

# **Quectel Cellular Engine**

## **GPRS** Setup

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## 0. Revision history

Revision	Date	Author	Description of change
1.00	2009-06-27	Jean HU	Initial

## 1. Introduction

This document describes how to establish a PPP connection with Microsoft Windows NT4.0 using the prototype of GSM/GPRS. Configurations and settings for other operating systems (Windows 95/98) may slightly differ, but the general process is similar.

### 1.1. Reference

#### Table 1: Reference

SN	Document name	Remark
[1]	M10_ATC_V1.00	
[2]	RFC 1661 – The Point-to-Point Protocol (PPP)	
[3]	RFC 1994 – PPP Challenge Handshake Authentication Protocol (CHAP)	

## 1.2. Terms and abbreviations

#### **Table 2: Terms and abbreviations**

Abbreviation	Description
APN	Access Point Name
СНАР	Challenge Handshake Authentication Protocol
CID	Context Identity
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name Server
DSB	Developer Support Box
GPRS	General Packet Radio Service
GSM	Global System of Mobile Communication
IP	Internet Protocol
OS	Operating System
PDP	Packet Data Protocol
PIN	Personal Identification Number
РРР	Point to Point Protocol
QoS	Quality of Service
RAS	Remote Access Service
ROM	Read Only Memory
SIM	Subscriber Identity Module
ТСР	Traffic Control Protocol

## 2. What You Need

## 2.1. GPRS setting from your network provider

Before you set up your device to access the GPRS network, contact your network provider to obtain the GPRS service.

## 2.2. Modem installation and configuration

You will need to set the modem configuration. Follow the steps in chapter 3.

Note:

Administrator rights for the operation system may be needed in order to set the modem configuration. Connect your local system administrator for advice.

#### 2.3. Dial-Up network installation and configuration

You will need to set up the Dial-Up network. Follow the steps in chapter 4.

## 3. Set up a Windows Modem Driver

#### 3.1. Add a new modem

If there is no standardized 19200bps modem has been installed, you can add a new standardized modem to the modem section of the control panel.

Click Start -> Setting -> Control Panel -> Phone and Modem option -> Modem -> add



Follow the instructions on the screen, choose "**19200 bps modem**" and "**COM1**", click "**NEXT**", till to finish the configuration.

Install New Modem				
Select the manufacturer and m have an installation disk, click	odel of your modem. If your modem is not listed, Have Disk.	or if you		
Manufacturers: Mo Standard Modem Types) S 3Com 3X	dels: tandard 2400 bps Modem tandard 3600 bps Modem tandard 14400 bps Modem			
Aceex Acer	andard 19200 ops Modem (andard 28800 bps Modem tandard 3600 bps Modem tandard 56000 bps K56Elev Modem Hay Add/Remove Hardwar	e Disk		
	Install New Moden Select the port(s)	) you want to install th	e modem on.	
		You have self Standard 192 On which por On which ports On All ports O Selected	ected the following mo 200 bps Modem ts do you want to insta ports	dem:
			< <u>B</u> ack	<u>N</u> ext>
Add/Remove Hardware W Install New Modem Modem installation is f	izard inished!			
Add/Remove Hardware W Install New Modem Modem installation is f	izard inished! Your modem has been set up suc If you want to change these settin Phone and Modem Options icon ii Modems tab, select this modem, a	cessfully. gs, double-click th Control Panel, cl nd then click Prop	he lick the perties.	
Add/Remove Hardware W Install New Modem Modem installation is f	iinished! Your modem has been set up suc If you want to change these settir Phone and Modem Options icon ii Modems tab, select this modem, a	cessfully. Igs, double-click th n Control Panel, cl nd then click Prop	ne tick the perties.	

## 3.2. Configure the modem driver

Choose the installed standardized 19200bps modem, click "**Property**", choose the max port speed (default value: 115200), and click "**Advanced**" to configure "**Extra setting**" as illustrated in the figures below.

Phone And Modem Options	٢	
Dialing Rules Modems Advanced	) bps Modem Properties	<u>? ×</u>
The following modems are installed:	hostics Advanced	
Modem Attached To		
Standard 19200 bps Modem COM1	lume	
	bw High	
	ort Speed	
	15000	
	Wait for dial tone before dialing	
Add Remove Properties		
	1	
Standard 19200 bps Modem Properties	?× OK	Cancel
General Diagnostics Advanced		
Extra Settings		
Extra initialization commands:		
at+cgdcont=1, "IP", "cmnet"		
Change Default I	Preferences	

Please change the "CMNET" to your access point name (APN).

## 4. Set up the Dial-up Network

#### 4.1. Set up a new connection

Select "Network and Dial-Up Connections" and then "Make new connection" in control panel.



Select "Dialup to private network" -> click "Next"

## 4.2. Configure the setting

Select "Modem - Standard 19200bps modem (COM1)", then click "Next".

Network Connection Wizard	
Select a Device This is the device that will be used to make the connection.	Ì
You have more than one dial-up device on your computer.	
Select the devices to use in this connection:  Select the devices to use in this connection:  Modem - Intel HaM Plus V 90 Modem (COM5)  Modem - Standard 19200 bps Modem (20M3)  Modem - Standard 19200 bps Modem (COM1)	
	Network Connection Wizard
	Phone Number to Dial You must specify the phone number of the computer or network you want to connect to.
	Type the phone number of the computer or network you are connecting to. If you want your computer to determine automatically how to dial from different locations, check Use dialing rules.
<u> </u>	Area.code: Phone number:
	Country/region code:
	, ∐se dialing rules
	<u> &lt; B</u> ack <u>N</u> ext > Cancel

Enter the number for GPRS connection (do not select "use dialing rules"), then click "Next".

etwork Connection Wizard		
Connection Availability You may make the new connection available to all users,	, or just yourself.	
You may make this connection available to all users, or k connection stored in your profile will not be available unle	eep it only for your own use. A ss you are logged on.	
Create this connection:		
Eor all users	Network Connection	Wizard
C Only for myself	Next	Completing the Network     Connection Wizard      Ivpe the name you want to use for this connection:     GPRS      To create this connection and save it in the     Network and Dial-up Connections folder, click     Finish.      To edit this connection in the Network and Dial-up     Connections folder, select it, click File, and then click     Properties.      Add a shortcut to my desktop
		< <u>B</u> ack Finish Cancel

Enter the name for this connection (for example, "GPRS"), then click "Finish".

## 5. Configure the Connect GPRS

Ensure "User name" and "Password" are both blank.

Password:       Components checked are used by this connection:         Dial:       *99#         Dial:       *99#         Dial:       *99#         Dial:       Properties         Dial:       Properties         Dial:       Properties         Dial:       Properties         Obscription       Transmission Control Protocol (TCP/IP) Properties         General       You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network across diverse intercome         • Diation an IP address automatically       • Uge the following IP address:         IP address:       IP address:         I	? ×I       ty     Networking       settings	CPRS General Options Security Type of dial-up server I am ca PPP: Windows 95/98/NT4/	PRS	Connect GPRS
<u>Alternate DNS server:</u> 203 . 97 . 191 . 189 <u>Adv</u> anced	a used by this connection:	Components checked are use The BEUI Protocol WWLink IPX/SPX/Ne Component Protocol TCF Component Protocol TCF Component Protocol TCF Client for Microsoft N Install Description Transmission Control Prot wide area network protoc- across diverse interconne	t: Save password "99# Cancel Properties	Password: Djal: Dial

Click "**Properties**", then select "**Networking**" tab. Select "**Internet protocol (TCP/IP)**" and click "**Properties**", then set DNS and click "**OK**" to finish the configuration

Select "General" tab, then click "Configure". Set the maximum speed to "115200". Click "OK" to finish the configuration.

GPRS	
General Options Security Networking Sharing	Modem Configuration
Connect using:	Standard 19200 bps Modern (COM1)
Phone number Arga code: Phone number:	Maximum speed (bps): 115200
Country/region code:	Enable hardware flow control     Enable modem error control     Enable modem compression
Use dialing rules	Initialization
Show icon in taskbar when connected	Bun script:       Edit       Browse       Enable modem speaker
OK Cancel	OK Cancel

Now	click	"Dial"	

Connect GPRS		
<u>U</u> ser name:		
Password:		
Djal:	► Save password	
<u>D</u> ial	Cancel Properties Help	
		Connecting GPRS
		■記, Dialing *99# しる
		Cancel





Shanghai Quectel Wireless Solutions Co., Ltd. Room 801, Building E, No.1618, Yishan Road, Shanghai, China 201103 Tel: +86 21 5108 2965

Mail: info@quectel.cor