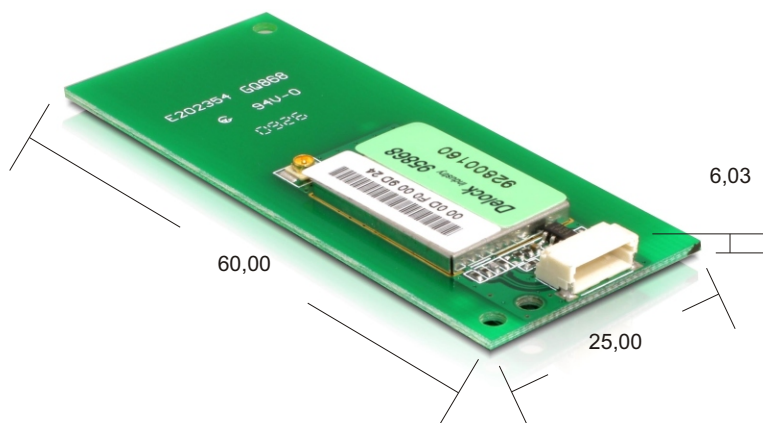


# Specification

95868

**Delock industry USB WLAN 150 Mbps 5V module 1T1R**



date: 11.05.2009

# Specification

## 95868

**Delock industry USB WLAN 150 Mbps 5V module 1T1R**

### **Contents:**

- device overall description
- features
- specification compliance
- block diagram
- channel assignment
- security - certification
- RF specifications
- software & OS support
- operating conditions
- mechanic drawing
- antenna connector
- LED indication

# Specification

## 95868

### **Delock industry USB WLAN 150 Mbps 5V module 1T1R**

#### **Device Overall Description**

The 95859 is designed to provide wireless LAN function on a small form factor with USB interface. The wireless LAN function is based on Ralink RT3070 MAC/BBP/RF controller and high gain power amplifier, fully comply with current draft IEEE 802.11n and IEEE 802.11 b/g standards.

#### **Features**

- Ralink RT3070 MAC/BBP/RF controller
- 1T1R modes
- 11b: 1,2,5.5,11Mbps
- 11g: 6,9,12,18,24,36,48,54Mbps
- 11n: legacy and high throughput modes, support 20/40MHz bandwidth MCS0~7(150Mbps PHY rate rate)
- reverse direction data flow and frame aggregation
- WEP 64/128, WPA, WPA2, TKIP, AES
- QoS-WMM, WMM-PS
- WPS, PIN, PBC
- multiple BSSID support
- low power with advanced power management

# Specification

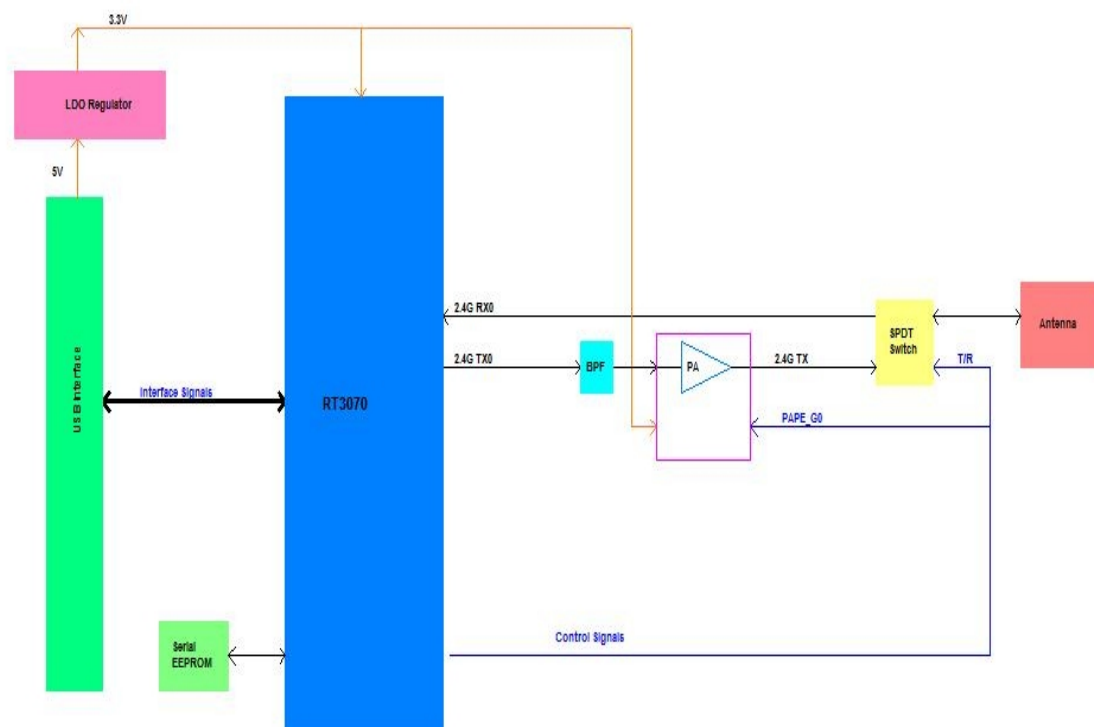
## 95868

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### Specification compliance

- 802.11n Draft3.0
- 802.11b/g
- 802.11i
- 802.11e
- 802.11d
- 802.11h
- 802.11j
- USB2.0

### Block diagram



# Specification

## 95868

**Delock industry USB WLAN 150 Mbps 5V module 1T1R**

### Channel sssignment

2.4GHz channel support

Channel	FCC (US)	IC (CA)	ETSI (EU)	Japan JP)
1	x	x	x	x
2	x	x	x	x
3	x	x	x	x
4	x	x	x	x
5	x	x	x	x
6	x	x	x	x
7	x	x	x	x
8	x	x	x	x
9	x	x	x	x
10	x	x	x	x
11	x	x	x	x
12			x	x
13			x	x
14				x

### KEY:

US = United States, CA = Canada, EU = European countries (except France and Spain) JP = Japan many countries and region are currently revising the channel assignment. X = Supported

### Security

- complete security features - WEP 64/128, WPA, WPA2, 802.1x, and 802.11i
- Cisco CCS compliant

### Certification

- Cisco CCX

### RF Specifications

TBD

# Specification

## 95868

### Delock industry USB WLAN 150 Mbps 5V module 1T1R

#### RF Characteristics

RF Characteristics	Minimum	Typical	Maximum	Units
PC Interface USB 2.0		USB 2.0		
Internal Antenna Impedance		50		ohms
Operating Temperature Range	0		+ 65	
Storage Temperature Range	-20		+ 65	
Supply Voltage	4,7	5,0	5,3	V
RX Supply Current (11b 11Mbps)		90		mA
Power Consumption		450		mWatts
RX Supply Current (11g 54Mbps)		95		mA
Power Consumption		475		mWatts
RX Supply Current (11n 150Mbps)		110		mA
Power Consumption		550		mWatts
TX Supply Current (11b 1Mbps)		195		mA
Power Consumption		975		mWatts
TX Supply Current (11g 6Mbps)		190		mA
Power Consumption		950		mWatts
TX Supply Current (11n 15Mbps)		185		mA
Power Consumption		925		mWatts
Radio off Current		38		mA
Power Consumption		190		mWatts
RX Sensitivity (11b, 11Mbps)		-86		dBm
RX Sensitivity (11g, 54Mbps)		-71		dBm
RX Sensitivity (11n, 150Mbps)		-63		dBm
TX Output Power (11b, 11M)		17.5		dBm
TX Output Power (11g, 54Mbps)		14		dBm
TX Output Power (11n, MCS0)		17.5		dBm
TX Output Power (11n, MCS7)		14		dBm
TX Spectral Mask (CCK)		PASS		
TX Spectral Mask (OFDM)		PASS		
TX Spectral Mask (11n, 20M)		PASS		
TX Spectral Mask (11n, 40M)		PASS		
Preamble Length		Long / Short		

# Specification

## 95868

**Delock industry USB WLAN 150 Mbps 5V module 1T1R**

### Software & OS support

operating system	driver
Windows 2000	available
Windows XP 32/64	available
Windows Vista 32/64	available
Windows CE 5.0/6.0	available
Linux	available
MAC OS	available

### Operating conditions

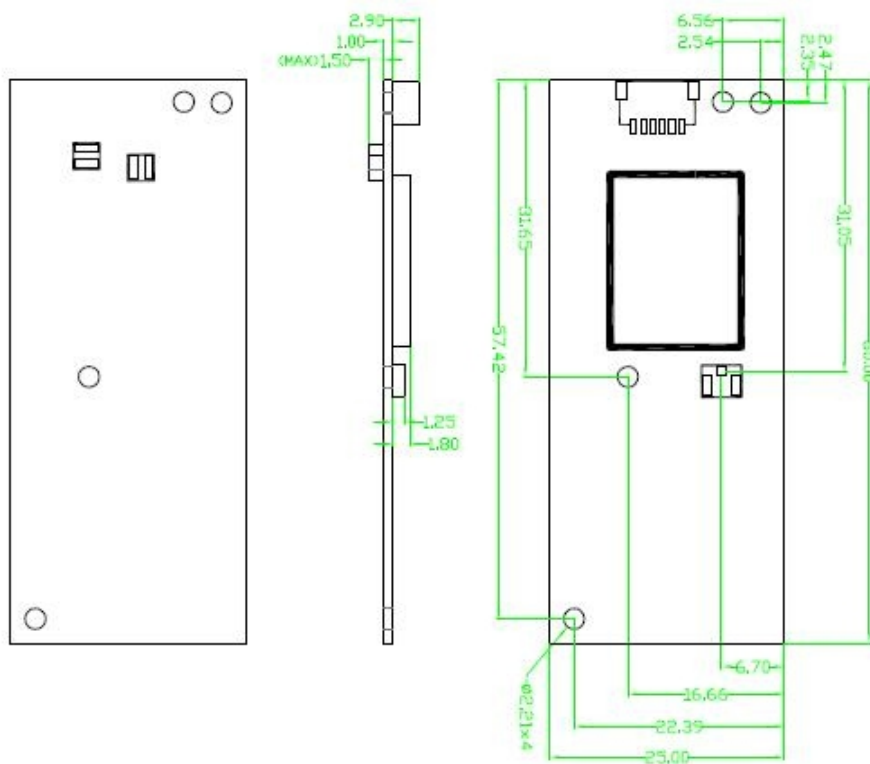
voltage range	5,0V ( ± 0.5V)
operating temperature range	0°C - 65°C
storage temperature range	-10°C - 85°C
relative humidity during operating	max. 95% (non-condensing)
relative humidity during storage	max. 95% (non-condensing)

# Specification

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**Delock industry USB WLAN 150 Mbps 5V module 1T1R**

## Mechanical drawing





# Specification

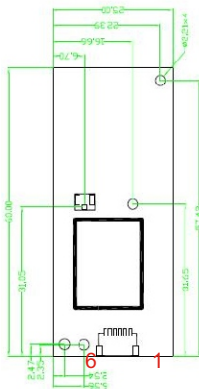
## 95868

**Delock industry USB WLAN 150 Mbps 5V module 1T1R**

### Antenna connector

Connector	Vendor	Part#
Antenna *1	Hirose	CL331-0471-0-10 (U FL-R-SMT), or compliance

### Connector Status:



### Host interface pin definition

1	<b>Vcc 5V</b>	2	<b>USB Data -</b>
3	<b>USB Data +</b>	4	<b>GND</b>
5	<b>WLAN LED LINK</b>	6	<b>FAA pin: WLAN RF Disable/Enable</b>

cable optional: Delock industry A95835



-host interface connector : 6 pin SMT Male USB connector

-connector product number (Male): 87213-0600L (connector Vender Aces Electronic CO., LTD.)

**Note:** Pin 5 is low active for WLAN LED link  
Pin 6 is low voltage to disable RF function

# Specification

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Delock industry USB WLAN 150 Mbps 5V module 1T1R

## LED status:

LED status	WLAN card activity
LED on	Associated, and authenticated but not transmitting or receiving
LED Slow Blink	Scanning for AP
LED Intermittent Blink	Activity proportional to transmitting/receiving speed
LED off	Radio off

