RF Exposure Evaluation

FCC ID: 2AGLQ-RUNCAM2

1. Client Information

Applicant : CAMERA2000 LIMITED

Address : Room 16E, B block, World Trade Plaza, Fuhong Road, Fu Tian District, Shenzhen, China

Manufacturer : CAMERA2000 LIMITED

Address : Room 16E, B block, World Trade Plaza, Fuhong Road, Fu Tian District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Camera	
Models No.	:	RunCam2, RunCam2S, RunCam*, SKY*, PZ0420*(* represents 18-digit characters, and each character can be anything ranging from 0 to 9, A to Z, and symbols like “- “or “space” and different product models. And * is targeted at different sales territories, sales regions, sales methods, varied client groups, different market positioning and different product colors, and won’t affect the product safety and electromagnetic compatibility)	
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 802.11n(HT40): 7 channels
		Max Peak Output Power:	802.11b: 9.16 dBm 802.11g: 9.08 dBm 802.11n (HT20): 9.11 dBm 802.11n (HT40): 9.12 dBm
		Antenna Gain:	0.44 dBi (PCB Antenna)
		Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM(64QAM, 16QAM, QPSK, BPSK)
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 850mAh 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	9.12	0.44	±0.5	9.16	2.846	**3.0**
2.437	9.15	0.44	±0.5	9.23	2.880	**3.0**
2.462	9.16	0.44	±0.5	9.25	2.902	**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	9.08	0.44	±0.5	9.08	2.820	**3.0**
2.437	9.04	0.44	±0.5	8.99	2.808	**3.0**
2.462	9.07	0.44	±0.5	9.06	2.842	**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	9.11	0.44	±0.5	9.14	2.839	**3.0**
2.437	9.06	0.44	±0.5	9.04	2.821	**3.0**
2.462	9.02	0.44	±0.5	8.95	2.810	**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	9.10	0.44	±0.5	9.12	2.839	**3.0**
2.437	9.12	0.44	±0.5	9.16	2.861	**3.0**
2.452	9.01	0.44	±0.5	8.93	2.798	**3.0**

So standalone SAR measurements are not required.