

RF Exposure Evaluation declaration

Product Name : ThinkPad TrackPoint Keyboard II

Machine Type / Model No. : KC-1957

FCC ID : A5MKC-1957

Applicant: Lenovo (Beijing) Limited

Address: 201-H2-6, Floor 2, Building 2, No.6 Shangdi West Road, Haidian District,

Beijing, China 100085

Date of Receipt : Dec. 26, 2019

Date of Declaration: Jan. 21, 2020

Report No. : 19C0439R-SAUSP03V00

Report Version : V1.0





The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Issued Date: Jan. 21, 2020

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Applicant	Lenovo (Beijing) Limited				
Address	201-H2-6, Floor 2, Building 2, No.6 Shangdi West Road, Haidian				
	District, Beijing, China 100085				
Manufacturer	Chicony Electronics Co., Ltd.				
Machine Type /Model No.	KC-1957				
FCC ID.	A5MKC-1957				
Trade Name	Lenovo				
Applicable Standard	KDB 447498 D01 v06 ☐ Minimum test separation distance ≥ 20 cm ☐ For low power devices				
Test Result	Complied				

Documented By	Leven Huang
	(Senior Adm. Specialist / Leven Huang)
Tested By	wenlee
	(Engineer / Wen Lee)
Approved By	Em S
	(Director / Vincent Lin)



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	ThinkPad TrackPoint Keyboard II			
Trade Name	Lenovo			
Machine Type /Model No.	KC-1957			
FCC ID	A5MKC-1957			
Frequency Range	BLE: 2402-2480MHz			
	2.4G Wireless: 2402-2479MHz			
Number of Channels	BLE: 40CH			
	2.4G Wireless: 78CH			
Data Speed	BLE: 2Mbps			
	2.4G Wireless: 1Mbps			
Type of Modulation	GFSK			
Antenna Type	Chip Antenna			
Channel Control	trol Auto			
Antenna Gain	Refer to the table "Antenna List"			

1.2. Antenna List:

N	No. Manufacturer Par		Part No.	Antenna Type	Peak Gain
1		MAGIC	MTCA321608002G4E	Chip Antenna	2dBi for 2.4 GHz

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2. RF Exposure Evaluation

2.1. Standard Applicable

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

2.2. Measurement Result:

According to KDB Publication 447498 D01, section 4.3.1, per the calculations of item 1 (Power(mW)/separation (mm)*sqrt(f(GHz)≤3.0), SAR is required as shown in the table below where calculated values are greater than 3.0:

1.) Operation frequency = 2450MHz and antenna separation distance = 5mm, SAR Test Exclusion Threshold = 10mW

	Maximum PK output power			SAR Test	
Frequency Band	Peak Gain: 2dBi		Exclusion Threshold	Calculated Threshold Value	
(MHz)	conducted	EIRP	EIRP	(mW)	$(\leq 3.0 \text{ SAR is not required})$
	(dBm)	(dBm)	(mW)		
2402~2480	1.42	3.42	2.20	10	0.681

Note1: The SAR/MPE measurement is not necessary.

Note2: The conducted maximum peak output power is refer to report No.: 19C0439R-RFUSP01V00 from the DEKRA.

2.) Operation frequency = 2450MHz and antenna separation distance = 5mm, SAR Test Exclusion Threshold = 10mW

Frequency Band	Maximum H	-Field power	SAR Test Exclusion Threshold	Calculated Threshold Value (≤3.0 SAR is not required)
(MHz)	(dBuV/3m)	(mW)	(mW)	
2402-2479	98.22	1.99	10	0.622

Note1: The SAR/MPE measurement is not necessary.

Note2: The maximum H-Field power is refer to report No.: 19C0439R-RFUSP15V00 from the DEKRA.