



RF Exposure Evaluation

FCC ID: VO8-S6

1. Client Information

Applicant	:	GuangZhou LIWEI Electronics, LTD
Address	:	No.33 Zhenzhong North Rd,Shenshan Ind.Park BaiYun District,Guangzhou Guangdong, China
Manufacturer	:	GuangZhou LIWEI Electronics, LTD
Address	:	No.33 Zhenzhong North Rd,Shenshan Ind.Park BaiYun District,Guangzhou Guangdong, China

2. General Description of EUT

EUT Name	:	S6
Model(s) No.	:	S6, S7, S8, X, X-Pro, Gi, H_ALE, FS, T2L
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is the model name.
Product Description	Operation Frequency:	Bluetooth 5.0(BDR+EDR): 2402MHz~2480MHz
	Number of Channel:	79 channels
	Antenna Gain:	0 dBi PIFA Antenna
	Modulation Type:	GFSK, Pi/4-DQPSK
	Bit Rate of Transmitter:	Bluetooth :1/2Mbps
Power Supply (Earphone)	:	Input: DC 5V DC 3.7V by 50mAh Rechargeable Li-ion battery
Power Supply (Charger Box)	:	Input: DC 5V DC 3.7V by 300mAh Rechargeable Li-ion battery
Software Version	:	1.0
Hardware Version	:	1.0
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.		

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:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0$ 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	0.535	0±1	1	1.259	0.390	3.0
2.441	0.643	0±1	1	1.259	0.393	3.0
2.480	0.401	0±1	1	1.259	0.397	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	1.437	1±1	2	1.585	0.491	3.0
2.441	1.408	1±1	2	1.585	0.495	3.0
2.480	1.133	1±1	2	1.585	0.499	3.0

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

-----END OF REPORT-----