RF Exposure Report

Report No.:	SA160308C01
FCC ID:	S4A50-0100-QT-44
Test Model:	Kamai 651
Series Model:	Kamai 6XYzzzzzz (where “X” can be 0-9, “Y” can be 0-9; “zzzzzz” can be any combination of “0-9”, “a-z”, “-“, “/” or blank for marketing purpose)
Received Date:	Mar. 08, 2016
Test Date:	Mar. 19 ~ Apr. 14, 2016
Issued Date:	Apr. 19, 2016
Applicant:	Entone Technologies (HK) Limited
Address:	Level 28, Saxon Tower, 7 Cheung Shun Street, Lai Chi Kok, Hong Kong
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
SA160308C01	Original release.	Apr. 19, 2016

1 Certificate of Conformity

Product:	High Definition IP TV receiver
Brand:	entone, amino
Test Model:	Kamai 651
Series Model:	Kamai 6XYzzzzzz (where “X” can be 0-9, “Y” can be 0-9; “zzzzzz” can be any combination of “0-9”, “a-z”, “-“, “/” or blank for marketing purpose)
Sample Status:	Engineering sample
Applicant:	Entone Technologies (HK) Limited
Test Date:	Mar. 19 ~ Apr. 14, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 (October 23, 2015) IEEE C95.1

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:** Apr. 19, 2016

Suntee Liu / Specialist

Approved by : _____ , **Date:** Apr. 19, 2016

Ken Liu / Senior 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				
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**.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN (CDD Mode)					
5180-5240	23.84	9.32	20	0.412	1
5260-5320	22.59	9.32	20	0.309	1
5500-5700	23.79	9.32	20	0.407	1
5745-5825	25.01	9.32	20	0.539	1
WLAN (Beamforming Mode)					
5180-5240	19.36	9.32	20	0.147	1
5260-5320	19.26	9.32	20	0.143	1
5500-5700	19.57	9.32	20	0.154	1
5745-5825	25.01	9.32	20	0.539	1
BT LE					
2402-2480	-2.74	1.8	20	0.0002	1

Note: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N] = 9.32dBi$

Conclusion:
The formula of calculated the MPE is:
CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1
CPD = Calculation power density
LPD = Limit of power density

WLAN 5GHz + BT LE = 0.539 + 0.0002 = 0.5392
Therefore all the maximum calculations of above situations are less than the “1” limit.

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