

CTC Laboratories, Inc.

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## Maximum Permissible Exposure Evaluation

## FCC ID: WNA-LC2203

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Address of the report laboratory

CTC Laboratories, Inc.

Add: 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations: A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029) CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained inour files. Registration 951311, Aug 26, 2017.

Product Name:	Smart Camera					
Trade Mark:	SKYWORTH					
Model/Type reference:	LC2203					
Listed Model(s):	LC2202, LC2203, LC2204, LC2205, LC2206, LC2207, LC2208, LC2209, LQB00, LCQ00					
Model Difference:	All these models are identical in the same PCB, layout and electrical circuit, The difference is the product model number and the color of product shell and the screen printing of the shell.					
Frequency band (Operating)	□BT: 2.402GHz ~ 2.480GHz □BLE: 2.402GHz ~ 2.480GHz ⊠WLAN: 2.412GHz ~ 2.462GHz ⊠RLAN: 5.150GHz ~ 5.250GHz ⊠RLAN: 5.250GHz ~ 5.350GHz ⊠RLAN: 5.470GHz ~ 5.725GHz ⊠RLAN: 5.725GHz ~ 5.850GHz □Others					
Device category	□Portable (<5mm separation) □Mobile (>20cm separation) ☑ fixed (>20cm separation)					

## **EUT Specification**

CTC Laboratories, Inc.





EN

	Others
Expedition	Occupational/Controlled exposure (S=5mW/cm2)
Exposure classification	General Population/Uncontrolled exposure (S=1mW/cm2)
Antenna diversity	Single antenna
	Multiple antenna
	Tx diversity
	Rx diversity
	Tx/Rx diversity
Antenna gain (Max)	WLAN: 2.56dBi
	RLAN: 3.85dBi
Evaluation applied	MPE Evaluation
	SAR Evaluation

## Limits for Maximum Permissible Exposure (MPE)

Frequency	Electric Field	Magnetic Field	Power	Average				
Range(MHz)	Strength(V/m)	Strength(A/m)	Density(mW/cm <sup>2</sup> )	Time				
(A) Limits for Occupational/Control Exposures								
300-1500			F/300	6				
1500-100000			5	6				
(B) Limits for General Population/Uncontrol Exposures								
300-1500			F/1500	30				
1500-100000			1	30				



Friis transmission formula: Pd=(Pout\*G)\(4\*pi\*R<sup>2</sup>) Where Pd= Power density in mW/cm<sup>2</sup> Pout= output power to antenna in mW G= gain of antenna in linear scale Pi= 3.1416 R= distance between observation point and center of the radiator in cm Pd the limit of MPE 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

Only show the value of the worst antenna

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Average Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm²)
WLAN 802.11b	2412	2.56	/	12.44	12±1	13	0.00716	1.000
RLAN U-NII-1 802.11n20	5240	3.85	/	11.36	11±1	12	0.00765	1.000
RLAN U-NII-2A 802.11a	5320	3.85	/	12.58	12±1	13	0.00963	1.000
RLAN U-NII-2C 802.11n40	5550	3.85	/	11.22	11±1	12	0.00765	1.000
RLAN U-NII-3 802.11a	5745	3.85	/	6.34	6±1	7	0.00242	1.000

Note:

1. Calculate by Worst-case mode

2. Max. Tune Up Power by Manufacturer's Declaration, and Max. Tune Up Power is used to calculate.

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