RF Exposure Report

Project Number: **4691635**

Report Number: **4691635EMC03** **Revision Level:** **0**

Client: **Siemens Industry**

Equipment Under Test: **Electric Vehicle Charger**

Model: **GEN3 EVSE**

Contains FCC IDs: **Z64-WL18DBMOD**
XMR201606EC21A

Applicable Standards: **47 C.F.R. §§ 2.1091; FCC KDB 447498**
FCC OET Bulletin 65 Supplement

Tested by: _____
Jeremy Pickens, RF Lab Manager

Reviewed by: _____
David Schramm, Operations Manager

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.

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1 General Information

1.1 *Client Information*

Name:	Siemens Industry
Address:	5400 Triangle Parkway
City, State, Zip, Country:	Norcross, GA 30092-2450, 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:	Electric Vehicle Charger
Model Number:	GEN3 EVSE
Serial Number:	TBD
Frequency Range (2.4G WLAN):	2412-2462MHz
Frequency Range (LTE):	1850-1910MHz (Band 2) 1710-1755MHz (Band 4) 698-716MHz (Band 12)
Antenna (WLAN):	Chip Antenna (Pulse, P/N: W3006) Peak Gain: 2.2dBi
Antenna (LTE):	2x2 MIMO LTE + GNSS FPC Antenna (Pulse, P/N: W6113XXXXX) Peak Gain: 3.4dBi (Bands 2 and 4) 2.9dBi (Band 12)
Rated Voltage:	220 Vac 60Hz
Test Voltage:	220 Vac 60Hz
Sample Received Date:	28 September 2020
Dates of testing:	NA – Calculations Only

1.4 *Operating Modes and Conditions*

For this assessment, the EUT's maximum conducted power and ERP/EIRP were considered. Data was pulled from the existing modules' certifications.

2 RF Exposure

2.1 *Test Result*

Test Description	Specification	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 *Test Method*

Using the maximum conducted power including tune up tolerances and ERP/EIRP with provided antenna gains, the power density was calculated.

2.3 *Single transmission RF Exposure Levels*

Band of Operation		Conducted Power w/tolerance	Antenna Gain	Cable Loss	Average EIRP		Distance (R)	Power Density $EIRP_{Avg}/(4\pi R^2)$	FCC	% of Limit	Verdict
Type	MHz	dBm	Column1	Column2	dBm3	mW	cm	mW/cm^2	mW/cm22	Column5	Column6
LTE Band 2	1850-1910	24.0	3.4	0.0	27.4	550	20	0.109	1.00	11%	Pass
LTE Band 4	1710-1755	24.0	3.4	0.0	27.4	550	20	0.109	1.00	11%	Pass
LTE Band 12	698-716	24.0	2.9	0.0	26.9	490	20	0.097	0.59	17%	Pass
WLAN	2400-2483.5	17.5	3.2	0.0	20.7	117	20	0.023	1.00	2.3%	Pass

2.4 *Simultaneous transmission RF Exposure Levels*

	LTE Band 2	LTE Band 4	LTE Band 12	WLAN
LTE Band 2	--	--	--	13.3%
LTE Band 4	--	--	--	13.3%
LTE Band 12	--	--	--	19.3%
WLAN	13.3%	13.3%	19.3%	--

Expressed as a percentage of the limit. Color is only used to identify worst-case.