



RF EXPOSURE REPORT

Applicant	:	Harman International Industries, Inc.
Address of Applicant	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Manufacturer	:	Harman International Industries, Inc.
Address of Manufacturer	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Equipment under Test	:	Wireless Speaker
Model No.	:	COVE M1
Test Standard(s)	:	EN IEC 62311:2020 EN 50665:2017
Report No.	:	DDT-RE26030303-2E11
Issue Date	:	2026/05/12
Issued By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

Table of Contents

1. General Test Information.....5

1.1. Description of EUT5

1.2. Accessories of EUT5

1.3. Test laboratory5

2. RF Exposure evaluation6

2.1. Assessment procedure.....6

2.2. Assess result.....9

Test Report Declare

Applicant	:	Harman International Industries, Inc.
Address of Applicant	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Equipment under Test	:	Wireless Speaker
Model No.	:	COVE M1
Manufacturer	:	Harman International Industries, Inc.
Address of Manufacturer	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Test Standard Used:

EN IEC 62311:2020, EN 50665:2017

We Declare:

The equipment described above is tested by Guangdong 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 Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE26030303-2E11		
Date of Receipt:	2026/03/03	Date of Test:	2026/03/03~2026/04/30

Created: Zoe Peng	Reviewed: Chen Ziqin	Approved: Ella Gong
		
2026/04/30	2026/05/11	2026/05/12

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

Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2026/05/12	Ella Gong

1. General Test Information

1.1. Description of EUT

EUT Name	: Wireless Speaker
Model Number	: COVE M1
Difference of model number	: /
EUT Function Description	: Please reference user manual of this device
Power Supply	: AC 100-240V~, 50/60Hz, 18W
Hardware Version	: V1.0
Software Version	: 26.11.51.30.10

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual.

1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
AC cable	Harman	N/A	N/A

1.3. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, 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, R-20240, G-20118

2. RF Exposure evaluation

2.1. Assessment procedure

1) Basic Restrictions Reference levels

Council Recommendation 99/519/EC Annex II

Basic restrictions for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

Frequency range	Magnetic flux density (mT)	Current density (Ma/m ²) (rms)	Whole body average SAR (W/kg)	Localised SAR (head and trunk) (W/kg)	Localised SAR (limbs) (W/kg)	Power density (W/m ²)
0Hz	40	-	-	-	-	-
>0-1Hz	-	8	-	-	-	-
1-4Hz	-	8/f	-	-	-	-
4-1000Hz	-	2	-	-	-	-
1000Hz-100kHz	-	f/500	-	-	-	-
100kHz-10MHz	-	f/500	0.08	2	4	-
10MHz-10GHz	-	-	0.08	2	4	-
10-300GHz	-	-	-	-	-	10

Note:

(1) f is the frequency in Hz.

(2) The basic restriction on the current density is intended to protect against acute exposure effects on central nervous system tissues in the head and trunk of the body and includes a safety factor. The basic restrictions for ELF fields are based on established adverse effects on the central nervous system. Such acute effects are essentially instantaneous and there is no scientific justification to modify the basic restrictions for exposure of short duration. However, since the basic restriction refers to adverse effects on the central nervous system, this basic restriction may permit higher current densities in body tissues other than the central nervous system under the same exposure conditions.

(3) Because of electrical inhomogeneity of the body, current densities should be averaged over a cross section of 1cm² perpendicular to the current direction.

(4) For frequencies up to 100 kHz, peak current density values can be obtained by multiplying the rms value by $\sqrt{2}$ (=1.414). For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $f = 1/(2t_p)$.

(5) For frequencies up to 100kHz and for pulsed magnetic fields, the maximum current density associated with the pulses can be calculated from the rise/fall times and the maximum rate of change of magnetic flux density. The induced current density can then be compared with the appropriate basic restriction.

(6) All SAR values are to be averaged over any six-minute period.

(7) Localised SAR averaging mass is any 10g of contiguous tissue; the maximum SAR so obtained should be the value used for the estimation of exposure. These 10g of tissue are intended to be a

mass of contiguous tissue with nearly homogeneous electrical properties. In specifying a contiguous mass of tissue, it is recognised that this concept can be used in computational dosimetry but may present difficulties for direct physical measurements. A simple geometry such as cubic tissue mass can be used provided that the calculated dosimetric quantities have conservation values relative to the exposure guidelines.

(8) For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $=1/(2t_p)$. Additionally, for pulsed exposures, in the frequency range 0,3 to 10GHz and for localised exposure of the head, in order to limit and avoid auditory effects caused by thermoelastic expansion, an additional basic restriction is recommended. This is that SA should not exceed 2mJ kg^{-1} averaged over 10g of tissue.

2) Reference Levels

Council Recommendation 99/519/EC Annex III

Reference levels for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density Seq (W/m ²)
0-1Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25Hz	10 000	$4000/f$	$5000/f$	-
0.025Hz-0,8kHz	$250/f$	$4/f$	$5/f$	-
0,8-3kHz	$250/f$	5	6,25	-
3-150kHz	87	5	6,25	-
0,15-1MHz	87	$0.73/f$	$0.92/f$	-
1-10MHz	$87/f^{1/2}$	$0.73/f$	$0.92/f$	-
10-400MHz	28	0.073	0,092	2
400-2000MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300GHz	61	0,16	0,20	10

Note:

- (1) As indicated in the frequency range column.
- (2) For frequencies between 100kHz and 10GHz, Seq, E2, H2 and B2 are to be averaged over any six-minute period.
- (3) For frequencies exceeding 10GHz, Seq, E2, H2 and B2 are to be averaged over any 68/1.05-minute period (.in GHz).
- (4) No E-field value is provided for frequencies $<1\text{Hz}$, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 20kV/m . Spark discharges causing stress or annoyance should be avoided.

3) Limit calculations for radiated electric field strength measurement

For the calculation of the limits, the near field proportionality factor $1/d^3$ has been used. For ten times the distance, the level is decreased by the cubical, giving 60 dB.

Frequency range	EMF Limit V/m at 0.3m	Limit V/m at 3m	Limit (add. span)
30MHz - 400MHz	28V/m(149dBuV/m)	89dBuV/m	69dBuV/m
400MHz – 2GHz	27.5V/m- 61.5V/m	89dBuV/m-----	69dBuV/m-----
	149dBuV/m – 155dBuV/m		
2GHz – 300GHz	61V/m(155dBuV/m)	95dBuV/m	75dBuV/m
		95dBuV/m	75dBuV/m

To deal with reflexions, other effects due to the measurement in 3 m distance and to deal with a measurement uncertainty of at least 5 dB, an additional span of 20 dB has been added. For additional three times the distance, the level is decreased by additional 30 dB.

Frequency range	Limit V/m at 0.3m	Limit V/m at 3m	Limit (add. span)
30MHz – 400MHz	28V/m(149dBuV/m)	69dBuV/m	39dBuV/m
400MHz – 2GHz	27.5V/m- 61.5V/m	69dBuV/m	39dBuV/m
	149dBuV/m – 155dBuV/m	75dBuV/m	45dBuV/m
2GHz – 300GHz	61V/m(155dBuV/m)	75dBuV/m	45dBuV/m

Limits for radiated field according to EN 55032 / CISPR 32 for a class B appliance:

Frequency Range	Limit dBuV/m at 3m Peak	Limit dBuV/m at 3m QP or Average
30MHz - 230MHz	/	40dBuV/m quasi-peak
230MHz -1GHz	/	47dBuV/m quasi-peak
1GHz - 3GHz	70dBuV/m peak	50dBuV/m average
3GHz - 6GHz	74dBuV/m peak	54dBuV/m average

Conclusion: If the requirements for radiated emissions according to EN 55032 / CISPR 32 or other standards with the same limits are fulfilled, also the EMF requirements for the measured frequency range are fulfilled.

Assess of fundamental emission

Predication of MPE limit at a given distance

Equation from Annex A of EN 62311

$$E=(30 \cdot P \cdot G)^{(1/2)}/r$$

Where: E= E-field strength (V/m)

P=power input to antenna (Watt)

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

r =distance to the center of radiation of the antenna

From the maximum EUT RF output power, the minimum mobile separation distance, $r=0.2\text{m}$, the RF power density can be obtained.

2.2. Assess result

Mode	Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (Max.) (dBm)	Output Power (W)	Antenna Gain (dBi)	Antenna Gain (Numeric)	E-field strength at 20 cm (V/m)	E-field strength Limit (V/m)
BT	2402-2480	20.00	8.69	0.007	1.92	1.56	2.86	61.00
BLE	2402-2480	20.00	11.41	0.014	1.92	1.56	4.04	61.00
2.4G WiFi	2412-2472	20.00	17.22	0.053	1.98	1.58	7.92	61.00
5G WiFi	5180-5320, 5500-5700, 5745-5825	20.00	18.36	0.069	2.92	1.96	10.07	61.00

The worst simultaneous:

BLE+WIFI2.4G+WIFI5G: $4.04/61+7.92/61+10.07/61=0.36<1$.

-----End Report-----