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SAR Evaluation Report



Report Number	: 1603CS11
Applicant	: Matias Corporation
Product Type	: Matias Wireless Aluminum Keyboard, Wireless Aluminum Keyboard, Clavier Aluminium Sans Fil, Kabellose Aluminium Tastatur
Trade Name	: matias
Model Number	: FK418BTS, FK418BTxx-yy, FK418PCBTxx-yy(Where xx and yy can be A-Z, a-z, 0-9, or nothing.)
Date of Receive	: Feb. 17, 2016
Test Period	: Mar. 01, 2016
Date of Issued	: May 08, 2016
Test Specification	: IEEE Std. P1528-2013 European Council Recommendation 1999 519 EC Std. C95.1-2005 EN 50566 2013 EN 62209-2 2010 EN 62479 2010
Location of Test Lab.	: Chang-an Lab.

1. The test operations are cautiously performed with due diligence. The test results are as attached.
2. The test results are generated under the chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume any responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report shall be approved in writing by A Test Lab Techno Corp. It may only be reproduced or published in full. This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp.
4. This document may be altered or revised by A Test Lab Techno Corp. personnel only and any modification shall be noted in the revision section of the document.

Approved By

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Contents

1. Description of Equipment under Test (EUT)	3
2. RF Exposure Evaluation	4
3. Conducted Power	5
4. Test Results	5



1. Description of Equipment under Test (EUT)

Applicant	Matias Corporation 221 Narinia Cres., Newmarket, Ontario, L3X 2E1, Canada
Manufacturer	Lita Electronics Technology Co., Ltd. No.6, Kun Ming Road, Yao Le Village, Liaobu Town, Dongguan City, Guangdong Province, China Post Code: 523418
Product Type	Matias Wireless Aluminum Keyboard, Wireless Aluminum Keyboard, Clavier Aluminium Sans Fil, Kabellose Aluminium Tastatur
Trade Name	matias
Model Number	FK418BTS, FK418BTxx-yy, FK418PCBTxx-yy(Where xx and yy can be A-Z, a-z, 0-9, or nothing.)
Models Different Description	Those model numbers differ from each other in selling region and appearance colors.
Frequency Range	Bluetooth BR: 2402 ~ 2480 MHz
Antenna Type	PCB Antenna
Antenna Gain	2.78 dBi

2. RF Exposure Evaluation

According to section 4.2 Low-power exclusion level (P_{\max}) of EN 62479: 2010 . and Annex A, Table A.1 – Example value of SAR-based P_{\max} for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005

Table A.1 – Example values of SAR-based P_{\max} for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005.

Guideline/ Standard	SAR limit, SAR_{\max} W/kg	Averaging mass, m g	P_{\max} mW	Exposure tier ^a	Region of body ^a
ICNIRP[1]	2	10	20	General public	Head and trunk
	4	10	40	General public	Limbs
	10	10	100	Occupational	Head and trunk
	20	10	200	Occupational	Limbs
IEEE Std C95.1-1999 [2]	1,6	1	1,6	Uncontrolled environment	Head, trunk, arms, legs
	4	10	40	Uncontrolled environment	Hands, wrists, feet and ankles
	8	1	8	Controlled environment	Head, trunk, arms, legs
	20	10	200	Controlled environment	Hands, wrists, feet and ankles
IEEE Std C95.1-2005 [3]	2	10	20	Action level	Body except extremities and pinnae
	4	10	40	Action level	Extremities and pinnae
	10	10	100	Controlled environment	Body except extremities and pinnae
	20	10	200	Controlled environment	Extremities and pinnae

Note: a – Consult the appropriate standard for more information and definitions of terms.

3. Conducted Power

Band	CH	Frequency (MHz)	Packet Type	Average Conducted power (dBm)
Bluetooth BR GFSK	0	2402	DH1	-1.57
			DH3	-1.55
			DH5	-1.53
	39	2441	DH1	-2.13
			DH3	-2.11
			DH5	-2.10
	78	2480	DH1	-2.64
			DH3	-2.62
			DH5	-2.61

4. Test Results

Band	Max. Average RF Conducted Output Power	
	dBm	mW
Bluetooth BR	-1.53	0.703
Conclusion	The BT transmit power <20 mW complies "less than Pmax" required for EN62479, according to EN62209-2 the SAR test can be exempted.	