

RF Exposure Evaluation Report

Product : L400, S400, S500, TS-400, IP400
Trade mark : AIPTEK/iBeamBLOCK/hp
Model/Type reference : L400 PAD
Serial Number : N/A
Report Number : EED32I00318004
FCC ID : 2AHTC-IBBL4
Date of Issue : Jul. 14, 2017
47 CFR Part 1.1307
Test Standards : 47 CFR Part 1.1310
KDB 447498 D01v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Global Aiptek Corporation
Address of Applicant:	5F, No. 550, Xianzheng 2nd Rd., Zhubei City, Hsinchu County, Taiwan
Manufacturer:	Global Aiptek Corporation
Address of Manufacturer:	5F, No. 550, Xianzheng 2nd Rd., Zhubei City, Hsinchu County, Taiwan
Factory:	Shenzhen ACT Industrial Co., Ltd
Address of Factory:	1~8F, No. 5 Building, Beishan Industrial Park, No. 146 Beishan Avenue, Yantian District, Shenzhen City

4.2 General Description of EUT

Product Name:	L400, S400, S500, TS-400, IP400
Model No.:	L400 PAD
Trade Mark:	AIPTEK/iBeamBLOCK/hp
EUT Supports Radios application:	WIFI 2.4GHz 802.11b/g/n(HT20), BT4.0 Dual mode
AC adapter:	MODEL: DSA-42PFB-12 1 120350; Input: 100-240V~50/60Hz, 1.2A; Output: 12V---3.5A

4.3 Product Specification subjective to this standard

Modulation Type:	BT: GFSK, 8DPSK, π /4DQPSK Wi-Fi: DSSS ,OFDM
Sample Type:	mobile production
Antenna Type:	PIFA Antenna
Antenna Gain:	-4.5dBi
Test Voltage:	AC 120V/60Hz
Sample Received Date:	Dec. 16, 2016
Sample tested Date:	Dec. 16, 2016 to Jun. 23, 2017
The tested sample and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China 518101

Telephone: +86 (0) 755 3368 3668 Fax: +86 (0) 755 3368 3385

No tests were sub-contracted.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	* (100)	6
3.0–30	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	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	* (100)	30
1.34–30	824/f	2.19/f	* (180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user.

Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation

Antenna Gain: -4.5dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power(dBm)	Gain (dBi)	EIRP* (dBm)	EIRP (mW)	R (cm)	S (mW/cm ²)	Limit (mW/cm ²)	Result
Middle	2437	23.22	-4.5	18.72	74.47	20	0.015	1.0	Pass

Note: Refer to report No. EED32I00318001, EED32I00318002, EED32I00318003 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32I00318001 for EUT external and internal photos.

*** End of Report ***

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