Maximum Permissible Exposure Evaluation

FCC ID: 2APRB-C492A-W6

1. General Information about EUT

1.1 Client Information

Applicant	:	Guangdong Juan Intelligent Technology Joint Stock Co., Ltd.
Address	:	THE FIRST AND SECOND FLOORS OF BUILDING 2 (PLANT NO.2),WEST SIDE OF SHANXI VILLAGE,DASHI STREET,PANYU DISTRICT,GUANGZHOU,China
Manufacturer	:	Guangdong Juan Intelligent Technology Joint Stock Co., Ltd.
Address	:	THE FIRST AND SECOND FLOORS OF BUILDING 2 (PLANT NO.2),WEST SIDE OF SHANXI VILLAGE,DASHI STREET,PANYU DISTRICT,GUANGZHOU,China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	SMART HD CAMERA	
Models No.	:	C492A-W6, C492A-W6-WL-1,C492A-W6-WL-2	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name, brand name and product name.	
Brand Name	:	N/A	
Sample ID	:	HC-C-202411-0234-01-01	
Product Description	:	Operation Frequency:	U-NII-1: 5180MHz~5240MHz U-NII-2A: 5260MHz~5320MHz U-NII-2C: 5500MHz~5700MHz U-NII-3: 5745MHz~5825MHz 802.11b/g/n/ ax (HT20)/n(HT40) (HE20)ax(HE40): 2412MHz~2462MHz
Power Rating	:	Adapter:(BS05A-0501000US) Input: 100-240V~, 50/60Hz 0.25A Output: 5V⎓1.0A	
Software Version	:	4.8.3.0	
Hardware Version	:	V202P5	

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1.3 Antenna Information

Band	Antenna Type	Antenna Gain(dBi)
2.4G Wi-Fi	Copper tube Antenna	2.17
U-NII-1		1.72
U-NII-2A		1.66
U-NII-2C		2.09
U-NII-3		2.19
Remark: The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.		

2. Method of Measurement for FCC

1. **EUT Operation Condition:**
   Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2. **Exposure Evaluation:**
   Equation from page 18 of OET Bulletin 65, Edition 97-01
   $S=(PG)/4\pi R^2$
   Where
   S: power density
   P: power input to the antenna
   G: power gain of the antenna in the direction of interest relative to an isotropic radiator.
   R: distance to the center of radiation of the antenna

Simultaneous transmission MPE Considerations

According to KDB447498: All transmitters and antennas in the host must be either evaluated for MPE compliance, by measurement or computational modeling, or qualify for the standalone MPE test exclusion in section 7.1. Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0.
This means that:

∑ of MPE ratios ≤ 1.0

3. Test Result:

Worst MPE Result							
Test Mode	Antenna	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	Max. ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm^2) [S]
2.4G b	Ant1	16.11	16±1	17	2.17	20	0.01643
2.4G g	Ant1	15.59	16±1	17	2.17	20	0.01643
2.4G n20	Ant1	13.87	14±1	15	2.17	20	0.01037
2.4G n40	Ant1	13.74	14±1	15	2.17	20	0.01037
2.4G ax20	Ant1	14.15	14±1	15	2.17	20	0.01037
2.4G ax40	Ant1	13.85	14±1	15	2.17	20	0.01037
5G a	Ant1	16.56	16±1	17	2.19	20	0.01651
5G n20	Ant1	16.96	16±1	17	2.19	20	0.01651
5G n40	Ant1	17.13	17±1	18	2.19	20	0.02078
5G ac20	Ant1	16.72	16±1	17	2.19	20	0.01651
5G ac40	Ant1	16.38	16±1	17	2.19	20	0.01651
5G ax20	Ant1	16.84	16±1	17	2.19	20	0.01651
5G ax40	Ant1	17.56	17±1	18	2.19	20	0.02078
Note: The antenna gain used max. antenna gain							

4. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm^2)
300-1,500	F/1500
1,500-100,000	1.0

For: 2412~2462MHz&5180~5825MHz
MPE limit S: $1mW/ cm^2$
The MPE is calculated as ***0.02078mW / cm2 < limit 1mW / cm2.***

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b). The RF Exposure Information page from the manual is included here for reference.

-----END OF THE REPORT------