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Report No.: 2204RSU049-U2 Report Version: V01 Issue Date: 05-26-2022

RF Exposure Evaluation Declaration

FCC ID: HD5-PX900A

Applicant: Honeywell International Inc

Honeywell Safety and Productivity Solutions

Product: Printer

Model No.: PX940

Brand Name: Honeywell

FCC Rule Part(s): FCC Part 2.1091

Approved By:

Reviewed By:

Jame Yuan

Robin Wu

Robin Wu

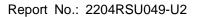
Robin Wu

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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Revision History

Report No.	Version	Description	Issue Date	Note
2204RSU049-U2	Rev. 01	Initial Report	05-26-2022	Valid



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1. General Information

1.1. Applicant

Honeywell International Inc Honeywell Safety and Productivity Solutions 9680 Old Bailes Road, Fort Mill, SC 29707 United States

1.2. Manufacturer

Honeywell International Inc Honeywell Safety and Productivity Solutions 9680 Old Bailes Road, Fort Mill, SC 29707 United States

1.3. Testing Facility

\boxtimes	Test Site – MRT Suzhou Laboratory						
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China						
	Laboratory Location (Suzhou - SIP)						
	4b Building, Liand	lo U Valley, No.200	Xingpu Rd., Shengpu	ı Town, Suzhou Indu	strial Park, China		
	Laboratory Accre	editations					
	A2LA: 3628.01		CNAS	S: L10551			
	FCC: CN1166		ISED:	CN0001			
	VCCI:	□R-20025	□G-20034	□C-20020	□T-20020		
	VCCI.	□R-20141	□G-20134	□C-20103	□T-20104		
	Test Site – MRT Shenzhen Laboratory						
	Laboratory Loca	tion (Shenzhen)					
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China						
	Laboratory Accreditations						
	A2LA: 3628.02		CNAS	: L10551			
	FCC: CN1284		ISED:	CN0105			
	Test Site – MRT Taiwan Laboratory						
	Laboratory Location (Taiwan)						
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)						
	Laboratory Accre	editations					
	TAF: L3261-19072	25					
	FCC: 291082, TW	/3261	ISED:	TW3261			



1.4. Product Information

Product Name	Printer	
Model No.	PX940	
EUT Identification No.	20220424Sample#14, 20220424Sample#16	
Bluetooth Specification	v4.2 single mode (only BLE)	
Antenna Information	Refer to section 1.5	
Working Voltage	AC 100-240V, 50-60Hz	
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall		

be the responsibility of the manufacturer.

1.5. Radio Specification

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type	Chip Antenna
Antenna Gain	3.77dBi

Note: For other features of this EUT, test report will be issued separately.

1.6. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 2.1091
- KDB 447498 D04 Interim General RF Exposure Guidance v01



2. RF Exposure Evaluation

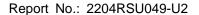
2.1. Test Limits

According to FCC §1.1310: 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 §1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time	
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(Minutes)	
	(A) Limits fo	r Occupational/ Contro	l Exposures		
0.3-3.0	614	1.63	*(100)	≤6	
3.0-30	1842/f	4.89/f	*(900/f²)	<6	
30-300	61.4	0.163	1.0	<6	
300-1,500			f/300	<6	
1,500-100,000			5	<6	
(B) Limits for General Population/ Uncontrolled Exposures					
0.3-1.34	614	1.63	*(100)	<30	
1.34-30	824/f	2.19/f	*(180/f²)	<30	
30-300	27.5	0.073	0.2	<30	
300-1,500			f/1500	<30	
1,500-100,000			1.0	<30	

f= frequency in MHz. * = Plane-wave equivalent power density.





2.1. Test Exemptions

For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph §1.1307(b)(2) of this section): A single RF source is exempt if:

(Option A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph §1.1307(b)(3)(ii)(A) of this section.

Medical implant devices may only use this exemption and that in paragraph §1.1307(b)(3)(ii)(A);

(Option B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P is given by:

$$P_{th} \; (\text{mW}) = \begin{cases} ERP_{20 \; cm} (d/20 \; \text{cm})^x & d \leq 20 \; \text{cm} \\ \\ ERP_{20 \; cm} & 20 \; \text{cm} < d \leq 40 \; \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right)$$
 and f is in GHz;

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

(Option C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).



RF Source Frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1920R ²
1.34-30	3450R²/f²
30-300	3.83R ²
300-1,500	0.0128R ² /f
1,500-100,000	19.2R ²

For multiple RF sources: Multiple RF sources are exempt if:

- (A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those is paragraph §1.1307(b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph §1.1307(b)(3)(i)(A).
- (B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}} + \sum_{i=1}^{b} \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^{c} \frac{Evaluated_k}{Exposure\ Limit_k} \le 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph 1.1307(b)(3)(i)(B) of this section for P_{th} , including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph 1.1307(b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

 P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

 $P_{th,i}$ = the exemption threshold power (P_{th}) according to paragraph §1.1307(b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.





 ERP_j = the ERP of fixed, mobile, or portable RF source j.

 $ERP_{th,j}$ = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least $\lambda/2\pi$ according to the applicable formula of paragraph $\S1.1307(b)(3)(i)(C)$ of this section.

Evaluated_k = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

Exposure Limit_k = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from §1.1310 of this chapter.



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2.2. Test Result

Product	Printer
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band	Max Peak Power	Tune-up Peak Power	Max ERP
	(MHz)	(dBm)	(dBm)	(dBm)
Bluetooth	2402 ~ 2480	0.69	1.00	2.62

Note:

- 1. Tune-up peak power declared by manufacturer.
- 2. Max ERP = 1.00 dBm + 3.77 dBi 2.15 dB = 2.62 dBm.

For single RF source

Frequency (MHz)	R (cm)	Max ERP (mW)	Exclusion Threshold (mW) @ 20cm
2402 ~ 2480	20	1.828	768

Note: R is from user manual.

CONCLUSION:

1.828mW << 768mW

Therefore, the device qualifies for RF exposure test exemption.