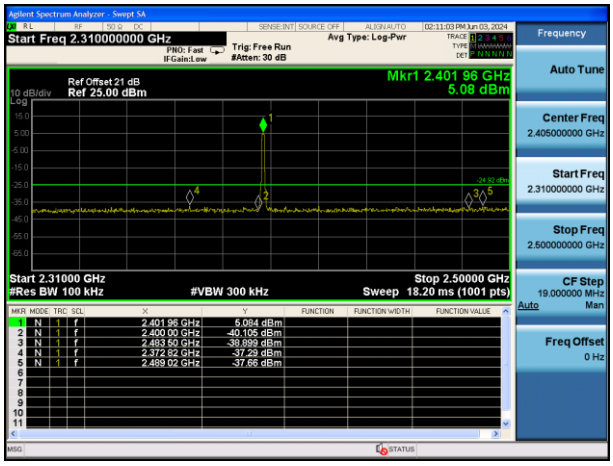
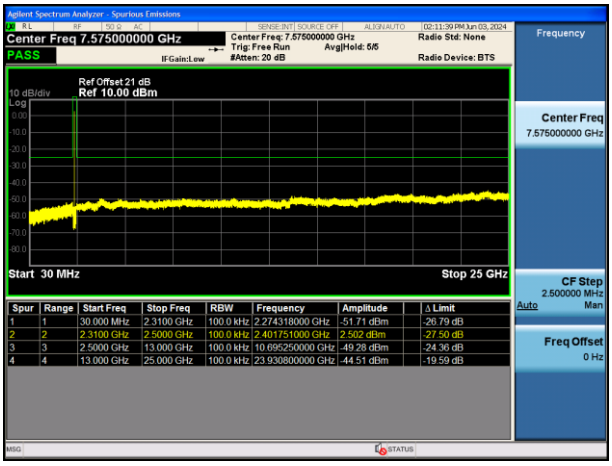
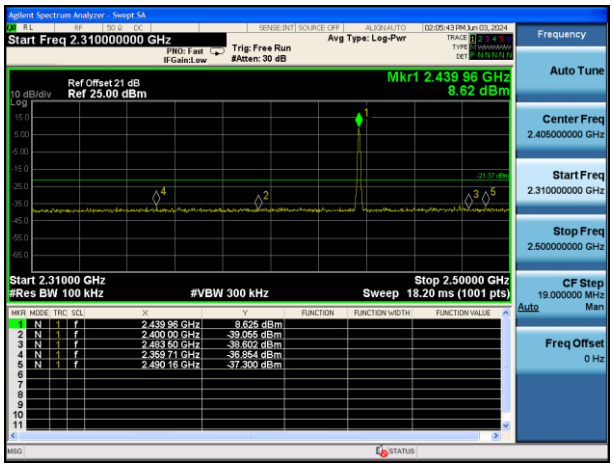
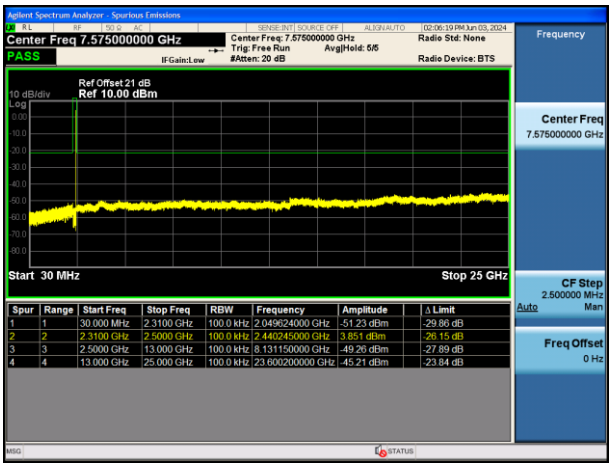
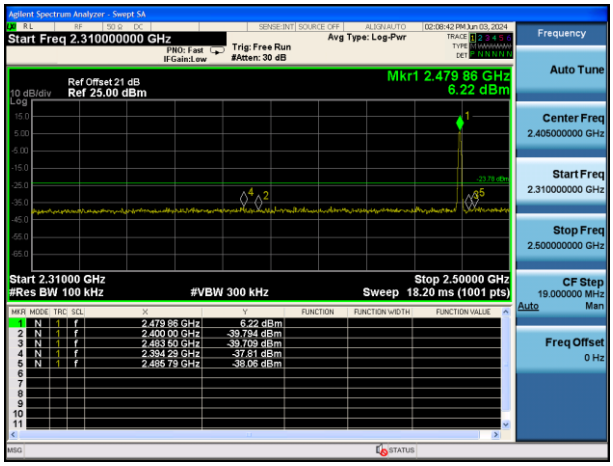
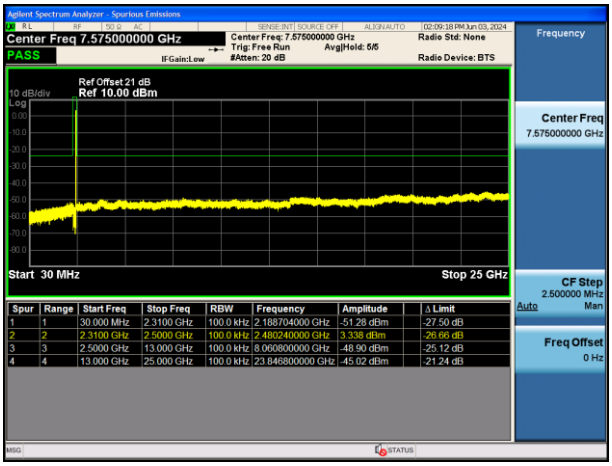
LE Coded S=8	
CH00 (2402MHz) LE(1Mbps)	**CH00 (2402MHz) LE(1Mbps)**
	
CH19 (2440MHz) LE(1Mbps)	**CH19 (2440MHz) LE(1Mbps)**
	
CH39 (2480MHz) LE(1Mbps)	**CH39 (2480MHz) LE(1Mbps)**
	

7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

ANSI C63.10 - 2013 Section 6.3 (General Requirements)

ANSI C63.10 - 2013 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 Section 6.6 (Standard test method above 1GHz)

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak

5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

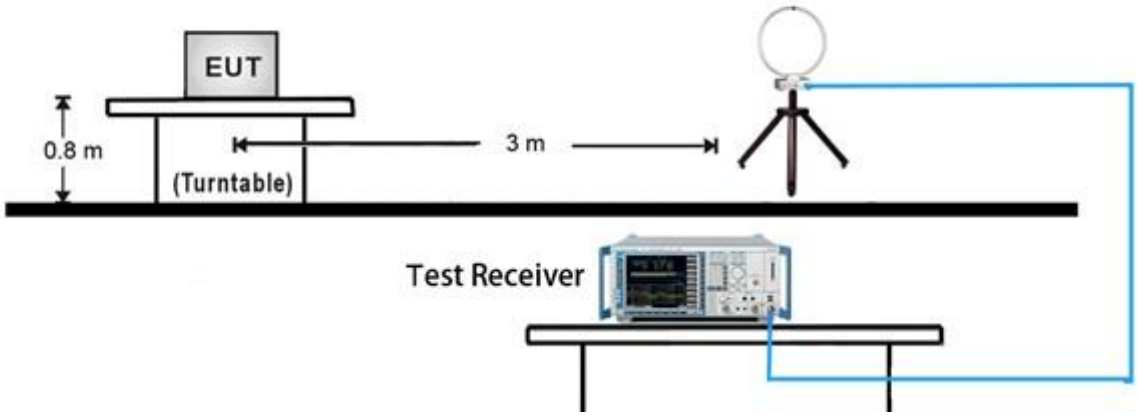
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

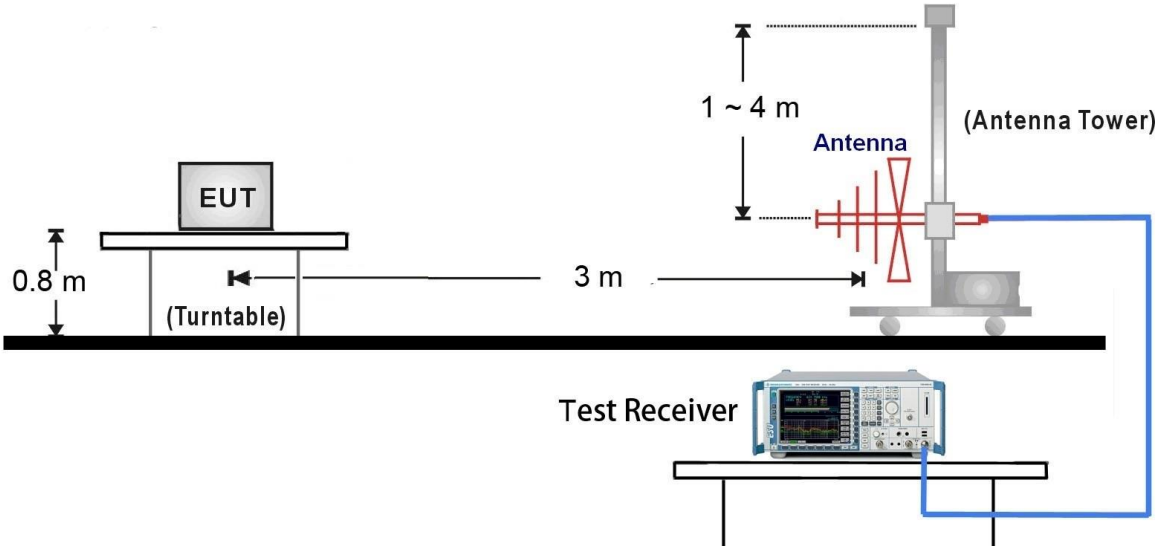
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

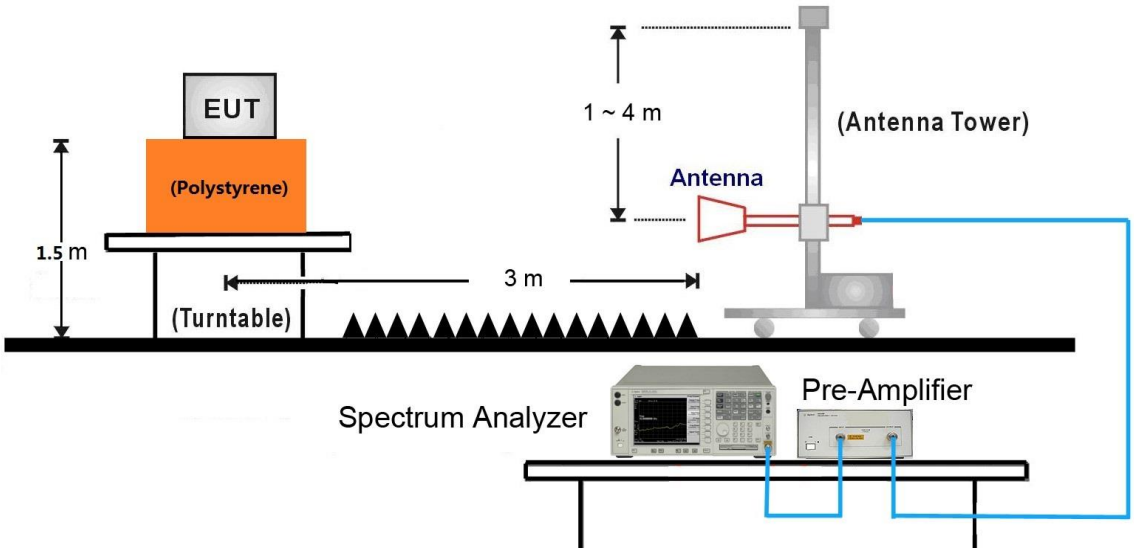
9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:

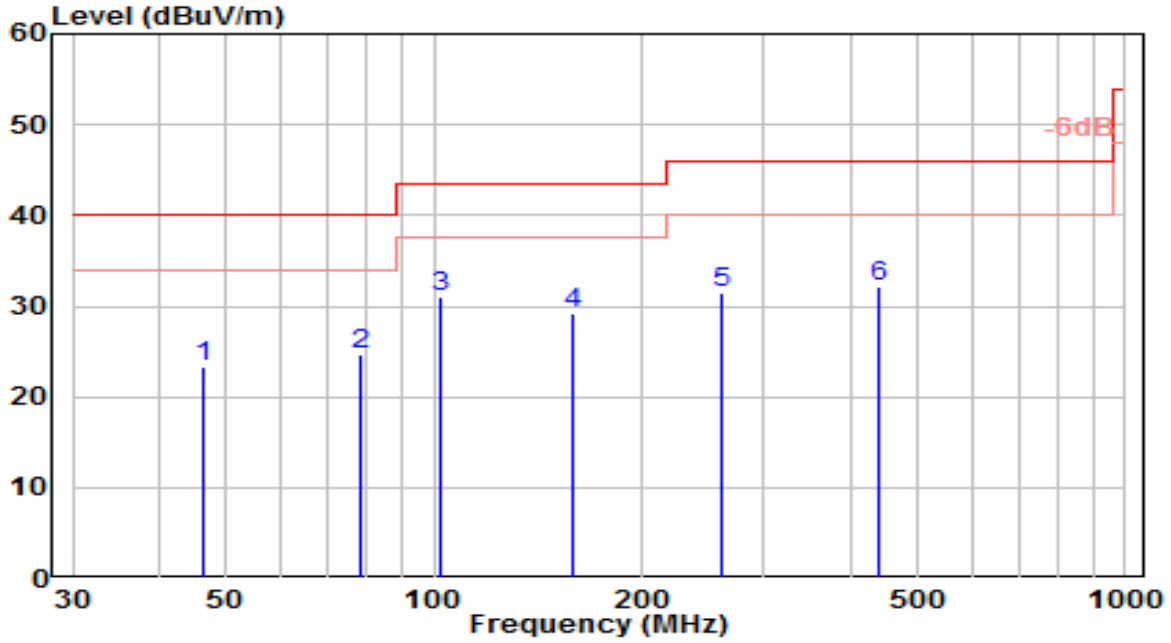


1GHz ~ 25GHz Test Setup:



7.6.5. Test Result

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-05-30
Factor	VULB 9162	Temp. / Humidity	23°C /64%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC

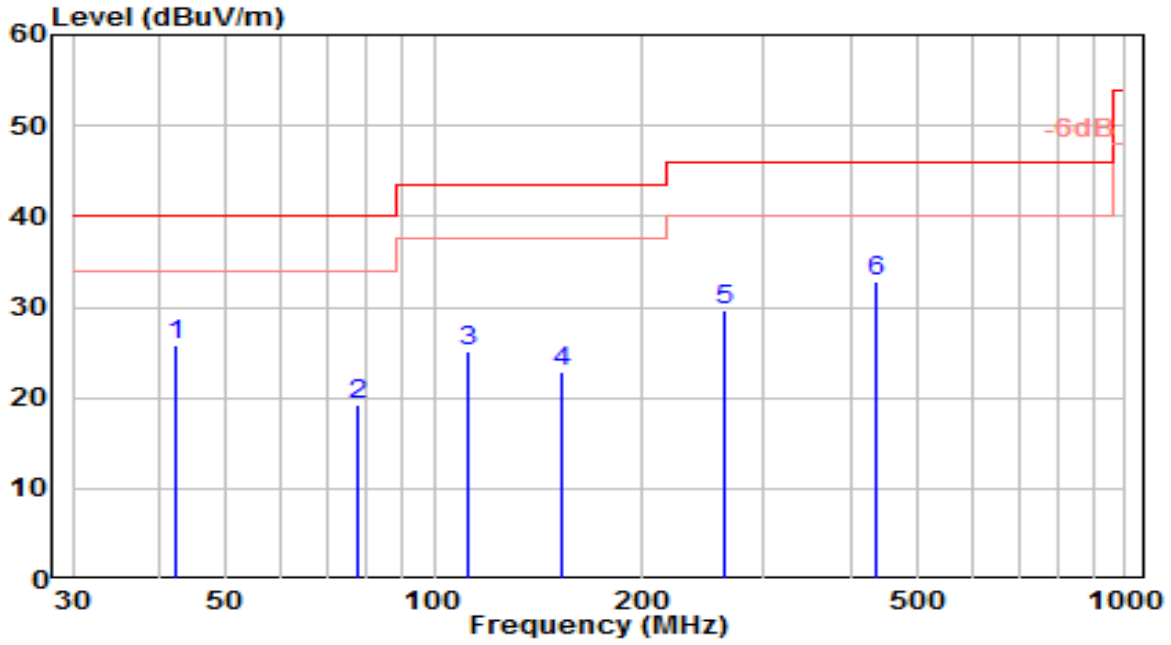


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		46.230	2.83	20.60	23.43	-16.57	40.00	150	335	QP
2		78.328	10.51	14.21	24.72	-15.28	40.00	150	145	QP
3	*	101.758	12.60	18.50	31.09	-12.41	43.50	150	295	QP
4		159.216	13.64	15.60	29.24	-14.26	43.50	150	170	QP
5		261.010	11.33	20.24	31.57	-14.43	46.00	100	245	QP
6		440.503	8.15	24.01	32.15	-13.85	46.00	150	260	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20dB below the permissible value. Therefore, the data is not presented in the report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-05-30
Factor	VULB 9162	Temp. / Humidity	23°C /64%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC

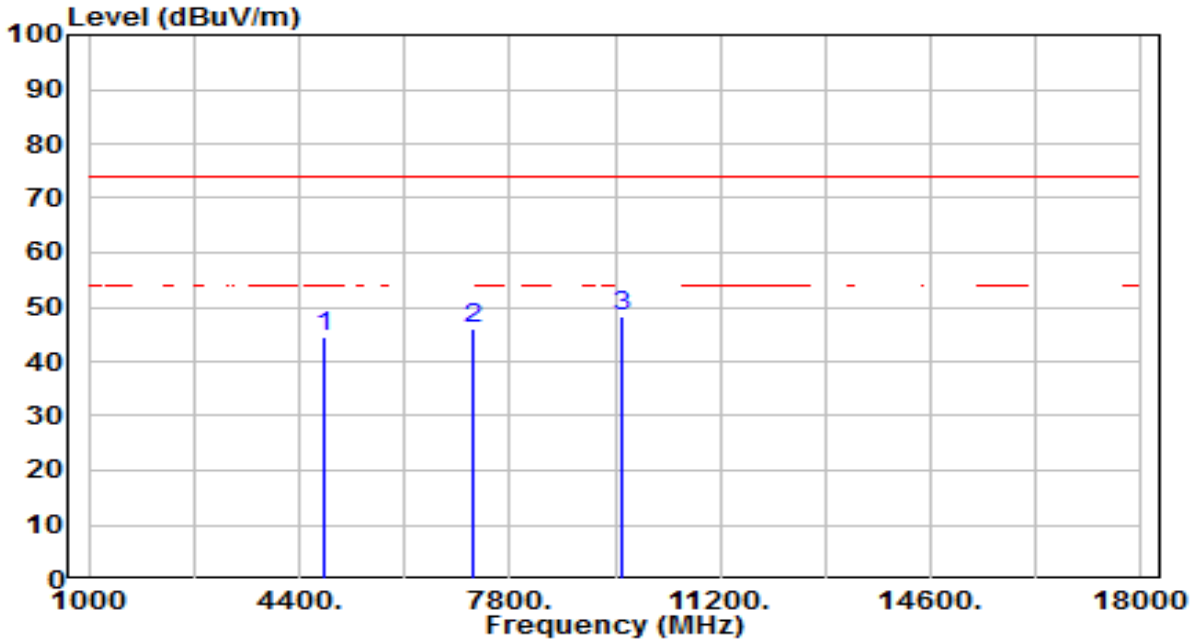


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		42.177	5.55	20.15	25.70	-14.30	40.00	100	105	QP
2		77.403	4.88	14.38	19.26	-20.74	40.00	100	310	QP
3		112.192	6.96	18.19	25.15	-18.35	43.50	100	260	QP
4		152.497	7.43	15.37	22.81	-20.69	43.50	150	235	QP
5		263.729	9.55	20.19	29.74	-16.26	46.00	150	315	QP
6	*	435.890	8.76	23.96	32.72	-13.28	46.00	100	325	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20dB below the permissible value. Therefore, the data is not presented in the report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 0	Test Voltage	By Notebook PC

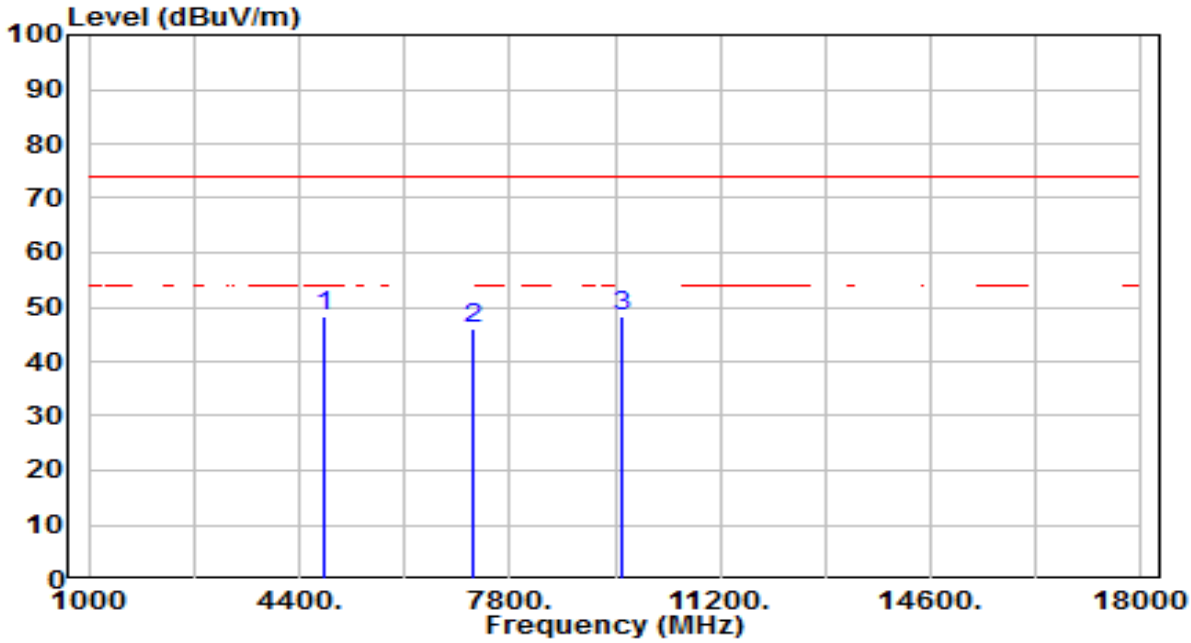


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	40.72	3.71	44.43	-29.57	74.00	100	309	Peak
2		7206.000	34.57	11.57	46.14	-27.86	74.00	100	115	Peak
3	*	9608.000	32.67	15.69	48.36	-25.64	74.00	100	105	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 0	Test Voltage	By Notebook PC

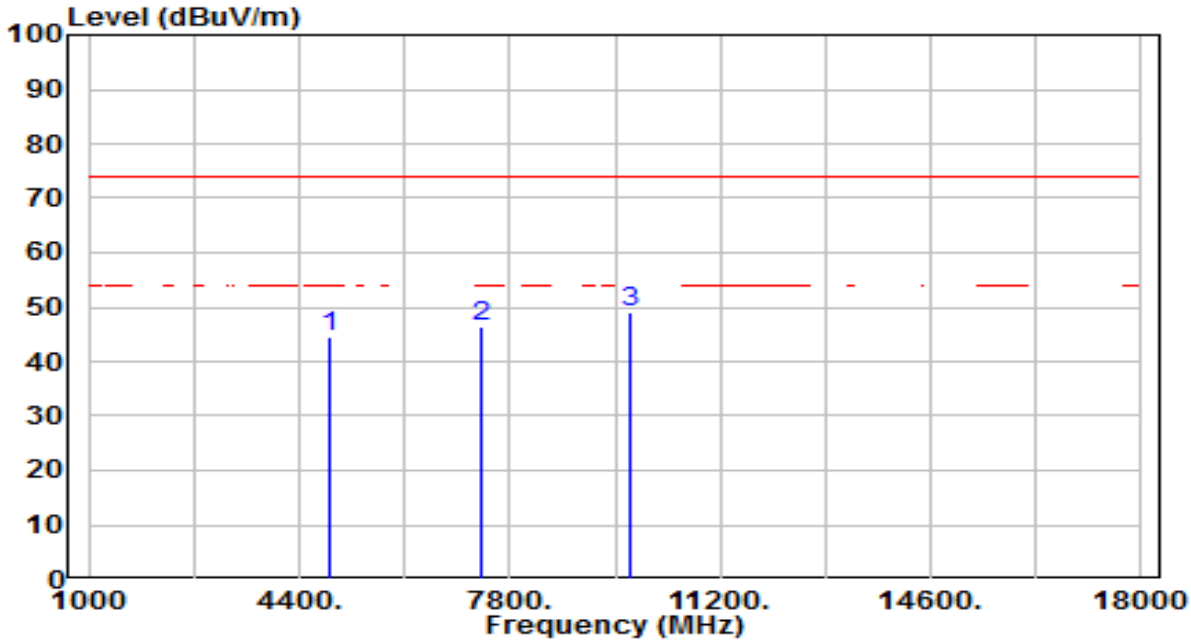


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	44.52	3.71	48.23	-25.77	74.00	100	284	Peak
2		7206.000	34.61	11.57	46.18	-27.82	74.00	100	321	Peak
3	*	9608.000	32.60	15.69	48.30	-25.71	74.00	100	144	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC

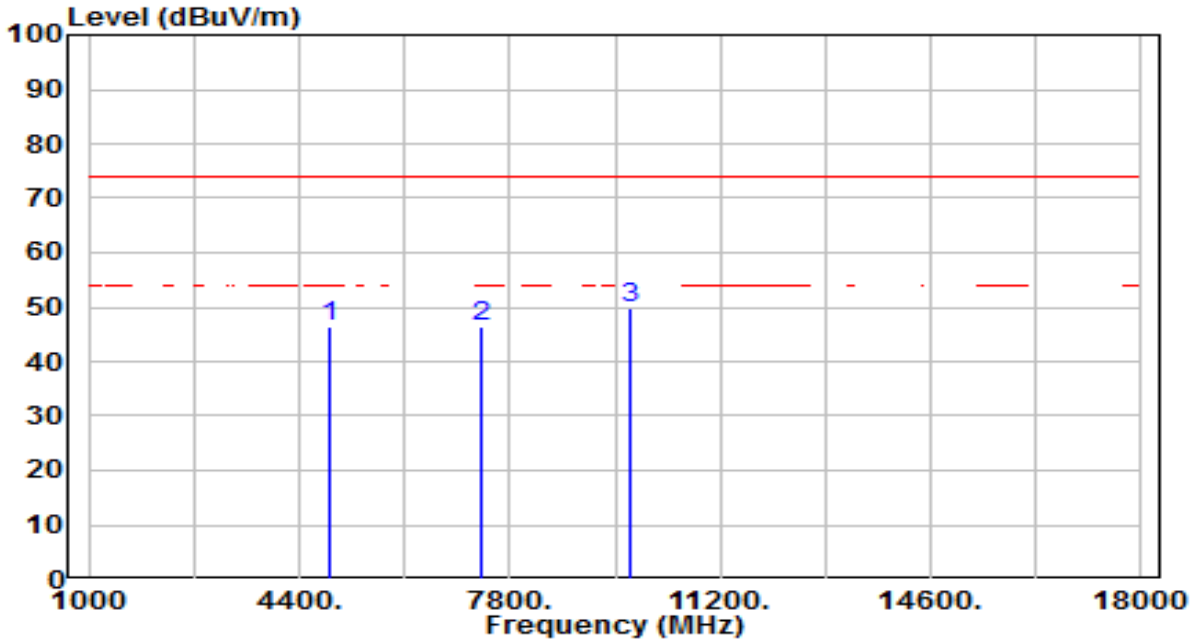


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	40.57	3.85	44.42	-29.58	74.00	100	314	Peak
2		7320.000	34.39	11.97	46.36	-27.64	74.00	100	20	Peak
3	*	9760.000	32.92	15.98	48.89	-25.11	74.00	100	60	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC

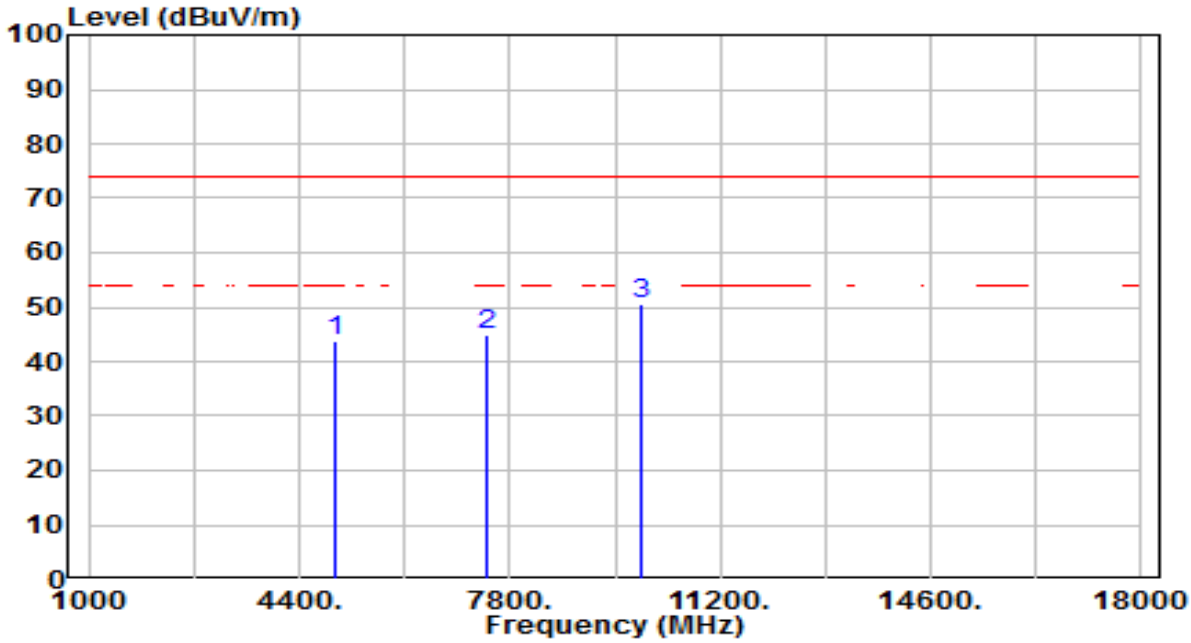


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	42.39	3.85	46.24	-27.76	74.00	100	255	Peak
2		7320.000	34.53	11.97	46.50	-27.50	74.00	100	25	Peak
3	*	9760.000	33.94	15.98	49.92	-24.08	74.00	100	349	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 39	Test Voltage	By Notebook PC

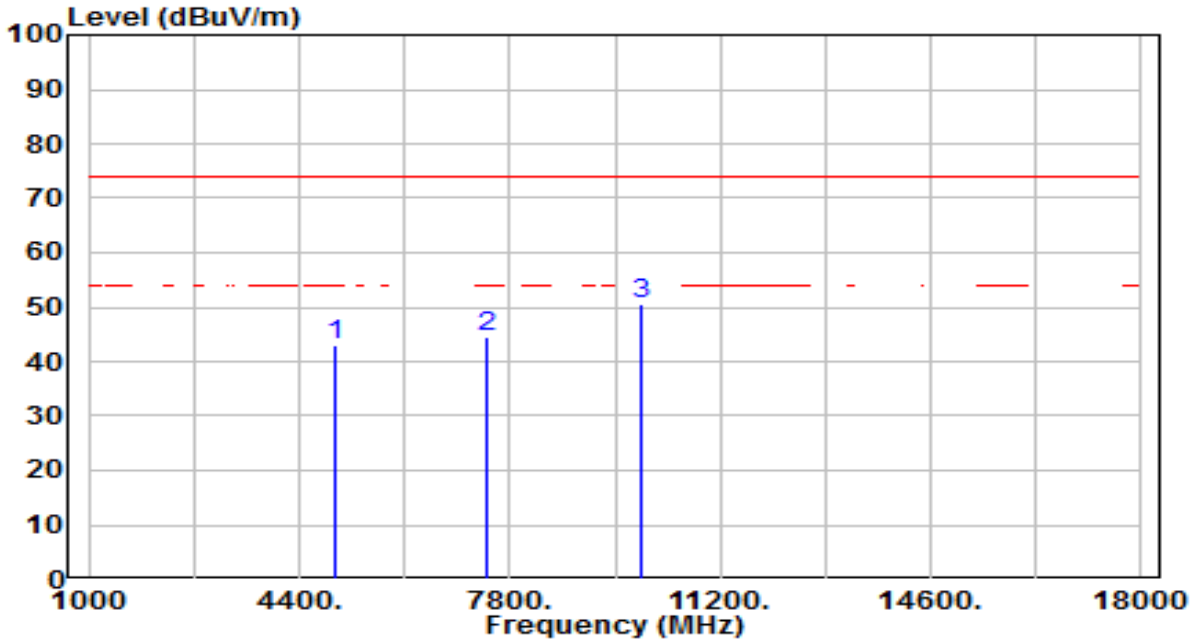


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	39.93	3.99	43.92	-30.08	74.00	100	307	Peak
2		7440.000	32.40	12.40	44.80	-29.20	74.00	100	210	Peak
3	*	9920.000	34.42	16.27	50.69	-23.31	74.00	100	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 39	Test Voltage	By Notebook PC

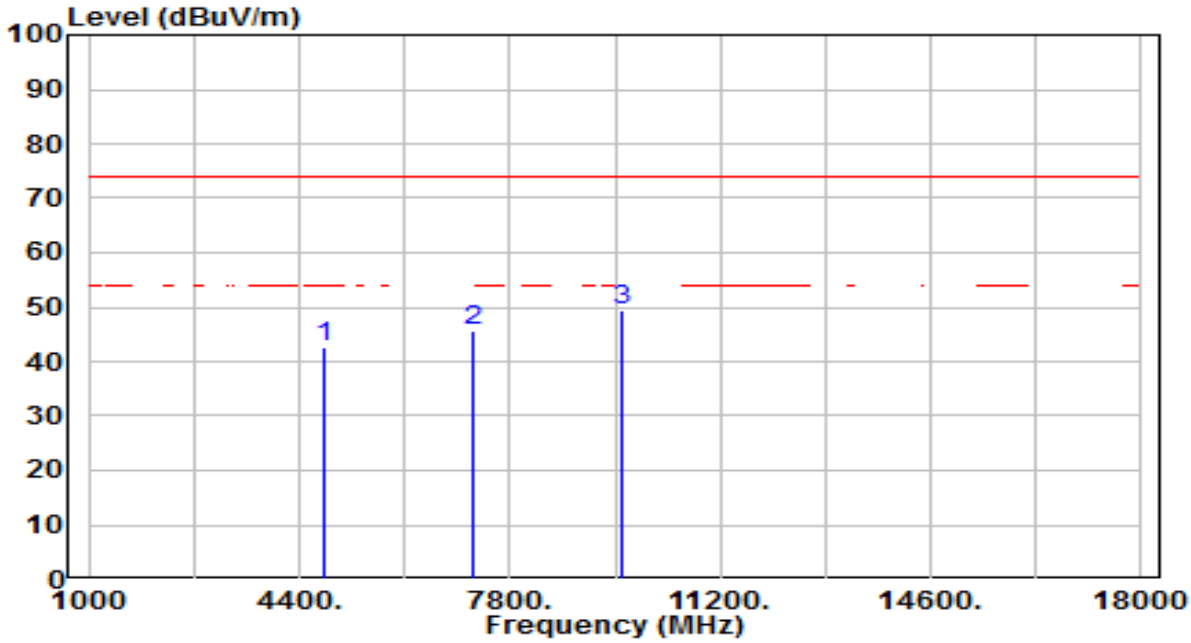


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	39.20	3.99	43.19	-30.81	74.00	100	293	Peak
2		7440.000	32.12	12.40	44.52	-29.48	74.00	100	94	Peak
3	*	9920.000	34.21	16.27	50.48	-23.52	74.00	100	185	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 0	Test Voltage	By Notebook PC

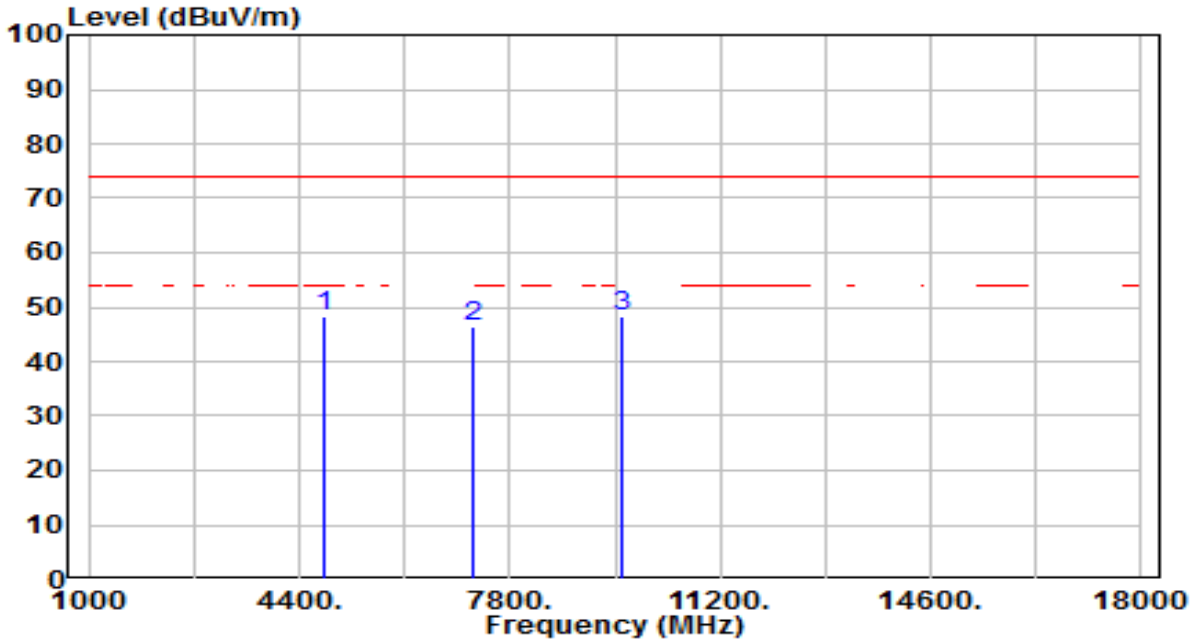


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	38.75	3.71	42.46	-31.54	74.00	100	284	Peak
2		7206.000	34.08	11.57	45.65	-28.35	74.00	100	175	Peak
3	*	9608.000	33.65	15.69	49.35	-24.65	74.00	100	219	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 0	Test Voltage	By Notebook PC

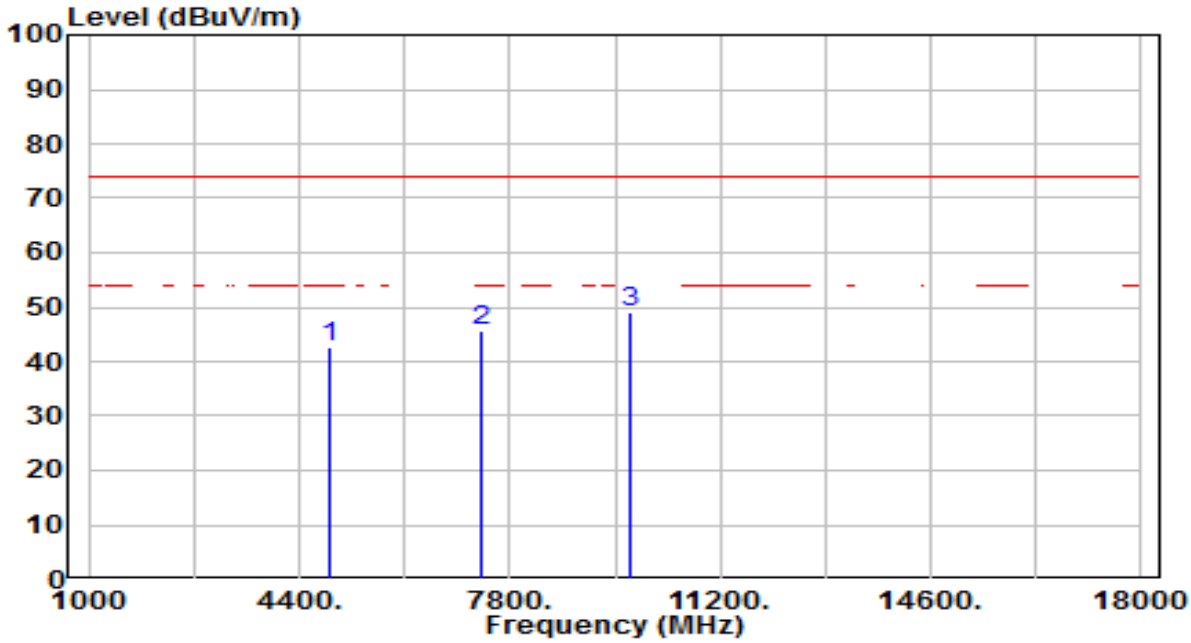


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	44.54	3.71	48.25	-25.75	74.00	100	257	Peak
2		7206.000	34.83	11.57	46.40	-27.60	74.00	100	282	Peak
3	*	9608.000	32.61	15.69	48.30	-25.70	74.00	100	300	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 19	Test Voltage	By Notebook PC

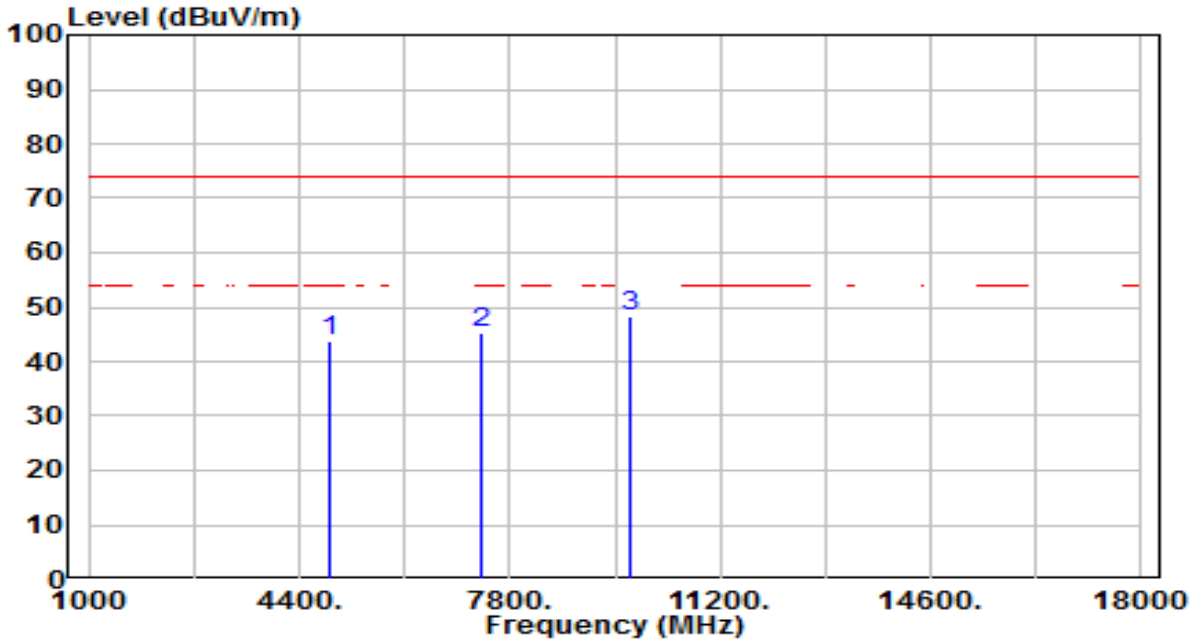


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	38.69	3.85	42.54	-31.46	74.00	100	326	Peak
2		7320.000	33.86	11.97	45.83	-28.17	74.00	100	354	Peak
3	*	9760.000	33.26	15.98	49.24	-24.76	74.00	100	64	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 19	Test Voltage	By Notebook PC

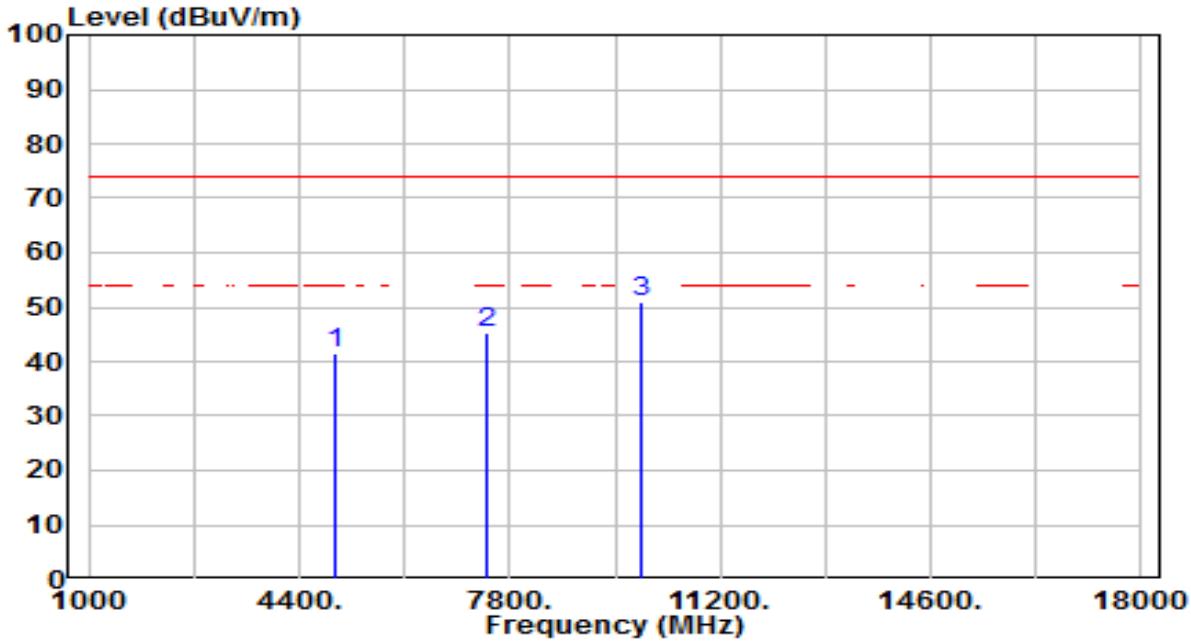


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	39.86	3.85	43.71	-30.29	74.00	100	256	Peak
2		7320.000	33.40	11.97	45.38	-28.62	74.00	100	103	Peak
3	*	9760.000	32.45	15.98	48.43	-25.57	74.00	100	202	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 39	Test Voltage	By Notebook PC

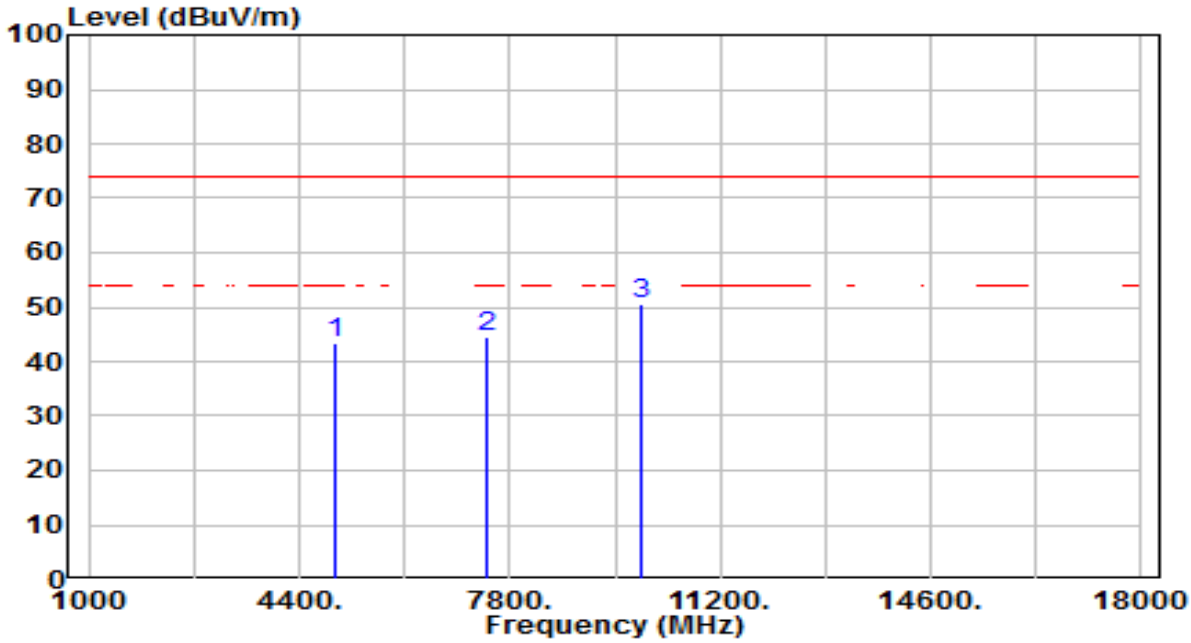


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	37.34	3.99	41.32	-32.68	74.00	100	325	Peak
2		7440.000	32.94	12.40	45.34	-28.66	74.00	100	71	Peak
3	*	9920.000	34.80	16.27	51.07	-22.93	74.00	100	336	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 39	Test Voltage	By Notebook PC

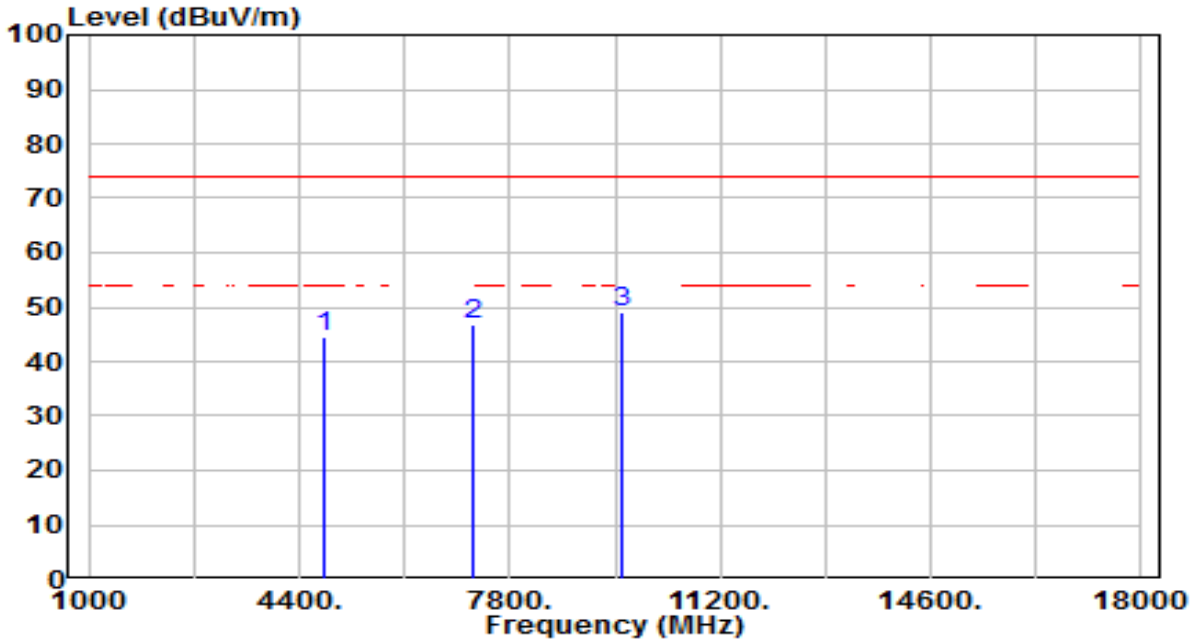


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	39.31	3.99	43.30	-30.70	74.00	100	259	Peak
2		7440.000	32.10	12.40	44.50	-29.50	74.00	100	113	Peak
3	*	9920.000	34.23	16.27	50.50	-23.50	74.00	100	259	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 0	Test Voltage	By Notebook PC

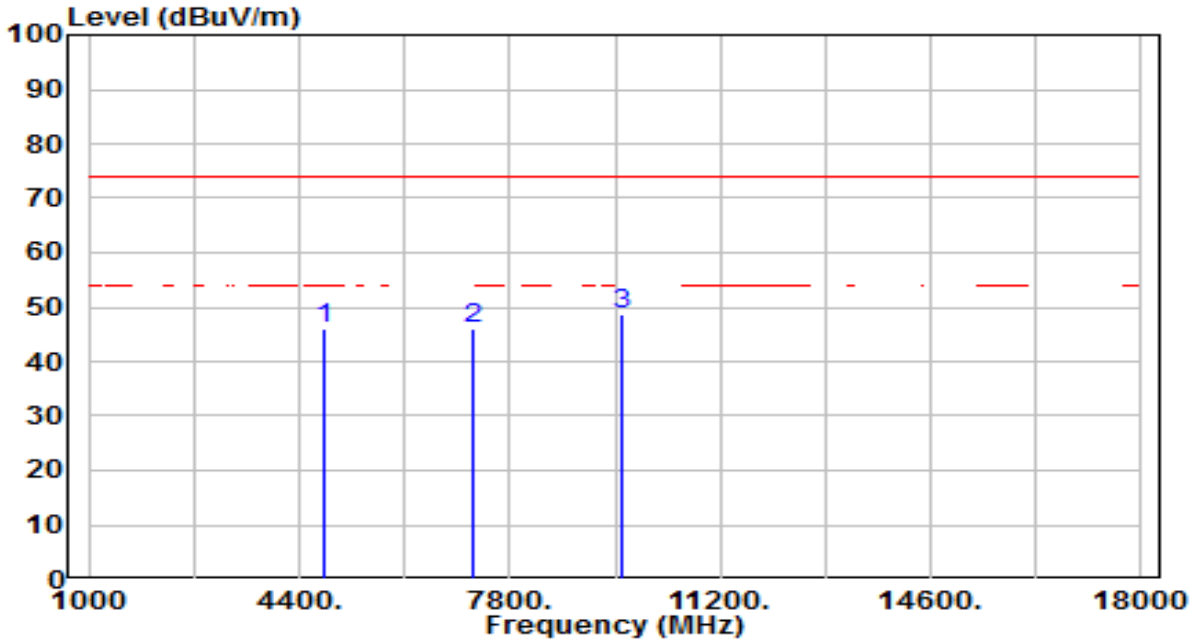


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	40.76	3.71	44.47	-29.53	74.00	100	244	Peak
2		7206.000	35.38	11.57	46.95	-27.05	74.00	100	21	Peak
3	*	9608.000	33.39	15.69	49.08	-24.92	74.00	100	116	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 0	Test Voltage	By Notebook PC

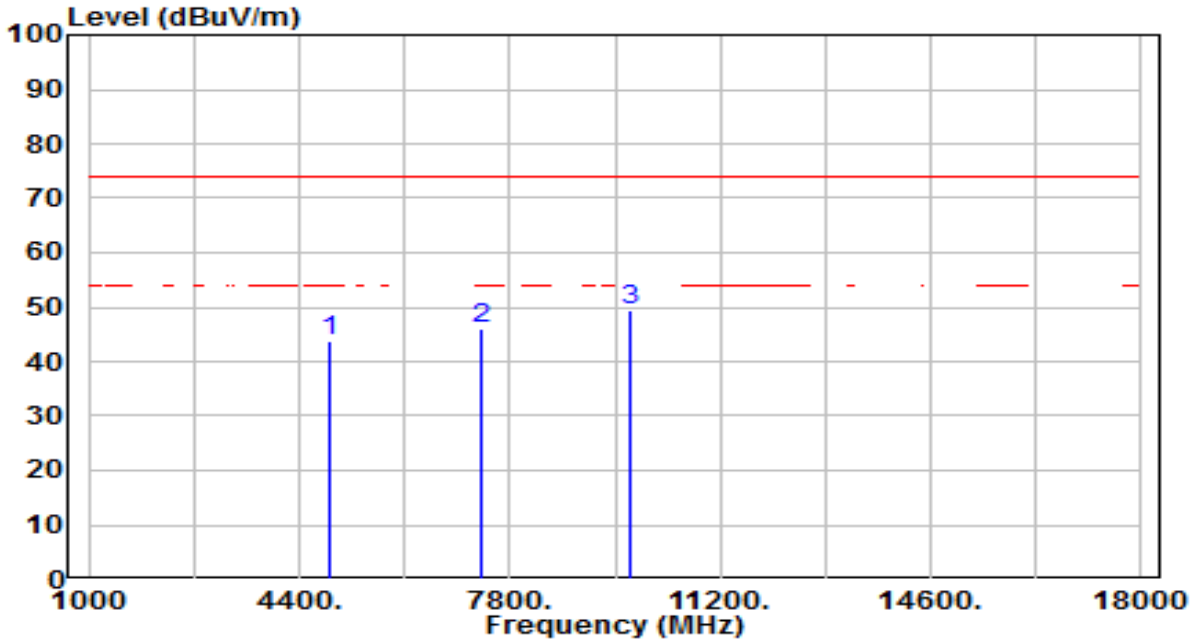


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	42.18	3.71	45.90	-28.10	74.00	100	250	Peak
2		7206.000	34.28	11.57	45.85	-28.15	74.00	100	214	Peak
3	*	9608.000	32.81	15.69	48.50	-25.50	74.00	100	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 19	Test Voltage	By Notebook PC

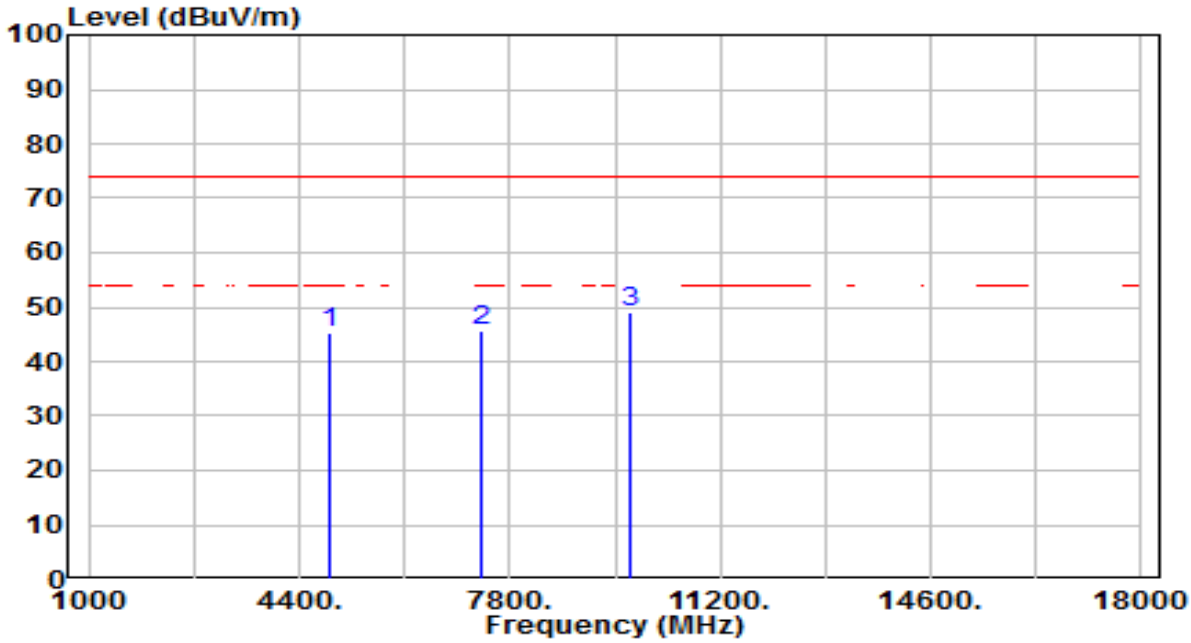


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	39.95	3.85	43.79	-30.21	74.00	100	310	Peak
2		7320.000	33.93	11.97	45.90	-28.10	74.00	100	13	Peak
3	*	9760.000	33.33	15.98	49.31	-24.69	74.00	100	222	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 19	Test Voltage	By Notebook PC

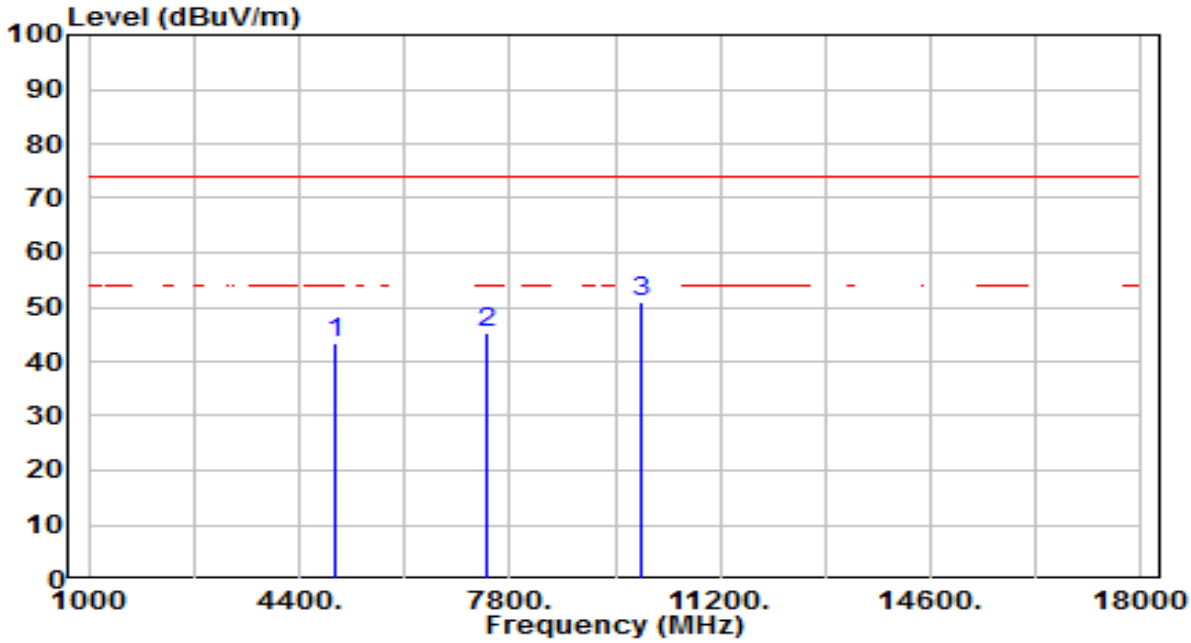


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	41.36	3.85	45.20	-28.80	74.00	100	256	Peak
2		7320.000	33.78	11.97	45.75	-28.25	74.00	100	242	Peak
3	*	9760.000	33.20	15.98	49.18	-24.82	74.00	100	153	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 39	Test Voltage	By Notebook PC

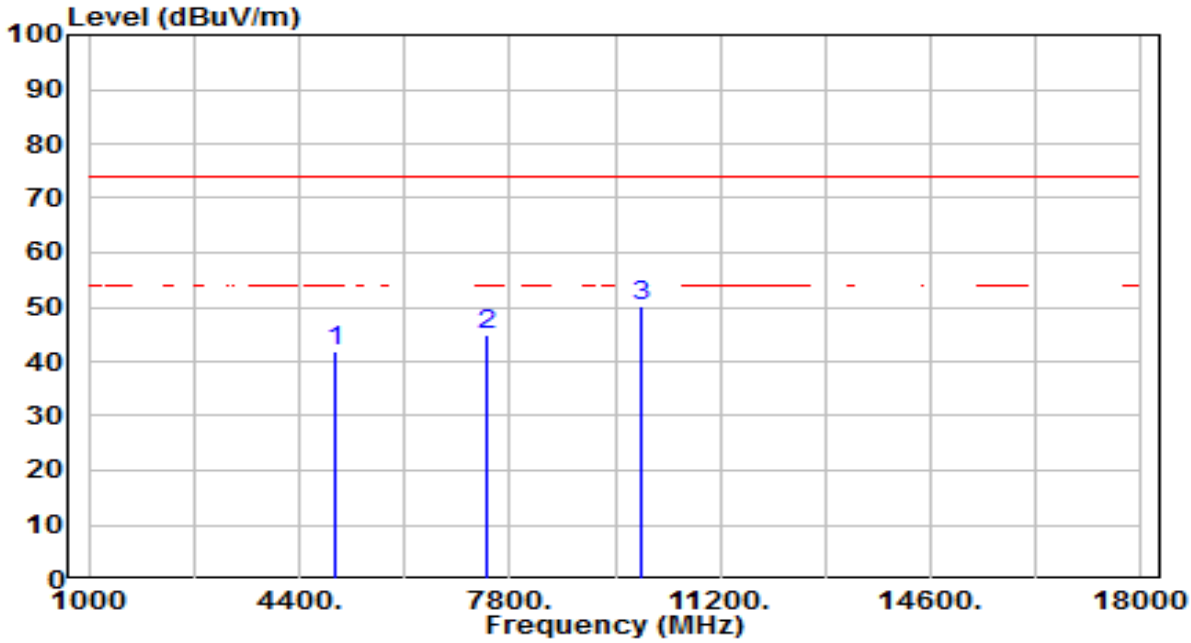


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	39.54	3.99	43.53	-30.47	74.00	100	321	Peak
2		7440.000	33.00	12.40	45.39	-28.61	74.00	100	262	Peak
3	*	9920.000	34.57	16.27	50.84	-23.16	74.00	100	203	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 39	Test Voltage	By Notebook PC

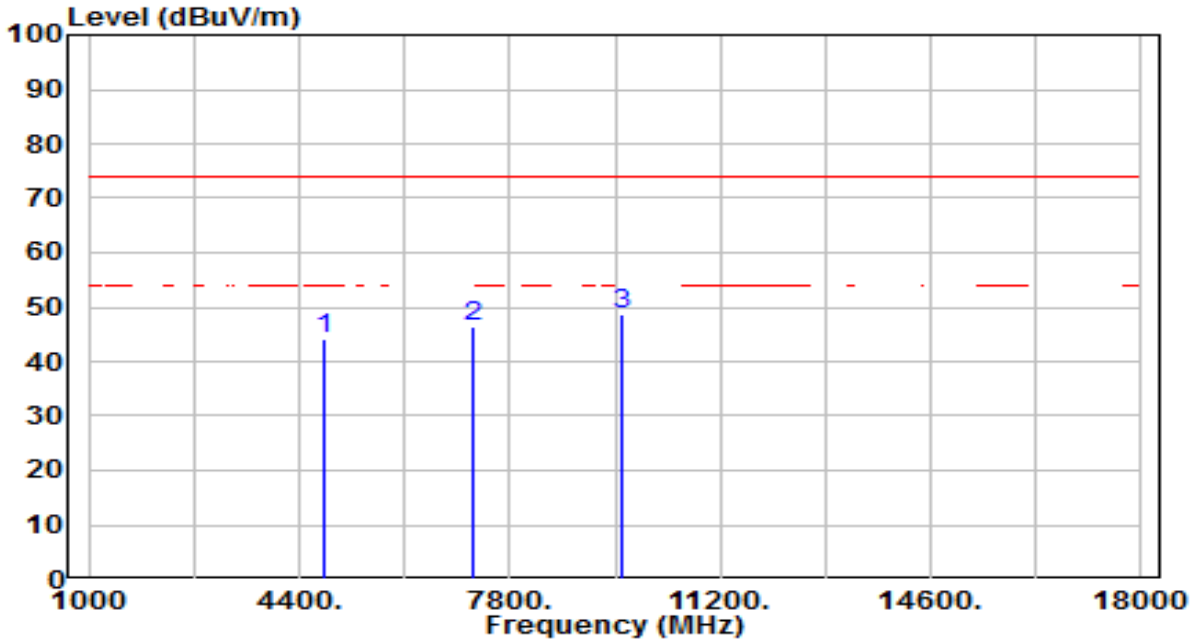


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	37.99	3.99	41.98	-32.02	74.00	100	311	Peak
2		7440.000	32.34	12.40	44.74	-29.26	74.00	100	267	Peak
3	*	9920.000	33.92	16.27	50.19	-23.81	74.00	100	333	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 0	Test Voltage	By Notebook PC

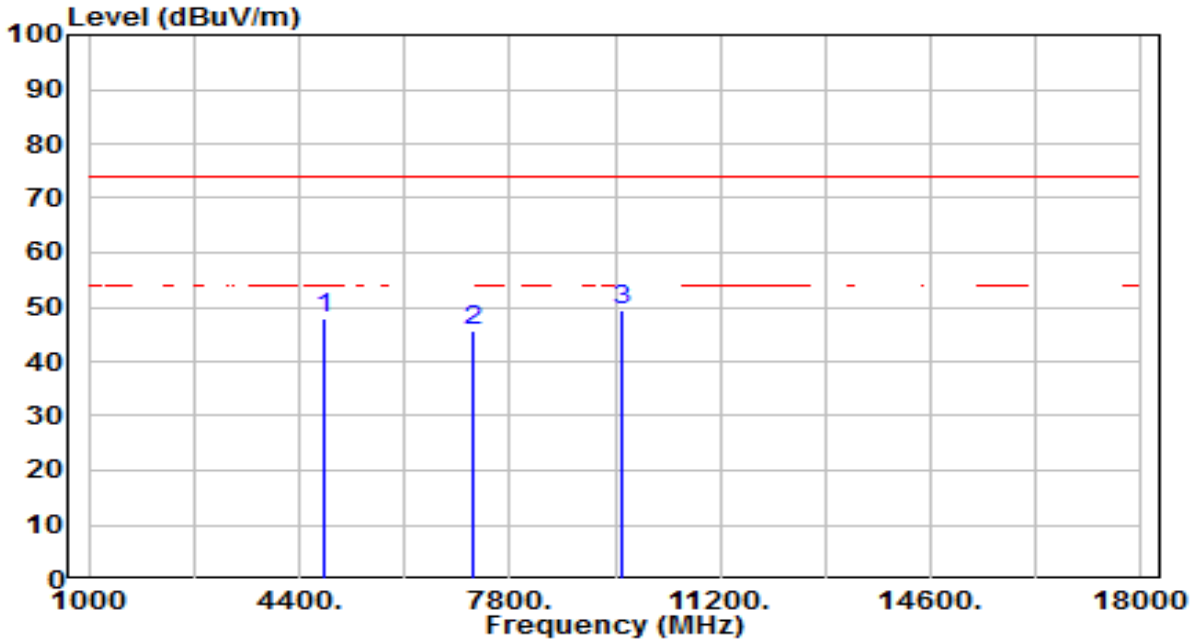


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	40.43	3.71	44.14	-29.86	74.00	100	309	Peak
2		7206.000	34.67	11.57	46.24	-27.76	74.00	100	287	Peak
3	*	9608.000	33.01	15.69	48.70	-25.30	74.00	100	161	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 0	Test Voltage	By Notebook PC

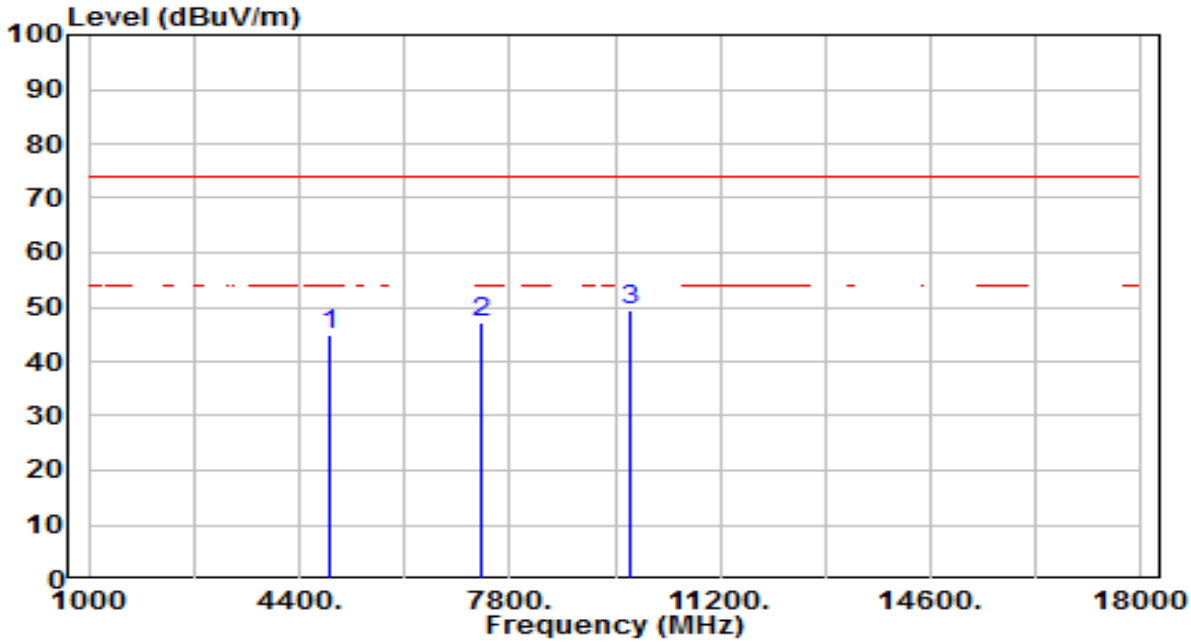


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4804.000	44.29	3.71	48.00	-26.00	74.00	100	255	Peak
2		7206.000	34.09	11.57	45.66	-28.34	74.00	100	289	Peak
3	*	9608.000	33.68	15.69	49.37	-24.63	74.00	100	300	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 19	Test Voltage	By Notebook PC

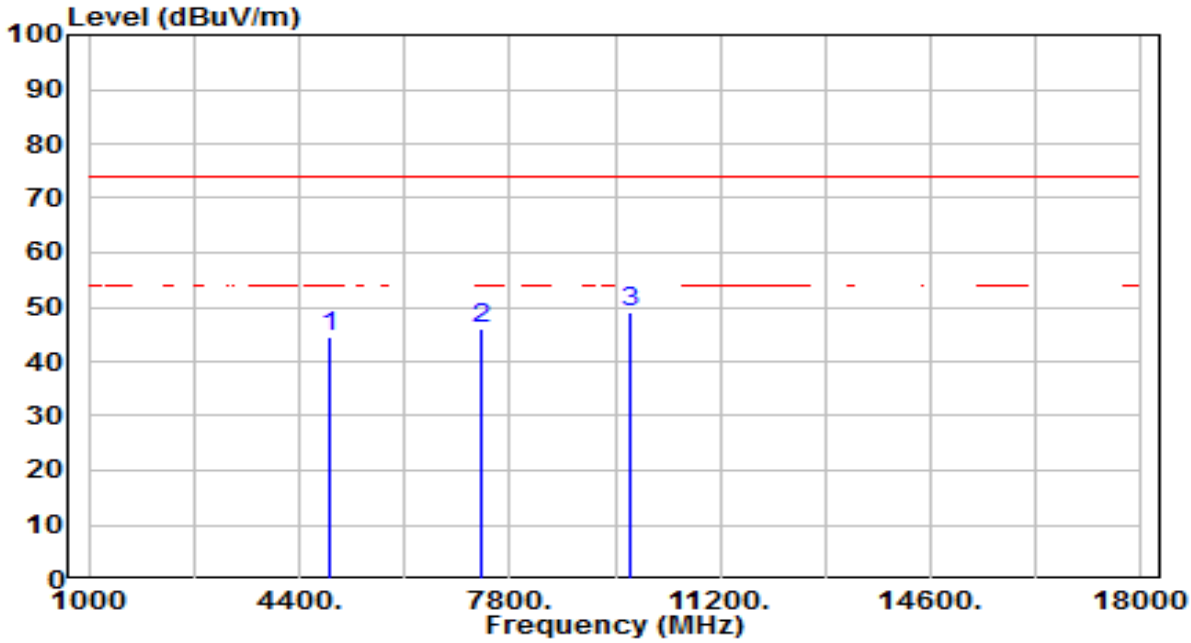


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	41.04	3.85	44.88	-29.12	74.00	100	320	Peak
2		7320.000	35.02	11.97	46.99	-27.01	74.00	100	190	Peak
3	*	9760.000	33.37	15.98	49.34	-24.66	74.00	100	94	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 19	Test Voltage	By Notebook PC

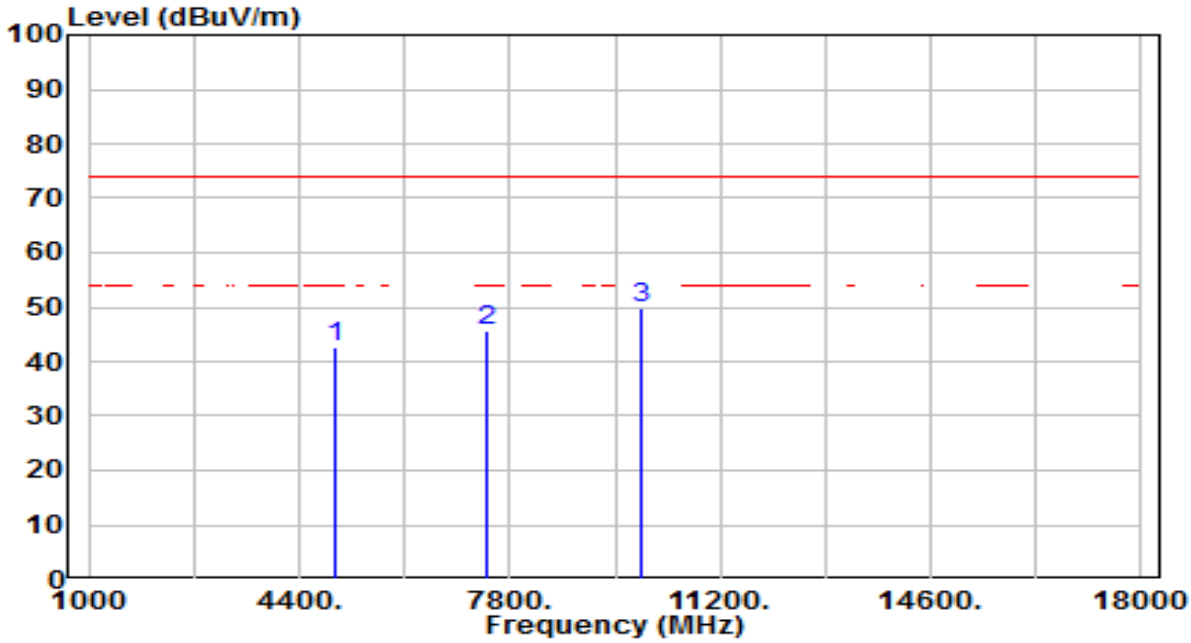


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.000	40.83	3.85	44.67	-29.33	74.00	100	284	Peak
2		7320.000	34.06	11.97	46.03	-27.97	74.00	100	65	Peak
3	*	9760.000	33.12	15.98	49.10	-24.90	74.00	100	348	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 39	Test Voltage	By Notebook PC

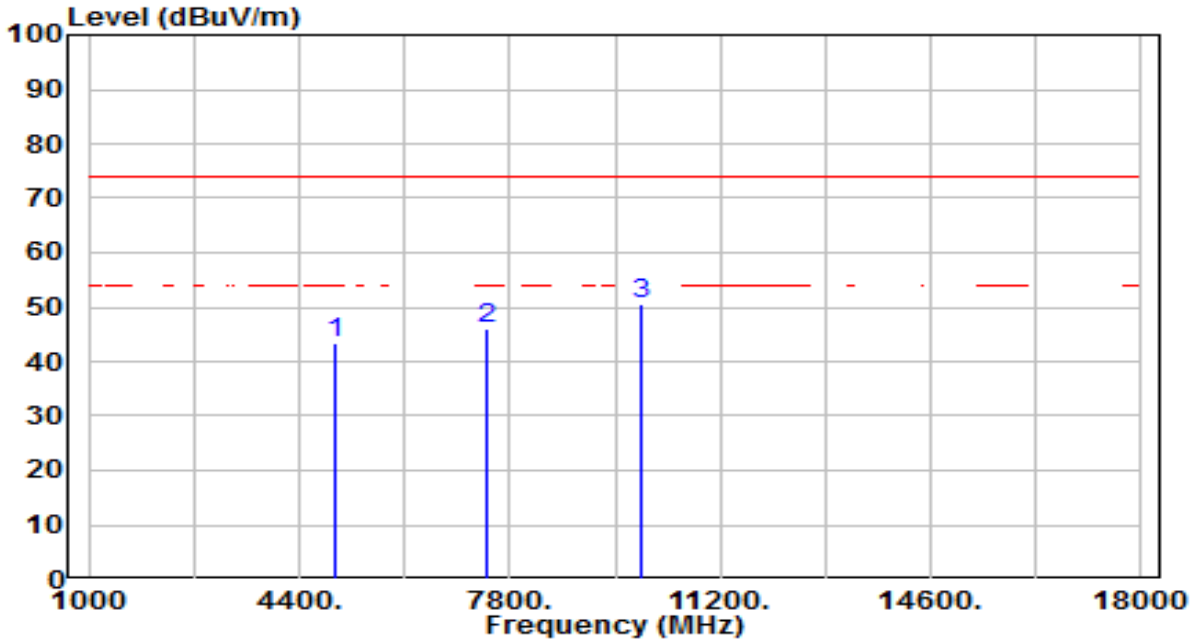


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	38.55	3.99	42.54	-31.46	74.00	100	327	Peak
2		7440.000	33.37	12.40	45.76	-28.24	74.00	100	304	Peak
3	*	9920.000	33.44	16.27	49.72	-24.28	74.00	100	189	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 39	Test Voltage	By Notebook PC

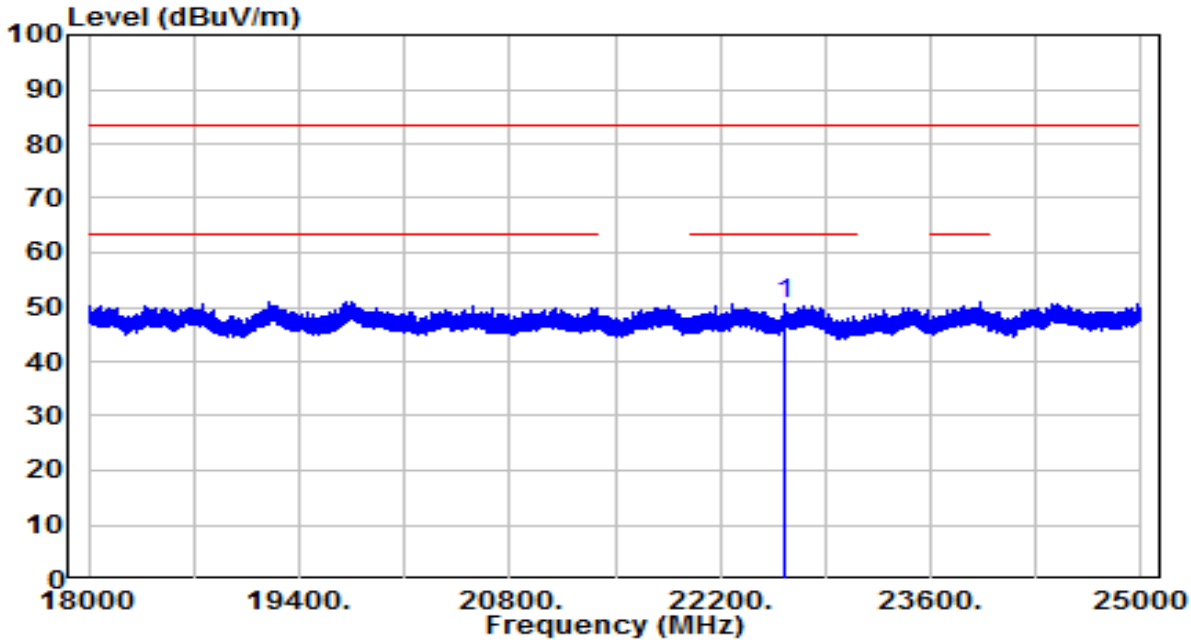


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4960.000	39.32	3.99	43.31	-30.69	74.00	100	285	Peak
2		7440.000	33.54	12.40	45.94	-28.06	74.00	100	292	Peak
3	*	9920.000	34.41	16.27	50.68	-23.32	74.00	100	355	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9170	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC

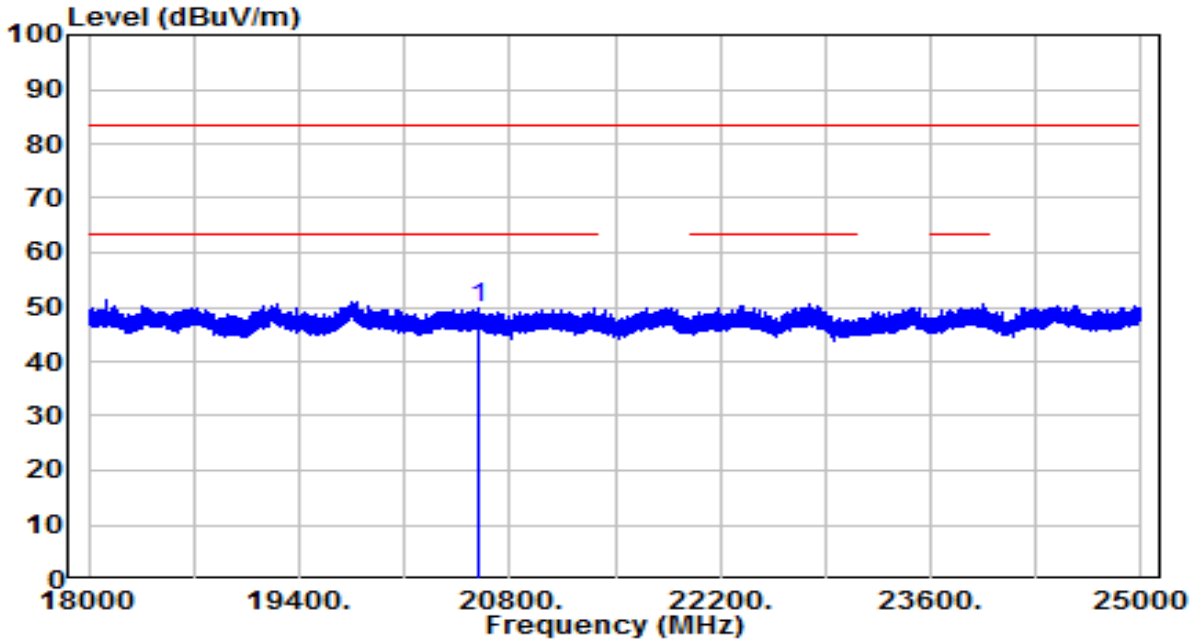


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	22627.220	38.78	11.94	50.72	-32.78	83.50	150	360	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9170	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	By Notebook PC



No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	20584.090	39.01	10.76	49.77	-33.73	83.50	150	360	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 – 30	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
Above 960	500	3

7.7.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.13

7.7.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3 * RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

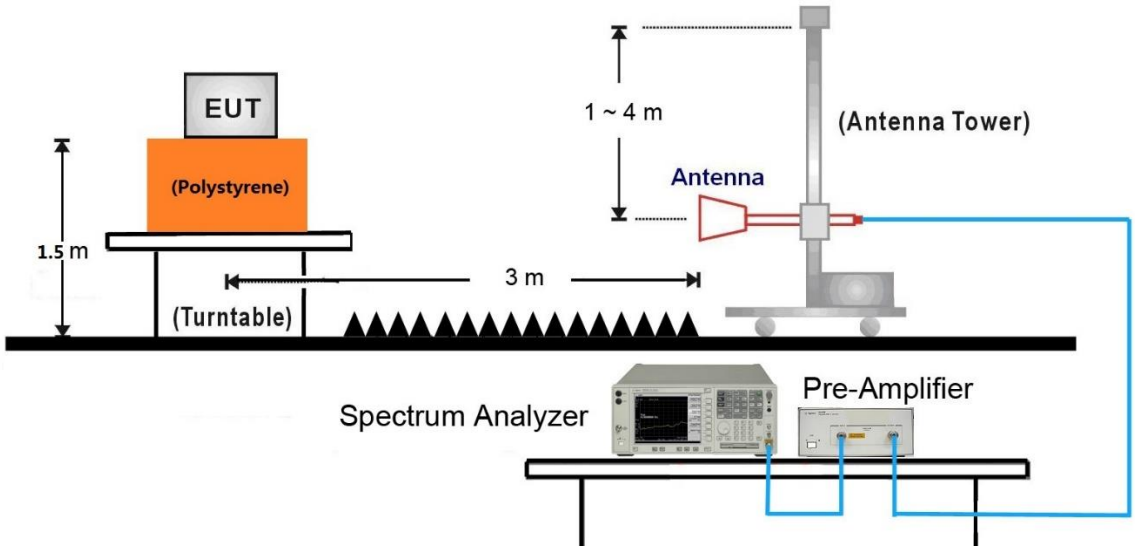
Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

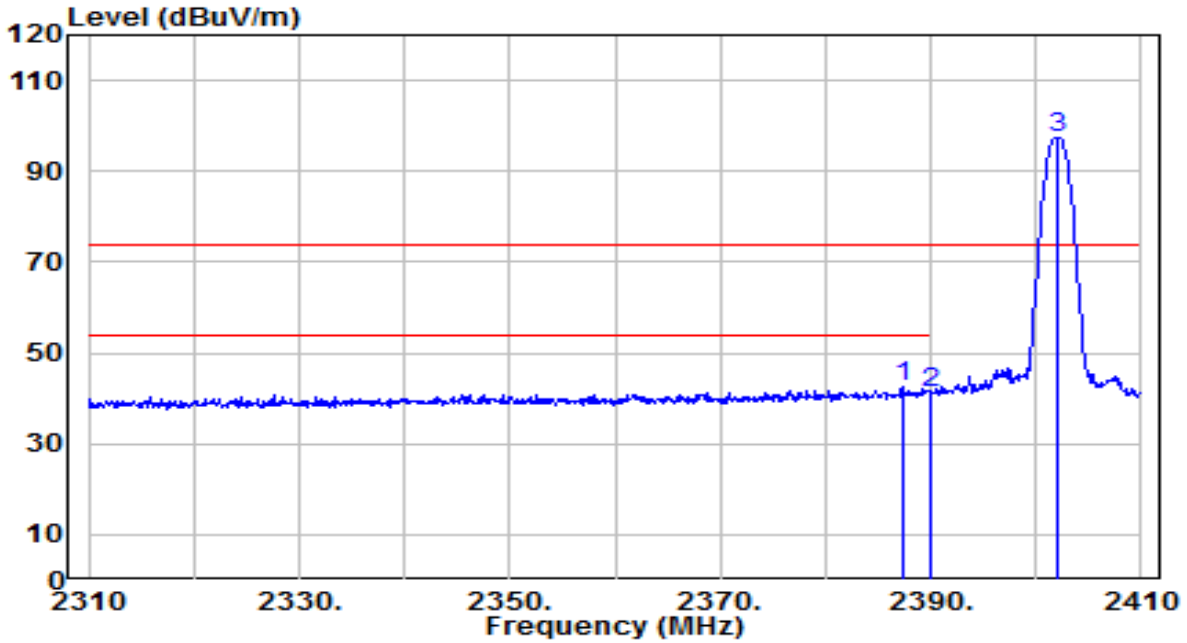
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.7.4. Test Setup



7.7.5. Test Result

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 0	Test Voltage	By Notebook PC

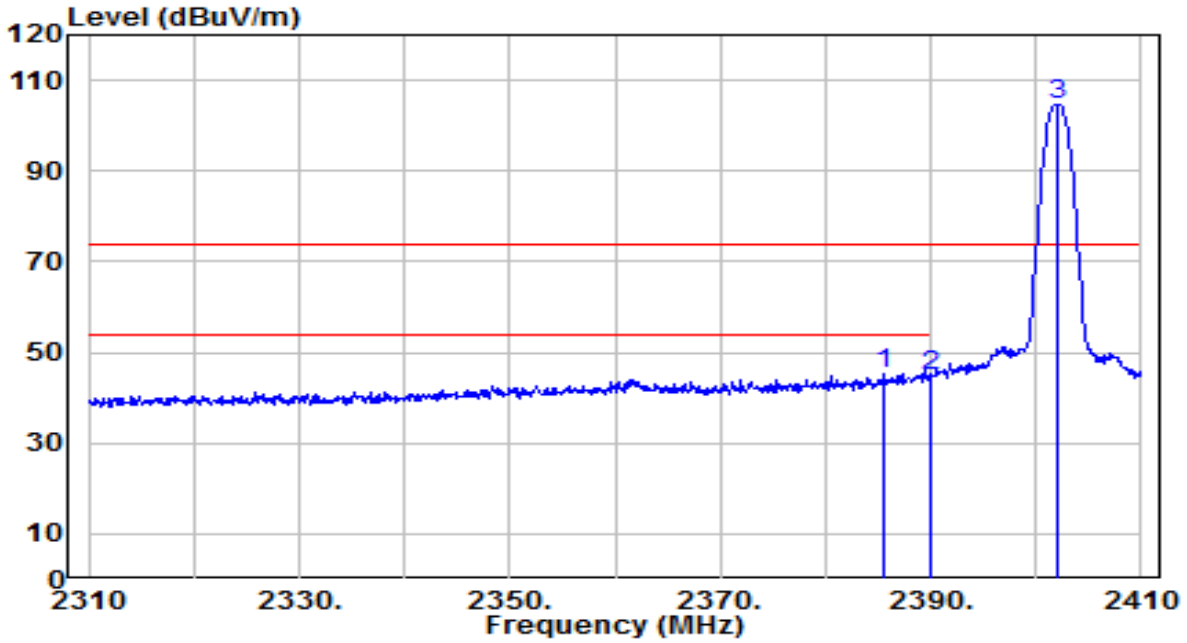


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2387.300	44.44	-2.04	42.41	-31.59	74.00	150	245	Peak
2		2390.000	43.39	-2.03	41.37	-32.63	74.00	150	245	Peak
3		2402.100	99.30	-1.99	97.31	N/A	N/A	150	245	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 0	Test Voltage	By Notebook PC

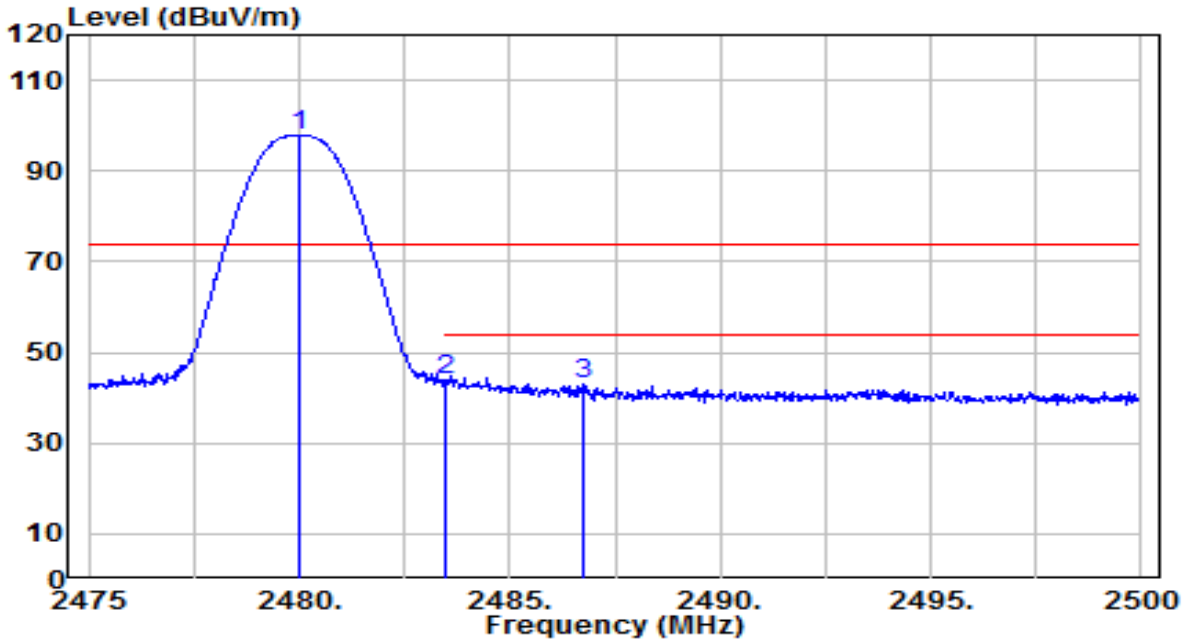


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2385.500	47.43	-2.04	45.39	-28.61	74.00	125	210	Peak
2		2390.000	46.97	-2.03	44.94	-29.06	74.00	125	210	Peak
3		2402.000	106.60	-1.99	104.61	N/A	N/A	125	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 39	Test Voltage	By Notebook PC

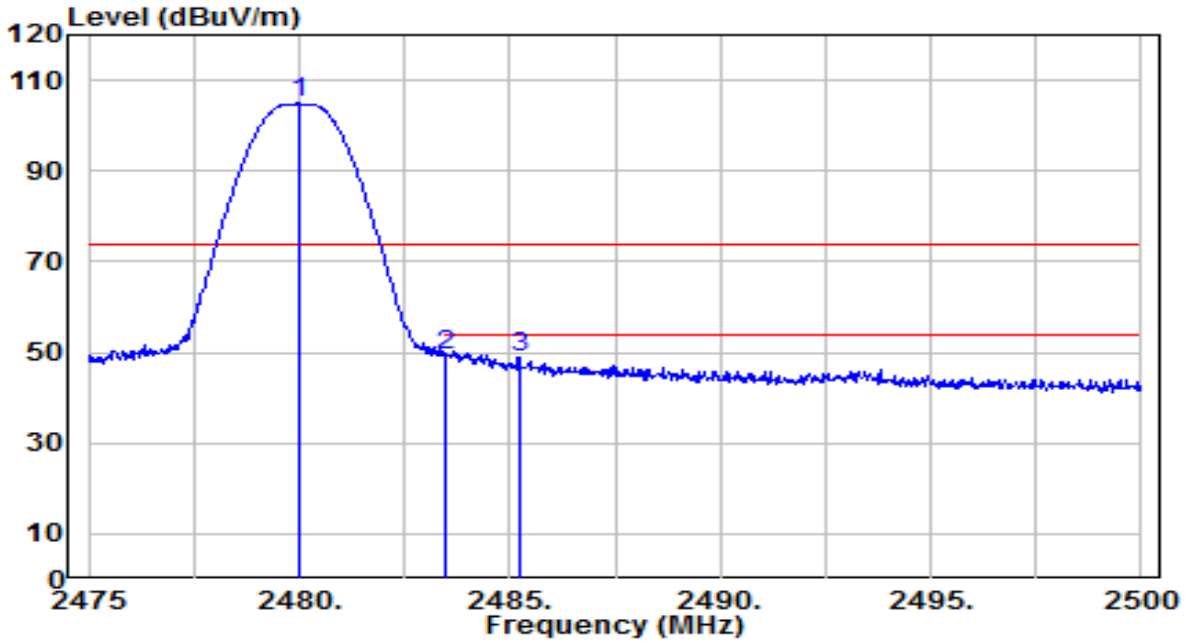


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.000	99.47	-1.74	97.73	N/A	N/A	160	295	Peak
2	*	2483.500	45.73	-1.73	44.00	-30.00	74.00	160	295	Peak
3		2486.725	44.93	-1.72	43.20	-30.80	74.00	160	295	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_1Mbps_CH 39	Test Voltage	By Notebook PC

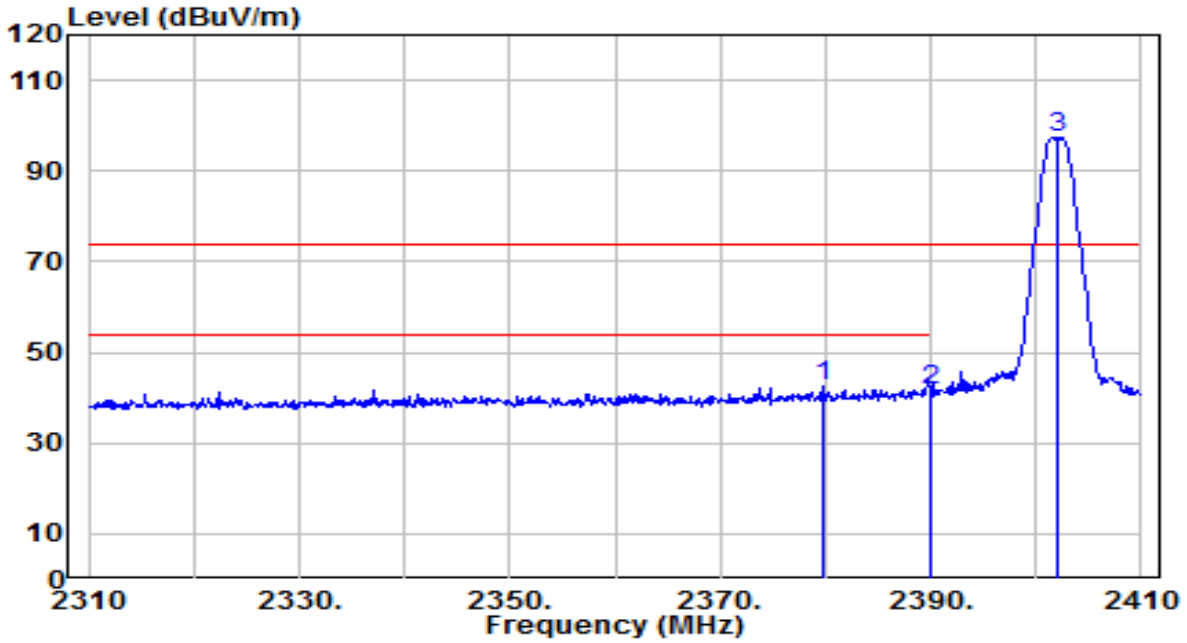


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.000	106.62	-1.74	104.87	N/A	N/A	155	115	Peak
2	*	2483.500	51.27	-1.73	49.54	-24.46	74.00	155	115	Peak
3		2485.225	50.61	-1.73	48.88	-25.12	74.00	155	115	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 0	Test Voltage	By Notebook PC

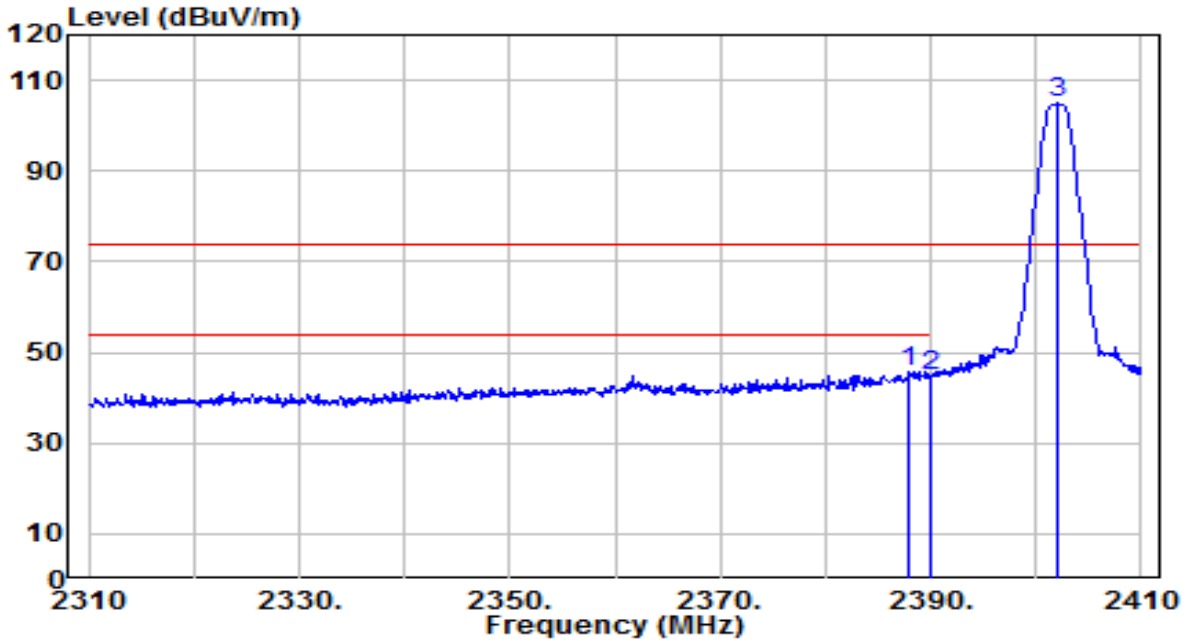


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2379.700	44.49	-2.06	42.43	-31.57	74.00	150	245	Peak
2		2390.000	43.51	-2.03	41.48	-32.52	74.00	150	245	Peak
3		2402.000	99.27	-1.99	97.28	N/A	N/A	150	245	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 0	Test Voltage	By Notebook PC

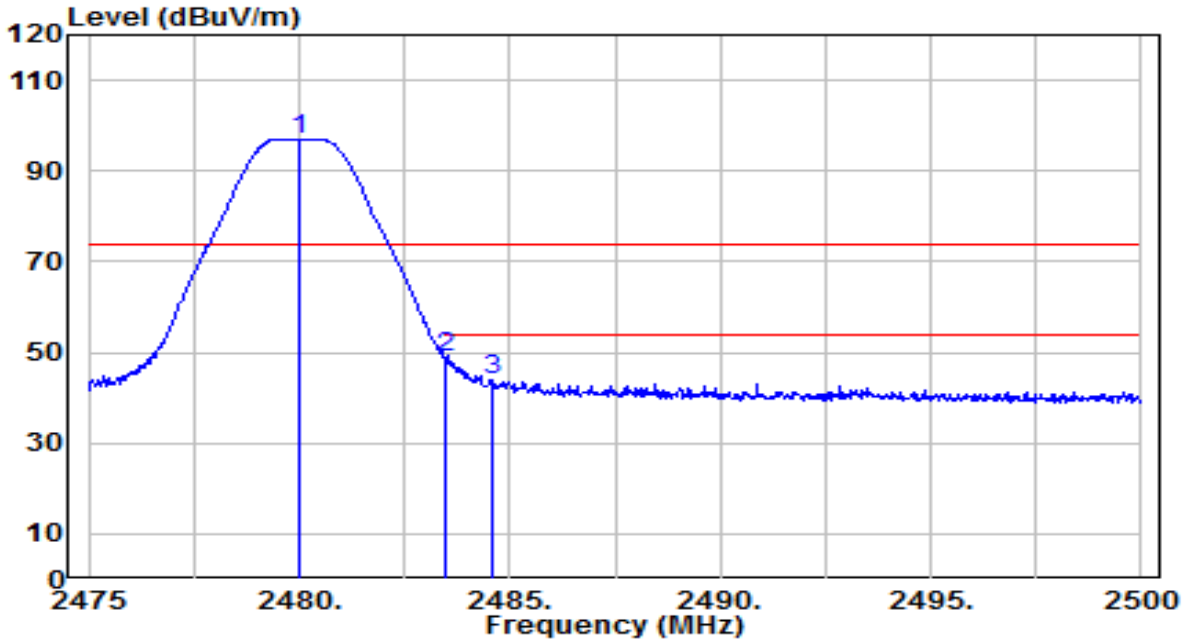


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2388.000	47.90	-2.03	45.87	-28.13	74.00	125	210	Peak
2		2390.000	47.06	-2.03	45.04	-28.96	74.00	125	210	Peak
3		2402.000	106.85	-1.99	104.86	N/A	N/A	125	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 39	Test Voltage	By Notebook PC

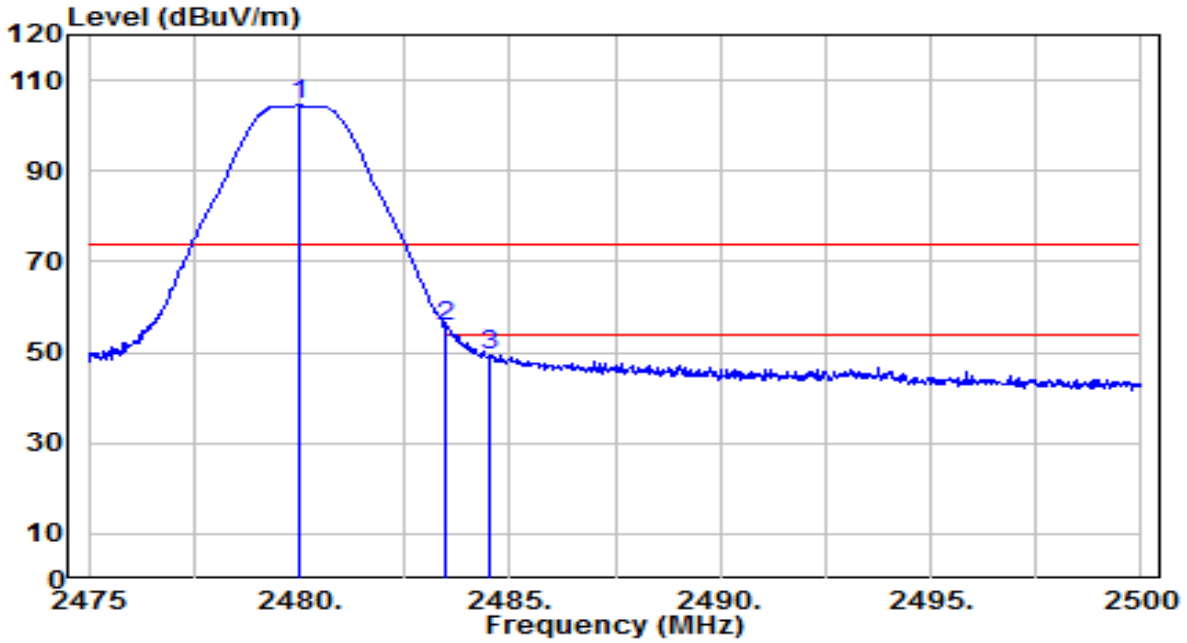


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.975	98.87	-1.74	97.13	N/A	N/A	160	295	Peak
2	*	2483.500	50.52	-1.73	48.79	-25.21	74.00	160	295	Peak
3		2484.600	45.70	-1.73	43.97	-30.03	74.00	160	295	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 39	Test Voltage	By Notebook PC

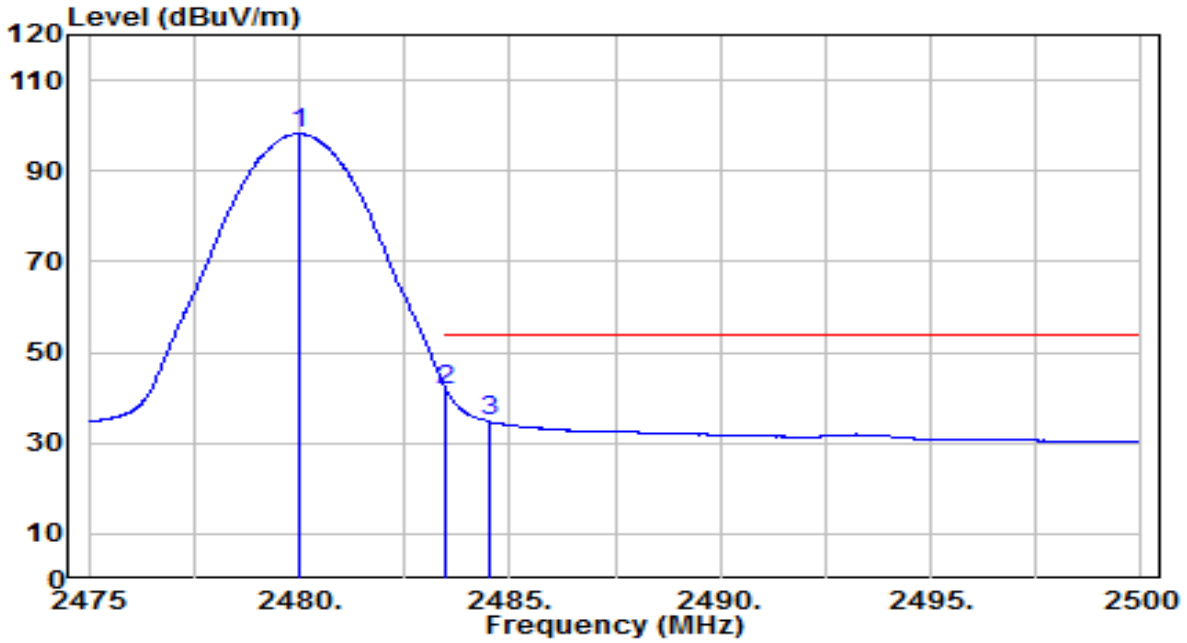


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.975	106.16	-1.74	104.42	N/A	N/A	155	115	Peak
2	*	2483.500	57.49	-1.73	55.76	-18.24	74.00	155	115	Peak
3		2484.500	51.10	-1.73	49.37	-24.63	74.00	155	115	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_2Mbps_CH 39	Test Voltage	By Notebook PC

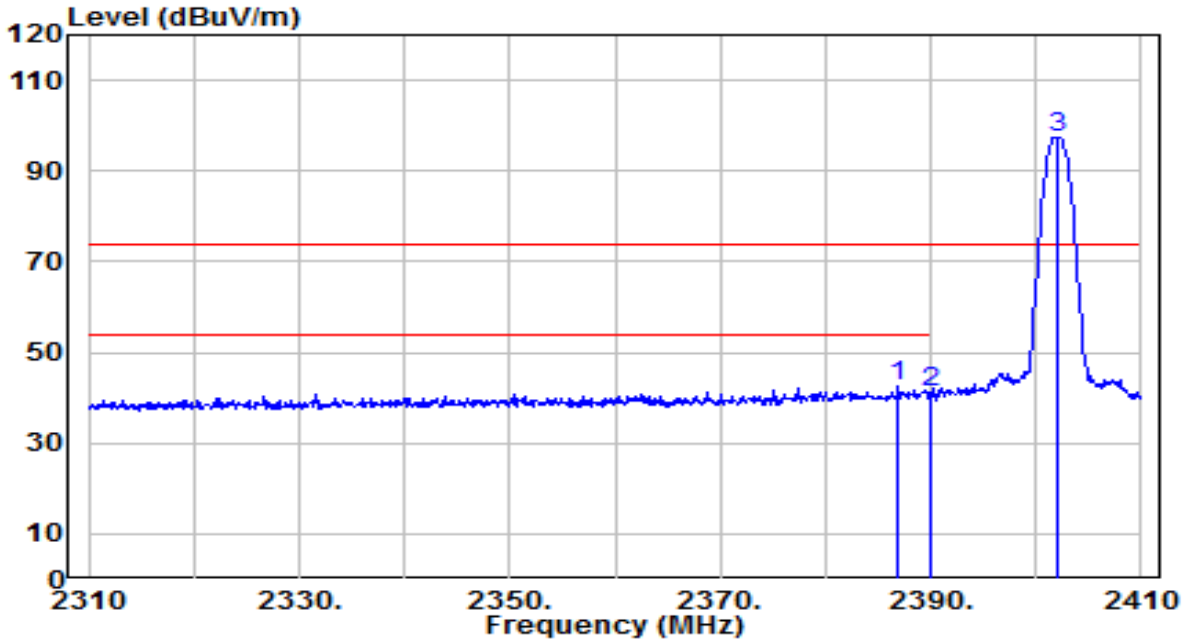


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.025	99.92	-1.74	98.17	N/A	N/A	155	115	Average
2	*	2483.500	43.40	-1.73	41.66	-12.34	54.00	155	115	Average
3		2484.525	36.49	-1.73	34.76	-19.24	54.00	155	115	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 0	Test Voltage	By Notebook PC

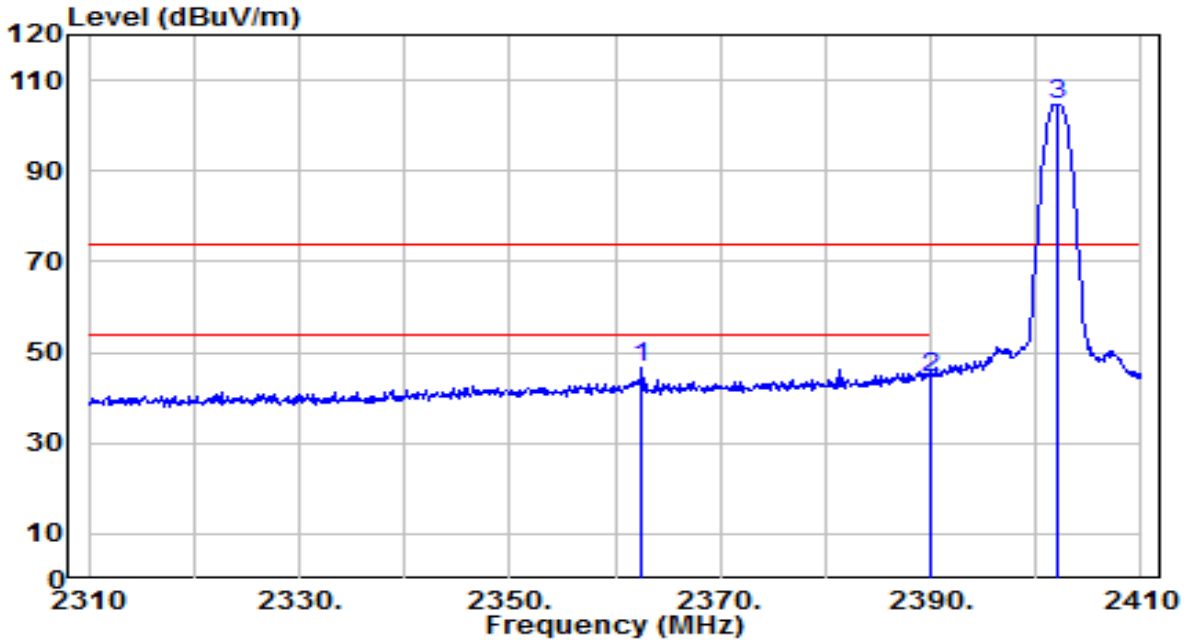


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2386.900	44.39	-2.04	42.35	-31.65	74.00	150	245	Peak
2		2390.000	43.44	-2.03	41.41	-32.59	74.00	150	245	Peak
3		2402.100	99.44	-1.99	97.45	N/A	N/A	150	245	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 0	Test Voltage	By Notebook PC

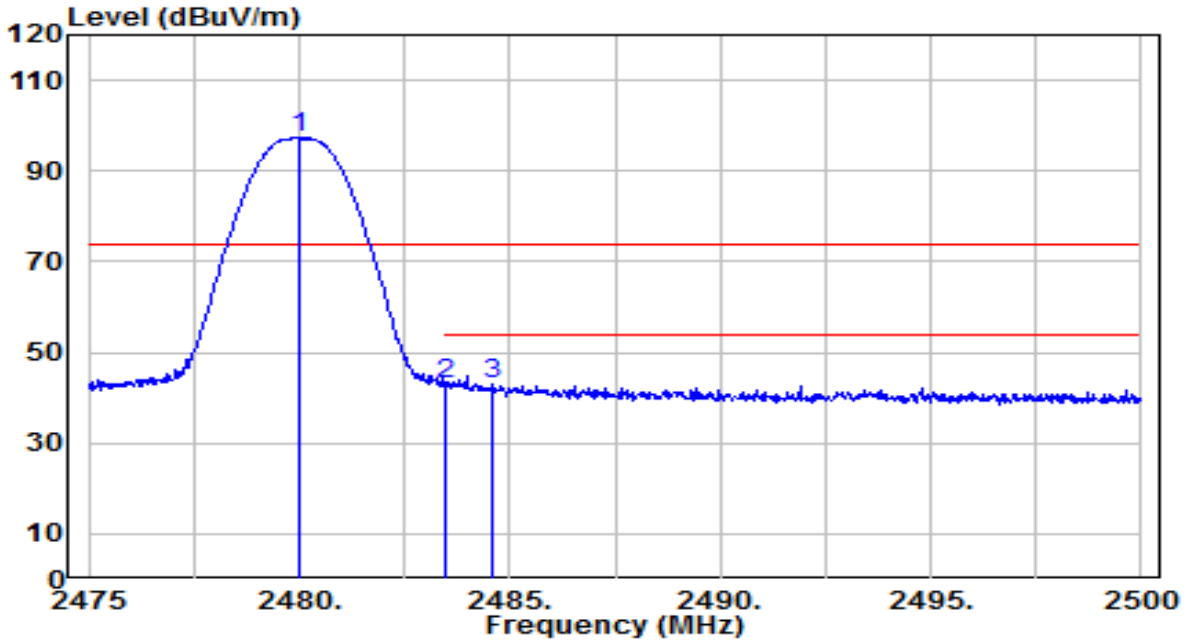


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2362.600	48.74	-2.11	46.62	-27.38	74.00	125	210	Peak
2		2390.000	46.38	-2.03	44.35	-29.65	74.00	125	210	Peak
3		2402.100	106.77	-1.99	104.78	N/A	N/A	125	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 39	Test Voltage	By Notebook PC

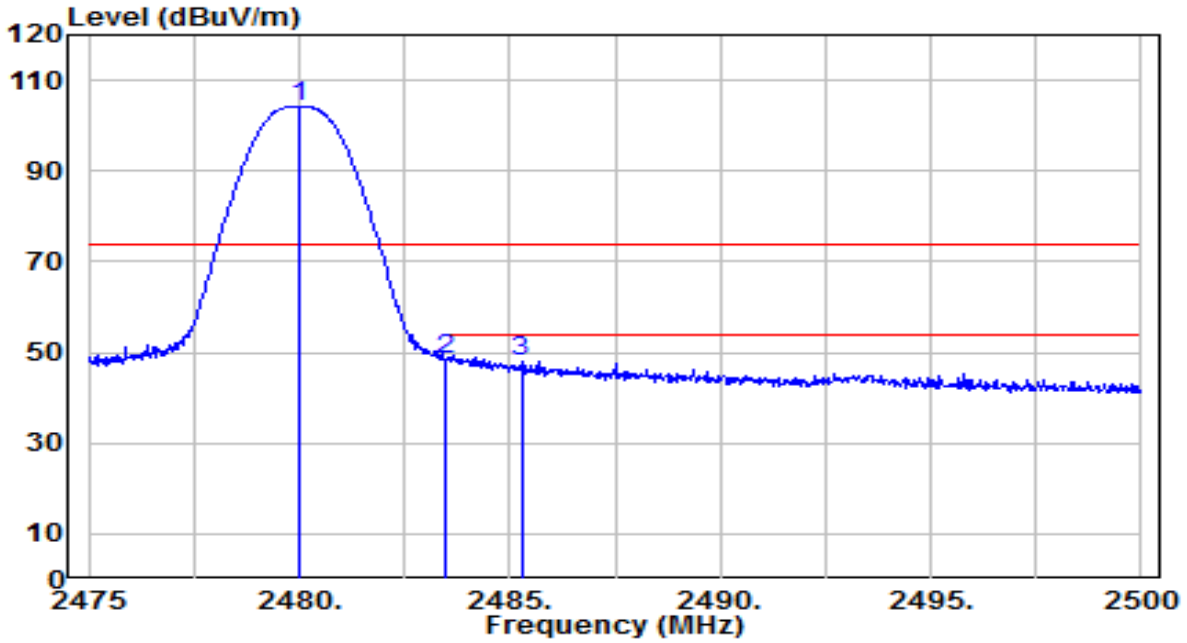


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.975	98.97	-1.74	97.23	N/A	N/A	160	295	Peak
2	*	2483.500	44.75	-1.73	43.01	-30.99	74.00	160	295	Peak
3		2484.575	44.69	-1.73	42.96	-31.04	74.00	160	295	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=2_CH 39	Test Voltage	By Notebook PC

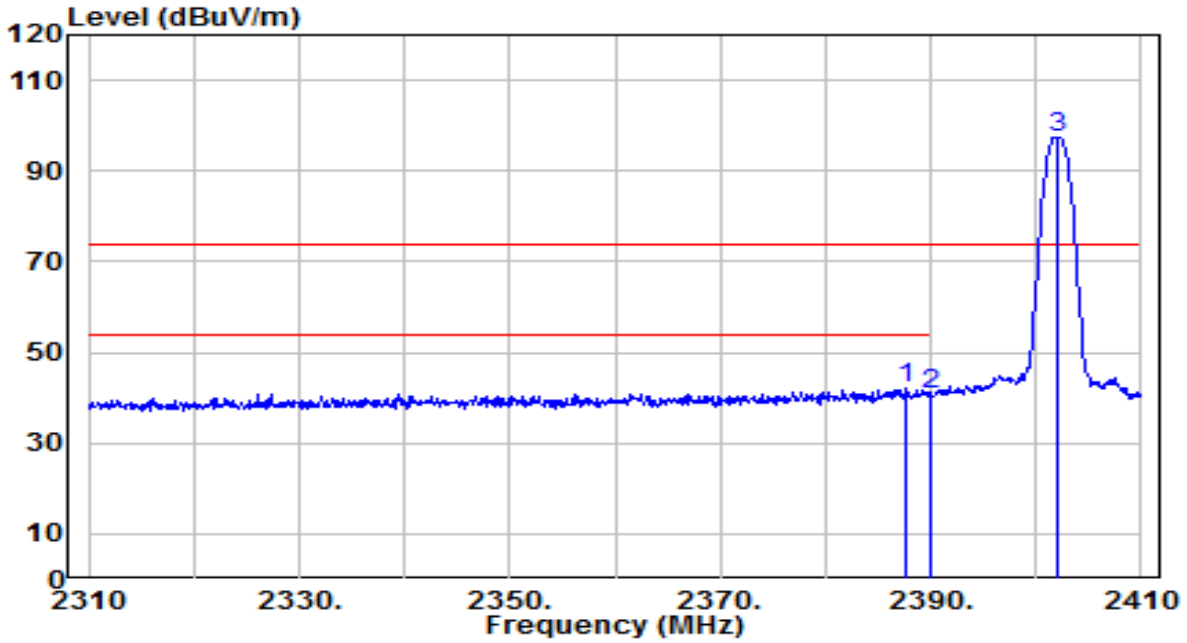


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.025	105.86	-1.74	104.11	N/A	N/A	155	115	Peak
2	*	2483.500	50.36	-1.73	48.63	-25.37	74.00	155	115	Peak
3		2485.275	49.70	-1.73	47.97	-26.03	74.00	155	115	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 0	Test Voltage	By Notebook PC

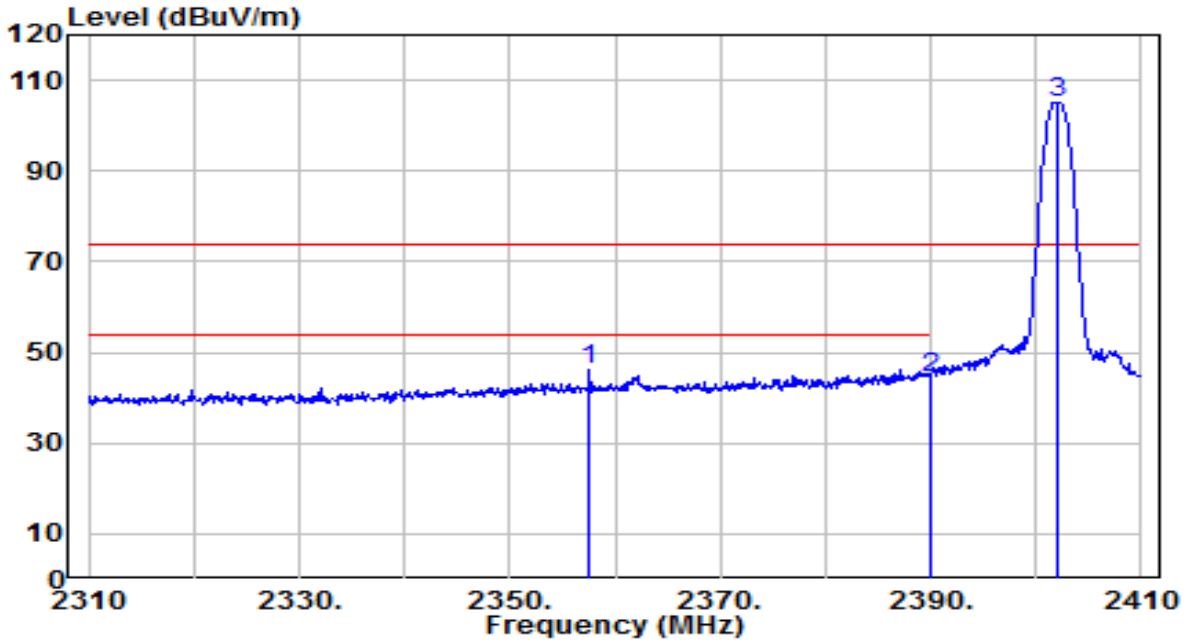


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2387.600	44.37	-2.04	42.33	-31.67	74.00	150	245	Peak
2		2390.000	42.61	-2.03	40.58	-33.42	74.00	150	245	Peak
3		2402.100	99.45	-1.99	97.46	N/A	N/A	150	245	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 0	Test Voltage	By Notebook PC

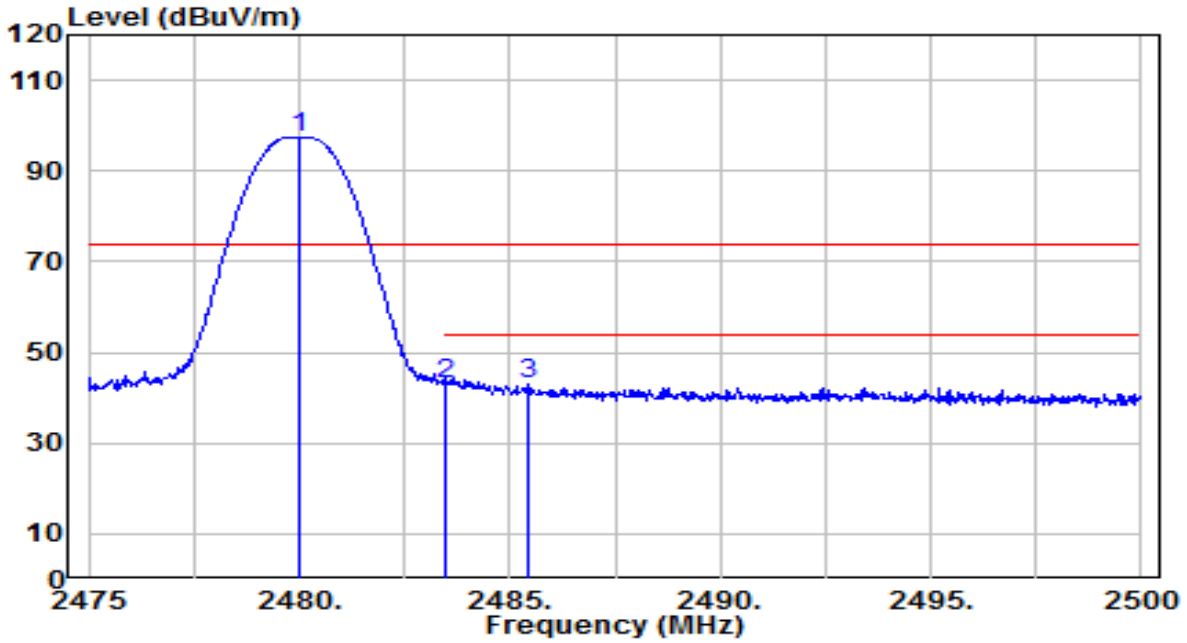


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	2357.600	48.41	-2.13	46.28	-27.72	74.00	125	210	Peak
2		2390.000	46.49	-2.03	44.46	-29.54	74.00	125	210	Peak
3		2402.000	107.15	-1.99	105.16	N/A	N/A	125	210	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 39	Test Voltage	By Notebook PC

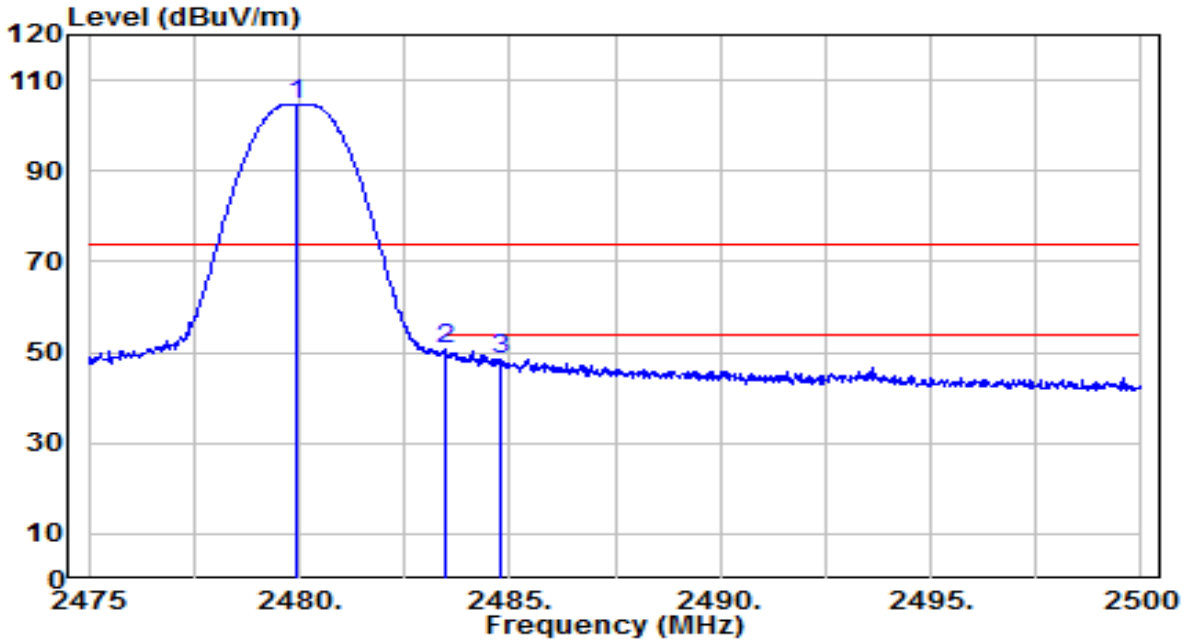


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2480.025	99.20	-1.74	97.45	N/A	N/A	160	295	Peak
2		2483.500	44.55	-1.73	42.82	-31.18	74.00	160	295	Peak
3	*	2485.425	44.74	-1.73	43.01	-30.99	74.00	160	295	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	BBHA 9120D	Temp. / Humidity	25°C /61%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	BLE_TX_Coded S=8_CH 39	Test Voltage	By Notebook PC



No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		2479.925	106.52	-1.74	104.77	N/A	N/A	155	115	Peak
2	*	2483.500	52.49	-1.73	50.76	-23.24	74.00	155	115	Peak
3		2484.775	50.19	-1.73	48.46	-25.54	74.00	155	115	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

7.8. AC Conducted Emissions Measurement

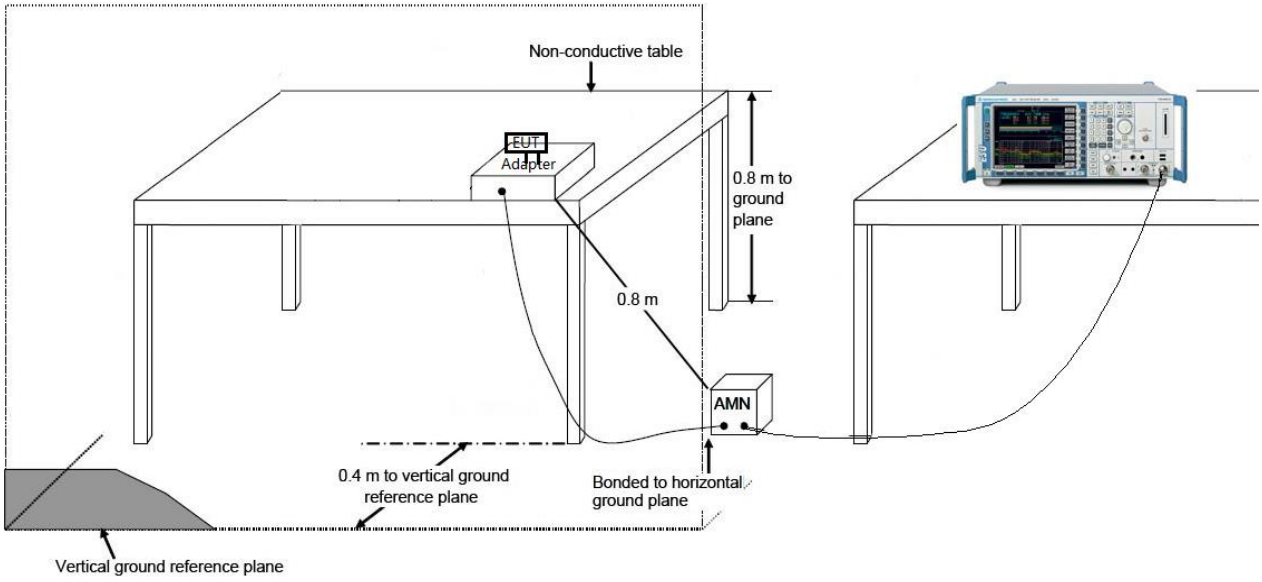
7.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 / RSS-Gen Limits		
Frequency (MHz)	QP (dBμV)	Average (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

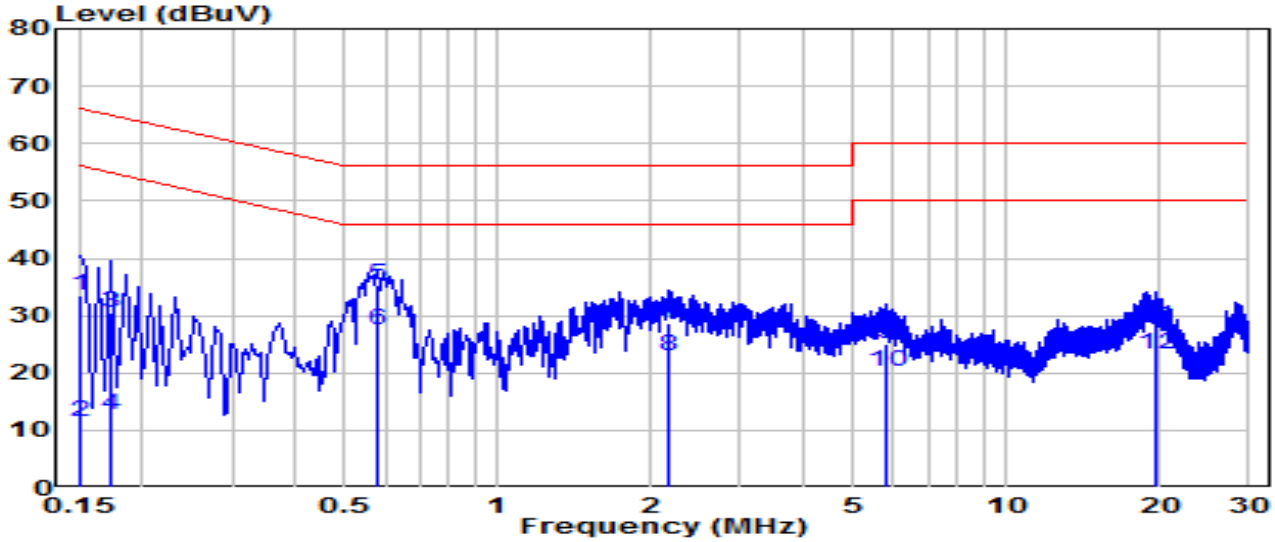
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	23.9°C /52%
Polarity	Line1	Site / Test Engineer	SR2 / Bob
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.150	23.77	9.63	33.40	-32.60	66.00	QP
2		0.150	1.71	9.63	11.34	-44.66	56.00	Average
3		0.172	20.89	9.63	30.52	-34.32	64.84	QP
4		0.172	2.91	9.63	12.54	-42.30	54.84	Average
5	*	0.577	25.81	9.66	35.47	-20.53	56.00	QP
6	*	0.577	17.77	9.66	27.43	-18.57	46.00	Average
7		2.179	18.93	9.70	28.63	-27.37	56.00	QP
8		2.179	13.31	9.70	23.01	-22.99	46.00	Average
9		5.779	15.34	9.77	25.11	-34.89	60.00	QP
10		5.779	10.45	9.77	20.21	-29.79	50.00	Average
11		19.624	18.14	9.94	28.08	-31.92	60.00	QP
12		19.624	13.18	9.94	23.12	-26.88	50.00	Average

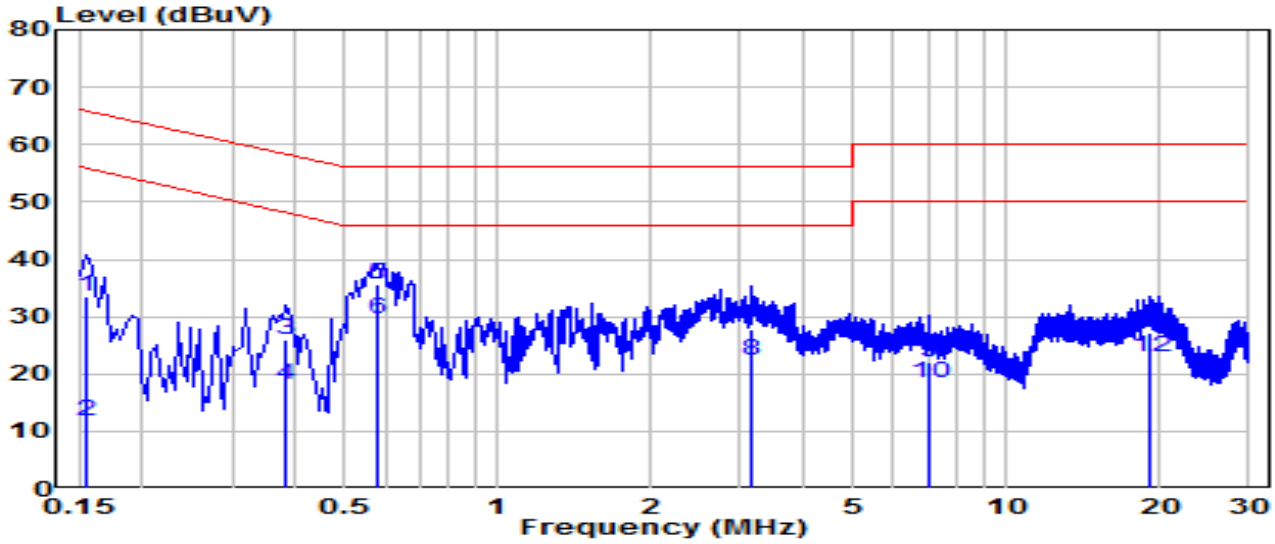
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	23.9°C /52%
Polarity	Neutral	Site / Test Engineer	SR2 / Bob
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.154	23.92	9.63	33.55	-32.20	65.75	QP
2		0.154	2.14	9.63	11.77	-43.98	55.75	Average
3		0.384	16.46	9.64	26.10	-32.09	58.19	QP
4		0.384	8.61	9.64	18.25	-29.94	48.19	Average
5	*	0.582	26.07	9.66	35.73	-20.27	56.00	QP
6	*	0.582	19.89	9.66	29.54	-16.46	46.00	Average
7		3.147	18.18	9.73	27.91	-28.09	56.00	QP
8		3.147	12.66	9.73	22.38	-23.62	46.00	Average
9		7.030	12.28	9.81	22.09	-37.91	60.00	QP
10		7.030	8.67	9.81	18.48	-31.52	50.00	Average
11		19.075	17.22	9.99	27.21	-32.79	60.00	QP
12		19.075	12.91	9.99	22.89	-27.11	50.00	Average

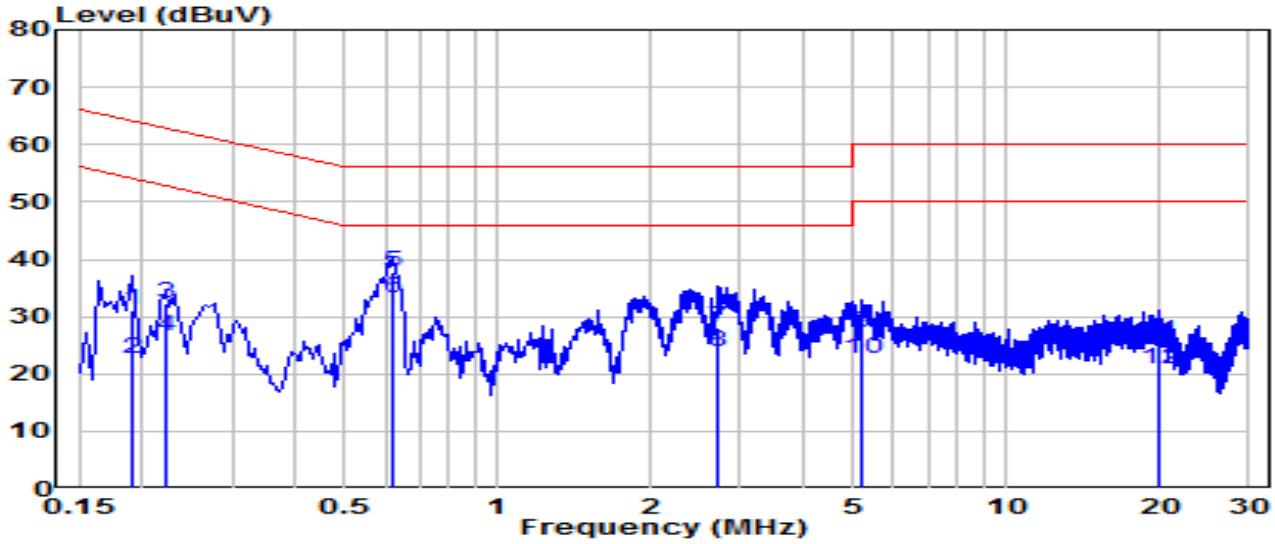
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	23.9°C /52%
Polarity	Line1	Site / Test Engineer	SR2 / Bob
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	AC 240V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.190	21.33	9.63	30.96	-33.05	64.01	QP
2		0.190	13.04	9.63	22.67	-31.34	54.01	Average
3		0.222	22.52	9.63	32.16	-30.59	62.74	QP
4		0.222	16.94	9.63	26.58	-26.17	52.74	Average
5	*	0.618	28.19	9.66	37.85	-18.15	56.00	QP
6	*	0.618	23.56	9.66	33.22	-12.78	46.00	Average
7		2.692	18.34	9.71	28.05	-27.95	56.00	QP
8		2.692	14.23	9.71	23.94	-22.06	46.00	Average
9		5.225	17.57	9.75	27.32	-32.68	60.00	QP
10		5.225	12.90	9.75	22.65	-27.35	50.00	Average
11		19.957	15.62	9.94	25.56	-34.44	60.00	QP
12		19.957	10.98	9.94	20.92	-29.08	50.00	Average

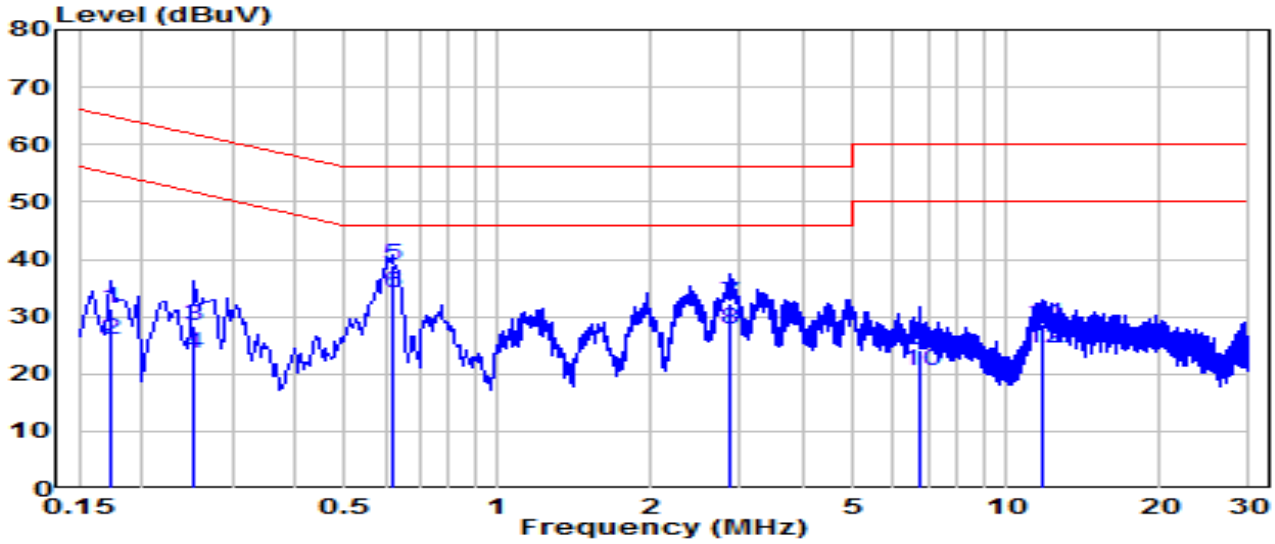
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Long Range Bluetooth USB Adapter	Date of Test	2024-06-05
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	23.9°C /52%
Polarity	Neutral	Site / Test Engineer	SR2 / Bob
Test Mode	BLE_TX_1Mbps_CH 19	Test Voltage	AC 240V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.172	21.82	9.63	31.45	-33.39	64.84	QP
2		0.172	16.46	9.63	26.09	-28.75	54.84	Average
3		0.253	18.89	9.64	28.52	-33.12	61.64	QP
4		0.253	13.76	9.64	23.40	-28.24	51.64	Average
5	*	0.618	29.35	9.66	39.01	-16.99	56.00	QP
6	*	0.618	24.49	9.66	34.15	-11.85	46.00	Average
7		2.854	22.55	9.72	32.27	-23.73	56.00	QP
8		2.854	18.03	9.72	27.75	-18.25	46.00	Average
9		6.760	14.37	9.80	24.17	-35.83	60.00	QP
10		6.760	10.62	9.80	20.43	-29.57	50.00	Average
11		11.844	18.80	9.91	28.71	-31.29	60.00	QP
12		11.844	14.68	9.91	24.59	-25.41	50.00	Average

Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Long Range Bluetooth USB Adapter** is in compliance with Part 15C of the FCC Rules.

Appendix A : Test Photograph

Refer to “2405TW0120-TT” file.

Appendix B : External Photograph

Refer to “2405TW0120-TE” file.

Appendix C : Internal Photograph

Refer to “2405TW0120-TI” file.

The End