

Report on the Testing of the

Deere & Company
SX00A

In accordance with:
FCC Rule Part: 47 CFR Part 2.1091
RSS-102 Issue 5

RF Exposure Certification Exhibit - MPE

Prepared for: Deere & Company
One John Deere Place
Moline, IL 61265



America

**Add value.
Inspire trust.**

COMMERCIAL-IN-CONFIDENCE

Document Number: NC72167906.6 | Issue: 3

SIGNATURE

A handwritten signature in black ink, appearing to read "Sean Sellergren".

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Sean Sellergren	Sr EMC Engineer	Authorized Signatory	22 July 2021

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD America, Inc. document control rules.

FCC Accreditation	Innovation, Science, and Economic Development Canada
Designation Number US1148 New Brighton, MN Test	Accreditation
Laboratory	Site Number 4512A New Brighton, MN Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with the standards listed above.



A2LA Cert. No. 2955.11

DISCLAIMER AND COPYRIGHT

This non-binding report has been prepared by TÜV SÜD America with all reasonable skill and care. The document is confidential to the potential Client and TÜV SÜD America. No part of this document may be reproduced without the prior written approval of TÜV SÜD America. © TÜV SÜD.

ACCREDITATION

Our A2LA Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our A2LA Accreditation.

**General Information:**

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

Technical Information:

FCC ID: NTV-SX00A
 Antenna Type: Patch
 Antenna Gain: 7 dBi

Maximum Transmitter Conducted Power: 24.91 dBm, 310 mW

Exposure Conditions: ≥ 20 centimeters

MPE Calculation FCC

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 - FCC

Technology	Transmit Frequency (MHz)	Radio Power (dBm)	Radio Power (mW)	Antenna Gain (dBi)	EIRP (W)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Distance (cm)	Result
900 MHz RFID	902-928	24.91	310	7	1.55	0.309	0.601	20	Meets Requirements @ 20 cm



MPE Calculation ISED

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. W/cm²)

P = power input to the antenna (in appropriate units, e.g., W)

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 Routine Evaluation - ISED

Technology	Transmit Frequency (MHz)	Radio Power (dBm)	Radio Power (mW)	Antenna Gain (dBi)	EIRP (W)	Power Density (W/m ²)	Power Density Limit (W/m ²)	Evaluation Distance (cm)	Result
900 MHz RFID	902-928	24.91	310	7	1.55	3.09	2.79	20	Meets Requirements @ 66.50 cm