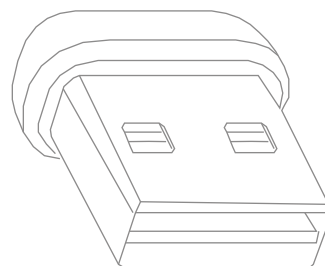




LM816 WiFi 802.11 b/g/n Nano Adapter

Host Controller Interface (HCI) via USB Interface

Product LM816
Part No See Last Page
Revised 16/MAY/2018
Datasheet Version 1.1



17mm x 15mm x 8mm

WiFi Features

- WiFi 802.11 b/g/n
- Operates in 2.4 GHz frequency bands
- Plug and Play (Linux, macOS X, Windows XP – 10, Windows 10 IoT Core and Windows Compact Embedded 6/7 compatible)
- Fully-featured software utility for easy configuration and management
- 1x1 MIMO technology improves effective throughput and range over existing 802.11 b/g products
- Up to 150Mbps Data Transfer Rate
- BPSK, QPSK, 16 QAM, 64 QAM, DBPSK, DQPSK, and CCK modulation schemes
- WEP, TKIP, and AES, WPA, WPA2 hardware encryption Schemes
- Can be setup as an ad-hoc network for peer to peer communication
- Small convenient size
- RoHS, REACH and WEEE compliant
- See our website for this products certifications.



Overview

The LM816 WiFi adapter is fully compliant with IEEE 802.11 n, b and g standards. It supports a data transfer rate of up to 150Mbps in ad-hoc mode or infrastructure mode network architectures.

It is designed to provide excellent performance with low power consumption and enhance a robust system.



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General Specification

Wireless

Wireless Standard	802.11 b/g/n
Module Type	Host Controller Interface (HCI)
OS Compatibility	Linux, macOS X, Windows XP – 10, Windows 10 IoT Core and Windows Embedded Compact 6/7
Security	WEP 64 bit, WEP 128 bit, TKIP, AES, WPA and WPA2
Network Architecture	Ad hoc mode (Peer-to-Peer) and Infrastructure mode

Hardware

Chipset	Realtek
Antenna	Onboard Chip Antenna
Interfaces	USB 2.0
LED	Power

RF Characteristics

Tx Output Power	(+/- 2dBm): 13dBm@11n, 17dBm@11b, 15dBm@11g
Rx Sensitivity	11Mbps -80dBm@8%, 54Mbps -70dBm@10%, 150Mbps -64dBm@10%
Range (in open space)	Up to 100m (Indoor) and Up to 180m (Outdoor)
Current Consumption	Transmit: average 125 mA Receive: average 68 mA Transmit & Receive: average 105 mA
Data Transfer Rate	1,2,5,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120 Mbps to a maximum of 150Mbps
Frequency	2.4GHz ISM Band
Modulation Scheme	BPSK/ QPSK/ 16-QAM/ 64-QAM/ DBPSK/ DQPSK/ CCK
Spread Spectrum	IEEE 802.11b: DSSS (Direct Sequence Spread Spectrum) IEEE 802.11g/n: OFDM (Orthogonal Frequency Division Multiplexing)

Physical Characteristics

Operating Temperature	-10°C to +60°C ambient temperature
Storage Temperature	-20°C to +70°C ambient temperature
Humidity	5% to 90% maximum (non-condensing)
Dimensions (L x W x H)	17mm x 15mm x 8mm
Weight	1.80g +/- 0.25g tolerance (25.36g in retail pack)
Certifications	See our website for this products certifications.
Compliance	RoHS, REACH and WEEE



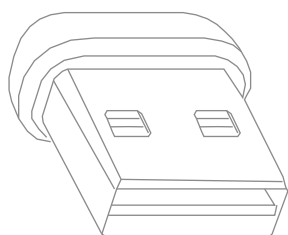
LM816 WiFi 802.11 b/g/n Nano Adapter

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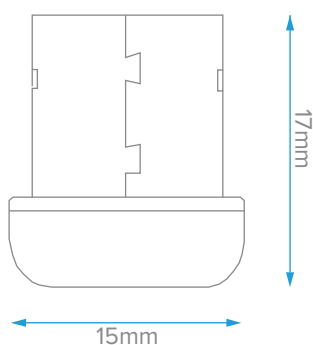
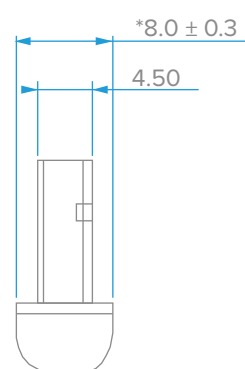
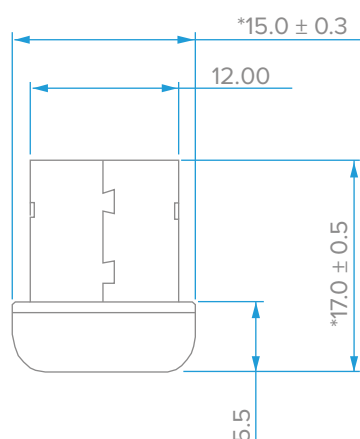
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Physical Dimensions



17mm x 15mm x 8mm





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Datasheet Version Notes

v1.0	11 JAN 2018	Added version notes to datasheet.
v1.1	16 MAY 2018	PCN (Part Number Change) plus updates to Packaging Options page.



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See Below

LM816 Packaging Options

ETSI Versions



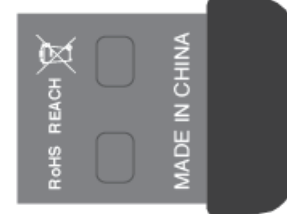
816-0648-1
ETCHED

CSP - Carton Sample Pack

ADPT 802.11n EUS 1T1R USB ETCH SP

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

Front Etching

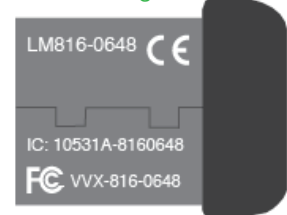


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ETCHED

RP - Retail Pack

ADPT 802.11n EUS 1T1R USB ETCH RP

Back Etching



816-0648-3
ETCHED

AO - Adapter Only

ADPT 802.11n EUS 1T1R USB ETCH AO

US Versions



816-0648-1 US
ETCHED

CSP - Carton Sample Pack

ADPT 802.11n EUS 1T1R USB ETCH SP

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

Front Etching



816-0648-2 US
ETCHED

RP - Retail Pack

ADPT 802.11n EUS 1T1R USB ETCH RP

Back Etching



816-0648-3 US
ETCHED

AO - Adapter Only

ADPT 802.11n EUS 1T1R USB ETCH AO

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