

## 1、Summary

SDWF-2D WIFI module is a suitable receiving IEEE802.11b/g/n WLAN receiver. Design of SDWF-2D WIFI module, including RF impedance of antenna, matching, USB port impedance matching, power supply unit. SDWF-2D 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:  $\leq 90\%$  ,

### 2.2. Electrical characteristics

#### 2.2.1 Transmit power

802.11b/g/n20 Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) and 802.11n40 Frequency in 2422MHz (3CH), 2437 MHz (6CH), 2452 MHz (9CH) transmit power value as shown in table 1.

Table 1 The transmit power value unit: dBm

Protocol	transmit power value
802.11b (11M)	$16.0 \pm 2$
802.11g (54M)	$14.0 \pm 2$
802.11n HT20 (MCS7)	$13.0 \pm 2$
802.11n HT40 (MCS7)	$13.0 \pm 2$

#### 2.2.2 EVM

802.11b/g/n20 Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) and 802.11n40 Frequency in 2422MHz (3CH), 2437 MHz (6CH), 2452 MHz (9CH) 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 HT20 (MCS7)	$<-25$
802.11n HT40 (MCS7)	$<-25$

#### 2.2.3 Frequency accuracy

802.11b/g/n20 Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) and 802.11n40 Frequency in 2422MHz (3CH), 2437 MHz (6CH), 2452 MHz (9CH) frequency accuracy as shown in table 3.

Table 3 Frequency accuracy unit: : kHz

Protocol	Frequency accuracy
802.11b (11M)	$-25 \leq \text{frequency accuracy} \leq 25$
802.11g (54M)	$-25 \leq \text{frequency accuracy} \leq 25$
802.11n HT20 (MCS7)	$-25 \leq \text{frequency accuracy} \leq 25$
802.11n HT40 (MCS7)	$-25 \leq \text{frequency accuracy} \leq 25$

#### 2.2.4 Sensitivity

802.11b/g/n20 Frequency in 2412MHz (1CH), 2437 MHz (6CH), 2462 MHz (11CH) and 802.11n40 Frequency in 2422MHz (3CH), 2437 MHz (6CH), 2452 MHz (9CH) Sensitivity as shown in table 4.

Table 4 Sensitivity

unit: dBm

Protocol	sensitivity
802. 11b (11M)	≤-76
802. 11g (54M)	≤-74
802. 11n HT20 (MCS7)	≤-70
802. 11n HT40 (MCS7)	≤-70

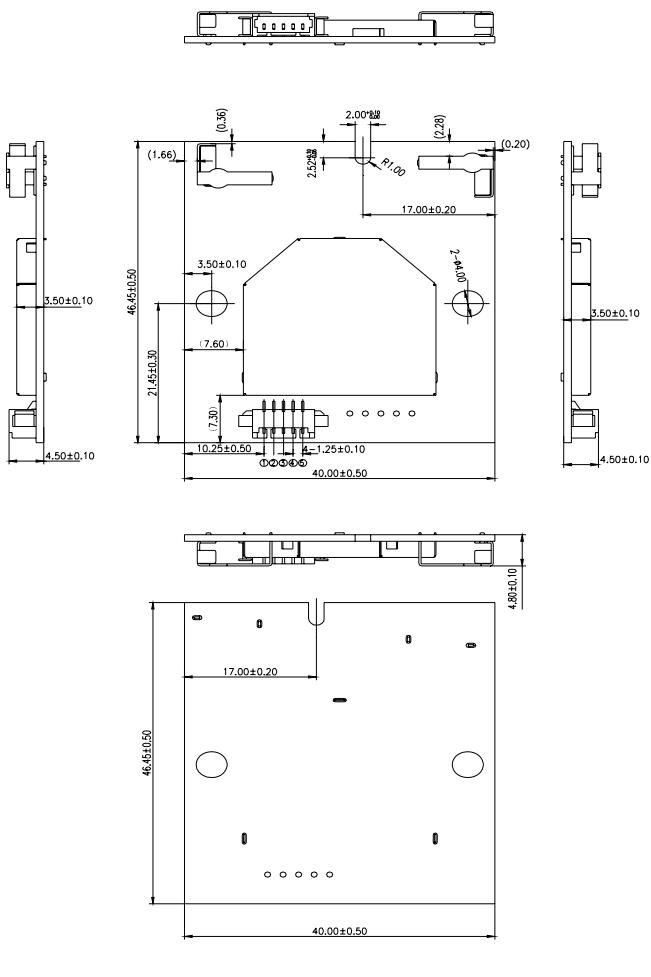
## 2.2.5 Internet experience test

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

## 3、SDWF-2D Pin definition and mechanical dimensions

NO.	Pin Name	Pin voltage
1	Vcc	DC Power supply input
2	D-	USB Data DN
3	D+	USB Data DP
4	GND	GND
5	NC	---

Note: 5Pin, 1. 25mm pitch, SMD, side entry type.



NOTE1:General tolerance ±0.5mm unless otherwise stated

NOTE2:Unit mm

NOTE3:Drawing not to scale

## 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

SDWF-2D/\*\*\* is a SDWF-2D 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**

**MODEL:**

**Contains Model:** SDWF-2D

**FCC ID : S5FSDWF-2D**

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.