



RF Exposure Evaluation Declaration

Applicant: Escape bv
Address: Ter Heidelaan 50A, 3200 Aarschot, Belgium
Product Name: Portable Indoor/Outdoor Wireless Speaker System
Model No.: Escape P6 AIR
Brand Name: ESCAPE
Standards: EN IEC 62311: 2020
AS/NZS 2772.2: 2016
Result: Complies

Reviewed By:

Kevin Guo

Kevin Guo

Approved By:

Robin Wu

Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2005RSU005-E5	Rev. 01	Initial Report	02-10-2021	Valid

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1. General Information

1.1. Applicant

Escape bv

Ter Heidelaan 50A, 3200 Aarschot, Belgium

1.2. Manufacturer

Escape bv

Ter Heidelaan 50A, 3200 Aarschot, Belgium

1.3. Testing Facility

<input checked="" type="checkbox"/>	<p>Test Site – MRT Suzhou Laboratory</p> <p>Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China</p> <p>Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China</p> <p>Laboratory Accreditations</p> <p>A2LA: 3628.01 FCC: CN1166 VCCI: R-20025, G-20034, C-20020, T-20020</p> <p>CNAS: L10551 ISED: CN0001</p>
<input type="checkbox"/>	<p>Test Site – MRT Shenzhen Laboratory</p> <p>Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China</p> <p>Laboratory Accreditations</p> <p>A2LA: 3628.02 FCC: CN1284</p> <p>CNAS: L10551 ISED: CN0105</p>
<input type="checkbox"/>	<p>Test Site – MRT Taiwan Laboratory</p> <p>Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)</p> <p>Laboratory Accreditations</p> <p>TAF: L3261-190725 FCC: 291082, TW3261</p> <p>ISED: TW3261</p>

2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	Portable Indoor/Outdoor Wireless Speaker System
Model No.:	Escape P6 AIR
Brand Name:	ESCAPE
Wi-Fi Specification:	802.11a/b/g/n/ac
Bluetooth Specification:	Bluetooth v4.0 (Single mode for BR/EDR)

2.2. Radio Description

Bluetooth	
Operating Frequency:	2402~2480MHz
Antenna Type:	PIFA
Antenna Gain:	3.00dBi
2.4G Wi-Fi	
Operating Frequency:	2412~2472MHz
Antenna Type:	PIFA
Antenna Gain:	3.00dBi
5G Wi-Fi	
Operating Frequency:	5180~5240MHz
Antenna Type:	PIFA
Antenna Gain:	3.00dBi
5.8G Wi-Fi	
Operating Frequency:	5725~5825MHz
Antenna Type:	PIFA
Antenna Gain:	3.00dBi

3. RF Exposure Measurement

The scope of this standard is limited to apparatus which is intended for use by the general public as defined in the Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (Official Journal L 199 of 30 July 1999).

This generic standard applies to electronic and electrical apparatus for which no dedicated product or product family standard regarding human exposure to electromagnetic fields applies.

This generic standard does not cover equipment, which fulfils the requirements given in EN 50371 or is medical equipment as defined in the Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

The frequency range covered is 0 Hz to 300 GHz.

The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields and induced and contact current.

3.1. Limits

The electronic and electro-technical apparatus shall comply with the basic restriction as specified in Annex II of Council Recommendation 1999/519/EC.

The reference levels in the Council Recommendation 1999/519/EC on public exposure to electromagnetic fields are derived from the basic restrictions using worst-case assumptions about exposure.

The reference level listed in the following table 2 shall be used to evaluate the environment impact of human exposure human exposure to electromagnetic fields (0 Hz - 300 GHz) as specified in 1999/519/EC.

Council Recommendation 1999/519/EC of 12 July 1999

Table 2

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

Frequency Range	E-field Strength (V/m)	H-field Strength (A/m)	B-field (μ T)	Equivalent plane wave power density Seq (W/m ²)
0-1 Hz	–	3.2×10^4	4×10^4	–
1-8 Hz	10000	$3.2 \times 10^4/f^2$	$4 \times 10^4/f^2$	–
8-25 Hz	10000	$4000/f$	$5000/f$	–
0.025-0.8 kHz	$250/f$	$4/f$	$5/f$	–
0.8-3 kHz	$250/f$	5	6.25	–
3-150 kHz	87	5	6.25	–
0.15-1 MHz	87	$0.73/f$	$0.92/f$	–
1-10 MHz	$87/f^{1/2}$	$0.73/f$	$0.92/f$	–
10-400 MHz	28	0.73	0.092	2
400-2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f/200$
2-300G Hz	61	0.16	0.20	10

Notes:

1. f as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, Seq, E2, H2, and B2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, Seq, E2, H2, and B2 are to be averaged over any $68/f^{1.05}$ -minute period (f in GHz).
4. No E-field value is provided for frequencies < 1 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 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

3.2. Assessment methods

Under normal use of condition, this device has a separation distance of at least 20cm between the antenna and the body of the user. A radiation exposure statement” this equipment should be installed and operated with minimum distance between the antenna and your body” is shown on the user manual, so human exposure to the electromagnetic field of this product is at far-field region under normal use.

Far-field region Calculation Formula:

P watts are radiated, from a point, uniformly over the surface of sphere of radius r.

In free space

$$E = \eta_0 H = [30 * P * G(\theta, \phi)]^{0.5} / r$$

Where

G = antenna gain relative to an isotropic antenna

θ, ϕ = elevation and azimuth angles to point of investigation

r = distance from observation point to the antenna (m)

η = characteristic impedance of free space

Safety Distance Calculation Formula:

The power flux:

$$S = \frac{P * G_{(\theta, \phi)}}{4 * \pi * r^2}$$

So safety distance as following:

$$r = \sqrt{\frac{P * G}{4 * \pi * S}}$$

P = input power of the antenna

G = antenna gain relative to an isotropic antenna

θ, Φ = elevation and azimuth angles.

r = distance from the antenna to the point of investigation

3.3. Test Result of RF Exposure Evaluation

Product	Portable Indoor/Outdoor Wireless Speaker System
Test Item	RF Exposure Evaluation

Antenna Gain: refer to section 2.2.

Frequency Range (MHz)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
2402 ~ 2480	9.79	9.53	0.0019	1
2412 ~ 2472	18.12	64.86	0.0129	1
5180 ~ 5240	17.14	51.76	0.0103	1
5745 ~ 5825	13.85	24.27	0.0048	1

So the safety distance is 20cm for this device installed without any other radio equipment.

————— The End —————

Appendix A - EUT Photograph

Refer to "2005RSU005-EE" file.