



# RF Exposure Evaluation Report

APPLICANT : Immedia Semiconductor LLC.

EQUIPMENT : Outdoor camera

BRAND NAME : blink

MODEL NAME : BCM00900U

FCC ID : 2AF77-H2511940

STANDARD : 47 CFR Part 2.1091

FCC KDB 447498 D01 v06

The product evaluation date was started from Sep. 23, 2025 and completed on Sep. 23, 2025. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.



Approved by: Si Zhang

**Sportun International Inc. (Kunshan)**

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China



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## Revision History



## 1. Administration Data

### 1.1. Testing Laboratory

Sportun International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
<b>Test Firm</b>	Sportun International Inc. (Kunshan)		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
<b>Test Site No.</b>	<b>Sportun Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	SAR01-KS	CN1257	314309

Applicant	
<b>Company Name</b>	Immedia Semiconductor LLC.
<b>Address</b>	100 Riverpark Drive Suite 125, North Reading, MA, United States 01864

Manufacturer	
<b>Company Name</b>	Immedia Semiconductor LLC.
<b>Address</b>	100 Riverpark Drive Suite 125, North Reading, MA, United States 01864



## 2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
<b>EUT Type</b>	Outdoor camera
<b>Brand Name</b>	blink
<b>Model Name</b>	BCM00900U
<b>FCC ID</b>	2AF77-H2511940
<b>Wireless Technology and Frequency Range</b>	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz LFR: 902 MHz ~ 928 MHz
<b>Mode</b>	WLAN 2.4GHz 802.11b/g/n HT20 LFR: GFSK
<b>Antenna Gain</b>	WLAN2.4GHz: 3.03 dBi LFR: 0.28 dBi
<b>Antenna Type</b>	WLAN: Inverted F Antenna LFR: Inverted F Antenna
<b>EUT Stage</b>	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

### Comments and Explanations:

1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

## 3. Maximum RF average output tune up power among production units

### <2.4GHz WLAN >

Mode		Maximum Average Power (dBm)
2.4GHz	802.11b	19.00
	802.11g	19.00
	802.11n-HT20	19.00

### <LFR>

Mode	Maximum Average power(dBm)
LFR	13.00



## 4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



## 5. Radio Frequency Radiation Exposure Evaluation

### 5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Power Density / Limit
LFR	902.0	0.28	13.00	13.280	21.281	0.0042	0.601	0.007
2.4GHz WLAN	2412.0	3.03	19.00	22.030	159.588	0.0318	1.000	0.032

**Note:**

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. According to the EUT characteristic, WLAN 2.4GHz and LFR can transmit simultaneously.

### 5.2. Collocated Power Density Calculation

WLAN Power Density / Limit	LFR Power Density / Limit	$\Sigma$ (Power Density / Limit) of WLAN + LFR
0.032	0.007	0.039

**Note:**

1.  $\Sigma$ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WLAN + LFR.
2. Considering all the transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant.

### Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

-----THE END-----