RF Exposure / MPE Calculation

No. : 10441271H

Applicant	**:**	**Sony Computer Entertainment Inc.**
Type of Equipment	**:**	**PlayStation® TV**
Model No.	**:**	**VTE-1001**
FCC ID	**:**	**AK8VTE1001F2**

Sony Computer Entertainment Inc. declares that Model : VTE-1001
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 "VTE-1001" 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 1.0mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

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

Where

P = 17.78 mW (Maximum average output power)(declared value)
G = 1.33 Numerical Antenna gain; equal to 1.25 dBi
r = 20.0 cm

For: VTE-1001 (WLAN part) **S = 0.00472 mW/cm^2**

[Reference]
Bluetooth antenna does not have any correlation with WLAN antenna, but transmits simultaneously with WLAN antenna.
If Bluetooth antenna has correlation with and transmits simultaneously with WLAN antenna, the formula is as follows:

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

Where

P = 0.63 mW (Maximum average output power)(declared value)
G = 0.82 Numerical Antenna gain; equal to -0.88 dBi
r = 20.0 cm

For: VTE-1001 (Bluetooth part) **S = 0.00010 mW/cm^2**

Therefore, if Bluetooth antenna has correlation with and transmits simultaneously with WLAN antenna;

S= 0.00472 mW/cm^2 + 0.00010 mW/cm^2
= 0.00482 mW/cm^2