

RF Exposure Evaluation

FCC ID: 2AGBA-THE-EGG

1. Client Information

Applicant : Wasson Technology CO., LTD.(BVI)
Address : 1404-2, Block B, Building 3, LongGang Tian'an Digital Park,
LongGang District, ShenZhen, Guangdong province, P.R.China
Manufacturer : Wasson Technology CO., LTD.(BVI)
Address : 1404-2, Block B, Building 3, LongGang Tian'an Digital Park,
LongGang District, ShenZhen, Guangdong province, P.R.China

2. General Description of EUT

EUT Name	:	The Egg
Models No.	:	E1
Model Difference	:	N/A
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz WIFI: 802.11b/g/n(HT20): 2412MHz~2462MHz
		Number of Channel: Bluetooth: 79 Channels BLE: 40 channels WIFI: 802.11b/g/n(HT20):11 channels 802.11n(HT40):9 channels
	:	Max Peak Output Power: Bluetooth: 4.771 dBm (π /4-DQPSK) BLE: -2.356 dBm WIFI: 802.11b: 9.19 dBm
		Antenna Gain: 1.24 dBi FPC Antenna
		Modulation Type: Bluetooth: GFSK/ π /4-DQPSK/8-DPSK BLE:GFSK WIFI: 802.11b: DSSS 802.11g: OFDM 802.11n: OFDM
Power Supply	:	DC power supplied by AC/DC Adapter. DC Voltage supplied from Li-ion battery.
Power Rating	:	Input: AC 100~240V 50/60Hz 0.5A Output: 5V/2A DC 3.7V from 1800mAh 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 v05r02.

- (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:

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

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

2.

Calculation:

Test separation: 5mm						
WiFi Mode(802.11b)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.19	1.24	±0.5	9.311	2.892	3.0
2.437	8.97	1.24	±0.5	8.851	2.763	3.0
2.462	9.19	1.24	±0.5	9.311	2.922	3.0
WiFi Mode(802.11g)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.14	1.24	±0.5	9.204	2.859	3.0
2.437	9.13	1.24	±0.5	9.183	2.867	3.0
2.462	9.15	1.24	±0.5	9.226	2.895	3.0
WiFi Mode(802.11n(HT20))						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.09	1.24	±0.5	9.099	2.826	3.0
2.437	9.03	1.24	±0.5	8.974	2.802	3.0
2.462	9.11	1.24	±0.5	9.141	2.869	3.0
WiFi Mode(802.11(HT40))						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.422	9.12	1.24	±0.5	9.162	2.852	3.0
2.437	9.13	1.24	±0.5	9.183	2.867	3.0
2.452	9.16	1.24	±0.5	9.247	2.896	3.0

Test separation: 5mm						
Bluetooth(GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	4.557	1.24	±0.5	3.204	0.993	3.0
2.441	4.692	1.24	±0.5	3.305	1.033	3.0
2.480	4.702	1.24	±0.5	3.313	1.043	3.0
Bluetooth($\pi/4$ -DQPSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	4.564	1.24	±0.5	3.209	0.995	3.0
2.441	4.771	1.24	±0.5	3.366	1.052	3.0
2.480	4.721	1.24	±0.5	3.327	1.048	3.0
Bluetooth(8-DPSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.460	1.24	±0.5	2.489	0.771	3.0
2.441	3.528	1.24	±0.5	2.528	0.790	3.0
2.480	3.441	1.24	±0.5	2.478	0.780	3.0
BLE(GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-2.356	1.24	±0.5	0.652	0.202	3.0
2.442	-2.461	1.24	±0.5	0.637	0.199	3.0
2.480	-3.187	1.24	±0.5	0.539	0.170	3.0

So standalone SAR measurements are not required.