



# MPE Test Report

**Report No.:** MTi20103015-1E2

**Date of issue:** Feb. 23, 2021

**Applicant:** Shenzhen Smarteye Digital  
Electronics Co., Ltd

**Product name:** IP Camera

**Model(s):** 792JBU, 758JC4(W5S), 793JBU,  
793JC4, 709JD3, 761JBU,  
762JC4, 764JBU, 792JBU(W9),  
Q7, 794JBU

**FCC ID:** ZCB-792JBU

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>



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3. This report is invalid without the seal and signature of the laboratory;
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### TEST RESULT CERTIFICATION

Applicant's name .....	Shenzhen Smarteye Digital Electronics Co., Ltd
Address .....	#6 Northern Area, Shangxue S&T Industrial Park, Bantian, Longgang, Shenzhen
Manufacturer's Name .....	Shenzhen Smarteye Digital Electronics Co., Ltd
Address .....	#6 Northern Area, Shangxue S&T Industrial Park, Bantian, Longgang, Shenzhen

**Product description**

Product name.....	IP Camera
Trademark .....	N/A
Model Name .....	792JBU
Serial Model .....	758JC4(W5S), 793JBU, 793JC4, 709JD3, 761JBU, 762JC4, 764JBU, 792JBU(W9), Q7, 794JBU
Standards.....	N/A
Test procedure .....	KDB 447498 D01 v06

**Date of Test**

Date (s) of performance of tests..... :	Nov. 16, 2020 ~ Feb. 05, 2021
Test Result..... :	Pass

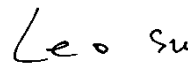
This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

**Testing Engineer** :




\_\_\_\_\_  
(Danny Xu)

**Technical Manager** :



\_\_\_\_\_  
(Leo Su)

**Authorized Signatory** :



\_\_\_\_\_  
(Tom Xue)



# 1 RF EXPOSURE EVALUATION

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)

## 1.1 Limits for Maximum Permissible Exposure (MPE)

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 Exposure</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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

### MPE Calculation Method

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = Numeric gain of the antenna relative to isotropic antenna

$\pi$  = 3.1415926

$R$  = distance between observation point and center of the radiator in cm(20cm)

$P_d$  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.



## 1.2 Measurement Result

### WIFI:

Operation Frequency: WIFI 802.11b/g/n HT20: 2412-2462MHz,

802.11n HT40: 2422-2452MHz,

Power density limited: 1mW/ cm<sup>2</sup>

Antenna Type: External Antenna;

WIFI antenna gain: 5dBi

R=20cm

$mW=10^{(dBm/10)}$

antenna gain Numeric= $10^{(dBi/10)}=10^{(5/10)}=3.16$

Channel Freq. (MHz)	modulation	conducted power	Tune-up power	Max		Antenna	Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain	Power density(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
		Ant A	Ant A	(dBm)	(mW)	Numeric		
2412	802.11b	12.68	13±1	14	25.118864	5	0.01579	1
2437		13.50	13±1	14	25.118864	5	0.01579	1
2462		13.18	13±1	14	25.118864	5	0.01579	1
2412	802.11g	8.64	11±1	12	15.848932	5	0.00996	1
2437		11.59	11±1	12	15.848932	5	0.00996	1
2462		11.33	11±1	12	15.848932	5	0.00996	1
2412	802.11n H20	8.64	11±1	12	15.848932	5	0.00996	1
2437		11.43	11±1	12	15.848932	5	0.00996	1
2462		11.26	11±1	12	15.848932	5	0.00996	1
2422	802.11n H40	10.82	11±1	12	15.848932	5	0.00996	1
2437		10.91	11±1	12	15.848932	5	0.00996	1
2452		11.21	11±1	12	15.848932	5	0.00996	1

### Conclusion:

For the max result:  $0.01579 \leq 1.0$  for 1g SAR, No SAR is required.

----END OF REPORT----