

FCC MPE REPORT

FCC ID:2AYE6-FP111

Applicant : Chengdu HuaXin ZhiYun Technology Co., Ltd.
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Chengdu, China
Manufacturer : Chengdu HuaXin ZhiYun Technology Co., Ltd.
Address : 1-4021, Science Park, West District, No. 88, Tianchen Road,
Chengdu, China

Description of Device (EUT)

EUT Name : IR People Counter
Model No. : FP111
Serial Model : FP110, FP112, FP113, FP114, FP115, FP116, FP117
Model Difference : All the same except the model number.
Power supply : DC 3.6V from Battery

BLE

Operation frequency : 2402-2480MHz
Modulation : GFSK
Channel Number : 40

WIFI2.4

Operation frequency : 2412-2462MHz for 802.11b/g/n20/40
Modulation : 802.11b:(DQPSK, DBPSK, CCK) DSSS
802.11g/n:(64-QAM, 16-QAM, QPSK, BPSK) OFDM
Channel Number : 802.11b/g/n20: 11
802.11n40: 7

Antenna Type : Internal antenna

Antenna Gain : 2 dBi

RF Exposure Evaluation

According to *KDB 447498 D01 General RF Exposure Guidance v06* and part 2.1093, Unless specifically required by the *published RF exposure KDB procedures*, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition(s), listed below, is (are) satisfied.

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

$f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

Here,

Mode	Frequency (MHz)	Max Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Max Power (mW)	Min. Distance (mm)	Calc. thresholds	limit
GFSK	2402	2.13	2.5 ± 1	3.5	2.2387	5.00	0.6939	3.0
	2440	2.37	2.5 ± 1	3.5	2.2387	5.00	0.6994	3.0
	2480	3.09	2.5 ± 1	3.5	2.2387	5.00	0.7051	3.0
802.11b	2412	8.40	7.5 ± 1	8.5	7.0795	5.00	2.1990	3.0
	2437	8.00	7.5 ± 1	8.5	7.0795	5.00	2.2103	3.0
	2462	8.44	7.5 ± 1	8.5	7.0795	5.00	2.2216	3.0
802.11g	2412	8.03	7.5 ± 1	8.5	7.0795	5.00	2.1990	3.0
	2437	7.88	7.5 ± 1	8.5	7.0795	5.00	2.2103	3.0
	2462	8.23	7.5 ± 1	8.5	7.0795	5.00	2.2216	3.0
802.11n20	2412	7.67	7.5 ± 1	8.5	7.0795	5.00	2.1990	3.0
	2437	7.31	7.5 ± 1	8.5	7.0795	5.00	2.2103	3.0
	2462	7.91	7.5 ± 1	8.5	7.0795	5.00	2.2216	3.0
802.11n40	2422	7.24	7.5 ± 1	8.5	7.0795	5.00	2.2035	3.0
	2437	7.01	7.5 ± 1	8.5	7.0795	5.00	2.2103	3.0
	2452	7.56	7.5 ± 1	8.5	7.0795	5.00	2.2171	3.0

In the case of simultaneous launches for Wifi and BLE:

Calc. Thresholds : $0.07051/3 + 2.2216/3 = 0.9756 < 1$

So a SAR test is not required

Remark: BLE&WIFI Antenna gain is 2 dBi