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Report Template Version: V03
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RF Exposure Evaluation Report

Report No. :	CQASZ171101578EW-02
Applicant:	Beijing Inspiry Technology Co., Ltd.
Address of Applicant:	Room D5, 1st Building, No.6, Shangdi West Road, Haidian District, Beijing City, P. R. China
Manufacturer:	Beijing Inspiry Technology Co., Ltd.
Address of Manufacturer:	Room D5, 1st Building, No.6, Shangdi West Road, Haidian District, Beijing City, P. R. China
Factory:	Beijing Inspiry Technology Co., Ltd.
Address of Factory:	Room 503, Floor 5, Block D, Building 1, No. 6, Shangdi West Road, Haidian District, Beijing, P. R. China
Equipment Under Test (EUT):	
Product:	InsPos S Scanning Device
Model No.:	International Edition: PPS7200-5L, PPS7200-4L, PPS7200-2L, PPS7100-5L, PPS7100-4L, PPS7100-2L Domestic Edition: PPS333-5L, PPS333-4L, PPS333-2L , PPS331-5L, PPS331-4L, PPS331-2L
Test Model No.:	PPS7200-5L, PPS333-5L
Brand Name:	INSPIRY 意锐
FCC ID:	2AOI3S-001
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Test:	2018-01-08 to 2018-01-09
Date of Issue:	2018-01-09
Test Result :	**PASS***

Tested By: Aaron Ma

(Aaron Ma)

Reviewed By: Owen Zhou

(Owen Zhou)

Approved By:

(Jack Ai)

SHENZHEN HUAXIA TESTING TECHNOLOGY CO.,LTD 华夏准测 APPROVED

* In the configuration tested, the EUT complied with the standards specified above.

2 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ170701432EW-02	Rev.01	Initial report	2017-07-12

3 Contents

4 General Information

4.1 Client Information

Applicant:	Beijing Inspiry Technology Co., Ltd.
Address of Applicant:	Room D5, 1st Building, No.6, Shangdi West Road, Haidian District, Beijing City, P. R. China
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4.2 General Description of EUT

Product Name:	InsPos S Scanning Device
Model No.:	International Edition: PPS7200-5L, PPS7200-4L, PPS7200-2L, PPS7100-5L, PPS7100-4L, PPS7100-2L Domestic Edition: PPS333-5L, PPS333-4L, PPS333-2L , PPS331-5L, PPS331-4L, PPS331-2L
Trade Mark:	INSPIRY 意锐
Hardware Version:	V1.0
Software Version:	V1.0.0
Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM, QPSK,BPSK)
Sample Type:	portable production
Test Software of EUT:	SecureCRT (manufacturer declare)
Antenna Type:	internal antenna with ipex connector
Antenna Gain:	2.0dBi
Power Supply:	Adapter: Model: GS-05212S Input:100-240V~50/60Hz 0.3A Output:DC5V 2.1A

Note:

Only the model PPS7200-5L, PPS333-5L, was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance and model name.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

For WIFI:

Measurement Data

802.11b mode	
Test channel	Average Output Power (dBm)
Lowest(2412MHz)	6.54
Middle(2437MHz)	6.40
Highest(2462MHz)	6.27
802.11g mode	
Test channel	Average Output Power (dBm)
Lowest(2412MHz)	5.93
Middle(2437MHz)	5.81
Highest(2462MHz)	5.53
802.11n(HT20) mode	
Test channel	Average Output Power (dBm)
Lowest(2412MHz)	5.80
Middle(2437MHz)	5.82
Highest(2462MHz)	5.88

The Max Conducted Average Output Power is 6.54dBm in highest channel(2.412GHz);

The best case gain of the antenna is 2.0dBi.

EIRP= 6.54dBm + 2.0dBi = 8.54dBm

8.54dBm logarithmic terms convert to numeric result is nearly 7.14mW

According to the formula. calculate the EIRP test result:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]

General RF Exposure = (7.14mW / 5 mm) x √2.412GHz = 2.22 ①

SAR requirement:

S= 3.0 ② ;

① < ②.

So the SAR report is not required.

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ171101578EW-01