RF Exposure Evaluation

Test report

On Behalf of
Shenzhen junruicheng electronics co. LTD
For
Speaker microphone

Model No.: K8

FCC ID: 2AWJQ-K8

Prepared for :   **Shenzhen junruicheng electronics co. LTD**

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Date of Report: **Jun. 08, 2020**

1   General Description of EUT

Product Name	Speaker microphone
Model/Type reference	K8
Serial Model	Q95, K9, K7, K6, K5
Model Difference	All models have the same functionality, software and electronics, only the color, front frame shape and model names may differ. Test sample model: K8
Trade Mark	ZealSound
FCC ID	2AWJQ-K8
Hardware Version	Q68-69258-2019-11-29
Software Version	updata-Q68-6925B-C594-K8
Version	Supported EDR
Modulation	GFSK, π/4DQPSK
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

2   RF Exposure ComplianceRequirement

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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]· [$\sqrt{f}$(GHz)] ≤ **3.0** for 1-g SAR and ≤ 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 nearset mW and mm before calcution
  The results is rounded to one decimal place for comparison

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

3   EUT RFExposure

Antenna Gain: 0dBi

Define the minimum distance: 5mm

For Bluetooth:

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.848	0±1	1	1.259	0.214	
Middle (2441MHz)	0.903	0±1	1	1.259	0.227	3.0
Highest (2480MHz)	0.962	0±1	1	1.259	0.242	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

π/4DQPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	1.603	1±1	2	1.585	0.508	
Middle (2441MHz)	1.642	1±1	2	1.585	0.521	3.0
Highest (2480MHz)	1.645	1±1	2	1.585	0.521	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Note: For maximum peak conducted output power, please refer to Test report EDR