RF Exposure / MPE Calculation

No.	:	13324451H
Applicant	:	MinebeaMitsumi Inc.
Type of Equipment	:	Parking Sensor
Model No.	:	NDPM003 US
FCC ID	:	2AWRLNDPM003US

MinebeaMitsumi Inc. declares that Model: NDPM003 US 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 "NDPM003 US" 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.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 0.6016mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

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

Where

$P =$ 16.22 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.

$G =$ 1.698 Numerical Antenna gain; equal to 2.3 dBi

$r =$ 20 cm (Separation distance)

Power Density Result $S =$ **0.00548 mW/cm^2**

Even taking into account the tolerance, this device can be satisfied with the limits.