RF Exposure / MPE Calculation

No.	14568536S
Customer	TDK Corporation
Description of EUT	Sensor Module
Model Number of EUT	i3 Micro Module
FCC ID	2ADLX-MM0110113M

TDK Corporation declares that Model: i3 Micro Module complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "i3 Micro Module" as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

[IEEE 802.15.4 part]

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

$P =$ 2.90 mW (Maximum average output power)

☐ Time average was used for the above value in consideration of 6-minutes time-averaging

☑ Burst power average was used for the above value in consideration of worst condition.

$G =$ 0.389 Numerical Antenna gain; equal to -4.1 dBi

$r =$ 20 cm (Separation distance)

Power Density Result S = **0.00022 mW/cm^2**

[Bluetooth part]

This calculation is based on the highest EIRP possible from the system,
considering maximum power and antenna gain, and considering a 1 mW/cm^2 uncontrolled
exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

    $P =$ 2.92 mW (Maximum average output power)

      ☑ Time average was used for the above value in consideration of 6-minutes time-averaging

      ☐ Burst power average was used for the above value in consideration of worst condition.

    $G =$ 0.389 Numerical Antenna gain; equal to -4.1 dBi

    $r =$ 20 cm (Separation distance)

Power Density Result S =   **0.00023 mW/cm^2**