

# RF Exposure Evaluation

Test report  
On Behalf of  
Shenzhen Kaysuda Technology Co.,Ltd.  
For  
Conference Microphone

Model No.: SP200

FCC ID: 2AURZ-SP200

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## 1 General Description of EUT

Product Name:	Conference Microphone
Model/Type reference:	SP200
Serial Model:	N/A
Trade Mark	N/A
FCC ID	2AURZ-SP200
Hardware Version:	SP200-MB-V2.0
Software Version:	V1.0
Version:	Supported EDR+BDR
Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79CH
Channel separation:	1MHz
Antenna type:	PCB Antenna
Antenna gain:	0 dBi
Power supply:	DC 3.7V from Battery

### BLE

Operation frequency:	2402 MHz to 2480 MHz
Channel separation:	2MHz
Channel number:	40
Modulation:	GFSK
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Power Supply:	DC 3.7V from Battery

## 2 RF Exposure Compliance Requirement

### 2.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

#### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

### 2.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

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

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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 is applied to determine SAR test exclusion

### 3 EUT RF Exposure

For EDR+BDR:

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-4.873	$-5 \pm 1$	-4	0.398	0.123	3.0
Middle (2441MHz)	-5.546	$-5 \pm 1$	-4	0.398	0.124	
Highest (2480MHz)	-4.786	$-5 \pm 1$	-4	0.398	0.125	
Conclusion: the calculated value $\leq 3.0$ , SAR is exempted.						

$\pi/4$ QPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-3.263	$-4 \pm 1$	-3	0.501	0.155	3.0
Middle (2441MHz)	-4.051	$-4 \pm 1$	-3	0.501	0.157	
Highest (2480MHz)	-3.374	$-4 \pm 1$	-3	0.501	0.158	
Conclusion: the calculated value $\leq 3.0$ , SAR is exempted.						

8DPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-2.892	$-3 \pm 1$	-2	0.631	0.196	3.0
Middle (2441MHz)	-3.599	$-3 \pm 1$	-2	0.631	0.197	
Highest (2480MHz)	-2.855	$-3 \pm 1$	-2	0.631	0.199	
Conclusion: the calculated value $\leq 3.0$ , SAR is exempted.						

**For BLE:**

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-4.719	$-5 \pm 1$	-4	0.398	0.123	3.0
Middle (2440MHz)	-5.546	$-5 \pm 1$	-4	0.398	0.124	
Highest (2480MHz)	-4.851	$-5 \pm 1$	-4	0.398	0.125	
Conclusion: the calculated value $\leq 3.0$ , SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: HK1910152575-E01 and HK1910152575-E02