Wang, Maura (Shenzhen)

From: oetech@fcc.gov
Sent: 2018年2月14日星期三 2:51
To: Li, Leo-HJ (Shenzhen)
Subject: Response to Inquiry to FCC (Tracking Number 380456)

Inquiry on 02/07/2018 :

Inquiry:

Dear Sir,

This is an engineer from SGS shenzhen China. I have a wireless charger to apply certificate.

It is a QI wireless charger with a Qi A11 standard coil.

operation frequency: 100-205kHz

coil diameters:44+/-1.5mm

turns number: 10

max. output power 10W

Input: DC 5V/2A, DC 9V/1.67A

Output: 5W(DC 5V/1A), 7.5W(DC 5V/1.5A), 10W(DC 9V/1.1A)

An RF exposure evaluation is submitted. please help to check the report is acceptable or not? thanks.

FCC response on 02/09/2018

FCC response on 02/09/2018

The wireless charger that you have described is a device that is in the Preapproved Guidance Program. wireless power devices must abide by the guidelines described in publication 680106. Publication 680106 is shown below;

https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=41701&switch=P

Wireless power transfer devices operating at frequencies above 9 kHz are intentional radiators and are subject to either Part 15 and/or Part 18 of the FCC rules. The specific applicable rule part depends on how the device operates, and if there is communication between the charger and device being charged.

Devices specifically intended for use for wireless power transfer, or inductive charging, require FCC guidance for frequency exposure review. This includes Part 18 devices. The responsible party or manufacturer must seek guidance from the FCC by submitting a wireless charging application inquiry at http://www.fcc.gov/labhelp.

The initial inquiry shall include the following:

i. In the "Subject" line, fill the field as follows: Seeking guidance for wireless chargers;
ii. complete product description, including coil diameters , number of turns and current;
iii. the rule part(s) the device will operate in and the reasoning for rule part(s);
iv. planned equipment authorization procedure;
v. drawings, illustrations;
vi. frequencies;
vii. radiated power;
viii. operating configurations
ix. conditions for human exposure [1], and

Intentional radiators transmitting information must be certified under the appropriate Part 15 rules and will generally require an equipment certification, except for special types of devices meeting requirements under Section 15.201 which are subject to verification. A charger may operate in two different modes: charging and communications. It is possible for the device to be approved under Part 18 for the charging mode and Part 15 for the communications mode, if it can be shown that (1) the device complies with the relevant rule parts and (2) the functions are independent. Part 18 consumer devices can be either certified or approved under DoC, only after the required SAR guidance has been given (as noted above ". . . by submitting an inquiry at www.fcc.gov/labhelp" . .) and the necessary test requirements have been completed.

Finally, it is possible that the power charging function could be approved under Part 15 rather than Part 18 if the device meets all of the requirements of the appropriate Part 15 rule.

Attachment 680106 D01 RF Exposure Wireless Charging Apps v02 provides general guidance on the information necessary to determine RF exposure evaluation and compliance requirements when submitting a wireless charging application inquiry.

Attachment List:

680106 D01 RF Exposure Wireless Charging Apps v02

The RF exposure enclosed file should have an electric and magnetic field measurements of the device using a Narda EHP-200A electric and magnetic field probe - analyzer from 9 KHz - 30 MHz. There should be 5 measurements, top and 4 sides. For each measurement location there should be measurements made at 1%, 50%,

and 99% battery levels. Also, please provide photos at each of the 5 locations. Be sure that the markings on the ruler are legible in the photographs.

Please provide all the information as described in i. through ix and provide the RF exposure data, photographs and graphs.

---Reply from Customer on 02/11/2018---

Dear Sir,

I have updated the report now.

i. Complete product description:

The Wireless charging plate provides a wireless charging for your device. It is complied with Qi - a global wireless charging standard. With a Qi-compatible device, we don't need to connect any cables during power charging.

ii. The rule part(s) the device will operate in and the reasoning for rule part(s):

FCC Part 18 and according the KDB 680106.

iii. Planned equipment authorization procedure:

Certification procedure.

iv. Drawings, illustrations:

This wireless charger contains one coil.

a. Outer diameter 44.0 +/- 1.5mm

b. Qi A11 standard coil

c. turns number: 10

v. Frequencies:

100KHz to 205KHz Frequency range

Transfer initiation: 109KHz +/-5KHz Digital Ping to initiate

vi. Radiated power:

Output: 5W(DC 5V/1A), 7.5W(DC 5V/1.5A), 10W(DC 9V/1.1A);

Maximum H-field strength at 10cm: 0.0035A/m, Maximum E-field strength at 10cm: 0.85V/m

vii. Operating configurations:

Typical start-up and end sequence that occur when a power receiver is placed on a power

transmitter proceeds as follows:

a. TX unit sends ping signal and waits answer from RX. If RX replies with correct sequence

power transfer is started. Otherwise no power is transmitted.

b. When RX device is fully charged RX sends “Charge complete” command and TX unit stops

power transfer and returns ping phase.

c. When RX unit is removed the TX interprets no communication situation as “Communication

error” and returns to the ping phase.

viii. Conditions for human exposure:

Mobile device indoor used.

Maximum H-field strength at 10 cm: 0.0035A/m

Maximum E-field strength at 10 cm: 0.85 V/m

ix. Operating configurations for different charging devices:

Qi compatible device.

Please help toadvise any other question it has? thanks.

FCC response on 02/12/2018

Please provide the following;

An enclose file that has an electric and magnetic field measurements of the device using a Narda EHP-200A electric and magnetic field probe - analyzer from 9 KHz - 30 MHz or a similar probe. There should be 5 measurements, top and 4 sides. For each measurement location there should be measurements made at 1%, 50%, and 99% battery levels. Also, please provide photos at each of the 5 locations. Be sure that the markings on the ruler are legible in the photographs.

---Reply from Customer on 02/13/2018---

Dear Sir,

I have upload the report now, Please help to advise any other question it has? thanks!

FCC response on 02/13/2018

The item subject to PAG has been reviewed. The TCB may proceed with the grant of the application pending its review of all non-PAG items.

Attachment Details:

RF expose report

Do not reply to this message. Please select the Reply to an Inquiry Response link from the OET Inquiry System to add any additional information pertaining to this inquiry.