

RF Exposure Report

Project Number: 4025145

Report Number: 4025145EMC21

Revision Level: 1

Client: Deere & Company

Equipment Under Test: John Deere 4640 Universal Display

Model Number: GU6U


Applicable Standards: 47 C.F.R. §§ 2.1091 and 2.1093; FCC KDB 447498

FCC OET Bulletin 65 Supplement

Report issued on: 21 October 2016

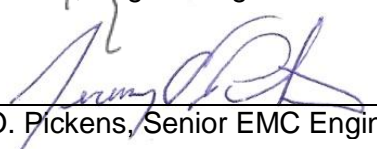
Test Result: Compliant

Tested by:



Fendy Liauw, Engineering Technician

Reviewed by:



Jeremy O. Pickens, Senior EMC Engineer

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or Testing done by SGS International Electrical Approvals in connection with distribution or use of the product described in this report must be approved by SGS international Electrical Approvals in writing.

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1 General Information

1.1 Client Information

Name: Deere & Company
Address: One John Deere Place
City, State, Zip, Country: Moline, IL 61265, USA

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Type of Product: John Deere 4640 Universal Display
Model Number: GU6U

Rated Voltage: 9-32 Vdc
Test Voltage: 12 Vdc
FCC Classification: DTS, UNII, DSS
Type: Pre Production

Sample Received Date: 16 August 2016

1.4 Operating Modes and Conditions

For this assessment, the EUT's maximum power including the maximum tolerance was considered.

2 RF Exposure

2.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

Using the maximum power (including tune-up tolerances), the power density was calculated. Maximum antenna gain was assumed for this exercise.

2.3 Single transmission RF Exposure Levels

Band of Operation		Conducted Power w/tolerance dBm	Antenna Gain	Cable Loss	Average EIRP		Distance (R) cm	Power Density $EIRP_{Avg}/(4\pi R^2)$ mW	FCC mW/cm ²	% of Limit	Verdict
Type	MHz				dBm	mW					
WLAN 2.4	2400-2483.5	20.0	2.6	0.0	22.6	181	20	0.036	1.00	4%	Pass
WLAN 5 GHz (UNII-1)	5150-5250	13.0	4.3	0.0	17.3	54	20	0.011	1.00	1%	Pass
WLAN 5.8 GHz (UNII-3)	5725-5850	13.0	4.0	0.0	17.0	51	20	0.010	1.00	1%	Pass
Bluetooth	2400-2483.5	13.0	2.6	0.0	15.6	36	20	0.007	1.00	1%	Pass

2.4 Simultaneous transmission RF Exposure Levels

Simultaneous Transmissions - Percent of Limit

	WLAN 2.4	WLAN 5 GHz (UNII-1)	WLAN 5.8 GHz (UNII-3)	Bluetooth
WLAN 2.4		5%	5%	4%
WLAN 5 GHz (UNII-1)	5%			2%
WLAN 5.8 GHz (UNII-3)	5%			2%
Bluetooth	4%	2%	2%	

Note: Highlighted color simply aids in identifying the highest level.

3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	31 August 2016
1	Corrected EUT description	21 October 2016