

SKW17E WIFI Module

User Manual

General Description

SKW17 is a 802.11n/ b/g wifi one-stream USB interface designed specifically to provide enhanced WiFi performance and value for home gateways, set-top boxes, gaming consoles, printers, IP cameras, and variety of other products that host processors not originally intended to support WiFi functions. SKW17's AR9271 single-chip features a new architecture that integrates both a CPU and memory to run more of the WiFi function on-chip. The integrated CPU offloads the wireless processing overhead from the host appliance and enables consumer electronic devices to support WiFi functions seamlessly without change of original host processors.

Applications

- Desktop Computer
- Laptop Computer,
- IP Camera
- IP TV
- IP DVD(Internet VOD Player)
- Set Top Box
- Home Gateways
- Gaming Consoles
- Printers

Features

- Compliant to IEEE 802.11b/g/n WLANs
- Security: WEP 64/128, WPA, WPA2, TKIP, AES, WAPI
- Supports for Windows XP 32/64, 2000, Vista 32/64bit, Windows 7 32/64bit, Linux, Android.
- Supported Linux kernel AP/Station/IBSS/Monitor-mode drivers .
- USB 2.0 interface.
- Supports 72.2 Mbps for 20 MHz and 150 Mbps for 40 MHz channel operations.

- The only one-stream 802.11n solution with one antenna port.
- RoHS compliance meets environment-friendly requirement.
- 18.5(L) x 16.6(W) x 2.75(H) mm small dimension

Applications Block Diagram

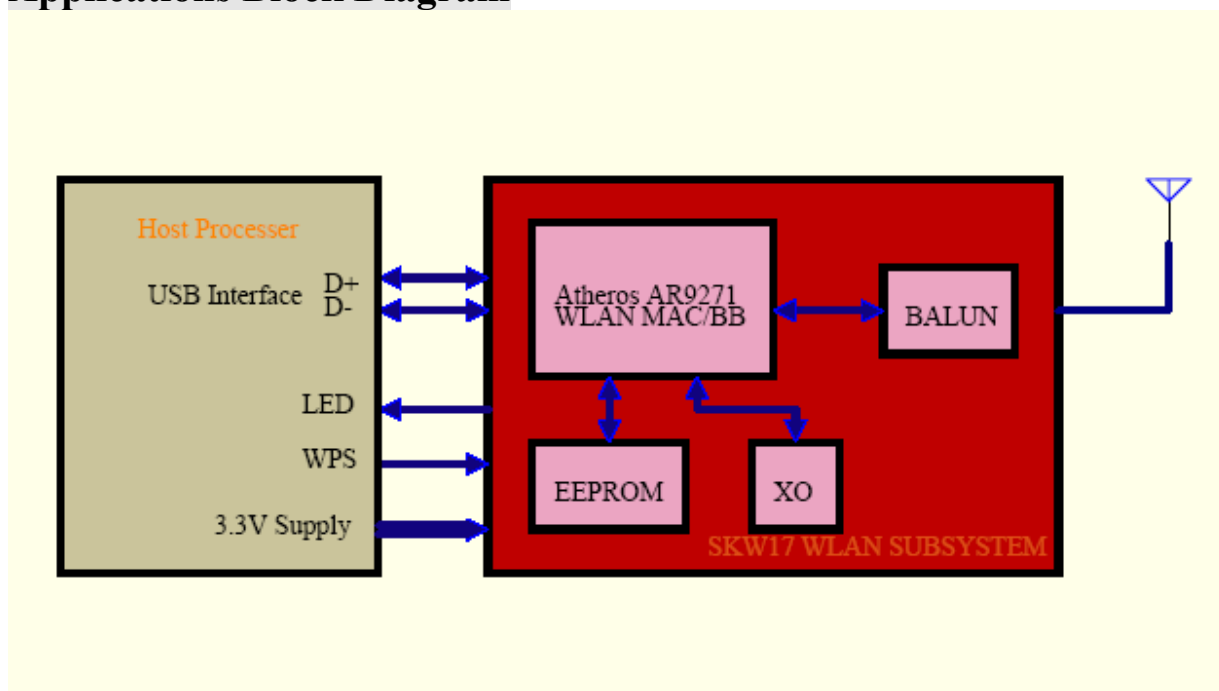


Figure 1: SKW17 Block Diagram

Ordering Information

Module NO.	RF Connector Type	Antenna Option
SKW17	IPEX Connector	Ext Antenna
SKW17P	PCB Pin	Ext Antenna

LED Status

OS	LED status
Linux	LED ON
WINDOWS xp, win7	LED Flashing
ART Test	LED ON

Module Pinout

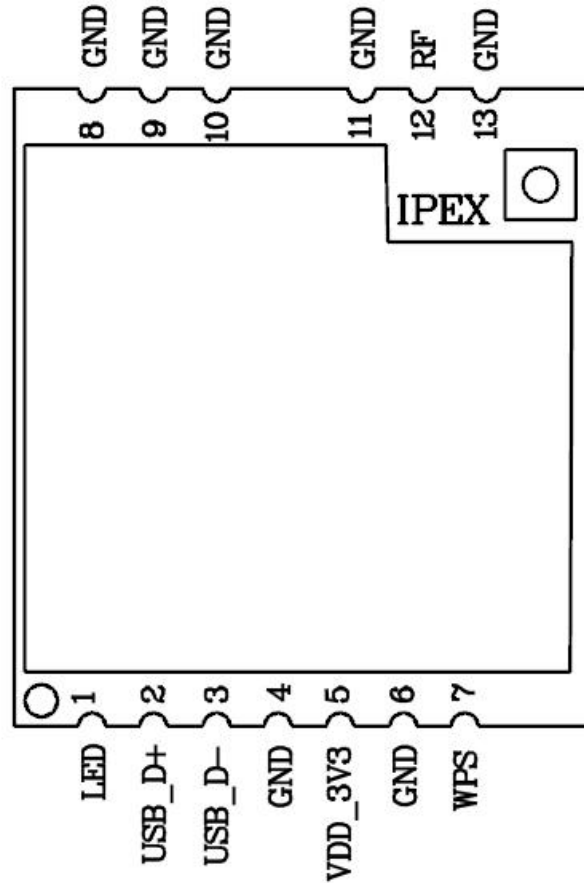


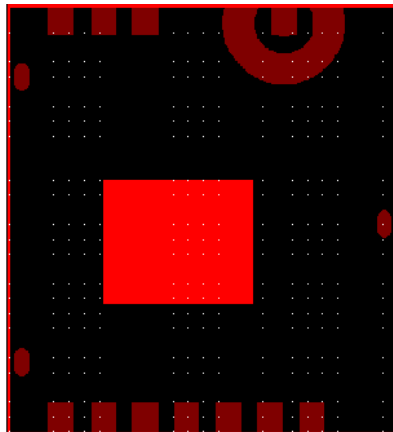
Figure 2: SKW17 Pin Package

Pin Description

Pin No.	Pin name	I/O	Description	Remark
1	LED	O	Light Emitting Diode Driver	up to 24mA
2	USB_D+	I/O	USB Interface DP	

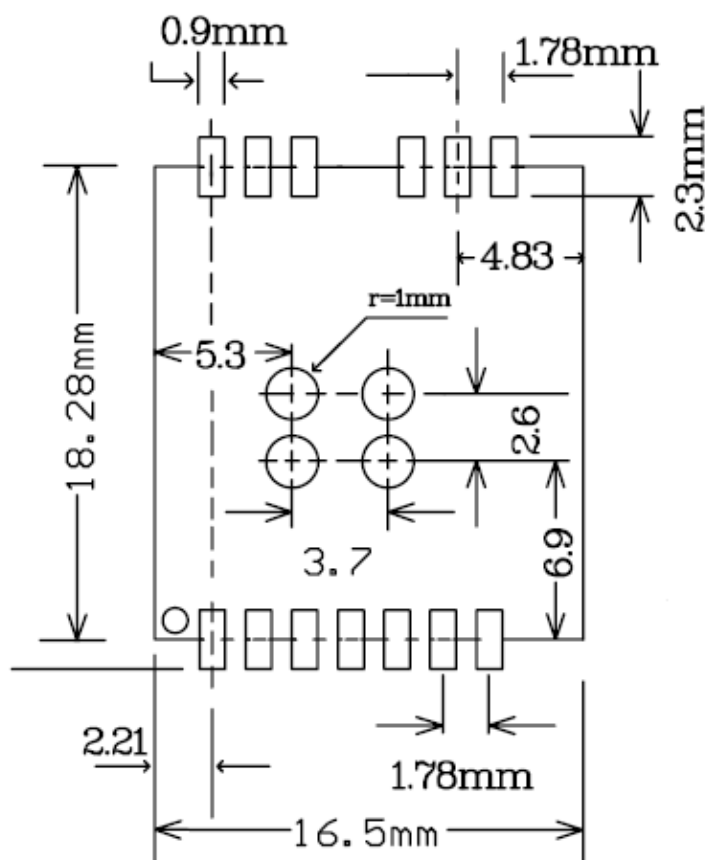
3	USB_D-	I/O	USB Interface DM	
4	GND	G	Ground	
5	VDD_3V3	P	Module Power Supply	
6	GND	G	Ground	
7	WPS	I	Wi-Fi Protected Setup	250 K Ω PU
8	GND	G	Ground	
9	GND	G	Ground	
10	GND	G	Ground	
11	GND	G	Ground	
12	RF	RF port	Antenna	For SKW17A
IPEX	RF	RF port	Antenna Connect	For SKW17
13	GND	G	Ground	

PCB Footprint and Dimensions



BOTTOM PAD

Figure 3: SKW17 Bottom View

**Figure 4: SKW17 Footprint**

Reference design schematic

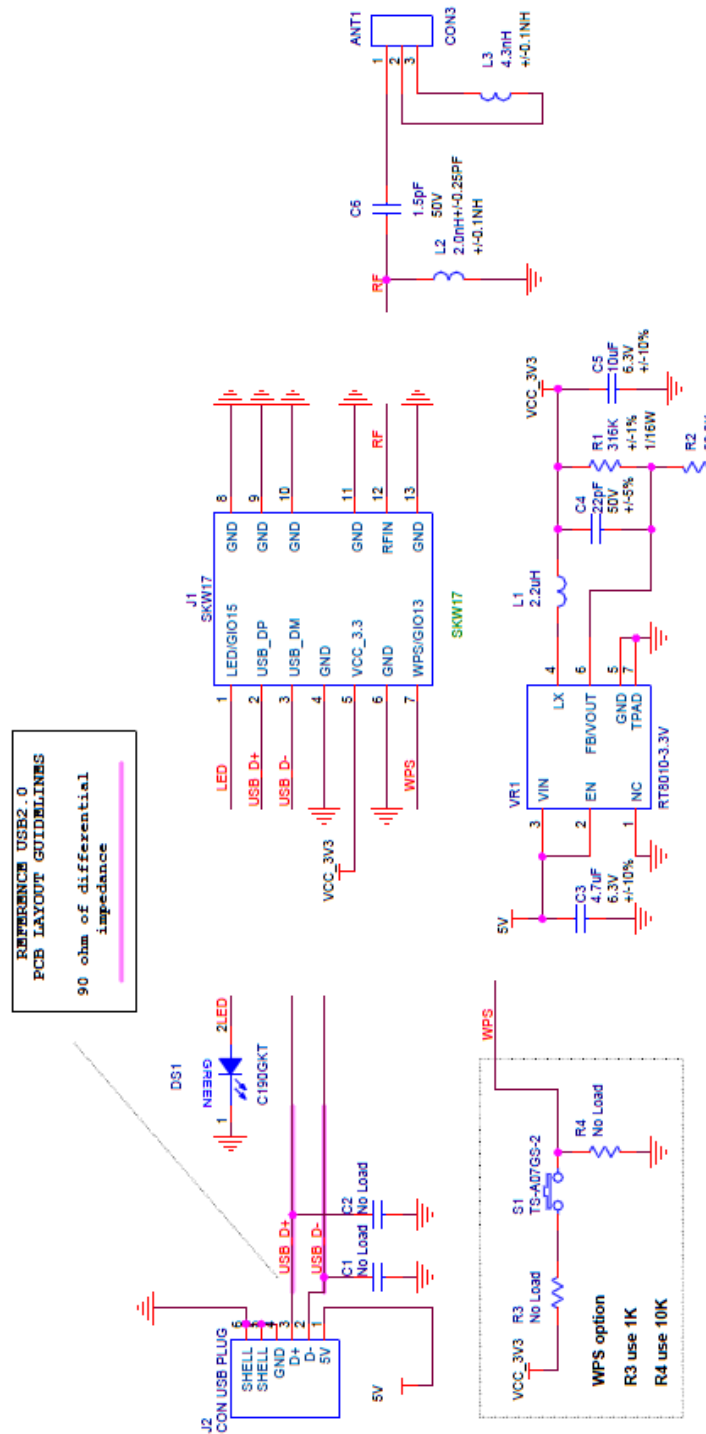


Figure 5: SKW17 Typical Reference design schematic

Packaging Specification

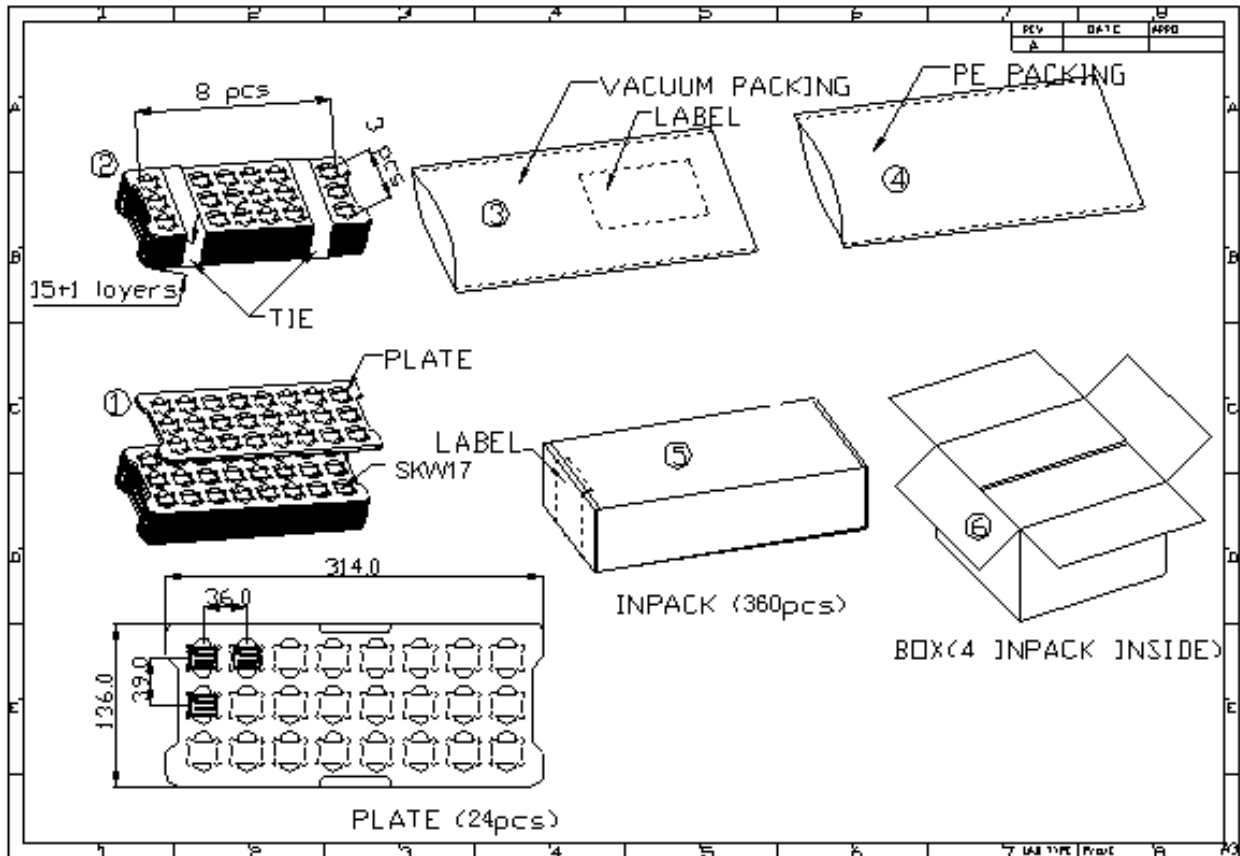


Figure 6: SKW17 Packaging

Skylab M&C Technology Co., Ltd.

Address: 9th Floor, Zhongguang Building, Yayuan Road, Bantian, Shenzhen

Phone: 86-755 8340 8210 (Sales Support)

Phone: 86-755 8340 8510 (Technical Support)

Fax: 86-755-8340 8560

E-Mail: sales1@skylab.com.cn

Website: www.skylab.com.cn

FCC Statement

FCC standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247 External antenna with gain 1.8dBi

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

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.

RF Exposure Compliance:

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

Notice to OEM integrator

If the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. The end product shall have the words "Contains Transmitter Module FCC ID: 2ACOE-SKW17".

The device must be professionally installed.

The intended use is generally not for the general public. It is generally for industry/commercial use.

The connector is within the transmitter enclosure and can only be accessed by disassembly of the transmitter that is not normally required.

The user has no access to the connector.

Installation must be controlled. Installation requires special training.

Any company of the host device which installs this modular with unlimited modular approval should perform the test of radiated & conducted emission and spurious emission, etc. according to FCC part 15C: 15.247 and 15.209 & 15.207, 15B Class B requirement, only if the tests result comply with FCC part 15C: 15.247 and 15.209 & 15.207, 15B Class B requirement, then the host can be sold legally.

When the module is installed inside another device, the user manual of the host contain below

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation

Herby, Skylab M&C Technology Co., Ltd declares that this WIFI Module, SKW17 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

Use the WIFI Module in the environment with the temperature between 0 C and 70 C.

Operation Frequency: 2412MHz~2472MHz (802.11b/802.11g/802.11n(HT20))

Max output power: 0.0813W

Manufacturer: Skylab M&C Technology Co., Ltd

Address: 6/F, Building9, Lijincheng park, Gongye East Road, Longhua St. Longhua District, Shenzhen, Guangdong, 518109 China

E-mail: sam.chen@skylab.com.cn

DECLARATION OF CONFORMITY

I hereby declare that the product

Product:

Product Name: WIFI Module

Model: SKW17

Brand Name: SKYLAB

Hardware Version: 04

Software Version: V0

Accessories:

Antenna Information1:

Model: N2420S

Gain: 1.8dBi

Manufacturer: Airgain, Inc.

(Name of product, type or model, batch or serial number)

satisfies all the technical regulations applicable to the product within the scope of Council Directives 2014/53/EU, 2014/35/EU and 2014/30/EU:and declare that the same application has not been lodged with any other notified body.

EN 62368-1 :2014+A11:2017

EN 62311:2008

ETSI EN 300 328 V2.2.2 (2019-07)

Draft ETSI EN 301 489-17 V3.2.2 (2019-12)

ETSI EN 301 489-1 V2.2.3 (2019-11)

(Title(s) of regulations, standards, etc.)

All essential radio test suites have been carried out.

NOTIFIED BODY: MiCOM Labs Inc

– **Address:**

575 Boulder Court,

Pleasanton, California94566

USA

Identification Number: 2280

MANUFACTURER or AUTHORISED REPRESENTATIVE:– **Address:**

Skylab M&C Technology Co., Ltd

6/F, Building9, Lijincheng park, Gongye East Road, Longhua St. Longhua District, Shenzhen,
Guangdong, 518109 China

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorised representative.

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