RF Exposure Evaluation

FCC ID: 2AEUS-A07

1. Client Information

Applicant	:	Shenzhen Sunshine Technology Development Co.,Ltd
Address	:	4/F, block 4, HongHuaLing Industrial Park(zone 2), Taoyuan street, Xili, Nanshan District, Shenzhen, China
Manufacturer	:	Shenzhen Sunshine Technology Development Co.,Ltd
Address	:	4/F, block 4, HongHuaLing Industrial Park(zone 2), Taoyuan street, Xili, Nanshan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Action camera	
Models No.	:	A07, A01, A04, A05, A06, A07B, A07C	
Model Difference	:	All models are identical in the same PCB layout, interior structure and electrical circuits, the only difference is model name for commercial purpose.	
Product Description	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz	
		Number of Channel:	802.11b/g/n(HT20):11 channels **see note(3)** 802.11n(HT40): 7 channels **see note(3)**
		Max Peak Output Power:	802.11b: 9.27 dBm 802.11g: 9.09 dBm 802.11n (HT20): 8.85 dBm 802.11n (HT40): 9.08 dBm
		Antenna Gain:	2 dBi (FPC Antenna)
		Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g: OFDM 802.11n: OFDM
Power Supply	:	DC power supplied by Car Charger. DC power by Li-ion Battery.	
Power Rating	:	Input: DC 12V~24V. Output: 5V, 1A. DC 3.7V 700mAh 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.

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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)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤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	9.08	2	±0.5	9.08	2.820	**3.0**
2.437	9.13	2	±0.5	9.18	2.867	**3.0**
2.462	9.27	2	±0.5	9.48	2.976	**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	9.04	2	±0.5	8.99	2.794	**3.0**
2.437	9.09	2	±0.5	9.10	2.841	**3.0**
2.462	9.06	2	±0.5	9.04	2.836	**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	8.51	2	±0.5	7.96	2.473	**3.0**
2.437	8.77	2	±0.5	8.45	2.639	**3.0**
2.462	8.85	2	±0.5	8.61	2.702	**3.0**
WiFi Mode(802.11n(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	9.00	2	±0.5	8.913	2.774	**3.0**
2.437	8.97	2	±0.5	8.851	2.763	**3.0**
2.452	9.08	2	±0.5	9.078	2.843	**3.0**

So standalone SAR measurements are not required.