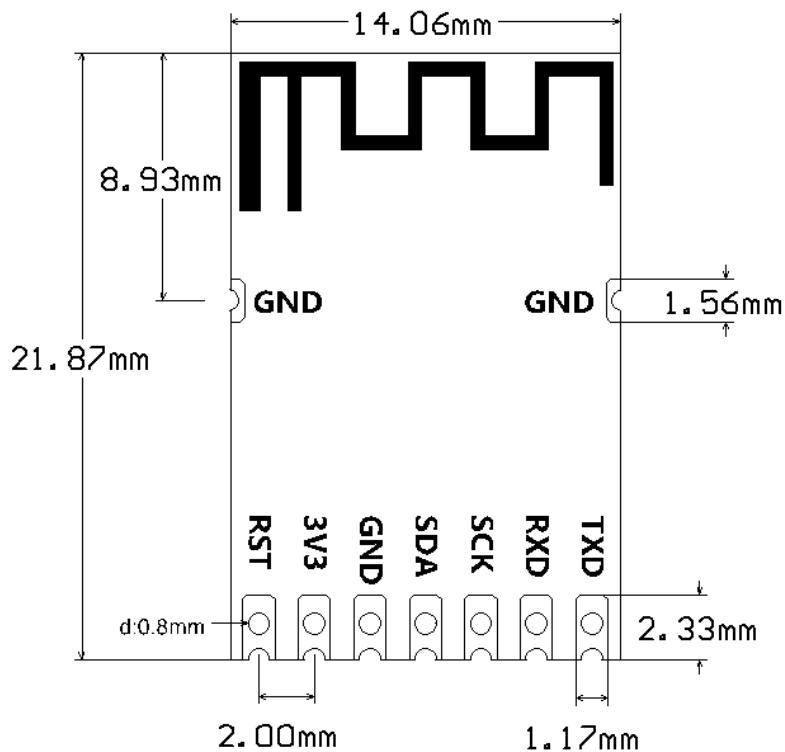


# Hekr V1.1 WIFI Module



## Features:

- a: 802.11 b/g/n protocol
- b: WIFI @2.4 GHz, support WPA/WPA2 PSK
- c: Integrated 10 bit analog ADC
- d: Integrated TCP/IP protocol stack
- e: Integrated TR switch, balun, LNA, power amplifier and matching network
- f: Integrated PLL, regulators and power management units
- g: +19.5dBm output power in 802.11b mode
- h: Supports antenna diversity
- i: Power down leakage current of < 10uA
- j: Integrated low power 32-bit MCU
- k: Wake up and transmit packets in < 2ms
- l: Standby power consumption of < 1.0mW (DTIM3)
- m: Working temperature -40 ~ 125°C

### Module Parameter:

WIFI Parameter	WiFi Protocols	802.11 b/g/n
	Frequency Range	2.4G-2.5G(2400M-2483.5M)
	Tx Power	802.11 b: 18dBm 802.11 g: 15dBm 802.11 n: 13dBm
	Rx Sensitivity	802.11 b: (11Mbps) -91db 802.11 g: (54Mbps) -75db 802.11 n: (MCS7) -72db
Hardware Parameter	Peripheral Bus	UART、PWM、IIC、GPIO
	Operating Voltage	3.3V
	Operating Current	MAX 230mA
	Operating Temperature Range	-40°~ 125°
Software Parameter	WIFI Mode	station/softAP/SoftAP+station
	Network Protocol	IPv4 , TCP/UDP/HTTP/FTP
	Security	WPA/WPA2
	Encryption	WEP/TKIP/AES
	Firmware Upgrade	Local UART Download/ OTA via network

### Definition of Pins:

Pin	Name	Function
1	RST	Module Reset
2	3V3	Power Supply
3	GND	Ground
4	SDA	IIC Data line, PWM Output, GPIO Input/output

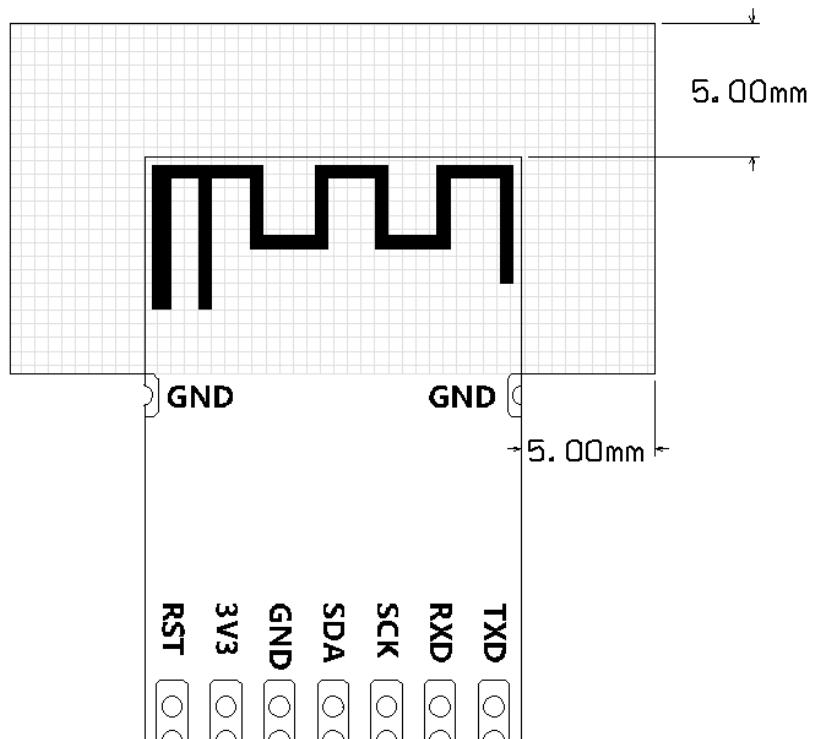
5	SCK	IIC Clock line, PWM Output, GPIO Input/output
6	RXD	UART0_RXD, GPIO3
7	TXD	UART0_TXD, GPIO1

### Applications:

This module is adapted to data unvarnished transmission and simple control, for example, socket, LED, sensors etc. UART communication protocol can be customized according to the manufacturers demands.

### Notice:

You can add  $\pi$ -type filter circuit to do the filtering process. Additionally, you can use a large capacitor with 47uF to meet the current the chip emit needs instantly. Module should be placed preferably away from interference sources, such as: transformers, inductors, clock lines, crystal and so on.



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.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

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

Note: 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.