



# A Test Lab Techno Corp.

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## SAR Exclusion Evaluation Report



Test Report No.	: 1601FS14
Applicant	: DIATEC CORPORATION
Product Type	: Bluetooth Keyboard
Trade Name	: FILCO
Model Number	: FILCKTLBT2-33
Dates of Received	: Nov. 30, 2015
Dates of Test	: Nov. 30, 2015
Dates of Issued	: May 10, 2016
Test Specification	: ANSI/IEEE C95.1-1992 / IEEE Std. 1528-2013 47 CFR § 2.1093 KDB 447498 D01 v06 KDB 865664 D01 v01r04 KDB 865664 D02 v01r02
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
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Approved By : Bill Hu  
(Bill Hu)

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## 1. Description of Equipment under Test (EUT)

Applicant	DIATEC CORPORATION 4F Kairaku BLDG (SOTO-KANDA)6-5-4,Soto-kanda, Chiyoda-ku. TOKYO 101-0021, Japan
Manufacturer	Datacomp Electronics Co., Ltd. 3F,No.148-1,NEI-HU RD.,SEC.2,TAIPEI TAIWAN, R.O.C.
Product Type	Bluetooth Keyboard
Trade Name	FILCO
Model Number	FILCKTLBT2-33
FCC ID	XS8-CONV2TKL
Frequency Range	2402 - 2480 MHz : Bluetooth BR
Transmit Power (conducted power)	0.001 W / -1.67 dBm
Antenna Type	Printed Antenna
Antenna Max. Gain	0.22 dBi

The above equipment was tested by A Test Lab Techno Corp. For compliance with the requirements set forth in 47 CFR § 2.1093. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.



## 2. SAR Test Exclusion

As RF exposure evaluation of portable device, SAR test is not required when the evaluation results . According to KDB 447498 4.3.1, unless excluded by specific FCC test procedures, portable devices shall include SAR data for equipment approval. SAR test necessity will be based on the exclusion result.

The test exclusion refers KDB 447498 as below:

### **≤50mm:**

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

### **>50mm and <200mm:**

- a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·( f(MHz)/150)] mW, at 100 MHz to 1500 MHz
- b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz



## 2.1 Conducted Power

Band	CH	Frequency (MHz)	Packet Type	Average Power (dBm)
Bluetooth BR GFSK	0	2402	DH1	-5.10
			DH3	-2.18
			DH5	-1.67
	39	2441	DH1	-5.36
			DH3	-2.42
			DH5	-1.93
	78	2480	DH1	-5.61
			DH3	-2.68
			DH5	-2.18

## 2.2 Evaluation Results

The evaluation of SAR test reduction according to KDB447498

SAR test is not required when the results showed "SAR is not required".

Transmitter and antenna implementation as below:

Band	Bluetooth Antenna
Bluetooth	V

Extremity SAR:

Body SAR Test Reduction								
Band	Channel	Frequency (GHz)	Power (dBm)	Power (mW)	Distance (mm)	Limit	Calculated Threshold Value	Result
Bluetooth BR	78	2.48	-1.6	1.0	5.0	3	0.3	0.3<3
								EXEMPT

Note1 : The test reduction for distance less than 50mm. Use the max power to make sure minimum distance by evaluated for SAR testing.