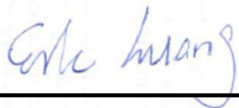


# RF Exposure Evaluation Report

APPLICANT : Bang & Olufsen a/s  
EQUIPMENT : Bluetooth Earphone  
BRAND NAME : Bang & Olufsen  
MODEL NAME : E8 Earbud R  
MARKETING NAME : Beoplay E8  
FCC ID : TTUBEOPLAYE8R  
STANDARD : 47 CFR Part 2.1093  
FCC KDB 447498 D01 v06  
APPLICANT/ : Bang & Olufsen a/s  
MANUFACTURER Peter Bangs Vej 15, DK-7600 Struer, Denmark

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1093 and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Eric Huang / Manager



Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

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FCC ID : TTUBEOPLAYE8R

Page Number : 1 of 5

Report Issued Date : Sep. 08, 2017

Report Version : Rev. 01





**1. Administration Data**

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Bang & Olufsen a/s
Address	Peter Bangs Vej 15, DK-7600 Struer, Denmark

Manufacturer	
Company Name	Bang & Olufsen a/s
Address	Peter Bangs Vej 15, DK-7600 Struer, Denmark



2. General Information

2.1 Description of Device Under Test (DUT)

Product Feature & Specification	
DUT Type	Bluetooth Earphone
Brand Name	Bang & Olufsen
Model Name	E8 Earbud R
Marketing Name	Beoplay E8
FCC ID	TTUBEOPLAYE8R
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz NFMI: 10.579MHz
Mode	Bluetooth BR/EDR/LE CPFSK
Antenna Type	Bluetooth: Monopole Antenna NFMI: Coil Antenna
Antenna Gain	Bluetooth: -1.13dBi
DUT Stage	Identical Prototype

Remark: The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

3. Maximum RF output power among production units

Mode / Band	Bluetooth			
	1Mbps	2Mbps	3Mbps	BT4.0-LE
	(GFSK)	$\pi/4$ -DQPSK	(8-DPSK)	(GFSK)
2.4GHz Bluetooth	3.5	0.5	0.5	-1.0



### 4. RF Exposure Evaluation

Bluetooth Max Power (dBm)	mW	Separation Distance (mm)	Frequency (GHz)	Exclusion Thresholds
3.5	2.24	5	2.48	0.63

**Note:**

1. Per KDB 447498 D01v06 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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

**Conclusion:** Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.63 which is ≤ 3, SAR testing is not required.