RF Exposure Report

Project Number: 4186592

Report Number: 4186592EMC05 **Revision Level:** 0

Client: QSR Automations, Inc.

Equipment Under Test: xCeed

Brand Name: QSR

Model Number: DE-4200

Applicable Standards: 47 C.F.R. §§ 2.1091 and 2.1093; FCC KDB 447498
FCC OET Bulletin 65 Supplement

Report issued on: 08 September 2017

Test Result: Compliant

Tested by: _____
Martin Taylor, Project Engineer

Reviewed by: _____
Shawn McGuinness, EMC Engineering Leader

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:	QSR Automations, Inc.
Address:	2301 Stanley Gault Pkwy
City, State, Zip, Country:	Louisville, KY 40223, 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:	xCeed
Model Number:	DE-4200
Serial Number:	Not labeled
Frequency Range:	2402-2480MHz
Data Modes:	Bluetooth Low Energy
Antenna:	PCB Trace Antenna (0.4dB)
Rated Voltage:	100-240Vac, 50/60Hz
Test Voltage:	120Vac, 60Hz
Radiated Sample Received Date:	04 August 2017
Conducted Sample Received Date:	21 August 2017
Dates of testing:	28 August – 05 September 2017

1.4 *Operating Modes and Conditions*

For this assessment, the EUT's maximum measured conducted power 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 conducted power, the power density was calculated. The antenna gain was derived from the conducted power measurements and radiated EIRP measurements. Based on EIRP measurements, the antenna gain was 0.4dBi. For the calculations, this value was used as worst-case.

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			dBm	mW	cm	mW/cm^2	mW/cm^2		
Bluetooth	2400-2483.5	-0.8	0.4	0.0	-0.4	1	1	0.073	1.00	7%	Pass

1cm was chosen as a worst-case separation distance. This device is not intended for body-worn applications.

3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	08 September 2017
1	Updated Model Name to xCeed, Model Number to DE-4200, and Brand Name to QSR per client's request.	21 May 2018