

RF Exposure Evaluation

FCC ID: 2AFIH-BND502

1. Client Information

Applicant : Brand New Days
Address : Flat B, 6/F, Tong Yuen Factory Building, 505 Castle Peak Road, Lai Chi Kok, Kowloon, Hong Kong, China
Manufacturer : Shenzhen Casun Electronic Co.,Ltd.
Address : 4/F, B Building, No.8 Eastern Zone, Shangxue Technology Park, Bantian, Shenzhen, China

2. General Description of EUT

EUT Name	:	Bluetooth Speaker	
Models No.	:	BND502	
Product Description	:	Operation Frequency:	Bluetooth V3.0: 2402~2480 MHz
	:	RF Output Power:	Bluetooth: -1.154dBm(π /4-DQPSK)
	:	Antenna Gain:	-1dBi PCB Antenna
Power Supply	:	DC Voltage supplied by USB Cable DC Voltage supplied by Li-ion battery	
Power Rating	:	DC 5V by USB Cable DC 3.7V by 3000mAh Li-ion battery	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note: More test information about the EUT please refer the RF Test Report.

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 3.0 \text{ for 1-g SAR}}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$

2. Calculation:

Test separation: 5mm						
Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-2.381	-2±1	-1	0.794	0.246	3.0
2.441	-2.357	-2±1	-1	0.794	0.248	3.0
2.480	-2.105	-2±1	-1	0.794	0.250	3.0
Bluetooth Mode ($\pi/4$ -DQPSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-1.450	-1±1	0	1.000	0.310	3.0
2.441	-1.405	-1±1	0	1.000	0.312	3.0
2.480	-1.154	-1±1	0	1.000	0.315	3.0

So standalone SAR measurements are not required.

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