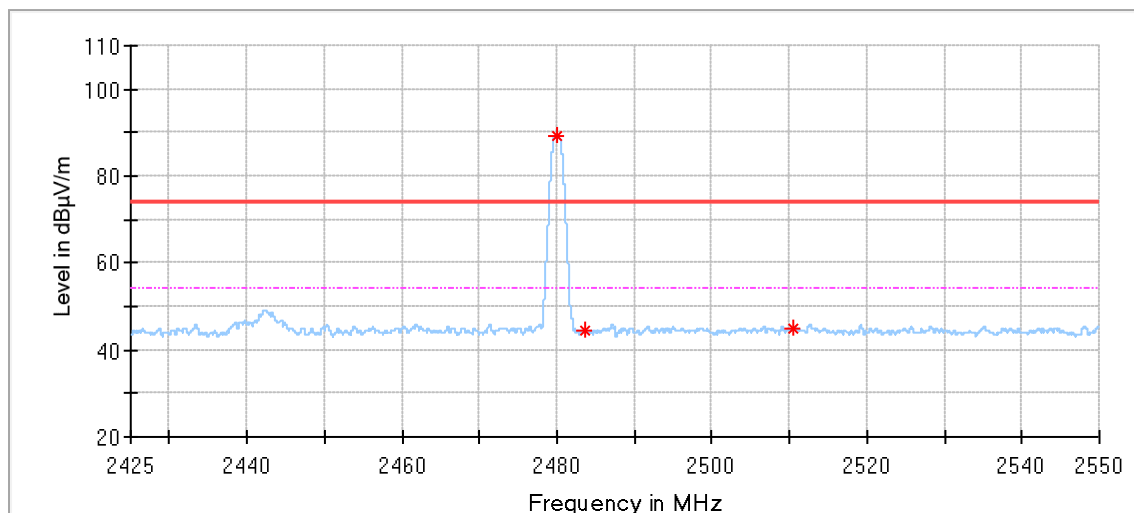
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.568000	43.22	74.00	30.78	150.0	V	140.0	-3.75	Spurious
2340.128000	45.28	74.00	28.72	150.0	V	193.0	-3.53	Spurious
2389.984000	44.50	74.00	29.50	150.0	V	318.0	-3.05	Spurious
2402.032000	92.32	74.00	-18.32	150.0	V	308.0	-3.03	Fundamental Frequency

BLE_1Mbps_2480_ANT1



Critical Freqs

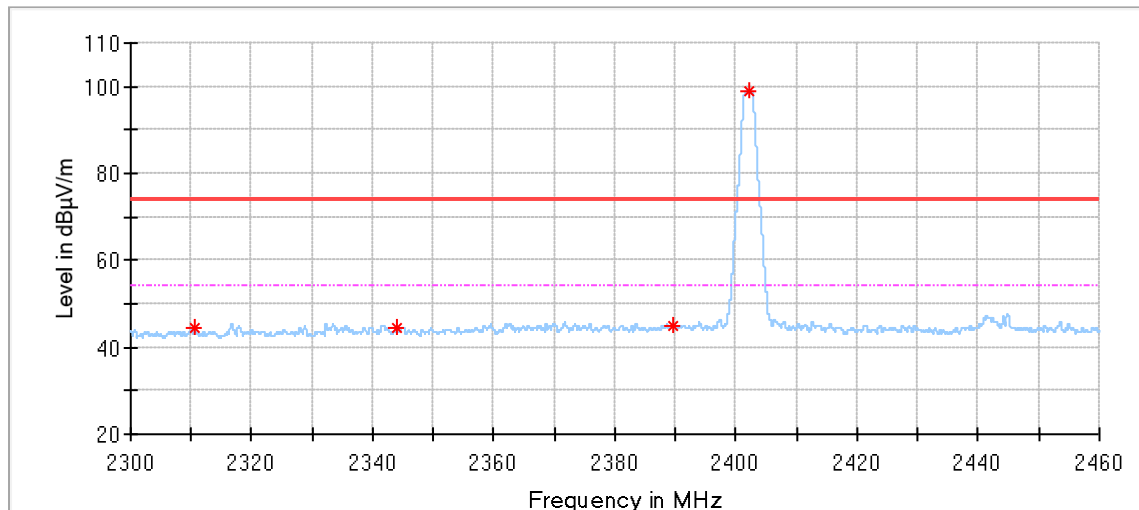
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2480.037500	92.20	74.00	-18.20	150.0	H	334.0	-3.04	Fundamental Frequency
2483.700000	44.89	74.00	29.11	150.0	H	153.0	-3.06	Spurious
2510.162500	45.00	74.00	29.00	150.0	H	44.0	-3.13	Spurious



Critical Freqs

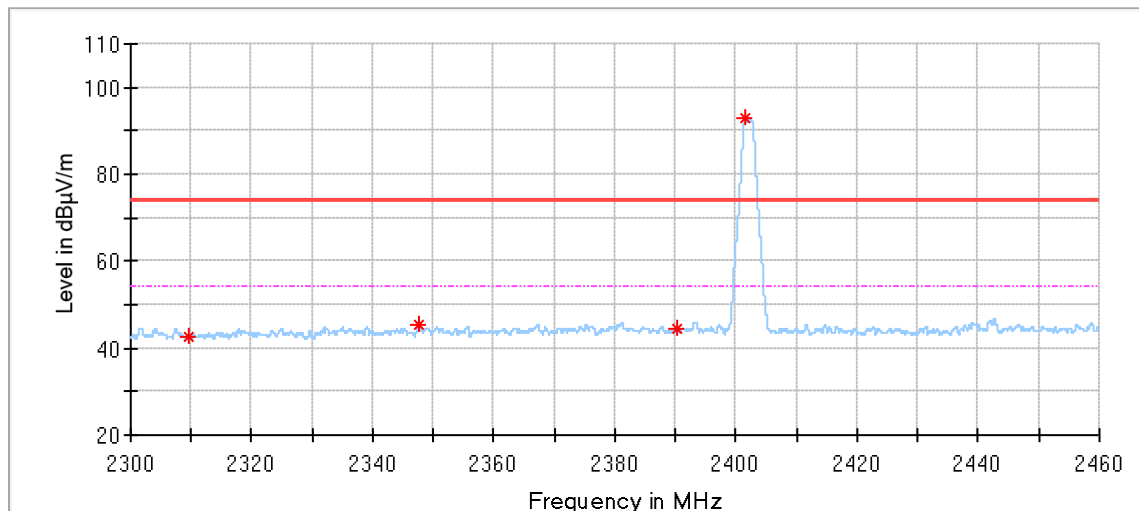
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2480.037500	89.16	74.00	-15.16	150.0	V	267.0	-3.04	Fundamental Frequency
2483.625000	44.23	74.00	29.77	150.0	V	248.0	-3.06	Spurious
2510.475000	44.75	74.00	29.25	150.0	V	185.0	-3.13	Spurious

BLE_2Mbps_2402_ANT1



Critical Freqs

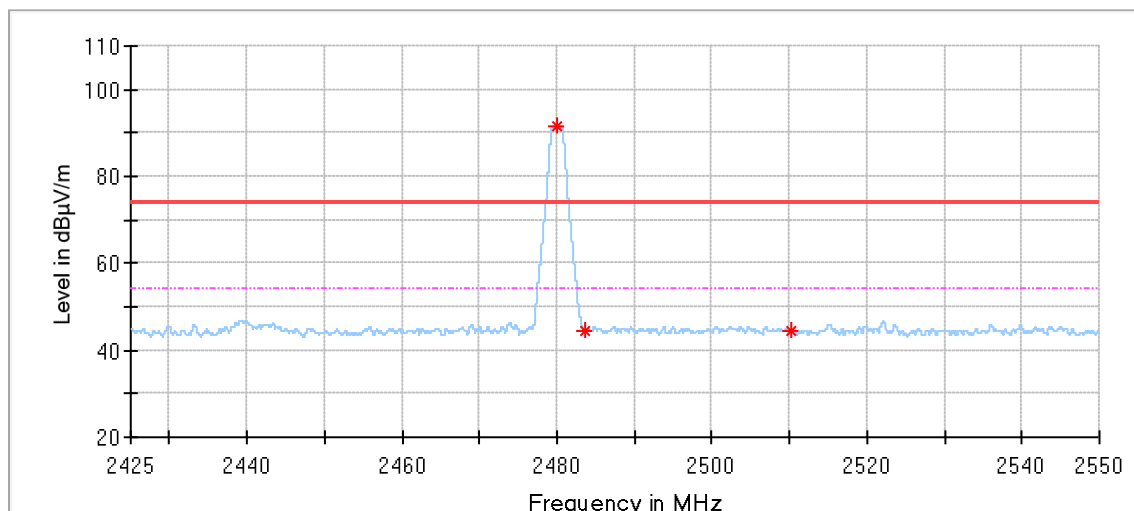
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.448000	44.25	74.00	29.75	150.0	H	123.0	-3.74	Spurious
2344.016000	44.50	74.00	29.50	150.0	H	84.0	-3.49	Spurious
2389.744000	45.05	74.00	28.95	150.0	H	164.0	-3.05	Spurious
2402.000000	99.12	74.00	-25.12	150.0	H	328.0	-3.03	Fundamental Frequency



Critical Freqs

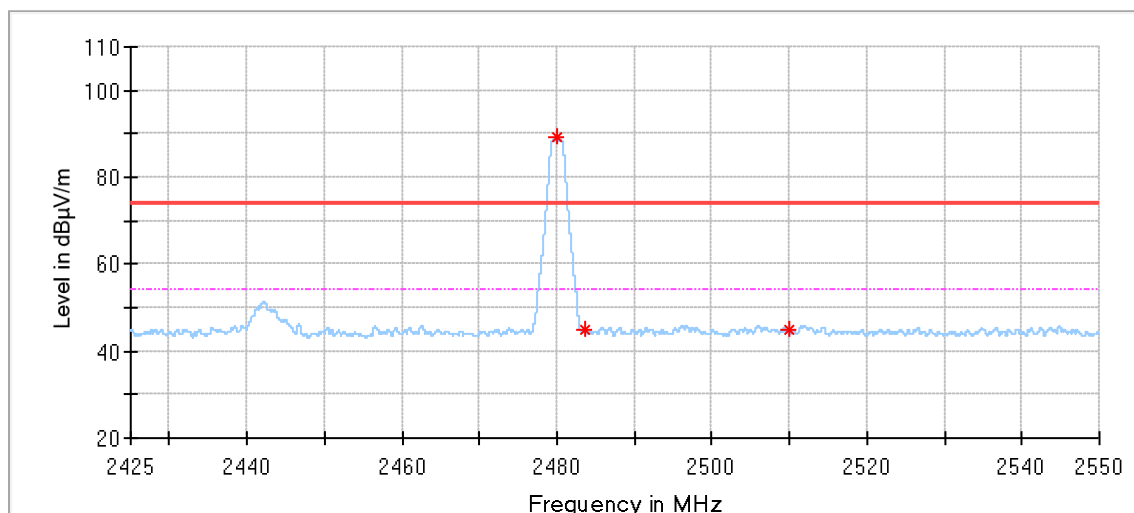
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.664000	42.80	74.00	31.20	150.0	V	76.0	-3.75	Spurious
2347.456000	45.26	74.00	28.74	150.0	V	47.0	-3.45	Spurious
2390.288000	44.50	74.00	29.50	150.0	V	235.0	-3.05	Spurious
2401.536000	92.72	74.00	-18.72	150.0	V	308.0	-3.03	Fundamental Frequency

BLE_2Mbps_2480_ANT1



Critical Freqs

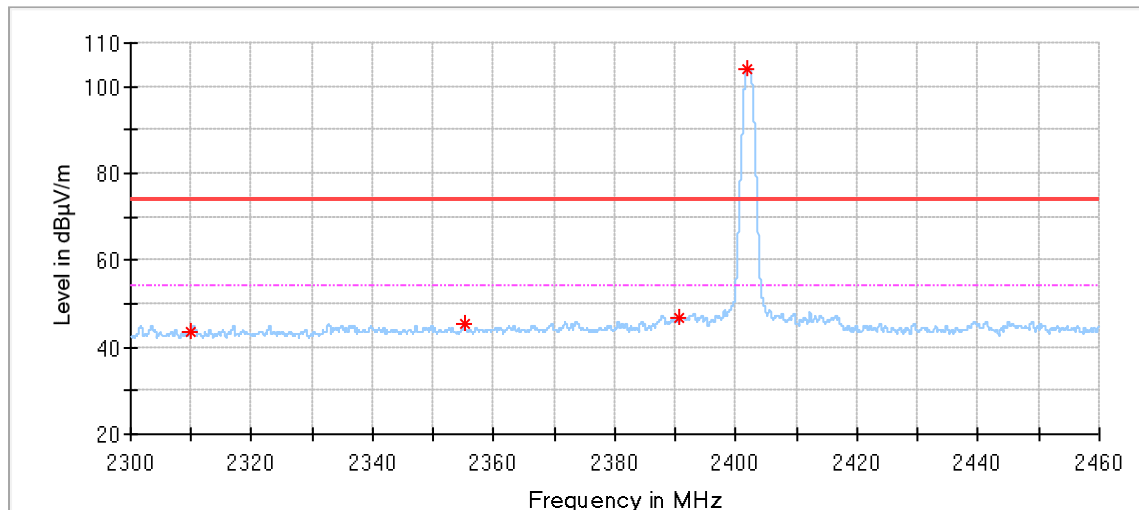
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2479.975000	91.72	74.00	-17.72	150.0	H	339.0	-3.04	Fundamental Frequency
2483.700000	44.63	74.00	29.37	150.0	H	36.0	-3.06	Spurious
2510.200000	44.50	74.00	29.50	150.0	H	239.0	-3.13	Spurious



Critical Freqs

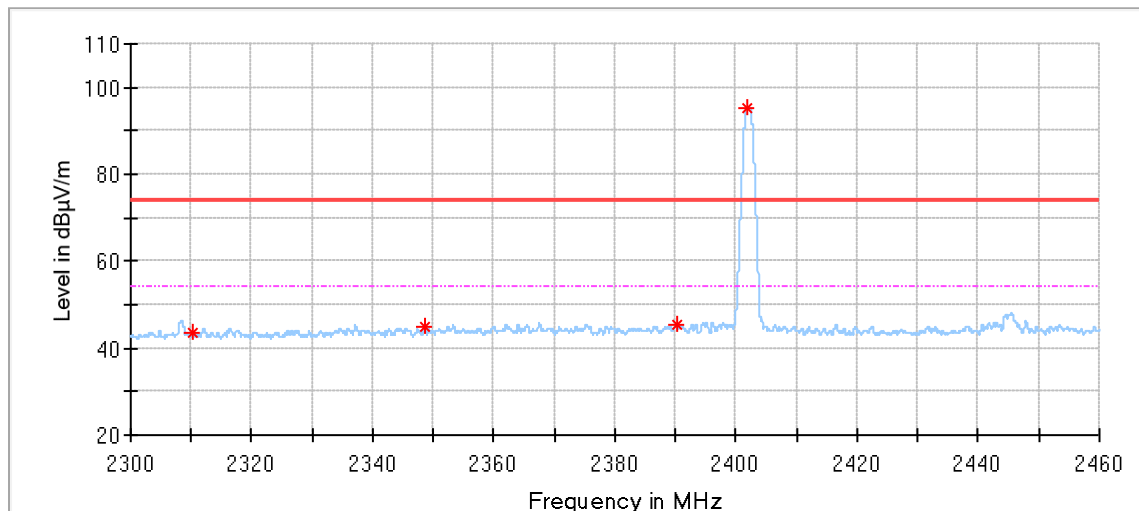
Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2480.012500	89.16	74.00	-15.16	150.0	V	269.0	-3.04	Fundamental Frequency
2483.675000	44.77	74.00	29.23	150.0	V	269.0	-3.06	Spurious
2510.000000	44.82	74.00	29.18	150.0	V	49.0	-3.13	Spurious

BLE_1Mbps_2402_ANT2



Critical Freqs

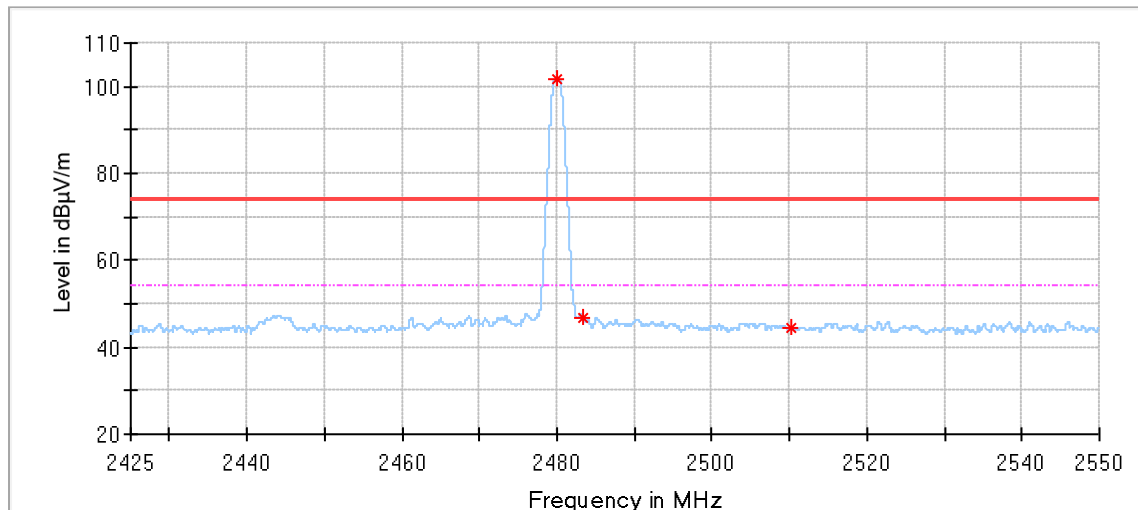
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.904000	43.48	74.00	30.52	150.0	H	329.0	-3.74	Spurious
2355.056000	45.26	74.00	28.74	150.0	H	96.0	-3.37	Spurious
2390.416000	46.56	74.00	27.44	150.0	H	190.0	-3.05	Spurious
2401.760000	104.06	74.00	-30.06	150.0	H	201.0	-3.03	Fundamental Frequency



Critical Freqs

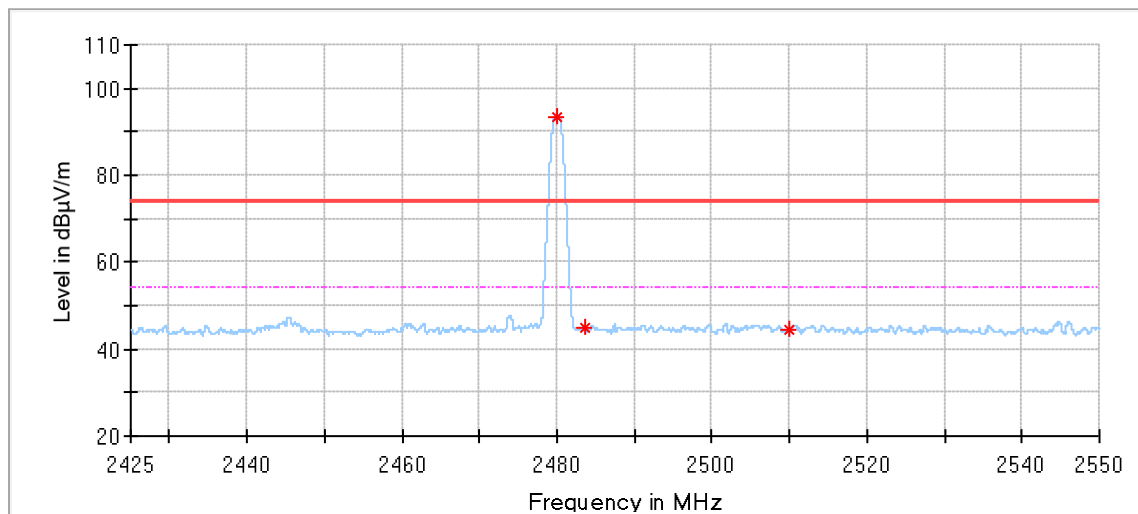
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.384000	43.46	74.00	30.54	150.0	V	345.0	-3.74	Spurious
2348.560000	45.02	74.00	28.98	150.0	V	324.0	-3.44	Spurious
2390.128000	45.31	74.00	28.69	150.0	V	73.0	-3.05	Spurious
2401.760000	95.21	74.00	-21.21	150.0	V	116.0	-3.03	Fundamental Frequency

BLE_1Mbps_2480_ANT2



Critical Freqs

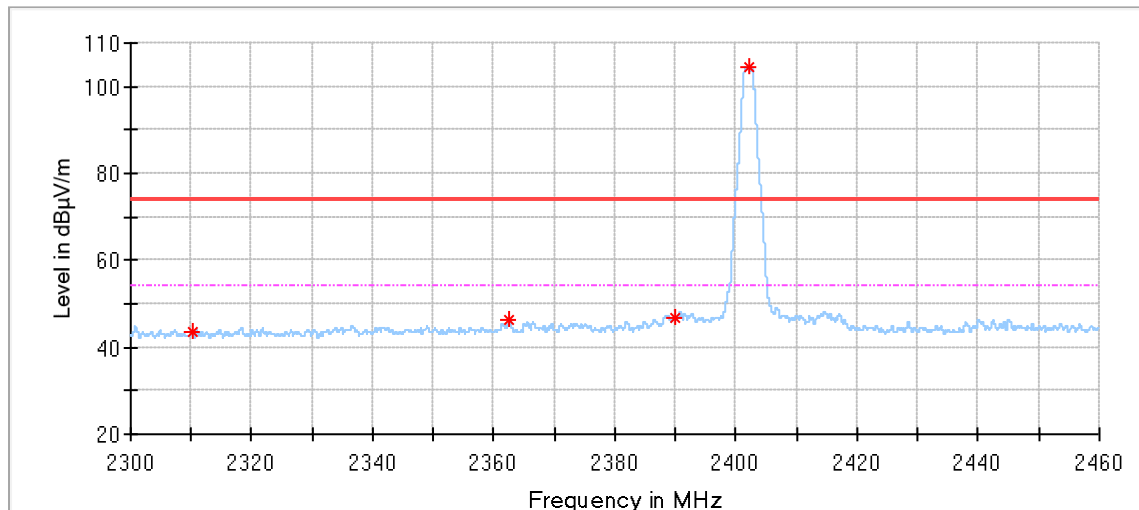
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2480.025000	101.68	74.00	-27.68	150.0	H	198.0	-3.04	Fundamental Frequency
2483.400000	46.69	74.00	27.31	150.0	H	189.0	-3.06	Spurious
2510.100000	44.30	74.00	29.70	150.0	H	98.0	-3.13	Spurious



Critical Freqs

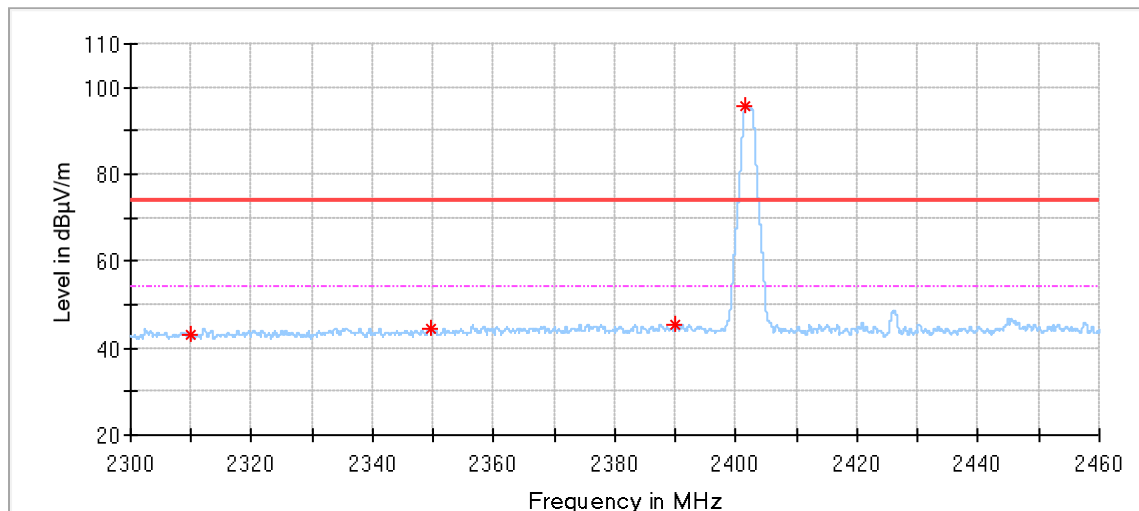
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2480.050000	93.42	74.00	-19.42	150.0	V	143.0	-3.04	Fundamental Frequency
2483.500000	45.03	74.00	28.97	150.0	V	319.0	-3.06	Spurious
2509.900000	44.29	74.00	29.71	150.0	V	206.0	-3.13	Spurious

BLE_2Mbps_2402_ANT2



Critical Freqs

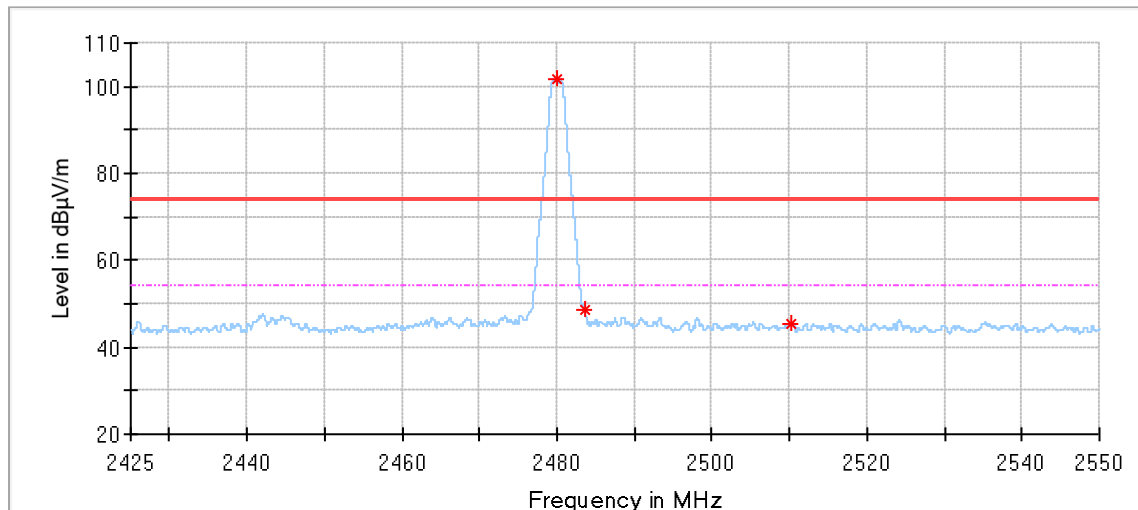
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.096000	43.72	74.00	30.28	150.0	H	20.0	-3.74	Spurious
2362.528000	46.38	74.00	27.62	150.0	H	192.0	-3.27	Spurious
2389.872000	46.55	74.00	27.45	150.0	H	182.0	-3.05	Spurious
2402.032000	104.31	74.00	-30.31	150.0	H	192.0	-3.03	Fundamental Frequency



Critical Freqs

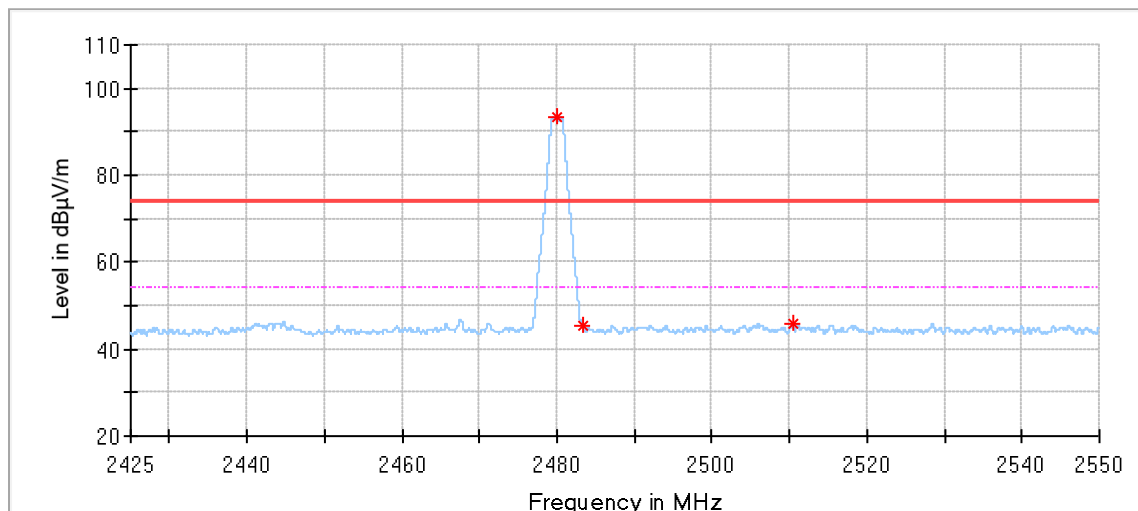
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.064000	43.04	74.00	30.96	150.0	V	244.0	-3.74	Spurious
2349.632000	44.59	74.00	29.41	150.0	V	0.0	-3.43	Spurious
2389.872000	45.38	74.00	28.62	150.0	V	202.0	-3.05	Spurious
2402.032000	95.54	74.00	-21.54	150.0	V	122.0	-3.03	Fundamental Frequency

BLE_2Mbps_2480_ANT2



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2479.975000	101.71	74.00	-27.71	150.0	H	203.0	-3.04	Fundamental Frequency
2483.587500	48.76	74.00	25.24	150.0	H	203.0	-3.06	Spurious
2510.237500	45.28	74.00	28.72	150.0	H	176.0	-3.13	Spurious



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2479.975000	93.51	74.00	-19.51	150.0	V	139.0	-3.04	Fundamental Frequency
2483.300000	45.54	74.00	28.46	150.0	V	248.0	-3.06	Spurious
2510.412500	45.81	74.00	28.19	150.0	V	121.0	-3.13	Spurious

Remark:

- (1) Level= Reading Level + Correction Factor
- (2) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss
(The Reading Level is recorded by software which is not shown in the sheet)

10 Test Equipment List

List of Test Instruments

Conducted Emission 2# 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	2025-5-13
LISN	Rohde & Schwarz	ENV216	68-4-87-19-001	102472	1	2025-5-12
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2025-5-11
Cable	OUQIAO	RG142	68-4-90-19-005-A20	----	----	----
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

Radiated Emission Test 1# Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2025-5-13
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2024-8-7
Pre-amplifier	Rohde & Schwarz	SCU 18	68-4-29-14-001	102230	1	2025-5-11
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-001	15542	1	2025-5-11
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A20	----	----	----
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A21	----	----	----
Cable	JUNFLON	MWX221	68-4-90-14-001-A22	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Radiated Emission 2# 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	2025-5-13
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2025-2-22
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	1	2025-4-10
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	100745	1	2025-5-11
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-002	100746	1	2025-5-11
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	12827	1	2025-7-2
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	1	2024-8-1
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	1	2025-5-11
Cable	JUNFLON	MWX221	68-4-90-19-006-A20	----	----	----
Cable	JUNFLON	MWX241	68-4-90-19-006-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

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	2025-5-11
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157W	68-4-93-14-003	101226/100929	1	2025-5-11
Power Splitter	Weinschel	1580	68-4-85-14-001	SC319	1	2025-5-11
RF Meas. and Switch Matrix Unit	TST PASS	TSCB3023R2	68-4-93-23-001	2811685c	1	2025-5-11
Frequency Extender	TST PASS	TSTCMWEXT7	68-4-93-23-001-A01	WEX230017C	1	2025-5-12
Frequency Extender	TST PASS	TSTSGEXT7	68-4-93-23-001-A02	EX2300BA	1	2025-5-12
Cable	JUNFLON	J12J103539	68-4-90-19-003-A20	----	----	----
Test software	TST PASS	System for BT/WIFI	68-4-93-23-001-A03	Version 2.0	N/A	N/A
Shielding Room	TDK	TS8997	68-4-90-19-003	----	3	2025-10-15

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 in new shielding room (68-4-90-19-005) 150kHz-30MHz (for test using AMN ENV216)	3.15dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 9kHz-30MHz	4.70dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 30MHz-1000MHz	Horizontal: 4.63dB; Vertical: 4.78dB;
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 1000MHz-18000MHz	Horizontal: 5.38dB; Vertical: 5.38dB;
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 18GHz-40GHz	Horizontal: 5.29dB; Vertical: 5.29dB;
Uncertainty for Conducted RF test with TS 8997	RF Power Conducted: 1.31dB

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4

---THE END OF REPORT---