RF Exposure Report

Report No.:	SA160831C13A
FCC ID:	HFS-C99
Test Model:	QXU1
Received Date:	Sep. 26, 2016
Test Date:	Sep. 30, 2016
Issued Date:	Oct. 3, 2016
Applicant:	Quanta Computer Inc.
Address:	No.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan
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.)

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
SA160831C13A	Original release.	Oct. 3, 2016

1 Certificate of Conformity

Product: Wireless Charger

Test Model: QXU1

Sample Status: Engineering sample

Applicant: Quanta Computer Inc.

Test Date: Sep. 30, 2016

Standards: FCC Part 1 (Section 1.1307(b), 1.1310)

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:** Oct. 3, 2016

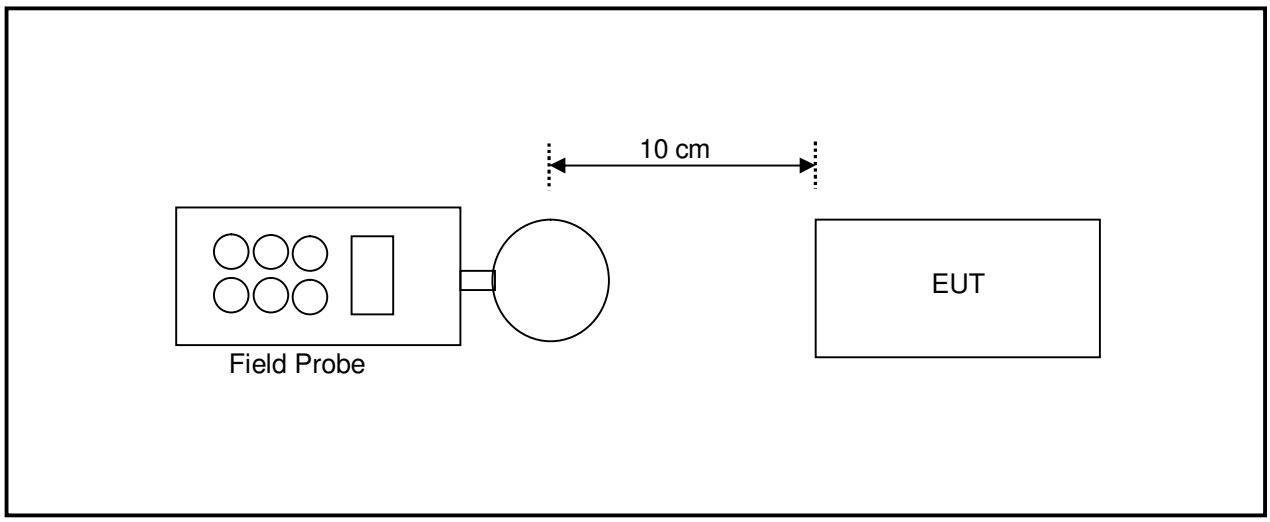
Celia Chen / Supervisor

Approved by : _____ , **Date:** Oct. 3, 2016

Rex Lai / Assistant Manager

2 RF Exposure

2.1 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device.

2.2 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Feb. 11, 2016	Feb. 10, 2018
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Feb. 9, 2016	Feb. 8, 2018
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Feb. 9, 2016	Feb. 8, 2018
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Oct. 16, 2015	Oct. 15, 2016
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Feb. 9, 2016	Feb. 8, 2018
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Feb. 9, 2016	Feb. 8, 2018

NOTE: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Chia Pau RF Chamber

2.3 Limits For Maximum Permissible Exposure (MPE)

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f²)	6
30–300	61.4	0.163	1.0	6
300–1500	.....	.....	f/300	6
1500–100,000	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	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

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

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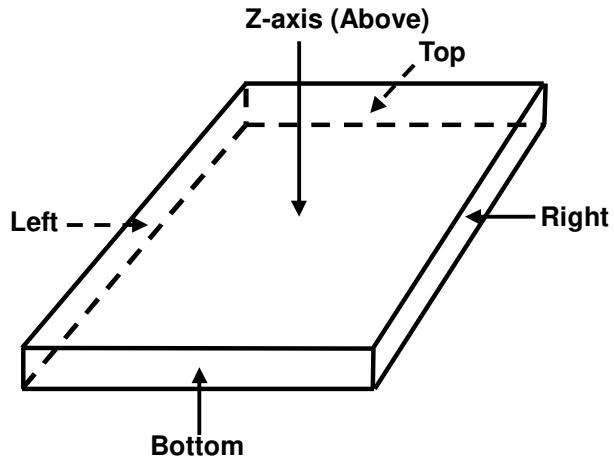
Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

2.4 Test Point Description



3 Test Mode Applicability Detail

Test Condition	
Standby mode	EUT + Adapter + 1.39” Smart Watch (Battery Level Low)
	EUT + Adapter + 1.39” Smart Watch (Battery Level Mid.)
	EUT + Adapter + 1.39” Smart Watch (Battery Level High)
Operating mode	**EUT + Adapter + 1.39” Smart Watch (Battery Level Low)**
	EUT + Adapter + 1.39” Smart Watch (Battery Level Mid.)
	EUT + Adapter + 1.39” Smart Watch (Battery Level High)
Note: After pre-scanning, The Operating mode with the low battery level of Smart Watch is the worst-case for final test.	

4 Calculation Result of Maximum Conducted Power

E-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	0.49	0.51	0.55	0.86	0.38
Limit 614 (V/m)	614	614	614	614	614
Margin (V/m)	-613.51	-613.49	-613.45	-613.14	-613.62
70% of the limit (V/m)	429.8	429.8	429.8	429.8	429.8
70% of the Margin (V/m)	-429.457	-429.443	-429.415	-429.198	-429.534

H-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (A/m)	0.027	0.019	0.017	0.023	0.017
Limit 1.63 (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.603	-1.611	-1.613	-1.607	-1.613
70% of the limit (A/m)	1.141	1.141	1.141	1.141	1.141
70% of the Margin (A/m)	-1.1221	-1.1277	-1.1291	-1.1249	-1.1291

Measurements was made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

5 Photographs of the Test Configuration

Please refer to the attached file (Test Setup Photo).

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