

## LM808 WiFi 802.11ac/b/g/n Adapter

### Host Controller Interface (HCI) via USB Interface

Revised

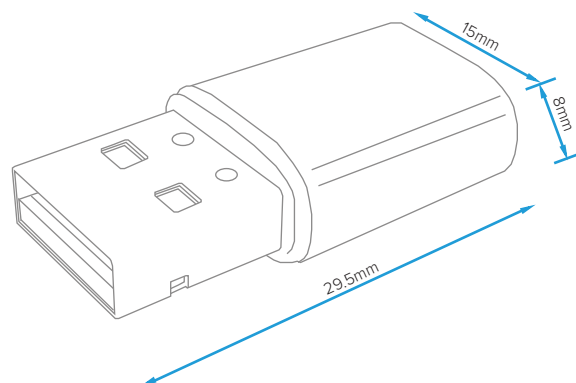
22/JAN/2021

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 808.11 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.

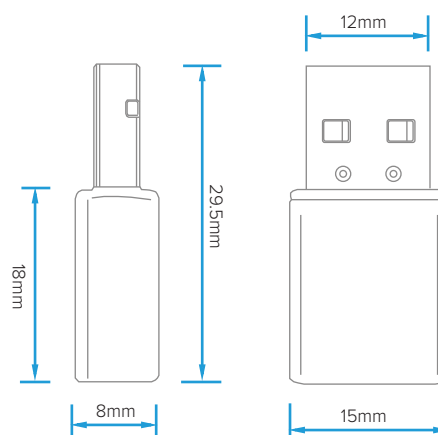
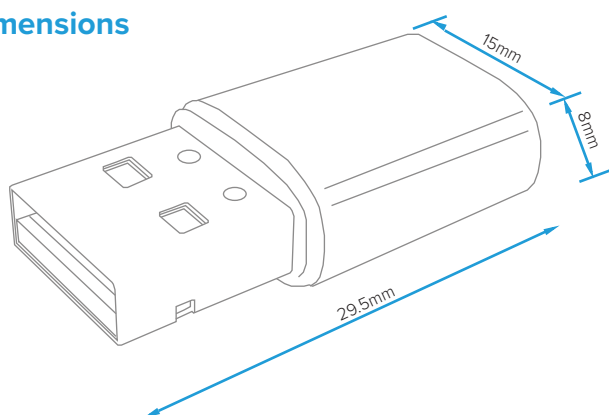
## LM808 WiFi 802.11ac/b/g/n Adapter

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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 $\pm 2$ 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.



## LM808 WiFi 802.11ac/b/g/n Adapter

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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



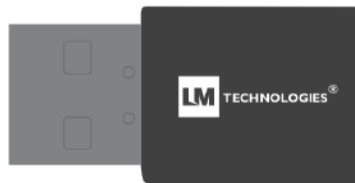
808-0407 US  
ETCHED

#### 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>