



WL-D801 Key Features



Hardware Features

- DB9 3 pin RS232 Serial Port
- Single SIM Interface
- External SMA interface
- GSM/GPRS
- Quad Band 850/900/1800/1900 MHz
- Speed: 85.6kbps
- Dimension: 70.5 x 55.5 x 22mm
- DC Jack Power Interface
- Operating Voltage: DC 5-26V

Software Features

- DTU Configuration Tool
- Configuration Backup File
- Transparent data sending
- Automatic PPP Connection
- Keep Alive Ping Check
- Automatic TCP/IP Client Connection
- Up to 3 server addresses
- Custom Server Heartbeat
- M2M Monitoring Platform



WL-D801 DTU Configuration Tool -			
Restore Configuration			
3. Read the configuration from a saved file			
Operate Read from the Page Save to the ☆ Default Get Get Setal communication Baudrate 115200 • Data bit ● ● ● Stop bit 1 • Party bit NONE • ● ● ●			
Serial package identification Command mode Max package length 1024 1~1024 bytes Min interval between two package's 300 100~1000 ms			
Debug Information Debug Information			
Serial Totework Connection Protocal Work mode Remote management Version Serial cont _ Baud rate 115200 _ Stop bit 1 _ Parity bit NO _ Switch command +++++ Berial port not opened			
1. Select the COM Port 2. Click Connect 7. Click Close			



WL-D801 DTU Work Modes -			
DTU config tool v4.0 Operate Read from file Read from file Work mode Mode select ONLINE	DONLINE/ WAKEUP ■ ★ Default → Get ≤ Set ■ ★ Default → Get ■ ★ Default		
Reconnect intervs 10 5 535 second SMS number Allow to retransmit the SNS SMJ PIN Caution: The error PIN jobe will damage SM card. The shift of configuration mode and transmit mode Switch command ++++++ Serial Network Connection frotocal Work mode Remov Serial com2 Baudrate 1 200 Stop bit 1 P Serial dosed	♦ DTU config tool v4.0 Operate C Read from file Work mode Mode select Idle interval 300 5-5535 second		
For Online Mode, set the Reconnect Interval	Berial Network Connection Protocal Work mode Remote management Version Fireware update Serial Com2 • Baud rate 115200 • Stop bit 1 • Parity bit NO • Switch command ••••••• Berial closed		

WL-D801 Automatic PPP Connection				
- ONLINE				
	DTU config tool v4.0			
	Operate 🖎 Read from file 🔛 Save to file 💥 Default 🕞 Get 🗐 Set			
Once the PPP Dial Up has	APN internet			
been established, each	User name			
time the PING interval	Userpwd			
expires the modem will	DNS			
check connectivity to the	Main DNS 0.0.0.0 Second DNS 0.0.0			
configured destination	PING			
address or domain				
	IP address 0.0.0			
If there is no response	interval 1 U~255 minite			
after 3 PING attempts,	Serial Network Connection Protocal Work mode Remote management Version Fireware update			
the PPP Dial Up	Serial Com2 • Baud rate 115200 • Stop bit 1 • Parity bit NO• Switch command ••••••• @ Connect @ Close serial			
Connection will be	[Senal closed			
disconnected	After the reconnect interval expires the			
[0:01:32] AT: AT+CIPPING=www.google.com, 3, 32, 7, 64 (CR)				
[0:01:34] AT: (LF)				
<cr><lf></lf></cr>	data center			





	ONLINE	
	DTU config tool v4.0	8
	Operate 😂 Read from file 😤 Save to file 🔆 Default 🕒 Get 🗐 Set	
Ince the PPP Dial Un	First center IP 0.0.0.0 Port 514 Connection type TCP Domain name stephenotic ddns net	
as been established he modem will create	Second center IP 0.0.0.0 Port 51002 Connection type UDP - Domain name	
he connection to the onfigured data centre ddresses or domains	Third center IP 0.0.0.0 Port 51003 Connection type UDP - Domain name	
	Heartbeat Interval 0 0-65535 second	
	Serial Network. Connection Protocal Work mode Remote management Version Freware update Serial com2 • Baud rate 11520 • Stop bit • Party bit NO • Switch command ++++++ @ Close serial Set parameter success	



WL-D803	L Aut (Wi	oma th He	tic TC eartbe	P Connect eat)	tion
	DTU config tool v4.0		770	Warn Orac Mari	
	Connection	🖙 Read from file	Save to file	📯 Default 🛛 🖾 Ger 🛛 🗐 Ser	
Each time the configured	First center IP Domain name	0.0.0.0 stephenotto.ddns.net	Port 514	Connection type TCP •	
heartbeat interval passes, the custom heartbeat	Second center IF Domain name	0.0.0.0	Port 51002	Connection type UDP •	
server	Third center IP Domain name	0.0.0.0	Port 51003	Connection type UDP	
	Heartbeat Interval 60 Serial Network Co Serial com2 Bi Serial closed	0~65535 sect nnection]Protocal Wor aud rate 115200 Str	ind kmode Remote managemen pp bit 1 Panity bit NO _	t] Version] Fireware updats] Switch command @ Connect	Close senat

	(With Heartbeat)	
Each time the configured heartbeat interval passes, the custom heartbeat packet is sent to the server	D'U config tool v4.0 Overate Read from file Save to file Configuration Device ID (#53855028234537 Protocal select NONE Device ID (#53855028234537 Protocal select NONE Device ID (#53855028234537 Device ID (#53855028345 Device ID (#53855028234537 Device ID (#53855028345 Device ID (#53855028 Device ID (#5385508 Device ID (#538508 Device ID (#5385	Clove serial

WL-D801 Automatic TCP Connection				
(With Heartbeat)				
(Debug Level = Debug Information)				
2017/02/08 10:22:54.055 [RX] - <cr·(lf) [0:00:00] ESystem starting, software[83.10.T5] <cr>(LF) (CR)(LF) [(CR)(LF) [(CR)(LF)</cr></cr·(lf) 	→ Application Start-Up			
(CR>(LF) [0:00:13] H→>teck modem ok.(CR>(LF) [0:00:20] H→>text ppp dialing.(CR>(LF) (CR>(LF) (0:00:13] H→>try dialing.(CR>(LF) (0:00:13] H→>try dialing.(CR>(LF) [0:00:12] H→>pgt local ip[197.228.242.50](CR>(LF) [0:00:12] H→>pgp dialing is succ.(CR>(LF)	→ Dial PPP Connection			
<pre>(CE>(E) [0:00:32] M->connecting center.(CE>(E>) (CE>(E>) [0:00:32] M->try connecting.(CE>(E>) (CE>(E>) (CE>(E>) [0:00:33] M->connect center is succ.(CE>(E>)</pre>	← Connect to Data Centre			
<pre>(CE>(E>) [0:00:33] N1>send heart best packet.(CE>(E>) [0:00:34] N1>send heart bytes [0:00:34] N1>send bytes [0:00:34] N1>send bytes [0:01:01] N1>send bytes [0:01:01] N1>send bytes [0:01:01] N1>send bytes] [0:01] N1>send byt</pre>	→ Send Heartbeat packet			
(CB)(LF) [0:01:34] M1>send heart beet packet.(CB)(LF) (CB)(LF) [0:01:35] N1>sent bytes [2].(CB)(LF)	Send Heartbeat packet			
2017-02/08 10:24132.155 [XX] - Hallo TCP Server 2017-02/08 10:24132.775 [XX] - (CB:4CF) [3:01:46] M1-Sent bytes [16].(CB:4CF) (CB:4F) [0:01:46] M1-Sent yets [42] from center:(CB:4CF) [0:01:46] M1-Sent y	→ Send Data → Receive Data			

WL-D801 Automatic TCP Connection (With Heartbeat and ACK) DTU config tool v4.0 0 Operate 🕞 Read from file 📴 Save to file 🔆 Default 🛛 🕼 Ger 🛛 🖄 Ser Connection First center IP 0.0.0.0 Port 514 Connection type TCP -Each time the configured Domain name stephenotto.ddns.net heartbeat interval passes, Second center IP 0.0.0.0 Port 51002 Connection type UDP the custom heartbeat Domain name packet is sent to the Third center IP 0.0.0.0 Connection type UDP -Port 51003 server Domain name Interval 60 0~65535 second Serial Network Connection Protocal Work mode Remote management Version Fireware update Serial com2
Baud rate 115200
Stop bit 1
Parity bit NO
Switch command Connect
 Q Close erial closed

WL-D80	1 Automatic TCP Con ith Heartheat and AC	nection
100		
	Operate 🕞 Read from file 📴 Save to file 🔆 Default 🕞 🖓	er 💁 Set
	Device ID 863835028234537	
Each time the	Protocal select	
configured heartbeat	- ID insert into package	
interval passes, the	Enable position 0-24 byte	
custom heartbeat	-Custom heartbeat package	
packet is sent to the	Enable 3132	
server		
	33 34	
/	Serial Network Connection Protocal Work mode Remote management Version Fireware update	
	Serial com2 💌 Baud rate 115200 💌 Stop bit 1 💌 Parity bit NO 💌 Switch command	Connect Q Glose serial
/	Serial dosed	
By enabling th	"ACK of heartheat nackage" then whenever th	e custom
heartbeat pac	et is sent, the server must reply with the Hex D	ata configured as
the heartbeat	backage. After 3 failed replies, PPP and TCP are	disconnected!



WL-D801 Autor	matic TCP Connection
(With Hea	rtbeat and ACK)
(Debug Level =	Debug Information)
2017/02/08 10:47:26.465 [RK] - (CB)(LF) [0:00:00] EL-System starting software[83.10.T5](CB)(LF) (CB)(LF) [0:00:00] EL-SH - 100000170100076(CB)(LF) [0:00:00] EL-Shas no download task.(CB)(LF) (CB)(LF)	
(c):(C):(C):(C):(C):(C):(C):(C):(C):(C):(C	→ Application Start-Up
[0:00:16] M→-OSM signal strength is OK. CS2 [15](CR>(LF) (CD)(LF) [0:01:9] M→-Nas registered network.(CR>(LF) [0:00:19] M→-Nack modem ok.(CR>(LF) [0:00:19] M→-Nack modem ok.(CR>(LF) [0:00:20] M→-Natart ppp dialing.(CR)(LF)	
[0:00:31] M>try dialing. <or>(LF) (CR)(LF) [0:00:32] M>gwt local ip[41.146.92.35_(FF) (CR)(LF) (CR)(LF) (CR)(LF)] M>ppp dialing is succ.(CR)(LF) (CR)(LF)</or>	→ Dial PPP Connection
<pre>[0:00:32] N1->connecting center.<cr><lf> CR><lf> [0:00:32] N1->try connecting.<cr><lf> (CR><lf) (cr=""><lf) (or)<lf=""> [0:00:33] N1->connect center is succ.<cr><lf> [0:00:33] N1->connect center is succ.</lf></cr></lf></cr></lf></cr></lf></cr></lf></cr></lf></cr></lf)></lf)></lf></cr></lf></lf></cr></pre>	Gonnect to Data Centre
<pre>(CB>(LF) { (0:0:33) W1>send heart heat packet.(CB>(LF) (CB>(LF) (CB>(LF) (CB>(LF) (CB>(LF) (CD)(40) N1-sent bytes [2].(CB>(LF) (CB>(LF) (</pre>	Send Heartbeat packet Send Heartbeat packet Send Heartbeat packet
<pre>(CROCEF) [0:00:51] N1->heart beat failed.(CR>CEF) (CR>CEF) [0:00:51] N1->disconnect center.(CR>CEF) (CR>CEF) [0:00:52] N1->disconnect center is sume (CR>CEF) [0:00:52] N1->disconnect center is sume (CR>CEF)</pre>	No Heartbeat ACK received!!!
(CB)(LF) as /stabulance(United is Sub.(CA/LF) (0:00:52) M->disconnect ppp dialing.(CB)(LF) (CB)(LF) (0:00:521 M->disconnect ppp dialing is succ.(CB)(LF)	Disconnect PPP and TCP

WL-D803 (With I	1 Automatic TCP Connection Heartbeat and ID and ACK)
	DTU config tool v4.0 DP config tool v4.0 Default Default
Each time the configured heartbeat interval passes, the custom heartbeat packet is sent to the server	First center IP 0.0.0 Port 514 Connection type TCP Domain name stephenotio ddns.net Second center IP 0.0.0 Port 51002 Connection type UDP Domain name
	Heatbeat Interval 60 0-65535 second Serial Network: <u>Connection</u> Protocal Work mode Remote management, Version Fireware update Serial com2 • Baud rate 115200 • Stop bit 1 • Parity bit NO • Switch command •••••• @ Connect © Close serial Serial cosed // // // // // // // // // // // // //

WL-D80	1 Automatic TCP Connection
(With	Heartbeat and ID and ACK)
By enabling the "ID insert into package" then whenever the custom heartbeat packet is sent, the Device ID is appended to the packet accordingly	DTU config tool 44.0 Derate Contain ID Device ID 693395028234537 -Oution ID Device ID 693395028234537 -Frolocal select NONE -D insert into package T Clastom heartbeat package T Clastom heartbeat package T T Enable S132
configured heartbeat interval passes, the custom heartbeat packet is sent to the server	Custom ack of hearbeat package Custom ack of hearbeat package Serial Connection Proble Work mode Remote management Version Fireware update Serial Connect Connect Connect Connect Connect Connect Connect Serial Connect C



WL-D801 Automa	tic TCP Connection
(With Heartbeat	and ID and ACK)
(Debug Level = D	ebug Information)
2017-02:00 10:45:16:048 [PX] - CE> (E> [0:10:00] EL-System startingsoftware(03.10.T5](CE>(LF) [1:10:01:00] EL-SN= - 100000170100076(CE>(LF) [0:10:01:00] EL-SN= - 100000170100076(CE>(LF) [0:10:01] EL-SN= so download task:(CE>(LF) [0:10:01] EL-SN= so download task:(CE>(LF) [0:10:01] EL-SN= so download task:(CE>(LF)	
CCb.(E) [0:10:07] M>open modemCD>(LF) C1:10:07:08] M>Check modemCD>(LF) (Cb.(E) [0:10:12] M->SIM is ready.(CB>(LF) [0:10:13] M->SIM is ready.(CB>(LF) [0:10:14] M->SIM is ready.(CB>(LF)	→ Application Start-Up
<pre>(CB>(EF) [0]:01012 (0]:0112 (CB>(EF) (CB>(EF) [0]:00:20] H->bteck modem ok.(CB>(EF) (CB>(EF) [0]:00:20] H->btert pp dialing.(CB>(EF) [0]:00:31] H->tyry dialing.(CB>(EF) (CB>(EF) (CB>(EF) (CB>(EF)) (CB>(EF)->pet local ip(1.148.1.248.(FF))</pre>	→ Dial PPP Connection
(CD)(LF) [010:32] M>ppp dialing is succ.(CE>(LF) (CD)(LF) (CD)(LF) [010:32] N1->connecting center.(CE>(LF) (CD)(LF) [010:31] N1->connect center is succ.(CE>(LF) [010:31] N1->connect center is succ.(CE>(LF) (CD)(LF)	← Connect to Data Centre
[0:00:33] B1->send host hest packsCB>(LF> (CB)(LF) [0:00:40] B1->sent bytes [17].CCB>(LF> (CB)(LF) [0:01:40] B1->sent bytes [17].CCB>(LF> (CB>(LF) [0:01:45] B1->sent bytes [17].CCB>(LF> [Send Heartbeat packet Send Heartbeat packet Send Heartbeat packet
<pre>[0:00:51] N1->disconnect centor.<cb>(LF) (Cb>(LF) [0:00:51] N1->disconnect centor is succ.<cb>(LF) (0:00:51] N1->disconnect pp dialing.<cb>(LF) (Cb>(LF) [0:00:52] N1->disconnect pp dialing is succ.<cb>(LF)</cb></cb></cb></cb></pre>	No Heartbeat ACK received!!!

DB0 Management Platfic x	/L-D801 Remote Managen	nent
Apps (WhatsApp Web R RS	🗅 WLINK 🗅 SIMCom Old 🏱 SIMCom 🎉 IMST GmbH ち G-Top 🖬 Airlink 🔿 Github - Raspberry PI 🚳 Arduino - SerialEvent 🚳 Ard	uino - SerialEvent St NMEA GPS data to G >>
	ware Serial Number Software Version Online/ Offline	Welcome: admin 💉 nt Upgrade package management User management
Terminal grouping 🛛 🖉 🥥 « 🛛	Current location: Terminal status > Default Group	
Default Group	🖷 Edit device 🔹 👔 Remote control 👻 調 Parameter 🦞 Alarm 💋 Sensing amount 🕥 Tasks view (Please enter the overy 🔍 Si	gnal Strength
	Serial number, Device alias Soft version Param check Manage channel Data channel, Signal ste Alarm	Last login Last offline Progress
	1 00000170100076 100000170100076 \$3.10.T5 A307 E Online 0 Office	
	2 1200001/0300001 1200001/0300001 33.10.15 9A0/ Dinke Office 0	
	DTU config tool v3.1	
Waiting Interval	Operate 🕒 Read from file 📑 Save to file 🔆 Default 🕼 Get. 🗐 Set.	
hoforo truing to	Remote management	
before trying to	Management	
reconnect to	Platform Server	
Management		
Platform		
Thatform	Remote IP 0.0.0 Remote port	
Management 🖊	Remote domain name [stephenotic.dons.net	
Platform Server		
IP or Domain		
A delvere		
Address		
	Senal Network Connection Protocal Work mode Remote management Version	
	Serial com2 Baud rate 115200 Stop bit 1 Parity bit NO Switch command Connect	O Close serial
	Serial closed	

WL-D801 Rem	ote Management
[0:00:00] EL->has no download task. <cr><lf></lf></cr>	
<pre>(CB>(LF) { (0:000) M>shutdown modem.<cr>(LF) (CR>(LF) (CR)(LF) (CR)(CF) (CR)(CF) (CR)(LF) (CR)(LF) </cr></pre>	
[0:00:00] PC->wait reconnect center.(CR>(LF) (CR>(LF) [0:00:07] M>open modem.(CR>(LF) (CR>(LF) [0:00:08] M>check modem(CR>(LF)	→ Application Start-Up
<pre>(CR>(LF) { [0:00:12] M>SIM is ready.<cr><lf> (CR>(LF) (CR>(LF) [0:00:16] M>OSM signal strength is 0K, CSQ [20]<cr>(LF> (CR>(LF) </cr></lf></cr></pre>	
[0:00:19] M>has registered network. <cr><lf> (CB>(LF) [0:00:19] M>check modem ok.<cr><lf> (CR>(LF) [0:00:20] M>start ppp dialing.<cr><lf></lf></cr></lf></cr></lf></cr>	
<pre>(CR>(LF) [0:00:31] M>try dialing.<cr>(LF) (CR>(LF) (CR>(LF) [0:00:32] M>get local ip[197.228.137.64](CR>(LF) (CR)(LF)</cr></pre>	→ Dial PPP Connection
<pre>[0:00:32] M>ppp dialing is succ.(CR>(LF> (CR>(LF) [0:00:32] PC->connecting center.(CR>(LF> (CR>(LF) [0:00:32] N1->connecting center.(CR>(LF></pre>	Start connection to Data
<pre>(CB>(LF) [0:00:32] PC->try connecting.(CR>(LF) (CR>(LF) [0:00:33] PC->connect center is succ.(CR>(LF) (CR>(LF)</pre>	Centre and Management
<pre>[0:00:33] PC->login center.(CR>(LF) (CR>(LF) [0:00:33] PC->sent bytes [150].(CR>(LF) (CR>(LF) [0:00:33] NI->try connecting.(CR>(LF)</pre>	Data Centre Connection Success
<pre>(CB>(LF) [0:00:34] N1->connect center is succ.(CR>(LF) (CR>(LF) [0:00:35] PC->login center succ.(CR>(LF) (CB>(LF) (CB>(LF))</pre>	Management Platform
<pre>[0:01:01] M>OSM signal strength is OK, CSQ [21]<cr><lf> CCR><lf> [0:01:05] PC->send heart beat packet.<cr><lf> (CR><lf> (CR><lf) 0:01:05]="" [="" pc-="">send heart beat packet.<cr><lf> (CR><lf>) [0:01:05] PC->send heart beat packet.<cr><lf></lf></cr></lf></lf></cr></lf)></lf></lf></cr></lf></lf></cr></pre>	Send Management Platform
(CR>(LF) [0:01:07] FC->got heart beat ack.(CR>(LF) (CR>(LF)	heartbeat every 30s

WL-D801 Rem	ote Management
<pre>[0:00:00] M>butdown modem.<cr><lf> CCR>(LF> [0:00:00] FC->protocal channel startup.(CR>(LF> CCR)(LF) CCR>(LF)</lf></cr></pre>	
(CR) <lf> (CR)<lf> [0:00:07] M>open modem.<(CR)<lf> (CR)<lf> [0:00:08] M>check modem(CR)<lf></lf></lf></lf></lf></lf>	Application Start Un
<pre>(CE>(LF) [0:00:12] M>SIM is ready.(CE>(LF) (CE>(LF) [0:00:16] M>OSM signal strength is OK, CSQ [22](CE>(LF) (CE)(LF)</pre>	Application start-op
[0:00:19] M>has registered network.(CR>(LF> (CR>(LF) [0:00:19] M>check modem ok.(CR>(LF> (CR>(LF) [0:00:10] M>check modem ok.(CR>(LF>	
(CR)(LF) (CR)(LF) [0:00:31] M>try dialing.(CR)(LF) (CR)(LF) [0:00:32] M>get local ip[41.246.181.204](CR)(LF)	→ Dial PPP Connection
<pre>CCB>(LF> [0:100:32] M>ppp dialing is succ.(CR>(LF> CB>(LF> CB>(LF) [(CB)(LF> [(CB)(LF>])</pre>	
<pre>[0:000:32] N1->connecting center.<cr><lf> <cr><lf> (CR><lf> [0:00:32] PC->try connecting.<cr><lf> <cr><lf></lf></cr></lf></cr></lf></lf></cr></lf></cr></pre>	Start connection to Data Centre and Management
[0:00:33] PC->connect center is succ.(CR>(LF) (CR>(LF) (0:01:33) PC->login center.(CR>(LF) (0:00:33] PC->sent bytes [150].(CR>(LF)	Platform Server
<pre>(CR) (LF) [(:0:0:33] N1->try connecting.(CR) (LF) (CR) (LF) [(:0:0:34] N1->connect center is succ.(CR) (LF) [(:0:0:34] N1->connect center is succ.(CR) (LF)</pre>	Data Centre Connection Success
[0:00:39] PC->sent bytes [150]. <cr><lf> (CR><lf> [0:00:44] PC->sent bytes [150].<cr><lf> (CR><lf></lf></lf></cr></lf></lf></cr>	Management Platform
<pre>[0:00:49] PC->login center failed.(CR>(LF> (CR)(LF) [0:00:49] PC->disconnect center.(CR>(LF> (CR)(LF) [0:00:49] PC->disconnect center is succ.(CR>(LF)</pre>	Retry 3 times before waiting
CCR>(LF> [0:00:49] PC->wait reconnect center. <cr><lf></lf></cr>	for start interval to retry again

Operate	D Read from file	Cause to file	W Default	Ph. Cof	Of Cat	
Operate	Correction file	Eg Save to file	<u>,</u> 2- Detault	e Get	79 Set	
Product b	ne D10					-
Droductio		la selesce a Castal	L Look and Games			-
Floaden		lardware Seria	Interface			-
Serial type	232					1
Firmware	version 83.10.T5					Softwar
SN	100000170100076]
	S	oftware Serial	Number			

