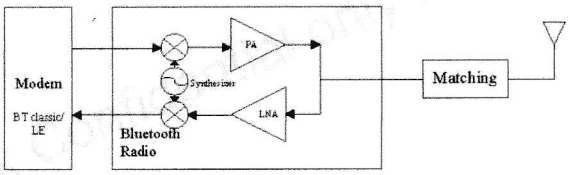
Date: 08-10-2023

Applicant: NTT SONORITY, Inc.
FCC ID: 2A58O-MBN001

Realtek Now, Ready for the Future

RTL8763ESE RFIO Operation

- RTL8763ESE follow Bluetooth Sig standard very strictly.
- RTL8763ESE RF system employs a frequency hopping transceiver to combat interference and fading and provides many FHSS carriers. RTL8763ESE RF IO operation uses a shaped, binary frequency modulation to minimize transceiver complexity. It employs two multiple access schemes: Frequency division multiple access (FDMA) and time division multiple access (TDMA).



- RTL8763ESE has only one RFIO. TX and RX controlled by internal RF Switch and it operated A TDMA based polling scheme is used in which one device transmits a packet at a predetermined time and a corresponding device responds with a packet after a predetermined interval. Based on this scheme, RTL8763ESE can control preciously RFIO for RX/TX operations

REALTEK 2

So, We, NTT SONORITY, Inc. confirm that simultaneous operations of BT Classic and BLE is not possible.

Sincerely,

Akira Nakgawa / Project Leader

Akira Nakagawa

NTT SONORITY, Inc.

RF EXPOSURE REPORT

Equipment Under Test	**Bluetooth Headphones**
Modle Name	**MBN001**
Variant Model Name	**MBN001BA, MBN001CA**
FCC ID	**2A58O-MBN001**
IC Number	**-**
Applicant	**NTT SONORITY, Inc.**
Manufacturer	**KH ELECTRON PHILS. CORP**
Date of Test(s)	**2023. 07. 24 ~ 2023. 08. 03**
Date of Issue	**2023. 08. 16**

In the configuration tested, the EUT complied with the standards specified above.

Issue to	Issue by
NTT SONORITY, Inc. 3-20-2, Nishishinjuku, Shinjuku-ku, Tokyo 163-1432, Japan Tel.: +81 80-8231-5126 Fax: -	**DEKRA Korea Co., Ltd.** 498-2, Geumeo-ro, Pogok-eup, Cheoin-gu, Yongin-si, Gyeonggi-do, 17030, Rep. of Korea Tel.: +82-31-338-8837 Fax: +82-31-338-8847

RF EXPOSURE

KDB447498 was used as the guidance.

SAR test exclusion considerations

Step.1 **For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion threshold are determined by the following :**

[(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

Step.2 For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following

Step.2-1 {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance – 50 mm)· (f(MHz)/150)]} mW, for 100 MHz to 1500 MHz

Step.2-2 {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance – 50 mm)·10]} mW, for > 1500 MHz and ≤ 6 GHz

where
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
The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

SAR test exclusion considerations : Bluetooth BDR

- Frequency Range : 2 402 MHz ~ 2 480 MHz

- Measured RF Maximum Output Power (Peak) : 7.02 dBm

- Target Power & Tolerance 6.10 dBm & ± 1.00 dB

(Maximum : 7.10 dBm & Minimum : 5.10 dBm)

- Maximum Output Power for the Calculation : 7.10 dBm

The EUT will only be used with a separation of 50 millimeters or lesser between the antenna and the body of the SAR Exclusion calculation for this exposure is shown below.

- P = 7.10 dBm = 5.13 mW	- NOTE P : Max tuneup Power (dBm)

Power Density at the specific separation

- S = [(P(mW) / R)] X [√f(GHz)] = [(5.13 / 5.00)] X [√(2.48)] = 1.615 31 NOTE : f(GHz) was used as worst case is highest frequency.	- NOTE S : Maximum Power Density P(mW) : Max tuneup Power (mW) R : Distance to the center of the radiation of the antenna (5.00 mm) f(GHz) : the RF channel transmit frequency in GHz

RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.

SAR test exclusion considerations : Bluetooth EDR

- Frequency Range : 2 402 MHz ~ 2 480 MHz

- Measured RF Maximum Output Power (Peak) : 9.58 dBm

- Target Power & Tolerance 8.60 dBm & ± 1.00 dB

(Maximum : 9.60 dBm & Minimum : 7.60 dBm)

- Maximum Output Power for the Calculation : 9.60 dBm

The EUT will only be used with a separation of 50 millimeters or lesser between the antenna and the body of the SAR Exclusion calculation for this exposure is shown below.

- P = 9.60 dBm = 9.12 mW	- NOTE P : Max tuneup Power (dBm)

Power Density at the specific separation

- S = [(P(mW) / R)] X [√f(GHz)] = [(9.12 / 5.00)] X [√(2.48)] = 2.872 47 NOTE : f(GHz) was used as worst case is highest frequency.	- NOTE S : Maximum Power Density P(mW) : Max tuneup Power (mW) R : Distance to the center of the radiation of the antenna (5.00 mm) f(GHz) : the RF channel transmit frequency in GHz

RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.

SAR test exclusion considerations : Bluetooth LE 1 Mbps

- Frequency Range : 2 402 MHz ~ 2 480 MHz

- Measured RF Maximum Output Power (Peak) : 6.59 dBm

- Target Power & Tolerance 5.60 dBm & ± 1.00 dB

(Maximum : 6.60 dBm & Minimum : 4.60 dBm)

- Maximum Output Power for the Calculation : 6.60 dBm

The EUT will only be used with a separation of 50 millimeters or lesser between the antenna and the body of the SAR Exclusion calculation for this exposure is shown below.

- P = 6.60 dBm = 4.57 mW	- NOTE P : Max tuneup Power (dBm)

Power Density at the specific separation

- S = [(P(mW) / R)] X [√f(GHz)] = [(4.57 / 5.00)] X [√(2.48)] = 1.439 65 NOTE : f(GHz) was used as worst case is highest frequency.	- NOTE S : Maximum Power Density P(mW) : Max tuneup Power (mW) R : Distance to the center of the radiation of the antenna (5.00 mm) f(GHz) : the RF channel transmit frequency in GHz

RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.

SAR test exclusion considerations : Bluetooth LE 2 Mbps

- Frequency Range : 2 402 MHz ~ 2 480 MHz

- Measured RF Maximum Output Power (Peak) : 5.18 dBm

- Target Power & Tolerance 4.20 dBm & ± 1.00 dB

(Maximum : 5.20 dBm & Minimum : 3.20 dBm)

- Maximum Output Power for the Calculation : 5.20 dBm

The EUT will only be used with a separation of 50 millimeters or lesser between the antenna and the body of the SAR Exclusion calculation for this exposure is shown below.

- P = 5.20 dBm = 3.31 mW	- NOTE P : Max tuneup Power (dBm)

Power Density at the specific separation

- S = [(P(mW) / R)] X [√f(GHz)] = [(3.31 / 5.00)] X [√(2.48)] = 1.042 93 NOTE : f(GHz) was used as worst case is highest frequency.	- NOTE S : Maximum Power Density P(mW) : Max tuneup Power (mW) R : Distance to the center of the radiation of the antenna (5.00 mm) f(GHz) : the RF channel transmit frequency in GHz

RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.