

## 1、Summary

EWN-1601LNS1AA WIFI module is a suitable receiving IEEE802.11b/g/n WLAN receiver. Design of EWN-1601LNS1AA WIFI module, including RF impedance of antenna, matching, USB port impedance matching, power supply unit. EWN-1601LNS1AA WIFI module can be USB2.0 or PIN connected to the TV, PC or PDA equipment.

This product is of high reliability, strong universality. In terms of electrical performance, stable and reliable work. (see Figure)

## 2、Technical indicators

### 2.1 service restrictions

Atmospheric pressure: 86kPa~106kPa .

temperature limit: -5°C~40°C ,

Relative humidity: ≤90% ,

### 2.2. Electrical characteristics

#### 2.2.1 Transmit power

Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) transmit power value as shown in table 1.

**Table 1 The transmit power value**unit: dBm

Protocol	transmit power value
802.11b(11M)	16.0±1.0
802.11g(54M)	14.1±1.0
802.11n(150M)	14.0±0.5

#### 2.2.2 EVM

Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) EVM values are shown in table 2.

**Table 2 EVM value**unit: : dB

Protocol	EVM
802.11b(11M)	<-22
802.11g(54M)	< -25
802.11n(150M)	< -28

#### 2.2.3 Frequency accuracy

Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) frequency accuracy as shown in table 3.

**Table 3 Frequency accuracy**unit: : kHz

Protocol	Frequency accuracy
802.11b(11M)	-25 ≤ frequency accuracy≤25
802.11g(54M)	-25 ≤ frequency accuracy≤25
802.11n(150M)	-25 ≤ frequency accuracy≤25

#### 2.2.4 Sensitivity

Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) Sensitivity as shown in table 4.

**Table 4 Sensitivity**unit: dBm

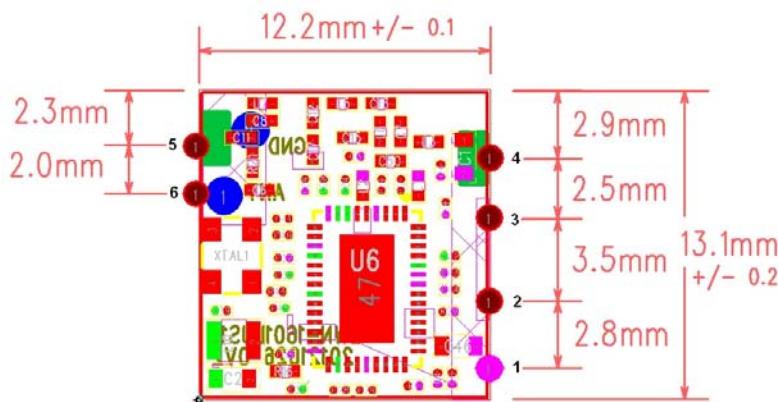
Protocol	sensitivity
802.11b(11M)	≤-76
802.11g(54M)	≤-74
802.11n(150M)	≤-70

#### 2.2.5 Internet experience test

In 802.11b/g/n, the distance of router 10m, separated by a wall, playback buffer fast, smooth.

### 3、EWN-1601LNS1AA Pin definition and mechanical dimensions

Pin	Pin name
1	+VCC
2	USB_DM
3	USB_DP
4	GND
5	ANT_GND
6	ANT_RF



### 4、Use and repair

Electronic products this product belongs to high density, high technology, specifically for TV, PC production plant use, do not use due to mechanical impact and external direct action, the appearance by the damage phenomenon. If the product fails, by professional technicians to repair.

## 5、Special version

EWN-1601LNS1AA \*\*\* is a EWN-1601LNS1AA product, suffix ' \* \* \* ' is made by use of manufacturers and other information that has no effect on the product itself.

## 6、OEM Labeling Requirements

NOTICE: The OEM must make sure that FCC labeling requirements are met. This includes a clearly visible exterior label on the outside of the final product housing that displays the contents shown in this label.

**MANUFACTURERS NAME**

**BRAND NAME OR TRADE NAME**

**Contains FCC ID:** 2ABE4EWN-1601A

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm. Between the radiator & your body.

## Attention

The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module. Appropriate measurements (e.g. 15 B compliance) and if applicable additional equipment authorizations (e.g. Verification, Doc) of the host device to be addressed by the integrator/manufacturer.

Attention:

This RF Module does not have an own shielding, so that a Limited Modular Approval (LMA) was granted: This RF module is strictly limited to the integration by the Grantee himself or the dedicated OEM integrators under the control of the Grantee. and This LMA with a Integral antenna, antenna gain is 0.0dBi.

Proper measurements of the host device including this RF module (radiated spurious emissions and bandedge) are required to assure compliance with the FCC regulations.

Any other integrator must contact the Grantee to determine necessary compliance measurements and/or additional equipment authorizations (e.g. Class II Permissive Change or New Equipment Authorization) for his configuration.

This RF Module must not be sold to the general public.

IMPORTANT NOTE: In the event that these conditions cannot be met (for example: certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.