

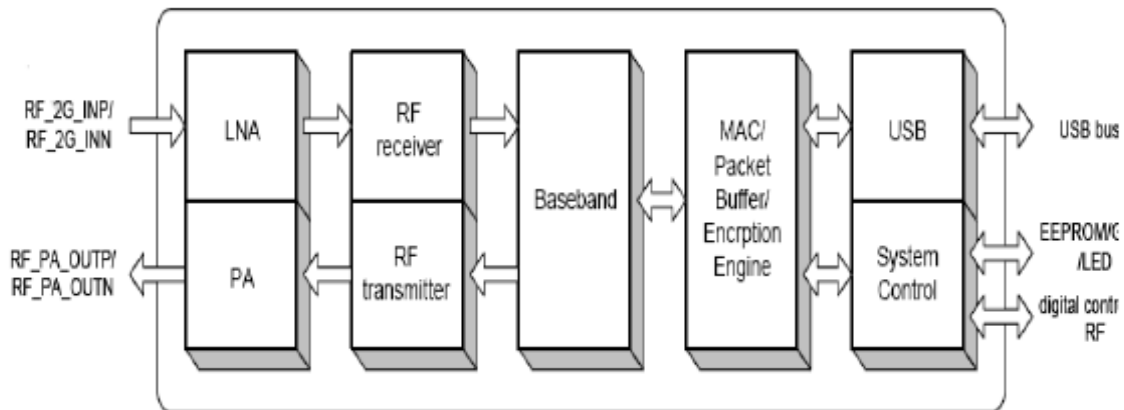
Product Description

The RCTWS1021 is a highly integrated MAC/BBP and 2.4 GHz RF/PA/LNA single chip with 150Mbps PHY rate supporting. It fully complies with IEEE 802.11n and IEEE 802.11 b/g feature rich wireless connectivity at high standards, delivers reliable, cost-effective, throughput from an extended distance. Optimized RF architecture and baseband algorithms provide superb performance and low power consumption. Intelligent MAC design deploys a high efficient DMA engine and hardware data processing accelerators without overloading the host processor. The RCTWS1021 is designed to support standard based features in the areas of security, quality of service and international regulation, giving end users the greatest performance anytime in any circumstance.

Product Features

- ✧ CMOS Technology with PA, LNA, RF, Baseband, and MAC Integrated.
- ✧ 1T1R Mode with 150Mbps PHY Rate for Both Transmit and Receiving.
- ✧ Legacy and High Throughput Modes
- ✧ 20MHz/40MHz Bandwidth
- ✧ Reverse Direction Grant Data Flow and Frame Aggregation
- ✧ WEP 64/128, WPA, WPA2, TKIP, AES, WAPI
- ✧ QoS-WMM, WMM-PS
- ✧ WPS, PIN, PBC
- ✧ Multiple BSSID Support
- ✧ USB 2.0
- ✧ Cisco CCX Support
- ✧ Bluetooth Co-existence
- ✧ Low Power with Advanced Power Management
- ✧ Operating Systems - Windows XP 32/64, 2000, Windows 7, Vista 32/64, Linux, Macintosh

Simplified block diagram of the RCTWS1021 module is depicted in the figure below.



General Specifications

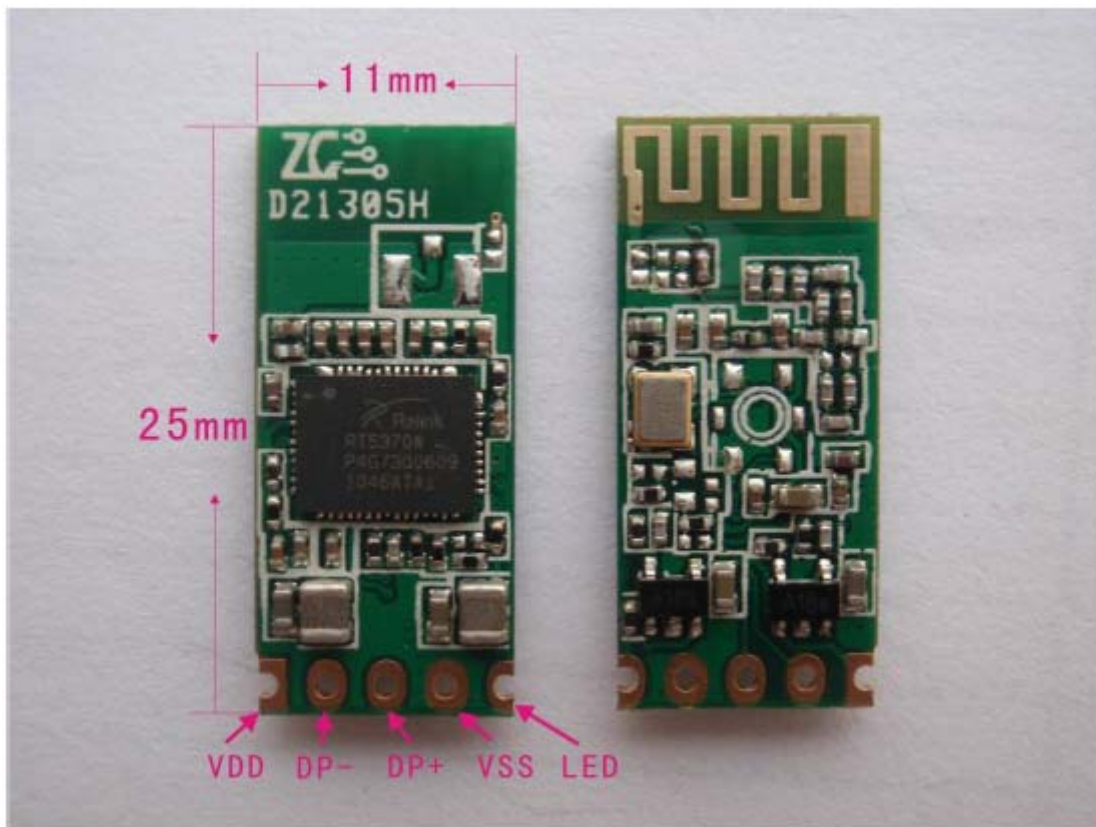
Model Name	RCTWS1021
Product Description	USB 2.0 Wireless Module
WLAN Standard	IEEE 802.11 b/g/n ,Wi-Fi compliant
Host Interface	USB 2.0

Major Chipset	Ralink RT5370
Dimension	11mm X 34mm X 3.3mm
Weight	5g
Operating Conditions	
Voltage	
Operating Temperature	0~70 °C
Humidity Non-Operating	90% RH non-condensing (12 months among 0~40°C)
Electrical Specifications	
Frequency Range	2.4~2.4835GHZ
Spread Spectrum	DSSS
Transmission Distance	300m(The transmission speed may vary according to the environment)
Data Rate	11n: 150/135/120/90/60//54/45/30/15Mbps 72/65/57.8/43.3/28.9/21.7/14.4/7.2Mbps 11b: 1/2/5.5/11Mbps 11g: 6/9/12/24/36/48/54Mbps
	11b: 1/2/5.5/11Mbps
	11g: 6/9/12/24/36/48/54Mbps
Transmit power	16dbm
Data security	64/128/152bitWEP,WPA/WPA2,WPA-PSK/WPA2-PSK(TKIP/AES)
Receiver Sensitivity	150M: -71dbm@10%PER
	135M: -71dbm@10%PER
	54M: -71dbm@10%PER
	11M: -84dbm@10%PER
	6M: -89dbm@10%PER
	1M: -93dbm@10%PER
Environment	Storage Temperature: -40~70°C (-40°F ~ 158°F)
	Relative humidity: 10%-90%
	Non-condensing
	Storage Humidity: 5%~95%
	Non-condensing
Modulation Type	OFDM/CCK/16-QAM/64-QAM
Operating System	Window98,ME,SE,XP,XP-64 Windows7, 32/64, 2000,Vista,linux,mac

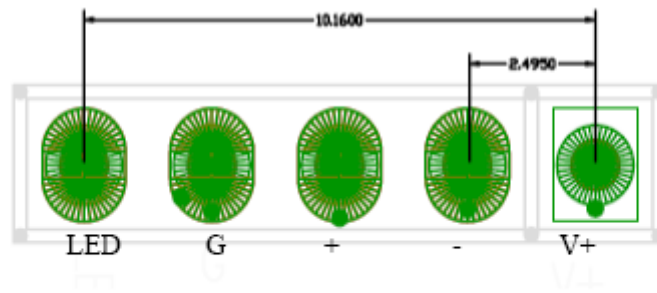
Power Consumption

Parameters	Sym	Conditions	Min	Typ	Max	Unit
3.3V Supply Voltage	Vcc33		3.0	3.3	3.6	V
1.2V Supply Voltage	Vcc12		1.14	1.2	1.38	V
Receiving						
3.3V Current Consumption	Icc33rx	HT40 MCS7		35		mA
1.2V Current Consumption	Icc12rx	HT40 MCS7		190		mA
Transmission						
3.3V Current Consumption	Icc33tx	HT40 MCS7		230		mA
1.2V Current Consumption	Icc12tx	HT40 MCS7		110		mA

Mechanical Information



5 pin (pin to pin=2.54mm)



5 pin (pin to pin=2.54mm)

Pin Description

J1	VCC	J5	LED
J2	UDM		
J3	UDP		
J4	GND		

Antenna And Interface Connection Information

Interface and the antenna have the option