

Report No.: FA652509-01



# FCC RADIO EXPOSURE TEST REPORT

FCC ID

: 2AI5IMTBK

Equipment

: MEATER Block

Brand Name : MEATER

Model Name : MT-BL01

Applicant

: Apption Labs Limited

7-8 Westbridge Close, Leicester, LE3 5LW, United Kingdom

Manufacturer: Abocom Systems, Inc.

No.77, Yu-Yih Rd., Chu-Nan, Miao-Lih County 35059, Taiwan R.O.C.

Standard

: 47 CFR Part 2.1091

The product was received on Sep. 19, 2017, and testing was started from Jun. 27, 2018 and completed on Jul. 17, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

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SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52. Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-656-9065

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Report Template No.: CB Ver1.0

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Issued Date Report Version : 01

: Aug. 10, 2018

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## History of this test report

Report No.: FA652509-01

Version	Description	Issued Date
01	Initial issue of report	Aug. 10, 2018

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# **Summary of Test Result**

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Reviewed by: Sam Chen

Report Producer: Cindy Peng

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## 1 General Description

### 1.1 EUT General Information

	RF General Information									
Evaluation Mode	Frequency Range (MHz)	Modulation Type								
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)							
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)							

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### 1.2 Testing Location

	Testing Location									
	HWA YA ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.									
		TEL	:	886-3-327-3456 FAX : 886-3-327-0973						
$\boxtimes$	JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.						
		TEL	:	886-3-656-9065 FAX : 886-3-656-9085						

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

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### 2 Maximum Permissible Exposure

#### 2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time  E ², H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

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(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	(2,		Averaging Time  E ², H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

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

#### 2.2 MPE Calculation Method

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:

E (V/m) = 
$$\frac{\sqrt{30 \times P \times G}}{d}$$
 Power Density:  $Pd$  (W/m²) =  $\frac{E^2}{377}$ 

**E** = Electric field (V/m)

**P** = RF output power (W)

**G** = EUT Antenna numeric gain (numeric)

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

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### 2.3 Calculated Result and Limit

#### **Exposure Environment: General Population / Uncontrolled Exposure**

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)
2.4G;G1D	1.00	18.67	19.67	0.50	20.17	0.10399	20	0.02069	1.00000
2.4G;BT-LE	1.00	2.39	3.39	0.50	3.89	0.00245	20	0.00049	1.00000

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#### Simultaneous Transmission Analysis Mode: WLAN 2.4GHz + Bluetooth

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)	Ratio (S/Limit)
2.4G;G1D	1.00	18.67	19.67	0.50	20.17	0.10399	20	0.02069	1.00000	0.02069
2.4G;BT-LE	1.00	2.39	3.39	0.50	3.89	0.00245	20	0.00049	1.00000	0.00049
									Sum Ratio	0.02118
									Ratio Limit	1

——THE END——

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