

**IEEE C95.1 2005
KDB 447498 D01 V06
47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091**

RF EXPOSURE REPORT

For

MF0230

Model: MF0230

Trade Name: FIC

Issued to

**First International Computer Inc
8F, No.300, Yang Guang St., NeiHu, Taipei, Taiwan 114**

Issued by

**Compliance Certification Services Inc.
Wugu Laboratory
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Issued Date: March 14, 2018**



Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	March 14, 2018	Initial Issue	ALL	Becca Chen
01	April 10, 2018	1. Modify antenna gain. 2. Modify Max tune up Power.	P5, P7	Becca Chen
02	April 16, 2018	1. Modify WIFI antenna gain.	P5, P7	Becca Chen

TABLE OF CONTENTS

1. TEST RESULT CERTIFICATION	4
2. LIMIT	5
3. EUT SPECIFICATION	5
4. TEST RESULTS	6
5. MAXIMUM PERMISSIBLE EXPOSURE	7

1. TEST RESULT CERTIFICATION

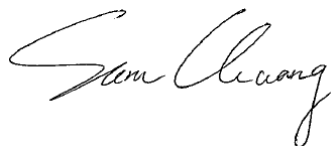
We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.


APPLICABLE STANDARDS	
STANDARD	TEST RESULT
IEEE C95.1 2005 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted

Approved by:



Sam Chuang
Manager
Compliance Certification Services Inc.

Tested by:



Becca Chen
Report coordinator
Compliance Certification Services Inc.

2. LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

3. EUT SPECIFICATION

EUT	MF0230																				
Model	MF0230																				
Trade Name	FIC																				
Frequency band (Operating)	<input checked="" type="checkbox"/> Bluetooth 2.1 + EDR / 4.0: 2402 ~ 2480MHz 802.11b/g/n HT20: 2412MHz ~ 2462MHz <input type="checkbox"/> Others																				
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others																				
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm²)																				
Antenna Specification	Bluetooth 2.28 dBi (Numeric gain: 1.69) WIFI 2.4G 2.16 dBi (Numeric gain: 1.64) Type: Dipole Antenna																				
Max tune up Power	<table><tr><td>Bluetooth</td><td>10.00dBm</td><td>(10.000mW)</td></tr><tr><td></td><td></td><td></td></tr><tr><td>WIFI</td><td></td><td></td></tr><tr><td>IEEE 802.11b mode</td><td>17.50dBm</td><td>(56.234mW)</td></tr><tr><td>IEEE 802.11g mode</td><td>16.50dBm</td><td>(44.668mW)</td></tr><tr><td>802.11n HT20 mode</td><td>15.50dBm</td><td>(35.481mW)</td></tr></table>			Bluetooth	10.00dBm	(10.000mW)				WIFI			IEEE 802.11b mode	17.50dBm	(56.234mW)	IEEE 802.11g mode	16.50dBm	(44.668mW)	802.11n HT20 mode	15.50dBm	(35.481mW)
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IEEE 802.11g mode	16.50dBm	(44.668mW)																			
802.11n HT20 mode	15.50dBm	(35.481mW)																			
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A																				

4. TEST RESULTS

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

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

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \textbf{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

Bluetooth:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
79	2480	10.000	1.69	20	0.0034	1.000

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
11	2462	56.234	1.64	20	0.0184	1.000

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	44.668	1.64	20	0.0146	1.000

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	35.481	1.64	20	0.0116	1.000