

RF Exposure Evaluation

FCC ID: 2AL56GF-H100

1. Client Information

Applicant	: Shenzhen Goodflys Technology Co.,Ltd.
Address	: 308 Room 3th Floor Building A, Qinye Business Center, Xin an 6 Road, Xixiang Town, Baoan District, Shenzhen, Guangdong, China
Manufacturer	: Shenzhen Goodflys Technology Co.,Ltd.
Address	: 308 Room 3th Floor Building A, Qinye Business Center, Xin an 6 Road, Xixiang Town, Baoan District, Shenzhen, Guangdong, China

2. General Description of EUT

EUT Name	: Smart Clock Camera
Models No.	: GF-H100base, GF-PH100pro, GF-PH100base, GF-PH100pro, GF-L100base, GF-L100pro, GF-T100base, GF-T100pro, GF-L200base, GF-L200pro
Model Difference	: All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial.
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):9 channels
	RF Output Power: 802.11b: 9.28 dBm 802.11g: 9.17 dBm 802.11n (HT20): 9.14 dBm 802.11n (HT40): 9.05 dBm
	Antenna Gain: 2 dBi Integral Antenna
	Modulation Type: 802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n:OFDM(BPSK,QPSK,16QAM, 64QAM)
	Bit Rate of Transmitter: 802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps
	Power Supply: DC 5V by USB Cable. DC 3.6V by 9.0Wh 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 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						
WiFi Mode(802.11b)						
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
2.412	9.26	9±0.5	9.5	8.913	2.768	3.0
2.437	9.28	9±0.5	9.5	8.913	2.783	3.0
2.462	9.24	9±0.5	9.5	8.913	2.797	3.0
WiFi Mode(802.11g)						
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
2.412	9.15	9±0.5	9.5	8.913	2.768	3.0
2.437	9.13	9±0.5	9.5	8.913	2.783	3.0
2.462	9.17	9±0.5	9.5	8.913	2.797	3.0
WiFi Mode(802.11n(HT20))						
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
2.412	9.12	9±0.5	9.5	8.913	2.768	3.0
2.437	9.11	9±0.5	9.5	8.913	2.783	3.0
2.462	9.14	9±0.5	9.5	8.913	2.797	3.0
WiFi Mode(802.11n(HT40))						
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
2.422	9.02	9±0.5	9.5	8.913	2.774	3.0
2.437	9.05	9±0.5	9.5	8.913	2.783	3.0
2.452	9.04	9±0.5	9.5	8.913	2.791	3.0

So standalone SAR measurements are not required.

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