

LM800 Wi-Fi 6 (802.11ax) USB Adapter

Host Controller Interface (HCI) via USB 3.0 Interface

Revised

07/FEB/2026

Datasheet Version

1.2



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 LM's previous generation Wi-Fi 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 easy to integrate solution, offering ultra fast wireless speeds and support for the latest WPA3 security standards for enhanced protection and authentication. Its data transfer rates are more than 250% higher than the previous generation LM808 Wi-Fi 5 adapter*, providing a significant upgrade in wireless throughput for bandwidth intensive applications.

Designed for versatility, the LM800 can be deployed in embedded systems, industrial machines, and IoT environments. The adapter offers extensive OS compatibility, including Linux and Windows platforms, ensuring a reliable fit for both legacy and modern embedded architectures. Its robust driver support and proven stability simplify integration across a wide range of hardware platforms, reducing development time.

For high performance wireless clients, the LM800 supports OFDMA for efficient multi user operation and 2T2R MIMO for dual stream transmission, reducing latency and improving performance in high density environments.

The dual internal antennas ensure stable multi stream performance while minimizing signal interference often found in crowded industrial RF environments. The adapter is ideal for enterprise, industrial, medical, and scientific applications, including 4K video streaming and high quality video calling. It features a USB 3.0 interface for high speed host communication, while remaining fully backward compatible with USB 2.0.

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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	66.5mm x 25mm x 9.5 mm (L x W x H) USB Type A Connector + Housing
Weight	11.5g
OS Compatibility	Linux Kernel 3.13 - 6.6 (Kernel 4.20 + for Wi-Fi 6), Android 8 - 14, Windows XP, 7, 8, 8.1, 10, 11
Security	WPA, WPA2, WPA3, WEP (64bit & 128bit), TKIP, AES, 802.1x
Certifications	See our website for this products certifications
Compliance	RoHS, REACH and WEEE

DISCLAIMER

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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.

*Based on maximum PHY rates under ideal conditions. Actual performance may vary depending on host system, AP capabilities, RF environment, and network traffic.

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Datasheet Version Notes

v1.0	17 SEP 2025	Initial datasheet released.
v1.1	19 JAN 2026	Temperature and weight updated.
v1.2	07 FEB 2026	Updated Kernel support.



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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>