

ZLSN2000

Serial to Ethernet Module

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ZL DUI 20081127.1.0



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1. Summary

ZLSN2000 is a serial to Ethernet module. It can transparently convert serial data to TCP/IP data, and converts TCP/IP data to serial simultaneously. It has one serial port and one Ethernet port.

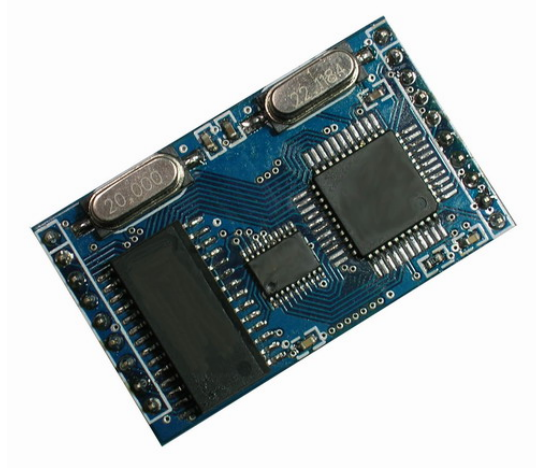


Figure 1 ZLSN2000

1.1. Characteristic of ZLSN2000

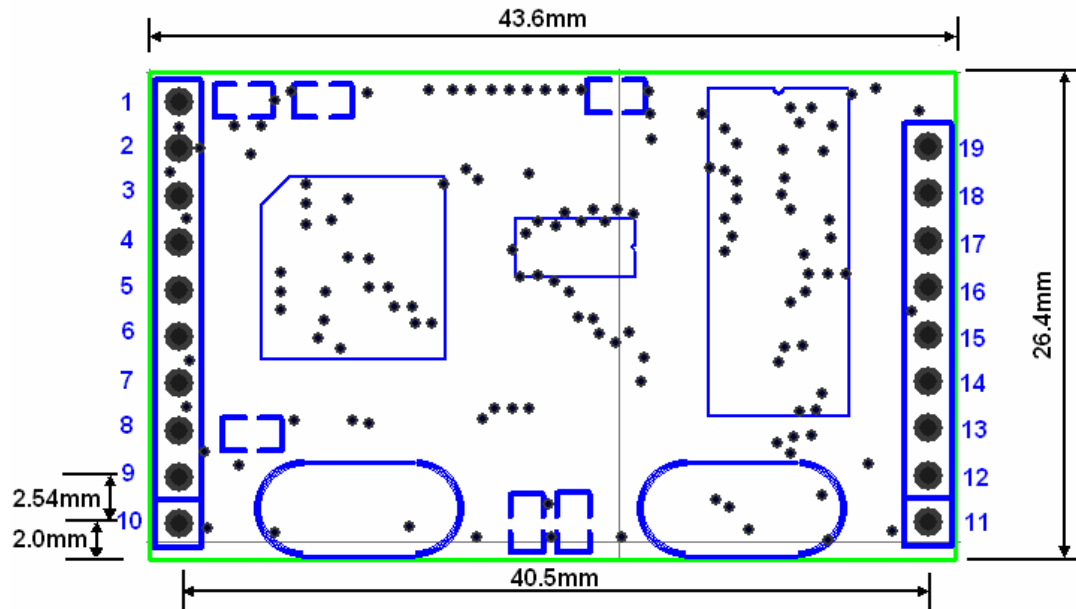
1. Full Duplex, high stability.
2. Low cost serial to Ethernet solution.
3. Support TCP Server, TCP Client, UDP mode
4. Support DHCP, DNS.
5. Serial baud rate: 1200 to 460800bps

2. Parameters

Figure		Portocol support		
Connecting type:	19pin module	TCP, UDP ,HTTP, ARP, ICMP, DHCP, DNS		
Dimension:	43 x 26mm	Work mode		
Communication interface		TCP SERVER, TCP CLIENT, UDP		
Ethernet:	10Mbps	Power		
Serial:	TTL(5V): RXD, TXD,CTS, RTS	Power:	DC5V(± 5%), less than 45mA	
Serial parameters		Envirment require		
Baund rate:	1200~115200bps	Temperature:	Commerce	0~70℃
			Industry:	-45~85℃
Parity:	None, Odd, Even, Mark, Space	Storage:	Commerce	-45~165℃
			Industry:	-45~165℃
Databits:	5-9			
Flow control:	RTS/CTS, NONE			

3. Pin define

Pins of ZLSN2000 is defined as following:



PIN	Name	Direction	PIN	Name	Direction
1	MODE	IN			
2	GND	IN	19	LINK	OUT
3	VCC	IN	18	ACT	OUT
4	RST	IN	17	DEF	IN
5	SPA	OUT	16	TPOUT+	OUT
6	SPR	IN	15	TPOUT-	OUT
7	CTS	IN	14	TPIN-	IN
8	RTS	OUT	13	TPIN+	IN
9	RXD	IN	12	LED_R	OUT
10	TXD	OUT	11	LED_S	OUT

1. TXD,RXD: serial port
2. CTS, RTS: serial port flow control. If RTS is 0, ZLSN2000 can receive data from RXD; Only when CTS is 0, ZLSN2000 can send data if flow control is

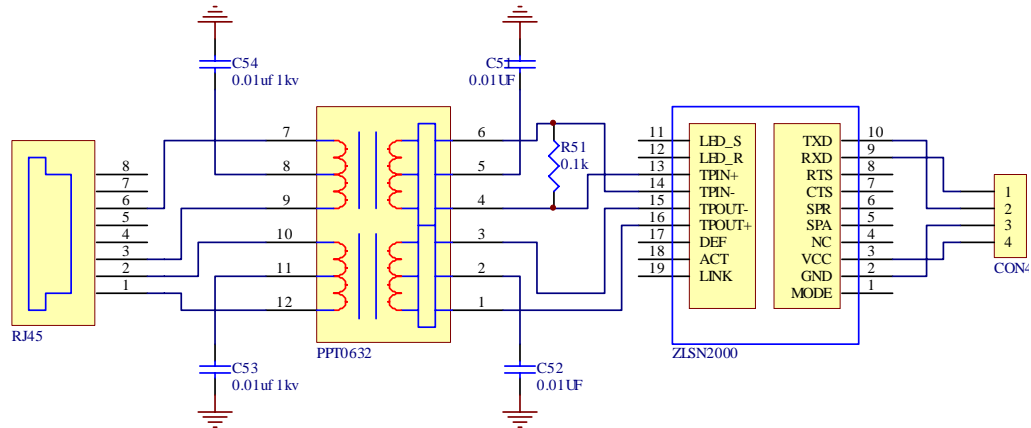
enabled.

3. LED_S, LED_R: Ethernet sending and receiving indicating led. When sending, LED_S becomes low level; when receiving LED_R becomes low level.
4. MODE: not used.
5. DEF: If this pin is low level, ZLSN2000 will load the default parameters, when power on.
6. ACT: Means data converting is under processing.
7. LINK: Means TCP connection is established or ZLSN2000 is in UDP work mode.
8. TPIN+, TPIN-, TPOUT-, TPOUT+: Ethernet pins.
9. SPR: reserved.
10. SP: reserved.
11. RST: low level to reset module.

4. Circuit

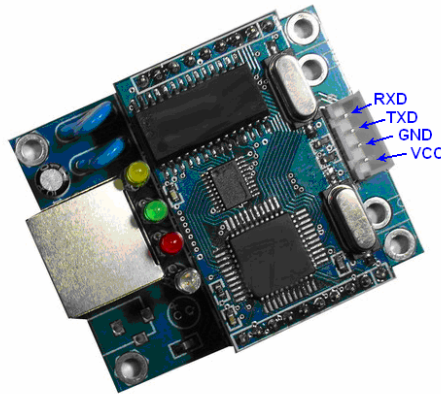
4.1.1. ZLSN2000

Following is the circuit showing how to use ZLSN2000 in user circuit board. PPT0632 is a Ethernet transformer, which is available from us.

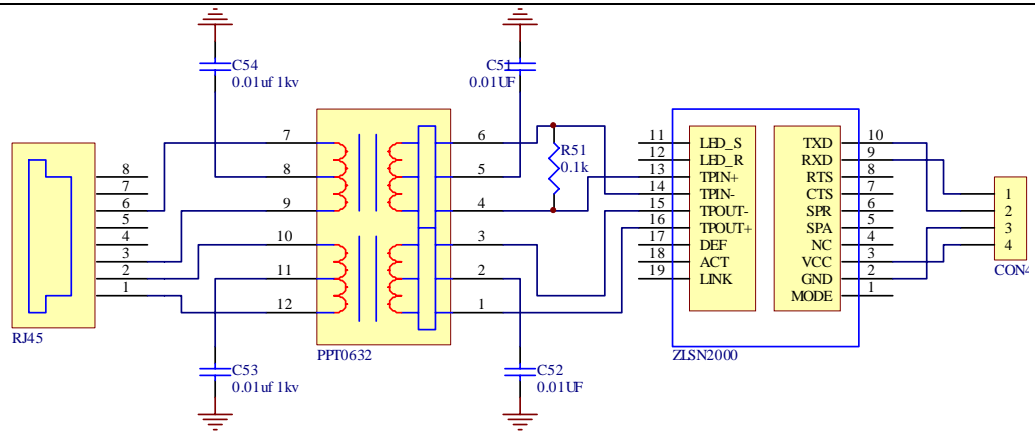


4.1.2. ZLSN3000 Introduction

For user's convenience, we provide ZLSN3000, which has a RJ45 port and only 4 lines (VCC, GND, RXD, TXD) to connect to user circuit board.

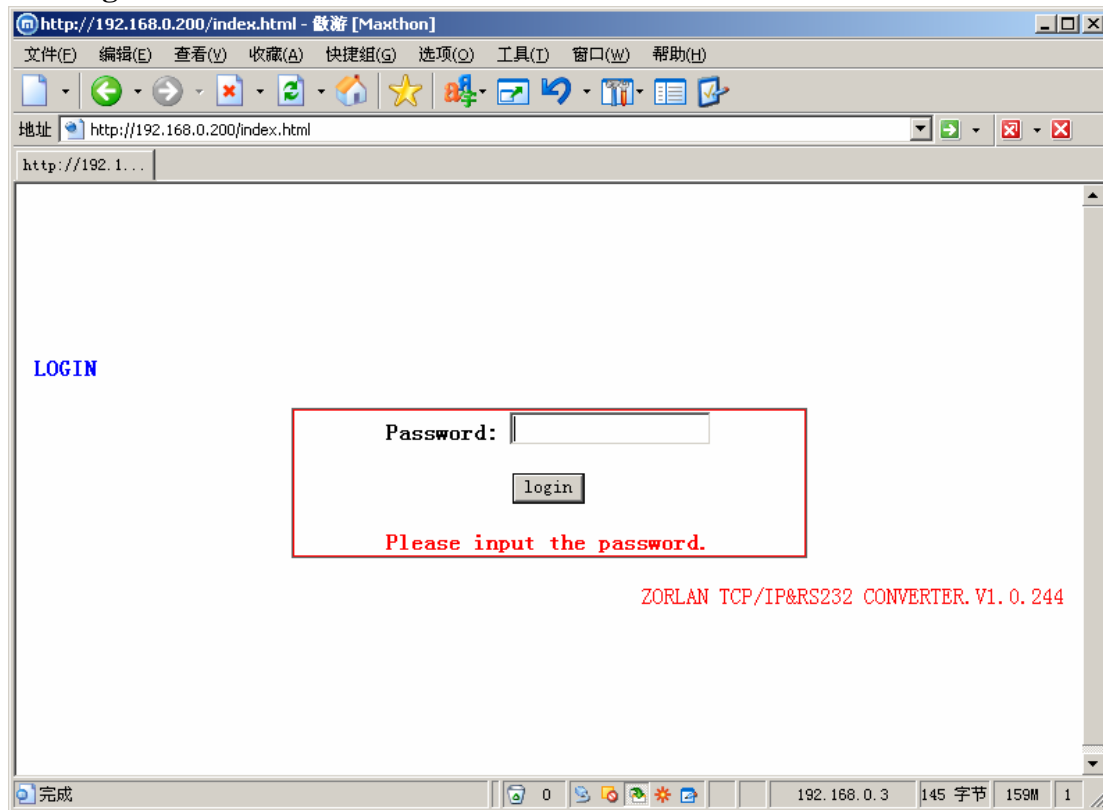


Following is the cuirt of ZLSN3000.



5. Use web to config ZLSN2000

Login:



Net parameters:

Tel:(021)64325189

http://www.zlmcu.com

Maxthon browser window showing the IP Parameters Setting page. The address bar displays <http://192.168.0.200/ip.html>.

IP Paramters Setting

Left sidebar links:

- [IP Parameters](#)
- [Serial Parameters](#)
- [Modify Password](#)
- logout

Form fields:

IP Mode:	Static IP
IP Addr:	192.168.0.200
NetMask:	255.255.255.0
GateWay:	192.168.0.1
Work Mode:	TCP Server
Local Port:	1024
Dest Mode:	Dynamic
Dest Port:	1024
Dest IP:	192.168.0.3
Device Name:	test_dev

SUBMIT

Status bar: 192.168.0.3, 0 字节, 385M, 1

Serial parameters:

Maxthon browser window showing the Serial Setting page. The address bar displays <http://192.168.0.200/serial.html>.

Serial Setting

Left sidebar links:

- [IP Parameters](#)
- [Serial Parameters](#)
- [Modify Password](#)
- logout

Form fields:

Baudrate:	115200
Data Bits:	8
Parity:	None
Stop bits:	1
Flow Control:	None
Packing length:	1300 (byte)
Gap time:	255 (ms)
Frame Start Byte (Hex):	0x
Frame End Byte (Hex):	0x

SUBMIT

Status bar: 192.168.0.3, 0 字节, 232M, 1

Modify login key:

http://192.168.0.200/key.html - 傲游 [Maxthon]

文件(F) 编辑(E) 查看(V) 收藏(A) 快捷组(G) 选项(O) 工具(T) 窗口(W) 帮助(H)

地址 http://192.168.0.200/key.html

http://192.168.0.200/key.html

IP Parameters
Serial Parameters
Modify Password

logout

Modify Password

New Password:

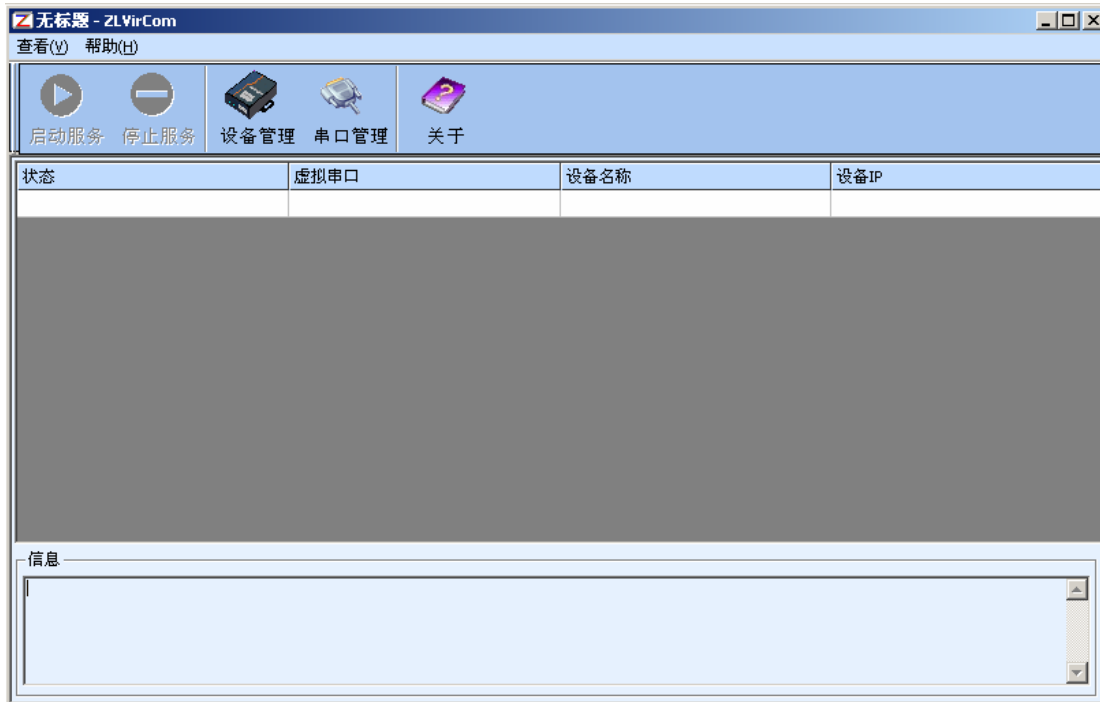
Retype Password:

SUBMIT

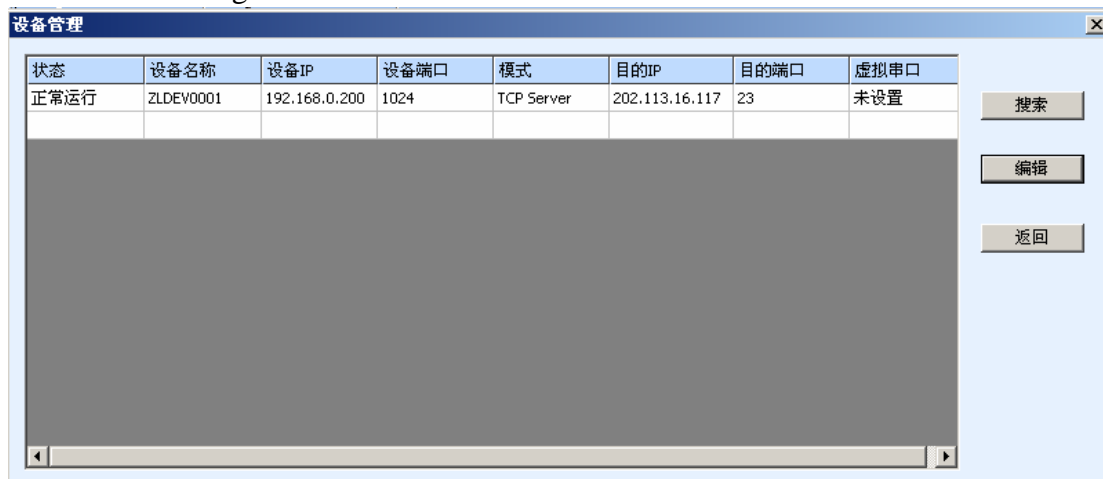
0 192.168.0.3 40 字节 153M 1

6. Use VirCom windows utility to config

1. Run VirCom:



Device management:



Parameter setting:

设备设置	
虚拟串口	不使用
设备名称	test_d11
串口设置	
波特率	115200
校验方式	None
数据位	8
停止位	1
流控	None
分包规则	
最大包长	1300 (byte)
最长间隔	255 (ms)
帧首字符 0x	(Hex)
帧尾字符 0x	(Hex)
网络设置	
IP模式	Static IP
IP地址	192.168.0.200
子网掩码	255.255.255.0
网关IP	192.168.0.1
工作模式	UDP
本地端口	1025
目的模式	Dynamic
目的IP	192.168.0.3
目的端口	5678
修改设置 取消	