



LM808 WiFi 802.11ac/b/g/n Adapter

Host Controller Interface (HCI) via USB Interface

Revised

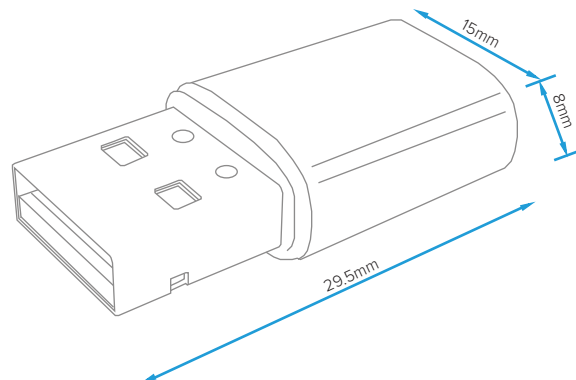
22/JAN/2021

Datasheet Version

1.2

Ordering Options

See last page



Features

- Supports all IEEE Standards
IEEE 802.11ac/a/b/g/n/d/e/h/i
- Backward compatible with 802.11a/b/g devices while operating over 802.11n
- Maximum Data Rates at
 - 72.2 Mbps Using 20MHz bandwidth
 - 150 Mbps Using 40MHz bandwidth
 - 433.3Mbps Using 80MHz bandwidth
- USB 2.0
- Operates over ISM bands (2.4GHz and 5GHz)
20MHz / 40MHz / 80MHz Bandwidth Transmission
- Modulation
 - OFDM with BPSK, QPSK, 16QAM, 64QAM and 256QAM
 - Convolutional Coding Rate: 1/2, 2/3, 3/4, and 5/6
- WiFi Direct and support for WiFi P2P PAN network
- See our website for this products certifications.
- RoHS, REACH and WEEE



Overview

The LM808 WiFi USB Adapter uses a USB 2.0 interface in order to communicate with the host. It uses a Realtek IC that fully supports all of the 802.11 Bands, IEEE 802.11 ac Draft 2.0 and 802.11 a/b/g/n specifications, plus is backward compatible while using 802.11n standard.

The LM808 Series Adapter is for users requiring a high-performance wireless client. Also supporting the WiFi Direct feature that can easily build a WiFi P2P PAN network.

The LM808 supports the Orthogonal Frequency Division Multiplexing (OFDM) with one transmit and one receive path (1T1R).

Features include support for both 20MHz, 40MHz and 80MHz channel bandwidth, and combined with BPSK, QPSK, 16QAM, 64QAM and 256QAM modulation of the individual subcarriers and offers a compatible coding rate of 1/2, 2/3, 3/4, and 5/6, and provides up to 433.3 Mbps over IEEE 802.11ac while using 80MHz bandwidth.



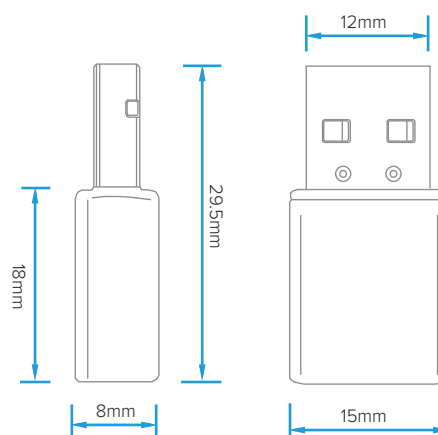
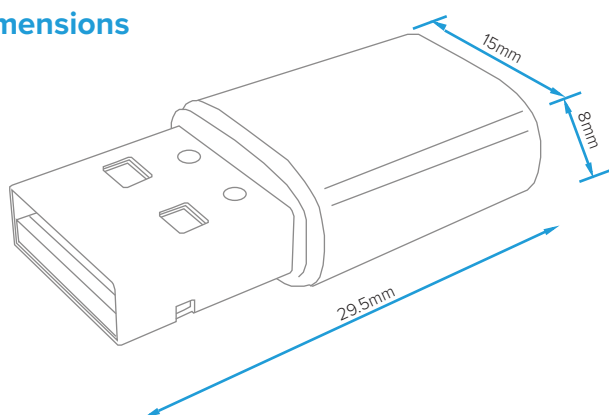
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General Specification

Product Name	LM808
Chipset	Realtek
No. of Transmitters	1T 1R
Standard	IEEE 802.11ac/a/b/g/n/d/e/h/i
Data Transfer Rate	1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54, 60, 90, 120, 150, 173.3, 180, 240, 270, 300, and max of 433.3Mbps
Interface	USB 2.0
Modulation Method	CCK, DQPSK, DBPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Frequency Band	2.4 GHz and 5 GHz ISM Band
RF Output Power	17dBm – 802.11b @ 11Mbps
(tolerance ± 2 dBm)	15dBm – 802.11g @ 54Mbps 13dBm – 802.11a @ 54Mbps 13dBm – 802.11n @ MCS7_HT20 13dBm – 802.11n @ MCS7_HT40 11dBm – 802.11ac @ NSS1 MCS9_BW20, BW40, BW80 -82dBm – 802.11b @ 11Mbps -71dBm – 802.11g @ 54Mbps
Receiver Sensitivity	-67dBm – 802.11n @ MCS7_BW20 -64dBm – 802.11n @ MCS7_BW40 -57dBm – 802.11ac @ NSS1_MCS9_BW20 -54dBm – 802.11ac @ NSS1_MCS9_BW40 -51dBm – 802.11ac @ NSS1_MCS9_BW80
Operating Temperature	0° to +70° C ambient temperature 5 to 90 % (non-condensing)
Storage Temperature	-40° to +80°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	3.33g +/- 0.25g tolerance

Dimensions





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Datasheet Version Notes

v1.0	11 JAN 2018	Added version notes to datasheet.
v1.1	4 JUN 2018	Updated Packing Options
v1.2	22 JAN 2021	Datasheet branding update.



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Ordering Options

ETSI Versions



808-0409
ETCHED

CSP - Carton Sample Pack

ADPT 802.11ac + USB 433Mbps 5v IC-ANT SAMPLE (2x20)

Cartons contain sample bags of 2 pieces.
Contact LM for your desired quantities.



808-0402
NOT ETCHED

AO - Adapter Only

ADPT 802.11ac + USB 433Mbps 5v IC-ANT AO



808-0403
NOT ETCHED

RP - Retail Pack

ADPT 802.11ac + USB 433Mbps 5v IC-ANT RP



808-0406
ETCHED

AO - Adapter Only

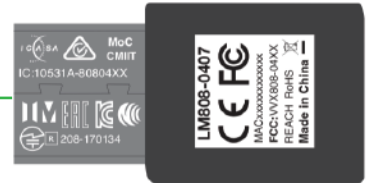
ADPT 802.11ac + USB 433Mbps 5v IC-ANT ETCH AO



Front Etching



Back Etching



US Versions



808-0409 US
ETCHED

CSP - Carton Sample Pack

ADPT 802.11ac + USB 433Mbps 5v IC-ANT SAMPLE (2x20)

Cartons contain sample bags of 2 pieces.
Contact LM for your desired quantities.



808-0404 US
NOT ETCHED

AO - Adapter Only

ADPT 802.11ac + USB 433Mbps 5v IC-ANT AO



808-0405 US
NOT ETCHED

RP - Retail Pack

ADPT 802.11ac + USB 433Mbps 5v IC-ANT RP



808-0407 US
ETCHED

AO - Adapter Only

ADPT 802.11ac + USB 433Mbps 5v IC-ANT ETCH AO



Front Etching



Back Etching



• See our website to download any applicable Software, Manuals and Notes - <http://www.lm-technologies.com/downloads>