

RF Exposure Evaluation

FCC ID: 2AU5G-AW10

1. Client Information

Applicant	:	SUZHOU AUDITORYWORKS CO.,LTD
Address	:	B504, Block 2, Creative Industrial Park, No.328, Xinghu Street, SIP, Suzhou215000, P.R. China
Manufacturer	:	SUZHOU AUDITORYWORKS CO.,LTD
Address	:	B504, Block 2, Creative Industrial Park, No.328, Xinghu Street, SIP, Suzhou215000, P.R. China

2. General Description of EUT

EUT Name	:	Bluetooth Speakerphone
Models No.	:	AW10
Model Difference	:	N./A
Product Description	Operation Frequency:	Bluetooth 5.0: 2402~2480 MHz
	RF Output Power:	Bluetooth: -1.541dBm(GFSK) BLE: -0.676 dBm(Max)
	Antenna Gain:	-2.1dBi FPC Antenna
Power Rating	:	USB Input: DC 5V 1A DC 3.7V by 3600mAh Li-ion battery
Software Version	:	1.0.0.1
Hardware Version	:	V0.3
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	Thres hold Value
2.402	-1.726	-2±1	-1	0.794	0.246	3.0
2.441	-1.541	-2±1	-1	0.794	0.248	3.0
2.480	-1.975	-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	Thres hold Value
2.402	-2.246	-2±1	-1	0.794	0.246	3.0
2.441	-2.023	-2±1	-1	0.794	0.248	3.0
2.480	-2.406	-2±1	-1	0.794	0.250	3.0
Bluetooth Mode (8-DPSK)						
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	Thres hold Value
2.402	-1.987	-2±1	-1	0.794	0.246	3.0
2.441	-1.712	-2±1	-1	0.794	0.248	3.0
2.480	-2.106	-2±1	-1	0.794	0.250	3.0

BLE 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	Thres hold Value
2.402	-0.722	0±1	1	1.259	0.390	3.0
2.442	-0.676	0±1	1	1.259	0.393	3.0
2.480	-1.080	-1±1	0	1.000	0.315	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
0.393	3.0

The worst RF Exposure Evaluation is **0.393 / cm2 < limit 3.0**, So standalone SAR measurements are not required.

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