

Issued Date: Apr. 01, 2022

# FCC AND ISED CERTIFICATION TEST REPORT

### FOR

Applicant	:	Harman International Industries, Inc.		
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES		
Equipment under Test		Bluetooth Earphone		
Model No.	-	Endurance Sprint		
Trade Mark	•	JBL		
FCC ID	•	API-JBLSPRINT		
IC		6132A-JBLSPRINT		
Manufacturer		Harman International Industries, Inc.		
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES		

### Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, E-mail: ddt@dgddt.com, http://www.dgddt.com



### **Table of Contents**

	Test report declares	4
1.	Summary of Test Results	
2.	General Test Information	
2.1.	Description of EUT	
2.2.	Accessories of EUT	
2.3.	Assistant equipment used for test	7
2.4.	Block diagram of EUT configuration for test	
2.5.	Deviations of test standard	
2.6.	Test environment conditions	
2.7.	Test laboratory	
2.8.	Measurement uncertainty	
3.	Equipment Used During Test	
4.	Radiated Emission	
4.1.	Block diagram of test setup	
4.2.	Limit	
4.3.	Test Procedure	
4.4.	Test result	
5.	Power Line Conducted Emission	
5.1.	Block diagram of test setup	
5.2.	Power Line Conducted Emission Limits	
5.3.	Test Procedure	
5.4.	Test Result	

### **Test Report Declare**

Applicant	:	Harman International Industries, Inc.		
Address	. 8500 Balboa Boulevard, Northridge, CA 91329, UNITED · STATES			
Equipment under Test	:	Bluetooth Earphone		
Model No.	:	Endurance Sprint		
Trade Mark	: JBL ®			
Manufacturer		Harman International Industries, Inc.		
Address	/.	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES		

#### **Test Standard Used:**

FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 2 February 2017.

#### **Test Procedure Used:**

ANSI C63.10:2013, RSS-Gen Issue 4, Nov. 2014.

#### We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

# After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC&ISED standards.

Report No.:	DDT-R22031403-2E01	D'	
Date of Receipt:	Mar. 14, 2022	Date of Test:	Mar. 14, 2022 ~ Apr. 01, 2022

Prepared By:

Ella Gong Ella Gong/Engineer



# Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

# **Revision History**

Rev.	Revisions	lssue Date	Revised By
	Initial issue	Apr. 01, 2022	Ar .
			2



### 1. Summary of Test Results

Description of Test Item	Standard	Verdict
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.10:2013 RSS-247 Issue 2 RSS-Gen Issue 4 clause 7.2.2 RSS-Gen Issue 4 clause 7.2.5	Pass
Power Line Conducted Emissions	FCC Part 15: 15.207 ANSI C63.10:2013 RSS-Gen Issue 4 clause 7.2.4	Pass
	which based on the report DDT-R1 ment that only Radiated Emission need to test.	7122804-1E2, this (below 1 GHz) and

### 2. General Test Information

### 2.1. Description of EUT

EUT* Name		Bluetooth Earphone
Model Number		Endurance Sprint
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC 5V from external AC Adapter DC 3.7V built-in battery
Radio Specification	:	Bluetooth V4.2
Operation Frequency		2402 MHz - 2480 MHz
Modulation		GFSK, π/4-DQPSK, 8DPSK
Data Rate	:	1 Mbps, 2 Mbps, 3 Mbps
Antenna Gain	:	Integral antenna, maximum PK gain: -1.18dBi
Sample Type	:	Series production
Sample Number	:	S22031403-05 for radiation
Note: ELIT is the ab. of equ	inr	nent under test

Note: EUT is the ab. of equipment under test.

Channel inforr		0	Frequency	0	Fraguana
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	27	2429	54	2456
	2403	28	2430	55	2457
2	2404	29	2431	56	2458
3	2405	30	2432	57	2459
4	2406	31	2433	58	2460
5	2407	32	2434	59	2461
6	2408	33	2435	60	2462
7	2409	34	2436	61	2463
8	2410	35	2437	62	2464
9	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	<sup>™</sup> 71	2473
18	2420 🔰	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23 🕓	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		

26	2428	53	2455		
2.2. Accesso	ries of EUT				
Description of Accessories	Manufacturer	Mod	el number	Description	Remark
USB cable	HarmanHarm an International Industries, Inc.	, i	N/A	Length: 220mm	N/A

#### 2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
N/A	N/A	N/A	N/A	N/A

#### 2.4. Block diagram of EUT configuration for test



Test software: BQB.exe.

The test software was used to control EUT work in Continuous Tx mode, and select test channel, wireless mode as below table.

Tested mode, channel, information			
Mode	Setting Tx Power	Channel	Frequency (MHz)
GFSK hopping on Tx mode	/	CH0 to CH78	2402 to 2480
$\pi$ /4-DQPSK hopping on Tx mode	1	CH0 to CH78	2402 to 2480
8DPSK hopping on Tx mode		CH0 to CH78	2402 to 2480
		CH0	2402
GFSK hopping off Tx mode	1	CH39	2441
	/	CH78	2480
	/	CH0	2402
$\pi/4$ -DQPSK hopping off Tx mode	/	CH39	2441
	/	CH78	2480
	1	CH0	2402
8DPSK hopping off Tx mode	1	CH39	2441
	/	CH78	2480

#### 2.5. Deviations of test standard

No deviation.

#### 2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25 °C
Humidity range:	40-75%
Pressure range:	86-106 kPa

#### 2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, http://www.dgddt.com, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, G-20118

#### 2.8. Measurement uncertainty

Test Item	Uncertainty		
Bandwidth	1.1%		
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);		
Peak Output Power (Conducted) (Spectrum analyzer)	1.38 dB (3.6 GHz ≤ f < 8 GHz)		
Peak Output Power (Conducted) (Power Sensor)	0.74 dB		
Dever Created Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);		
Power Spectral Density	1.38 dB (3.6 GHz ≤ f < 8 GHz)		
Fraguenciae Stability	6.7 x 10 <sup>-8</sup> (Antenna couple method)		
Frequencies Stability	5.5 x 10 <sup>-8</sup> (Conducted method)		
(Q)	0.86 dB (10 MHz ≤ f < 3.6 GHz);		
Conducted spurious emissions	1.40 dB (3.6 GHz ≤ f < 8 GHz)		
	1.66 dB (8 GHz ≤ f < 22 GHz)		
Uncertainty for radio frequency (RBW < 20 kHz)	3×10 <sup>-8</sup>		
Temperature	0.4 °C		
Humidity	2 %		
Uncertainty for Radiation Emission test	4.70 dB (Antenna Polarize: V)		
(30 MHz - 1 GHz)	4.84 dB (Antenna Polarize: H)		
1 1	4.10 dB (1 - 6 GHz)		
Uncertainty for Radiation Emission test	4.40 dB (6 GHz - 18 GHz)		
(1 GHz - 40 GHz)	3.54 dB (18 GHz - 26 GHz)		
	4.30 dB (26 GHz - 40 GHz)		
Uncertainty for Power line conduction emission test	3.32 dB (150 kHz - 30 MHz)		
Note: This uncertainty represents an expanded uncerta 95% confidence level using a coverage factor of k=2.	ainty expressed at approximately the		

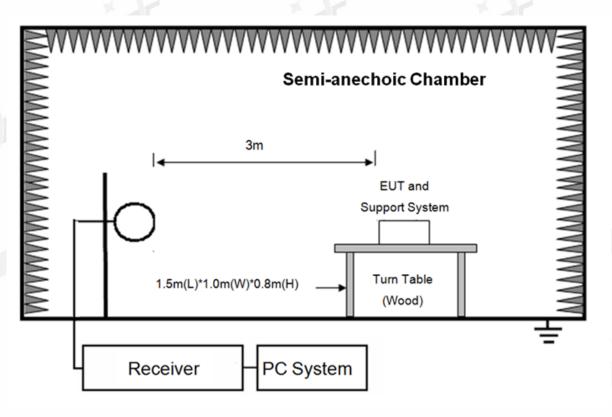
3.	Equipment	Used	<b>During Test</b>	
----	-----------	------	--------------------	--

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
⊠Radiation 3#chamb	ber		0	0	
EMI Test Receiver	R&S	ESU	100472	Jun. 01, 2021	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 01, 2021	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 19, 2021	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	01429	Aug. 07, 2021	1 Year
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02108	Jul. 17, 2021	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	May 08, 2021	1 Year
Pre-amplifier	COM-POWE R	PAM-118A	18040084	Sep. 02, 2021	1 Year
Pre-amplifier	COM-POWE R	PAM-840A	461369	Mar. 15, 2022	1 Year
Test software	Audix	E3	V 6.1.1.1	N/A	N/A
Power Line Condu	cted Emissions	Test 1#		·	-
Test Receiver	R&S	ESCI	100551	Sep. 02, 2021	1 Year
LISN 1	R&S	ENV216	101109	Sep. 02, 2021	1 Year
LISN 2	R&S	ESH2-Z5	100309	Sep. 02, 2021	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Sep. 02, 2021	
CE Cable 1	HUBSER	N/A	W10.01	Sep. 02, 2021	1 Year
LISN 3	SCHWARZBE CK	NSLK 8163	00017	Sep. 02, 2021	
Test software	Audix	E3	V 6.11111b	N/A	N/A

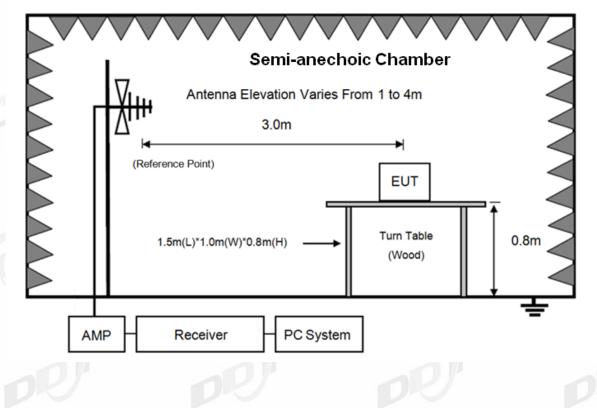
### 4. Radiated Emission

#### 4.1. Block diagram of test setup

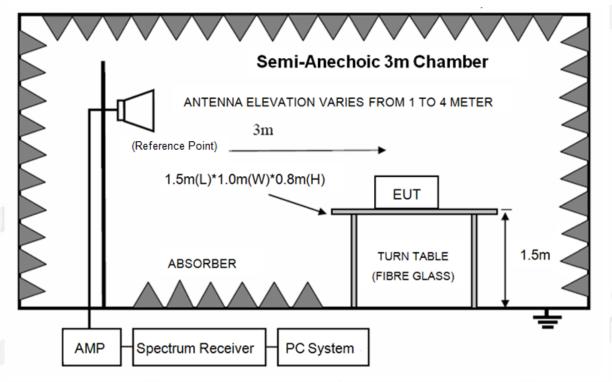
In 3m Anechoic Chamber Test Setup Diagram for 9kHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

#### 4.2. Limit

(1) FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	
10.495-0.505	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
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&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.G
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			

(2) FCC 15.209 Limit.

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT		
MHz	Meters	μV/m	dB(µV)/m	
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)	
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)	
1.705 ~ 30.0	30	30	29.54	
30 ~ 88	3	100	40.0	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46.0	
960 ~ 1000	3	500	54.0	
Above 1000	3	74.0 dB(μV)/ 54.0 dB(μV)/m		

Note: (1)The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz.Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer then that specified, and the limit at closer measurement distance can be extrapolated by below formula:

Limit<sub>3m</sub>(dBuV/m)= Limit<sub>30m</sub>(dBuV/m) + 40Log(30m/3m)

#### (3) Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

#### 4.3. Test Procedure

(1) EUT was placed on a non-metallic table, 150 cm above the ground plane inside a semi-anechoic chamber.

(2) Test antenna was located 3m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test antenna distance
9kHz-30MHz	Active Loop antenna	3m
30MHz-1GHz	Trilog Broadband Antenna	3m
1GHz-18GHz	Double Ridged Horn	3m
	Antenna(1GHz-18GHz)	8
18GHz-40GHz	Horn	1m
	Antenna(18GHz-40GHz)	

According ANSI C63.10:2013 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the

loop is 1 m above the ground. for measurement above 30MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of

Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(3) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9kHz to 25GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1m to 4m(Except loop antenna, it's fixed 1m above ground.)

- (b) Change work frequency or channel of device if practicable.
- (c) Change modulation type of device if practicable.
- (d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9kHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18GHz to 25GHz, so below final test was performed with frequency range from 9kHz to 18GHz.

- (4) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on Radiated Emission test.
- (5) The emissions from 9KHz to 1GHz were measured based on CISPR QP detector except for the frequency bands 9-90kHz, 110-490kHz, for emissions from 9kHz-90kHz,110kHz-490kHz and above 1GHz were measured based on average detector, for emissions above 1GHz, peak emissions also be measured and need comply with Peak limit.
- (6) The emissions from 9kHz to 1GHz, QP or average values were measured with EMI receiver with below RBW.

Frequency band	RBW
9kHz-150kHz	200Hz
150kHz-30MHz	9kHz
30MHz-1GHz	120kHz 🔍
	9kHz-150kHz 150kHz-30MHz

- (7) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RMS detector RBW 1MHz VBW 3MHz for Average measure(according ANSI C63.10:2013 clause 4.2.3.2.3 procedure for average measure).
- (8) X axis, Y axis, Z axis are tested, and worse setup X axis is reported.

#### 4.4. Test result

#### PASS. (See below detailed test result)

All the emissions except fundamental emission from 9 kHz to 25GHz were comply with 15.209 limits. Note1: According exploratory test no any obvious emission were detected from 9 kHz to 30MHz and 18GHz to 25GHz, so the final test was performed with frequency range from 30MHz to 18GHz and recorded in below.

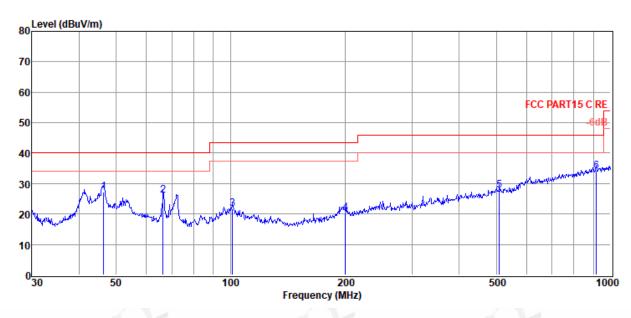
Note2: For emissions below 1GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1GHz, the final test was only performed with EUT working in GFSK, Tx 2441MHz mode.

Note3: For emissions above 1GHz. If peak results comply with AV limit, AV Result is deemed to comply with AV limit.

Dongguan Dongdian Testing Service Co., Ltd.

### Radiated Emission test (below 1 GHz) TR-4-E-009 Radiated Emission Test Result

Test Site	: DDT 3m Chamber 3#	D:\E3 6.111\2022 Sprint\FCC BELO	Report Data\Q22031403-2E JBL Endurance W 1G.EM6
Test Date	: 2022-03-24	Tested By	: Kennys Zhang
EUT	: Bluetooth Earphone	Model Number	: Endurance Sprint
Power Supply	: Battery	Test Mode	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	Antenna/Distance	e:2021 VLUB 9163 3#/3m/VERTICAL
Memo			



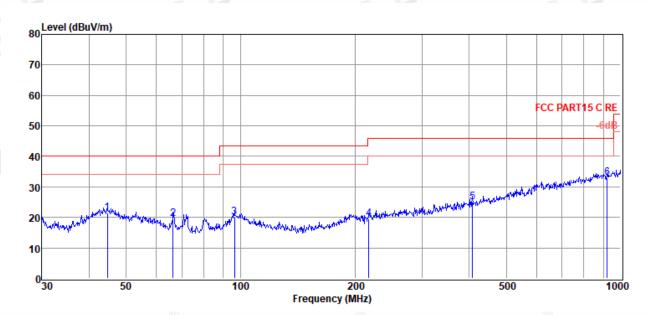
Item	<b>Freq.</b> (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	46.34	9.27	14.40	3.65	27.32	40.00	-12.68	QP	VERTICAL
2	66.50	12.95	9.25	3.80	26.00	40.00	-14.00	QP	VERTICAL
3 🧟	101.29	6.09	11.60	3.99	21.68	43.50	-21.82	QP	
4	200.69	4.05	11.75	4.45	20.25	43.50	-23.25	QP	VERTICAL
5	510.04	5.05	17.10	5.50	27.65	46.00	-18.35	QP	VERTICAL
6	916.07	5.18	22.40	6.51	34.09	46.00	-11.91	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit. 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto. Memo

### **TR-4-E-009 Radiated Emission Test Result**

Test Site	: DDT 3m Chamber 3#	D:\E3 6.111\2022 F Sprint\FCC BELO\	Report Data\Q22031403-2E JBL Endurance N 1G.EM6
Test Date	: 2022-03-24	Tested By	: Kennys Zhang 💦 🛞
EUT	: Bluetooth Earphone	Model Number	: Endurance Sprint
Power Supply	: Battery	Test Mode	: Tx mode
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	Antenna/Distance	e : 2021 VLUB 9163 3#/3m/HORIZONTAL



Item (Mark)	<b>Freq.</b> (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	44.59	2.64	15.06	3.64	21.34	40.00	-18.66	QP	HORIZONTAL
2	66.50	6.60	9.25	3.80	19.65	40.00	-20.35	QP	HORIZONTAL
3	96.44	4.88	11.29	3.96	20.13	43.50	-23.37	QP	HORIZONTAL
4	217.54	3.76	11.20	4.53	19.49	46.00	-26.51	QP	HORIZONTAL
5	407.51	4.03	15.70	5.18	24.91	46.00	-21.09	QP	HORIZONTAL
6	922.52	3.94	22.40	6.52	32.86	46.00	-13.14	QP	HORIZONTAL

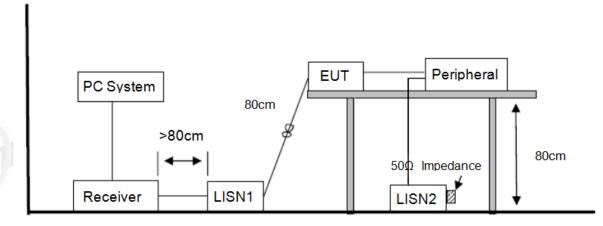
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

#### 5. Power Line Conducted Emission

#### 5.1. Block diagram of test setup



#### 5.2. Power Line Conducted Emission Limits

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: \* Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

#### 5.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were

recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

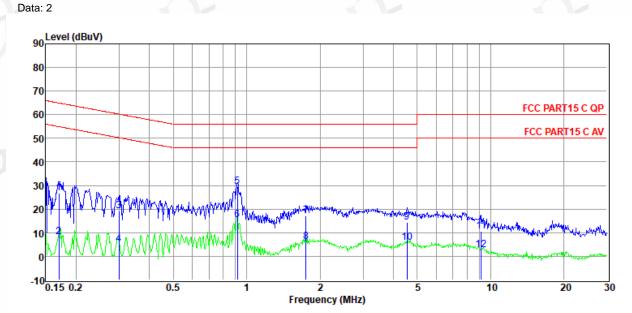
#### 5.4. Test Result

#### PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits. Note2: "-----" means Peak detection; "-----" means Average detection Note3:Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worst case (AC 120V/60Hz).

### **TR-4-E-010 Conducted Emission Test Result**

Test Site	: DDT 1# Shield Room	D:\2022 CE repor	t date\Q22031403-2E\FCC.EM6
Test Date	: 2022-03-28	Tested By	: Kennys Zhang
EUT	: Bluetooth Earphone	Model Number	: Endurance Sprint
Power Supply	: AC 120V/60Hz	Test Mode	: Tx mode
Condition	: TEMP:24.3°C, RH:53.0%, BP:101.0kPa	LISN	: 2021 1# ENV216/NEUTRAL
Memo	8		



ltem	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	Factor (dB)	(dBµV)	(dBµV)	(dB)		
1	0.17	7.05	9.80	0.01	9.92	26.78	64.94	-38.16	QP	NEUTRAL
2	0.17	-11.45	9.80	0.01	9.92	8.28	54.94	-46.66	Average	NEUTRAL
3	0.30	-0.52	9.67	0.02	9.92	19.09	60.24	-41.15	QP	NEUTRAL
4	0.30	-14.34	9.67 🕓	0.02	9.92	5.27	\$50.24	-44.97	Average	®NEUTRAL
5	0.92	10.01	9.72	0.03	9.89	29.65	56.00	-26.35	QP	NEUTRAL
6	0.92	-4.13	9.72	0.03	9.89	15.51	46.00	-30.49	Average	NEUTRAL
7	1.75	-2.48	9.62	0.04	9.89	17.07	56.00	-38.93	QP	NEUTRAL
8	1.75	-13.40	9.62	0.04	9.89	6.15	46.00	-39.85	Average	NEUTRAL
9	4.55	-5.41	9.75	0.06	9.92	14.32	56.00	-41.68	QP	NEUTRAL
10	4.55	-13.89	9.75	0.06	9.92	5.84	46.00	-40.16	Average	NEUTRAL
11	9.16	-9.28	9.75	0.10	9.94	10.51	60.00 🛞	-49.49	QP	NEUTRAL
12	9.16	-17.01	9.75	0.10	9.94	2.78	50.00	-47.22	Average	NEUTRAL

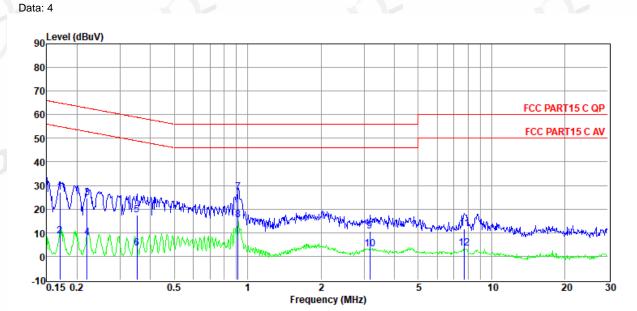
#### Note:

1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz-150 kHz), 9 kHz (150 kHz-30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

### **TR-4-E-010 Conducted Emission Test Result**

Test Site	: DDT 1# Shield Room	D:\2022 CE repor	t date\Q22031403-2E\FCC.EM6
Test Date	: 2022-03-28	Tested By	: Kennys Zhang
EUT	: Bluetooth Earphone	Model Number	: Endurance Sprint
Power Supply	: AC 120V/60Hz	Test Mode	: Tx mode
Condition	: TEMP:24.3°C, RH:53.0%, BP:101.0kPa	LISN	: 2021 1# ENV216/LINE
Memo	®		



ltem	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)		
1	0.17	7.37	9.69	0.01	9.92	26.99	64.94	-37.95	QP	LINE
2	0.17	-11.21	9.69	0.01	9.92	8.41	54.94	-46.53	Average	LINE
3	0.22	5.10	9.78	0.01	9.92	24.81	62.83	-38.02	QP	LINE
4	0.22	-11.94	9.78 🕓	0.01	9.92	7.77	®52.83	-45.06	Average	IINE
5	0.35	-2.20	9.68	0.02	9.91	17.41	58.91	-41.50	QP	LINE
6	0.35	-16.18	9.68	0.02	9.91	3.43	48.91	-45.48	Average	LINE
7	0.91	7.48	9.57	0.03	9.90	26.98	56.00	-29.02	QP	LINE
8	0.91	-4.07	9.57	0.03	9.90	15.43	46.00	-30.57	Average	LINE
9	3.17	-8.93	9.57	0.05	9.91	10.60	56.00	-45.40	QP	LINE
10	3.17	-16.61	9.57	0.05	9.91	2.92	46.00	-43.08	Average	LINE
11	7.73	-8.02	9.50	0.09	9.94	11.51	60.00	-48.49	QP	LINE
12	7.73	-16.27	9.50	0.09	9.94	3.26	50.00	-46.74	Average	LINE

#### Note:

1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz-150 kHz), 9 kHz (150 kHz-30 MHz).
- 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

**END OF REPORT**