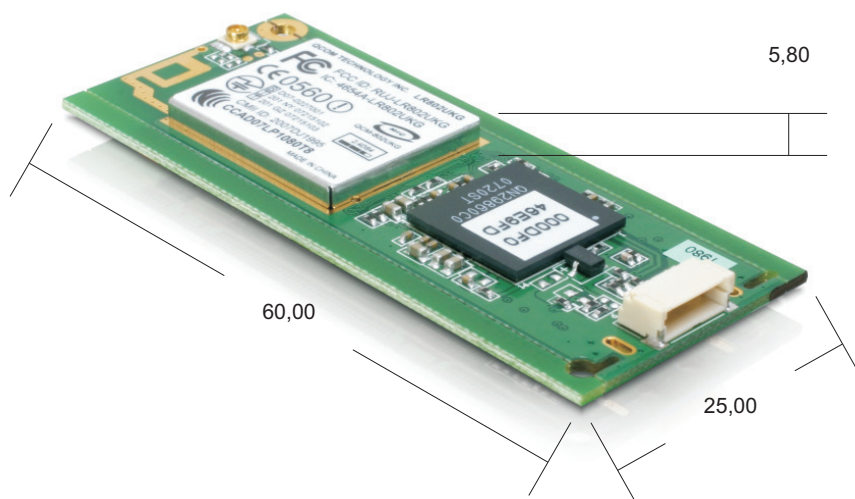


Specification

95808

Delock industry USB WLAN 54Mbps module



date: 16.03.2009

Specification

95808

Delock industry USB WLAN 54Mbps module

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802.11 wireless LAN

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Specification

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Delock industry USB WLAN 54Mbps module

Device overall description

The 95808 is designed to provide wireless LAN function on a small form factor with USB interface. The wireless LAN function is based on Ralink **RT2571W** MAC/BBP, **RT2528** transceiver and high gain power amplifier, which implements the full IEEE802.11b/g standard data rates up to 54Mbps.

802.11 wireless LAN

Features

- Ralink RT2571W MAC/BBP with RT2528 transceiver
- support IEEE 802.11b compliant DBPSK, DQPSK, CCK modulation
- IEEE802.11b standard data rates: 1, 2, 5.5 and 11Mbps.
- Support IEEE 802.11g compliant DSSS, CCK, OFDM modulation
- IEEE802.11g standard data rates: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- embedded WEP (64 or 128 bit) engine for enciphering/deciphering of wireless data
- support TKIP and AES
- host interface supports USB 2.0

Specification compliance

- IEEE 802.11b/g
- USB spec. 2.0

Form factor

- Weight 0.25 oz (7g)
- 60mm length X 25mm width X 5.8mm height

Specification

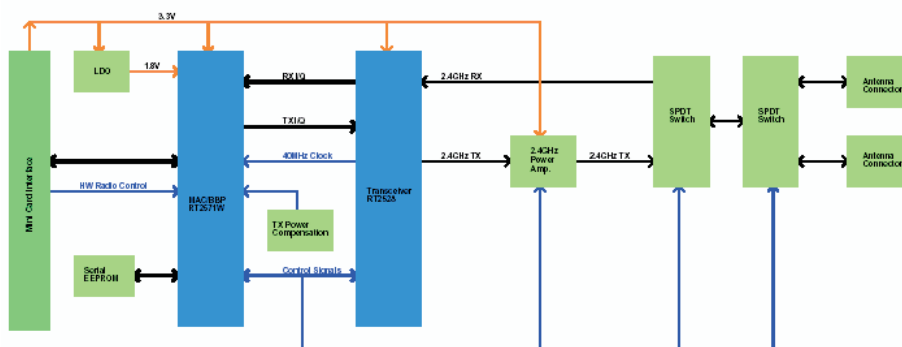
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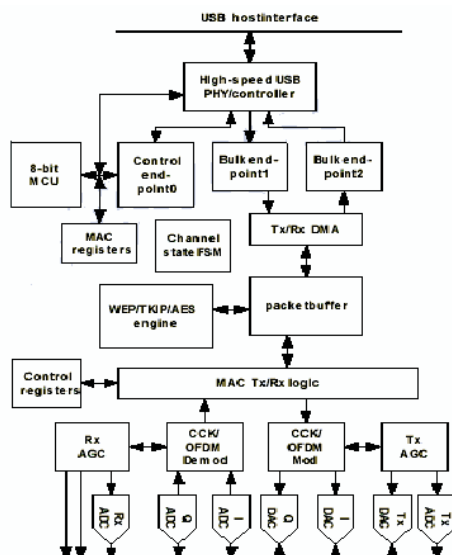
802.11 Wireless LAN Block Diagram

RT2571W: Ralink, wireless LAN integrated medium access controller with baseband processor

RT2528 : Ralink, 2.4GHz single chip transceiver



Ralink RT2571W chip diagram

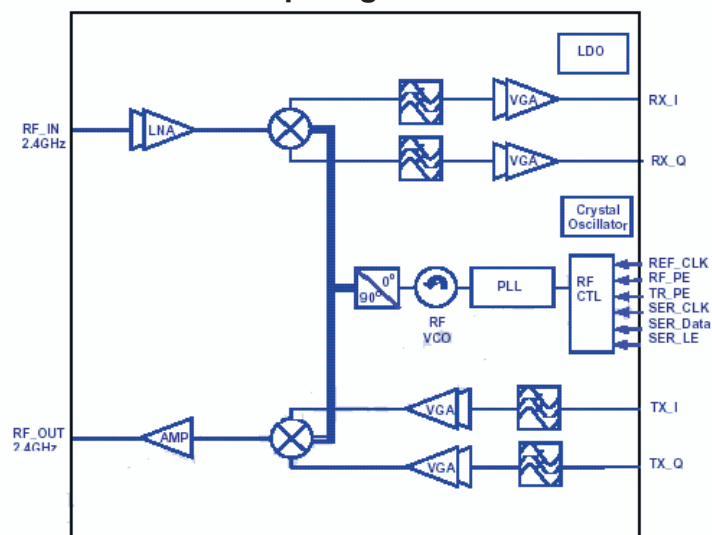


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Ralink RT2528 chip diagram



Modulation methods

data bit rate	modulation and encoding rate
802.11b CCK Modes	
1Mbps	BPSK
2Mbps	QPSK
5,5Mbps	QPSK
11Mbps	QPSK
802.11g modes	
6Mbps	BPSK
9Mbps	BPSK
12Mbps	QPSK
18Mbps	QPSK
24Mbps	16QAM
36Mbps	16QAM
48Mbps	64QAM
54Mbps	64QAM

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Channel assignment

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 V1.0, 2.0 and V3.0 compliant

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RF characteristics

RF characteristics	minimum	typical	maximum	units
PCInterface		USB 2.0		
Plug and Play compatible		yes		
internal antenna impedance		50		ohms
operating temperature range	0		65	°C
storage temperature range	-10		85	°C
supply voltage (option)	4,7 (3,0)	5 (3,3)	5,3 (3,6)	V
RX supply current (CCK)		226		mA
RX supply current (OFDM)		228		mA
TX supply current (CCK)		236		mA
TX supply current (OFDM)		238		mA
power save mode current		124		mA
H/W disable radio operation		82		mA
RX sensitivity, 11 Mbps(CCK)		-89		dBm
RX sensitivity, 54Mbps(OFDM)		-70		dBm
TX output power(CCK)		17		dBm
TX output power(OFDM)		14		dBm
TX carrier suppression				
TX spectral mask (CCK)		Pass		
TX spectral mask (OFDM)		Pass		
preamble length		long/short		

* Option voltage range* 3.3V ± 0.3V

Note: Sensitivity based upon 1 kbyte packet length, 8% PER(CCK), single antenna driven, diversity disabled.

Note: Sensitivity based upon 1 kbyte packet length, 10% PER(OFDM), single antenna driven, diversity disabled.

Note: All measurements at the end of 6" of cable through Murata connector with local diversity option.

Software & OS support

operating system	driver
Windows 98SE	available
Windows Me	available
Windows 2000 / XP	available
Windows Vista	available
Linux 2.6.x	available
MAC OS 10.3 & 10.4	available
Wince 5.0 & 6.0	available

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Operating conditions

voltage range	5V +-5%
operating temperatur range	0°C - 85°C
storage temperature range	-20°C - 85°C
relative humidity during operating	95% (non condensing)
relative humidity during storage	95% (non condensing)

Antenna connector

Hirose CL331-0471-0-10 (U.FL-R-SMT) or compliance

Host interface Pin definition and mechanical drawing

- host interface connector : 6 pin SMT male USB connector
- connector product number (male): 87213-0600 (connector vendor Aces Electronic CO., LTD.)

1	VCC 5.0	2	DATA-
3	DATA+	4	GND
5	WLAN LED link	6	WLAN FAA disable/enable

Note:

Pin 5 is low active

Pin 6 is low voltage to disable device.

cable optional Delock A95835

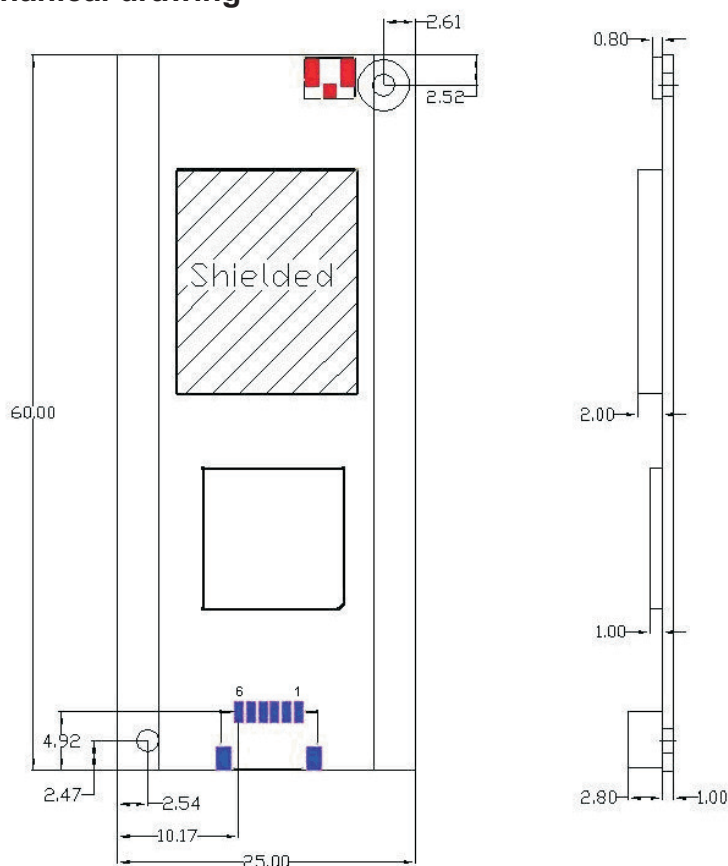


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Mechanical drawing



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	all other status