

RF Exposure / MPE Calculation

No. : 12517639S-B
Applicant : Japan Radio Co., Ltd.
Type of Equipment : Wireless LAN Module
Model No. : CMN-851A
FCC ID : CKECMN851A

Japan Radio Co., Ltd. declares that Model: CMN-851A 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 "CMN-851A" 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/cm² uncontrolled exposure limit. The Friis formula used was:

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

Where

P = 32.36 mW (Maximum peak output power)
 G = 1.057 Numerical Antenna gain; equal to 0.24 dBi
 r = 20 cm (Separation distance)

$$\text{Power Density Result } S = 0.00680 \text{ mW/cm}^2$$

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

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