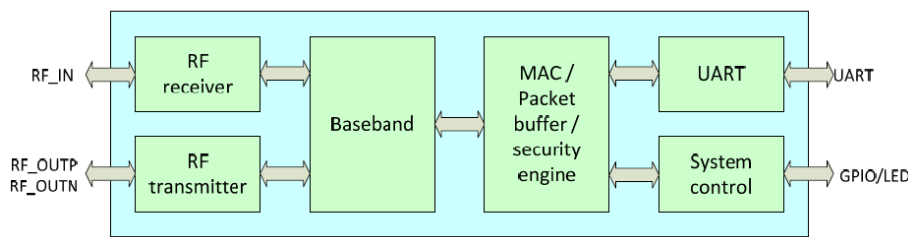


## Overview:

HLK-M35 is a new low-cost embedded UART-WIFI module (serial port -Wireless) developed by Shenzhen Hi-Link Electronic co., Ltd.

This product is an embedded module based on the universal serial interface network standard, built-in TCP / IP protocol stack, enabling the user serial port, wireless network (wifi) interface between the conversions. Through the HLK-M35 module, the traditional serial devices do not need to change any configuration, user data can be transmitted through the Internet network. Provide a quick solution for the user's serial devices to transfer data via WIFI

## Module Block Diagram



## Benefits

- Low Power consumption
- Ready to use in products
- Minimizes product development
- No RF test required for systems
- Serial to Wifi; Smart; Small;
- Support Smart Connection
- Transparent Transmission
- Serial to Wifi; Smart; Small;
- Compliant with CE and FCC

## Applications

- WiFi Led Control
- WiFi Power Switch
- Smart Home; Smart Building
- OBDII WiFi Diagnose
- RFID Data Transfer
- Toys and Gaming Peripherals
- Industrial Systems
- Telemetry
- Remote Control

## Features:

- 2.4GHz 802.11b/g/n, compatible
- WiFi Sta/Soft AP Mode
- Support Smart Connection
- The range of baudrate: 1200~115200bps
- Support transparent transmission mode
- Support multiple security authentication mechanisms:

WEP64/WEP128/ TKIP/ AES

WEP/WPA-PSK/WPA2-PSK

- Support wireless roam
  - Support multiple network protocols:
- TCP/UDP/ /DHCP/DNS
- Support AT instruction Set
  - Device Dimensions 16.3mm\*14mm\* 2.24mm

**Lead-free and RoHS compliant**

## 1. Introduction

The HLK-M35 module provides designers with a ready made component that provides a fully integrated solution for applications, using the IEEE802.11 standard in the 2.4-2.5GHz ISM frequency band, including 802.11b/g/n, can be quickly and easily included in product designs. The modules integrate all of the RF components required, removing the need to perform expensive RF design and test. Products can be designed by simply connecting sensors and switches to the module IO pins or uart interface. The modules use MTK's chip Wireless Microcontroller, allowing designers to make use of the serial interface to connect with their device. Hence, this module allows designers to bring wireless applications to market in the minimum time with significantly reduced development effort and cost.

The HLK-M35 is an embedded module based on the universal serial interface network standard, built-in TCP / IP protocol stack, enabling the user serial port, wireless network (wifi) interface between the conversions. Through the HLK-M35 module, the traditional serial devices do not need to change any configuration; data can be transmitted through the Internet network. Provide a quick solution for the user's serial devices to transfer data via Ethernet Also the HLK-M35 module have FCC modular approvals and is compliant with EU regulations.

## 2. Specifications

The parameters are defined here.

VDD=3.3V @ +25°C

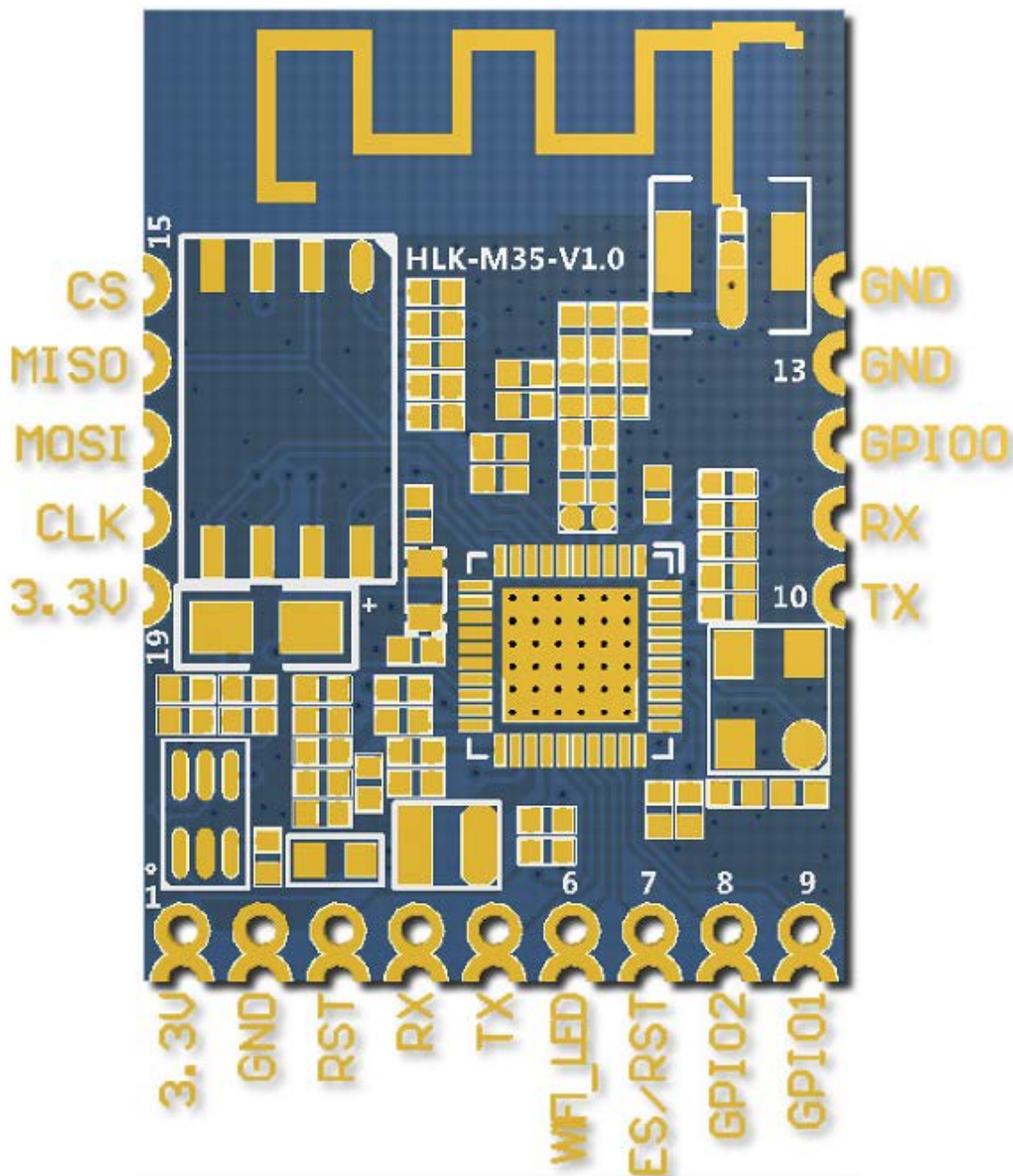
Typical DC Characteristics		Notes
RX Active, HT40, MCS7	150mA	802.11.n
TX HT40, MCS7 @15dBm	210mA	802.11.n
Typical RF Characteristics		Notes
Receive sensitivity	-70dBm(802.11n)	Use IQview to adjust
Maximum Transmit power	18dBm/15dBm/13.5dBm	802.11b/g/n
RF Port impedance – Ipex connector	50 ohm	2.4 - 2.5GHz
VSWR (max)	2:1	2.4 - 2.5GHz
Centre frequency accuracy	+/-25ppm	Additional +/-15ppm allowance
Peripherals		Notes
UART	2pins	1200-115200kbps
GPIO	5pins	GPIO
VCC	2pins	3.3V+/-10% Two VCC should all connect to power
AN	4pins	Analog
GND	3pins	GND

## 3. Product Development

Hi-Link supplies all the development tools needed to enable end-product development to occur quickly and efficiently.

These are all available from [www.hlktech.com](http://www.hlktech.com). A evaluation kits is also available, allowing products to be quickly bread boarded. Efficient development of software applications is enabled by the provision of a complete, unlimited, software developer kit. This package provides everything required to develop application code and to trial it with hardware representative of the final module.

## 4. Pin Layout

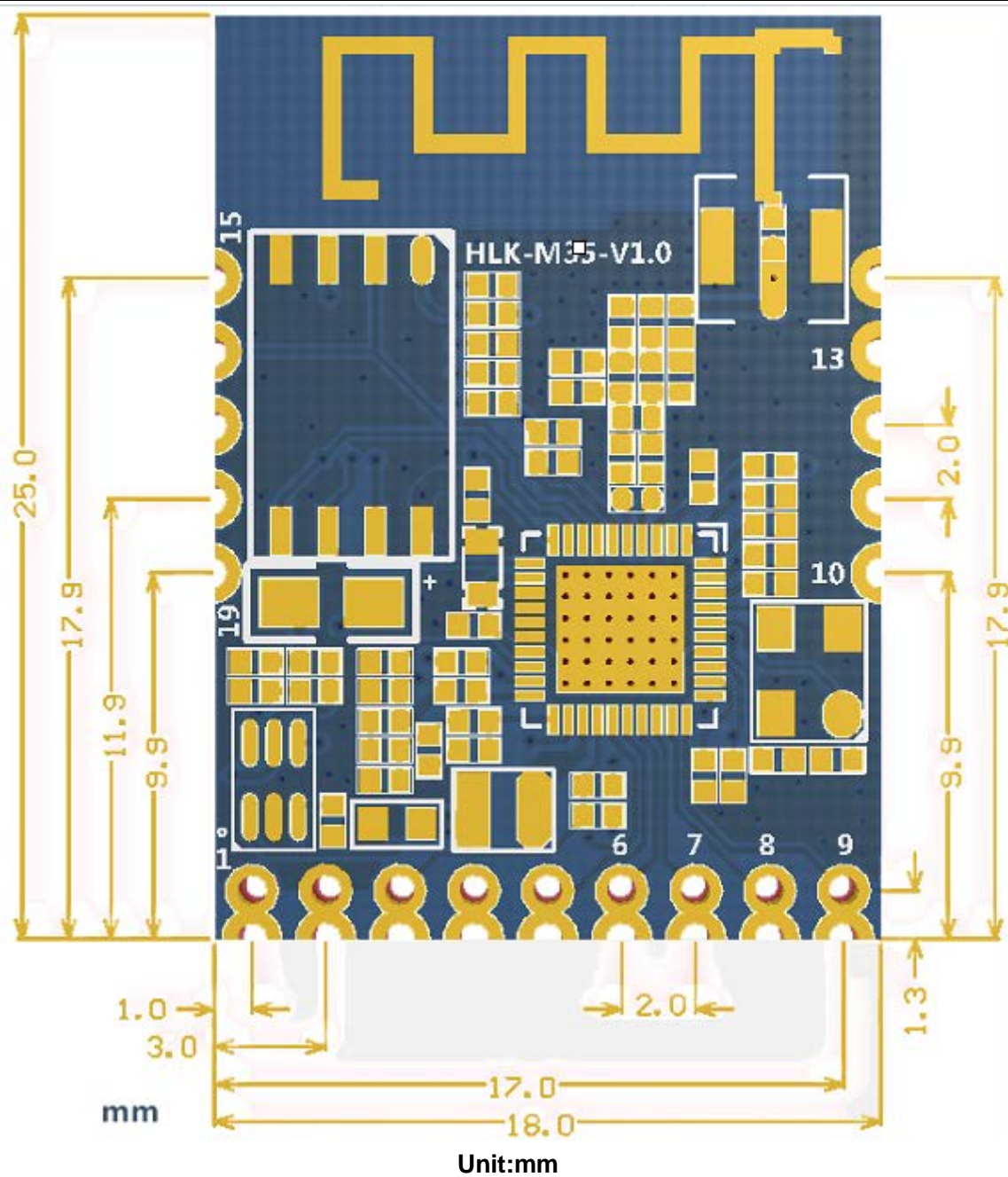


**Note:**Two rx is the same pin.Two tx is the same pin..

## 4.1. Pin Description

Pin No	Signal Type	Description
1	3.3V	Supply Voltage, 3.3V+/-10%
2	GND	Analogue Ground
3	RST	Module reset pin, Active low
4	RX	Uart rx pin, Input
5	TX	Uart tx pin, Output
6	WiFi_led	WiFiLed
7	ES/RST	Exit/Default/Update
8	GPIO2	General GPIO
9	GPIO1	General GPIO
10	TX	Uart tx pin, Output Connected with Pin5
11	RX	Uart rx pin, Input Connected with Pin4
12	GPIO1	General GPIO
13	GND	Analogue Ground
14	GND	Analogue Ground
15	CS	Analogue Pin(Reserved)
16	MISO	Analogue Pin(Reserved)
17	MOSI	Analogue Pin(Reserved)
18	CLK	Analogue Pin(Reserved)
19	3.3V	Supply Voltage, 3.3V+/-10%, Connected with Pin1

## 5. Package Information(QFN Packaging)



### 5.1. Ordering Information

Part number	Package	Operate Temp
HLK-M35	18*25mm SMD	-20~70°C

### 6. Typical Solder Reflow Profile



