CTK Co., Ltd.
(Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea
Tel: +82-31-339-9970 Fax: +82-31-624-9501
www.e-ctk.com

# RF EXPOSURE EVALUATION

| | |
|---|---|
| **Applicant** | **: RT Tech Co., Ltd.** |
| **Applicant Address** | **: 1104, 271, Digital-ro, Guro-gu, Seoul, Korea** |
| **Kind of Product** | **: Wireless Charging Pad** |
| **Equipment model name** | **: RT-A300FT** |
| **FCC ID** | **: 2ALH5-PRESTO-A300FT** |
| **Antenna type** | **: PCB antenna** |
| **Antenna Gain** | **: -9.91 dBi** |

# ** MPE Calculations **

The EUT will only be used with a separation of 10 centimeters or greater between the antenna and the body of the user. The MPE calculation for this exposure is shown below.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| EIRP = P + G | Where,<br>P = Power input to the antenna (mW)<br>G = Power gain of the antenna (dBi) |

The numeric gain(G) of the antenna with a gain specified in dB is determined by:

$G = Log^{-1}$ (dB antenna gain / 10)

## Power density at the specific separation:

| | |
|---|---|
| $S = PG/(4R^2\pi)$ | Where,<br>S = Maximum power density ($mW/cm^2$)<br>P = Power input to the antenna (mW)<br>G = Numeric power gain of the antenna<br>R = Distance to the center of the radiation of the antenna<br>(10cm = limit for MPE) |

The Maximum permissible exposure (MPE) for the general population is 1 $mW/cm^2$ .
The power density at 10cm does not exceed the 1 $mW/cm^2$ limit.

**2402 – 2480 MHz**

| **Mode** | P (dBm) | P (mW) | G (dBi) | R (cm) | **S ($mW/cm^2$)** |
|---|---|---|---|---|---|
| BLE | -0.061 | 0.986 | -9.91 | 10 | **0.00002** |