



FCC Part 1 Subpart I
FCC Part 2 Subpart J

RF EXPOSURE REPORT

FOR

Wireless Input Device

MODEL NUMBER: 1797

FCC ID: C3K1797

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Prepared for
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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	4/26/2019	Original issue	
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Microsoft Corporation
One Microsoft Way
Redmond, WA 95052 United States

DUT DESCRIPTION: Wireless Input Device

MODEL: 1797

SERIAL NUMBER: N/A

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 1 SUBPART I & PART 2 SUBPART J	Pass

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.

Approved & Released For
UL Verification Services Inc. By:



Dave Weaver
Operations Leader
UL Verification Services Inc.

2. TEST METHODOLOGY

All calculations were made in accordance with FCC KDB 447498 D01 v06

3. REFERENCES

Output power is excerpted from the applicable test reports or client declarations.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

5. DEVICE UNDER TEST

5.1. Description

The Wireless Input Device is a handheld input device. The Device supports WLAN 802.11a/g/nHT20 and Bluetooth. The antenna to user separation distance was assumed to be 0 mm as this is the most conservative condition.

5.2. Wireless Technologies and Output Power

Wireless technologies	Frequency bands	Operating Mode	Maximum Output Power
Wi-Fi	2.4 GHz	802.11g 802.11n HT20	6.5dBm (4.47mW)
	5 GHz	802.11a 802.11n HT20	9.5dBm (8.91mW)
Bluetooth	2.4 GHz	GFSK and EDR	8.0dBm (6.31mW)

6. STANDALONE SAR TEST EXCLUSION CONSIDERATIONS

The DUT is a handheld device, therefore the device was assessed against the 10g SAR limits. From KDB 447498, for transmission frequencies 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 7.5$ 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;
- For a separation distance of less than 5mm, 5mm is used.

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. The result is rounded to one decimal place for comparison with the 7.5 threshold.

The table below shows that at the maximum output power and with a separation distance of 5mm or less, SAR test exclusion applies.

RF Air interface	RF Exposure Conditions	Frequency (GHz)	Max. tune-up Power		Min. test separation distance (mm)	SAR test exclusion Result*
			(dBm)	(mW)		
Wi-Fi 2.4GHz	Extremity	2.480	6.50	4.00	5	1.3
Wi-Fi 5GHz	Extremity	5.825	9.50	9.00	5	4.3
Bluetooth	Extremity	2.480	8.00	6.00	5	1.9

Conclusion:

*: The computed value is ≤ 7.5 ; therefore, the DUT qualifies for Standalone SAR test exclusion.

END OF REPORT