RF Exposure for Mobile use

No. : 26FE0133-YK-F1

Applicant	**:**	**SATO CORPORATION**
Type of Equipment	**:**	**RFID Reader/Writer Module**
Model No.	**:**	**Mercury 4e**
FCC ID	**:**	**MMFRWMTM1**

SATO CORPORATION declares that Model : RFID Reader/Writer Module
complies with FCC radiation exposure requirement specified in the FCC Rules 2.1091.
The "Mercury 4e" has 289.73 mW of conducted Peak Output power and 91.62 mW of EIRP.
The Following calculation is the reference data for 20cm distance for mobile use.

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "Mercury 4e" as calculated
from FCC OET Bulletin 65 Appendix A, Table (B) Limits for General Population / Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 0.6.0mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 289.73 mW (Maximum peak output power)
G = 0.32 Numerical Antenna gain; equal -5 dBi
r = 20.0 cm

For: Mercury 4e **S = 0.01823 mW/cm^2**