

**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

Patient Information Display

Model: PID-1000S

Trade Name: Renown

Issued to

**Renown Information Technology Corp.
15F., NO.207-3, SEC. 3, BEIXIN RD., XINDIAN DIST., NEW TAIPEI CITY 23143,
TAIWAN (R.O.C)**

Issued by

**Compliance Certification Services Inc.
Wugu Laboratory
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
Issued Date: May 15, 2018**



Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	May 15, 2018	Initial Issue	ALL	Becca Chen
01	May 18, 2018	1. Modify FCC ID.	ALL	Becca Chen

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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	Patient Information Display									
Model	PID-1000S									
Trade Name	Renown									
Frequency band (Operating)	☒ 802.11b/g/n HT20: 2412MHz ~ 2462MHz ☐ Others									
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others									
Exposure classification	☐ Occupational/Controlled exposure ($S = 5\text{mW/cm}^2$) ☒ General Population/Uncontrolled exposure ($S=1\text{mW/cm}^2$)									
Antenna Specification	WIFI 2.4G -2.41 dBi (Numeric gain: 0.57) Type: PCB Antenna									
Max tune up Power	<table border="1"> <tbody> <tr> <td>IEEE 802.11b mode</td><td>16.50dBm</td><td>(44.668mW)</td></tr> <tr> <td>IEEE 802.11g mode</td><td>15.50dBm</td><td>(35.481mW)</td></tr> <tr> <td>802.11n HT20 mode</td><td>13.50dBm</td><td>(22.387mW)</td></tr> </tbody> </table>	IEEE 802.11b mode	16.50dBm	(44.668mW)	IEEE 802.11g mode	15.50dBm	(35.481mW)	802.11n HT20 mode	13.50dBm	(22.387mW)
IEEE 802.11b mode	16.50dBm	(44.668mW)								
IEEE 802.11g mode	15.50dBm	(35.481mW)								
802.11n HT20 mode	13.50dBm	(22.387mW)								
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ 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

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	44.668	0.57	20	0.0051	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	35.481	0.57	20	0.0040	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	22.387	0.57	20	0.0025	1.000