



LM821 Wi-Fi SMT Module 802.11n 150Mbps with UFL Receptical

Product LM821
 Part No 821-0463
 Revised 29/APR/2015



Also available with Onboard Antenna
 Part No 820-0462

Features

- Operates in 2.4 GHz frequency bands
- 1x1 MIMO (Multiple Input / Multiple Output) technology improves effective throughput and range over existing 802.11 b/g products
- Data rates: up to 150Mbps
- 802.11e-compatible bursting and I standards
- BPSK, QPSK, 16 QAM, 64 QAM modulation schemes
- WEP, TKIP, and AES, WPA, WPA2 hardware encryption schemes
- Realtek RTL 8188CUS IC UFL Receptical
- DC power input 3.3V or 5V input
- RF output by chip antenna(type-1)
- RF connector(type-2)
- RF pad on module(type-3)
- RF output on half-hole pin(type-4)
- WPS or PDN control function on half-hole pin 6
- Support LED function when choose WPS option

Overview

This WLAN 802.11n USB module, fully supports compliance of the IEEE 802.11n, e and i standards.

It supports up to 150Mbps high-speed wireless network connections and is designed to provide excellent performance with low power consumption.

It is designed to be a highly competitive cost-effective module that offers superior performance, better power management applications above its nearest competitors.

Onboard Antenna Option

This Module can be offered with Onboard Antenna. Please speak with our team for guidance when looking at this option.



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Packaging Options

Module Only
Part No 821-0463

- User Guides, Manuals and Widcomm Configuration Software available to download via our website - <http://www.lm-technologies.com/support/downloads>

General Specification

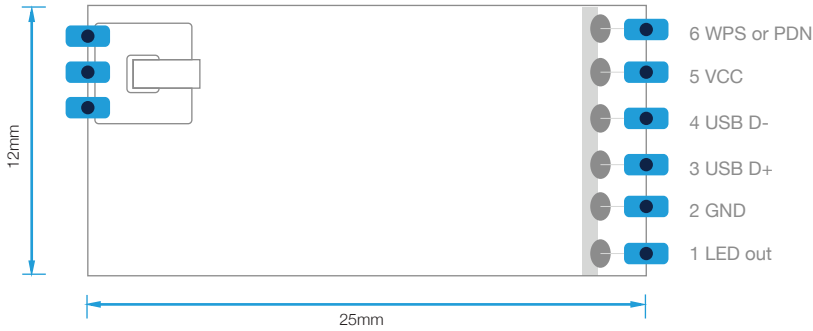
Product Class	WLAN 802.11n Single USB Interface HCI SMT module
Standards	802.11b/g/n, 802.3, 802.3u
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90,120 Mbps to a maximum of 150Mbps
Modulation Method	BPSK/ QPSK/ 16-QAM/ 64-QAM
Frequency Band	2.4GHz ISM Band
Spread Spectrum	IEEE 802.11b: DSSS (Direct Sequence Spread Spectrum) IEEE 802.11g/n: OFDM (Orthogonal Frequency Division Multiplexing)
RF Output Power	(+/- 2dBm): 13dBm@11n, 17dBm@11b, 15dBm@11g
Operation Mode	Ad hoc, Infrastructure
Receiver Sensitivity	11Mbps -80dBm@8%,54Mbps -70dBm@10%,130Mbps -64dBm@10%
Operation Range	Up to 180 meters in open space
LED	Data transmission (factory option)
OS Support	Windows CE7 / XP / Vista / 7 / 8 / Mac / Linux
Security	WEP, TKIP, AES, WPA, WPA2
Interface	USB 2.0 / RTL8188CUS
Power Consumption	DC 5V module Transmit: max. 125 mA; Receive: max 105 mA DC 3.3V module Transmit: max. 172 mA Receive: max 139 mA
Operating Temperature	-10° ~ 60° C ambient temperature
Storage Temperature	-20° ~ 70°C ambient temperature
Humidity	5 to 90% maximum (non-condensing)
Dimensions	25.0mm x (L) 12.0mm (W) x 2.0mm (H)



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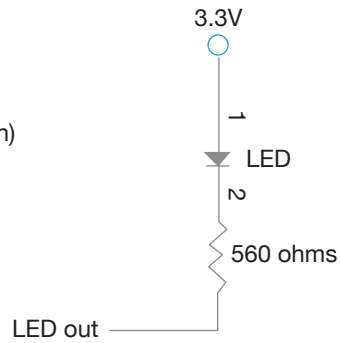
Pin Outs



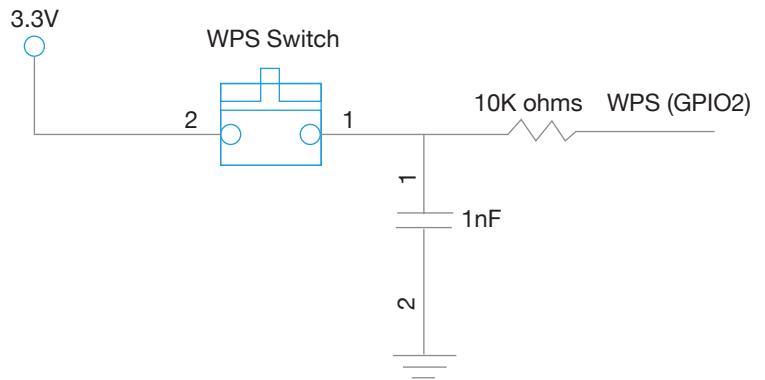
DC Power Input

Module	Min	Typical	Max	Unit
DC 5V module	4.75	5	5.25	V
DC 3.3V	3.135	3.3	3.465	V

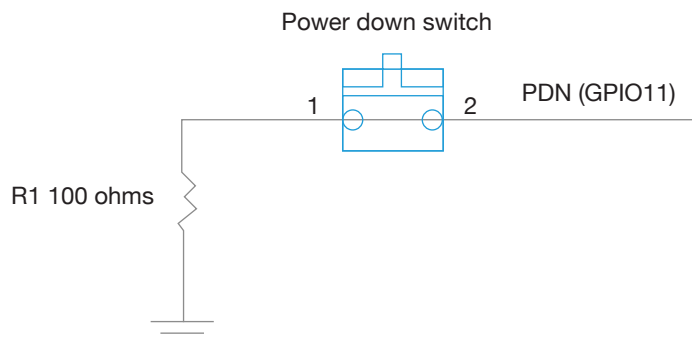
- The external circuit for WiFi activity LED display (LED function is a factory option)



- The function of pin 6 is optional to WPS (GPIO2) or power-down (GPIO11), a factory option. The external circuit for WPS function input (factory option), uses a tact switch.



- The external circuit power-down function input (factory option) uses a push or toggle switch.





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UFL RF Connector Dimensions

