

RF Exposure / MPE Calculation

No.	14945010S
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.

[Bluetooth part]

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

$P =$ 1.19 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.

$G =$ 0.059 Numerical Antenna gain; equal to -12.3 dBi

$r =$ 20 cm (Separation distance)

Power Density Result $S = 0.00001 \text{ mW/cm}^2$

[WLAN 2.4 GHz band part]

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1 mW/cm² uncontrolled exposure limit. The Friis formula used was:

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

Where

$P =$ 18.66 mW (Maximum average output power)

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

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

$G =$ 0.115 Numerical Antenna gain; equal to -9.4 dBi

$r =$ 20 cm (Separation distance)

Power Density Result $S = 0.00043 \text{ mW/cm}^2$

[WLAN 5 GHz band part]

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1 mW/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-average

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)

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

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

$$S = 0.00311 \text{ mW/cm}^2 + 0.00001 \text{ mW/cm}^2$$

$$= 0.00312 \text{ mW/cm}^2$$