Maximum Permissible Exposure Evaluation
FCC ID:2APRB-X10

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

2. General Description of EUT

EUT Name	:	4G CAMERA	
Model(s) No.		X10, X20	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is that appearance.	
Product Description	:	Operation Frequency:	LTE Band 2/4/5/12/13/66
Power Supply	:	Adapter Model: CS-1201000 Input: AC 100-240V~ 50/60Hz 0.5A Max Output: 12V⎓1A	
Software Version	:	V4.9.10.2	
Hardware Version	:	V234P2	
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.			

Note: More test information about the EUT please refer the RF Test Report.

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MPE Calculations

1. **Antenna Gain:**

LTE Dipole Antenna: LTE Band 2: 3.85dBi
LTE Band 4: 3.85dBi
LTE Band 5: 0.85dBi
LTE Band 12: 0.85dBi
LTE Band 13: 0.85dBi
LTE Band 66: 3.85dBi

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

3. **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

4. Test Result:

Mode	N_{TX}	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm^2) [S]	limit (mW/cm2)
LTE Band 2	1	24.26	24±1	25	3.85	20	0.1527	1
LTE Band 4	1	24.53	25±1	26	3.85	20	0.1922	1
LTE Band 5	1	24.97	25±1	26	0.85	20	0.0963	0.55
LTE Band 12	1	23.97	24±1	25	0.85	20	0.0765	0.47
LTE Band 13	1	24.54	25±1	26	0.85	20	0.0963	0.52
LTE Band 66	1	24.95	25±1	26	3.85	20	0.1922	1
Note: RF Output power specifies that Maximum Conducted Peak Output Power.								

5. 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 LTE

MPE limit S: $1mW/cm^2$

The MPE is calculated as **0.1922** ***< limit 1mW / cm²***. So, RF exposure limit warning or SAR test are not required.

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.

Note

For a more detailed features description, please refer to the RF Test Report.

6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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