

## RF Exposure / MPE Calculation

**No. : 10012781H**

**Applicant** : Mitsubishi Electric Co.,Ltd  
**Type of Equipment** : Navigation system  
**Model No.** : NR-241, NR-241UH, NR-243UH \*WLAN part  
**FCC ID** : UJHNR241NR243

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Mitsubishi Electric Co.,Ltd declares that Model : NR-241, NR-241UH, NR-243UH \*WLAN part 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 "NR-241, NR-241UH, NR-243UH \*WLAN part" 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<sup>2</sup> uncontrolled exposure limit. The Friis formula used was:

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

Where

**P = 144.54 mW (Maximum peak output power)**  
**G = 0.65 Numerical Antenna gain; equal to -1.89 dBi**  
**r = 20.0 cm**

For: NR-241, NR-241UH, NR-243UH \*WLAN part

$$S = 0.01861 \text{ mW/cm}^2$$

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