	RESET		F	823	2				
			N *			Po	wer	0	l
		Y					Link	0	ja ja
							Data	0	
•	R	Ser \$232	ial (/RS4	levi 185/	Ce Se TTL =	FTC	er P/IP	ə	
		111	10	R	рпа	Le L	• 4	<u>a</u> ,	
	ETH	F	8485		ΠL		9~36\	DC	

KING PIGEON

User Manual

Date Issued: 2019-07-08

All rights reserved by King

Pigeon Hi-Tech. Co., Ltd.

www.IOT-Solution.com

Ver 1.0

D224





Table of Contents

1. Brief introduction	0
2.Safety Directions	0
3. Standard Packing List	0
5.Physical Layout and Installation Diagram	0
6. Programming and Operation	0
7.Reset	0
8.Application	0
9.Upgrade Firmware	0
10.Warranty	0
•	

This handbook has been designed as a guide to the installation and operation of Serial Server D224.

Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.

We recommend that the advice of a registered electrician be sought before any Installation work commences.

King Pigeon Hi-Tech.Co., Ltd, its employees and distributors, accept no liability for any loss or damage including

consequential damage due to reliance on any material contained in this handbook.

UPGRADE HISTORY

DATE	FIRMWARE VERSION	HARDWARE VERSION	DESCRIPTION
2019.07.08	V1.0	V1.0	First edition



1. Brief introduction

The D224 Serial Device Server is a useful device to convert RS485/232/TTL data to TCP/IP network, it also can be used as converting Modbus RTU to Modbus TCP, and performs as a serial port converter to create the communication from RS485 to RS232 or TTL, moreover, it can be used as a repeater for two serial device communication directly, e.g.: PLC to PLC.

The D224 Serial Device Server provide a feature that can allow users to select master or slave operation mode for each serial port. It not only allows an Ethernet master to control serial slaves, but also allows serial masters to control Ethernet slaves. It accepts up to 5 connections to communicate at the same time, no matter the Serial Device Server be used as Server or Client.

The D224 Serial Device Server provides a simple and cost-effective way to bring the advantage of remote management and data accessibility to thousand of devices that can not connect to a network. It is the most popular industrial internet of things (IIOT) gateway.

The serial device server suitable for below applications:

Serial Devices to TCP/IP Communication and IoT Cloud Platform;

Serial Devices to Serial Devices communications, e.g.: PLC to PLC;

Equipment networking in the field of access control security;

Various types of configuration software and device communication interfaces;

Networking of transmitters such as water level, water pressure, flow rate and flow rate;

Data transmission in agriculture, water, coal mines, etc.;

Remote monitoring and program download of various PLCs;

Data collection and monitoring of various types of electric meters and meters;

Collection of parameters such as wind speed, wind, rainfall and temperature of the meteorological station;

Remote data acquisition and monitoring of solar power stations and smart charging piles;

Intelligent power grid data transmission;

Intelligent agricultural data collection and monitoring;

Intelligent breeding data collection and monitoring;

Intelligent traffic data collection and monitoring;

Intelligent industrial automation data transmission.





2.Safety Directions



Reasonable Use

Please install the product at suitable places as described in the product documentation.



Use Qualified Maintenance Service

Maintenance can be carried out only by qualified maintainer.

3. Standard Packing List

Serial device server D224 unit X1; AC/DC Adaptor X1; Network cable(0.5m) X1; RS232 cable X1. Optional: 35mm Standard DIN rail fixed Bracket





35mm DIN Rail Fixed Bracket

4. Mainly Features

- \geq Wide working voltage, support 9-36V DC power supply, interface is DC Q2.1 jack and terminal block, and with anti-reverse protection design;
- Built-in industrial grade ARM® CortexTM core, high performance, stable and reliable; \triangleright
- ≻ Support 1 channel RS-232, 1 channel RS-485 and 1 channel TTL;
- Serial port baud rate supports 4800bps-128000 bps, supports None, Odd, Even check mode; \triangleright
- \geq Supports 1 channel RJ45 Ethernet port, with link and data indicator, built-in isolation transformer, up to 2KV electromagnetic isolation;
- \triangleright Support RESET button to recovery the parameters to factory defaults (long press for 3 seconds to recover), prevent parameter setting error;
- Metal shell, protection class IP30, suitable for industrial control applications; \triangleright
- The configuration software supports WIN XP, WIN 7, WIN 8 and WIN 10, friendly interface; ≻
- \triangleright Support static IP address or DHCP to obtain IP address automatically, and query the devices in the network through UDP broadcast protocol;
- Support self-defined device name for easy user identification; ≻
- Support server domain name DNS; \geq
- Built-in TCP/IP protocol stack, support transparent transmission and Modbus RTU to Modbus TCP Protocol; \triangleright
- Supports multiple working modes: TCP Server, TCP Client, UDP Server, and UDP Client; \geq



- Supports up to 5 TCP/UDP Clients and 5 TCP/UDP Servers connections simultaneously;
- Supports definition login message and heartbeat package function, can facilitate cloud platform for ID identification and data communication;
- Support automatically connect and reconnect the server after disconnection;
- ➤ Support serial port strategy function, data path is free to choose, for example: RS232 and RS485 bi-direction communication (RS232 ≠ RS485), RS232 and server 1 bi-direction communication (RS232 ≠ server 1);
- Can be used as a repeater for two serial device communications directly, e.g.: PLC to PLC;
- Support firmware upgrade through TTL, firmware update is more convenient;
- Small in size, 96mm*68mm*25mm, and supports wall mounting and DIN 35mm rail mounting.

5.Physical Layout and Installation Diagram

5.1 Control Unit physical layout







(Left side view)

(Right side view)





5.2 Interface Instructions for installation



LED Status Description					
Powe	ower Power Indicator: Power on the module will always on.				
Link		On stands for TCP connection; otherwise, it is off.			
Data		When transmitting data by Ethernet port, the LED will be on, otherwise, it is off.			
		Interface Instructions for installation			
RESET	Г	Reset button. Recovery the parameters to factory default value.			
RS232	2	RS232 port			
ETH RJ45,Ethernet port.		RJ45,Ethernet port.			
	Α	RS485 data A			
RS485	В	RS485 data B			
	GND	RS485 data ground if required.			
	TXD	Transmit data port			
TTL	RXD	Receive data port			
	GND	Data ground if required			
	-	DC9~36V negative input.			
	+	DC9~36V positive input, 1A, for power the device.			
9 50 VDC	=@±	Power jack, for power the device.			
	Can on	ly need to choose one way to power the device			



6. Programming and Operation

The D224 Serial Device Server can be configured by host software, through the direct cable or crossover cable connect to the local area network, can also through the crossover cable connect to PC.

Below are the steps to setup the parameters by PC Configuration, please follow it step by step.

Start to Configure:

Step1: Connect

The Configurator in the CD or download from <u>www.iot-solution.com</u>, then installs it on the computer.

Step2: Connect External DC Power

Connect the external DC Power 9~36V to DC in 9~36V Ports.

Step3: Run the Configuration software (Compatible with Windows XP/Vista/7/8/10)

Tips: In some computer, it required download net framework 4.0 while installation, then please click "Yes" to go to Microsoft website to download this service pack.



g Serial Device Server D224 configuration software V1.0					
	Network Settings	Server Settings(Host as the client)			
语言选择: English -	IP Model 🗸 🗸	Server1 Server2 Server3 Server4 Server5			
IP Model Name Version	IP Address	Connection Settings IP/Domain Port			
	Port				
	Subnet Mask	TCP/UDP Model			
	Gateway	TransProtocol Transparent -			
	DNS Server	RegisterMessage ASCII -	(MAX60)		
	Serial port Settings	RegisterACKMessage ASCII -	(MAX60)		
	Channel TTL -	OfflineMessage	(MAX60)		
	DataBits 5Bit -	HeartBeatMessage ASCII -	(MAX60)		
	ParityBits NONE -	HeartBeatACKMessage ASCII -	(MAX60)		
	StopBits 1Bit • SerialStrategy	HeartBeatInterval (1~999s)			
		Client Settings(Host as the server)			
Search Device Default	ChangePWD Read	TCP/UDP Model TCP -			
	Restart Save	Protocol Transparent -			

Click "Search Device", all devices in the LAN will appear on the left side.



Serial Device !	Server D22	4 configurat	tion softwar	e V1.0					U X
				Network Sett	ings	Server Settings(Ho	st as the cli	ent)	
语言选择	E: Engl	ish 🗸		IP Model		Server1 Server2 S	Server3 Serve	er4 Server5	
			16	IP Address	(Connection Settin	gs		
IP	Model	Name	Version			IP/Domain		Port	
192.168.1.152	D224	MY_D224	V1.0	Port					
192.168.1.188	D224	MY_D224	V1.0	Subnet Mask		TCP/UDP Model	TCP ~		
192.168.1.202	D224	MY_D224	V1.0						
192.168.1.223	D224	MY_D224	V1.0	Gateway		TransProtocol	Transparent		~
				DNE Exercise	-	RegisterMessage	ASCTT V		(MAX60)
				UNS Server			, sell •		
				Serial port	Settings	RegisterACKMessage	ASCII ~		(MAX60)
				Channel	TTL	×	[(11170)
				BaudRate	4800	v	ASCII		(РАХОО)
				Detecite	cola	HeartBeatMessage	ASCII V		(MAX60)
				Databits	SDIC				
				ParityBits	NONE	HeartBeatACKMessag	ASCII ~		(MAX60)
				StopBits	1Bit				
					SerialStrateg	y HeartBeatInterval	ļļ	(1~999s)	
-		-				Client Settings(Ho	st as the ser	ver)	
Search	Device		Default	ChangePWD	Read	TCP/UDP Model	TCP		~
Search	Device			Restart	Save	Protocol	Transparent		~

Search Device				
Button	Instruction	Default		
IP	Device IP address in the LAN			
Model	Device model			
Name	Device name, can customize after connecting successfully	MY_D224		
Version	Device firmware version			

Dual-click device list, will appear below:

🖄 Load		×
	PassWord:	
	ОК	Cancel

Enter password (default 1234), click "Confirm" prompts success, then will read device configuration parameter automatically.



d Load		×
	×	
PassWord:		
	login successful	
ОК	le	
	确定	

Basic Settings

🕸 Serial Device Server D224 configuration software	V1.0		
ſ	Network Settings	Server Settings(Host as the client)	
语言选择: 中文 🗸	IP Model 🗸 🗸	Server1 Server2 Server3 Server4 Server5	
	IP Address	Connection Settings	
IP Model Name Version		IP/Domain Port	
	Port		
	Subnet Mask	TCP/UDP Model	
	Gateway	TransProtocol Transparent	-
	DNS Server	RegisterMessage ASCII -	(MAX60)
	Serial port Settings	RegisterACKMessage ASCII 👻	(MAX60)
	Channel TTL -	OfflineMessage ASCII 🔻	(MAX60)
	BaudRate 4800 -		
	DataBits 5Bit 🔻	HeartBeatMessage ASCII -	(MAX60)
	ParityBits NONE -	HeartBeatACKMessageASCII 👻	(MAX60)
	StopBits 1Bit 🔹		
	SerialStrategy	HeartBeatInterval (1~999s)	
		Client Settings(Host as the server)	
Search Davice Default	ChangePWD Read	TCP/UDP Model TCP	-
Search Device	Restart Save	Protocol Transparent	-

Basic Function					
Button	Description				
Default	Restore to factory settings(need click save after default)				
Change PWD	Modify device password				
Read	Read all current configuration parameters of the device				
Save	Save all configuration parameters to the device				
Restart	Restart the device after saving				

The step of modifying configuration parameter:

- 1) Modify configuration parameter;
- 2) Click "Save "until prompt "save success", then click "Confirm"

Serial Device Server D224 RS232/485/TTL To TCP/IP

3) Click "Restart" or power off the device, then restart the device, then modify successfully.

Ethernet Settings

🖄 Serial Device Server D224 configuration software	V1.0	
· · · · · · · · · · · · · · · · · · ·	Network Settings	Server Settings(Host as the client)
语言选择: English -	IP Model 🗸	Server1 Server2 Server3 Server4 Server5
	TP Address	Connection Settings
IP Model Name Version	11 11001 055	IP/Domain Port
	Port	
	Subnet Mask	TCP/UDP Model
	Gateway	TransProtocol Transparent
	DNS Server	RegisterMessage ASCII (MAX60)
	Sanial and Sattings	RegisterACKMessage ASCII
	Channel TTL -	OfflineMessage ASCII (MAX60)
	BaudRate 4800 -	HeartBeatMessage ASCII - (MAX60)
	DataBits 5Bit - ParityBits NONE -	HeartBeatACKMessageASCII
	StopBits 1Bit -	HeartBeatInterval (1~999s)
	SerialStrategy	
		Client Settings(Host as the server)
Default	ChangePWD Read	TCP/UDP Model TCP -
Search Device	Restart Save	Protocol Transparent -

Network Setting						
Button	Description	Default				
	The mode to get IP:					
IP Model	Dynamic address: get IP automatically from DHCP server	Dynamic address				
	• Static address: Manually configure a static IP					
IP Address	Set IP address					
Port	The port when act as a TCP/UDP server, range 0-65536	502				
Subnet Mask	The device subnet mask					
Gateway	The device gateway address					
DNS Server	The device DNS server address					

Serial Port Settings



	Network Settings	Server Settings(Host as the client)	
连 主法权	IP Model	Server1 Server2 Server3 Server4 Server5	
		Connection Settings	
TD Model Name Vancier	IP Address	IP/Domain Port	
IF FIGUEI Maile VEISION	Port		
		TCP/UDP Model	
	Subnet Mask		
	Gateway	TransProtocol Transparent	•
	DNS Server	RegisterMessage ASCII -	(MAX60)
			(MAX60)
	Serial port Settings	ACTI ACCORDANCE ASCII	(1000)
	Channel TTL	OfflineMessage ASCII	(MAX60)
	BaudRate 4800	•	
		HeartBeatMessage ASCII -	(MAX60)
	DataBits 5Bit		(110)(50)
	ParityBits NONE		(MAX60)
	StopBits 1Bit		
	SerialStra	199V	
	Scruistru		
		Client Settings(Host as the server)	
Default	ChangePWD Rea	d TCP/UDP Model TCP	•
Search Device	Restart Sav	e Protocol Transparent	•

Serial Port Setting						
Button	Button Description					
Channel	Select and view the currently used serial channel, includes: TTL, RS232, RS485	RS485				
Baud Rate	4800/9600/14400/5600/57600/19200/38400/115200/128000 optional	115200				
Data Bits	5Bit/6Bit/7Bit/8 Bit optional	8 Bit				
Parity Bits	NONE,EVEN,ODD optional	NONE				
Stop Bits	1Bit,1.5 Bit,2Bit optional	1Bit				

Click "Serial Strategy"as below, it is for configuring data transmission path, default supports 3 paths.

i pach		
Interfac el RS232	✓ Interfac e2 Server1	•
Interfacel	Interface2	Select
		Ad
		De
		Sa



Serial port strategy setting					
Button	Description	Default			
Interface 1	TTL,RS232,RS485 optional				
Interface 2	Server 1,Server 2,Server 3,Server 4,Server 5,Client,TTL,RS232,RS485 optional				
Add	Add data path				
Delete	Delete data path				
Save	Save configuration parameter				

Server Settings

This part is for connecting the device to internet platform.D224 supports 5 different target servers at the same time, every server supports rich automatic handshake login message, self defined heartbeat message, data transparent transmission, and Modbus RTU to Modbus TCP, device can be quickly compatible with multiple third-party cloud platform systems.

is Serial Device Server D224 configuration software	V1.0	
	Network Settings	Server Settings(Host as the client)
语言选择: English ▼	IP Model 🗾	Server1 Server2 Server3 Server4 Server5
	IP Address	Connection Settings
IP Model Name Version		IP/Domain Port
	Port	
	Subnet Mask	TCP/UDP Model
	Gateway	TransProtocol Transparent -
	DNS Server	RegisterMessage ASCII (MAX60)
	Serial port Settings	RegisterACKMessage ASCII (MAX60)
	Channel TTL -	OfflineMessage ASCII (MAX60)
	BaudRate 4800 -	
	DataBits 5Bit 🔹	HeartBeatMessage ASCII (MAX60)
	ParityBits NONE	HeartBeatACKMessageASCII
	StopBits 1Bit -	HeartBeatInterval (1~999s)
	SerialStrategy	
		Client Settings(Host as the server)
Search Device Default	ChangePWD Read	TCP/UDP Model TCP
	Restart Save	Protocol Transparent -

Server Settings						
Button	Button Description					
Server(1-5)	Supports 5 different target servers at the same time	Server 1				
IP/Domain	Target server IP/domain address	Modbusrtu.kprtu.com				
	Default is King Pigeon 3.0 cloud platform domain					
Pore	Target server port	4000				
TCP/UDP Model	TCP,UPD optional	ТСР				
Transfer Protocol	Transparent, Modbus RTU < Modbus TCP optional	Transparent				
Register Message	Registration data sent to the target server	Empty				



Register ACK Message	The response data returned by the target server after receiving the registration message	Empty
Offline Message	After the target server sends the content to the device, the device will go offline.	Empty
Heartbeat Message	Heartbeat data sent to the target server	Empty
Heartbeat ACK Message	The response data returned by the target server after receiving the heartbeat data	Empty
Heartbeat Interval	The interval time of sending heartbeat data, range 1-999 (second)	10

Client Settings

Supports up to 5 TCP/UDP Clients and 5 TCP/UDP Servers connections simultaneously.

Serial Device Server D224 configuration software	V1.0				- O X
	Network Settings	11	Server Settings (Host as	the client)	
语言选择: English ▼	IP Model	•	Server1 Server2 Server	3 Server4 Server5	
	IP Address		Connection Settings		
IP Model Name Version			IP/Domain	Port	
	Port				
	Subnet Mask	1	TCP/UDP Model	TCP V	
			Transfer Protocol	Tasaasaat	
	Gateway		Transfer Prococor	Transparent	
	DUC C		Register Message	ASCII -	(MAX60)
	DWS Server				
	Serial Port Settin	ngs	Register ACK Message	ASCII -	(MAX60)
	Channel TTL				
	_		Offline Message	ASCII 🔻	(MAX60)
	Baud Rate 480	• • • • • •			
	Data Bits 5Bi	it 🔻	HeartBeat Message	ASCII V	(MAX60)
	Parity Bits NON	IF 💌	HeartBeat ACK Messag	e ACCTT -	(MAXCO)
			neur tocat New nessag		(1400)
	Stop Bits IBi	t T	HeartBeat Interval	(1~999s)	
	Se	erial Stratagy			
			Client Settings (Host as	the server)	
Refen1+	ChangePWD	Read	TCP/UDP Model	TCP	-
Search Device	Restart	Save	Transfer Protocol	Transparent	-

Client Settings						
Button	Default					
TCP/UDP Model	TCP/UDP Model TCP,UPD,TCP/UPD optional					
Transfer Protocol	Transparent, Modbus RTU	Transparent				

7.Reset

There have 2 ways to reset:

1) By configuration software:

Click "Default"---"Save"---"Restart". The device will be reset successfully.

2) By Reset button:

When device is on, long press the RESET button for more than 3 seconds until the 3 LEDs are fully illuminated and



then released, the device will be reset successfully.



8.Application

8.1 Extend the serial device communication distance



Connect 2 serial devices with 2 D224 ,can realize data communication.

(2 D224 must be connected by crossover cable)

One D224 works as TCP Server, another D224 works as TCP Client.

D224 as server the IP needs to be set to static, and the IP address should be in the same network segment with

another D224, as below:

Serial Device Server D224 RS232/485/TTL To TCP/IP

🗟 Serial Device	Server D22	4 configurat	ion softwar	re V1.0		- D	×
				Network Setti	ngs	erver Settings(Host as the client)	
language:	Engl	i sh 🗸 🗸		IP Model	Static	Server1 Server2 Server3 Server4 Server5	
IP	Model	Name	Version	IP Address	192. 168. 1. 152	IP/Domain Port	
192.168.1.152	D224	MY_D224	V1.0	Port	502		
192.168.1.188	D224	MY_D224	V1.0	Subnet Mask	255. 255. 255. 0	TCP/UDP Model TCP V	
192.168.1.202	D224	MY_D224	V1.0		1	Transfer Protocol Transparent	
192.168.1.223	D224	MY_D224	V1.0	Gateway	192.168.1.1		
				DNS Server	202. 96. 134. 133	Register Message ASCII V (MA)	X60)
				Serial Port S	ettings	Register ACK Message ASCII V (MA)	X60)
				Channel	RS485	Offline Message	X60)
				Baud Rate	115200	×	
				Data Bits	8Bit v	V HeartBeat Message ASCII V (MA)	X60)
				Parity Bits	NONE	HeartBeat ACK Message ASCII V (MA)	X60)
				Stop Bits	1911		
					Serial Stratagy	y HeartBeat Interval 10 (1~9995)	
		8				Client Settings(Host as the server)	
Search	Device		Default	ChangePWD	Read	TCP/VDP Model TCP ~	
				Restart	Save	Transfer Protocol Transparent 🗸	

Serial strategy add a path"RS232-Client"

💁 Seria	al port strat	egy					<u>_</u> %		×
Data pat	h								
	Interfac el	RS232	~	Interfac e2	Client	~			
	I	nterface1			Interface2		Sele	ct	
		RS232			Client				
									Add
									Delete
									C.
									Dave

Client parameter settings are as follows:

Serial Device Server D224 RS232/485/TTL To TCP/IP

🗟 Serial Device	Server D22	4 configurat	ion softwar	e V1.0					8-18	
			4	Network Setti	ngs		Server Settings(Host as t	he client)		
language:	Engl	ish 🗸		IP Model	Static	~	Server1 Server2 Server3	3 Server4 Server5	1	
	a larenado			TP Address	192 168 1 223		Connection Settings			
IP	Model	Name	Version	II Add ess			IP/Domain	192.168.1.152	Port 502	
192.168.1.152	D224	MY_D224	V1.0	Port	502					
192.168.1.188	D224	MY_D224	V1.0	Subnet Mask	255, 255, 255, 0		TCP/UDP Model	TCP ~		
192.168.1.202	D224	MY_D224	V1.0				Torran Cara Dankaran	-		1
192.168.1.223	D224	MY_D224	V1.0	Gateway	192.168.1.1		Transfer Protocol	Transparent	~	1
				DNS Server	202. 96. 134. 133		Register Message	ASCII V		(MAX60)
				Serial Port S	ettings		Register ACK Message	ASCII ~		(MAX60)
				Channel	RS485	~	Offline Message	ASCII ~		(MAX60)
				Baud Rate	115200	~				
				Data Bits	8Bit	~	HeartBeat Message	ASCII V		(MAX60)
				Parity Bits	NONE	~	HeartBeat ACK Message	ASCII V		(MAX60)
				Stop Bits	1Bit	~				
					Serial Stratagy		HeartBeat Interval	10 (1~999:	5)	
		ř.					Client Settings(Host as t	he server)		
e	Denies		Default	ChangePWD	Read		TCP/VDP Model	TCP	~	
Searci	t pevide			Restart	Save		Transfer Protocol	Transparent	~	

Serial strategy add a path"RS232-Server 1"(Default added)

🗟 Seria	al port strate	egy					- 1	I X
Data pat	:h				100			
	Interfac el	RS232	~	Interfac e2	Server1	~		
	Iı	aterface1			Interface2		Select	
		RS232			Server1			
								Add
								Delete
								Save

8.2 Multi-device connect to cloud platform

D224 supports RS232, RS485 and TTL type devices to connect the cloud platform at the same time.

The following figure shows the D224 connecting two serial devices to the cloud platform at the same time:





The RS232/RS485 serial setting parameters need the same with RS232/RS485 device, serial strategy adds a data path of "RS232-Server 1" and "RS485-Server 1" (Default added); In the server 1 settings enter the corresponding information for the IP/domain name and port (Default KingPigeon KPIIOT cloud platform). Setting as follows:

Serial Device	Server D22	4 configurat	ion softwar	e V1.0			- 🗆 X			
language.	Fac	leh v		Network Setti IP Model	ngs Static V	Server Settings(Host as the client) Server1 Server2 Server3 Server4 Server5				
TP Hall New Your're				IP Address	192. 168. 1. 152	Connection Settings				
192.168.1.152	D224	MY D224	V1.0	Port	502					
192.168.1.188	D224	- MY_D224	V1.0	Subnet Mask	255. 255. 255. 0	TCP/UDP Model TCP V				
192.168.1.202 192.168.1.223	D224 D224	MY_D224 MY_D224	V1.0 V1.0	Gateway	192.168.1.1	Transfer Protocol Transparent	~			
			2	DNS Server	202. 96. 134. 133	Register Message ASCII V	(MAX60)			
			Serial Port S	ettings	Register ACK Message ASCII V	(MAX60)				
				Channel	RS485 🗸	Offline Message ASCII V	(MAX60)			
				Baud Rate Data Bits	115200 ~ 8Bit ~	HeartBeat Message ASCII V	(MAX60)			
				Parity Bits	none ~	HeartBeat ACK Message ASCII 🗸	(MAX60)			
				Stop Bits	1Bit ~ Serial Stratagy	HeartBeat Interval 10 (1~999:	\$)			
		8				Client Settings(Host as the server)				
Search	. Device		Default	ChangePWD	Read	TCP/UDP Model TCP	~			
				Restart	Save	Transfer Protocol Transparent	~			

8.3 Connect multiple servers Simultaneously

As a TCP client, D224 can connect 5 servers at the same time. If the serial device (RTU device) used as master and server 1-5 (Modbus TCP device) as the slave, at the same time, there are multiple network port slave devices (up to 5). then the serial device can easily initiate Modbus commands to 5 servers. The server 1-5 judges whether or not to answer based on its own slave ID.





8.4 Local configuration and connect to the cloud platform

The D224 used as server and supports client functions, For RS232 devices (Modbus slaves), local configuration can be implemented, allowing the computer in the LAN (Modbus master) to initiate commands and simultaneously receive commands from the cloud platform (Modbus master).





9.Upgrade Firmware

The Modem supports upgrade firmware via USB port directly. If we upgraded the firmware functions of the data loggers, we will inform you to upgrade the firmware if you required. If there any new requirements of the present functions caused it should update the firmware, the user can upgrade them directly by USB port. If you required upgrade, please contact us to modify the firmware according to you requirements, and we will provide the upgraded firmware to you to upgrade them.

10.Warranty

- 1) This system is warranted to be free of defects in material and workmanship for one year.
- 2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions.

The End! Any questions please help to contact us feel free. <u>Http://www.IOT-Solution.com</u>