



RF Exposure Evaluation Declaration

FCC ID: PLE-GA-9660B
APPLICANT: GIGASTONE CORP

Application Type: Certification
Product: Dual Coil Fast Wireless Charger
Model No.: GA-9660B
Serial Model: GA-9660
Brand Name: Gigastone
Test Procedure(s): KDB 680106 D01v03
Test Date: September 14, 2018

Reviewed By : *Paddy Chen*
(Paddy Chen)

Approved By : *Chenz Ker*
(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 680106. Test results reported herein relate only to the item(s) tested.

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Revision History

Report No.	Version	Description	Issue Date
1810RSU00101	Rev.01	Initial Report	2018-10-01

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	Dual Coil Fast Wireless Charger
Model No.	GA-9660B
Serial Model	GA-9660
Brand Name	Gigastone
Frequency Range	110kHz ~ 205kHz
Modulation	ASK
Antenna Type	Loop
Specification	Input: DC 5V/2A / DC 9V/1.8A Output Power: Max 10W

Model Difference: The different of models only for marketing different, the other was the same.

2. TEST EQUIPMENT CALIBRATION DATE

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Isotropic Electric field probe	R&S	SM40G	MRTSUE06358	3 year	2021/03/05
E-Field Isotropic antenna	R&S	SHE100K6Z5G	MRTSUE06444	3 year	2021/03/05

3. RF Exposure Evaluation

3.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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)
(A) Limits for Occupational/ Control Exposures				
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
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
0.3-1.4	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
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

Note :

(1) f= Frequency in MHz

(2) * = Plane-wave equivalent power density

(3) Occupational/controlled exposure 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

(4) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

3.2. Equipment Approval Consideras on KDB 680106 D01v03

(1) Power transfer frequency is less than 1 MHz.

- The Device operates at a frequency range is 110KHz ~ 205KHz

(2) Output power from each primary coil is less than or equal to 15 watts.

- The primary coil is 10watts

(3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.

- The transfer system includes charging systems with multiple primary coils.
- They are able to detect and allow only between individual pairs of coils.

(4) Client device is placed directly in contact with the transmitter.

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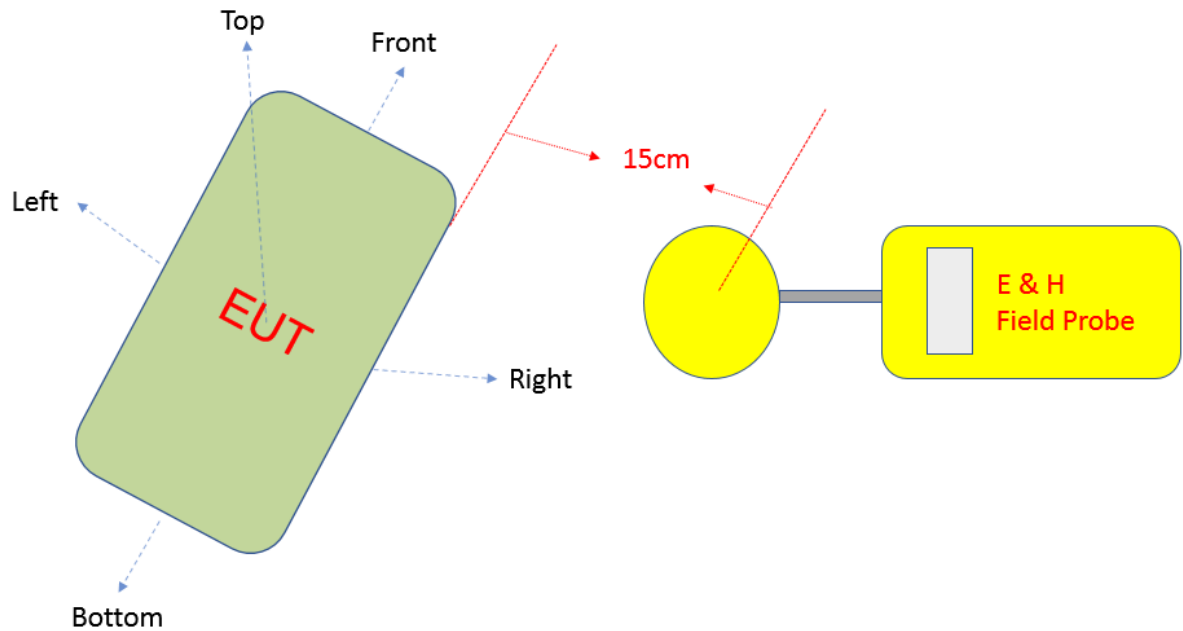
(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

- Mobile exposure conditions only

(6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

- H-field strengths at 15cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

3.3. Test Setup



- (1) According to the dictates of KDB 680106 D01v03.
- (2) The aggregate strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils.

3.4. Test Result of E and H field strength

5W :

E-Field

Frequency	Left (V/m)	Right (V/m)	Top (V/m)	Bottom (V/m)	Front (V/m)	Back (V/m)	Limit (V/m)
110K~205KHz	1.64	1.78	0.84	0.64	2.54	2.24	614

H-Field

Frequency	Left (A/m)	Right (A/m)	Top (A/m)	Bottom (A/m)	Front (A/m)	Back (V/m)	Limit (A/m)
110K~205KHz	0.102	0.081	0.087	0.067	0.112	0.081	1.63

10W :

E-Field

Frequency	Left (V/m)	Right (V/m)	Top (V/m)	Bottom (V/m)	Front (V/m)	Back (V/m)	Limit (V/m)
110K~205KHz	1.78	1.81	0.84	0.78	2.61	2.33	614

H-Field

Frequency	Left (A/m)	Right (A/m)	Top (A/m)	Bottom (A/m)	Front (A/m)	Back (V/m)	Limit (A/m)
110K~205KHz	0.113	0.091	0.091	0.077	0.114	0.089	1.63

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