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

VZ-X Wireless/HDMI/USB Document Camera

Model: CDVH-02IP

Trade IPEVO

Issued to

IPEVO CORP.
3F., NO.53, BO-AI RD., JHONGJHENG DISTRICT, TAIPEI CITY, TAIWAN

Issued by

Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
http://www.ccsrf.com
Issued Date: June 28, 2018

Report No.: T180420W01-MF

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	June 28, 2018	Initial Issue	ALL	Allison Chen
01	July 24, 2018	1. Revised max tune up power.	P.5, P.7	Allison Chen

Report No.: T180420W01-MF

TABLE OF CONTENTS

Report No.: T180420W01-MF

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.

Reporter:

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	VZ-X Wireless/HDMI/USB Document Camera
Model	CDVH-02IP
Trade Name	IPEVO
Model Discrepancy	N/A
Frequency band (Operating)	☒ 802.11n HT40: 2422MHz ~ 2452MHz ☐ Others
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm^2) ☒ General Population/Uncontrolled exposure (S=1mW/cm^2)
Antenna Specification	Brand: LYNwave Model: AAU100-052023 Type: USB PIFA Antenna Ant 1 Gain : 2.00 dBi (Numeric gain: 1.58) Ant 2 Gain : 2.00 dBi (Numeric gain: 1.58) Power Directional Gain : 2.00 dBi (Numeric gain: 1.58) **Notes:** 1. Power Directional Gain: 10*LOG(((10^(Ant1/10)+10^(Ant2/10))/2)
Max tune up power	IEEE 802.11n HT 40 Mode: 21.50 dBm (141.254 mW)
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A

Report No.: T180420W01-MF

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 (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***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 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
3	2422	141.254	1.58	20	0.0444	1