

# ZLAN5G00A/5G40A

## User' s Manual

### 16 PORT RS232/485/422 to TCP/IP Converter

(Modbus TCP to RTU Convertor)

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## 1. Summary

The ZLAN5G00A/ZLAN5G40A serial device servers are designed to make your industrial serial devices Internet ready instantly. The rack-mounted size of the ZLAN5G00A/ZLAN5G40A device servers makes them the ideal choice for connecting your RS-232/422/485 serial devices — such as PLCs, meters, and sensors — to an IP-based Ethernet LAN, making it possible for your software to access serial devices anywhere

The RS232/485/422 port of ZLAN5G00A/ZLAN5G40A supports Full-duplex/Half-duplex, uninterrupted communication. It embedded with lightning protection circuits. It supports DHCP, DNS. It supports virtual serial driver, and user's previous PC software using serial communication need not change.

The ZLAN5G40A provides up to 16 Modbus TCP RTU transfer function. Only one LAN JR45 port needs to be connected. . It can be convenient, centralized used as network monitoring of Modbus RTU equipment.



Figure 1 ZLAN5G00A/ZLAN5G40A converter

It can be applied to:

- building/e-guard system/security system;
- bank/medical automation system;
- dealing in securities system;
- industry automation system;
- Point of Sells (POS) system;
- Information Appliance.

## 1.1. Feature

1. Supports 16port RS232/RS485/RS422 interface.
2. Supports 10/100 Mbps Ethernet—auto-detectable
3. Versatile socket operation modes, including TCP Server, TCP Client, and UDP.
4. Support full duplex, high speed converting, and no packet lost.  
ZLAN5G00A/ZLAN5G40A is the first type of full duplex, continuous, and low cost serial server in industry. It support simultaneously converting between Ethernet &Serial with large bulk of data with no pause, and also no data is lost.
5. Hight cost performance.  
ZLAN5G00A/ZLAN5G40A is designed by concept of intensification, after ensure the stability. It highly takes the cost of networking upgrading in count
6. Support TCP Server, TCP Client, UDP mode, and if communicating with ZLVirCom (our software), it automatically change to Real Com Driver Mode.
7. Support band rate 1200~115200bps, data size 5~8bits, parity of None, Odd, Even, Mark, Space. Support CTS/RTS hardware flow control.
8. Equipped freely with our Windows Virtual Serial & Device Management Tool ZLVirCom. It supports virtual serial and searching device or modifying parameters with ZLVircom.
9. Provide device management library (Window DLL library). It will help user to develop program with VC, VB, Delphi, C++ Builder. User need only use read() or write() function to communicate with ZLAN5G00A/ZLAN5G40A.
10. The innovative disconnecting detecting method. Whether it running in TCP

Server mode or TCP Client mode, once network is disconnected by some reason, the disconnecting detecting method will detect it and reestablished the connecting.

11. With build-in Web server, its parameters can be modified by web browser.
12. Support DHCP, easy for IP management and solve IP confliction.
13. Support DNS. It fulfills the need of access data server through domain name.
14. Flexible serial data framing setting. It fulfills all kinds of serial data frame requirement.
15. UDP mode support dynamic destination address mode. It helps for multi-user manage one serial server.
16. Real Com Driver mode support using the 9-th bit to facilitate communication with multi-device. (the 9-th bit being 0 means data frame and 1 means address frame).
17. Support searching serial servers and modifying parameters through Internet remotely
18. Support parameter modifying protection, preventing modifying by accident. Support running with default parameters.
19. Build-in 2 KV electrical plus protection in RJ45.
20. High protection of electromagnetic interference, with its high electromagnetic interference protection SECC external shell.

## 1.2. Technical Parameters

<b>Figure</b>	
Interface:	16pcs RJ45 for Serial RS232/ RS485/RS422; 4pcs RJ45 for Networking connecting; 4pcs for reserved
Port Type	RJ45 8-pin
Size:	L x W x H =48cm × 18cm × 4.4cm
<b>Communicate interface</b>	
Ethernet:	10M/100M, 2KV electrical plus protection
<b>Serial parameters</b>	

Band rate:	1200~460800bps	Parity:	None, Odd, Even, Mark, Space
Data size:	5~9	Flow control:	CTS/RTS,DTR/DSR,XON/XOFF
<b>Software</b>			
protocol:	ETHERNET, IP, TCP, UDP, HTTP, ARP, ICMP, DHCP, DNS,		
Setting method :	ZLVirCom, WEB browser, device management library		
Net communication method:	Socket, Virtual serial , device management library		
<b>Work mode</b>			
TCP server, TCP client, UDP, Real Com Driver			
<b>Power</b>			
Power:	220V		
<b>Environment</b>			
Running temperature:	-45~105℃		
Storage temp:	-40~120℃		
Humidity:	5~95%RH		

### 1.3. Hardware description

From the front view of the ZLAN5G00A/ZLAN5G40A shown in Figure 3.



Figure 3

It uses a 19 inch rack mounting structure of 1U standard L x W x H =48cm × 18cm × 4.5cm Power supply: 220V AC power supply, equipped with power

line.



## 1.4. LED Indicators

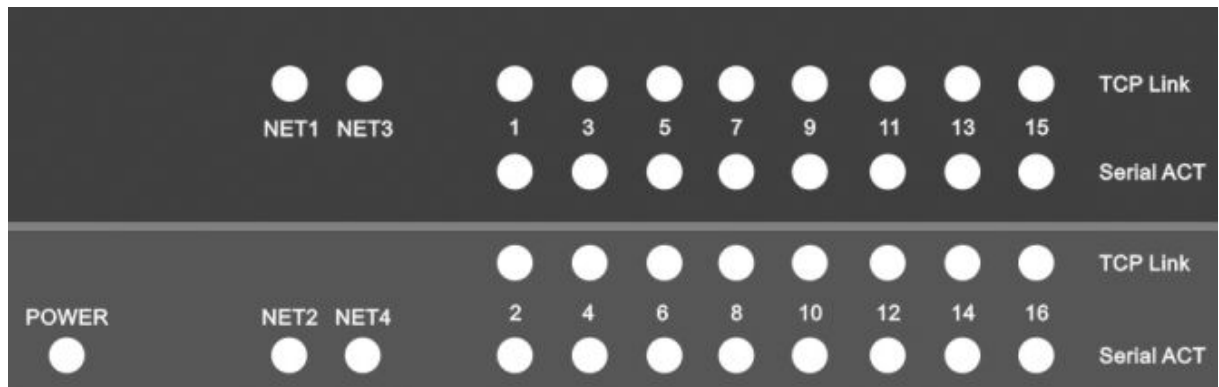


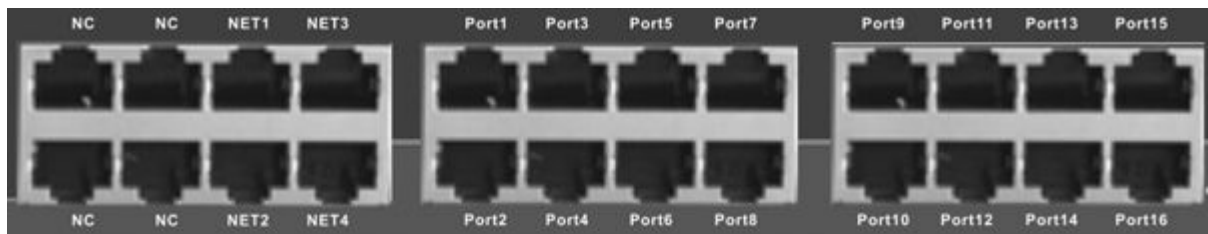
图 3 ZLAN5G00A 指示灯



The front panels of ZLAN5G00/ZLAN540 have several LED indicators, as described in the following table.

LED Name	LED Function	LED Color
POWER	Steady on: Power is on and ZLAN5G00 is booting up.	Red
NET1~NET4	Fiber is connected	Orange
1~16 TCP Link (The first and Third row)	Indicates that the TCP connection of 1 -16 serial ports has been established. Only TCP connection established to be able to send and receive data.	green
1~16 Serial ACT (Second and fourth row)	Serial port is receiving and transmitting data	green

## 1.5. RJ45 port



RJ45	RJ45 Function
NC	reserved
NET1~NET4	4 RJ45 Ethernet port can be use as network switch
Port1~Port16	1 -16port serial

### RJ45 (8-pins)

RJ45 PIN	1	2	3	4	5	6	7	8
Name	RTS	RXD	TXD	CTS(422-)	GND	485+	485-	422+

## 1.6. Configuration

1. After you Installing ZLVircom The Broadcast Search window will open and display the Model, IP Address, MAC Address, and Progress (of the search for that particular device).

序	类型	设备名称	设备IP	目的IP	模式	TCP连接	虚拟串口号	虚拟串口状态	设备ID
16	内网	ZLDEV0001	192.168.1.201	192.168.1.167	TCP Server	未建立	未设置	未联通	6699D51D
10	内网	ZLDEV0002	192.168.1.202	192.168.1.167	TCP Server	未建立	未设置	未联通	666EFEB2
1	内网	ZLDEV0003	192.168.1.203	192.168.1.167	TCP Server	未建立	未设置	未联通	669BD5EB
14	内网	ZLDEV0004	192.168.1.204	192.168.1.167	TCP Server	未建立	未设置	未联通	666DFF61
5	内网	ZLDEV0005	192.168.1.205	192.168.1.167	TCP Server	未建立	未设置	未联通	668ED5D2
2	内网	ZLDEV0006	192.168.1.206	192.168.1.167	TCP Server	未建立	未设置	未联通	6684D48C
6	内网	ZLDEV0007	192.168.1.207	192.168.1.167	TCP Server	未建立	未设置	未联通	6698D5C0
3	内网	ZLDEV0008	192.168.1.208	192.168.1.167	TCP Server	未建立	未设置	未联通	6672FFD6
8	内网	ZLDEV0009	192.168.1.209	192.168.1.167	TCP Server	未建立	未设置	未联通	6671FE85
7	内网	ZLDEV0010	192.168.1.210	192.168.1.167	TCP Server	未建立	未设置	未联通	669AD5EE
12	内网	ZLDEV0011	192.168.1.211	192.168.1.167	TCP Server	未建立	未设置	未联通	6690D5C8
4	内网	ZLDEV0012	192.168.1.212	192.168.1.167	TCP Server	未建立	未设置	未联通	668DD481
13	内网	ZLDEV0013	192.168.1.213	192.168.1.167	TCP Server	未建立	未设置	未联通	668FD4AF
9	内网	ZLDEV0014	192.168.1.214	192.168.1.167	TCP Server	未建立	未设置	未联通	6670FEA8
11	内网	ZLDEV0015	192.168.1.215	192.168.1.167	TCP Server	未建立	未设置	未联通	6683D483
15	内网	ZLDEV0016	192.168.1.216	192.168.1.167	TCP Server	未建立	未设置	未联通	666FFE8F

2. Click one model of them and start the configuration.

<b>设备信息</b> 虚拟串口 <input type="text" value="不使用"/> 设备型号 ZLSN2090 设备名称 ZLDEV0001 设备ID 5A4D00199C9C 固件版本 V1.546 <b>该设备支持功能</b> <input type="checkbox"/> 网页下载 <input checked="" type="checkbox"/> 域名系统 <input checked="" type="checkbox"/> REAL_COM协议 <input type="checkbox"/> Modbus TCP转RTU <input checked="" type="checkbox"/> 串口修改参数 <input checked="" type="checkbox"/> 自动获取IP <input type="checkbox"/> 存储扩展EX功能 <input checked="" type="checkbox"/> 多TCP连接	<b>网络设置</b> IP模式 <input type="text" value="静态"/> IP地址 <input type="text" value="192.168.1.201"/> 端口 <input type="text" value="4196"/> 工作模式 <input type="text" value="TCP 服务器"/> 子网掩码 <input type="text" value="255.255.255.0"/> 网关 <input type="text" value="192.168.1.1"/> 目的IP或域名 <input type="text" value="192.168.1.3"/> <input type="text" value="本地IP"/> 目的端口 <input type="text" value="4196"/> <b>串口设置</b> 波特率 <input type="text" value="115200"/> 数据位 <input type="text" value="8"/> 校验位 <input type="text" value="无"/> 停止位 <input type="text" value="1"/> 流控 <input type="text" value="无"/>	<b>高级选项</b> DNS服务器IP <input type="text" value="8.8.4.4"/> 目的模式 <input type="text" value="动态"/> 转化协议 <input type="text" value="无"/> 保活定时时间 <input type="text" value="60"/> (秒) 断线重连时间 <input type="text" value="12"/> (秒) 网页访问端口 <input type="text" value="80"/> 所在组播地址 <input type="text" value="230.90.76.1"/> IO端口配置0x <input type="text" value="00"/> 无数据重启 <input type="checkbox"/> 每隔 <input type="text" value="300"/> (秒) 定时发送参数 <input type="checkbox"/> 每隔 <input type="text" value="5"/> (分钟) <input type="button" value="更多高级选项..."/>
<b>分包规则</b> 数据包长度 <input type="text" value="1300"/> (字节) 数据包间隔 (越小越好) <input type="text" value="3"/> (毫秒)		<input type="button" value="系统默认参数"/> <input type="button" value="保存默认参数"/> <input type="button" value="加载默认参数"/> <input type="button" value="升级固件"/> <input type="button" value="重启设备"/> <input type="button" value="修改设置"/> <input type="button" value="取消"/>

## 2. Package



## 3. Support

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