

RF Exposure Evaluation Report

Product : OF2006-CONTROL CENTER
Trade mark : OUTFORM
Model/Type reference : UM101734
Serial Number : N/A
Report Number : EED32K00200202
FCC ID : 2AO9X-UM101734
Date of Issue : Aug. 24, 2018
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Outform Science and Technology Ltd.
Address of Applicant:	No. A103 Medical Appliance and Industry Garden, #1019, Nanhai road, Nanshan district, Shenzhen, China, 518035
Manufacturer:	Outform Science & Technology (Shenzhen) Co., Ltd
Address of Manufacturer:	Room A103 and A105-1, Nanshan Medical Instrument Industry Park, No. 1019, Nanhai Avenue, Nanshan District Shenzhen, China.
Factory:	Outform Science & Technology (Shenzhen) Co., Ltd
Address of Factory:	Room A103 and A105-1, Nanshan Medical Instrument Industry Park, No. 1019, Nanhai Avenue, Nanshan District Shenzhen, China.

4.2 General Description of EUT

Product Name:	OF2006-CONTROL CENTER
Model No.(EUT):	UM101734
Trade Mark:	OUTFORM
EUT Supports Radios application	WiFi 802.11b/g/n(HT20): 2412MHz to 2462MHz

4.3 Product Specification subjective to this standard

Frequency Range:	WiFi 802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	DSSS,OFDM
Test Power Grade:	N/A (manufacturer declare)
Test Software of EUT:	RFTestTool (manufacturer declare)
Antenna Type:	Dipole Antenna
Antenna Gain:	2.0dBi
Power Supply:	AC 120V, 60Hz
Conducted Peak Output Power:	21.41dBm The Conducted Peak Output Power data refer to the report EED32K00200201
Sample Received Date:	Aug. 7, 2018
Sample tested Date:	Aug. 7, 2018 to Aug. 24, 2018
The tested sample(s) and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

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: 2dBi

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
Lowest	2412	21.41	2	23.41	219.28	20	0.044	1.0	Pass

Note: Refer to report No. EED32K00200201 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32K00200201 for EUT external and internal photos.

*** End of Report ***

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