

Ebulent Optronics		Blaster Camera Module Specification	
		Model No.: EBPE0208	
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Presented By: Hui Zhou	Customer's Approval By Date		

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1. General Specification

Drawing					
					
Rmark: Contains antenna					
Item	Description	Dimension	Item	Description	Dimension
T	Thickness	45 mm \pm 1	Antenna	Length(Max)	194mm \pm 2
W	Width	50 mm \pm 1	Weight		**
L	Length	80 mm \pm 1			
Parameter					
Product Type			Specification		
IP Camera					
Spec			2 Million pixels		

2. Main Specification

2.1. Hardware specifications

Item	Description
Video Processor	T31,Ultra-high frequency, up to 1.5GHz. Vector Deep Learning accelerator base on SIMD128 64KB + 128KB L1/L2 Cache RiscV independent lite core
Camera Resolution	1080p, 2M resolution.
Camera module	Optical Angle: Horizontal 80 °, Vertical 50 °
WIFI	2.4G,802.11 b/g/n 5-50yard, line of sight, Date rate better than 5Mbps
Lens Focus	Fixed
Object distance	1.5-2ft
Memory	DDR2 64MB
FLASH	16MB
WIFI distance	50meter (The network environment without interference can be achieved)
Antenna Port	RF SMA
Power Port	Type-C
Power Input	DC 5V/1000mA
Battery	Lithium ion, 3.7V/2000 mAh
Charging time	3 Hours
Full Charged Operation Time	3-4 Hours
LED Indicators	Power and WIFI status indicator, Green*2pcs
Touch Key	Power and Reset Key*2pcs

2.2. Function Parameters

Item	Description
Resolution ratio	1920*1080(1080P) 1440*1080 (1080P) 1280*720(720P,Factory default) 960*720(720P) 960*540 (540P)
Brightness	Brightness gain value (0 to 255, default 128)
Auto balance/manual balance	Support automatic, manual white balance gain (0~512)
Auto exposure/manual exposure	Support automatic, Manual exposure time (0~5000 milliseconds)
Bitrate	Video bit rate:512K/1M/2M/3M/4M (default: 2M)
FPS	Frame rate (5-25, default 10)
Antiflicker	Anti-flicker function (default 50hz), disable /50hz/60hz
Compression Standard	H264 / H265, (Factory default H264),
Screen shots	Support
Station mode	External network connection mode
AP mode	Default AP network configuration mode (Factory default, Default password: 6666)
WIFI hotspot	Account: 360WiFishaohao , Password: 123456789
Signal strength	Support
Reset	Support, Reset key
ONVIF Protocol	Support (Test reference tool: ONVIF Device Test Tool 19.06)
RSTP Protocol	Supports P2P remote RSTP (Test reference tool: VLC media player)
APP Compliance	Android and iOS(Customer development)

2.3. Working current

For Working voltage 5V

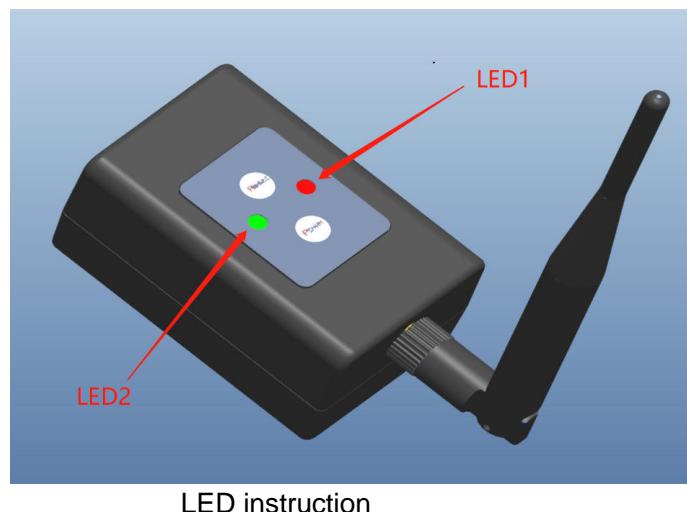
Item	Description(Current: mA)
Power ON Standby current	Max: 250 mA
Power ON current	Max: 800 mA
Power ON mode charging current	Max: 1000 mA
Power OFF mode charging current	Max: 800 mA
Shutdown current	10-20uA

3. Other specifications and certification

Item	Test/Standard
FCC-ID	Part15C (TBC.)
CE	EN301893,EN301489-1,EN301489-17,EN300328,EN62311, N62368 (TBC.)
IC	RSS130+RSS247 (TBC.)
NOM	NOM-019-SCFI, NOM-208-SCFI (TBC.)
Battery	CB62133, UN38.3 (TBC.)
RoHS Compliance	Yes
Case Material	ABS
Operation Temperature	0°C to +40°C
Storage Temperature	-20°C to +50°C

*Certification can be supported based on end market need.

4. LED function description



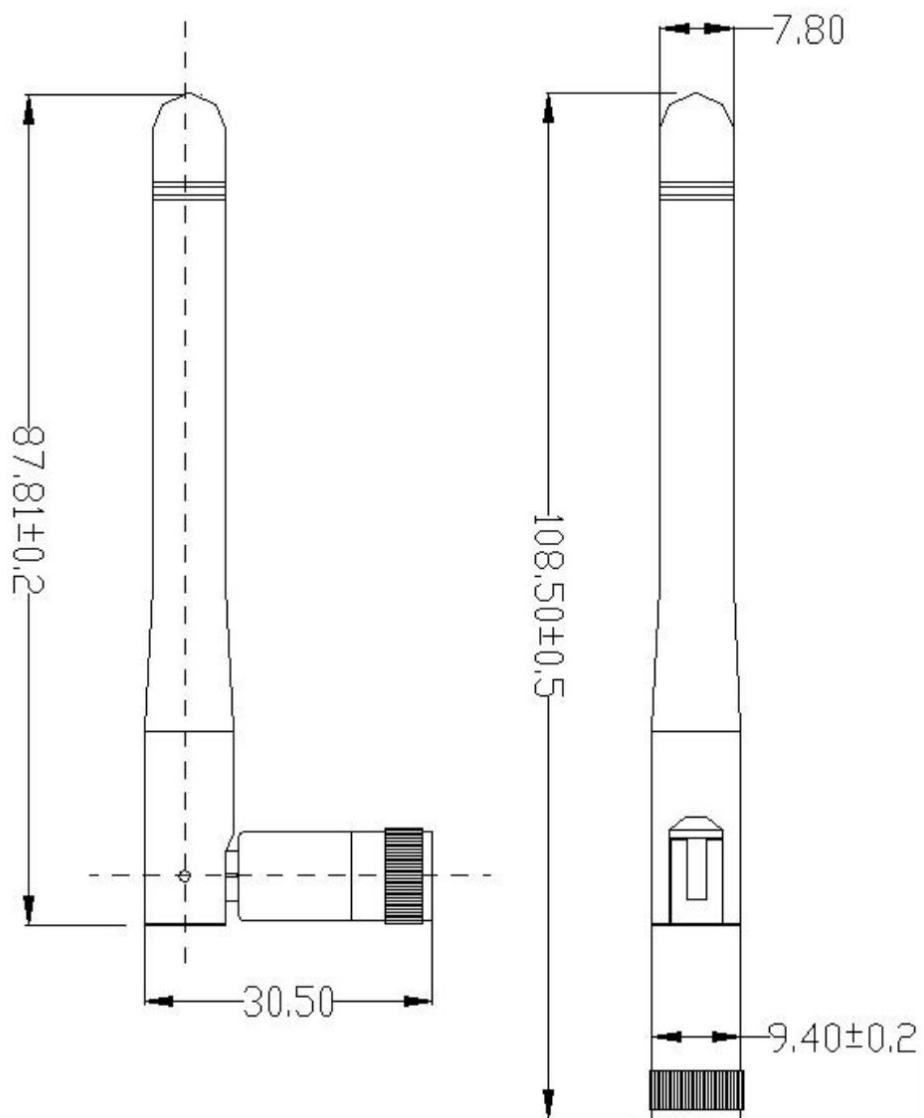
Item	Function Description	LED1	LED2	Remarks
Power ON Mode (Battery) LED1	Low voltage	Fast flash		
	Charging	Slow flash		
	Fully charged	Long light		
	Run mode	Long light		
	No power	No light		
Power OFF charging Mode	Charging	Long light		
	Fully charged	No light		
AP Mode			Slow flash	
Wi-Fi signal indicator LED2	Wi-Fi signal normal		Long light	
	No Wi-Fi signal		No light	
	Weak Wi-Fi signal		Slow flash	
Power ON	Power ON	Long light	Long light	Indicate battery and WIFI status within 10 seconds after startup
Update	Firmware update		Slow flash	Green light flashes while updating firmware, no light after update is done.

5. Press button function description

Item	Function Description	LED1	LED2	Remarks
Power button	Power ON	Long light	Long light	Hold the button to 2S and then power ON
	Power OFF			Hold the button to 2S and then power OFF
Reset button	Reset		Fast flash	Hold the button for 3-4s before resuming factory Settings the LED2 indicator blinks for 1s.

6. WIFI antenna description

WIFI antenna description	
Frequency Range (MHz)	2400-2500
Gain (dBi)	≥ 2 (Typ. 3)
Antenna material	ABS+ copper tube +SMA
Antenna size	108.5x9.4 tolerance ± 0.2 mm
Color	Black
Connection type	RF+SMA (internal needle)



7. Reliability Specification

NO	Test	Condition	Remarks
1	High Temperature Operation	T=+50°C 30%RH for 96Hr	
2	Low Temperature Operation	T = -10°C for 96 Hr	
3	High Temperature Storage	T=+50°C 40%RH for 240Hr	
4	Low-Temperature Storage	T = -20°C for 240Hr	
5	High Temperature, High Humidity Operation	T=+40°C 90%RH for 96Hr	
6	High Temperature, High Humidity Storage	T=+50°C 80%RH for 96Hr	
7	Temperature Cycle	-25°C(30min)~ +60°C(30min) 10 Cycles	
8	Package Vibration	Frequency : 10~50Hz Sweep Direction : X,Y,Z Duration:1 hours in each direction	
9	Package Drop Impact	Drop from height of 100 cm on concrete surface Drop sequence:1 corner, 3 edges,6 faces, one drop for each.	
10	UV Exposure Resistance	765 W/m ² for 48hrs,	
11	Electrostatic Discharge	330Ω±8KV 200pF Air ,10 cycles	

8. Communication protocol

Please refer to the document for communication protocol: "Device Communication Control Protocol"

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.