



FCC ID: OV5-WDSB

FCC Rule Part: 47 CFR Part 2.1091

Project Number: 72155767

Manufacturer: Deere & Company
Model: Wireless Data Server; Model: WDSB

RF Exposure

General Information:

Applicant: Deere & Company
 Device Category: Mobile
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: External Dipole
 Max Antenna Gain: 5 dBi
 Maximum Transmitter Conducted Power: 20.9dBm, 123.03mW
 Maximum System EIRP: 25.9 dBm, 389.1 mW
 Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm²) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

- S = power density (in appropriate units, e.g. mW/cm²)
- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Table 1: MPE Calculation

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/cm ²)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm ²)
2462	20.9	1.00	123.03	5	3.162	20	0.0774