RF Exposure Report

Report No.: SA160704E02

FCC ID: MQT-FD130T

Test Model: FD130

Received Date: July 04, 2016

Test Date: July 12 to Aug. 25, 2016

Issued Date: Sep. 01, 2016

Applicant: XAC AUTOMATION CORP.

Address: 4F, No. 30, INDUSTRY E. RD. IX, SCIENCE-BASED INDUSTRIAL PARK,HSINCHU,TAIWAN

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

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Release Control Record

Issue No.	Description	Date Issued
SA160704E02	Original release.	Sep. 01, 2016

1 Certificate of Conformity

Product: Terminal

Brand: First Data

Test Model: FD130

Sample Status: ENGINEERING SAMPLE

Applicant: XAC AUTOMATION CORP.

Test Date: July 12 to Aug. 25, 2016

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:** Sep. 01, 2016
Midoli Peng / Specialist

Approved by : _____ , **Date:** Sep. 01, 2016
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				
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

2.2 MPE Calculation Formula

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

where

Pd = power density in mW/cm^2

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

WLAN Antenna Spec.					
Brand	Model No.	Antenna Type	Antenna Connector	Antenna Gain(dBi) <Including cable loss>	Frequency range (MHz to MHz)
ACX	AT3216-T2R4PAA	Chip	NA	1.5	2400-2500
RFID Antenna Spec.					
Brand	Model No.	Antenna Type	Antenna Connector	Antenna Gain(dBi) <Including cable loss>	Frequency range (MHz)
XAC	PCB ENIG ANT BOARD (W/KEY) 8006(ROHS)	PCB (2 Layer)	NA	13	13.56

2.5 Calculation Result

RFID

Frequency Band (MHz)	Electric field (dBuV/m)@3m	Electric field (V/m)	Limit of Electric field (V/m)	Pass /Fail
13.56	70.7	0.770903	60.76	Pass

Note: Limit of Electric field=824/f

Electric field	=	70.7 dBuV/m	3m
	=	70.7 dBuV/m+20log(3/0.2)^2	0.2m
	=	117.74 dBuV/m	0.2m
	=	770903 uV/m	0.2m
	=	0.770903 uV/m	0.2m

WLAN

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	151.705	1.5	20	0.04263	1

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