

RF Exposure Report

Report No.: SA171201E03

FCC ID: MQT-AP10

Test Model: xCL_AP-10

Received Date: Dec. 01, 2017

Test Date: Dec. 08, 2017

Issued Date: Dec. 21, 2017

Applicant: XAC AUTOMATION CORP.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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Release Control Record

Issue No.	Description	Date Issued
SA171201E03	Original release.	Dec. 21, 2017

1 Certificate of Conformity

Product: PINPAD

Brand: XAC

Test Model: xCL_AP-10

Sample Status: ENGINEERING SAMPLE

Applicant: XAC AUTOMATION CORP.

Test Date: Dec. 08, 2017

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :  _____, **Date:** Dec. 21, 2017
Claire Kuan / Specialist

Approved by :  _____, **Date:** Dec. 21, 2017
May Chen / Manager

2 RF Exposure

2.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
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

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

$\pi = 3.1416$

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

2.3 Classification

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

So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Brand	Model	Antenna Net Gain(dBi)	Frequency rang (MHz)	Antenna type	Connector type
XAC	ASM T103P	13	13.56	Wire	none

2.5 Calculation Result

Channel Frequency (MHz)	Electric field (dBuV/m) @3m	Electric field (V/m)	Limit of Electric field (V/m)
13.56	64.95	0.397649	60.76

Note: Limit of Electric field=824/f

$$\begin{aligned}
 \text{Electric field} &= 64.95 \text{ dBuV/m} & 3\text{m} \\
 &= 64.95 \text{ dBuV/m} + 20\log(3/0.2)^2 & 0.2\text{m} \\
 &= 111.9936 \text{ dBuV/m} & 0.2\text{m} \\
 &= 397649 \text{ uV/m} & 0.2\text{m} \\
 &= 0.397649 \text{ V/m} & 0.2\text{m}
 \end{aligned}$$

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