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|  | ASIA-PACIFIC TELECOMMUNITY |  |
| **The 27th Meeting of the APT Wireless Group**  **(AWG-27)** |  |
| 22 – 30 March 2021, Virtual/Online Meeting | 30 March 2021 |

Source: AWG-27/OUT-05

**questionnaire on Non-beam WPT in 300 – 400kHz, 1610 – 1950 kHz**

**and 1950 -2150kHz**

**Section 1: Elementary Part**

1. **Introduction:**

Wireless Power Transmission (WPT) is a technology that allows to transmit electrical energy from a power source to an electrical load without an interconnection. Wireless power transmission has proven useful especially where connecting devices with wires is inconvenient or dangerous.

At the AWG-26th meeting, a recommendation for 100 – 148.5kHz band using inductive technology was approved in the plenary meeting, on top of the previously approved 6765 – 6795kHz frequency band using magnetic resonant technology.

The WPT industry continues to be in a period of fast development and growth. Wireless charging provides more convenience than wired charging, but has lagged in efficiency, power delivery, and charging time. Wireless charging is especially useful for small portable devices, where the size or form-factor of the device may make wired charging difficult. These smaller devices require smaller charging assemblies which are more efficient at higher frequencies. Broader availability of WPT frequencies will continue to play an important role in the success of innovation and improving the consumer experience.

With respect to the current WPT inductive technology market, additional frequencies other than 100-148.5kHz are being used to pursue a higher efficiency and faster charging speed, to provide charging in smaller devices, and to avoid vehicle key fob or smart key interference from emerging portable WPT applications.

Therefore, it is important to start studying other frequencies in ranges where wireless charging is currently implemented, where regulatory limits in most regions currently allow for WPT operation, and where there is limited risk of harmful interference to incumbent radiocommunication services, such as the frequency ranges 300-400 kHz, 1610 – 1950 kHz and 1950 – 2150kHz.

Your response will be reviewed and incorporated into TG-WPT deliverables such as an APT Survey Report to share among the APT countries.

1. **Objective of the Questionnaire:**

The purpose of this survey is to collect information from administrations on the regulatory status for the bands 300 – 400kHz, 1610 – 1950 kHz and 1950 – 2150kHz in the Asia Pacific region for WPT and the incumbent systems to be protected from non-beam WPT mobile and portable devices. The results of the survey will form the basis for an APT report on regulatory status of WPT in these bands in the Asia Pacific.

1. **Responsible Group:**

Task Group on Wireless Power Transmission (TG WPT)

1. **Rapporteur of the Questionnaire:**

Mr. Chan-Hyung Chung, [backbum@rapa.or.kr](mailto:backbum@rapa.or.kr) (Chairman of TG WPT)

1. **Meeting at which the Questionnaire was approved:**

AWG-27 Document: AWG-27/OUT-05

1. **Target Responder:**

APT Members

1. **Deadline for Responses:**

AWG-29

**Section 2: Questionnaire Part**

**Questions:**

1. Does your country allow non-beam WPT mobile and portable devices to operate in below frequency ranges?

300 – 400 kHz:

Yes

Yes, partial of it \_\_\_\_\_\_\_\_\_\_ (please specify the range)

Yes, plan to use in future

No

1610 – 1950 kHz:

Yes

Yes, partial of it \_\_\_\_\_\_\_\_\_\_ (please specify the range)

Yes, plan to use in future

No

1950 – 2150 kHz:

Yes

Yes, partial of it \_\_\_\_\_\_\_\_\_\_ (please specify the range)

Yes, plan to use in future

No

1. What kind of category is non-beam WPT mobile and portable device regulated as in your country?

A. SRD

B. WPT

C. Others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please specify)

1. What is the regulation or standard applicable to non-beam WPT for mobile and portable devices in your country for 300 – 400 kHz, 1610 - 1950 and 1950 – 2150 kHz?
2. What are the incumbent radio systems to be protected from non-beam WPT devices operating in 300 – 400 kHz, 1610 – 1950 kHz and 1950 – 2150kHz in your country? (please include the exact ranges of the allocations)

300 – 400 kHz: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1610 – 1950 kHz: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1950 – 2150 kHz: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Who is the contact person for further discussion of these WPT questions in your country?