

6.6.4.Test Setup

Below 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:	 Average measurement was not p limit. Other frequency was 20dB below in the report. 	verformed if peak level lov	wer than average z, there is not show

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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
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Note 1: "*" means test frequency didn't fall into restricted band.

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (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 p	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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 te	est frequency	didn't fall i	nto restricted	band.			



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 p	1. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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 te	est frequency	didn't fall i	nto restricted	band.			



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 p	 Average measurement was not performed if peak level lower than average 						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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 te	est frequency	didn't fall i	nto restricted	band.			



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 p	1. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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 te	est frequency	didn't fall i	nto restricted	band.			



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 p	1. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	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 te	est frequency	didn't fall i	nto restricted	band.			



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	Power: By Battery
Cancellation	
Test Mode: Transmitter by BLE at channel 2440MHz	



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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 ($dB\mu V/m$) = Reading Level ($dB\mu V$) + 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:	Time: 2021/02/08 - 14:37					
Limit: FCC_Part15.209_RE(3m)					Engin	eer: Silenc	e Liu					
Probe: NS-AC1_VULB9162					Polari	ity: Vertical						
EUT:	True Wire	eless Ear	buds wit	h Active	Noise	Powe	r: By Batter	ry				
Cance	ellation											
Test I	Mode: Tra	ansmitter	by BLE	at chan	nel 2440MHz							
-	90		1									
4	80											
ţ	70	<u>.</u>						e e				
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	30				100 Fre	quency(MF	łz)					1000

No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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

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

FCC Part 15 Subpart C Paragraph 15.209 Limits										
Frequency Field Strength Measured Distance										
[MHz]	[uV/m]	[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 \ge 98%, set VBW = 10Hz
- 4. If the EUT duty cycle is < 98%, set VBW \geq 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

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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	Power: By Battery				
Cancellation (Left Earbud)					
Test Mode: Transmit by BLE at channel 2402MHz					
120	3				
(m. 80 1 70 1 60 1 50 50	2 				
40					

20 2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380 2385 2390 2395 2400 2404

Frequency(MHz)

No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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 (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

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



Site: NS-AC1						Time: 2021/02/26 - 15:53				
Limi	Limit: FCC_Part15_15.209_RE(3m)					Engineer: Silence Liu				
Prob	e: BBI	HA9120	D_1-18GHz			Polarity: Horiz	ontal			
EUT	True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Bat	ttery			
Can	cellatic	on (Left	Earbud)							
Test	Mode:	Transr	nit by BLE at	channel 2402	2MHz					
	120			1	7					
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ē	80									
auV/n	30									
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	40									
	30									
	20	2315 23	320 2325 2330	2335 2340 2	345 2350 23	55 2360 2365 2	2370 2375 238	0 2385 2390	2395 2400 2404	
3	2010	2010 20	20 2020 2000	2000 2040 2	Frequ	iency(MHz)	2010 2010 200	2000 2000	2000 2400 2404	
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре	
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)		
				(dBµV/m)	(dBµV)					
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	

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				
Prob	e: BB	HA9120	D_1-18GHz			Polarity: Vertic	al		
EUT	True	Wireles	s Earbuds wit	h Active Nois	se	Power: By Bat	tery		
Can	cellatio	on (Left	Earbud)						
Test	Mode	: Transn	nit by BLE at	channel 2402	2MHz				
	120			N. T					
									3
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(m/)	80								
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		1	Γ		Frequ	ency(MHz)	T	Γ	
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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

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



Site	NS-A	C1				Time: 2021/02/26 - 15:56					
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Sile	nce Liu				
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Vertical					
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery					
Can	cellatic	on (Left	Earbud)								
Test	Mode:	Transr	nit by BLE at	channel 2402							
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2					Frequ	ency(MHz)	1	1			
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре		
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)			
				(dBµV/m)	(dBµV)						
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			AV		

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

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

ΡK

30.858



Site	: NS-A	C1				Time: 2021/02/26 - 15:56			
Limi	it: FCC	_Part15	_15.209_RE	(3m)		Engineer: Sile	ence Liu		
Prot	be: BBI	HA9120	D_1-18GHz			Polarity: Horiz	zontal		
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Ba	ittery		
Can	cellatic	on (Left	Earbud)						
Test Mode: Transmit by BLE at channel 2480MHz									
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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

-14.222

74.000

Note: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

59.778

28.920

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

2487.394

AV

30.864



Site	: NS-A	C1				Time: 2021/02/26 - 16:00					
Limi	it: FCC	_Part15	_15.209_RE	(3m)		Engineer: Sile	nce Liu				
Prot	be: BBI	HA9120	D_1-18GHz			Polarity: Horiz	ontal				
EUT	: True	Wireles	s Earbuds wi	th Active Nois	e	Power: By Bat	ttery				
Can	cellatio	on (Left	Earbud)								
Test	t Mode:	Transn	nit by BLE at	channel 2480)MHz						
Level(dBuV/m)	Test Mode: Transmit by BLE at channel 2480MHz										
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре		
(MHz) Level Level						(dB)	(dBµV/m)	(dB)			
				(dBµV/m)	(dBµV)						
1 * 2480.024 97.834 66.963					66.963	N/A	N/A	30.871	AV		
2			2483.500	47.414	16.549	-6.586	54.000	30.865	AV		

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

47.698

16.834

-6.302

54.000

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

2483.731



Site	: NS-A	C1				Time: 2021/02/26 - 16:01				
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Sile	ence Liu			
Prot	be: BBI	HA9120	D_1-18GHz			Polarity: Verti	cal			
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Ba	attery			
Can	cellatio	on (Left	Earbud)							
Test	Mode	Transn	nit by BLE at	channel 2480	OMHz	L				
Level(dBuV/m)	120 80 70 60 50 40 30 20 2478	2479 2480 Mark	0 2481 2482 248 Frequency (MHz)	2 3 3 2484 2485 24 Measure Level (dBµV/m)	86 2487 2488 Free Reading Level (dBµV)	3 2489 2490 2491 juency(MHz) Margin (dB)	2492 2493 2494 Limit (dBµV/m)	2495 2496 2497 Factor (dB)	2498 2499 2500 Type	
1		*	2480.013	92.916	62.045	N/A	N/A	30.871	PK	

57.782

59.140

26.917

28.276

-16.218

-14.860

74.000

74.000

30.865

30.864

ΡK

ΡK

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

2483.500

2484.105

2



Site	: NS-A	C1				Time: 2021/02/26 - 16:03			
Limi	it: FCC	_Part15	_15.209_RE	(3m)		Engineer: Sile	ence Liu		
Prot	be: BBI	HA9120	D_1-18GHz			Polarity: Verti	cal		
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Ba	ttery		
Can	cellatic	on (Left	Earbud)						
Test	Test Mode: Transmit by BLE at channel 2480MHz								
Level(dBuV/m)	120 80 70 60 50 40 30 20 2478	2479 2480	0 2481 2482 248	2 3 2 3 3 2484 2485 24	86 2487 2488 Freq	2489 2490 2491 uency(MHz)	2492 2493 2494	2495 2496 2497	2498 2499 2500
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
(MHz) Level Level						(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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

47.551

16.688

-6.449

30.864

54.000

AV

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

2484.259



Site	: NS-A	C1				Time: 2021/02/26 - 14:07					
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Silence Liu					
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Horizontal					
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery					
Can	cellatio	on (Righ	it Earbud)								
Test	Mode	: Transr	nit by BLE at	channel 2402							
	120			N T					1 1 1		
Level(dBuV/m)	80 70 60 40 30 20 2310	2315 23	10. 10. 2325 2330	2335 2340 2	diteret land age-metericable 345 2350 23	1	2370 2375 238	2 mm d m M mm d m d d 0 2385 2390	2395 2400 2404		
3		1			Frequ	uency(MHz)					
No	Flag	Mark	Frequency (MHz)	Measure Level (dBµV/m)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV/m)	Factor (dB)	Туре		
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		

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



Site	NS-A	C1				Time: 2021/02/26 - 14:14					
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Sile	nce Liu				
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Horizontal					
EUT	True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery					
Can	cellatic	on (Righ	it Earbud)								
Test	Mode:	Transr	nit by BLE at	channel 2402							
	120			1							
									3		
-	80										
m//m	80										
vel(dE	70										
e.	60			1							
	50										
	40										
	30										
	20	2215 24	20 2225 2220	2225 2240 2	345 3350 33	55 0360 0365 3	2270 2275 220	0 2205 2200	2205 2400 2404		
2	2310	2315 23	320 2325 2330	2335 2340 2	545 2350 23 Frequ	ency(MHz)	2370 2375 238	0 2385 2390	2395 2400 2404		
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре		
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)			
				(dBµV/m)	(dBµV)						
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					

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



Site	NS-A	C1				Time: 2021/02/26 - 14:14					
Limi	t: FCC	_Part15	_15.209_RE	(3m)		Engineer: Silence Liu					
Prot	be: BB	HA9120	D_1-18GHz			Polarity: Vertical					
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery					
Can	cellatio	on (Righ	t Earbud)								
Test	Mode	: Transr	nit by BLE at	channel 2402							
	120			10							
									3		
									Â		
(E	80										
(dBuV	70										
Level	60 ALL	and the second second second	1 To a share Married Married Married	1	- with the fam out out the	and the second second		2	mana		
	50										
	40										
	30										
	20										
	2310	2315 23	320 2325 2330	2335 2340 2	345 2350 23 Frequ	55 2360 2365 2 ency(MHz)	2370 2375 238	0 2385 2390	2395 2400 2404		
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре		
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)			
				(dBµV/m)	(dBµV)						
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		

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



Site	NS-A	C1				Time: 2021/02/26 - 14:20					
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Sile	nce Liu				
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Vertic	cal				
EUT	True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery					
Can	cellatic	on (Righ	it Earbud)								
Test	Mode	Transr	nit by BLE at	channel 2402	2MHz						
	120										
									3		
									Å		
_									11		
m//m	80										
el(dB	70										
Lev	60			1							
	50					1		2	man		
	40										
	30										
	20										
3	2310	2315 23	320 2325 2330	2335 2340 2	345 2350 233 Frequ	55 2360 2365 2 ency(MHz)	2370 2375 238	0 2385 2390	2395 2400 2404		
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре		
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)			
				(dBµV/m)	(dBµV)						
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		

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



Site	: NS-A	C1				Time: 2021/02/26 - 14:21				
Limi	t: FCC	_Part15	5_15.209_RE	(3m)		Engineer: Sile	ence Liu			
Prot	be: BB	HA9120	D_1-18GHz			Polarity: Horiz	zontal			
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Ba	attery			
Can	cellatio	on (Righ	it Earbud)							
Test	Mode	: Transn	nit by BLE at	channel 2480	OMHz					
Level(dBuV/m)	120 80 70 60 50 40 30 20 2478	2479 2480 Mark	0 2481 2482 248 Frequency (MHz)	2 3 3 2484 2485 24 Measure Level (dBµV/m)	86 2487 2488 Freq Reading Level (dBµV)	2489 2490 2491 uency(MHz) Margin (dB)	2492 2493 2494 Limit (dBµV/m)	2495 2496 2497 Factor (dB)	2498 2499 2500 Type	
1		*	2480.125	96.922	66.052	N/A	N/A	30.871	PK	

58.148

59.627

27.283

28.765

-15.852

-14.373

74.000

74.000

30.865

30.862

ΡK

ΡK

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

2483.500

2484.776

2



Site	: NS-A	C1				Time: 2021/02/26 - 14:25				
Limi	t: FCC	_Part15	_15.209_RE	(3m)		Engineer: Sile	nce Liu			
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Horiz	ontal			
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Bat	tery			
Can	cellatic	on (Righ	t Earbud)							
Test	Mode:	Transn	nit by BLE at	channel 2480)MHz					
Test Mode: Transmit by BLE at channel 2480MHz										
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре	
(MHz) Level Level						(dB)	(dBµV/m)	(dB)		
(dBµV/m) (dBµV)										
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	

47.866

17.003

-6.134

30.864

54.000

AV

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

2484.303

ΡK

30.864



Site	: NS-A	C1				Time: 2021/02/26 - 14:26				
Limi	t: FCC	_Part15	_15.209_RE	(3m)		Engineer: Silence Liu				
Prob	be: BBI	HA9120	D_1-18GHz			Polarity: Vertical				
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Battery				
Can	cellatic	on (Righ	t Earbud)							
Test Mode: Transmit by BLE at channel 2480MHz										
Level(dBuV/m)	120 80 70 60 50 40 30 20 2478	2479 2480	0 2481 2482 248	2 3	86 2487 2488 Frequ	2489 2490 2491 2 ency(MHz)	2492 2493 2494	2495 2496 2497	2498 2499 2500	
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре	
(MHz) Level Level					Level	(dB)	(dBµV/m)	(dB)		
				(dBµV/m)	(dBµV)					
1	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	

Note: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

59.305

28.441

-14.695

74.000

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

2483.852



Site: NS-AC1				Time: 2021/02/26 - 14:28					
Limit: FCC_Part15_15.209_RE(3m)						Engineer: Silence Liu			
Probe: BBHA9120D_1-18GHz				Polarity: Vert	cal				
EUT	: True	Wireles	s Earbuds wi	th Active Nois	se	Power: By Ba	attery		
Can	cellatic	on (Righ	t Earbud)						
Test	Mode	Transn	nit by BLE at	channel 2480	OMHz				
Level(dBuV/m)	Test Mode: Transmit by BLE at channel 2480MHz								
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV/m)	(dB)	
				(dBµV/m)	(dBµV)				
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

47.678

16.817

-6.322

30.861

54.000

AV

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

2485.513



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							

er limit shall apply at the transition frequencies υ

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



Vertical ground reference plane



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	Power: AC 120V/60Hz				
Cancellation					
Test Mode: Charging					
80					
70					
60					
50					
5 40 mm 3 5					
B 30 S Marrie Manuscrimenter					
20 + +	The second s				
10					
0					
-10					
-20					
0.15 1 Freq	10 30 uency(MHz)				

No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV)	(dB)	
				(dBµV)	(dBµV)				
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 (dB μ V) = Reading Level (dB μ V) + 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 Pow	/er	Engineer: Flag Yang			
Probe: ENV216_102494_Filter On		Polarity: Neutral			
EUT: True Wireless Earbuds with Ac	tive Noise	Power: AC 120V/60Hz			
Cancellation					
Test Mode: Charging					
80 70 60 50 40 40 40 20 10 0 -10	Martin Martin				
-20					
0.15	1 Freq	uency(MHz)	10	30	

No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBµV)	(dB)	
				(dBµV)	(dBµV)				
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

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

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Appendix A - Test Setup Photograph

Refer to "2102RSU037-UT" file.



Appendix B - EUT Photograph

Refer to "2102RSU037-UE" file.