FCC MPE TEST REPORT

Project Number	**: EA1807C-103**
Test Report Number	**: TR-W1810-021**
Type of Equipment	**: Touchpoint Plus Wireless**
Model Name	**: Touchpoint Plus Wireless**
FCC ID	**: 2AISE-TPPLW**
Multiple Model Name	**: N/A**
Applicant	**: Honeywell Analytics Asia Pacific Co., Ltd.**
Address	**: 7F Sangam IT Tower, 434 Wordcup Buk-ro, Mapo-gu, Seoul, 03922, Republic of Korea**
Manufacturer	**: Honeywell Analytics Asia Pacific Co., Ltd.**
Address	**: 7F Sangam IT Tower, 434 Wordcup Buk-ro, Mapo-gu, Seoul, 03922, Republic of Korea**
Regulation	**: FCC Part 15 Subpart C Section 15.247**
Total page of Report	**: 6 Pages**
Date of Receipt	**: 2018-07-18**
Date of Issue	**: 2018-10-31**
Test Result	**: PASS**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Prepared by Song, In-young / Senior Engineer _____ (Signature) 2018-10-31 (Date)

Reviewed by Choi, Yeong-min / Technical Manager _____ (Signature) 2018-10-31 (Date)

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Release Control Record

Issue Report No.	Issued Date	Details/Revisions
TR-W1810-021	2018-10-31	Initial Release
-	-	-

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1. EUT (Equipment Under Test)

1.1 General Description

The Honeywell Analytics Asia Pacific Co., Ltd., Model Touchpoint Plus Wireless (referred to as the EUT in this report) is a Touchpoint Plus Wireless, which is an entry level (or upgrade) Touch-screen digital Controller for general industrial and commercial gas detection systems.

1.2 RF Output Power

Operating Mode	Channel	Frequency (MHz)	Conducted Output Power (dBm)
ZigBee	Low	2 405	5.49

2. TEST RESULT

2.1 ZigBee

According to FCC KDB 447498 D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

1) 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)] x [√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

The result is rounded to two 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.

For the present device, the conducted output power is 5.49 dBm at Low Channel

So, max. power of channel, including tune-up tolerance = 3.54 mW
min. test separation distance = 50 mm
f(GHz) = 2.405

(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm)] X [√f(GHz)]
= (3.54 / 50) x (√2.405) = 0.11 ≤ 3.00

Hence the SAR Exclusion Threshold condition is satisfied and the SAR evaluation for general population exposure conditions is not required.

2.2 MPE Calculation

MPE Calculation formula: $S= (P \times G) / (4 \times \pi \times R^2)$

where;

S = power density in mW/cm^2

P = output power to antenna in mW

G = gain of antenna in linear scale

$\pi \approx 3.1416$

R = distance between observation point and center of the radiator in cm

$(3.54 \times 3.16) / (4 \times 3.1416 \times 20^2) = 0.002\ 2\ mW/cm^2$

Requirement 1 mW/cm^2 satisfied. (FCC Part 1.1310 Table 1 Limits for maximum permissible exposure)