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

Testing Laboratory
3023

Issued Date: Jan. 21, 2020
Report No.: 19C0439R-SAUSP03V00

Product Name	ThinkPad TrackPoint Keyboard II	
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 : wen Lee

(Engineer / Wen Lee)

Approved By :

(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	Auto
Antenna Gain	Refer to the table “Antenna List”

1.2. Antenna List :

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

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

Frequency Band (MHz)	Maximum PK output power Peak Gain: 2dBi			SAR Test Exclusion Threshold	Calculated Threshold Value (≦3.0 SAR is not required)
	conducted (dBm)	EIRP (dBm)	EIRP (mW)	(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 (MHz)	Maximum H-Field power		SAR Test Exclusion Threshold	Calculated Threshold Value (≦3.0 SAR is not required)
	(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.