RF Exposure Evaluation

Test report
On Behalf of
Dongguan Lingjie Electronics & Technology Co., Ltd
For
Wireless Mouse
Model No.: E160T

FCC ID: 2ANBU-E160T

Prepared for :	**Dongguan Lingjie Electronics & Technology Co., Ltd** **Building A Floor 1to4 and B Floor 1to5, No. 16 Zhenxing North Road, Taiyuan Community, Xiegang Town, Dongguan, Guangdong, 523590, China**
Prepared By :	**Shenzhen HUAK Testing Technology Co., Ltd.** **1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China**
Date of Test:	**Mar. 16, 2020 – Apr.03, 2020**
Date of Report:	**Apr.03, 2020**

1 General Description of EUT

Product Name:	Wireless Mouse
Model/Type reference:	E160T
Serial Model:	N/A
Trade Mark	N/A
FCC ID	2ANBU-E160T
Hardware Version:	V2.0
Software Version:	V1.8
EDR/BDR	
Modulation:	GFSK, π/4DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79CH
Channel separation:	1MHz
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
BLE	
Operation frequency:	2402MHz ~ 2480MHz
Channel separation:	2MHz
Channel number:	40
Modulation:	GFSK
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
2.4G	
Operation frequency:	2403MHz ~ 2480MHz
Channel separation:	≥3MHz
Channel number:	16
Modulation:	GFSK
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi

2 RF Exposure Compliance Requirement

2.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.2 Limits

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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ **3.0** for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,

Where f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearset mW and mm before calcution
The results 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

3 EUT RF Exposure

For EDR+BDR：

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	1.787	2±1	3	1.995	0.618	3.0
Middle (2441MHz)	1.346	2±1	3	1.995	0.623	
Highest (2480MHz)	1.295	2±1	3	1.995	0.628	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

π/4DQPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	3.948	3±1	4	2.512	0.779	3.0
Middle (2441MHz)	3.646	3±1	4	2.512	0.785	
Highest (2480MHz)	3.560	3±1	4	2.512	0.791	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

8DPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	4.335	4±1	5	3.162	0.980	3.0
Middle (2441MHz)	3.979	4±1	5	3.162	0.988	
Highest (2480MHz)	3.918	4±1	5	3.162	0.996	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: HK2003170335-1E

For BLE:

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	4.435	4±1	5	3.162	0.980	3.0
Middle (2440MHz)	4.042	4±1	5	3.162	0.988	
Highest (2480MHz)	3.937	4±1	5	3.162	0.996	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: HK2003170335-2E

For 2.4G

GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2403MHz)	5.635	5±1	6	3.981	1.234	3.0
Middle (2441MHz)	5.258	5±1	6	3.981	1.244	
Highest (2480MHz)	4.906	5±1	6	3.981	1.254	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: HK2003170335-3E