

## RF Exposure Report

**Report No.:** SA160321D10

**FCC ID:** K7SF5L191

**Test Model:** F5L191

**Received Date:** Mar. 21, 2016

**Test Date:** Mar. 28 ~ Apr. 7, 2016

**Issued Date:** Apr. 14, 2016

**Applicant:** Belkin International, Inc.

**Address:** 12045 East Waterfront Dr. Playa Vista CA United States 90094

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

## Table of Contents

Release Control Record.....	3
1 Certificate of Conformity .....	4
2 Evaluation Result.....	5
3 SAR Test Exclusion Thresholds .....	6
4 Conclusion.....	7

### Release Control Record

Issue No.	Description	Date Issued
SA160321D10	Original release.	Apr. 14, 2016

## 1 Certificate of Conformity

**Product:** Ultimate Keyboard Case

**Brand:** Belkin

**Test Model:** F5L191

**Sample Status:** Engineering sample

**Applicant:** Belkin International, Inc.

**Test Date:** Mar. 28 ~ Apr. 7, 2016

**Standards:** FCC Part 2 (Section 2.1093)

KDB 447498 D01

IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :**



**Date:** Apr. 14, 2016

Jessica Cheng / Senior Specialist

**Approved by :**



**Date:** Apr. 14, 2016

Rex Lai / Assistant Manager

## 2 Evaluation Result

Following FCC KDB 447498 D01 "General SAR test exclusion guidance"

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

Ø  $f(\text{GHz})$  is the RF channel transmit frequency in GHz.

Ø Power and distance are rounded to the nearest mW and mm before calculation.

Ø The result is rounded to one decimal place for comparison. The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

- 2) At 100 MHz to 6 GHz and for test separation distances  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:

a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm) · (f(MHz)/150)] mW, at 100MHz to 1500 MHz

b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at  $> 1500$  MHz and  $\leq 6$  GHz

- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.

b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50$  mm.

c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

### Simultaneous transmissions SAR test exclusion:

When the standalone SAR test exclusion of applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion:

I 
$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq x \text{ W/kg}$$
 for test separation distances  $\leq 50$  mm

Where  $x = 7.5$  for 1-g SAR, and  $x = 18.75$  for 10-g SAR.

I 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is  $> 50$  mm.

### 3 SAR Test Exclusion Thresholds

#### Maximum measured transmitter power:

Frequency (GHz)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value <sup>(NOTE 2)</sup>	1-g SAR test exclusion thresholds	Result
2.402 ~ 2.480	0.603	5	0.187	3	Pass

- NOTE:** 1. The antenna type is Printed antenna with -0.20dBi gain.  
 2. Calculate SAR test exclusion thresholds from condition "1" formulas.  
 3. Driver Version : SW: V1 & HW: V1

#### Estimated SAR for EUT

Frequency (GHz)	Max. Power (mW)	Min. test separation distance (mm)	Estimated SAR Value W/kg (1-g)
2.402 ~ 2.480	0.603	5	0.0249

**SAR to peak location separation ratio (SPLSR) requirement:**

**With iPad Mini 4 Antenna 1**

SAR1 (EUT) W/kg (1-g)	SAR2 Worst value from iPad Mini 4 (FCC ID: BCGA1550) W/kg (1-g)	Minimum Separate distance (mm)	SPLSR result	SPLSR limit	Result
0.0249	0.4	80	0.00346	0.04	Pass

$$(SAR_1 + SAR_2)^{1.5} / R_i \leq 0.04$$

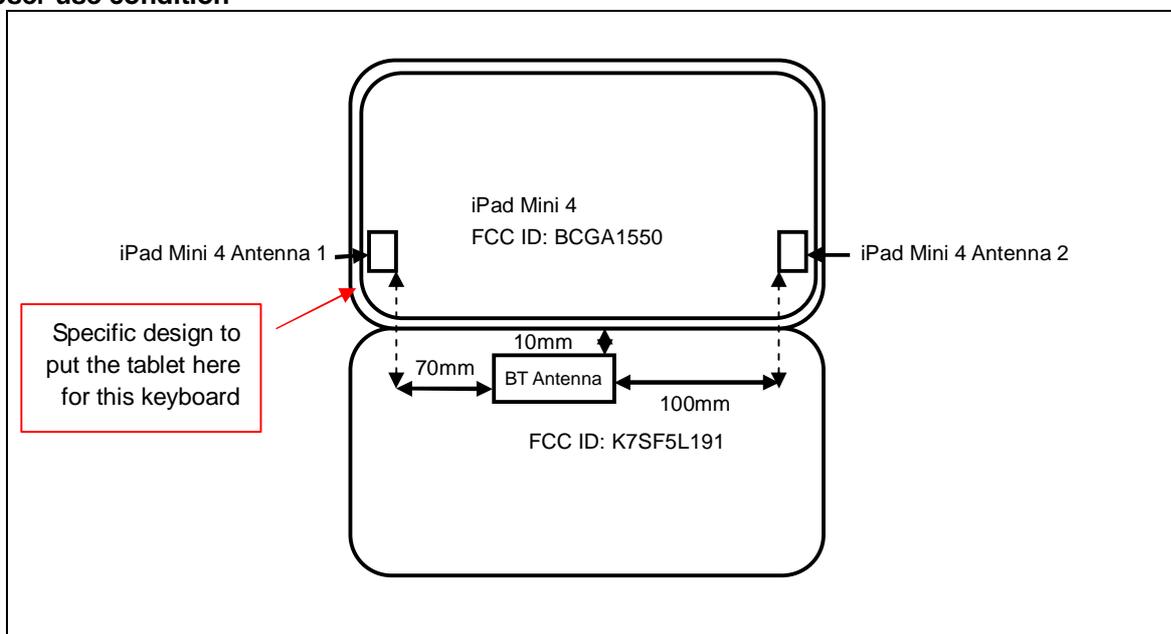
**With iPad Mini 4 Antenna 2**

SAR1 (EUT) W/kg (1-g)	SAR2 Worst value from iPad Mini 4 (FCC ID: BCGA1550) W/kg (1-g)	Minimum Separate distance (mm)	SPLSR result	SPLSR limit	Result
0.0249	1.19	125	0.01071	0.04	Pass

$$(SAR_1 + SAR_2)^{1.5} / R_i \leq 0.04$$

Note:  $R_i$  is the separation distance between the peak SAR locations for the antenna pair in mm. Please refer to the drawings.

**User use condition**



**4 Conclusion**

Since Source-base time average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.

--- END ---