



SF-M200D Series

GSM/GPRS DTU

User Manual

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Introduction

DTU

Data Terminal Units (DTU) is a kind of Internet-of-Things wireless data terminal, which utilizes public operator GPRS/3G/LTE networks and GPS/GLONASS satellite for long-range wireless data transmission and positioning. Ordinarily, DTU is embedded with high performance industrial level 8/16/32 bit processor and wireless modules, installed with real-time operating system as software supporting platform, and interconnected with RS232/485 interfaces with peripheral equipment for data transparent transmission.

DTU can be extensively used in Internet-of-Things(IOT) industry, such as vehicle monitoring, remote control, telemetry, tiny wireless network, smart metering, access control system, messenger call, industrial data collection system, financial system, mobile POS terminals, wireless labels, identification system, contactless RF card system, tiny wireless

Slk-M200d series GPRS DTU adopts highly integrated, highly reliable GPRS communication module and low-power industrial-grade CPU. At the same time, the standard RS232 and RS485 interfaces are provided for user selection to meet the interface compatibility problems in different communication environments. The two serial ports also have industrial-grade protection requirements such as ESD, TVS and FUSE. In addition, you may choose whether or not you need a third standard product according to the actual needs. Wide voltage design, support dv5-28v for most industrial environment power supply.

2 Features:

- Adopting the industrial GPRS module, the signal is stable and reliable.
- Support TCPUDP full transparent mode data transmission or UDP full transparent mode data transmission.
- Design support - wide temperature 35 °C to 75 °C
- Passed the CE/RHOHS certification
- Support heartbeat pack, equipment ID identification and other industrial environment common functions.
- 5 ~ 35V DC over wide voltage support.
- The dual-serial port design also supports the rs-232 / rs-485 interface.
- Multi-data center synchronous transmission.
- It can be configured remotely via SMS.

3 Specification

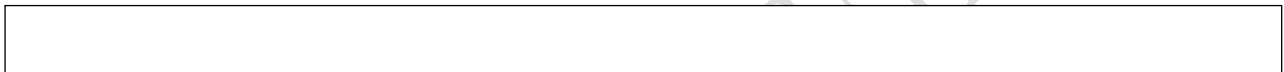
Band	
2G	GPRS
Band	Supported GSM850/900/1800/1900MHZ
Serial Port	
RS232 Terminal Interface	Signal: TXD,RXD,DTR,RTS,CTS,RI,DCD bps: 115200, 57600, 38400, 19200, 14400, 9600, 4800, 2400 Verification Mode: EVEN, ODD, SPACE (0), MARK (1), NONE Stop bits: 1 or 2bits
RS485 Terminal Interface	Signal: A,B(with TVS,ESD etc. Protection) bps: 115200, 57600, 38400, 19200, 14400, 9600, 4800, 2400 Verification Mode: EVEN, ODD, SPACE (0), MARK (1), NONE Stop bits: 1 or 2bits
Protocol support	
	Supported TCP Client, UDP work mode Supported DNS, APN setting , and two ip server address setting Supported Heartbeat packet, Device ID setting
Configuration	
	Supported AT command configuration and supply serial port tool Supported private configuration tool for configure and supported sms settings
Antenna	
	Default supply sucker antenna 3M long, and supply others type antenna
Gain	3db
SIM card	
SIM card	Supported 1.8V/3V sim card, drawer type slot
Power	
Input	Supported DC5~28V power in, default supply DC 12V/1A power adapter
Power Consumption	Standby: 260mA@12VDC
	MAX: 500mA@12VDC
	Average:320mA@12VDC
Physical Parameter	
Temperature	Storage Temperature: (-40°C to 85°C)
	Operating temperature: (-30°C to 70°C)
Relative humidity (RH)	95% Maximum (Non-condensing)
Size(mm)	(L x B x H):78mm x55mm x 16mm
Weight	item:480g
Others	

Warranty	5 years Warranty
Package	GPRS DTU, Power adapter, Sucker antenna, User manual
Order Info.	SLK-M200D-GPRS

4 Installation

4.1 Package Checklist

- SLK-M200D Series GSM/GPRS DTU
- Sucker SMA antenna (3 dBi)
- 12V/1A Power Adapter
- Document and Software CD
- Quick Installation Guide



4.2 SLK-M200 DTU dimension and Interface introduction



Size & Interface



12 pin Connector pin-out:

	VDC5-28V		RS485		RS232							
Label No.	+	-	A	B	1	2	3	4	5	7	8	9
Connector NO.	1	2	3	4	5	6	7	8	9	10	11	12
	VCC	GND	A	B	GND	DCD	TXD	RXD	RTS	CTS	DTR	RI

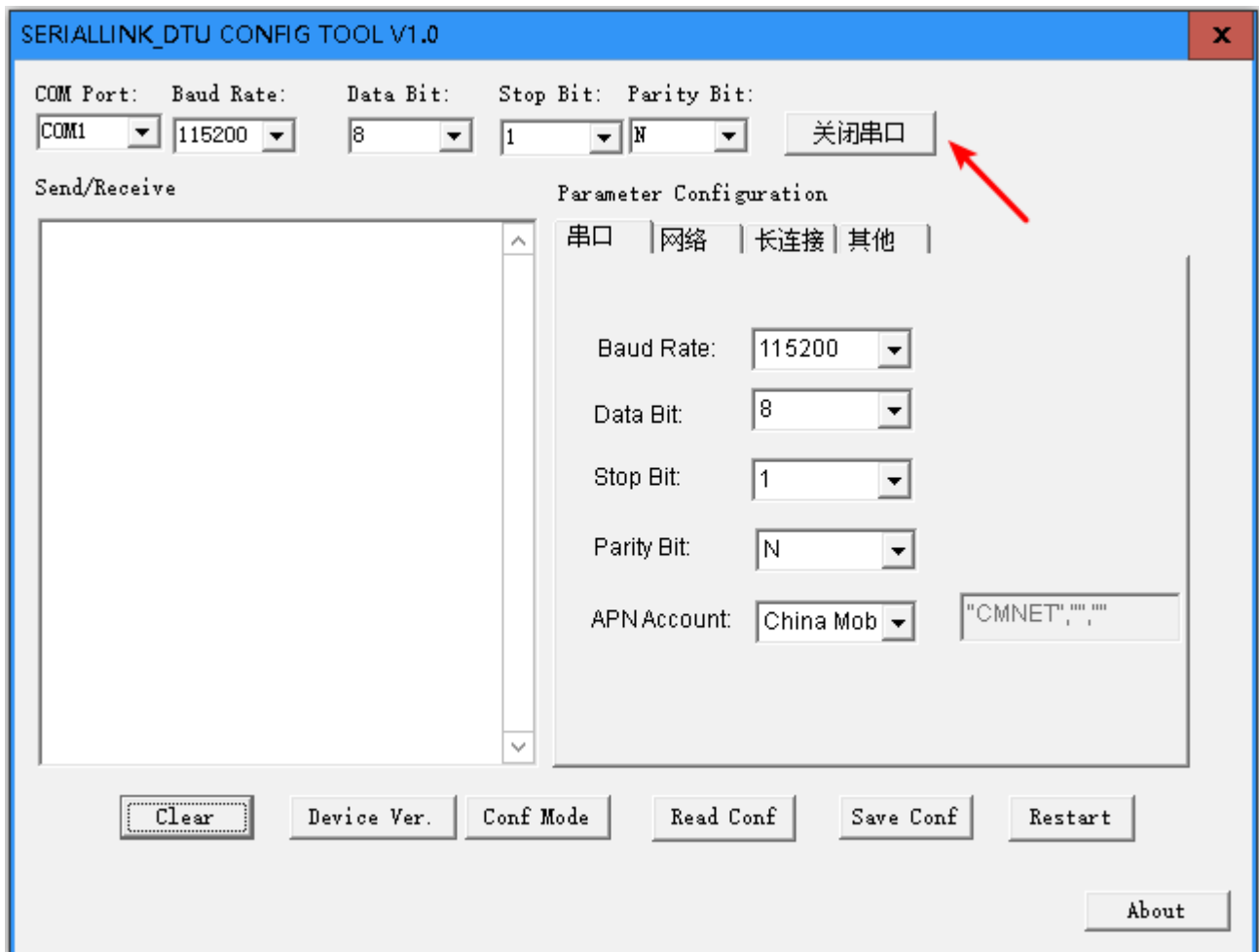
	+											
--	---	--	--	--	--	--	--	--	--	--	--	--

4.3 LED Indicators

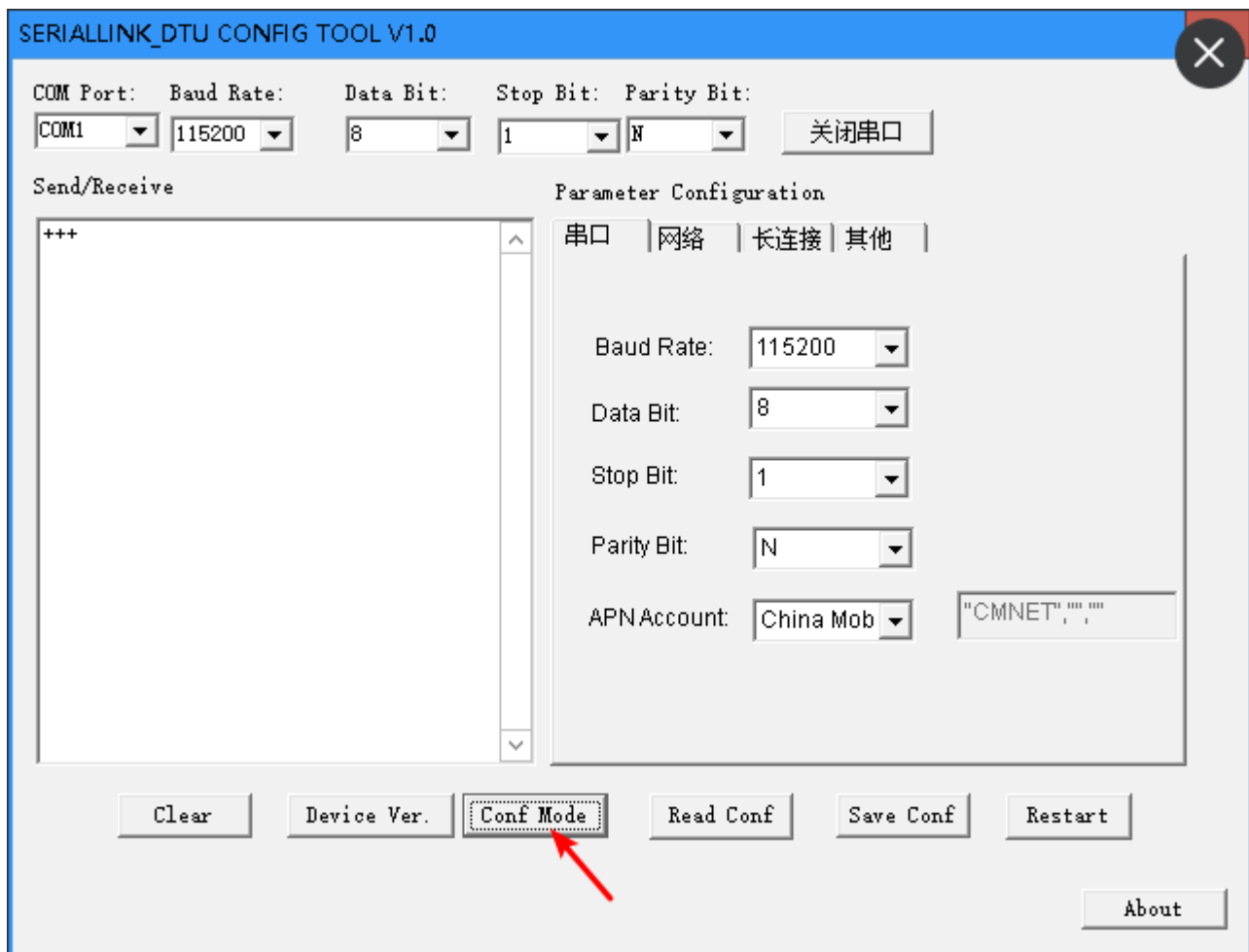
Type	Color	Description
PWR	Red	DC power connection
LINK	Green	ON 64ms,OFF 800ms: not registered to the base station (not plug in sim card or not read sim card) ON 64ms,OFF 2000ms: registered to the base station ON 64ms,OFF64ms GPRS connect
TXD	Yellow	Serial Tx
RXD	Yellow	Serial Rx

4.4 Configuration the DTU(APN, Server IP address, Port Number etc.)

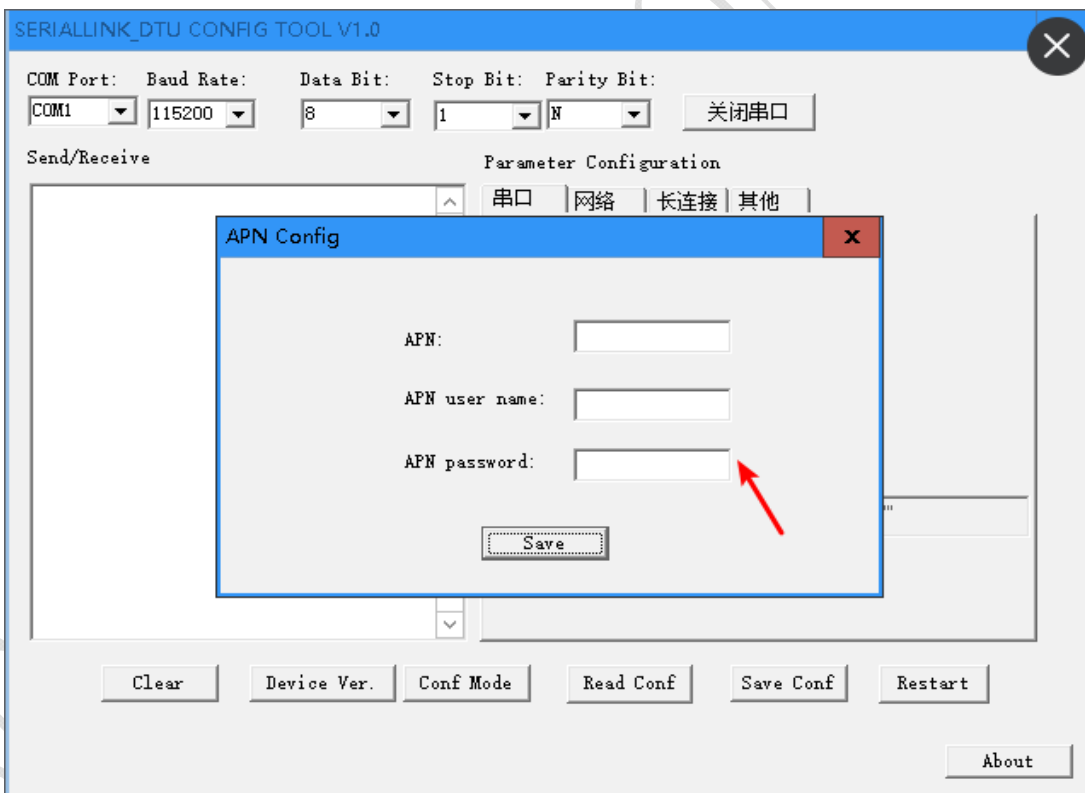
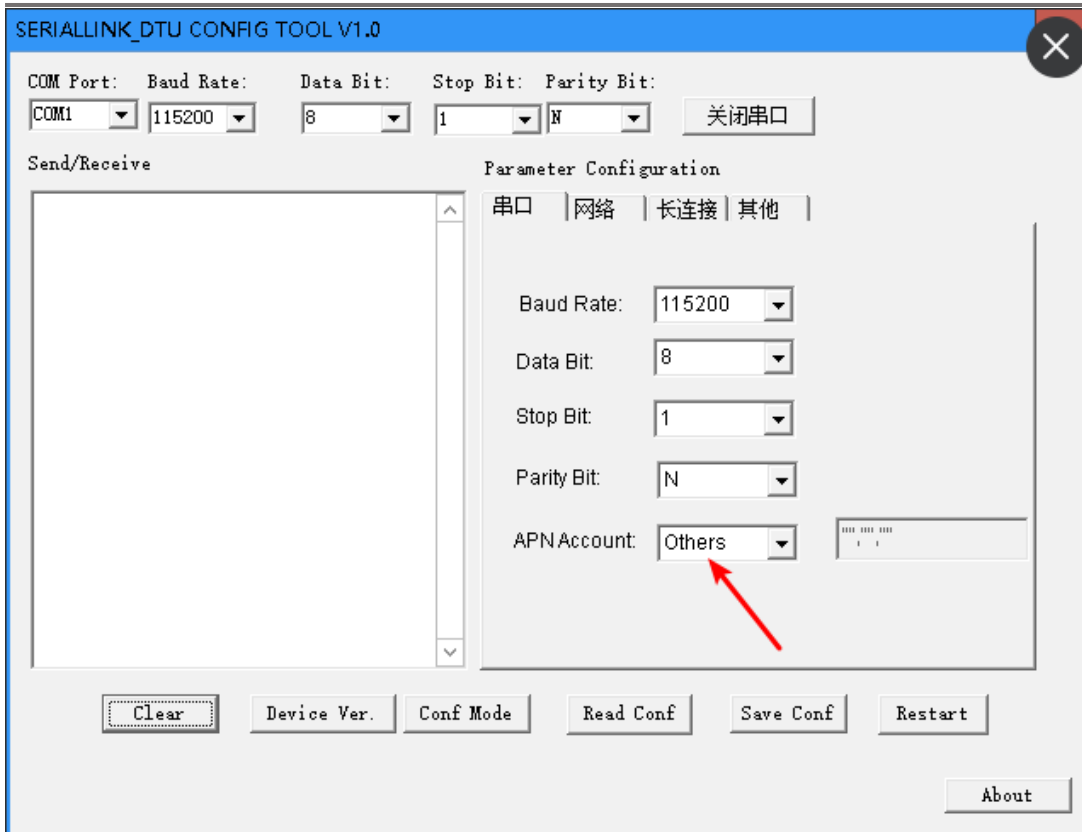
Step 1: Open the DTU config TOOL, Setting to the serial port to 115200,8,1,n and Open the COM Port.



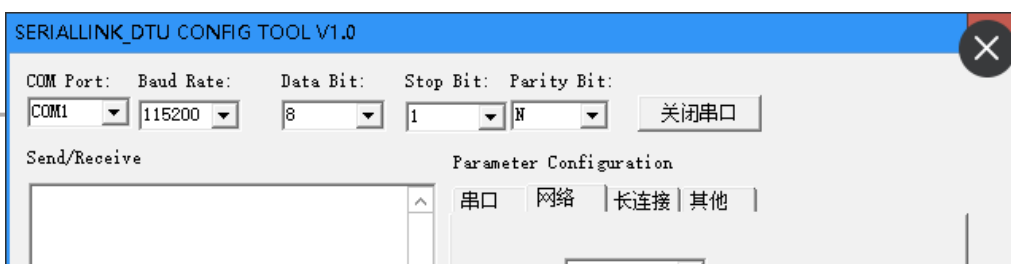
Step 2: Click Conf Mode, if device in the Transparent transmission mode will go to Conf mode.

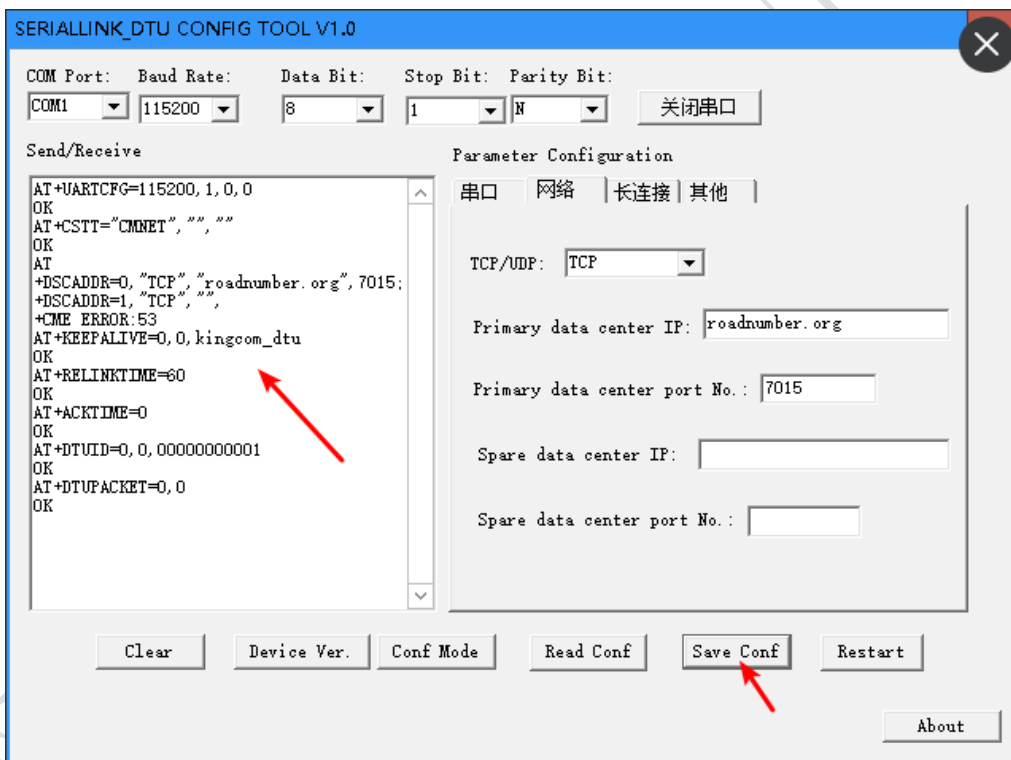


Step 3: Setting the APN parameters, APN User name and password, then click save, get APN from your mobile operator:



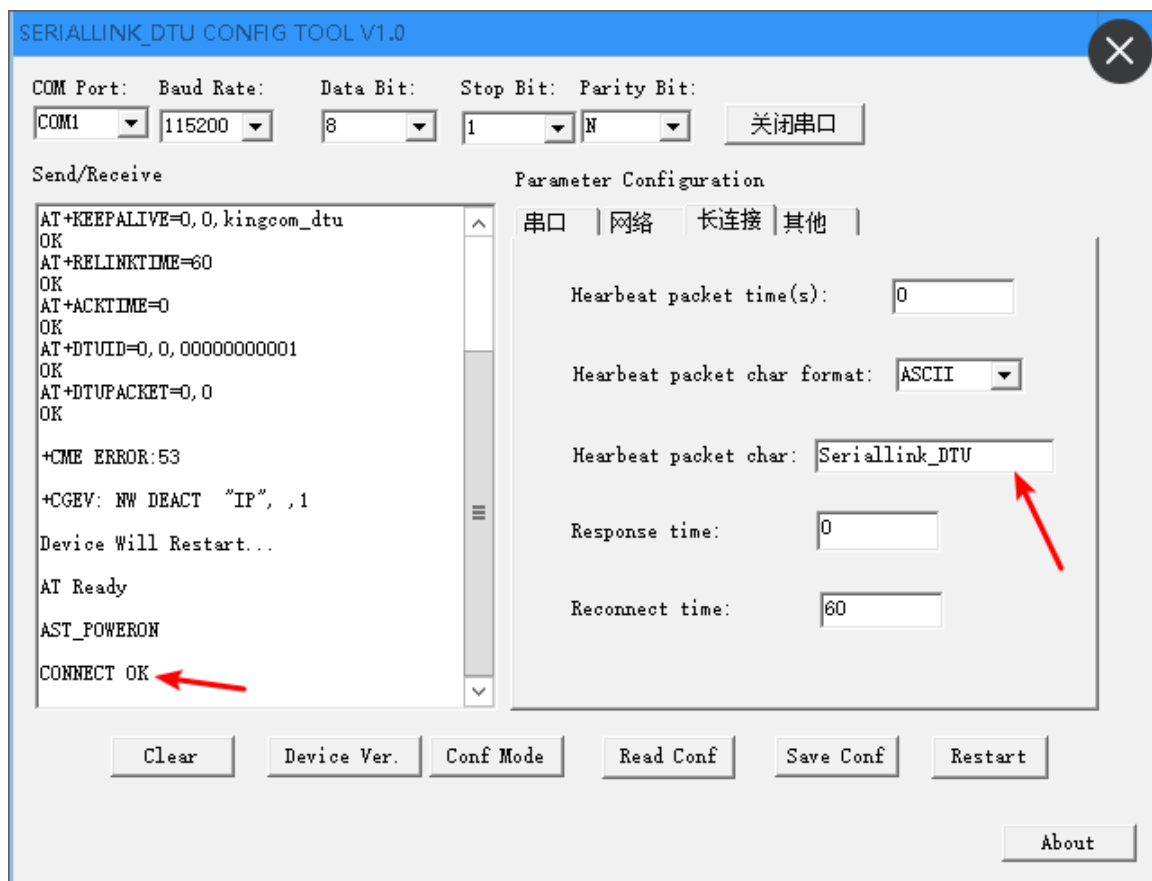
Step 4: Setting the server of IP address and Port number, if you have spare center IP can be setting too, then click save conf will save all the parameters.





Step 5: then the DTU device will restart and auto connect to your center server into Data transmission mode. Use same method you can setting others parameters , eg :Heartbeat ,Devicie ID.

Note: about this parameters details please check the SLK-M200D AT command user manual



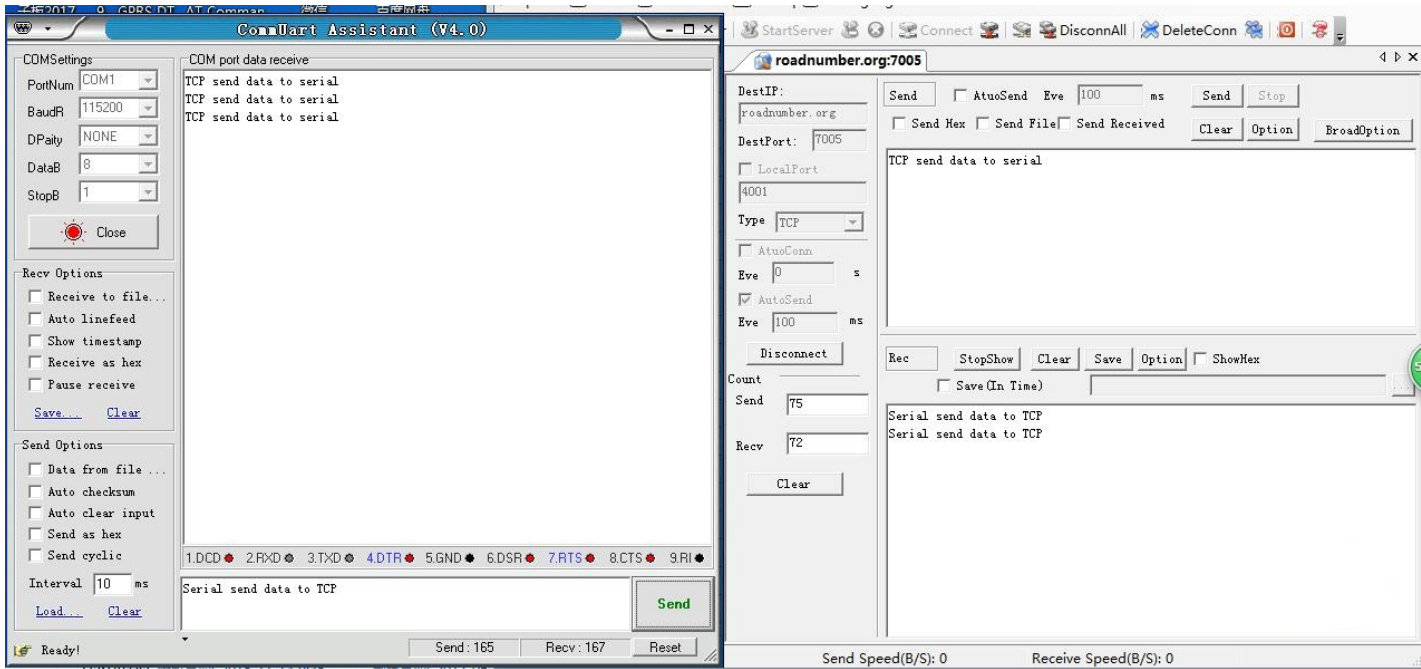
Note: the DTU have connect to data center, The LINK LED will ON 64ms, OFF 64ms.

Step 6: COM1 connect to DTU of rs232 port ,DTU connect to server use 7015 port ,other TCP/UDP tool connect to server use 7005.

TCP send data to server :TCP tool send "TCP send data to server" to DTU serial port to COM1 of computer.

Serial send data to TCP: Computer of com port send data via dtu serial port to center server 7015,the server send

data to 7005,So you can that data.



Note: More information and sms configuration please check from AT command data sheet .

Step 7: More info need setting check the SLK-M200D data sheet and use this tool send AT command setting it

SSCOM V5.12 Serial/Net data debugger, Author: XiXia...

PORT COM_Settings Display Send_Data Multi_Strings Tools Help repay_author PCB_proofing

Send Multi Char stm32/GD32 ISP STC/IAP15 ISP

<-Drag split RoundSend **help** Import order delay

HEX	Data (DbClick to Write notes)	Send(note)	+	-	ms
<input type="checkbox"/>	AT+DSCADDR="TCP", "ros	HEX DATA Server	0	1000	
<input type="checkbox"/>	+++	EXIT transmission	0	1000	
<input type="checkbox"/>	AT+GMR	Check Version?	0	1000	
<input type="checkbox"/>	AT+CSQ	Check Singnal?	0	1000	
<input type="checkbox"/>	AT#W	Save	0	1000	
<input type="checkbox"/>	AT+CFUN=1,1	Restart Module	0	1000	
<input type="checkbox"/>	AT+DSCADDR="TCP", "ros	Server IP	0	1000	
<input type="checkbox"/>	AT+DTUID=1,1,3C00000C	Dvice id	0	1000	
<input type="checkbox"/>	AT+DTUID?	Check dvice ID?	0	1000	
<input type="checkbox"/>	[VE=10,1,aabbccddeeff	Heartbeat packet	0	1000	
<input type="checkbox"/>	AT+ACKTIME=300	earbeat space time=300	0	1000	
<input type="checkbox"/>	AT+DTUPACKET=0,0	Check the AT datasheet	0	1000	
<input type="checkbox"/>	AT+DTUFILTER=1	Check the AT datasheet	0	1000	
<input type="checkbox"/>	AT+DSCADDR?	Check server IP?	0	1000	
<input type="checkbox"/>	ATO	Data to TEXT	0	1000	
<input type="checkbox"/>	AT+UARTCFG=?	Check UARTbps?	0	1000	
<input type="checkbox"/>	AT+UARTCFG=14400	UART=14400	0	1000	
<input type="checkbox"/>	AT+UARTCFG=9600	UART=9600	0	1000	
<input type="checkbox"/>	AT+UARTCFG=4800	UART=4800	0	1000	
<input type="checkbox"/>	++++	20无注释	0	1000	
<input type="checkbox"/>	{22.114.226.229",8081	21无注释	0	1000	
<input type="checkbox"/>		22无注释	0	1000	
<input checked="" type="checkbox"/>	7B 00 1C 00 10 49 44	23无注释	0	1000	
<input checked="" type="checkbox"/>	7B 00 2D 00 10 49 44	24无注释	0	1000	
<input type="checkbox"/>		25无注释	0	1000	
<input checked="" type="checkbox"/>	7B 00 01 00 0B 49 44	26无注释	0	1000	

ClearData OpenFile 导入文件20170410\DTU_512工具\sscom51.ini SendFile Stop ClearSend OnTop English SaveConfig Hide

www.daxia.com S:0 R:0 TCPClient Local(DESKTOP-SMUS15E)IP=169.254.233.246

5 Contact us:

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