

RF Exposure Report

Report No.: SA161219D15

FCC ID: RFH-TUS3400-1

Test Model: TUS3400

Received Date: Dec. 19, 2016

Test Date: Dec. 20, 2016 ~ Jan. 6, 2017

Issued Date: Jan. 16, 2017

Applicant: IEI Integration 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
SA161219D15	Original release.	Jan. 16, 2017

1 Certificate of Conformity

Product: Portable Computer

Brand: Terason

Test Model: TUS3400

Sample Status: Engineering sample

Applicant: IEI Integration Corp.

Test Date: Dec. 20, 2016 ~ Jan. 6, 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.

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Approved by : Rex Lai , **Date:** Jan. 16, 2017
Rex Lai / Assistant 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

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

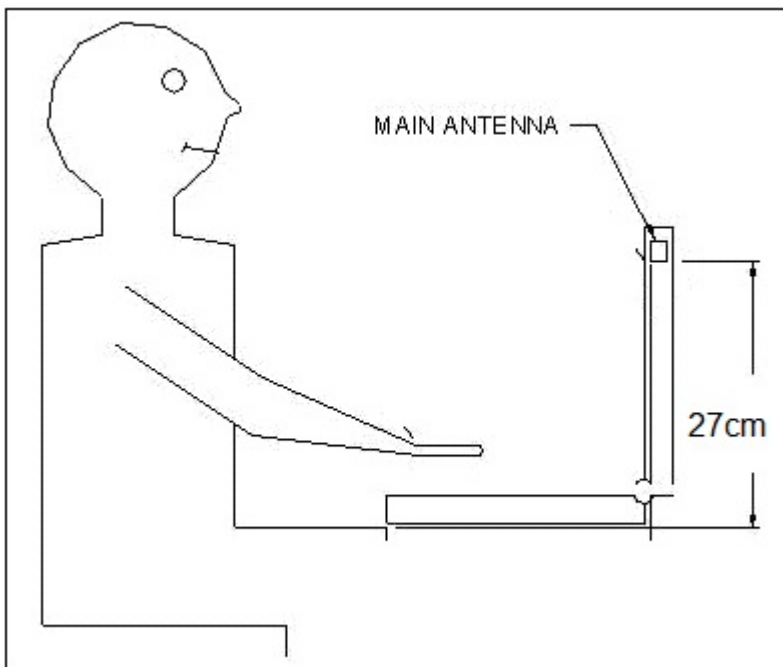
2.3 Classification

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 Smallest Distance From The Antenna And Radiating Structures Or Outer Surface Of The Device

The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander. (See below figure)



3 Calculation Result Of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN	2412 - 2462	26.38	2	20	0.1370	1
WLAN	5180 - 5240	14.52	2	20	0.0089	1
WLAN	5260 - 5320	14.41	2	20	0.0087	1
WLAN	5500 - 5700	14.48	2	20	0.0088	1
WLAN	5745 - 5825	14.55	2	20	0.0090	1
BT LE	2402-2480	1.26	2	20	0.0004	1
BT EDR	2402-2480	1.33	2	20	0.0004	1

CONCLUSION:

Both of the WLAN & Bluetooth can transmit simultaneously, the formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$WLAN + BT = 0.1370 + 0.0004 = 0.1374$

Therefore, the maximum calculation of this situation is 0.1374, which is less than the "1" limit.

FREQUENCY BAND (MHz)	MAX POWER (dBm)				TOTAL POWER (dBm)	POWER LIMIT (dBm)
	WLAN (5.0G)	WLAN (2.4G)	BT LE	BT EDR		
2400 ~ 2483.5	-	26.38	1.26	1.33	26.41	30
5180 ~ 5240	14.52	-	-	-	14.52	24
5260 ~ 5320	14.41	-	-	-	14.41	24
5500 ~ 5700	14.48	-	-	-	14.48	24
5745 ~ 5825	14.55	-	-	-	14.55	30

--- END ---