



Laboratory 023

Test report No.: 2380887R-RFUSV17S-A

# **RF Exposure Report**

Product Name	Wireless headphone
Trademark	ASUS
Model and /or type reference	R55ES
FCC ID	MSQ-RCTWSN
Applicant's name / address	ASUSTeK COMPUTER INC. 1F, No. 15, Lide Rd, Beitou, Taipei, 112 Taiwan
Manufacturer's name	ASUSTeK COMPUTER INC.
Test method requested, standard	KDB 447498 D01 v06 ⊠ For Field Strength Test
Verdict Summary	IN COMPLIANCE
Documented By (Senior Project Specialist / Genie Chang)	Grenie Chang
Tested By ( Senior Engineer / Ivan Chuang )	Ivan Chuang
Approved By (Senior Engineer / Jack Hsu)	Jack Hsu
Date of Receipt	2023/08/29
Date of Issue	2023/12/13
Report Version	V1.0

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Appendix 1: EUT Test Photographs

Appendix 2: Product Photos-Please refer to the file: 2380887R-Product Photos

#### **Competences and Guarantees**

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

#### **General conditions**

- 1. The test results relate only to the samples tested.
- 2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
- 3. This report must not be used to claim product endorsement by TAF or any agency of the government.
- 4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
- 5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



# **Revision History**

Report No.	Version	Description	Issued Date
2380887R-RFUSV17S-A	V1.0	Initial issue of report.	2023/12/13

## 1. General Information

### 1.1. EUT Description

Product Name	Wireless headphone
Trademark	ASUS
Model and /or type reference	R55ES

Note: For more detailed information please refer to report No.: 2380887R-RFUSV01S-A,

2380887R-RFUSV01S-B, 2380887R-RFUSV06S-A and 2380887R-RFUSV09S-A.

# 2. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
	Temperature (°C)	10~40 °C	21.6 °C
Radiated Emission	Humidity (%RH)	10~90 %	72.4 %

USA	FCC Registration Number: TW0033				
Canada	CAB Identifier Number: TW3023 / Company Number: 26930				
Site Description	Accredited by TAF				
	Accredited Number: 3023				
Test Laboratory	DEKRA Testing and Certification Co., Ltd.				
	Linkou Laboratory				
Address	No.5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C				
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.				
Phone Number	+886-3-275-7255				
Fax Number	+886-3-327-8031				

#### 3. **RF Exposure Evaluation**

#### 3.1. Test Equipment

Eq	uipment	Manufacturer	Model No./Serial No.	Specification	Cal. Date
V	EM Field Meter	Wavecontrol	SMP2 / 18SN0746	1 Hz - 60 GHz	2021.06.17
V	Isotropic EM Field Probe	Wavecontrol	WP400-3 / 18WP120014	1 Hz - 400 kHz	2021.06.17
V	Isotropic EM Field Probe	Wavecontrol	WPF8 / 18WP040835	100 kHz - 8 GHz	2021.06.17

Note: All equipments are calibrated every three year.

#### 3.2. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty
E-Field Emissions	±1.80 dB
H-Field Emissions	±1.27 dB

#### 3.3. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

		,	,	
Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time
(MHz)	Strength (V/m)	Strength (A/m)	$(mW/cm^2)$	(Minutes)
	(A) Limits fo	r Occupational/ Cont	rol Exposures	
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/F	4.89/F	*(900/F <sup>2)</sup>	6
30-300	61.4	0.163	1	6
300-1500			F/300	6
1500-100,000			5	6
	(B) Limits for Gen	eral Population/ Unco	ontrolled Exposures	
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/F	2.19/F	*(180/F <sup>2</sup> )	30
300-1500	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

#### 3.4. **Test Procedure**

The aggregate H-field strengths at 20 cm surrounding the device all simultaneous transmitting coils per the FCC 's request. (reference KDB 680106 D01 RF Exposure Wireless Charging Apps v04)

Note: RF Exposure evaluation should be conducted assuming a separation distance of 20 cm



Product	:	Wireless headphone
Test Item	:	<b>RF</b> Exposure Evaluation
Test Site	:	НҮ-СВ03
Test Date	:	2023/10/06

#### **E-Field Emissions**

Test Position	Frequency (MHz)	Measurement Level @20cm (V/m)	Limit (V/m)	Result
Side 1	0.12800	1.210	614.0	PASS
Side 2	0.12800	0.840	614.0	PASS
Side 3	0.12800	0.850	614.0	PASS
Side 4	0.12800	0.870	614.0	PASS
Тор	0.12800	1.460	614.0	PASS
Bottom	0.12800	0.630	614.0	PASS

#### **H-Field Emissions**

Test Position	Frequency (MHz)	Measurement Level @20cm (A/m)	Limit (A/m)	Result
Side 1	0.12800	0.150	1.63	PASS
Side 2	0.12800	0.130	1.63	PASS
Side 3	0.12800	0.140	1.63	PASS
Side 4	0.12800	0.220	1.63	PASS
Тор	0.12800	0.370	1.63	PASS
Bottom	0.12800	0.330	1.63	PASS



### 3.5. EUT Test Setup Photographs



# Side 2 (20cm)





Side 3 (20cm)



Side 4 (20cm)





# Top (20cm)



# Bottom (20cm)

