RF Exposure / MPE Calculation
No. : 10724035H

Applicant : Sony Computer Entertainment Inc.
Type of Equipment : Computer Entertainment System
Model No. : CUH-1215A
FCC ID : AK8CUH120W1

Sony Computer Entertainment Inc. declares that Model : CUH-1215A
complies with FCC radiation exposure requirement specified in the FCC Rules 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "CUH-1215A" 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 = 19.35 mW (Maximum average output power)
G = 5.02 Numerical Antenna gain; equal to 7.01 dBi *1
r = 20.0 cm

For: CUH-1215A(WLAN, Bluetooth (LE) Part) S = 0.01934 mW/cm^2

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

*1: Antenna gain was calculated based on KDB662911D01,
Directional antenna gain = G_{ANT} + 10 log (N) dBi
Where: G_{ANT} is individual antenna gain, N is number of tansmit antenna

[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:

$$S = (P * G) / (4 * \pi * r2)$$

Where

P = 1.48 mW (Maximum average output power)
G = 3.63 Numerical Antenna gain; equal to 5.60 dBi
r = 20.0 cm

For: CUH-1215A(Bluetooth (BDR/EDR) Part) S = 0.00107 mW/cm^2

Therefore, if Bluetooth antenna has correlation with and transmits simultaneously with WLAN antenna;
S= 0.01934 mW/cm^2 + 0.00107 mW/cm^2
= 0.02041 mW/cm^2

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