

LM800 Wi-Fi 6 (802.11ax) USB Adapter

Host Controller Interface (HCI) via USB 3.0 Interface

Revised

19/JAN/2026

Datasheet Version

1.1



Features

- Wi-Fi 6 (Backwards compatible with 802.11 a/b/g/n/ac)
- Dual band (2.4 GHz and 5 GHz)
- USB 3.0 for data and power source
- Compatible with Linux, Android and Windows
- Host Controller Interface (HCI)
- Over 250% faster than the LM's previous generation adapters
- WPA, WPA2, WPA3, 802.1x and WEP (64bit & 128bit) encryption schemes
- MU-MIMO and data rate up to 1201Mbps
- 66.5mm x 25mm x 9.5mm
- See our website for this products certifications
- RoHS, REACH and WEEE

Overview

The LM800 Wi-Fi 6 USB adapter is a high performance and simple to integrate solution, offering ultra fast speeds and support for the latest WPA3 security standards for enhanced protection and authentication. The adapter's data transfer speeds are more than 250% faster than our previous generation LM808 Wi-Fi 5 USB adapter, providing a significant upgrade.

The adapter can be deployed in a wide range of applications including embedded systems, industrial machines, consumer products and IoT applications. The adapter is highly compatible and offers support for Linux, Android and Windows XP- 11 platforms.

The LM800 is ideal for users who require a high performance wireless client and applications that require high bandwidth.

The adapter supports Orthogonal Frequency Division Multiple Access (OFDMA) with two transmit and two receive paths (2T2R). This ensures that multiple streams can transmit in parallel, reducing latency and improving performance in high density environments.

The two internal antennas enable the LM800 to establish two streams of data, allowing for a 100% increase in throughput over a single antenna solution.

Typically used in industries such as enterprise, industrial, medical and scientific, the LM800 is also ideal for 4K video streaming and high quality video calling. The adapter has a Host Controller Interface (HCI) for a simple connection via USB to a host computer or MCU.

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General Specification

Product Name	LM800
Chipset	Realtek
No. of Transmitters	2T2R
Standard	IEEE 802.11ax/ac/a/b/g/n/d/e/h/i
Data Transfer Rate	802.11ax (2.4 GHz) up to 572Mbps 802.11ax (5 GHz) up to 1201Mbps
Modulation Method	CCK, DQPSK, DBPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Frequency Band	17dBm - 802.11b @ 11Mbps
RF Output Power (tolerance ± 2 dBm)	15dBm - 802.11g @ 54Mbps 14dBm - 802.11gn_HT40 @ MCS7 13dBm - 802.11ax_HE40 @ MCS11 15dBm - 802.11a @ 54Mbps 13dBm - 802.11an_HT40 @ MCS7 14dBm - 802.11ac_VHT80 @ MCS9 13dBm - 802.11ax_HE80 @ MCS11
Receiver Sensitivity	≤ -86 dBm – 802.11b @ 11Mbps ≤ -72 dBm – 802.11a/g @ 54Mbps ≤ -61 dBm – 802.11n_HT40 @ MCS7 ≤ -58 dBm – 802.11ac_VHT80 @ MCS9 ≤ -56 dBm – 802.11ax_HE80 @ MCS11
Operating Temperature	-10° to +60° C ambient temperature 5 to 90 % (non-condensing)
Storage Temperature	-20° to +70°C ambient temperature 5 to 95 % (non-condensing)
Dimension	-29.5mm x 15.0mm x 8.0 mm (L x W x H) USB Type A Connector + Housing
Weight	11.5g
OS Compatibility	Linux (Kernel 3.13 - 6.6), Android 8 - 14, Windows XP, 7, 8, 8.1, 10, 11
Security	19.47mm x 16mm x 8.1mm
Certifications	See our website for this products certifications RoHS, REACH and
Compliance	WEEE

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Though every effort has been made to ensure that this document is current and accurate, additional information may have become available subsequent to the production of this guide. Please consult with LM Technologies for the latest information regarding this product.

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Datasheet Version Notes

v1.0	17 SEP 2025	Initial datasheet released.
v1.1	19 JAN 2026	Temperature and weight updated.



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Ordering Options

ETSI Versions



800-8000

Adapter Only

ADPT HCI 802.11ax USB 2T2R PCB-ANT AO - ETSI

800-8001

Retail Pack

ADPT HCI 802.11ax USB 2T2R PCB-ANT RP - ETSI

US Versions



800-8002

Adapter Only

ADPT HCI 802.11ax USB 2T2R PCB-ANT AO - US

800-8003

Retail Pack

ADPT HCI 802.11ax USB 2T2R PCB-ANT RP - US

- Product User Guides, Manuals and Configuration Software can be downloaded via our website - <http://www.lm-technologies.com/downloads>