

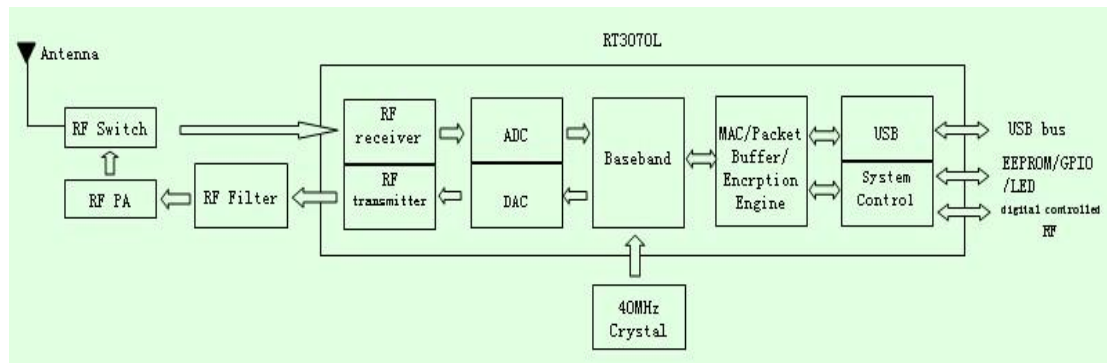
WIFI-9002 OPERATION TECHNICAL DESCRIPTION

WiFi Module

1、Features

- ◎ Ralink single chip solution RT3070L
- ◎ High speed wireless connection to 150Mbps
- ◎ Solid design with external antenna diversity
- ◎ Low power consumption and high performance
- ◎ Enhanced wireless security
- ◎ Host interface supports USB 2.0

2、Simplifide block diagram



3、General Specifications

WLAN Standard	IEEE 802.11b/g/n,Wi-Fi compliant
Host Interface	USB 2.0
Major Chipset	Ralink RT3070L
Dimension	47.5mm×17.2mm×6mm
Voltage	5V±0.3V
Temperature	0~65°C
Frequency Range	2.4GHz ISM Bands 2.412-2.472GHz,2.484GHz
Modulation	802.11g:OFDM 802.11b:CCK(11,5.5Mbps),DQPSK(2Mbps),DBPSK(1Mbps)
Output Power	802.11b:typical 17+-2dBm 802.11g:typical 14+-2dBm 802.11n:typical 14+-2dBm
Receive Sensitivity	802.11b:typical -86dBm at 11Mbps 802.11g:typical -69dBm at 54Mbps 802.11n:typical -67dBm at HT20 MCS7
Data Rates	802.11b:1,2,5.5,11Mbps 802.11g:6,9,12,18,24,36,48,54Mbps MCS0 to MCS15 for 11n HT20/HT40
Power Consumption	TX: typical 230mA at 5V, Rx: typical 200mA at 5V, Power save mode: typical 50mA at 5V
Operating Range	Open Space:~200m;indoor~100m

	(The transmission speed may vary according to the environment)
Security	◎ WEP 64-bit and 128-bit encryption ◎ WAP(WI-FI Protected Access) ◎ WAP2(Wi-Fi Protected Access)

4、The channel center frequency and CHNL_ID numbers shall be shown in the following table.

802.11b/g Channel Center Frequency	
CHNL_ID	Frequency (MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

5、Test Antenna Specification

Antenna Type	2.4G&5G Embedded WIFI Antenna
Frequency Range	2.4Ghz-5Ghz
Center Frequency	2.4Ghz-5Ghz
Peak Gain(Max)	1dBi(typ)
VSWR	<3.0
Impedance	50Ohm
Connector	IPEX 20278-001E-01 MHF Plug
Number of Antenna	1

6. Certify Antenna list

Model	Type	Gain	Length of feeder line	Manufacture	Remark
C168-JL-901	PIFA	1 dBi	420 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-902	PIFA	1 dBi	260 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-913	PIFA	0.925dBi	350mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-915	PIFA	0.925dBi	398mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-916	PIFA	1 dBi	537 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	It's test antenna.
C168-JL-927	PIFA	1 dBi	470mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-928	PIFA	0.925dBi	150mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-929	PIFA	1dBi	260mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-930	PIFA	1 dBi	340 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-931	PIFA	0.975dBi	600 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-935	PIFA	0.925dBi	100mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-960	PIFA	0.834dBi	258 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-962	PIFA	1 dBi	400 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-963	PIFA	1 dBi	450 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-976	PIFA	0.834dBi	590 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-981	PIFA	0.834dBi	470 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	
C168-JL-995	PIFA	0.834dBi	175 mm	Fuzhou Jielei Electronic Technology Co., Ltd.	