

RF EXPOSURE REPORT



FCC Applicant: Quanta Computer Inc.
NO.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City
33377, Taiwan (R.O.C.)

FCC Manufacturer: Greatland Electronics Taiwan Ltd
7F., No. 123, Ln. 235, Baoqiao Rd., Xindian Dist., New Taipei
City, Taiwan.

Product Name: Wireless Charger

Brand Name: Verizon Wireless

Model No.: QTAX59C

Report Number: TESA2402000086ES

FCC ID HFS-QTAX59C

Date of EUT Received: Feb. 05, 2024

Date of Test: Mar. 18, 2024

Issue Date: Apr. 08, 2024

Approved By

John Yeh

John Yeh

We hereby certify that:

The above equipment was evaluated by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC KDB 680106 D01v04.

The results of this report relate only to the sample identified in this report.

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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2402000086ES	00	Original	Apr. 08, 2024	Cindy Chou	

Note:

- 1、The remark "" indicates modification of the report upon requests from certification body.

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	Wireless Charger
Brand Name:	Verizon Wireless
Model No.:	QTAX59C

1.2 Test Facility

Laboratory	Test Site Address		FCC Designation number
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	☐	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan.	TW0027
	☒	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	TW0028
	☐	1F, No.8, Alley 15, Lane 120, Sec. 1, Nei Hu Road	TW0029

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2 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 Standard Applicable

The RF exposure limits, as set forth in § 1.1310, do not cover the frequency range below 100 kHz for Specific Absorption Rate (SAR) and below 300 kHz for Maximum Permitted Exposure (MPE). In addition, present limitations of RF exposure evaluation systems prevent an accurate evaluation of SAR below 4 MHz. For these reasons, a specific MPE-based RF Exposure compliance procedure for devices operating in the aforementioned low-frequency ranges has been set in place. This procedure is applicable to Equipment Authorization of all RF devices, thus including, but not limited to, Part 18 and WPT devices.

Accordingly, for § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively. For § 2.1093-Portable devices below 4 MHz and down to 100 kHz, the MPE limits in § 1.1310 (with the 300 kHz limit applicable all the way down to 100 kHz) can be used for the purpose of equipment authorization in lieu of SAR evaluations.

For all the cases mentioned above, E and H measurements should be made from all sides of the transmitter, along all the principal axes defined with respect to the orientation of the transmitting element (e.g., coil or antenna). When clearly demonstrated, symmetry considerations may be used to reduce the amount of testing. Furthermore, for “low-frequency” loop/coil emitting structures that lead to dominant H-field near-field emissions (i.e., with E/H ratio less than 1/10 of the 377-ohm free space wave impedance, typically frequencies less than 1 MHz), only H-field measurements are sufficient for demonstrating MPE limit compliance.

2.2 Limits for Maximum Permissive Exposure (MPE)

For § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively.

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TABLE 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)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			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/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

2.3 Measurement Procedure:

E and H measurements should be made from all sides of the transmitter, along all the principal axes defined with respect to the orientation of the transmitting element (e.g., coil or antenna). The E-field and H-field strengths, at 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm measured from the center of the probe(s) to the edge of the device.

2.4 Measurement Equipment Used:

Equipment List					
Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
SPEAG	MAGPy	8H3D-E3D	3062	Jun/21/2023	Jun/20/2024
SPEAG	MAGPy	DAS	3061	Jun/21/2023	Jun/20/2024
SPEAG	Software	MAGPy V2.0	N/A	Calibration not required	Calibration not required

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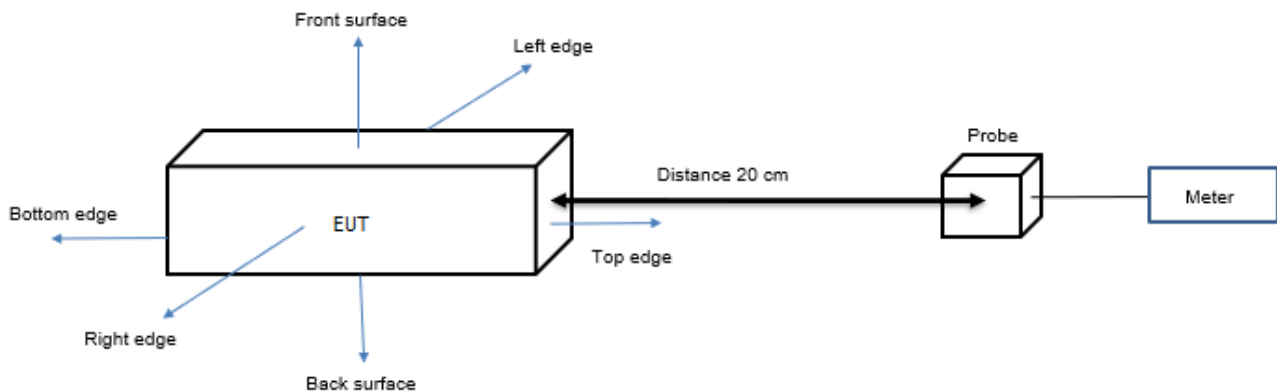
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2.5 Test Set-up:



Note: the distance between probe center and probe tip is 18.5mm, so the separation distance between EUT and probe tip is 181.5mm (200mm-18.5mm).

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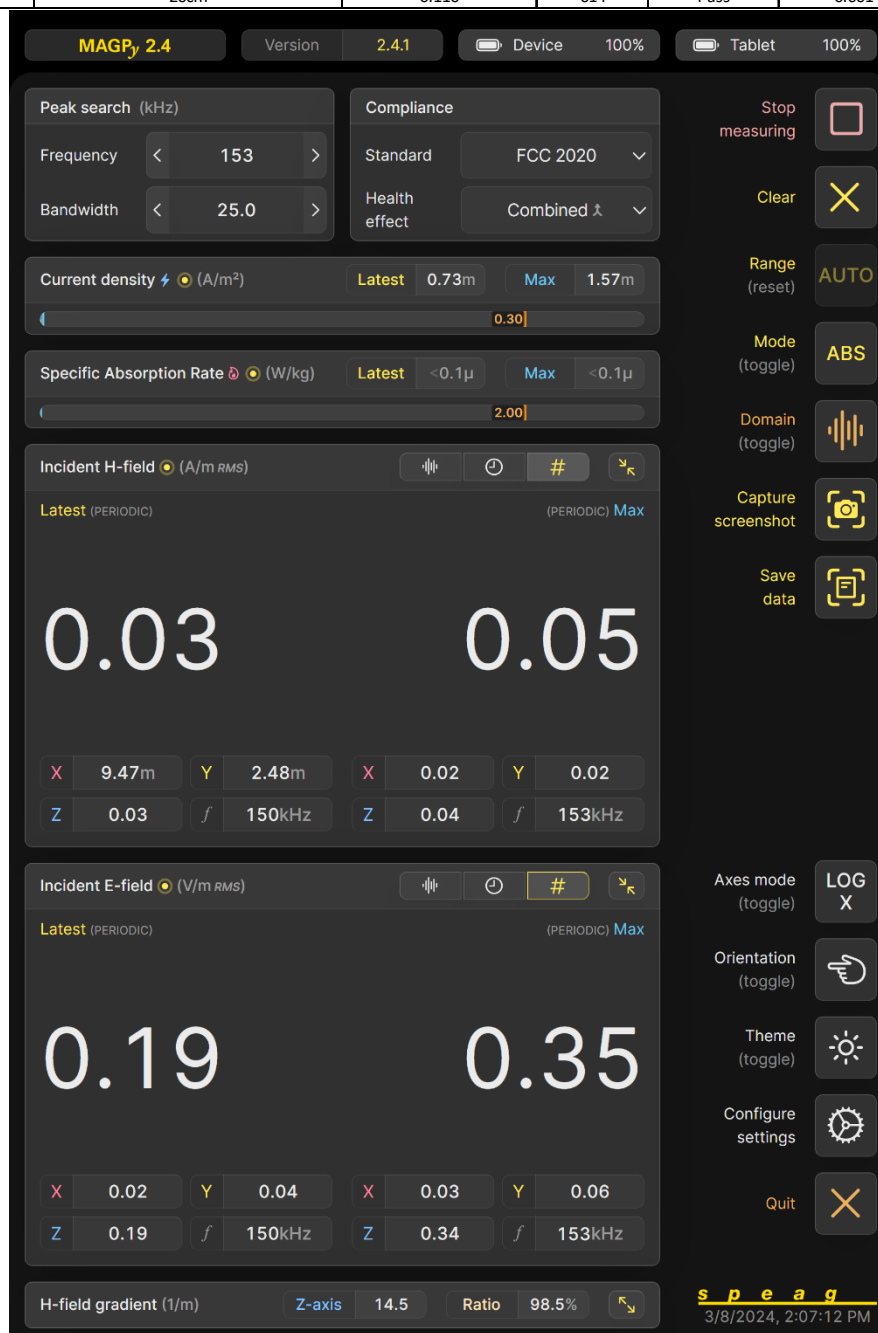
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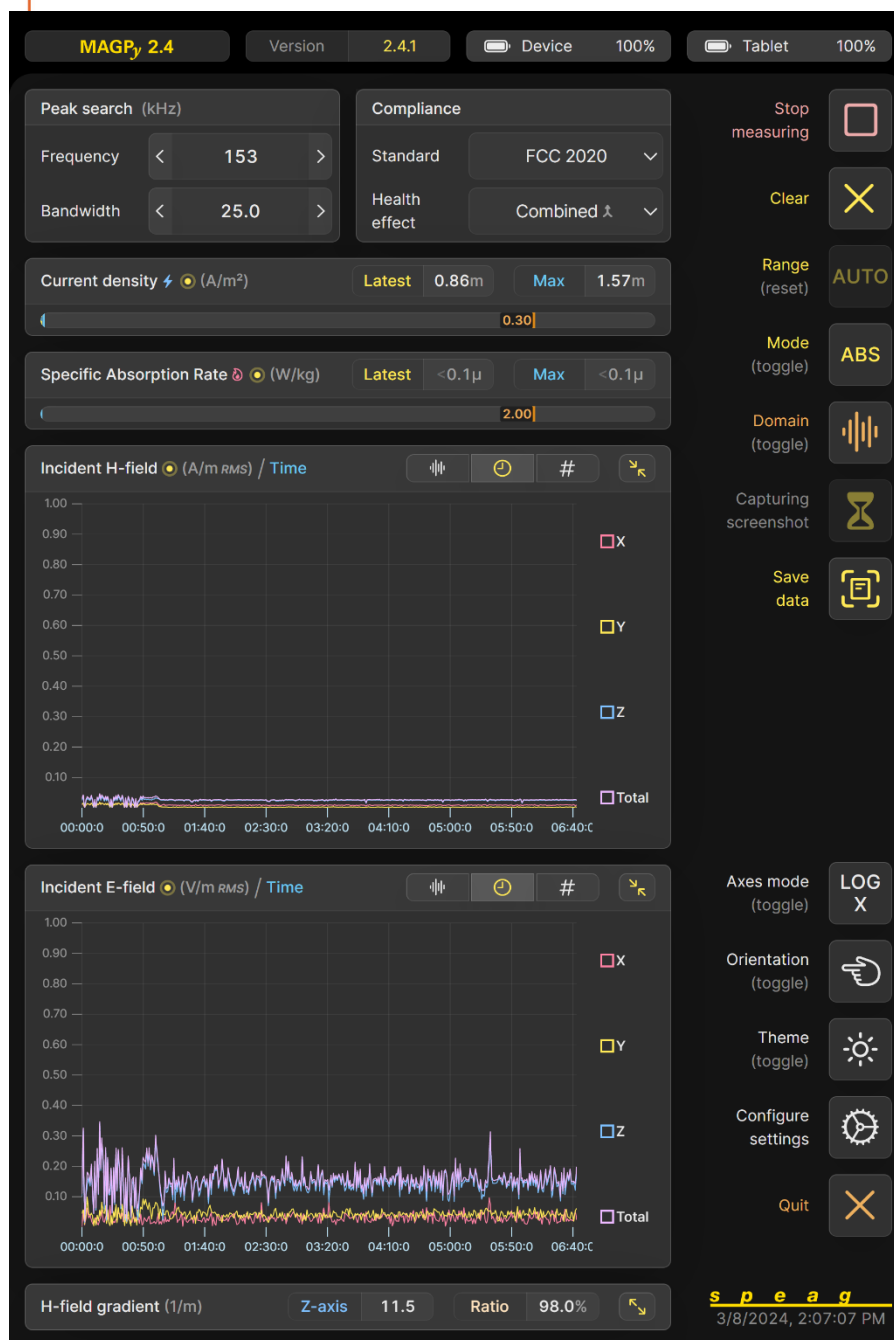
2.6 Maximum Permissible Exposure (MPE) Evaluation:

Maximum Permissible Exposure							
Test position	Test Distance	E-Field Strength (V/m)	E-Field Strength Limit (V/m)	Pass / Fail	H-Field Strength (A/m)	H-Field Strength Limit (A/m)	Pass / Fail
Front Surface	20cm	0.350	614	Pass	0.050	1.63	Pass
Back Surface	20cm	0.240	614	Pass	0.030	1.63	Pass
Top Edge	20cm	0.340	614	Pass	0.010	1.63	Pass
Bottom Edge	20cm	0.180	614	Pass	0.020	1.63	Pass
Right Edge	20cm	0.170	614	Pass	0.030	1.63	Pass
Left Edge	20cm	0.110	614	Pass	0.001	1.63	Pass



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