

# GPRS Wireless DTU User's Manual

## Model: W3100G



### 1.0 General Description

The W3100 series DTU is a kind of bi-directional-converter, which can convert the series communication of industrial RS232/RS485/TTL into wireless network communication of GPRS/CDMA.

It is based on the 2.5G network-communicating platform, transmitting in the transparent way. There is no use for the user to clearly know the complicated communicating theory of GPRS/CDMA. Neither does it usable to change the program to link the original series equipments. It can be applied to the long-distance communication or control in the field of automatic electric power system, industrial monitoring, water conservancy, weather, environment protection, transportation, finance, securities, etc. product of this kind can save you both time and fund.

### 2.0 Feature of the product

- ◆ Supporting the signal of RTS、CTS、DTR、DSR simultaneously.
- ◆ Supporting the UDP/TCP protocol, and the TCP SERVER work mode
- ◆ Automatic re-dial function after off line
- ◆ Setting the communicating parameter flexibly by way of VB programmed
- ◆ Supporting transparent and non-transparent transmission.
- ◆ Finding the center computer by static IP, domain name or SMS
- ◆ Power supply: Voltage: DC+5V ~ 24V.

Consumption: In use: 120mA@+12VDC;

Idle: 40mA@+12VDC;

Dormancy: 8mA@+12VDC;

- ◆ Working temperature: -35°C ~ +75°C
- ◆ Relative Humidity: 95% (non-condensing)

### 3.0 Interface

- ◆ Antenna: 50Ω/SMA Female
- ◆ SIM/SIM: 3V
- ◆ RS-232/RS-485 interface
- ◆ Three-wire standard: RXD, TXD and GND

### 4.0 Technology standard

- ◆ Transmitting in the transparent way
- ◆ Real time clock
- ◆ TCP/UDP/IP/ICMP/PPP/PAP/DNS protocol
- ◆ Low power dissipation

### 5.0 Hardware

#### 5.1 W3100G LCD indications

Signal----- It indicates that the GPRS signal and SIM card is in the normal state if the light flicker regularly

PWR----- Indication of Power

Net----- It shows that the GPRS net has been established when the NET light lightens, and when the net drop, the light goes out

Data----- If there is data-transfer in ATC serial port, it lightens

#### 5.2 definition of serial port interface

sketch map	apellation	pin	attribute
	RXD	2	Output
	TXD	3	Input
	GND	5	Grounded



#### 5.3 DIP-Switch function

DIP switch4 is used to change the device state. Switch1, switch2, switch 3 doesn't

work now.

## 6.0 Installation and setting of the W3100G DTU

W3100G wireless data-transfer devices must be configured on windows operating system

### 6.1 installations

#### 6.11 SIM card

Press the yellow button, then put the SIM card in the pedestal.

#### 6.12 Connecting the antenna with the DTU.

6.13 Use the RS232 cross -Through cable to connect the serial port of the DUT with the serial port of the computer, in order to configuring the W3100G.

### 6.2 setting

Before starting to configure the DTU, please put all the switches down

Connecting to the pc with communication wire, which our company provides.

Setting as follow:

1. Open the software DTU V2.5 SETUP set it up. As figure 6-1:

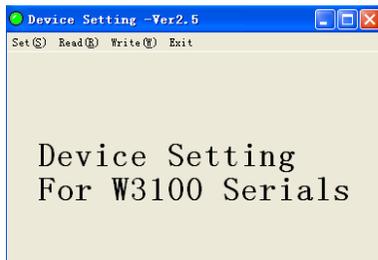


Figure 6-1

2. Choose the SET menu as figure 6-2

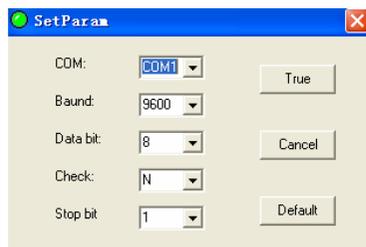


Figure 6-2

Search device: choose the right COM port number same as your pc COM.and other parameters just same as your devices.

3. Choose the READ menu as figure 6-3

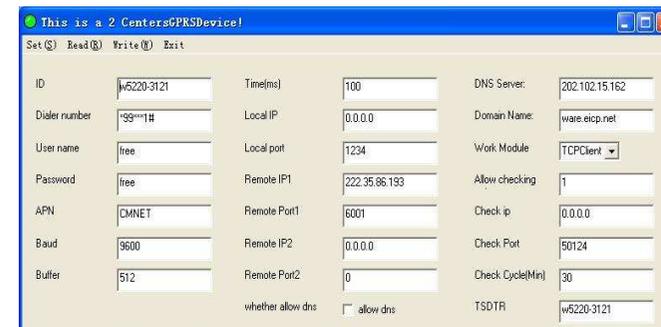


Figure6-3

ID: defined by user (it can still be RTU's number)

Dialer number, User name, Password is default the communication company will provide.

Buffer: setting by user (256,512,1024...);

Time (ms): defined by user

Work Module: user can choose UDP, TCP CLIENT, and TCP SEVER.

If user will choose IP communication, user can apply for a static IP address, fill in the Remote IP1; and user computer must be opened a port which can be defined by user in LAN for W3100, fill in the Remote port1. If you want to send the data to another sever, you can choose Remote IP2 and Remote port2.

If users don't have static IP, you can use dynamic IP to test the W3100.

User can still choose DNS communication. But user must apply for a domain name from provider; it can be free domain name. After applying, check the Allow DNS, and fill in the relevant option.

Other options are default.

- 4,Save the configuration, and then put the Switch 4 on.

### 7.0 Typical application

