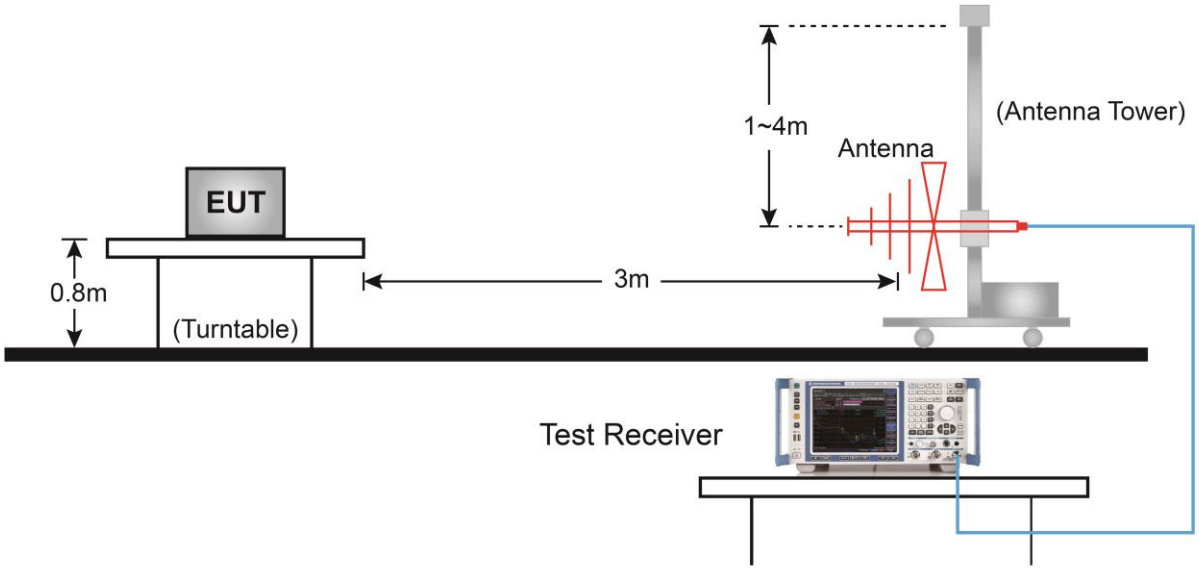
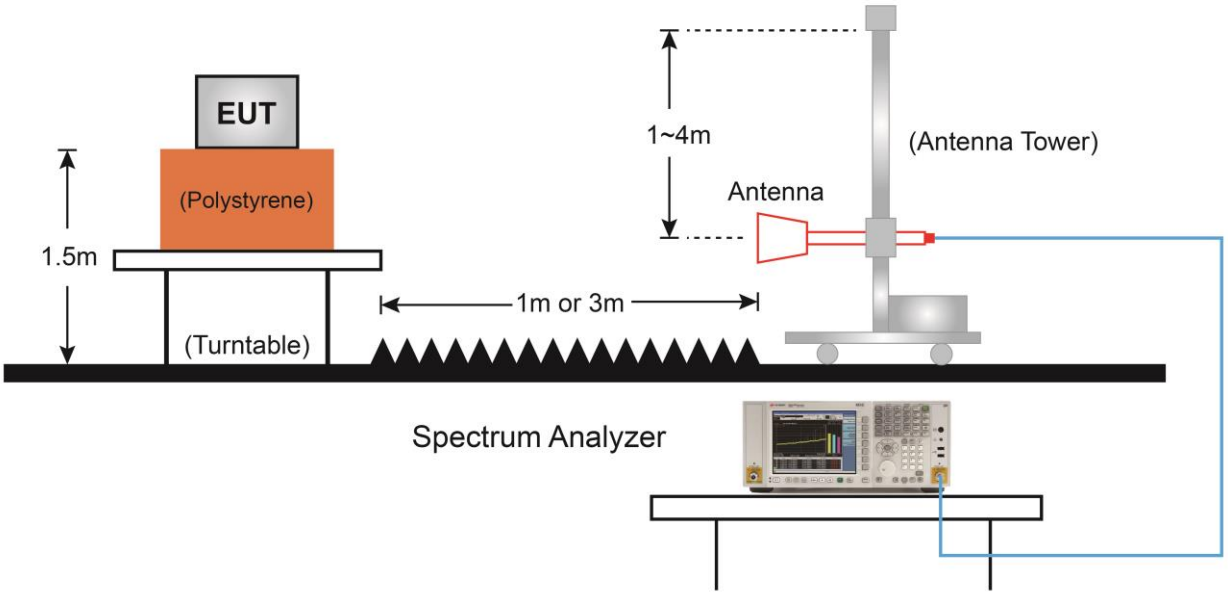
6.6.4.Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5.Test Result

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Left Earbud	Test Channel:	00
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4230.0	38.7	1.5	40.2	74.0	-33.8	Peak	Horizontal
	4808.0	38.8	3.3	42.1	74.0	-31.9	Peak	Horizontal
*	6533.5	36.4	7.3	43.7	74.0	-30.3	Peak	Horizontal
*	7842.5	35.3	10.7	46.0	74.0	-28.0	Peak	Horizontal
	4170.5	43.0	1.1	44.1	74.0	-29.9	Peak	Vertical
	5148.0	41.8	4.0	45.8	74.0	-28.2	Peak	Vertical
*	6465.5	38.6	6.9	45.5	74.0	-28.5	Peak	Vertical
*	7103.0	36.1	9.8	45.9	74.0	-28.1	Peak	Vertical

Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Left Earbud	Test Channel:	19
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4026.0	39.1	0.4	39.5	74.0	-34.5	Peak	Horizontal
	4876.0	38.8	3.1	41.9	74.0	-32.1	Peak	Horizontal
*	6457.0	36.6	7.0	43.6	74.0	-30.4	Peak	Horizontal
*	7026.5	36.3	9.5	45.8	74.0	-28.2	Peak	Horizontal
	3788.0	45.1	0.0	45.1	74.0	-28.9	Peak	Vertical
	5131.0	41.5	4.0	45.5	74.0	-28.5	Peak	Vertical
*	5972.5	40.5	5.1	45.6	74.0	-28.4	Peak	Vertical
*	6635.5	39.1	7.4	46.5	74.0	-27.5	Peak	Vertical

Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Left Earbud	Test Channel:	39
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4298.0	38.6	1.7	40.3	74.0	-33.7	Peak	Horizontal
	5088.5	37.5	4.0	41.5	74.0	-32.5	Peak	Horizontal
*	6482.5	37.4	6.9	44.3	74.0	-29.7	Peak	Horizontal
*	7893.5	35.8	10.9	46.7	74.0	-27.3	Peak	Horizontal
	3788.0	44.5	0.0	44.5	74.0	-29.5	Peak	Vertical
	4757.0	41.2	3.3	44.5	74.0	-29.5	Peak	Vertical
*	5318.0	46.0	3.4	49.4	74.0	-24.6	Peak	Vertical
*	6440.0	39.3	6.9	46.2	74.0	-27.8	Peak	Vertical

Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Right Earbud	Test Channel:	00
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3830.5	40.0	0.1	40.1	74.0	-33.9	Peak	Horizontal
	4816.5	38.2	3.3	41.5	74.0	-32.5	Peak	Horizontal
*	6474.0	36.4	6.9	43.3	74.0	-30.7	Peak	Horizontal
*	7145.5	35.4	10.2	45.6	74.0	-28.4	Peak	Horizontal
	3805.0	44.7	0.0	44.7	74.0	-29.3	Peak	Vertical
	4748.5	40.8	3.3	44.1	74.0	-29.9	Peak	Vertical
*	5938.5	37.0	5.2	42.2	74.0	-31.8	Peak	Vertical
*	7137.0	35.9	10.3	46.2	74.0	-27.8	Peak	Vertical

Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Right Earbud	Test Channel:	19
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4034.5	39.7	0.5	40.2	74.0	-33.8	Peak	Horizontal
	4884.5	39.3	3.1	42.4	74.0	-31.6	Peak	Horizontal
*	6644.0	36.4	7.4	43.8	74.0	-30.2	Peak	Horizontal
*	7137.0	35.3	10.3	45.6	74.0	-28.4	Peak	Horizontal
	3796.5	43.6	0.0	43.6	74.0	-30.4	Peak	Vertical
	4740.0	40.9	3.2	44.1	74.0	-29.9	Peak	Vertical
*	5318.0	41.7	3.4	45.1	74.0	-28.9	Peak	Vertical
*	6457.0	38.8	7.0	45.8	74.0	-28.2	Peak	Vertical

Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	True Wireless Earbuds with Active Noise Cancellation	Test Engineer	Silence Liu
Test Site	NS-AC1	Test Date	2021/02/26
Test Mode:	BLE - Right Earbud	Test Channel:	39
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3864.5	39.4	0.1	39.5	74.0	-34.5	Peak	Horizontal
	4833.5	37.6	3.2	40.8	74.0	-33.2	Peak	Horizontal
*	6414.5	36.7	6.5	43.2	74.0	-30.8	Peak	Horizontal
*	7842.5	34.5	10.7	45.2	74.0	-28.8	Peak	Horizontal
	3788.0	42.4	0.0	42.4	74.0	-31.6	Peak	Vertical
	5131.0	42.2	4.0	46.2	74.0	-27.8	Peak	Vertical
*	5624.0	38.3	4.2	42.5	74.0	-31.5	Peak	Vertical
*	6635.5	37.5	7.4	44.9	74.0	-29.1	Peak	Vertical

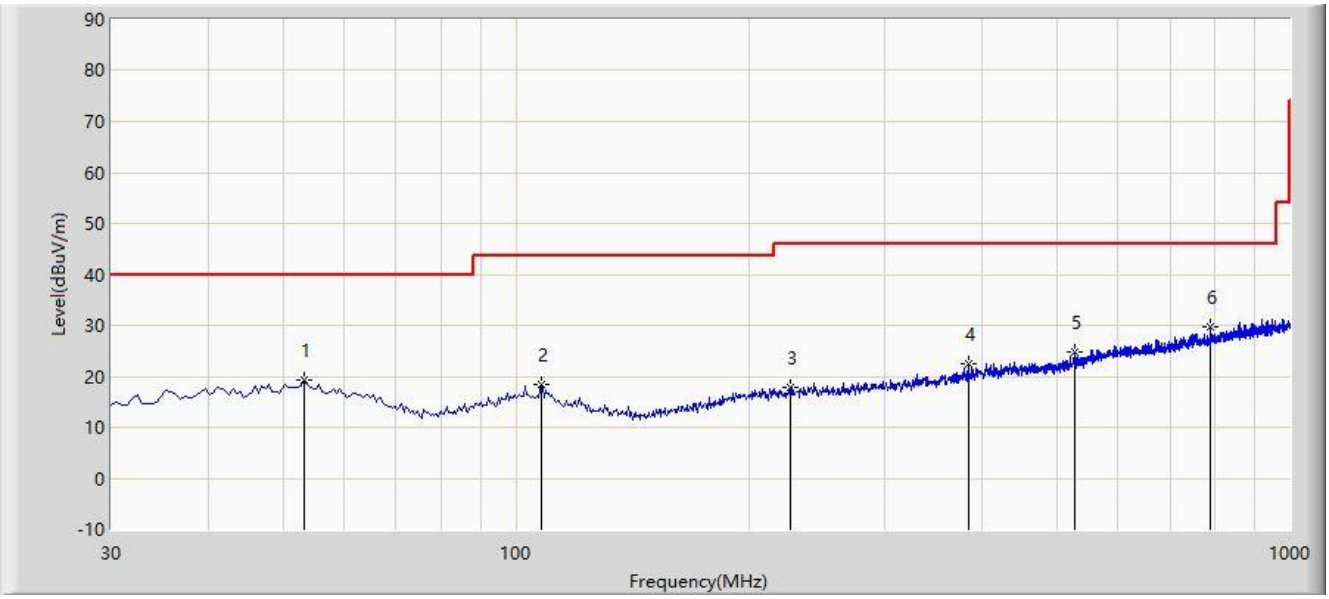
Note 1: “*” means test frequency didn’t fall into restricted band.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: NS-AC1	Time: 2021/02/08 - 14:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Silence Liu
Probe: NS-AC1_VULB9162	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation	Power: By Battery
Test Mode: Transmitter by BLE at channel 2440MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			53.280	19.278	-0.370	-20.722	40.000	19.648	PK
2			108.085	18.329	0.247	-25.171	43.500	18.081	PK
3			226.425	17.888	0.141	-28.112	46.000	17.748	PK
4			384.050	22.378	1.202	-23.622	46.000	21.176	PK
5			526.640	24.803	1.672	-21.197	46.000	23.131	PK
6		*	790.965	29.848	2.650	-16.152	46.000	27.198	PK

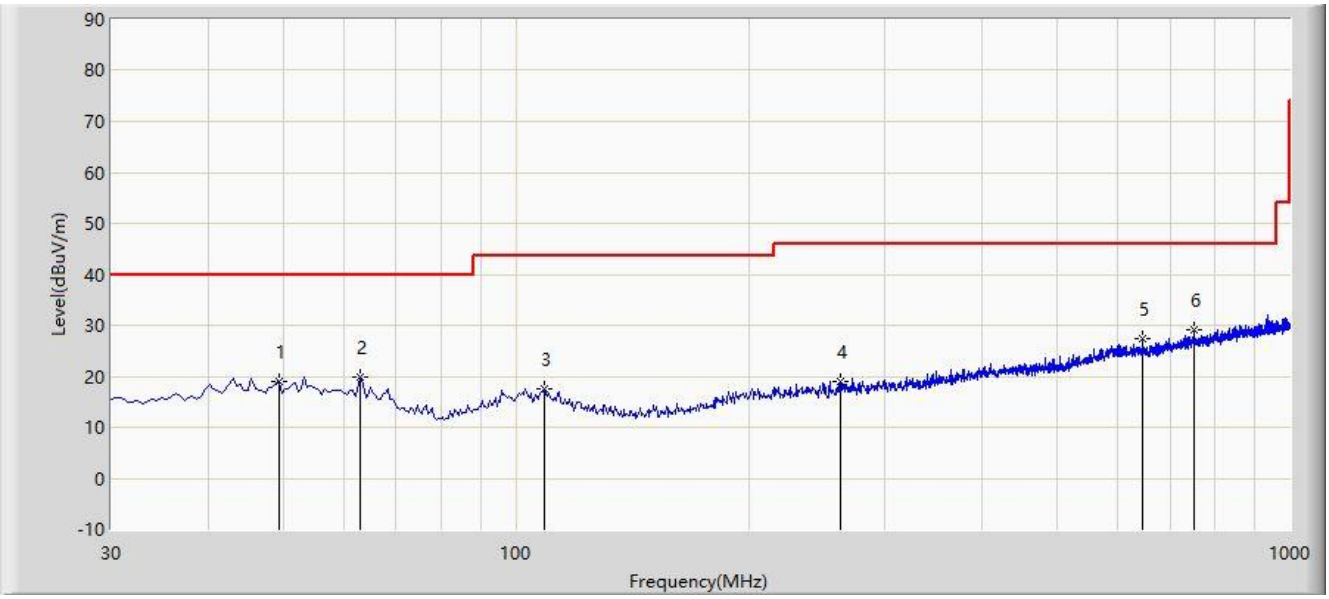
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site: NS-AC1	Time: 2021/02/08 - 14:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Silence Liu
Probe: NS-AC1_VULB9162	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation	Power: By Battery
Test Mode: Transmitter by BLE at channel 2440MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			49.400	19.064	-0.307	-20.936	40.000	19.371	PK
2			62.980	19.778	1.862	-20.222	40.000	17.916	PK
3			109.055	17.455	-0.611	-26.045	43.500	18.066	PK
4			262.315	19.068	0.815	-26.932	46.000	18.253	PK
5			645.465	27.352	2.090	-18.648	46.000	25.262	PK
6		*	751.195	29.177	2.334	-16.823	46.000	26.842	PK

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

6.7. Radiated Restricted Band Edge Measurement

6.7.1.Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1] 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 – 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

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

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency [MHz]	Field Strength [uV/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

6.7.2.Test Procedure Used

ANSI C63.10-2013 - Section 6.3 & 6.6 & 6.10

6.7.3.Test Setting

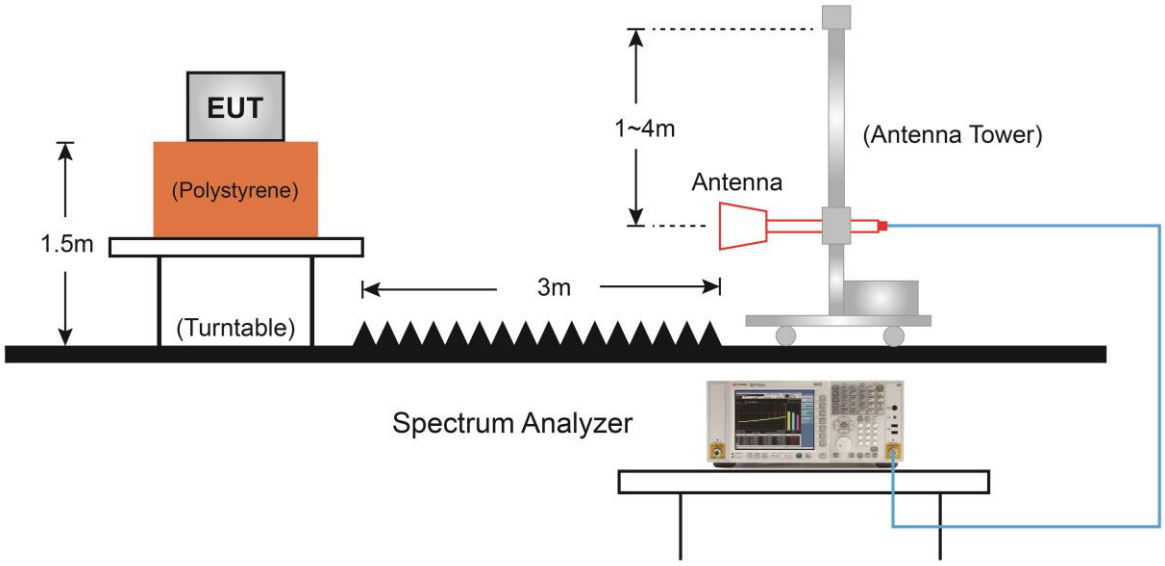
Peak Field Strength Measurements

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

Average Field Strength Measurements

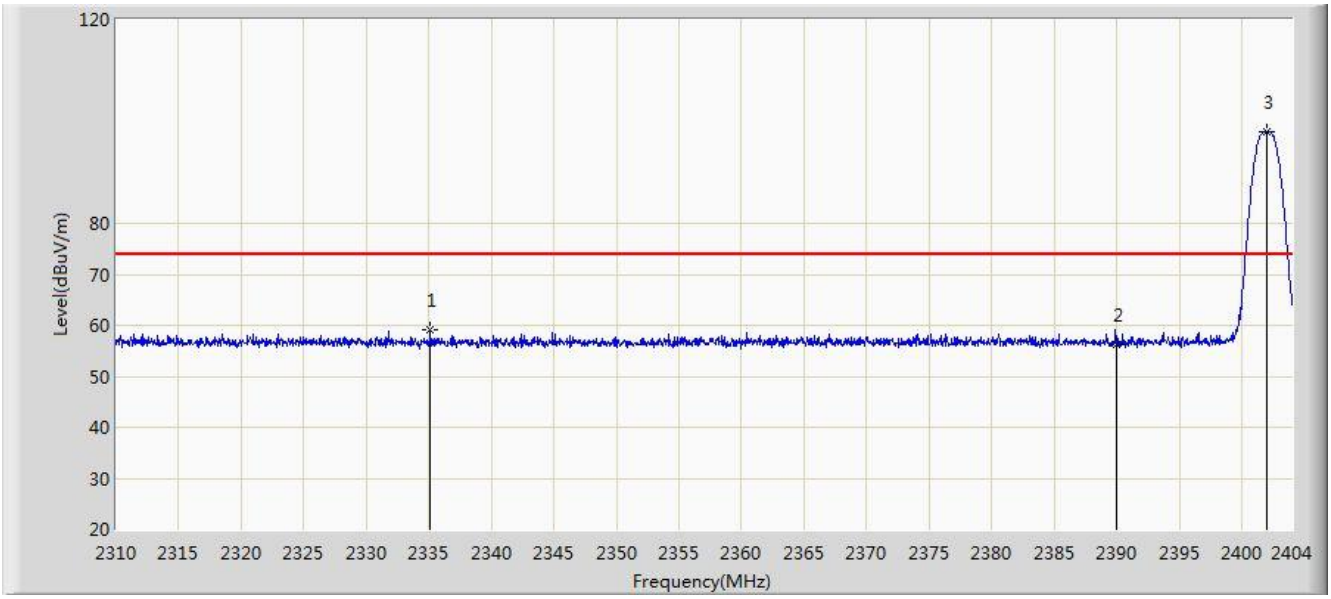
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10Hz
4. If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.7.4.Test Setup



6.7.5.Test Result

Site: NS-AC1	Time: 2021/02/26 - 15:48
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

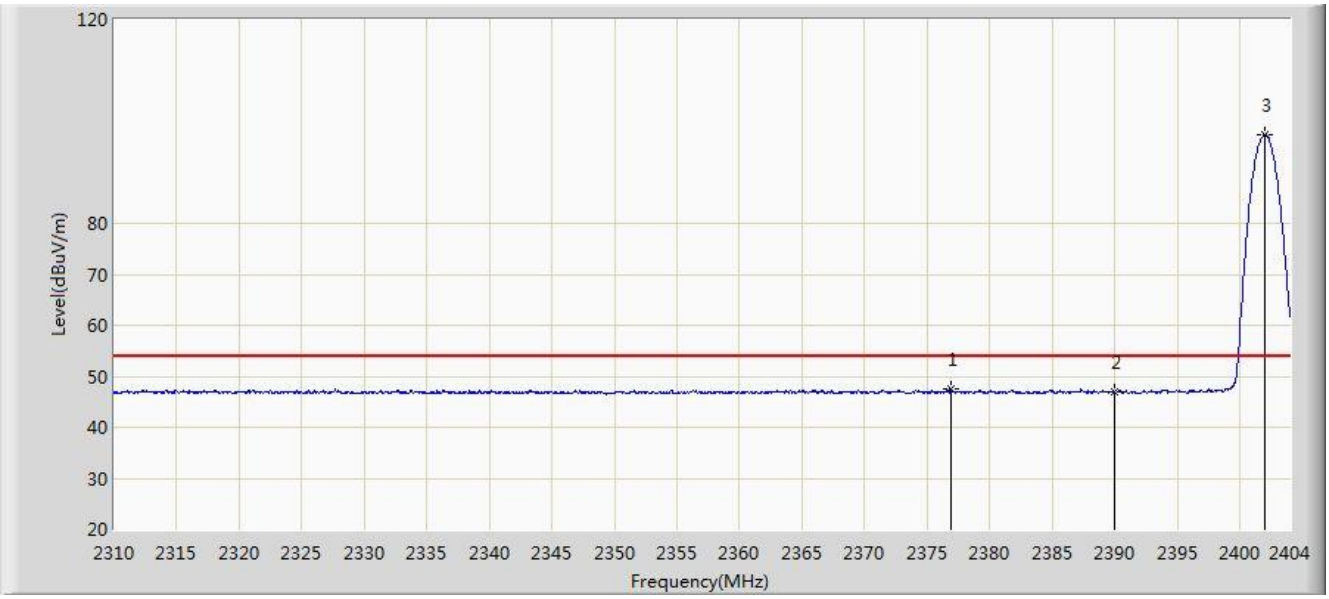


No	Flag	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB)	Type
1			2335.145	59.220	28.177	-14.780	74.000	31.044	PK
2			2390.000	56.254	25.364	-17.746	74.000	30.890	PK
3		*	2401.979	98.114	67.225	N/A	N/A	30.889	PK

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 15:53
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

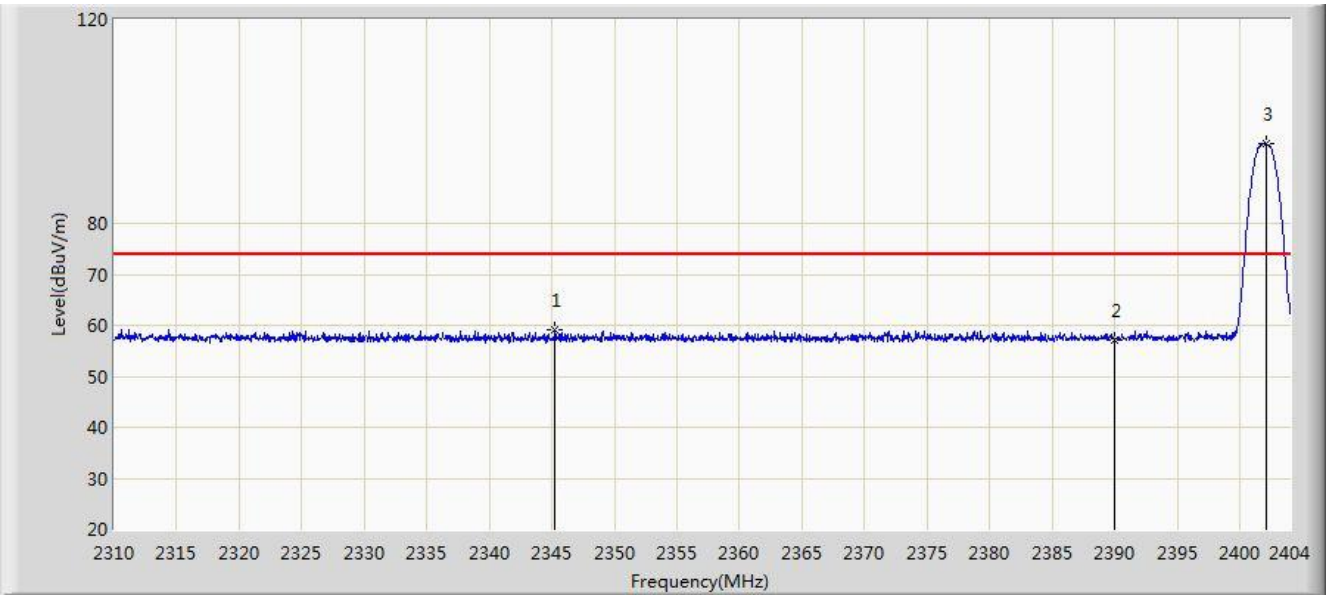


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2376.881	47.393	16.476	-6.607	54.000	30.916	AV
2			2390.000	46.838	15.948	-7.162	54.000	30.890	AV
3		*	2402.026	97.416	66.527	N/A	N/A	30.889	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 15:53
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

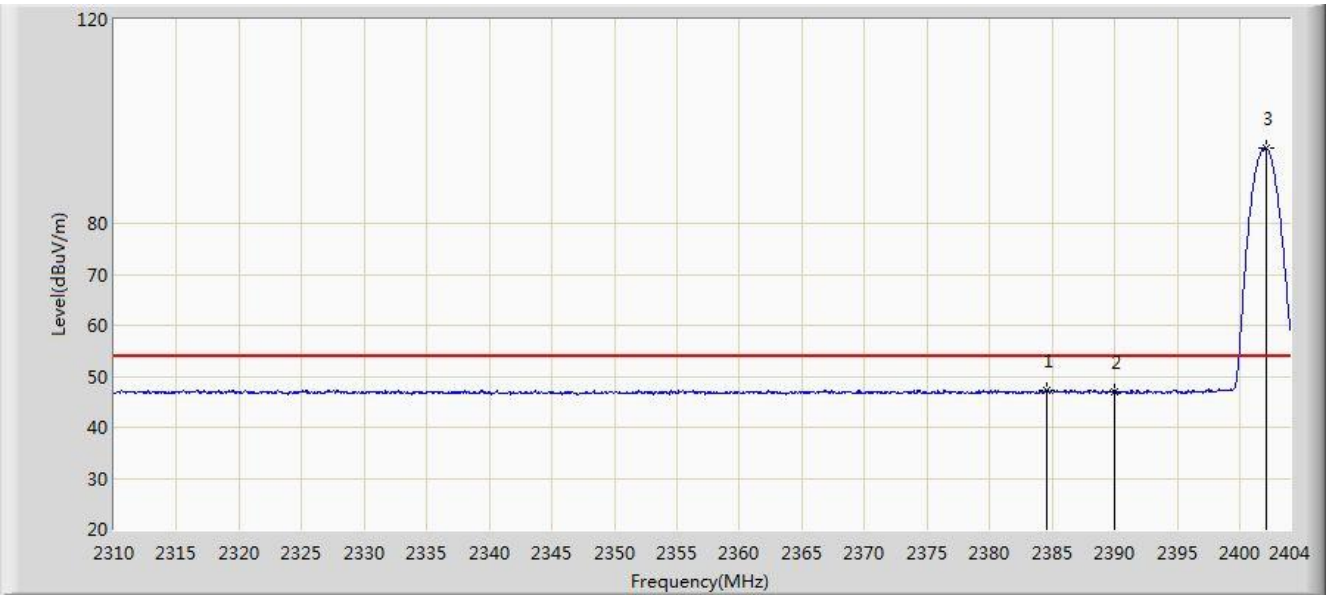


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2345.250	59.069	28.070	-14.931	74.000	30.998	PK
2			2390.000	56.961	26.071	-17.039	74.000	30.890	PK
3		*	2402.073	95.648	64.759	N/A	N/A	30.889	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 15:56
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

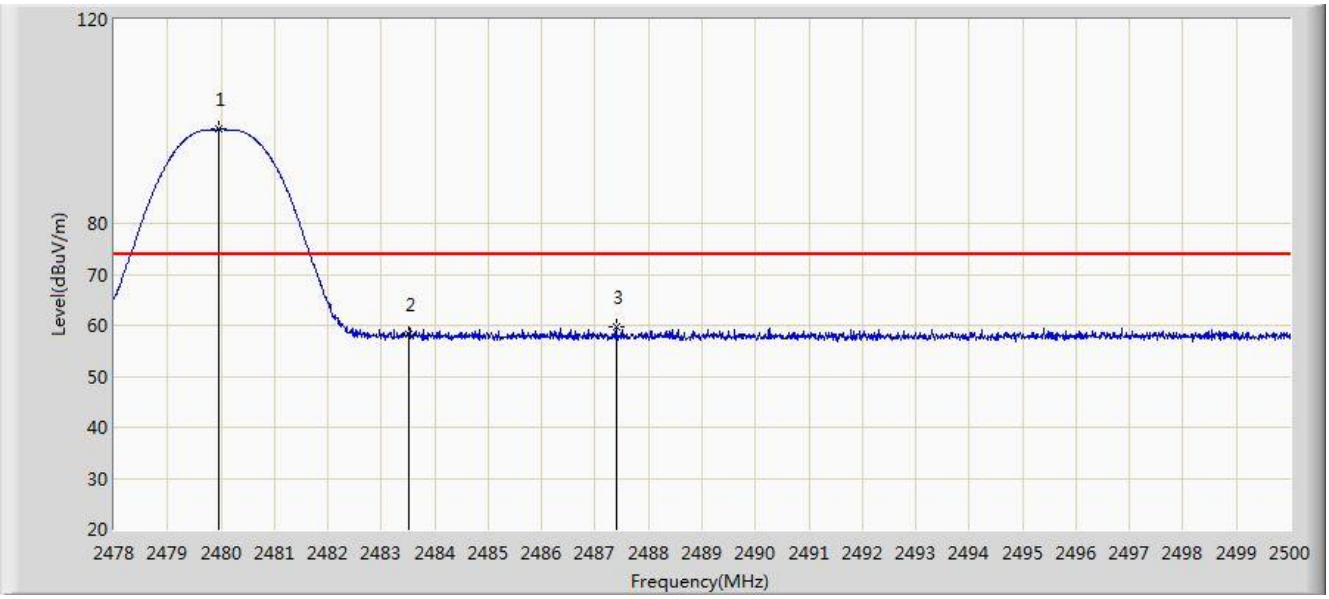


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2384.589	47.373	16.472	-6.627	54.000	30.901	AV
2			2390.000	47.073	16.183	-6.927	54.000	30.890	AV
3		*	2402.073	94.805	63.916	N/A	N/A	30.889	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 15:56
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

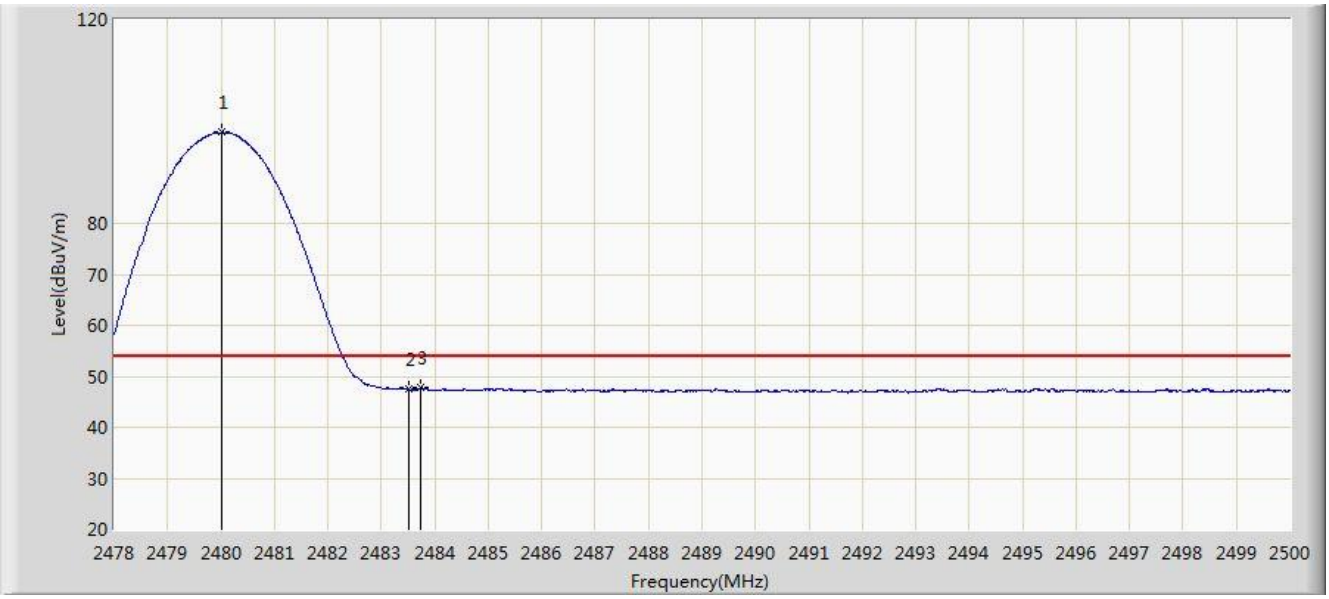


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2479.969	98.424	67.553	N/A	N/A	30.871	PK
2			2483.500	58.402	27.537	-15.598	74.000	30.865	PK
3			2487.394	59.778	28.920	-14.222	74.000	30.858	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 16:00
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

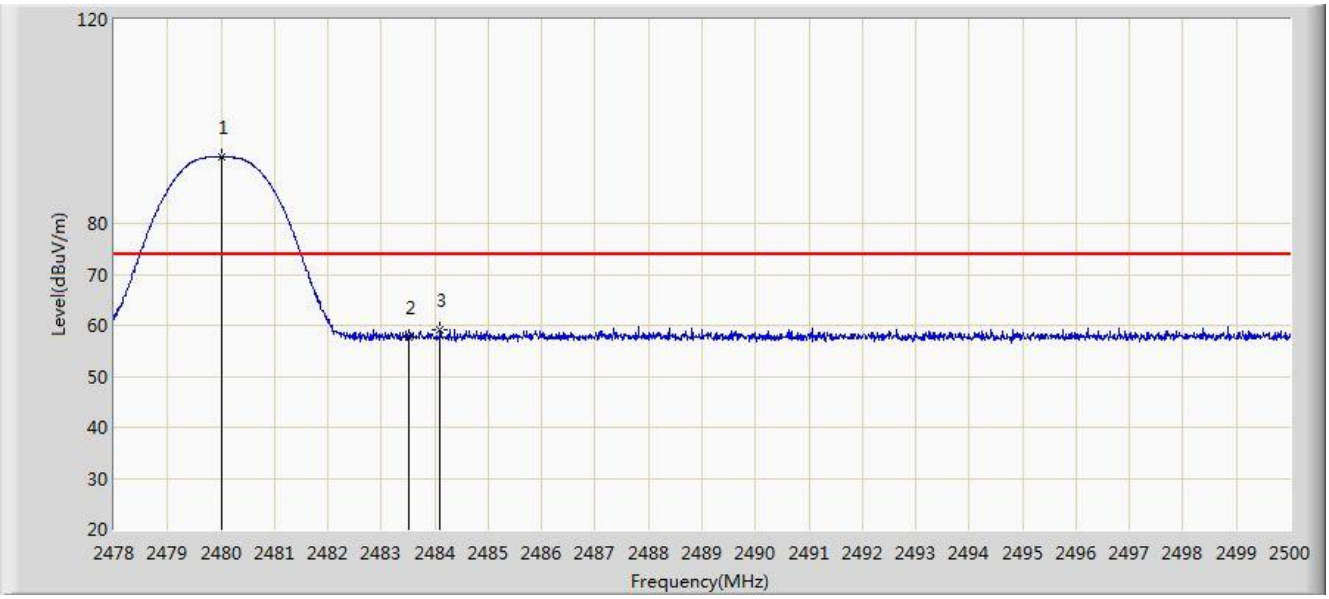


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.024	97.834	66.963	N/A	N/A	30.871	AV
2			2483.500	47.414	16.549	-6.586	54.000	30.865	AV
3			2483.731	47.698	16.834	-6.302	54.000	30.864	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 16:01
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

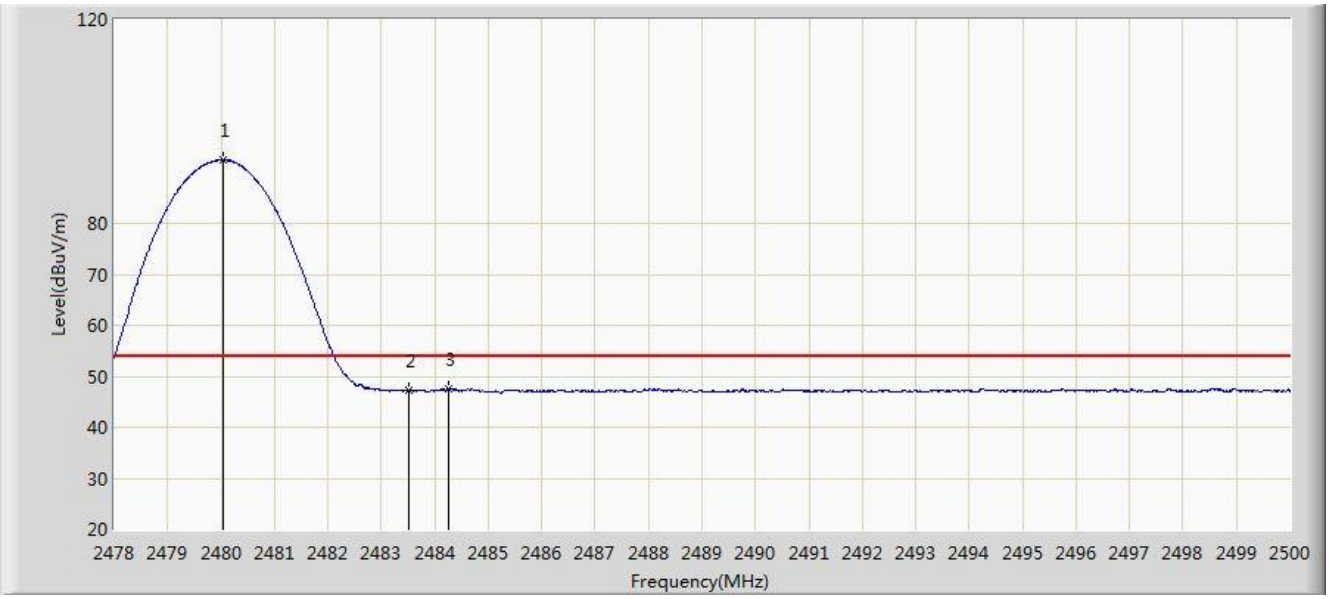


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.013	92.916	62.045	N/A	N/A	30.871	PK
2			2483.500	57.782	26.917	-16.218	74.000	30.865	PK
3			2484.105	59.140	28.276	-14.860	74.000	30.864	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 16:03
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Left Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

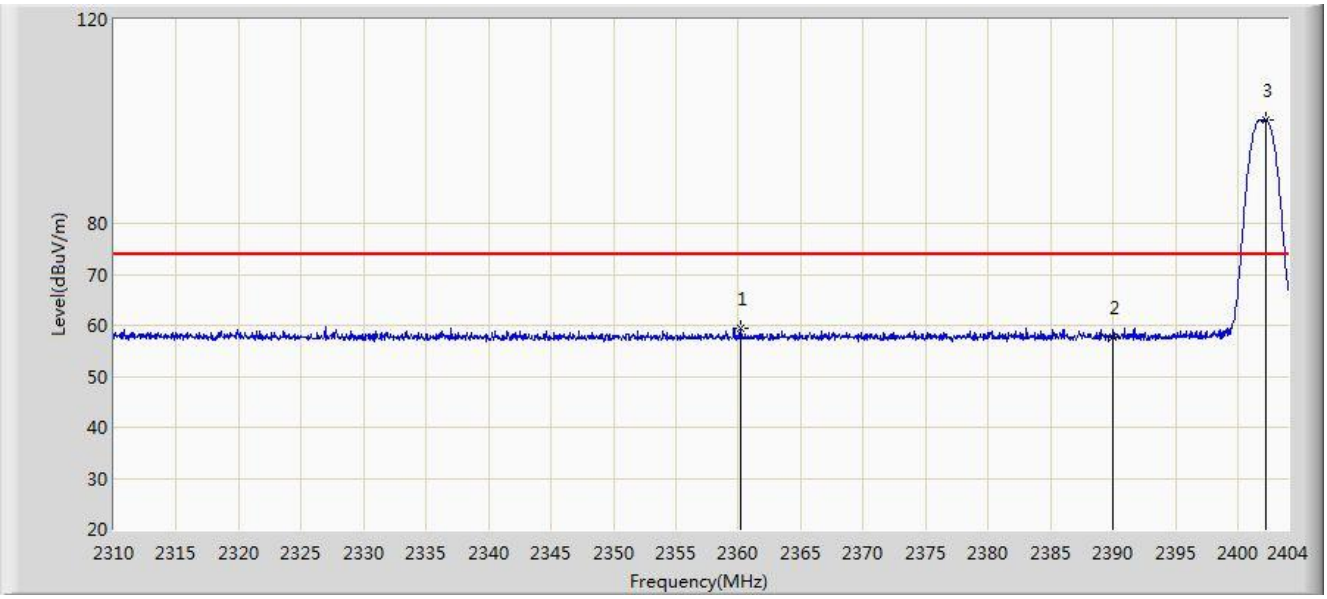


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.046	92.418	61.547	N/A	N/A	30.871	AV
2			2483.500	47.210	16.345	-6.790	54.000	30.865	AV
3			2484.259	47.551	16.688	-6.449	54.000	30.864	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:07
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

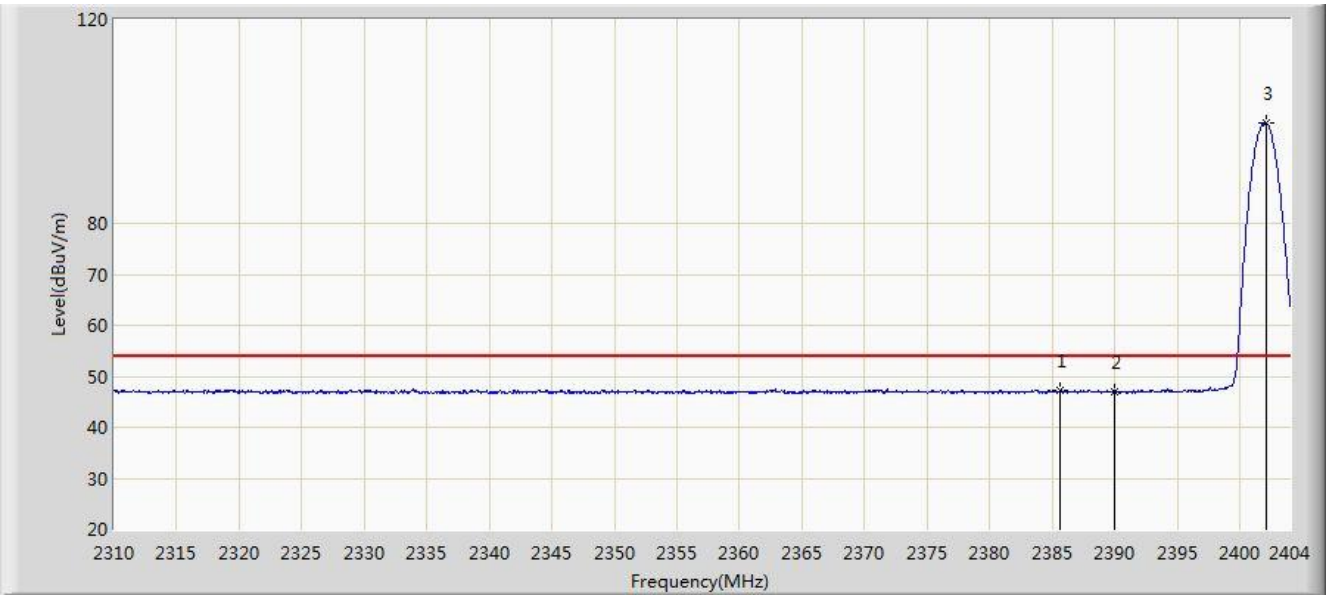


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2360.149	59.448	28.492	-14.552	74.000	30.955	PK
2			2390.000	57.538	26.648	-16.462	74.000	30.890	PK
3		*	2402.214	100.262	69.372	N/A	N/A	30.890	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:14
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

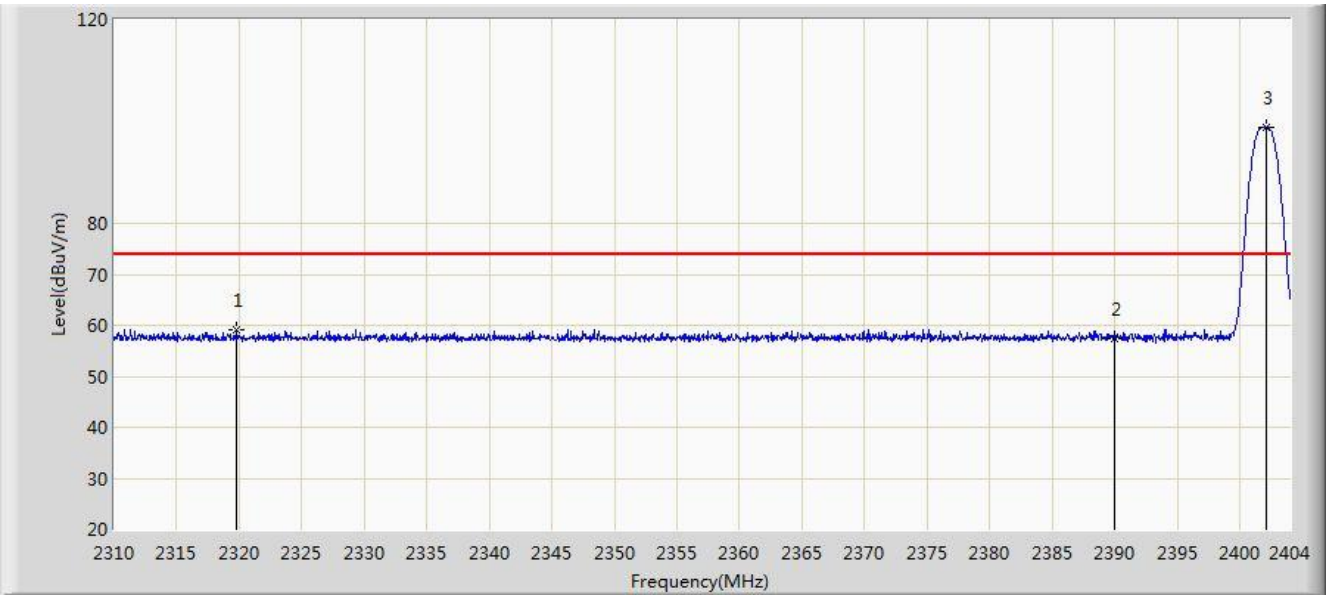


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2385.670	47.381	16.482	-6.619	54.000	30.900	AV
2			2390.000	47.097	16.207	-6.903	54.000	30.890	AV
3		*	2402.073	99.744	68.855	N/A	N/A	30.889	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:14
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

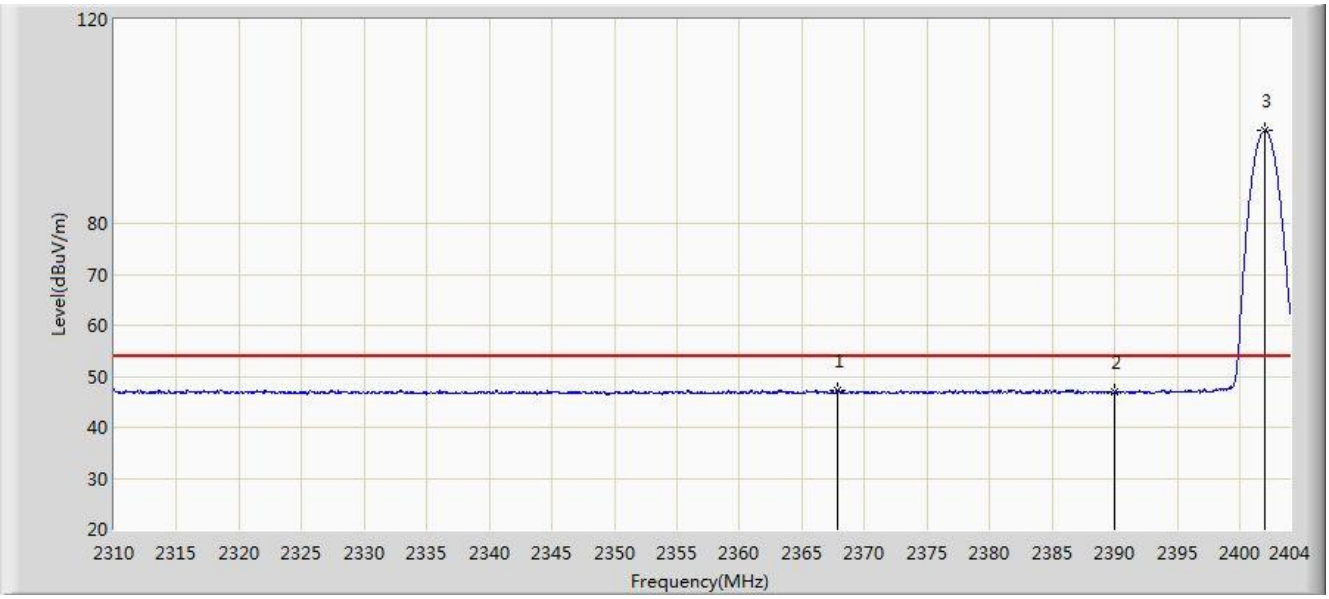


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2319.823	59.261	28.153	-14.739	74.000	31.108	PK
2			2390.000	57.345	26.455	-16.655	74.000	30.890	PK
3		*	2402.167	98.887	67.998	N/A	N/A	30.890	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:20
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2402MHz	

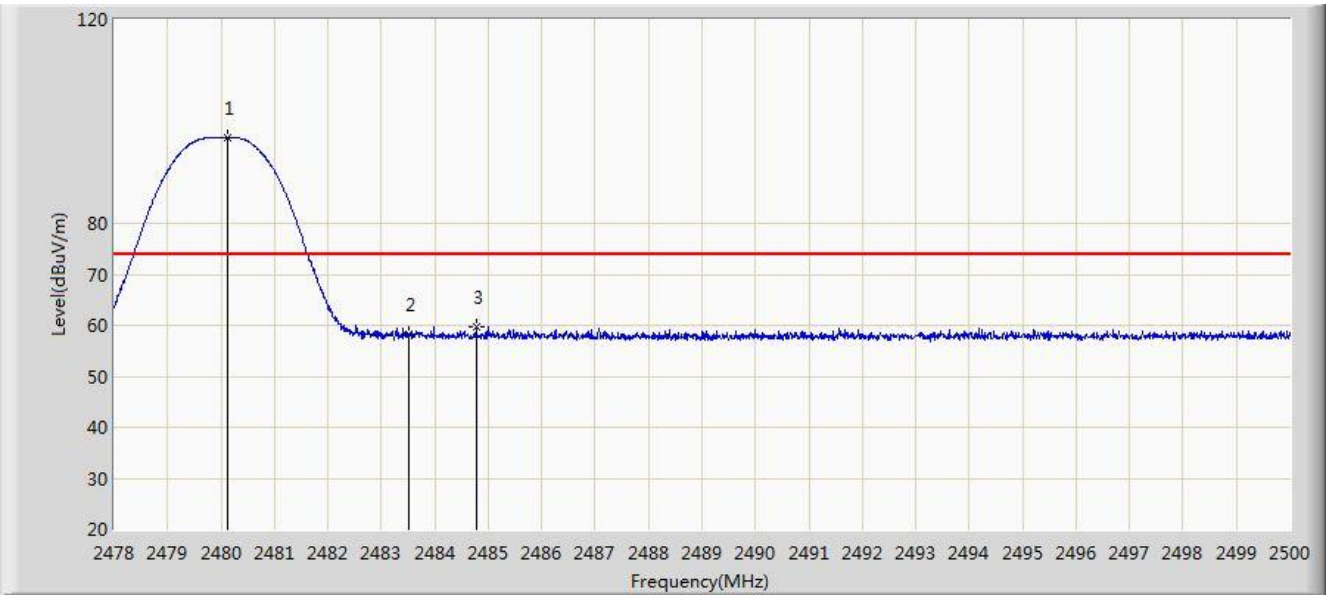


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2367.810	47.343	16.405	-6.657	54.000	30.938	AV
2			2390.000	46.912	16.022	-7.088	54.000	30.890	AV
3		*	2402.026	98.192	67.303	N/A	N/A	30.889	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:21
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

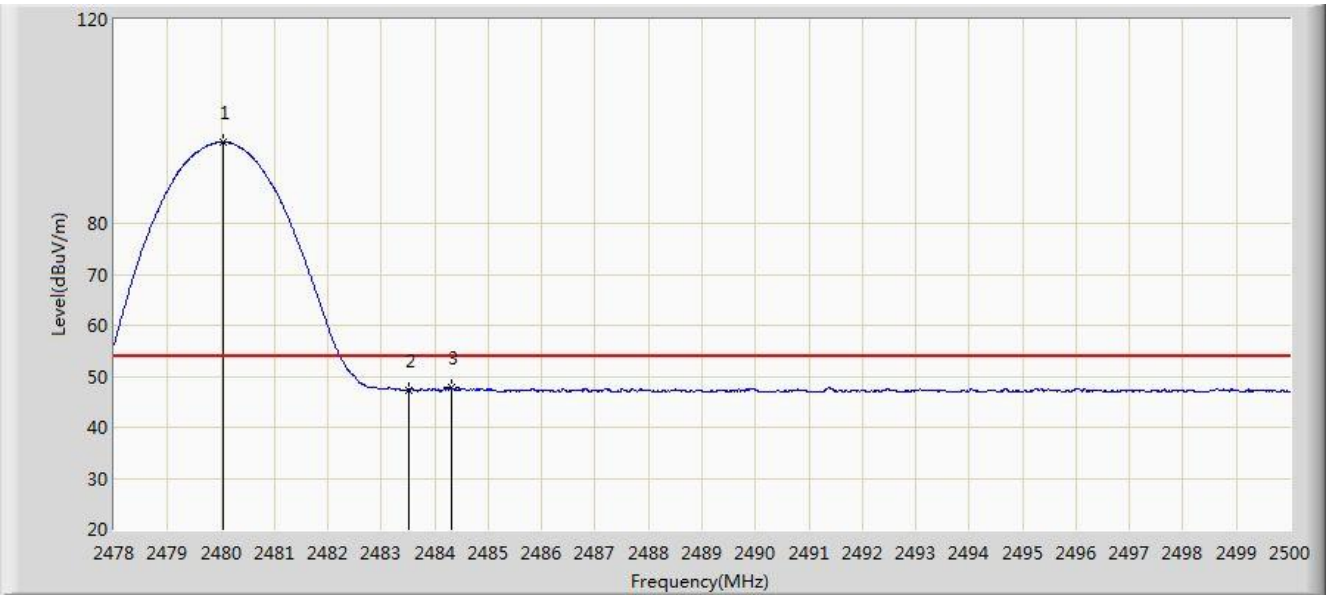


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.125	96.922	66.052	N/A	N/A	30.871	PK
2			2483.500	58.148	27.283	-15.852	74.000	30.865	PK
3			2484.776	59.627	28.765	-14.373	74.000	30.862	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:25
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

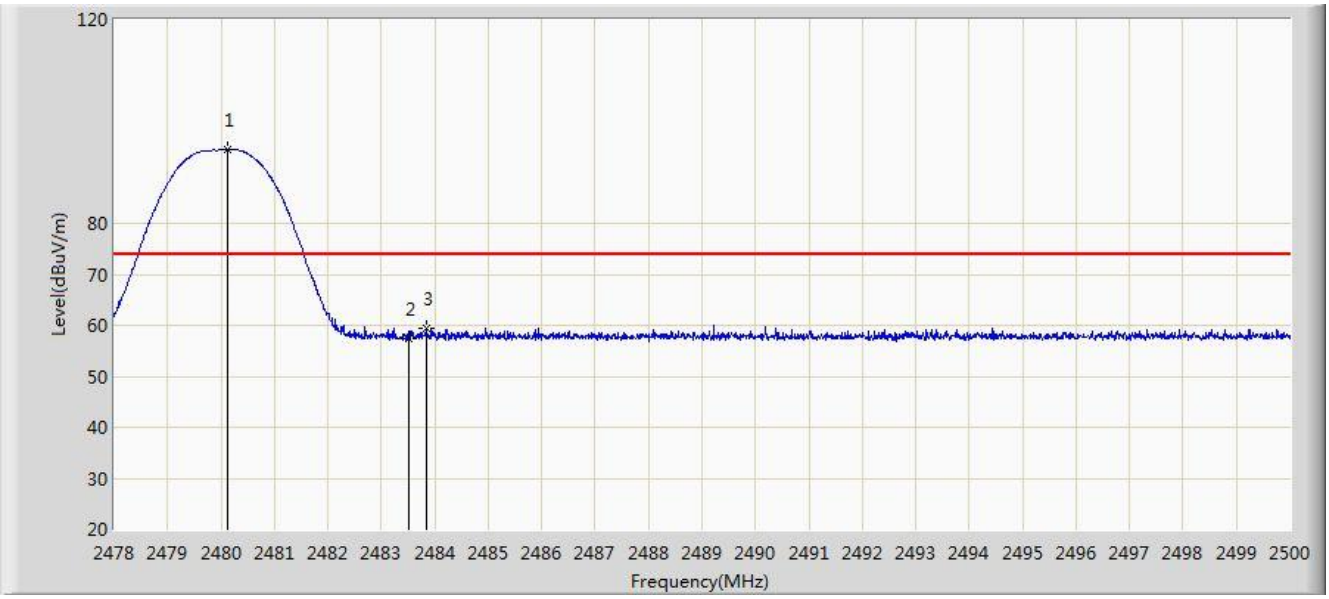


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.035	95.938	65.067	N/A	N/A	30.871	AV
2			2483.500	47.298	16.433	-6.702	54.000	30.865	AV
3			2484.303	47.866	17.003	-6.134	54.000	30.864	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:26
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	

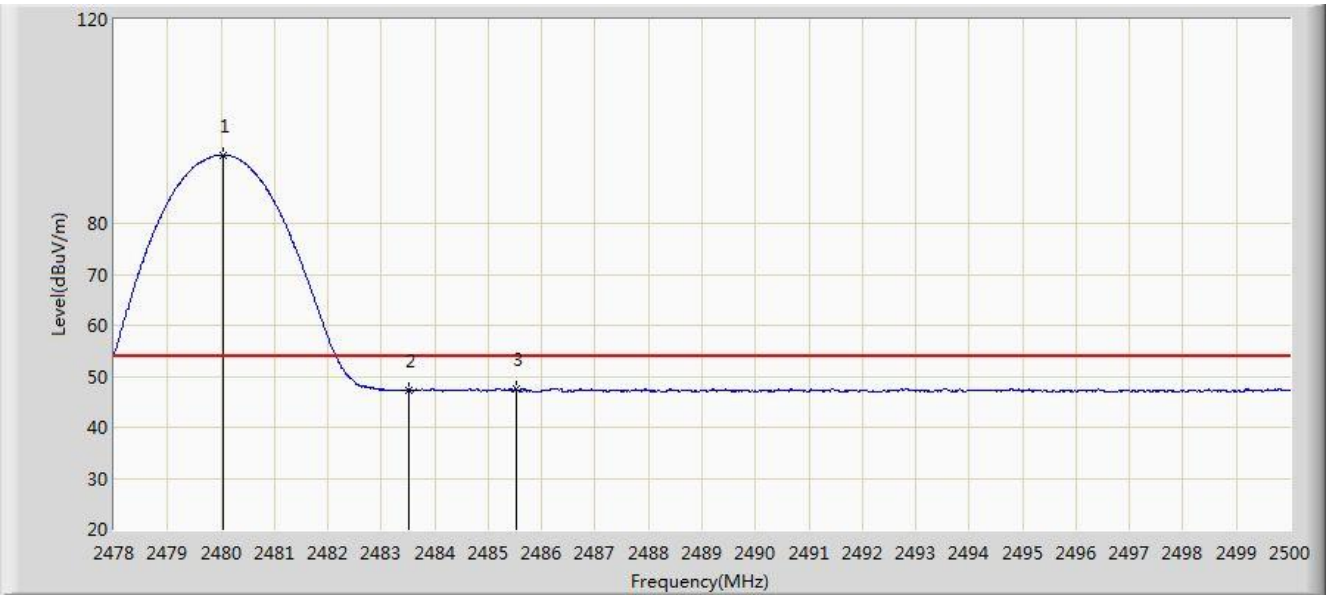


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.112	94.507	63.637	N/A	N/A	30.871	PK
2			2483.500	57.393	26.528	-16.607	74.000	30.865	PK
3			2483.852	59.305	28.441	-14.695	74.000	30.864	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: NS-AC1	Time: 2021/02/26 - 14:28
Limit: FCC_Part15_15.209_RE(3m)	Engineer: Silence Liu
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: True Wireless Earbuds with Active Noise Cancellation (Right Earbud)	Power: By Battery
Test Mode: Transmit by BLE at channel 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2480.046	93.453	62.582	N/A	N/A	30.871	AV
2			2483.500	47.246	16.381	-6.754	54.000	30.865	AV
3			2485.513	47.678	16.817	-6.322	54.000	30.861	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

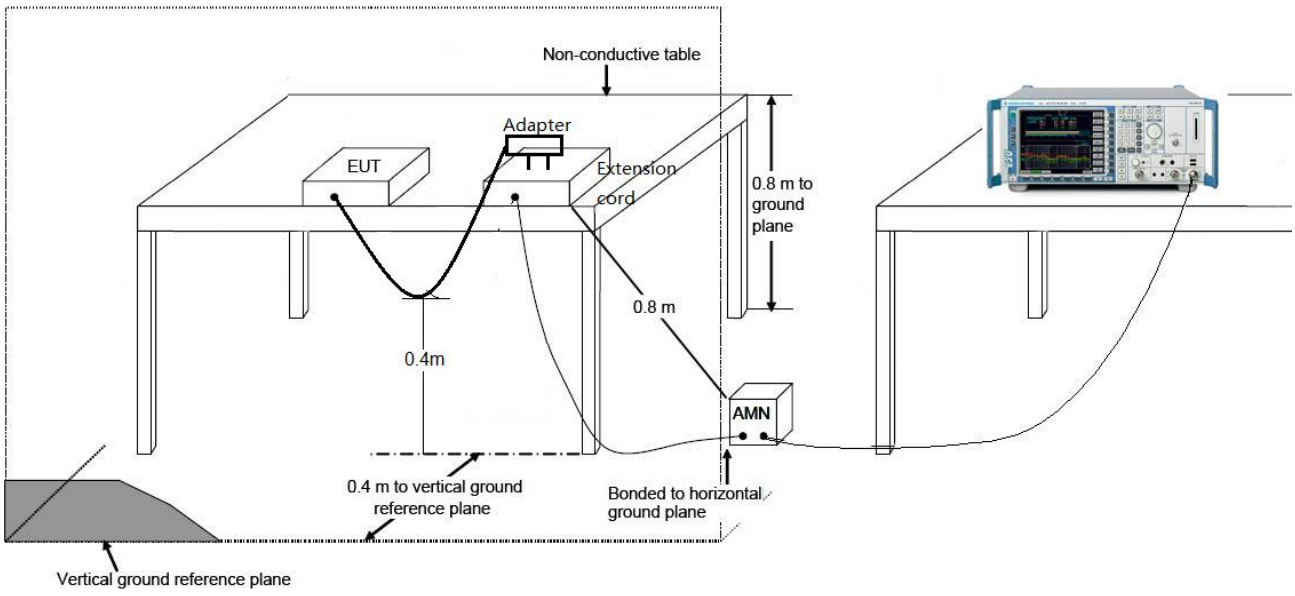
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

6.8. AC Conducted Emissions Measurement

6.8.1.Test Limit

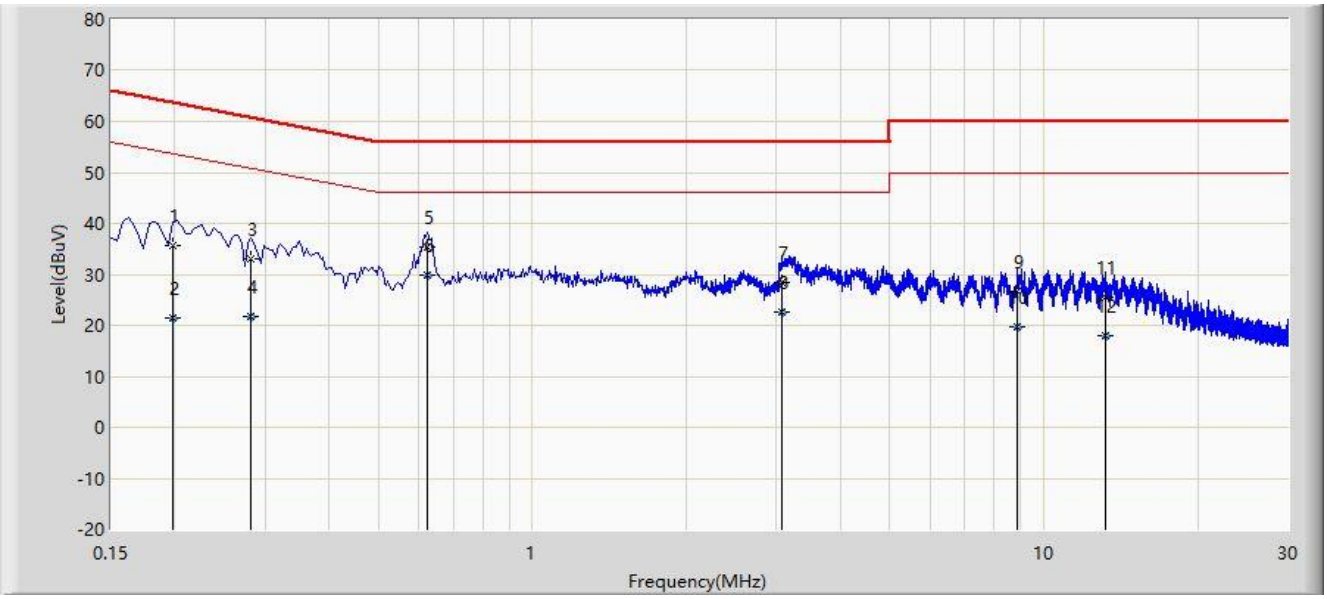
FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBμV)	Average (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.		

6.8.2.Test Setup



6.8.3.Test Result

Site: NS-SR2	Time: 2021/03/02 - 20:25
Limit: FCC_Part15.207_CE_AC Power	Engineer: Flag Yang
Probe: ENV216_102494_Filter On	Polarity: Line
EUT: True Wireless Earbuds with Active Noise Cancellation	Power: AC 120V/60Hz
Test Mode: Charging	

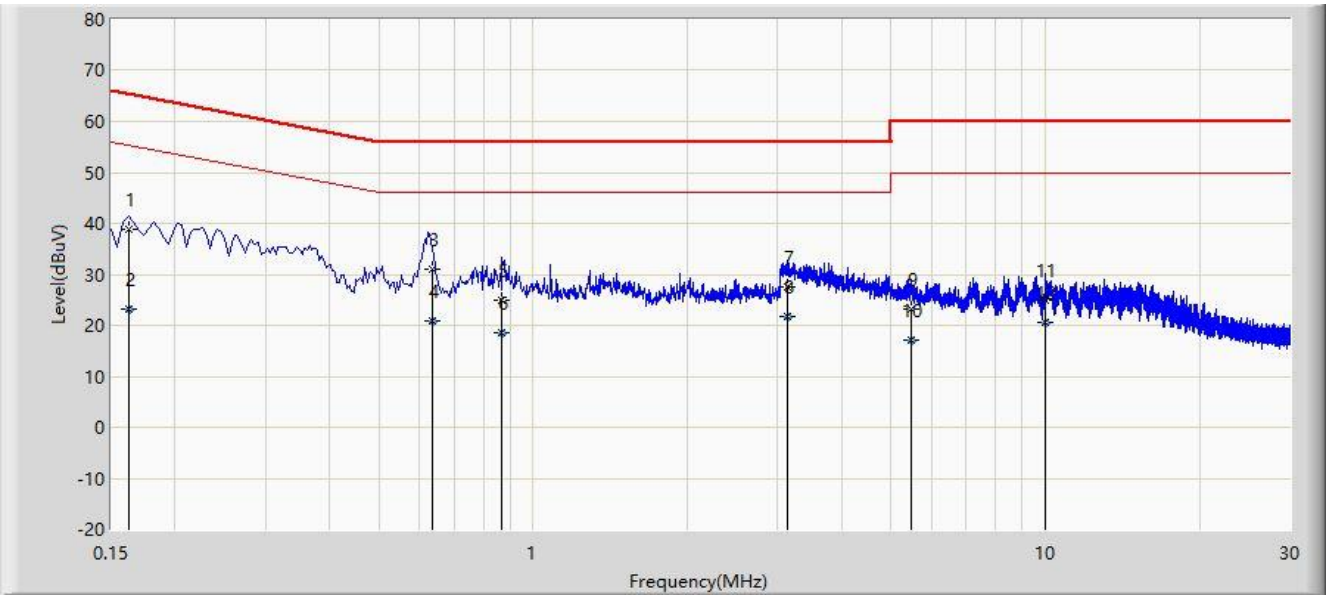


No	Flag	Mark	Frequency (MHz)	Measure Level (dBµV)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV)	Factor (dB)	Type
1			0.198	35.751	25.944	-27.943	63.694	9.808	QP
2			0.198	21.502	11.695	-32.192	53.694	9.808	AV
3			0.282	33.188	23.499	-27.569	60.757	9.688	QP
4			0.282	21.757	12.068	-29.000	50.757	9.688	AV
5			0.622	35.446	25.518	-20.554	56.000	9.928	QP
6		*	0.622	29.736	19.808	-16.264	46.000	9.928	AV
7			3.066	28.524	18.833	-27.476	56.000	9.691	QP
8			3.066	22.707	13.016	-23.293	46.000	9.691	AV
9			8.894	26.522	16.733	-33.478	60.000	9.789	QP
10			8.894	19.693	9.905	-30.307	50.000	9.789	AV
11			13.186	25.558	15.693	-34.442	60.000	9.866	QP
12			13.186	17.964	8.099	-32.036	50.000	9.866	AV

Note: Measure Level (dBµV) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: NS-SR2	Time: 2021/03/02 - 20:30
Limit: FCC_Part15.207_CE_AC Power	Engineer: Flag Yang
Probe: ENV216_102494_Filter On	Polarity: Neutral
EUT: True Wireless Earbuds with Active Noise Cancellation	Power: AC 120V/60Hz
Test Mode: Charging	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBµV)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV)	Factor (dB)	Type
1			0.162	38.869	28.456	-26.492	65.361	10.412	QP
2			0.162	23.176	12.763	-32.185	55.361	10.412	AV
3			0.637	30.883	20.960	-25.117	56.000	9.922	QP
4			0.637	20.989	11.066	-25.011	46.000	9.922	AV
5			0.870	25.035	15.205	-30.965	56.000	9.830	QP
6			0.870	18.487	8.658	-27.513	46.000	9.830	AV
7			3.126	27.626	17.939	-28.374	56.000	9.687	QP
8		*	3.126	21.680	11.993	-24.320	46.000	9.687	AV
9			5.458	23.212	13.483	-36.788	60.000	9.729	QP
10			5.458	17.176	7.446	-32.824	50.000	9.729	AV
11			10.002	25.034	15.208	-34.966	60.000	9.827	QP
12			10.002	20.645	10.818	-29.355	50.000	9.827	AV

Note: Measure Level (dBµV) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

7. CONCLUSION

The data collected relate only the item(s) tested and show that unit is compliance with Part 15C of the FCC Rules.

The End

Appendix A - Test Setup Photograph

Refer to “2102RSU037-UT” file.

Appendix B - EUT Photograph

Refer to “2102RSU037-UE” file.