



SHENZHEN COMPARE ELECTRONICS CO., LTD.

深圳市宝安区西乡街道三围工业区达泰2楼

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Compare IEEE 802.11 b/g/n WLAN – USB Product Specifications

Model: CP318

VER:V2.5

DATE:2011/9



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1 Introduction

CP318 is a WLAN module supporting IEEE 802.11 b/g/n standards with PH connector supporting USB 2.0 signaling. This is a low cost compact WLAN module, designed in the product with embedded system for the wireless connectivity. CP318 both support RTL8188CTV and RTL8188CUS.

1.1 Scope:

CP318 WLAN Module is designed to operate in 2.4GHz ISM frequency band. This Module complies with IEEE 802.11b/g/n standards.

1.2 Features

- 1T1R mode with 150Mbps with PHY rates for both transmit and receiving
Dynamic data rate: Maximum data rate up to 150Mbps. 11n: Legacy, Mixed and Green Field modes, 11g: 54/48/36/24/12/9/6 Mbps (Auto Sensing); 11b:11/5.5/2/1 Mbps (Auto Sensing)
- support 20MHz/40MHz Bandwidth
- Security support for 64/128 bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK (TKIP/AES)
- Reverse Direction Grant Data Flow and Frame Aggregation
- Cisco CCX Support
- USB2.0
- Operating Frequency 2.412GHz~ 2.484GHz
- Transmit Output Power: 802.11g/n 14+/-1dBm 802.11b 18+/-1dBm
- Receive Sensitivity 11b: -75dBm @ 11Mbps (Typical); 11g: -65dBm @ 54Mbps (Typical)
- Antenna can choose Internal or external
- Operating Voltage 3.3VDC± 5%
- Antenna Port Impedance 50ohm

2. General Specification



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Model Name	CP 318 V2.5
Standard	802.11b/g/n
Data Transfer Rate	1,2,5.5,6,11,12,18,22,24,30,36,48,54,60,90.120and maximum of 150Mbps
Modulation Method	BPSK/QPSK/16-QAM/64-QAM
Frequency Band	2.4GHz ISM Band
Spread Spectrum	IEE 802.11b:DSSS(Direct Sequence Spectrum) IEE802.11g/n:OFDM(Orthogonal Frequency Division Multiplexing)
RF Output Power	<14dBm@11n ,<14dBm @11g, <18dBm@11b
Operation Mode	Ad hoc, Infrastructure
Receiver Sensitivity	11Mbps-80dbm@8%,54Mbps-70dBm@10%, 130Mbps-64dbm@10%
Operation Range	Up to 180 meters in open space
LED	Power
OS Support	Windows xp/ vista/Win7/Mac /Linux
Security	WEP,TKIP,AES,WPA,WPA2
Interface	USB 2.0
Power Consumption	DC3.3V
Operating Temperature	0~55℃
Storage Temperature	-20℃~70℃
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~90% non-condensing
Dimensions	25x12x2.2mm(LxwxH)



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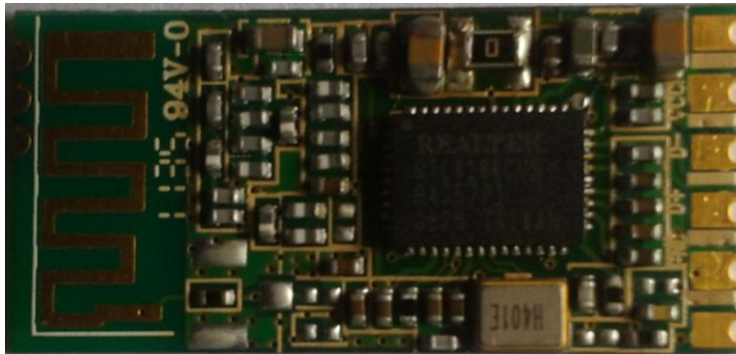
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网址:www.szcompare.com

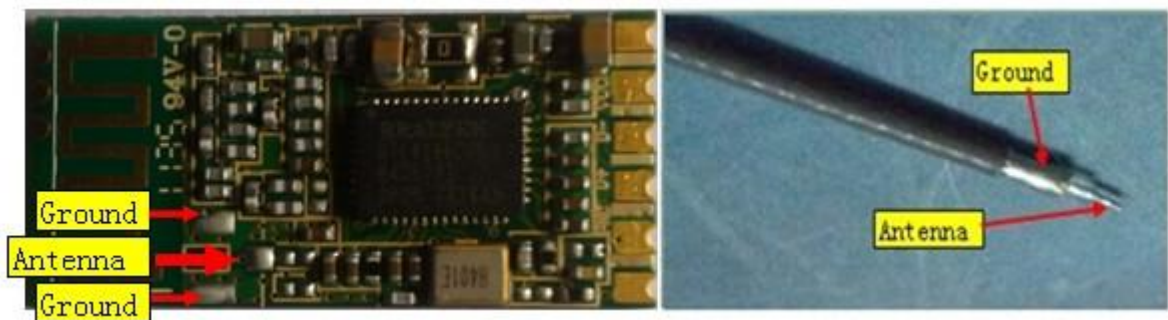
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3.Pictures

CP318 V2.5 3.3V内置板载天线



CP318 V2.5 3.3V供电外置天线



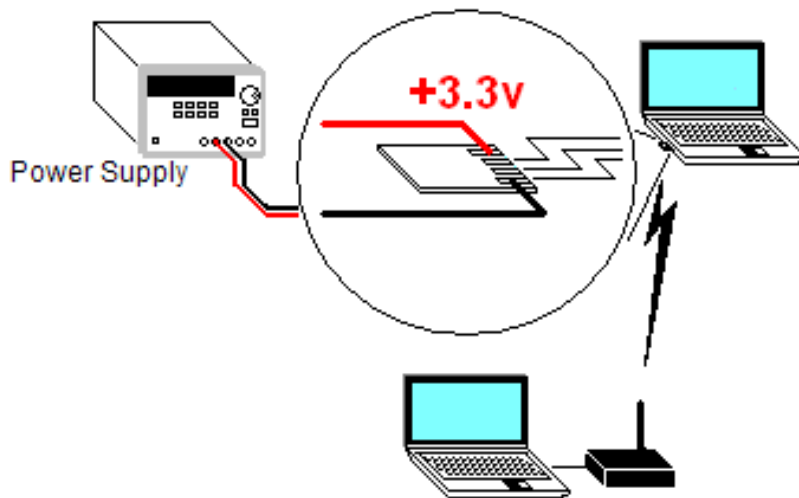


4. Test Project: CP318-V2.5 3.3V Current Test

4. 1测试地点: COMPARE实验室

4. 2测试平台, 设备: a.Rek PS-3050D电源适配器一台 b.台式机电
脑两台c.CP318-2.5 3.3V一个 d.TP-LINK无线路由器一台

4. 3测试连接示意图



4. 4测试流程及结果;

测试项目	3. 3V
1.Dongle置入USB后启动	110 mA
2. 搜寻并连接AP	120 mA
3. 测试档案传输TX+RX	120 mA
4. 使用软件功能 关闭装置	1mA
5. 使用软件功开启装置	120 mA
6. 电脑关闭	0mA

*以上测试值为平均值



5. Hardware Information

Block Diagram

RTL8188CTV

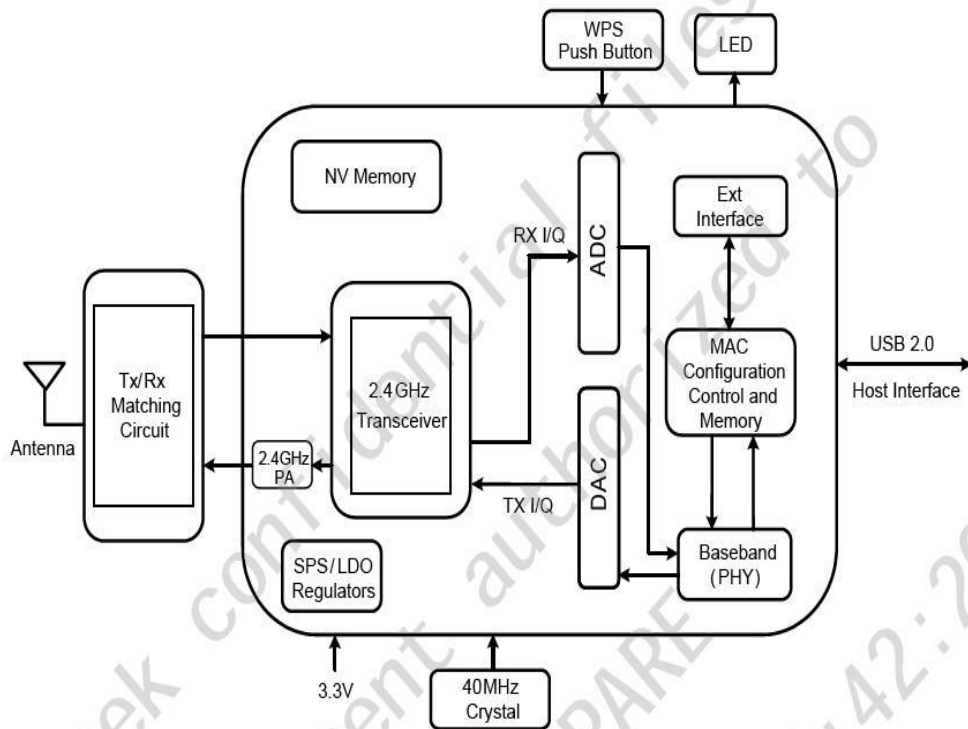


Figure 1. Single-Band 11n (1x1) Solution (11n 1x1 MAC/BB/RF+PA)

Figure 1: System Block Diagram of CP318 WLAN Module



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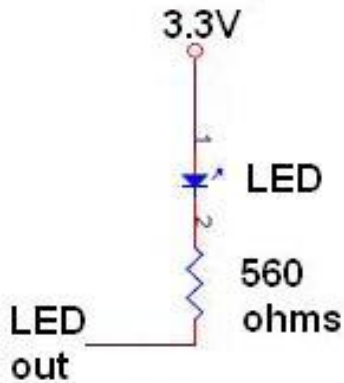
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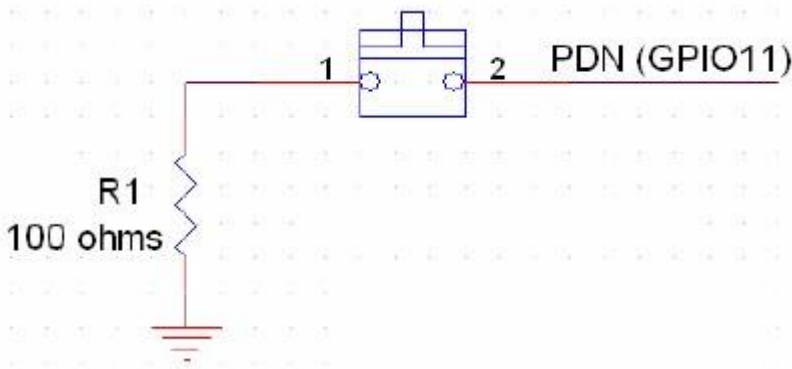
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5. 1 The external circuit for WiFi activity LED display



5.2 uses a push or toggle switch. r-down function input (optional)The external circuit for power



6. Antenna Connection Information

Antenna can choose Internal Ceramic antenna or external



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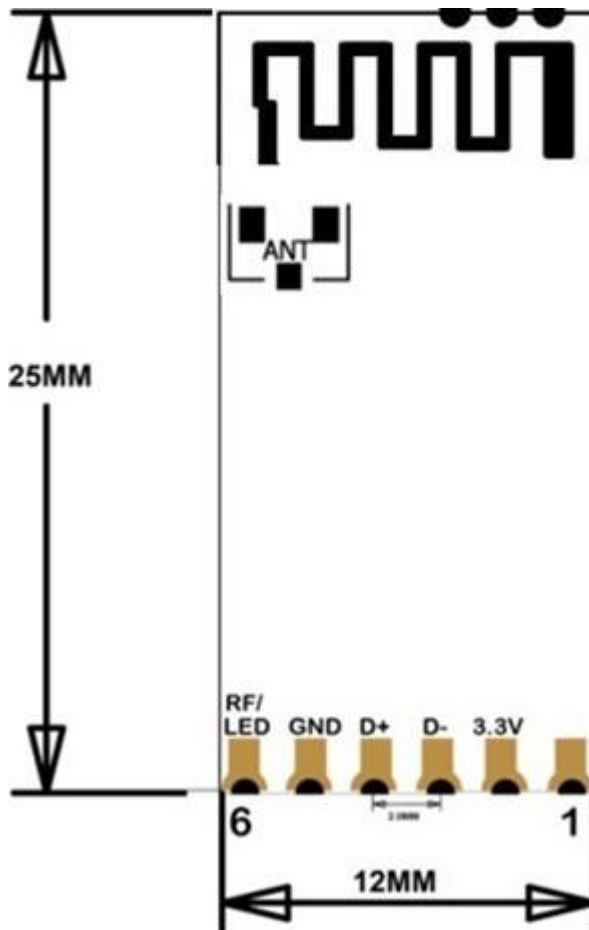
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7. Mechanical Information

7.1 Dimensions

Size: 25mm(Length)x12mm (Width)

Mechanical Drawing:



Pin Definition

1		5	GND
2	3.3V	6	RF/LED
3	D-		
4	D+		

7.2 USB Connection Information

6 pin (pin to pin=2.0mm)



8. Dimension

