

RF Exposure Evaluation

FCC ID: 2AENWAMK3W602B

1. Client Information

Applicant : GOAL ZERO
Address : 675 WEST 14600 SOUTH BLUFFDALE US
Manufacturer : Dongguan Meiluodi Electronics Co.,Ltd
Address : No.16 Zhenxing Road, Shangjiao, Chang'an, Dongguan, Guangdong, 523878, China

2. General Description of EUT

EUT Name	:	ROCK OUT 2 WIRELESS
Models No.	:	AMK-3W6-02B
Model difference	:	N/A
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz
	:	Number of Channel: Bluetooth:79 Channels
	:	Max Peak Output Power: GFSK: 3.699dBm
	:	Antenna Gain: 0 dBi PCB Antenna
	:	Modulation Type: GFSK 1Mbps(1 Mbps) π /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
Power Supply	:	DC Voltage supplied from Host System by USB cable DC power by Li-ion Battery
Power Rating	:	DC 5.0V by USB cable. DC 3.7V 800mAh Li-ion Battery.
Product HW/SW	:	AMK-3W6-02B
Radio HW/SW	:	AMK-3W6-02B
Test Software	:	RF Control Kit v1.0
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:

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

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

2.

Calculation:

Test separation: 5mm					
Bluetooth Mode (GFSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.582	± 0.5	2.560	0.793	3.0
2.441	3.699	± 0.5	2.630	0.822	3.0
2.480	3.582	± 0.5	2.560	0.806	3.0
Bluetooth Mode ($\pi/4$ -DQPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.213	± 0.5	1.868	0.579	3.0
2.441	2.389	± 0.5	1.945	0.608	3.0
2.480	2.273	± 0.5	1.894	0.596	3.0
Bluetooth Mode (8-DPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.357	± 0.5	1.931	0.598	3.0
2.441	2.521	± 0.5	2.005	0.626	3.0
2.480	2.395	± 0.5	1.948	0.613	3.0

So standalone SAR measurements are not required.