RF Exposure Report

Project Number:	**4511904**	**Proposal Number:**	**9420**
Report Number:	**4511904EMC04**	**Revision Level:**	**0**
Client:	**Owlet Baby Care Inc.**		
Equipment Under Test:	**Owlet Band**		
Model / HVIN:	**OBB 1.0**		
FCC ID:	**2AIEP-OBB1A**		
Applicable Standards:	**47 CFR §§ 2.1093;** **FCC KDB 447498 D01 General RF Exposure Guidance v06**		
Report issued on:	**15 November 2019**		
Result:	**Exempt**		

Evaluated by: Aaron S. Froehlich, , EMC Engineer

Reviewed by: David Schramm, EMC Manager

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1 General Information

1.1 *Client Information*

Name:	Owlet Baby Care Inc.
Address:	2500 Executive Parkway Suite 500
City, State, Zip, Country:	Lehi, UT 84043

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:	Pregnancy Wearable Device
Model:	OBB 1.0
Firmware Version ID Number:	V1
Serial Number:	NSN
FCC ID:	2AIEP-OBB1A
IC:	21386-OBB1A
Frequency Range:	2402-2480 MHz
Data Modes:	GFSK (Bluetooth Low Energy)
Antenna P/N:	2450AT07A0100
Antenna Type:	Chip
Antenna Pk Gain:	1.0 dBi
DUT Rated Voltage:	3.7 Vdc (Battery)
DUT Test Voltage:	3.7 Vdc (Battery)
Charging Station Rated Voltage:	5 Vdc (USB)
Charging Station Test Voltage:	5 Vdc (USB)
Sample Received Date:	14 Oct 2019
Dates of testing:	14 – 17 Oct 2019

2 SAR Exclusion Calculations

The highest output power in conjunction with the Upper and Lower frequency boundaries have been used to demonstrate compliance.

The DUT is considered a Body Application.

447498 D01 General RF Exposure Guidance v06
SAR test exclusion calculations
Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	-3.6	dBm
Min separation distance:	5	mm
Frequency, f:	2402	MHz

Value reference Number	Values used for Calculation		Reference number definition
v1	0	mW	*[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW*
v2	5	mm	*[min. test separation distance, mm] 'Rounded to nearest mm*
v3	1.550		*[√f(GHz)]*

a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,

1g Exclusion Threshold:	9.7	mW	*<== 3 * v2 / v3*
10g Exlusion Threshold:	24.2	mW	*<== 7.5 * v2 / v3*

Conclusions:	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

447498 D01 General RF Exposure Guidance v06
SAR test exclusion calculations
Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	-3.6	dBm
Min separation distance:	5	mm
Frequency, f:	2480	MHz

Value reference Number	Values used for Calculation		Reference number definition
v1	0	mW	*[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW*
v2	5	mm	*[min. test separation distance, mm] 'Rounded to nearest mm*
v3	1.575		*[√f(GHz)]*

a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,

1g Exclusion Threshold:	9.5	mW	*<== 3 * v2 / v3*
10g Exlusion Threshold:	23.8	mW	*<== 7.5 * v2 / v3*

Conclusions:	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

3 Revision History

Revision Level	Description of changes	Revision Date
Draft	--	4 November 2019
0	Initial release	15 Nov 2019