



MDE_MEE_1309

To Whom It May Concern:

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**Maximum Permissible Exposure - according to FCC -
NR-218**

Dear Sirs,

please find our Maximum Permissible Exposure calculations for the multimedia car
radio **NR-218**.

Best Regards

A handwritten signature in blue ink that reads 'Imad Hjije'.

Imad Hjije



Maximum Permissible Exposure

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

Calculations 2.4 GHz band

Maximum peak output power at antenna input terminal: 22 dBm

Prediction distance **R**: 20 cm
Prediction frequency: 2412 MHz

MPE limit **S**: 1 mW/cm²

Equation **S = P*G / (4πR²)**

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: **2.32 dBi**

power density reached value: **0.0538 mW/cm²**

Prediction

The maximum allowed MPE value of 1 mW/cm² will not be reached in a distance of 20 cm in case that an antenna with an antenna gain of 2.32 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 2.32 dBi.