

RF Exposure / MPE Calculation

No.	14344153S-C
Customer	JVCKENWOOD Corporation
Description of EUT	Monitor with Receiver
Model Number of EUT	DMX809S
FCC ID	IOMJ5284

JVCKENWOOD Corporation declares that Model: DMX809S 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 “DMX809S“ 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

$P =$ 12.13 mW (Maximum average output power)

Time average was used for the above value in consideration of 6-minutes time-averaging

Burst power average was used for the above value in consideration of worst condition.

$G =$ 1.288 Numerical Antenna gain; equal to 1.1 dBi

$r =$ 20 cm (Separation distance)

$$\text{Power Density Result } S = \mathbf{0.00311 \text{ mW/cm}^2}$$

Therefore, if WLAN (5 GHz band) and Bluetooth (BR/EDR) transmit simultaneously,

$$\begin{aligned} S &= \mathbf{0.00311 \text{ mW/cm}^2} + \mathbf{0.000004 \text{ mW/cm}^2} \\ &= \mathbf{0.003114 \text{ mW/cm}^2} \end{aligned}$$