



FCC ID: 2AJAC-WB150
Report No.: T181220D08-MF

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Rev.: 01

**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**

RF EXPOSURE REPORT

For

**WattBox IP Power Strip w/ Wi-Fi | 1 Controlled Bank (2
Outlets); WattBox IP Power Strip | 1 Controlled Bank (2
Outlets)**

Model: WB-150-IPW-1B-2; WB-150-IP-1B-2

Trade Name: WattBox

Issued to

**Wirepath Home Systems, LLC, DBA SnapAV
1800 Continental Blvd Suite 200 Charlotte, North Carolina 28273 USA**

Issued by

**Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
Issued Date: March 5, 2019**

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部分複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	March 5, 2019	Initial Issue	ALL	Allison Chen
01	March 13, 2019	1. Revised applicant company name.	P.1	Allison 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:

Reporter:

Kevin Tsai
Deputy Manager
Compliance Certification Services Inc.

Allison 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	WattBox IP Power Strip w/ Wi-Fi 1 Controlled Bank (2 Outlets); WattBox IP Power Strip 1 Controlled Bank (2 Outlets)						
Model	WB-150-IPW-1B-2; WB-150-IP-1B-2						
Model Discrepancy	<p>Difference of the two model numbers (list on this report) are just for printed model on housing, please see as below:</p> <table border="1"> <tr> <td>Product name</td><td>WattBox IP Power Strip w/ Wi-Fi 1 Controlled Bank (2 Outlets)</td><td>WattBox IP Power Strip 1 Controlled Bank (2 Outlets)</td></tr> <tr> <td>Model No.</td><td>WB-150-IPW-1B-2</td><td>WB-150-IP-1B-2</td></tr> </table>	Product name	WattBox IP Power Strip w/ Wi-Fi 1 Controlled Bank (2 Outlets)	WattBox IP Power Strip 1 Controlled Bank (2 Outlets)	Model No.	WB-150-IPW-1B-2	WB-150-IP-1B-2
Product name	WattBox IP Power Strip w/ Wi-Fi 1 Controlled Bank (2 Outlets)	WattBox IP Power Strip 1 Controlled Bank (2 Outlets)					
Model No.	WB-150-IPW-1B-2	WB-150-IP-1B-2					
Frequency band (Operating)	<input checked="" type="checkbox"/> IEEE 802.11b/g/n HT20 Mode: 2.412GHz ~ 2.462GHz IEEE 802.11n HT40 Mode: 2.422GHz ~ 2.452GHz <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 ($S = 5\text{mW/cm}^2$) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure ($S=1\text{mW/cm}^2$)						
Antenna Specification	Antenna Gain : 0.50 dBi (Numeric gain: 1.12)						
Tune-up max. Average Power	IEEE 802.11b Mode: 20.00 dBm (100.000 mW) IEEE 802.11g Mode: 20.00 dBm (100.000 mW) IEEE 802.11n HT 20 Mode: 19.50 dBm (89.125 mW) IEEE 802.11n HT 40 Mode: 19.00 dBm (79.433 mW)						
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

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

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)
1	2412	100.000	1.12	20	0.0223	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	100.000	1.12	20	0.0223	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	89.125	1.12	20	0.0199	1.000

IEEE 802.11n HT40 Mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
6	2437	79.433	1.12	20	0.0177	1.000