YINDO-LINK®

manual

YN-Q300N-B1 WiFi Router Module

Description:

YN-Q300N-B1 is one WiFi Router Module based on QCA9531 chip design, with high-performance and small size design. This item supports large capacity DDR2 and high speed SPI Flash, can connected to the motherboard by "Pin". The user can make multiplex structural design according to the mold ID and board type. It complies with IEEE 802.11n, IEEE 802.11g and IEEE 802.11b standards, adopts 2x2 MIMO structure. This item can also supports WiFi signal multiplexing transceiver and its Wireless Signal Rates can be up to 300Mbps. It provides one USB2.0 port, 2 10/100M PHY and several GPIO ports. It reserves the UART communication interface suiting for further development.

YN-Q300N-B1 adopts 2x2 MIMO (Multiple input multiple output) architecture, wireless signal multiplexing, transmission rate up to 300Mbps; provides two 10 / 100M PHY interface, a USB2.0 and GPIO interface, extended powerful, widely used in wireless mobile hard disk, wireless high-definition receiving box, network camera, air conditioning or TV embedded wireless applications, MIFI and other products. Customers can either select an onboard antenna or an external antenna. The module provides a complete network interface. You can achieve WiFi AP, WiFi STA, WiFi Repeater and other functions.

Product Features:

1. In line with IEEE802.11N / G / B wireless network protocol, wireless transmission rate up to 300Mbps;
2. Small size, through the "pin" and the motherboard connection;
3. Rich USB, GPIO interface, user-friendly expansion of WiFi embedded applications
4. Stable performance, powerful, scalable
5. System software can be customized to meet a variety of application needs;
6. Provide a variety of communication interfaces and debugging interface;
7. DC 3.3V single power input;
8. The system supports OpenWRT, QSDK
9. Customers can be the second development, custom services

Typical Applications

- Power Bank，Wireless Plus
- Wireless HD STB，web camera
- WiFi Advertising Displayer & Consumer electronic products or IA Intelligence Appliance
- Air-condition or TV Embedded WiFi application
- MIFI and other Mobile application

Features

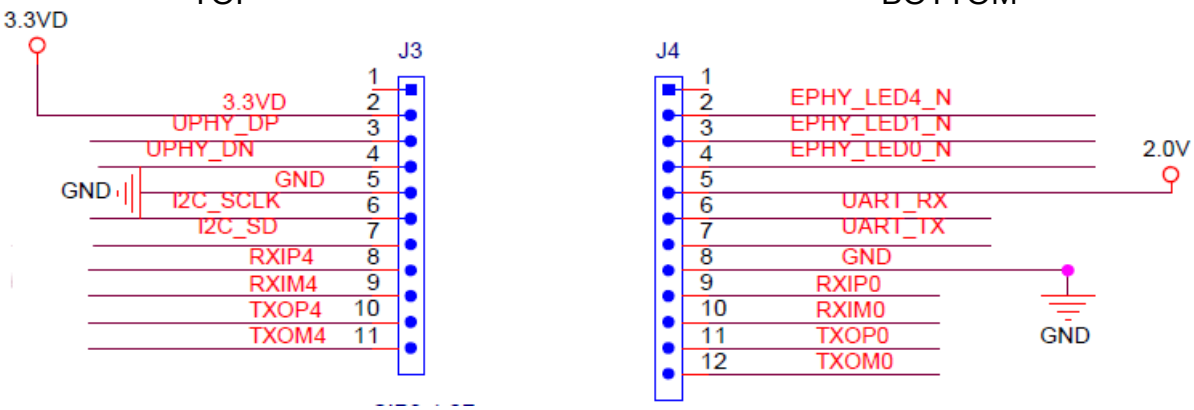
Chipset	QCA9531
Frequency	550MHz
RAM	64/128MNB
SPI Flash	8/16MB
WiFi	802.11 b/g/n 2T2R 300Mbps
Eth	802.3 10/100M
Size	45*25*8.5mm(L*W*H)
Interface	·Ethernet ×2 ·USB Host×1 ·SPI ×1 multiplex ·UART Lite ×1 ·I2C ×1 ·GPIO ×7 ·IPEX ×2 ·Input 3.3V1A
Working Temperature	-20°C- 85°C
WiFi Data	
Protocol/Standard	IEEE 802.11b, IEEE 802.11g, IEEE 802.n
Frequency Range	2.400~2.4835GHz
Modulation Type	·802.11b：DSSS (CCK, DQPSK, DBPSK) ·802.11g/n： (BPSK, QPSK, 16QAM, 64QAM)
Wireless Signal Rates	·802.11b：11， 5.5， 2, 1Mbps ·802.11g：54, 48, 36, 24, 18, 12, 9, 6Mbps ·802.11n：300Mbps(Max)
Transmitting Power	15 ±2dBm
Receiver Sensitivity	-72±1.0dBm
Software Systems	

·Open-Wrt/QSDK
·Linux 3.8 kernel
·CGI/HTTPD
·Open VPN/PPTP VPN
·Routing/Switch
·WPA2/WPA/WEP
·Simple file system
·USB
·PPPOE/DHCP

Definition of Pin

TOP

BOTTOM



J3 1*11 Pin Header (2.0mm)			
Pin No	**Symbol**	**Type**	**Description**
1	GPIO12	I/O	GPO Function
2	3.3V	P	DC 3.3V Power Supply
3	UPHY_DP	I/O	USB Port0 Data Pin Data+
4	UPHY_DN	I/O	USB Port0 Data Pin Data-
5	GND	G	Ground Pin

6	GPIO1	I/O	GPO Function
7	GPIO2	I/O	GPO Function
8	P0_RX+	I/O	10/100 PHY Port #0 RXP
9	P0_RX-	I/O	10/100 PHY Port #0 RXN
10	P0_TX+	I/O	10/100 PHY Port #0 TXP
11	P0_TX-	I/O	10/100 PHY Port #0 TXN

J5 1*12 Pin Header (2.0mm)			
Pin No	**Symbol**	**Type**	**Description**
1	GPIO14	I/O	GPO Function
2	GPIO4	I/O	GPO Function
3	GPIO16	I/O	GPO Function
4	GPIO15	I/O	GPO Function
5	2.0V	P	2.0V Power Supply
6	UART_TX	I/O	UART Lite ×1
7	UART_RX	I/O	UART Lite ×1
8	GND	G	Ground Pin
9	P4_RX+	I/O	10/100 PHY Port #4 RXP
10	P4_RX-	I/O	10/100 PHY Port #4 RXN
11	P4_TX+	I/O	10/100 PHY Port #4 TXP
12	P4_TX-	I/O	10/100 PHY Port #4 TXN

Limited Single-modular Transmitter

Assembled Products

The EUT are produced with a standard PVC enclosure that does not affect wireless transmission and reception characteristics.

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.

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.

FCC Radiation Exposure Statement

The modular can be installed or integrated in mobile or fix devices only. This modular cannot be installed in any portable device, for example, USB dongle like transmitters is forbidden.

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

If the FCC identification number 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. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: ***XXXXXXX*** Or Contains FCC ID: ***XXXXXXXX***”
when the module is installed inside another device, the user manual of this device must contain below warning statements;

1. 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.
   (2) This device must accept any interference received, including interference that may cause undesired operation.

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

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product