



To Whom It May Concern:

imad Hjije 11/07/2013 Phone +49 (0) 2102 749 316 Fax +49 (0) 2102 749 350

Maximum Permissible Exposure - according to FCC - Multimedia Car Radio - FCC-ID: UJHNR1V

Dear Sirs,

please find our Maximum Permissible Exposure calculations for the Multimedia Car Radio NR-1V.

Best Regards

Imad Hjije



## **Maximum Permissible Exposure**

Frequency range (MHz)	Power density (mW/cm²)
400 - 1500	f/2000
1500 - 100000	1 mW/cm <sup>2</sup>

## **Calculations 2.4 GHz band**

Maximum peak output power at antenna input terminal: 24.8 dBm

Prediction distance **R**: 20 cm Prediction frequency: 2462 MHz

MPE limit **S**: 1 mW/cm<sup>2</sup>

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

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

Maximum permissible antenna gain: 2.13 dBi

power density reached value: 0.0981 mW/cm<sup>2</sup>

## **Prediction**

The maximum allowed MPE value of 1 mW/cm $^2$  will not be reached in a distance of 20 cm in case that an antenna with an antenna gain of 2.13 dBi would be used. This means that the power density levels in a distance of 20 cm are in accordance with the FCC regulations as long as the used antenna has a gain below 2.13 dBi.