

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.

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

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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

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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 ≤ 50 mm are determined by:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot [\sqrt{f(\text{GHz})}]$$

 ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

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

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

The result is rounded to one decimal place for comparison. The test exclusions are applicable only when the minimum test separation distance is ≤ 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 ≤ 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 ≤ 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
$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot [\sqrt{f(\text{GHz})/x}] \text{ W/kg}$$
 for test separation distances ≤ 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 ^(NOTE 2)	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

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

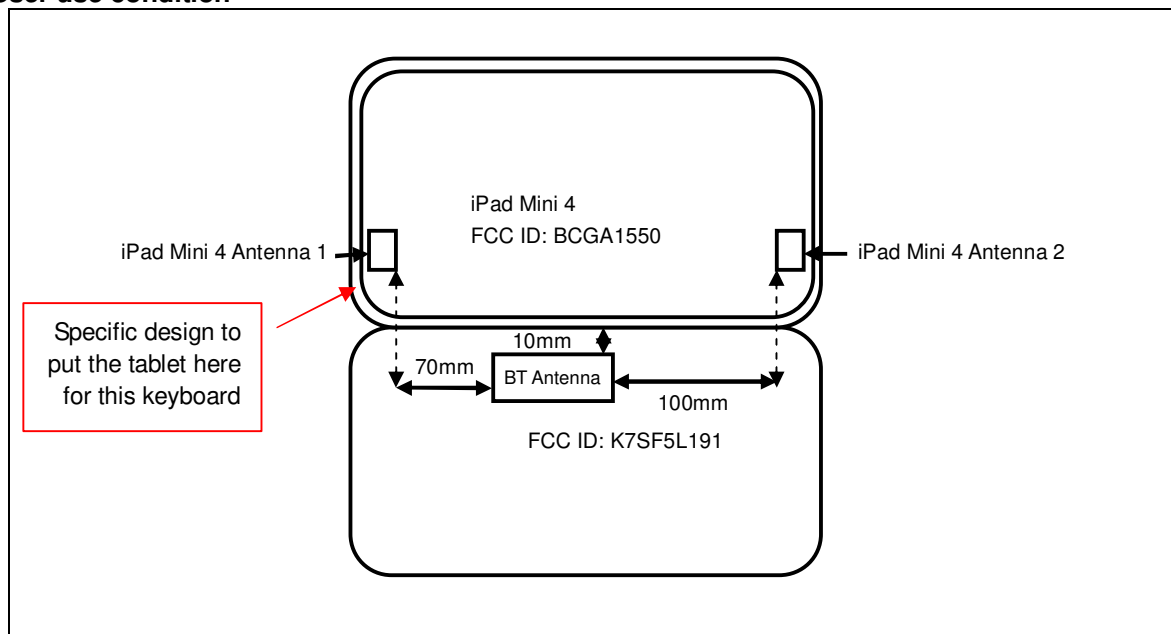
With iPad Mini 4 Antenna 2

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.

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