

RF Exposure Evaluation Report

Equipment : BANDOTT 無線 Mesh 子機
Brand Name : Ubee
Model No. : 95.2225T
Standard : NCC LP0002 (Aug. 23, 2016) Section 5.20 (5.20.2)
Applicant : 鴻海精密工業股份有限公司
新北市土城區中山路 66 號
Manufacturer : 鴻海精密工業股份有限公司
新北市土城區中山路 66 號

The product sample received on Sep. 29, 2017 and completely tested on Oct. 07, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with and pass the limit.

Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

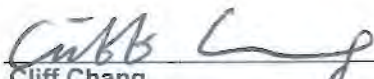

Cliff Chang
SPORTON INTERNATIONAL INC.





TABLE OF CONTENTS

1	GENERAL DESCRIPTION	4
1.1	EUT General Information	4
1.2	Testing Location	4
2	MAXIMUM PERMISSIBLE EXPOSURE	5
2.1	Limit of Maximum Permissible Exposure	5
2.2	MPE Calculation Method	5
2.3	Calculated Result and Limit	6
PHOTOGRAPHS OF EUT V02		

REVISION HISTORY

[illegible]

1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (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) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
5GHz WLAN	5150-5250 5725-5850	5180-5240 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)

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
☒	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

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/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	6
3-30	1842 / f	4.89 / f	*900 / f ²	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5.0	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	30
3-30	1842/f	4.89/f	*180/f ²	30
30-300	27.5	0.073	1.0	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:

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

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

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



2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;D1D	7.71	25.65	33.36	2.16770	20	0.43125	1.00000
5.2G;D1D	4.79	28.17	32.96	1.97697	20	0.39331	1.00000
5.8G;D1D	7.80	25.81	33.61	2.29615	20	0.45680	1.00000
2.4G;BT-LE	2.73	9.06	11.79	0.01510	20	0.00300	1.00000