# 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** 

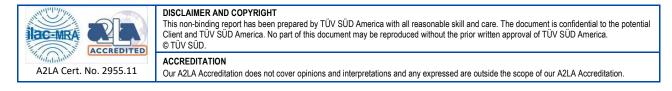
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## COMMERCIAL-IN-CONFIDENCE

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SIGNATURE							
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	he requirements of TÜV	SÜD America, Inc. document c	control rules.			
FCC Accreditation		Innovation, Sc	Innovation, Science, and Economic Development Canada				
<b>Designation Number US1</b>	148 New Brighton, MN Test	Accreditation					
Laboratory	-	Site Number 4512A New Brighton, MN Test Laboratory					
<b>EXECUTIVE SUMMARY</b>				-			
A sample of this proc	duct was tested and found to	o he compliant y	with the standards lis	ted above			





#### **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/cm<sup>2</sup>) 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/cm2)	Power Density Limit (mW/cm2)	Distance (cm)	Result
900 MHz RFID	902-928	24.91	310	7	1.55	0.309	0.601	20	Meets Requirements @ 20 cm

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## **MPE Calculation ISED**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

$$S = \frac{PG}{1 + P^2}$$

 $4\pi R^2$ 

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)

Technology	Transmit Frequency (MHz)	Radio Power (dBm)	Radio Power (mW)	Antenna Gain (dBi)	EIRP (W)	Power Density (W/m2)	Power Density Limit (W/m2)	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

#### Table 1: MPE Routine Evaluation - ISED

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