RF Exposure / MPE Calculation

No. : LIN-0521
Applicant : Sony Corporation
Type of Equipment : Bluetooth Module
Model No. : BT-LSP1
FCC ID : AK8BTLS1

Sony Corporation declares that Model: BT-LSP1 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 "BT-LSP1" 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 1mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

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

Where

P = 2.16 mW (Maximum peak output power)
G = 0.752 Numerical Antenna gain; equal to -1.24 dBi
r = 20 cm (Separation distance)

***Power Density Result S* = 0.000324 mW/cm2**

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