TEST REPORT

No. I16D00258-SAR

For

Client : Audio-Technica Corporation

Production : Wireless Bluetooth Earphone

Model Name : ATH-AR3BT

FCC ID : JFZAR3BT

Hardware Version: Ver.1.0

Software Version: Ver.1.0.0

Issued date: 2017-02-21

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of ECIT Shanghai.

Test Laboratory:

ECIT Shanghai, East China Institute of Telecommunications

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Revision Version

Report Number	Revision	Date	Memo
I16D00258-SAR	00	2017-2-7	Initial creation of test report
I16D00258-SAR	01	2017-2-21	Update the BT Highest peak output power

CONTENTS

1. Test Laboratory

1.1. Testing Location

Company Name:	ECIT Shanghai, East China Institute of Telecommunications
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Postal Code:	200001
Telephone:	(+86)-021-63843300
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FCC Registration NO.:	489729

1.2. Project Data

Project Leader:	Wang Yaqiong
Testing Start Date:	2017-1-3
Testing End Date:	2017-1-3

1.3. Signature

Yan Hang
(Prepared this test report)

Song Kaihua
(Reviewed this test report)

Zheng Zhongbin
Director of the laboratory
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Audio-Technica Corporation
Address:	2-46-1 Nishi-naruse, Machida, Tokyo 194-8666, Japan
Telephone:	+81-42-739-9162
Contact person:	Fumito Yamada

2.2. Manufacturer Information

Company Name:	Audio-Technica Corporation
Address:	2-46-1 Nishi-naruse, Machida, Tokyo 194-8666, Japan
Telephone:	+81-42-739-9162
Contact person:	Fumito Yamada

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Wireless Bluetooth Earphone
Model name	ATH-AR3BT
Frequency Band	2402MHz-2480Mhz
Antenna Type	Internal Antenna
FCC ID:	JFZAR3BT

3.2. Internal Identification of EUT used during the test

EUT ID*	HW Version	SW Version	Date of receipt
N02	Ver.1.0	Ver.1.0.0	2016-12-01

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	RF cable	N/A	N/A	N/A
AE2	Dummy Battery	N/A	N/A	N/A

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents for FCC

4.1. Applicable Standards

The MPE report was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part 2.1093.
FCC CFR 47, Part 2, FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS, Oct 1,2011
Section 2.1093 Radiofrequency radiation exposure evaluation: mobile devices, June 23, 2015
KDB447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

4.2. Test Limits

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm
Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	*SAR Test Exclusion Threshold* (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

MHz	30	35	40	45	50	mm
150	232	271	310	349	387	*SAR Test Exclusion Threshold* (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

According to KDB447498 D01:The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [√$f_{(GHz)}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[24] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[25]
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below
  - If the test separation distance (antenna-user) is < 5mm, 5mm is used for excluded SAR calculation.

5. Test Results

5.1. RF Power Output

Frequency Band	Highest Peak Output Power (dBm)
BT	4.24

5.2. Calculation Information

	Wireless Interface	Bluetooth
Highest Peak Output Power (dBm)		4.24
Maximum rated power (mW)		2.66
Body/Head	Antenna to user (mm)	5
	Frequency(GHz)	2.480
	SAR exclusion threshold	0.836

Per KDB 447498 D01 exclusion thresholds is 0.836 < 3, Bluetooth RF exposure evaluation is not required.

************End The Report************