GPS-250MVK

User's Guide

(version 0.1)

Power
Modem
GPS
GPS
Tracking Terminal

GR Telecom Co.,Ltd.

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1. Overview

This document is a summary of hardware & software specifications for GPS-250MVK, one of GR Telecom AVL handset.

▣ Contents

Contents are as followings:

☞ Product Feature

Describe main features & function of GPS-250MVK.

☞ Specification

Describe the hardware, software and mechanical specifications.

☞ JIG for Testing (Forbidden general public to use)

Describe about the JIG using method to test & read DM LOG for GPS-250MVK through the external interface.

☞ Interface

Describe about Interface to use GPS-250MVK.

☞ USB Driver Installation

Describe USB Driver Installation guide to connect USB cable for DM logging / debugging.

☞ PST (Product Support Tool)

Describe the way to use PST.

▣ Terms and Numeric Information

AKEY	Authentication Key
CAI	Common Air Interface
CDMA	Code Division Multiplex Access
DM	Diagnostic Monitor
ESN	Electronic Serial Number
FSC	Fieled Service lock Code
IS	Interim Standard
IS-2000	Including IS-95-B July.1999, 1X MC definition, CDMA VER6
IS-801	Position Determination IS-801 messaging layer support
IS-95	The first CDMA PROTOCOL July.1993, CDMA VER1
IS-95B	Everything Integration Oct.1998. High Speed Data(MDR),CDMA VER5
JTAG	Joint Test Action Group
MDN	Mobile Directory Number
MIN	Mobile Identification Number
SMS	Short Message Service
PST	Product Support Tool

2. Product Features

2.1 General Features

▶ CDM A Module

▶ Support IS-95A / IS-95B / IS-2000 Release 0

▶ Frequency : 800MHz & 1900MHz Dual Band

▶ Chipset : Qualcomm MSM6050 / GPS Sirf III

▶ Interface

- 20 Pin Cable to connect with vehicle
- USB DATA / USB DM (Forbidden general pubic to use)

2.2 Product Picture

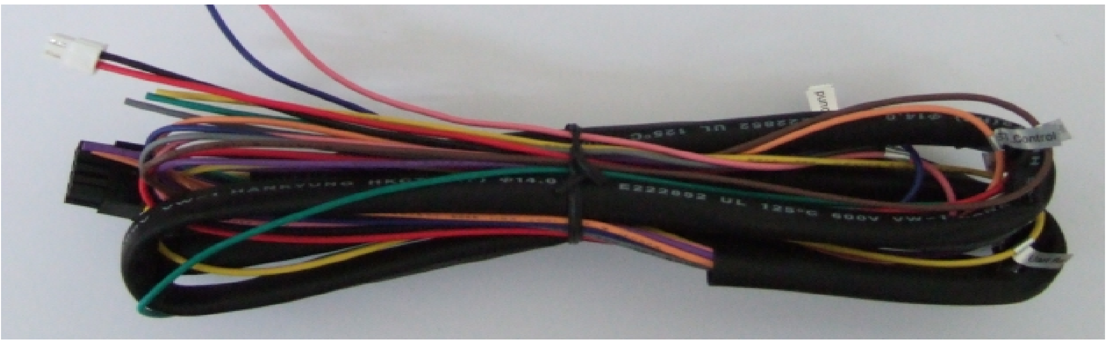
▶ Main Body

GPS
Tracking Terminal

▶ CDMA Antenna – 800 & 1900MHz

▶ GPS Antenna – 1575MHz

▶ 20 Pin Cable to connect with vehicle



▶ Emergency Button

3. Specification

3.1 Environment Specification

- ▶ Relative Humidity : 5% ~ 95%
- ▶ Storage Temperature : -40℃ ~ 80℃
- ▶ Operation Temperature : -20℃ ~ 60℃
- ▶ Vibration Stability: 1.5G peak 5 to 500Hz

3.2 Hardware Specification

- ▶ CDMA Protocol : CDMA 2000 1xRTT
- ▶ Power Consumption : 12V/320mA , 24V/160mA / (Tx Max Power)

Status	Traffic	Idle	GPS Active
Current	320 / 160 mA	130 / 70 mA	Under 100 mA

- ▶ IF Receiving Chip : RFR6000/RFL6000
- ▶ IF Transfer Chip : RFT6100
- ▶ Main Chipset : Qualcomm MSM6050
- ▶ GPS Chipset : Sirf III
- ▶ Interface : USB

▣ RF Specification

▶ Transmitting Part

- Maximum RF Output Power: 23dBm ~ 27dBm
- Frequency Range: 824 ~ 849 Mhz & 1850 Mhz~1909 Mhz
- Modulation method: OQPSK
- Channel spacing: 1.23 Mhz
- Occupied bandwidth: Within 1.32 Mhz
- Frequency conversion method: Baseband to RF direct conversion (Zero IF)
- Waveform quality: Above 0.944

▶ Receiving Part

- Frequency Range: 869 ~ 894 Mhz & 1931 Mhz~1990 Mhz

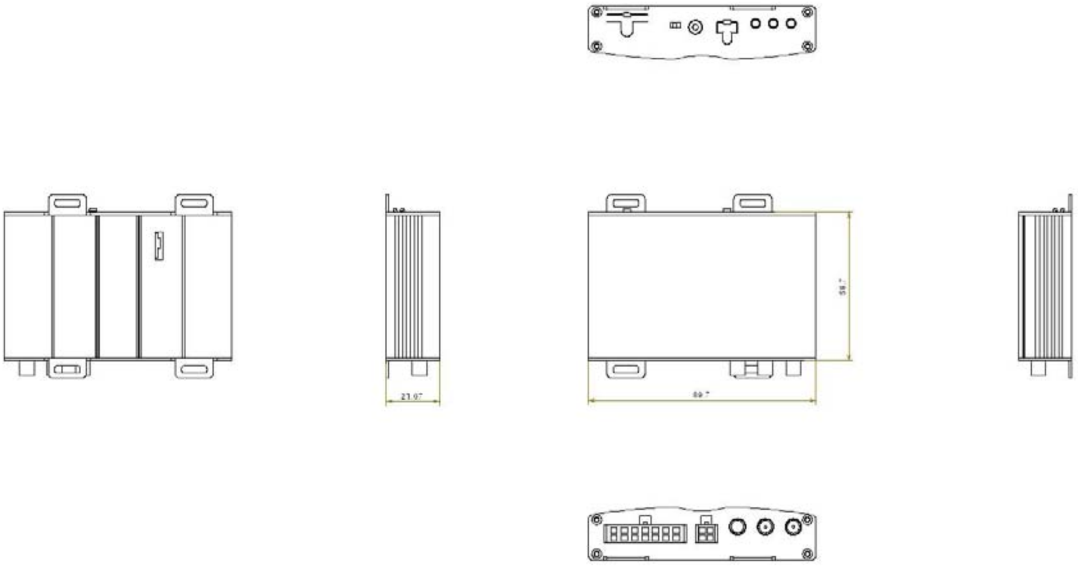
- Frequency conversion method: RF to Baseband direct conversion (Zero IF)
- Channel spacing: 1.23 Mhz
- Modulation method: QPSK
- Receiving sensitivity range: Below – 104 dBm (FER = 0.5%)
- GPS Sensitivity: - 155 dBm min

▶ GPS Part

- Receiver Type: L1 Frequency (1575.42 Mhz), C/A Code, 20-Channel
- Max Up-date Rate: 1 Sec
- Accuracy(SA off): Position < 10m 3D RMS
- 3D Tracking Sensitivity: - 155 dBm at the Receiver Input (Typical)
- Re-acquisition Sensitivity: - 153 dBm at the Receiver Input (Typical)
- Operational Limit: Altitude < 18,000m (60,000 ft.)
  Velocity < 515 m/s (1,000 knots)
- Time to First Fix (TTFF): Cold Start 60 Sec (Typical)
  Warm Start 40 Sec (Typical)
  Hot Start 1 Sec (Typical)
- Re-acquisition Time: 3 Sec
- Protocol: NMEA 9,600 bps

3.3 Mechanical Specification

▣ External Appearance & Size



Size : 89.7 * 58.7 * 21.6 mm

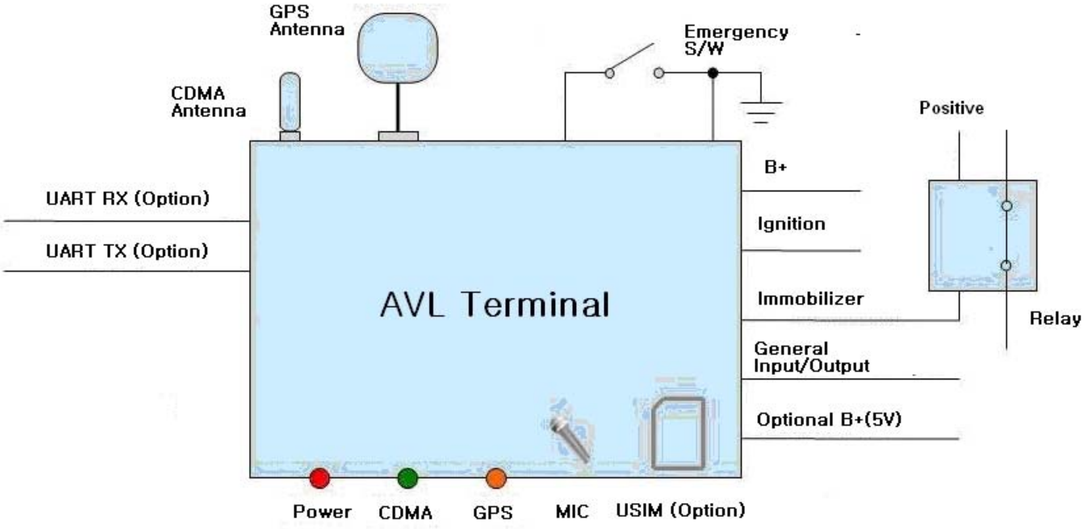
Weight : 200 g

3.4 Software Specification

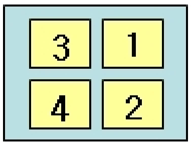
- ▶ Working Method : GPS Standalone
- ▶ Data Service: Support IS-707A and IS-707A-1
- ▶ SMS(IS-647): Support MO, MT
- ▶ Program to support manufacturing: PST

4. Functions

▶ Function Block Diagram

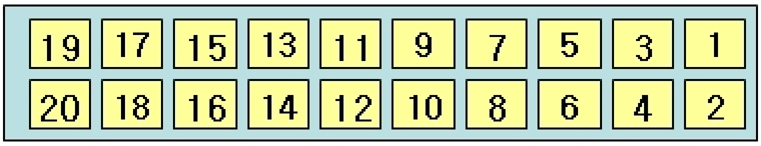

GPS Antenna
CDMA Antenna
Emergency S/W
Positive
B+
UART RX (Option)
UART TX (Option)
Ignition
AVL Terminal
Immobilizer
Relay
General Input/Output
Optional B+(5V)
Power
CDMA
GPS
MIC
USIM (Option)

▶ 4 Pin Map & Description



PIN No	Color	Net Alias	Function	I/O
1 Red		VCC	Main Voltage	I
2	White	IGN:Input 1	Ignition Detect	I
3 Black		GND	Ground	
4 Blue		Panic	Panic Report	I

▶ 20 Pin Map & Description



19	17	15	13	11	9	7	5	3	1
20	18	16	14	12	10	8	6	4	2

PIN No	Color	Net Alias	Function	I/O
1	Red	Input 1	General Input	I
2	Violet	Input 2	General Input	I
3	Green	Input 3	General Input	I
4	White	Input 4	General Input	I
5	Orange	Input 5	General Input	I
6 N/C				
7	Gray	Output 1	General Output	O
8	Blue	Output 2	General Output	O
9	Brown	Output 3	General Output	O
10	Red	Output 4	General Output	O
11	Blue	Output 5	General Output	O
12	Yellow	Output 6	General Output	O
13 N.C				
14 N.C				
15 N.C				
16 Black		GND	Ground	
17 N.C				
18 Black		GND	Ground	
19 Black		GND	Ground	

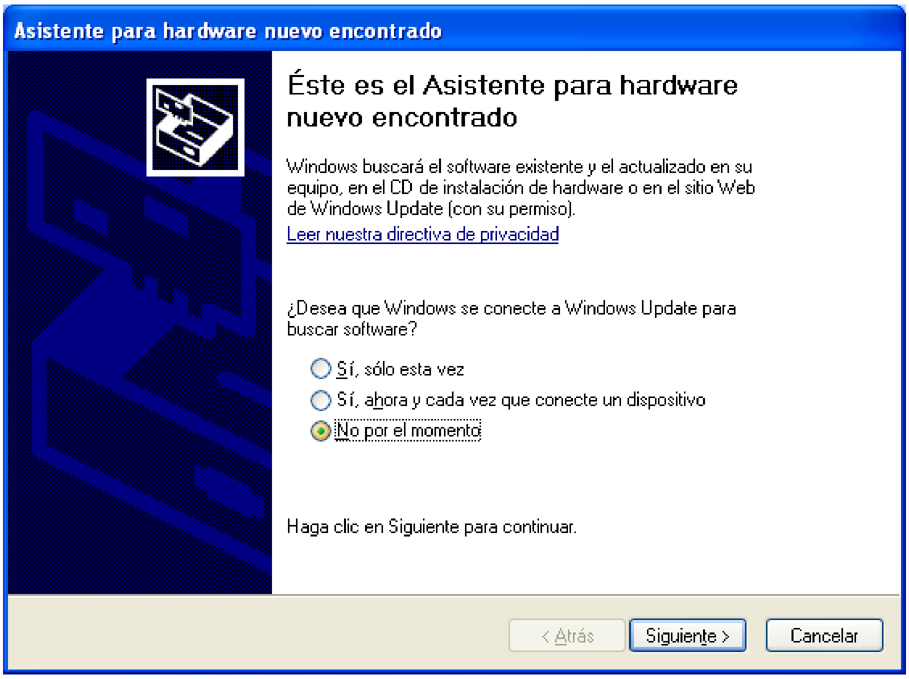
20 N.C	

5. USB Driver Installation

1. Only administrator or developer should be use the USB driver to debug and configurate.

2. A users don't need to install the USB drivers.

5.1. When connect the Modem with PC using USB Cable, window will open as below after turn on the Modem.



Asistente para hardware nuevo encontrado

Éste es el Asistente para hardware nuevo encontrado

Windows buscará el software existente y el actualizado en su equipo, en el CD de instalación de hardware o en el sitio Web de Windows Update (con su permiso).

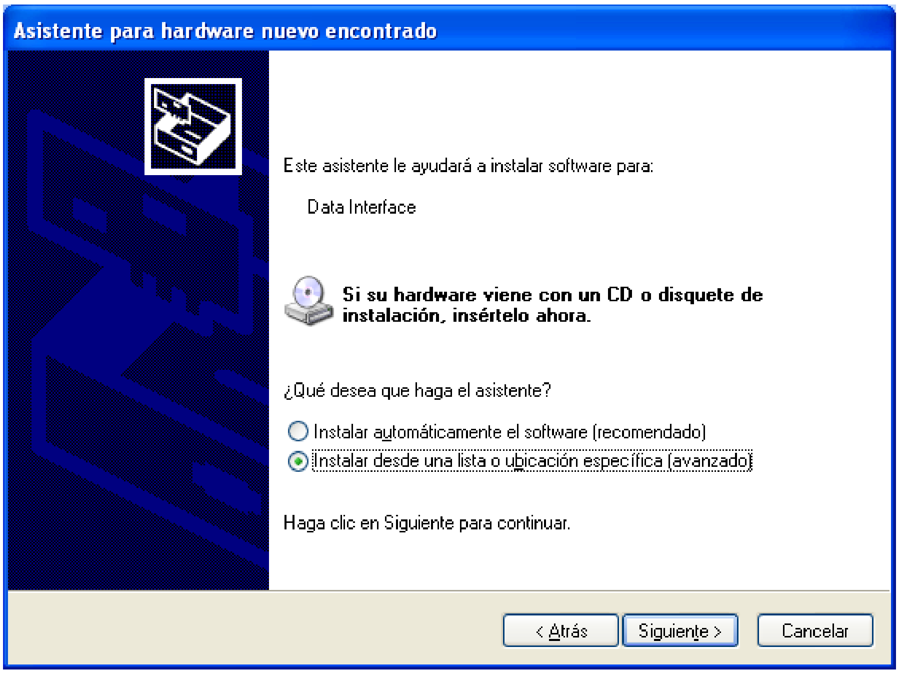
Leer nuestra directiva de privacidad

¿Desea que Windows se conecte a Windows Update para buscar software?

○ Sí, sólo esta vez
○ Sí, ahora y cada vez que conecte un dispositivo
● No por el momento

Haga clic en Siguiente para continuar.

5.2. Click 'Next'.



Asistente para hardware nuevo encontrado

Este asistente le ayudará a instalar software para:

Data Interface

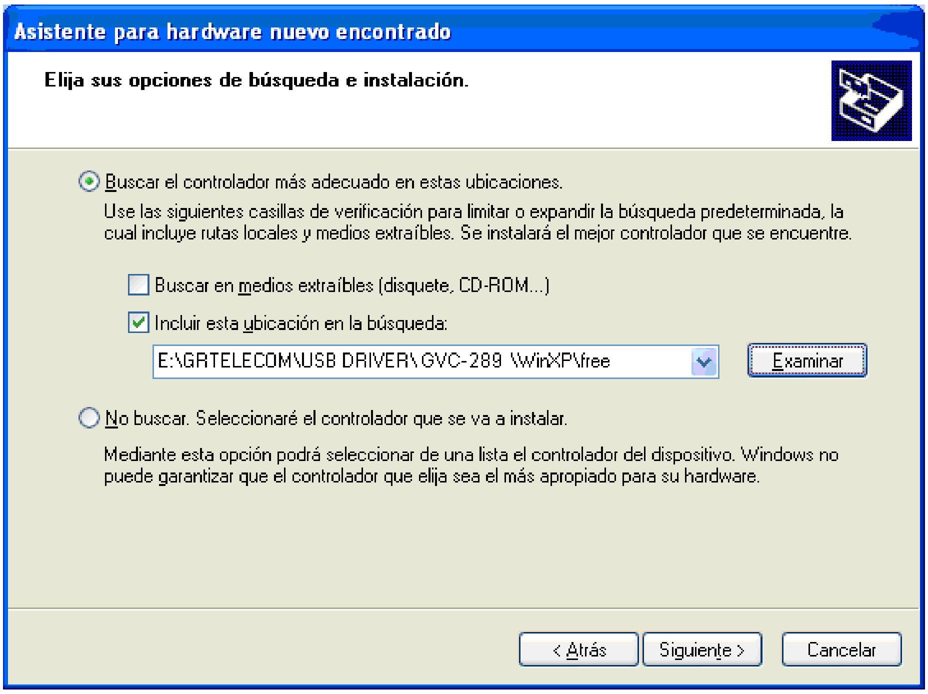
Si su hardware viene con un CD o disquete de instalación, insértelo ahora.

¿Qué desea que haga el asistente?

○ Instalar automáticamente el software (recomendado)
● Instalar desde una lista o ubicación específica (avanzado)

Haga clic en Siguiente para continuar.

5.3. Click 'Browse'.


Asistente para hardware nuevo encontrado
< Atrás
Siguiente >
Cancelar
Examinar

Elija sus opciones de búsqueda e instalación.

● Buscar el controlador más adecuado en estas ubicaciones.

Use las siguientes casillas de verificación para limitar o expandir la búsqueda predeterminada, la cual incluye rutas locales y medios extraíbles. Se instalará el mejor controlador que se encuentre.

☐ Buscar en medios extraíbles (disquete, CD-ROM...)

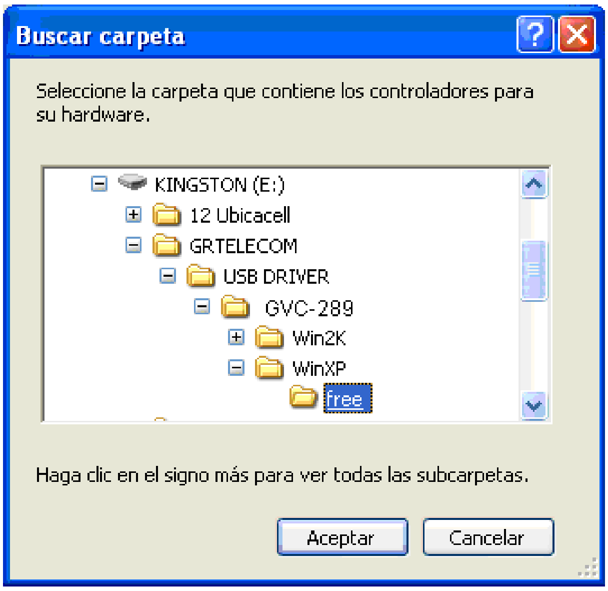
☑ Incluir esta ubicación en la búsqueda:

E:\GRTELECOM\USB DRIVER\ GVC-289 \WinXP\free

○ No buscar. Seleccionaré el controlador que se va a instalar.

Mediante esta opción podrá seleccionar de una lista el controlador del dispositivo. Windows no puede garantizar que el controlador que elija sea el más apropiado para su hardware.

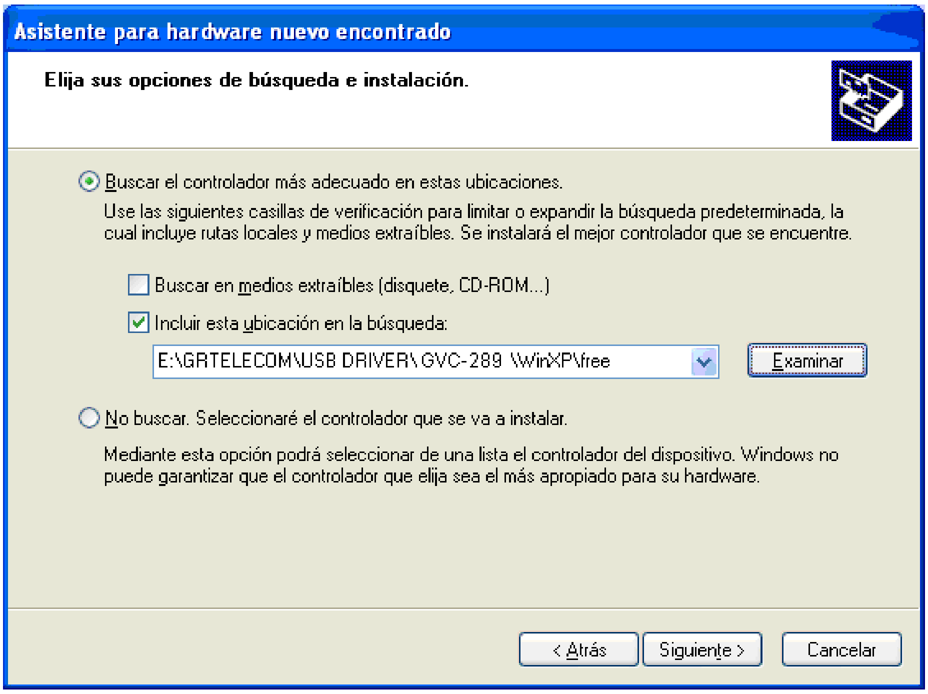
5.4. Select folder provided USB driver.


Buscar carpeta
KINGSTON (E:)
12 Ubicacell
GRTELECOM
USB DRIVER
GVC-289
Win2K
WinXP
free
Aceptar
Cancelar

Seleccione la carpeta que contiene los controladores para su hardware.

Haga clic en el signo más para ver todas las subcarpetas.

5.5. Click 'Next'.



Asistente para hardware nuevo encontrado

Elija sus opciones de búsqueda e instalación.

● Buscar el controlador más adecuado en estas ubicaciones.

Use las siguientes casillas de verificación para limitar o expandir la búsqueda predeterminada, la cual incluye rutas locales y medios extraíbles. Se instalará el mejor controlador que se encuentre.

☐ Buscar en medios extraíbles (disquete, CD-ROM...)

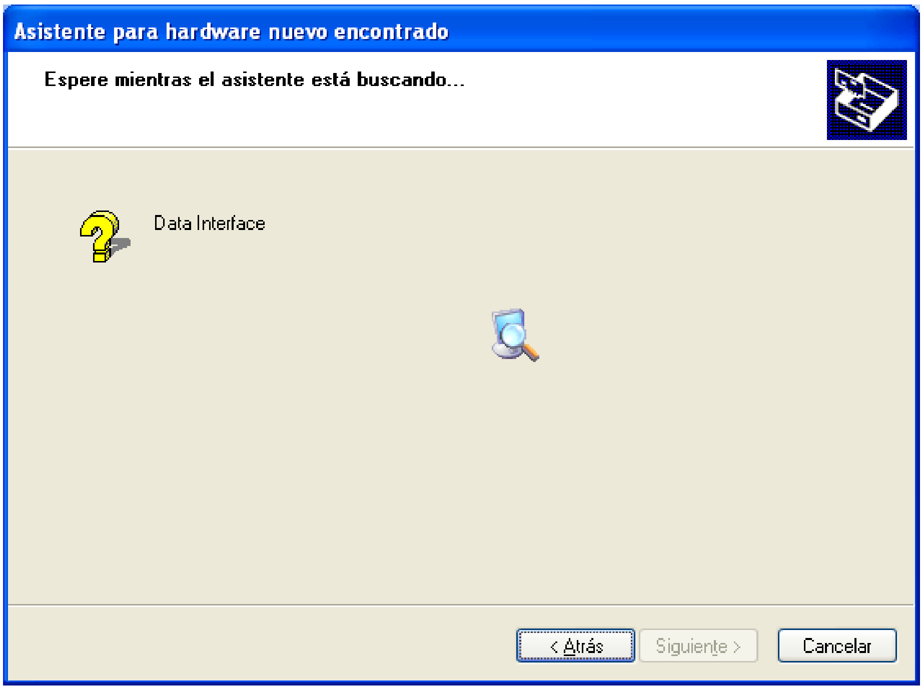
☑ Incluir esta ubicación en la búsqueda:

E:\GRTELECOM\USB DRIVER\ GVC-289 \WinXP\free

○ No buscar. Seleccionaré el controlador que se va a instalar.

Mediante esta opción podrá seleccionar de una lista el controlador del dispositivo. Windows no puede garantizar que el controlador que elija sea el más apropiado para su hardware.

5.6. Install file.

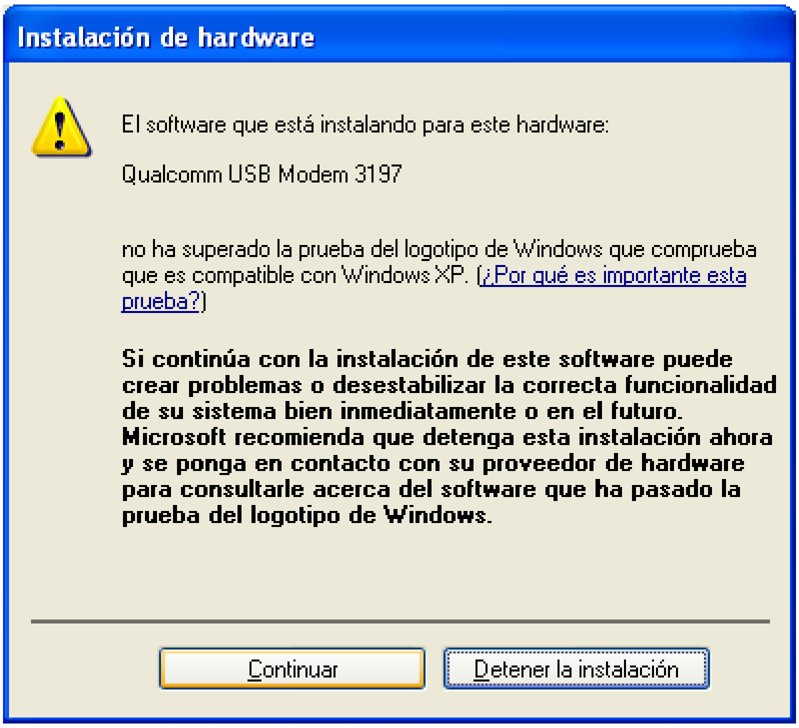


Asistente para hardware nuevo encontrado

Espere mientras el asistente está buscando...

Data Interface

5.7 Click "Continue"



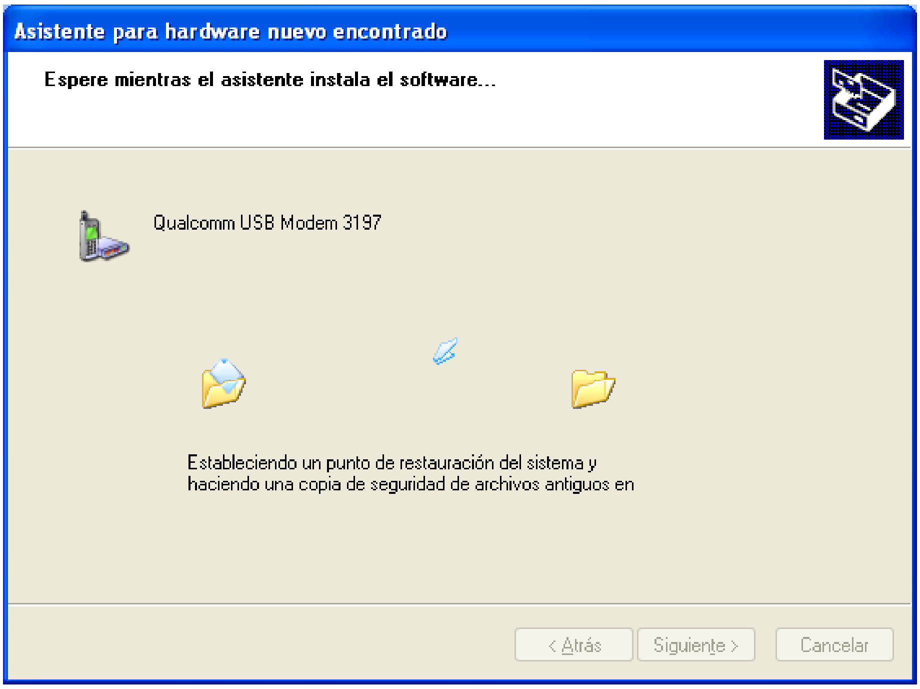
Instalación de hardware

El software que está instalando para este hardware:

Qualcomm USB Modem 3197

no ha superado la prueba del logotipo de Windows que comprueba que es compatible con Windows XP. (¿Por qué es importante esta prueba?)

Si continúa con la instalación de este software puede crear problemas o desestabilizar la correcta funcionalidad de su sistema bien inmediatamente o en el futuro. Microsoft recomienda que detenga esta instalación ahora y se ponga en contacto con su proveedor de hardware para consultarle acerca del software que ha pasado la prueba del logotipo de Windows.



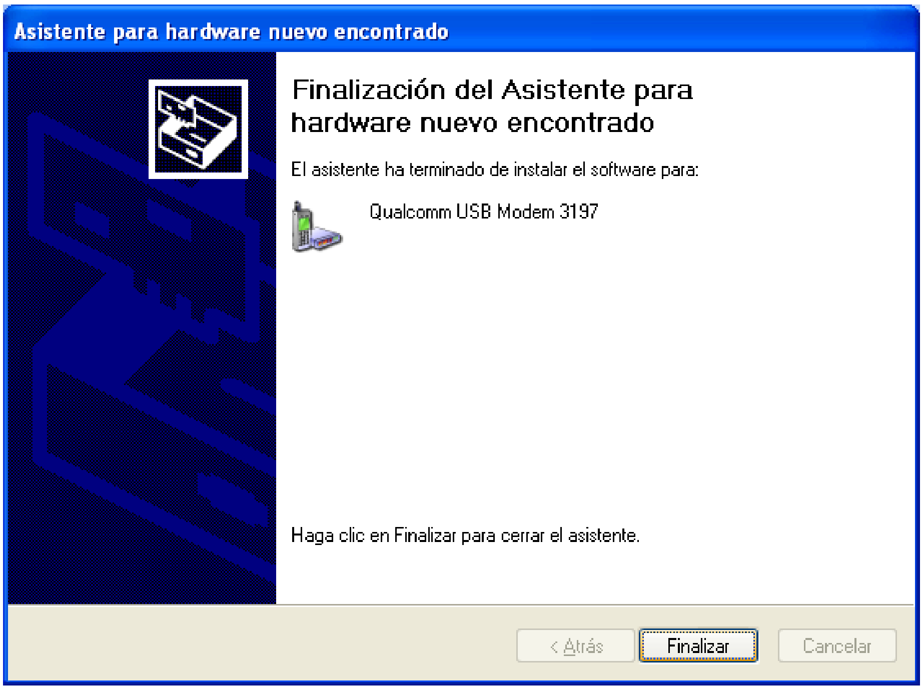
Asistente para hardware nuevo encontrado

Espere mientras el asistente instala el software...

Qualcomm USB Modem 3197

Estableciendo un punto de restauración del sistema y haciendo una copia de seguridad de archivos antiguos en

5.8. Click 'Finish.



Asistente para hardware nuevo encontrado

Finalización del Asistente para hardware nuevo encontrado

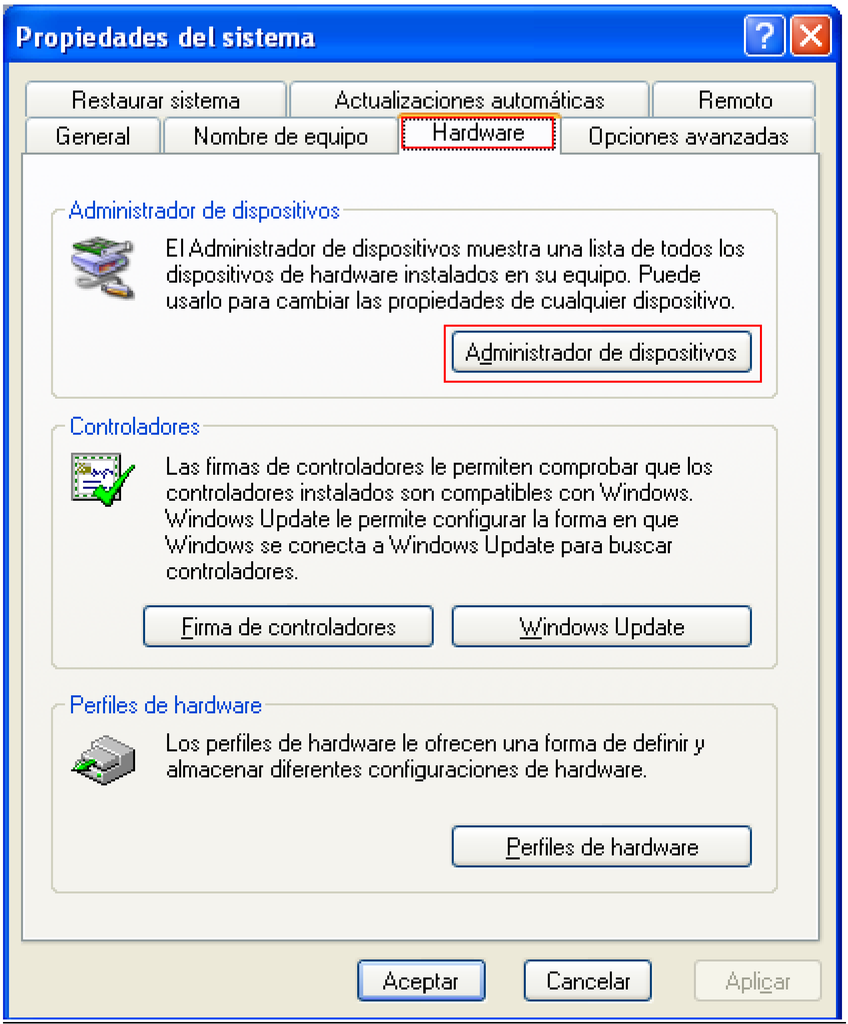
El asistente ha terminado de instalar el software para:

Qualcomm USB Modem 3197

Haga clic en Finalizar para cerrar el asistente.

5.9. Above process will be progressed two times.

5.10. After Installation if choose "My computer→Click Mouse right button→Property", window will open as below.


Propiedades del sistema
?
Restaurar sistema
Actualizaciones automáticas
Remoto
General
Nombre de equipo
Hardware
Opciones avanzadas
Administrador de dispositivos
Administrador de dispositivos
Controladores
Firma de controladores
Windows Update
Perfiles de hardware
Perfiles de hardware
Aceptar
Cancelar
Aplicar

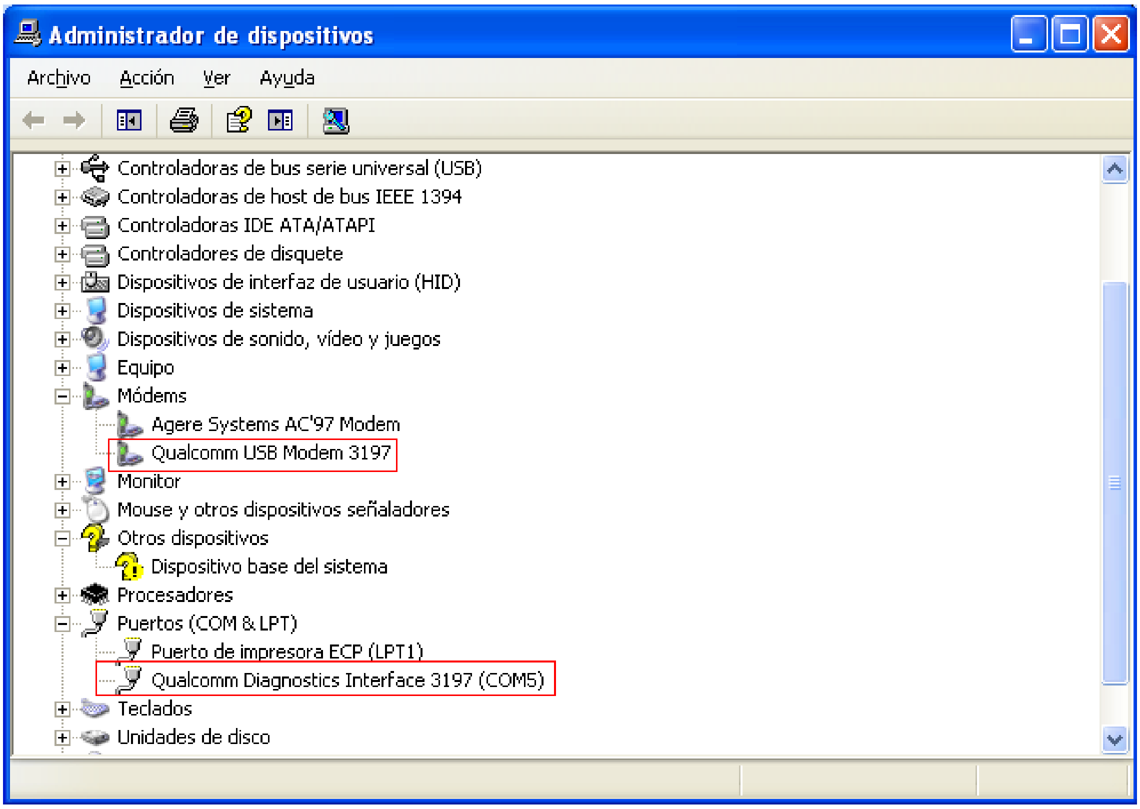
El Administrador de dispositivos muestra una lista de todos los dispositivos de hardware instalados en su equipo. Puede usarlo para cambiar las propiedades de cualquier dispositivo.

Las firmas de controladores le permiten comprobar que los controladores instalados son compatibles con Windows. Windows Update le permite configurar la forma en que Windows se conecta a Windows Update para buscar controladores.

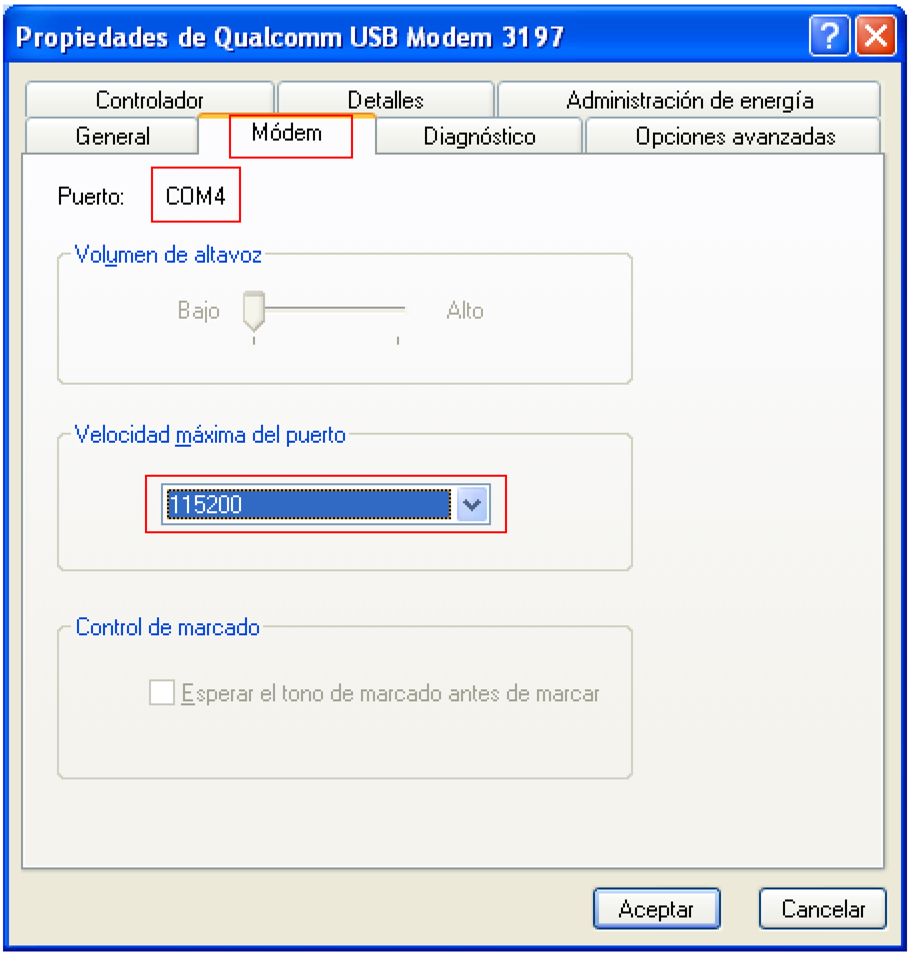
Los perfiles de hardware le ofrecen una forma de definir y almacenar diferentes configuraciones de hardware.

5.11. If you choose 'Device Manager, you can find out USB driver in both of"Modem"& Port(COM & LPT) field as below.

Port installed in "Modem"is Data port for AT command, and Port installed in "Port" is DM port.


Administrador de dispositivos
Archivo
Acción
Ver
Ayuda
Controladoras de bus serie universal (USB)
Controladoras de host de bus IEEE 1394
Controladoras IDE ATA/ATAPI
Controladores de disquete
Dispositivos de interfaz de usuario (HID)
Dispositivos de sistema
Dispositivos de sonido, vídeo y juegos
Equipo
Módems
Agere Systems AC'97 Modem
Qualcomm USB Modem 3197
Monitor
Mouse y otros dispositivos señaladores
Otros dispositivos
Dispositivo base del sistema
Procesadores
Puertos (COM & LPT)
Puerto de impresora ECP (LPT1)
Qualcomm Diagnostics Interface 3197 (COM5)
Teclados
Unidades de disco

Double click above "Qualcomm USB Modem 3197" to check about Data Port number. Here, Data Port number is "COM4"as below.



Propiedades de Qualcomm USB Modem 3197

Controlador
Detalles
Administración de energía
General
Módem
Diagnóstico
Opciones avanzadas

Puerto: COM4

Volumen de altavoz
Bajo
Alto

Velocidad máxima del puerto: 115200

Control de marcado

☐ Esperar el tono de marcado antes de marcar

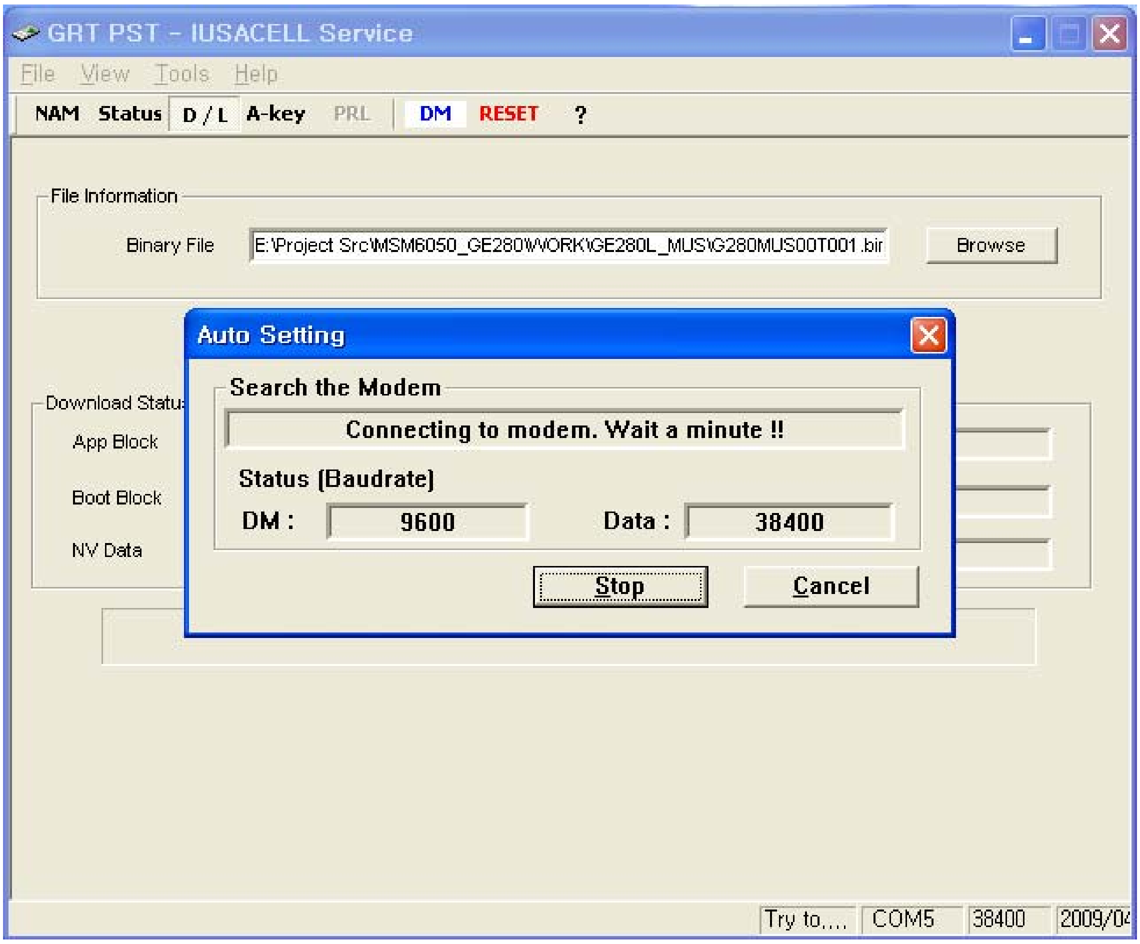
Aceptar
Cancelar

6. Using PST (Product Support Tool)

PST consists of 5 Tab“NAM”, “Status”, “Dload”, ‘PRL”, “MDN. To us PST, User have to set COM PORT between Handset & PC.

6.1 COM PORT Set up

When execute PST Too, window will open as below and PST search for Handset.



GRT PST - IUSACELL Service
File View Tools Help
NAM Status D / L A-key PRL DM RESET ?
File Information
Browse
Download Status
App Block
Boot Block
NV Data
Auto Setting
Search the Modem
Stop
Cancel
Try to,...
COM5
38400
2009/04

Binary File: E:\Project Src\MSM6050_GE280\WORK\GE280L_MUS\G280MUS00T001.bir

Connecting to modem. Wait a minute !!

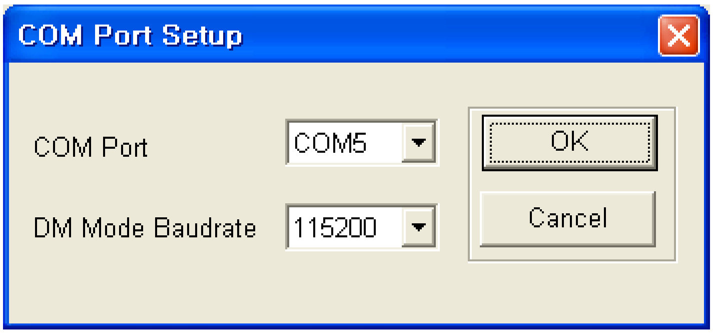
Status (Baudrate)

DM : 9600

Data : 38400

If PST can not search Handset, click “Cancel” and assign port.

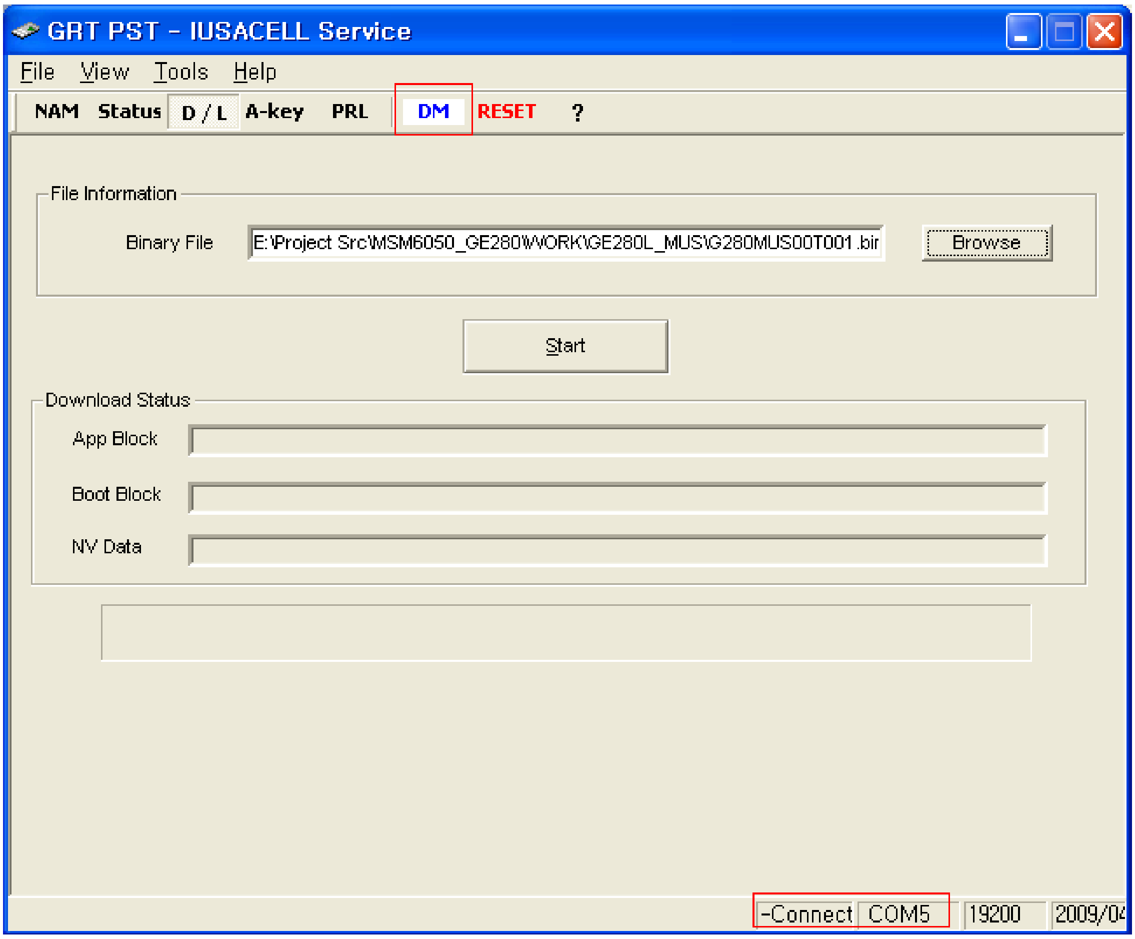
When execute “Tools”→ “Port Setup”, window will open as below. Choose current “COM PORT” & Baudrate and then click “OK”.


COM Port Setup
OK
Cancel

COM Port: COM5

DM Mode Baudrate: 115200

After setting up the Port, click "DM" as below. After that Modem connects with PST.

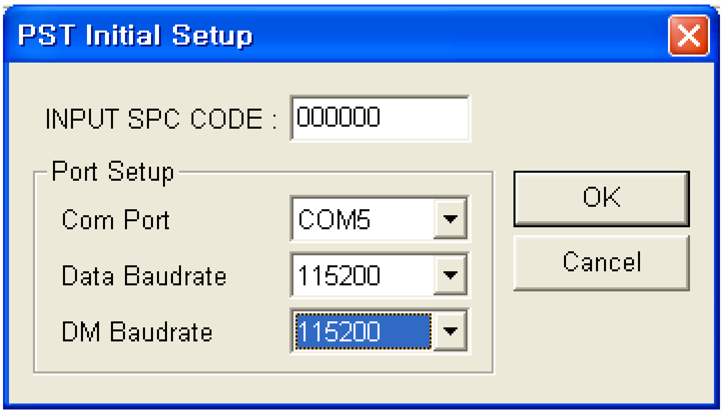

GRT PST - IUSACELL Service
File View Tools Help
NAM Status D / L A-key PRL DM RESET ?
File Information
Browse
Start
Download Status
App Block
Boot Block
NV Data

Binary File: E:\Project Src\MSM6050_GE280\WORK\GE280L_MUS\G280MUS00T001.bir

-Connect COM5 19200 2009/04

6.2 NAM Set up / Read

When you select "NAM" you can see "PST Initial Setup" for input SPC CODE.


PST Initial Setup
Port Setup
OK
Cancel

INPUT SPC CODE : 000000

Com Port: COM5

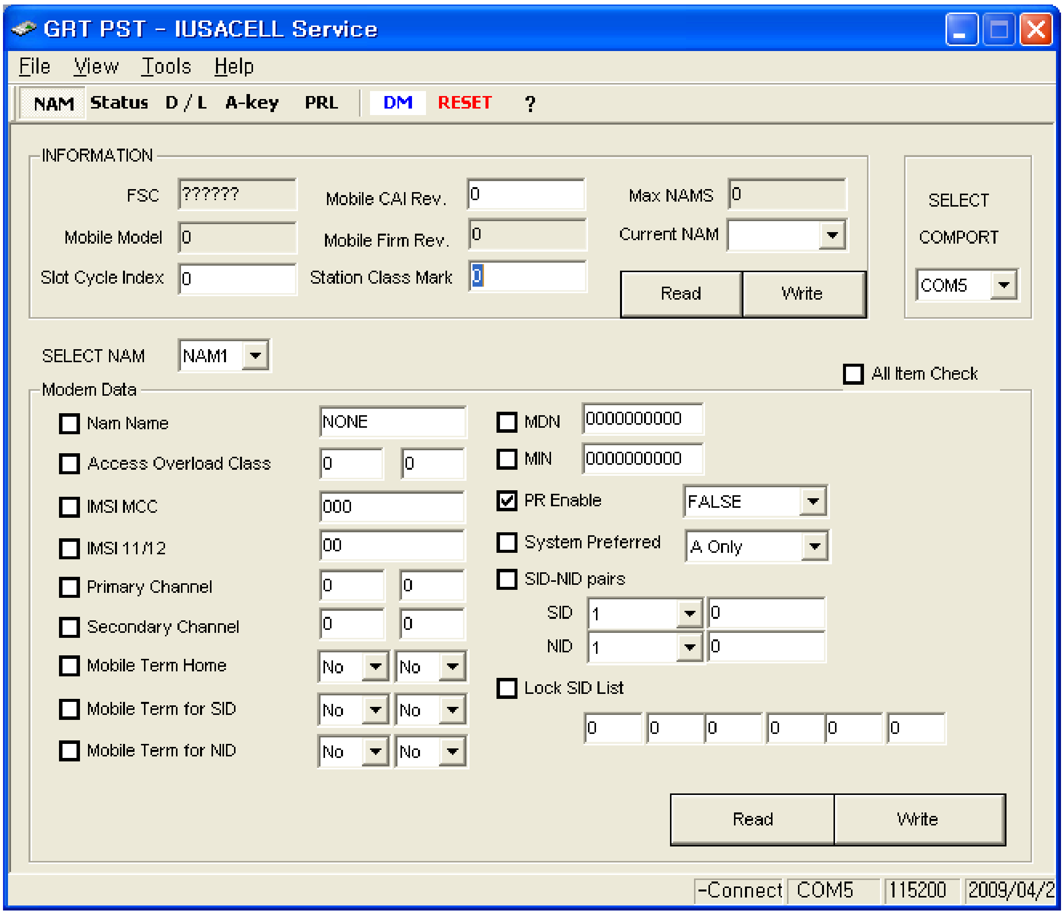
Data Baudrate: 115200

DM Baudrate: 115200

Input Correct SPC code, and press "OK" button, then you can see NAM screen

NAM screen is for setting up & reading NAM value, version and all of information of Mobile station.

There are two parts, "INFORMATION" & "Modem Data".


GRT PST - IUSACELL Service
File View Tools Help
NAM Status D/L A-key PRL DM RESET ?
INFORMATION
Read
Write
SELECT COMPORT
Modem Data
Read
Write

FSC: ??????

Mobile Model: 0

Slot Cycle Index: 0

Mobile CAI Rev.: 0

Mobile Firm Rev.: 0

Station Class Mark: 0

Max NAMS: 0

Current NAM:

SELECT COMPORT: COM5

SELECT NAM: NAM1

☐ All Item Check

☐ Nam Name: NONE

☐ Access Overload Class: 0 0

☐ IMSI MCC: 000

☐ IMSI 11/12: 00

☐ Primary Channel: 0 0

☐ Secondary Channel: 0 0

☐ Mobile Term Home: No No

☐ Mobile Term for SID: No No

☐ Mobile Term for NID: No No

☐ MDN: 0000000000

☐ MIN: 0000000000

☑ PR Enable: FALSE

☐ System Preferred: A Only

☐ SID-NID pairs

SID: 1 0

NID: 1 0

☐ Lock SID List: 0 0 0 0 0 0

-Connect COM5 115200 2009/04/2

▣ INFORMATION

☞ FSC : Minor version of Mobile station firmware.

☞ Mobile CAI Rev. : Mobile Protocol Revision. Protocol is as follow according to version.

Version	Mobile Protocol
1	IS-95
2	IS-95-A
3	TSB 74(14.4K Data Service)
4,5	IS-95-B
6	IS-2000

☞ Max NAMS : Number of NAM supported from Mobile station.

☞ Mobile Model : Model No. of Mobile station. GE280L is "100".

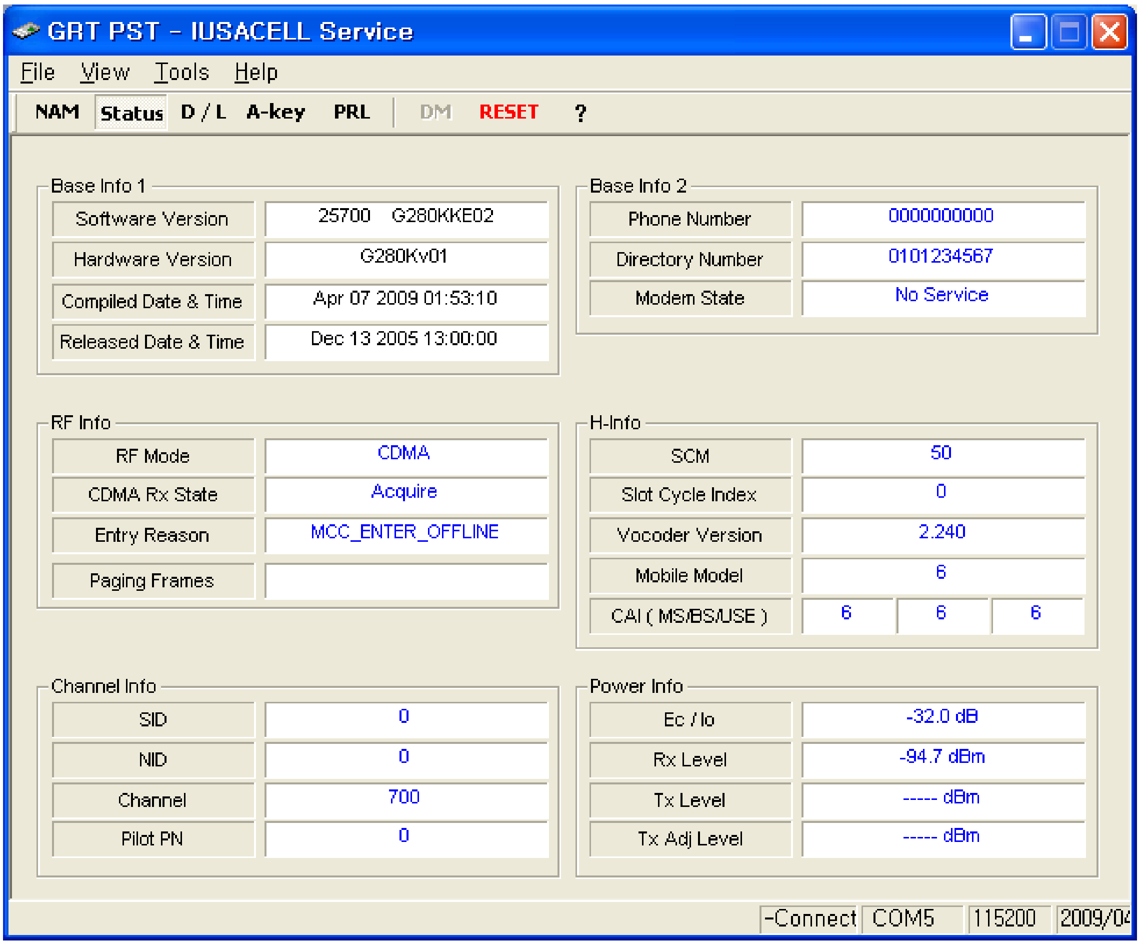
☞ Mobil Firm Rev : Firmware revision of Mobile station . GE280L is "100".

☞ Current NAM : Using NAM currently.

▣ Modem Data

Can be set up & read chosen NAM's value currently. If you click "Read", can be read each value. In case of changing the value, write the value and choose check box and click "Write"

6.3 Status Screen



Software Version	25700 G280KKE02
Hardware Version	G280Kv01
Compiled Date & Time	Apr 07 2009 01:53:10
Released Date & Time	Dec 13 2005 13:00:00
Phone Number	0000000000
Directory Number	0101234567
Modem State	No Service
RF Mode	CDMA
CDMA Rx State	Acquire
Entry Reason	MCC_ENTER_OFFLINE
Paging Frames	
SCM	50
Slot Cycle Index	0
Vocoder Version	2.240
Mobile Model	6
CAI (MS/BS/USE)	6 6 6
SID	0
NID	0
Channel	700
Pilot PN	0
Ec / Io	-32.0 dB
Rx Level	-94.7 dBm
Tx Level	----- dBm
Tx Adj Level	----- dBm

-Connect COM5 115200 2009/04

☞ Software Version	Firmware version and Mobile station programming version
☞ Hardware Version	Displays the current Hardware version
☞ Compiled Data & Time	Data & Time that the Mobile station program is compiled
☞ Released Data & Time	Date & Time that the Mobile station is released
☞ RF Mode	Operating mode of Mobile station (CDMA or sleep)
☞ CDMA Rx State	The status of CDMA receiving module (SYNC, PAGING, CDMA, TRAFFIC, ACQUIRE, EXIT)
☞ Entry Reason	Reason for most recent sub-system entry to Analog(ACP) or CDMA(MCC).

MCC_ACQUISITION, MCC_CONTINUE, MCC_ENTER_OFFLINE, MCC_ORIGINATION.

(If MCC_ENTER_OFFLINE is constant, it regards as out of service)

☞ Paging Frames	Paging Frame (Good or Bad)

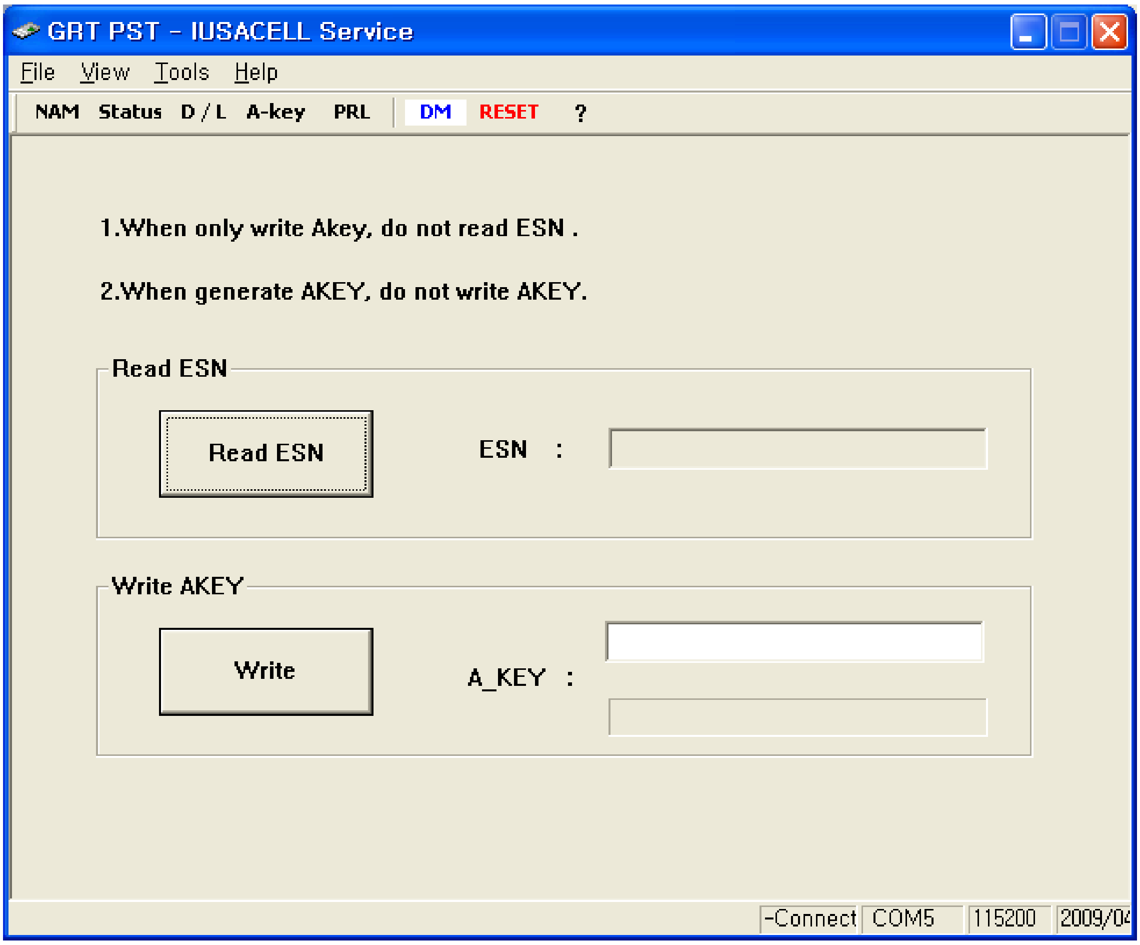
☞ SID	System ID of carrier
☞ NID	Network ID of carrier
☞ Channel	Channel No. that the handset currently receives through
☞ Pilot PN	Pilot PN sequence offset index for the Forward CDMA Channel
☞ Phone Number	it shall confirm whether the exact phone no. is input
☞ Modem State:	It displays the status of CDMA Modem CDMA Initialization, CDMA Idle, CDMA Voice Channel Init., CDMA Waiting for Order, CDMA Waiting for Answer, CDMA Conversation, CDMA Release, CDMA Update Overhead Info., CDMA MS Origination Attempt, CDMA Page Response, CDMA Order/Message Response, CDMA Registration Access, CDMA Message Transmission
☞ SCM	Station Class Mark, the sending and receiving features of the handset
☞ Slot Cycle Index	The cycle that modem shall check the paging channel
☞ Vocoder Version	Means Vocoder Version
☞ Mobile Model	Model no. given to the handset by manufacturer
☞ CAI	The standard wireless interface protocol to communicate between mobile station and base station in CDMA cellular system
☞ Ec/Io	he ratio in dB between the pilot energy accumulated over one PN chip period(Ec) to the total power spectral density(Io) in the received bandwidth
☞ Rx Level	The sensitivity of receiving signal
☞ Tx Level	The sensitivity of sending signal
☞ Tx Adj. Level:	The sensitivity of sending adjusted signal

6.4 A-Key

Can be inserted A-Key into the Mobile station using ESN compounding or inserted specific A-Key into the Mobile station without reading ESN.

☞ In case that insert A-Key into the Mobile station using ESN compounding, click "Read ESN" and click "Write" with blank in the A-Key inserting field.

☞ In case that insert specific A-Key into the Mobile station without reading ESN, click "Write" after inserting the specific A-Key in the A-Key inserting field.


GRT PST - IUSACELL Service
File View Tools Help
NAM Status D / L A-key PRL DM RESET ?
Read ESN
Read ESN
ESN :
Write AKEY
Write
A_KEY :
-Connect COM5 115200 2009/04

1.When only write Akey, do not read ESN .

2.When generate AKEY, do not write AKEY.

6.5 PRL

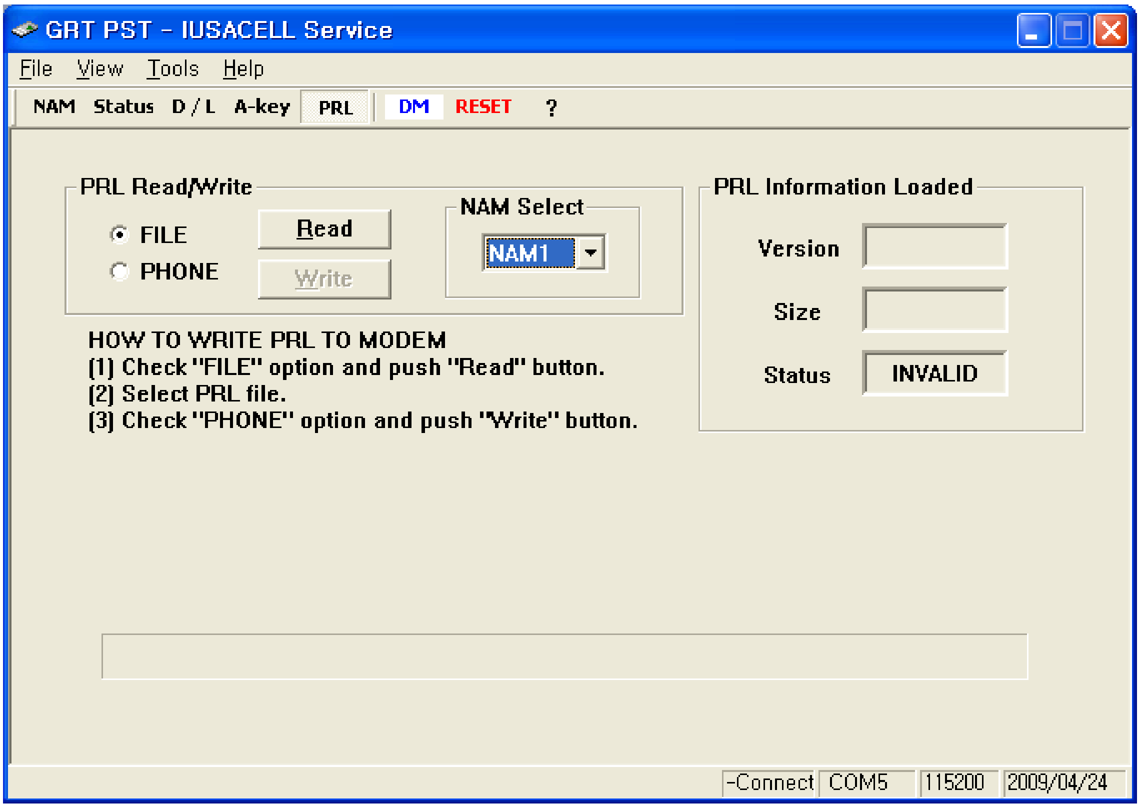
In this window, write PRL in NAM of Mobile station or read PRL from Mobile station and save as file. And can be read PRL version. (It is activated in case that Mobile station connects with PST)

☞ To read PRL file, choose “FILE” and click “Read”. Can be read Version & Size.

☞ To read PRL from Mobile station, choose NAM at “NAM select” and click “Read”. Can be read Version & Size.

☞ To write PRL in Mobile station, choose “PHONE” and choose “NAM” at “NAM select” and click “Write”.

☞ To save read PRL from Mobile station, choose “FILE” and click “Write”.


GRT PST - IUSACELL Service
File
View
Tools
Help
NAM
Status
D / L
A-key
PRL
DM
RESET
?
PRL Read/Write
Read
Write
PRL Information Loaded

● FILE
○ PHONE

NAM Select: NAM1

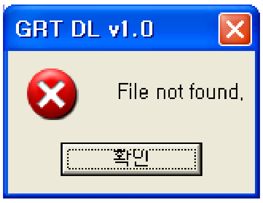
HOW TO WRITE PRL TO MODEM
[1] Check "FILE" option and push "Read" button.
[2] Select PRL file.
[3] Check "PHONE" option and push "Write" button.

Version:
Size:
Status: INVALID

-Connect | COM5 | 115200 | 2009/04/24

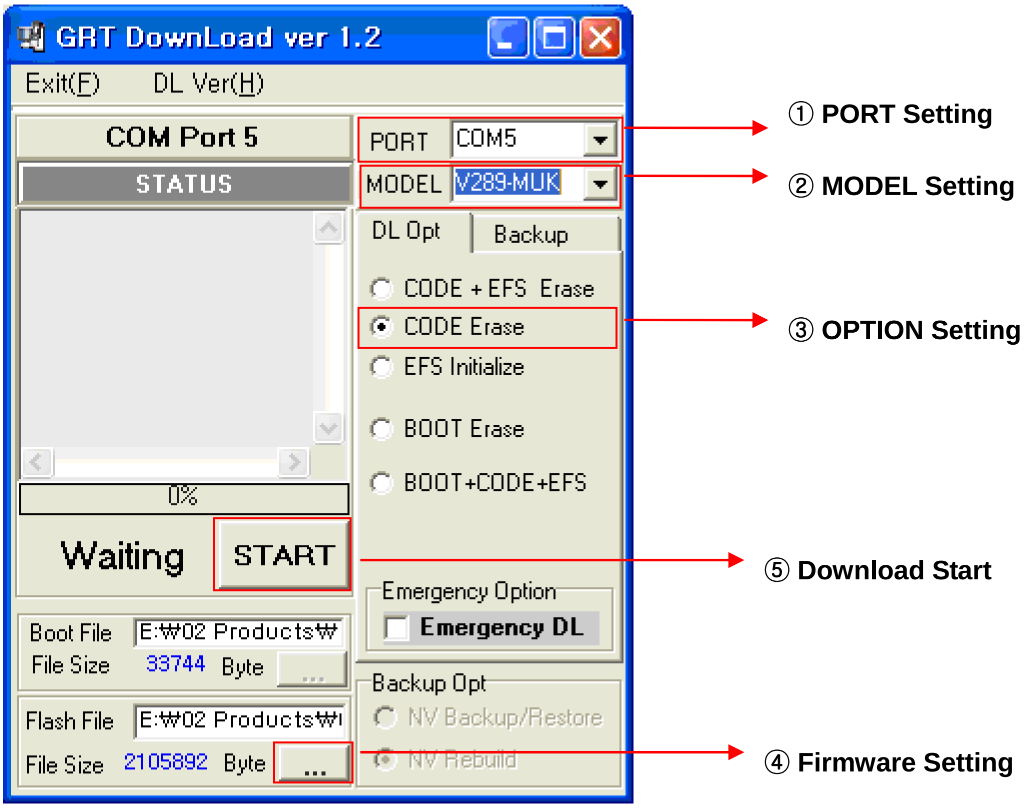
7. Downloader

7.1 Please un-zip “GVC289 Downloader.zip” and execute “GRT_DL.exe”. If the below pop-up is shown up, just disregard and click “OK”.


GRT DL v1.0
확인

File not found.

7.2 Downloader main screen is as follow :


GRT DownLoad ver 1.2
Exit(F)
DL Ver(H)
STATUS
0%
Waiting
START
DL Opt
Backup
Emergency Option
Emergency DL
Backup Opt
NV Backup/Restore
NV Rebuild
...

COM Port 5

PORT COM5

MODEL V289-MUK

○ CODE + EFS Erase
● CODE Erase
○ EFS Initialize
○ BOOT Erase
○ BOOT+CODE+EFS

☐ Emergency DL

Boot File E:₩02 Products₩
File Size 33744 Byte

Flash File E:₩02 Products₩I
File Size 2105892 Byte

① **PORT Setting**

② **MODEL Setting**

③ **OPTION Setting**

⑤ **Download Start**

④ **Firmware Setting**

To download Firmware, the program using DM port such as PST, QXDM etc MUST be closed, and the program using data port should be closed.

① Choose DM Port of GPS-205MVK.

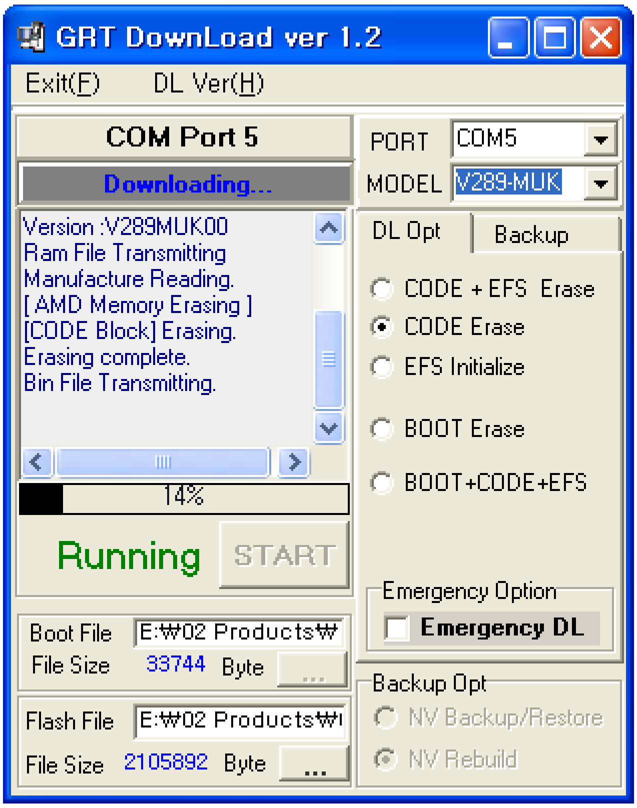
② Choose “V289-MUK”.

③ Choose “CODE Erase” for DL Opt.

④ Choose firmware.

⑤ Click "Start" and then start the download.

7.3 If the download is made progress properly, "START" button is un-activated as below and displayed "Running".


GRT DownLoad ver 1.2
Exit(F)
DL Ver(H)
COM Port 5
DL Opt
Backup
START
Emergency Option
...

Downloading...

```
Version :V289MUK00
Ram File Transmitting
Manufacture Reading.
[ AMD Memory Erasing ]
[CODE Block] Erasing.
Erasing complete.
Bin File Transmitting.
```

14%

Running

PORT: COM5

MODEL: V289-MUK

○ CODE + EFS Erase
● CODE Erase
○ EFS Initialize
○ BOOT Erase
○ BOOT+CODE+EFS

☐ Emergency DL

Boot File: E:₩02 Products₩

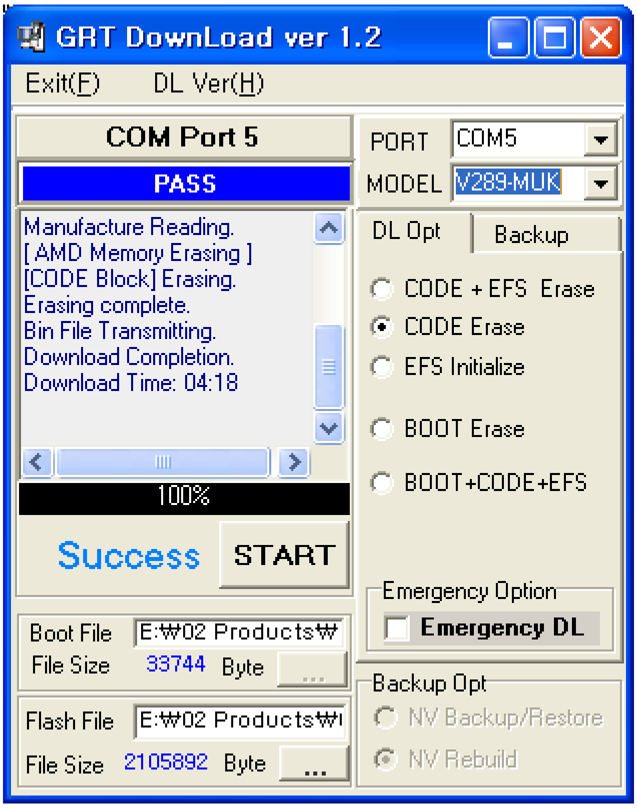
File Size: 33744 Byte

Flash File: E:₩02 Products₩

File Size: 2105892 Byte

Backup Opt
○ NV Backup/Restore
● NV Rebuild

7.4 After finish the Download, display "Success".



COM Port 5

PASS

PORT COM5

MODEL V289-MUK

```
Manufacture Reading.
[ AMD Memory Erasing ]
[CODE Block] Erasing.
Erasing complete.
Bin File Transmitting.
Download Completion.
Download Time: 04:18
```

100%

Success

○ CODE + EFS Erase
● CODE Erase
○ EFS Initialize
○ BOOT Erase
○ BOOT+CODE+EFS

Emergency Option
☐ Emergency DL

Boot File E:₩02 Products₩
File Size 33744 Byte

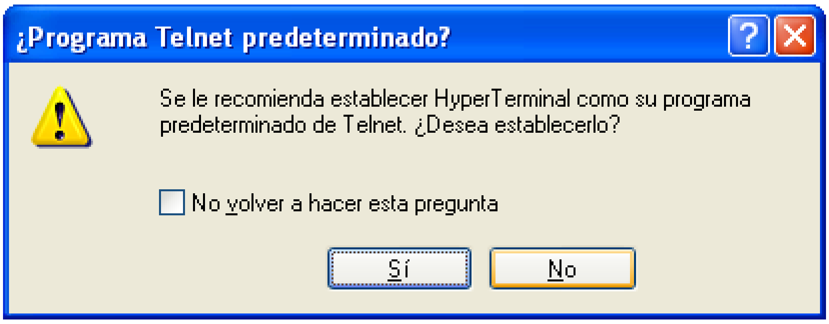
Flash File E:₩02 Products₩I
File Size 2105892 Byte

Backup Opt
○ NV Backup/Restore
● NV Rebuild

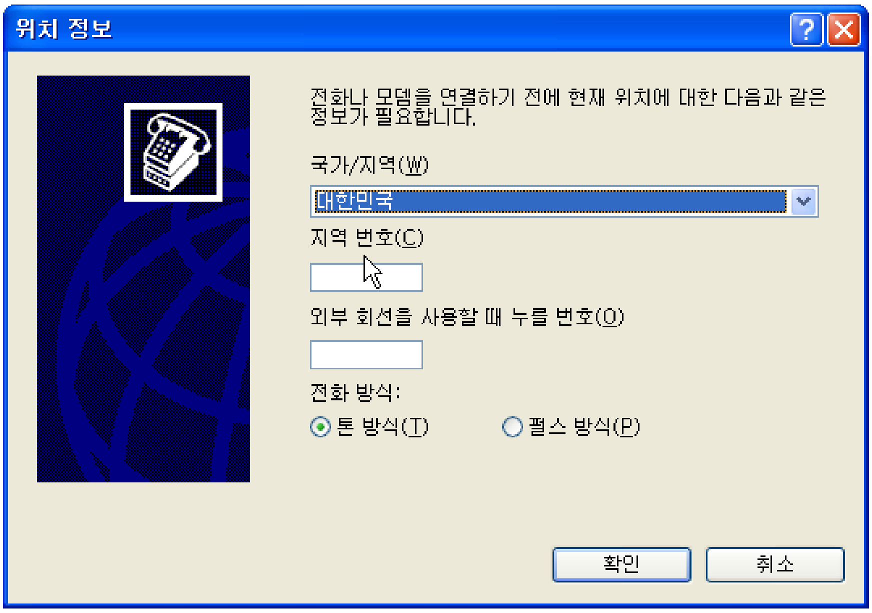
8. Hyper Terminal

8.1 After connecting the Mobile station with PC, check about Data port in device manager (Refer to 6.11)

8.2. Choose Start → Program → Accessories → Communications → HyperTerminal. Click the Cancel if there will be below window.


¿Programa Telnet predeterminado?
☐ No volver a hacer esta pregunta
Sí
No

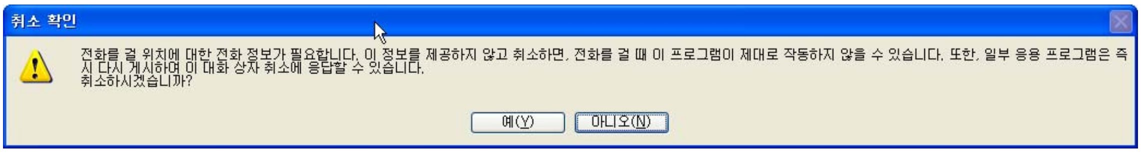
Se le recomienda establecer HyperTerminal como su programa predeterminado de Telnet. ¿Desea establecerlo?


위치 정보
국가/지역(W)
지역 번호(C)
외부 회선을 사용할 때 누를 번호(O)
전화 방식:
● 톤 방식(T)
○ 펄스 방식(P)
확인
취소

전화나 모뎀을 연결하기 전에 현재 위치에 대한 다음과 같은 정보가 필요합니다.

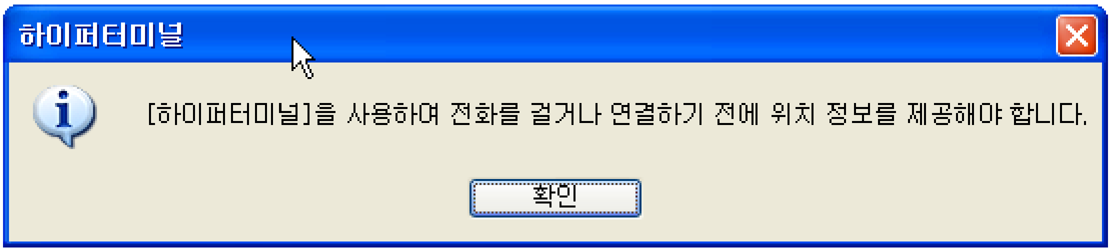
국가/지역(W): 대한민국

8.3. Click "No ".


취소 확인
예(Y)
아니오(N)

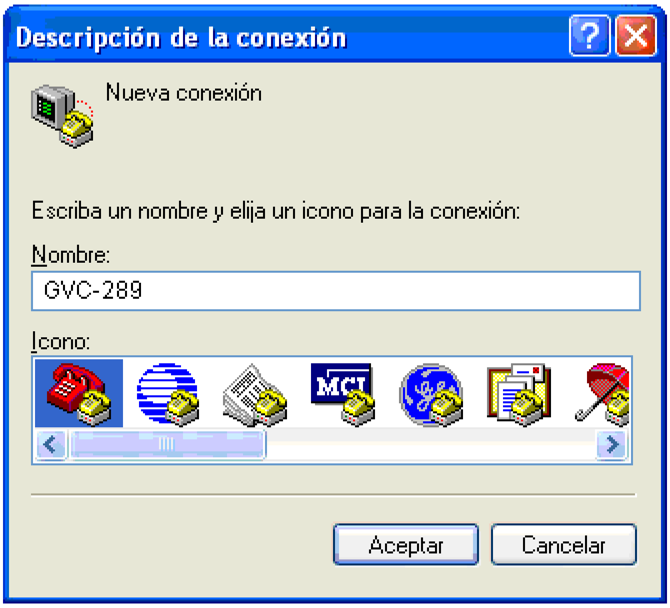
전화를 걸 위치에 대한 전화 정보가 필요합니다. 이 정보를 제공하지 않고 취소하면, 전화를 걸 때 이 프로그램이 제대로 작동하지 않을 수 있습니다. 또한, 일부 응용 프로그램은 즉시 다시 게시하여 이 대화 상자 취소에 응답할 수 있습니다.
취소하시겠습니까?

8.4. Click "Confirm".



[하이퍼터미널]을 사용하여 전화를 걸거나 연결하기 전에 위치 정보를 제공해야 합니다.

8.5. Write optional name in Name and click Confirm

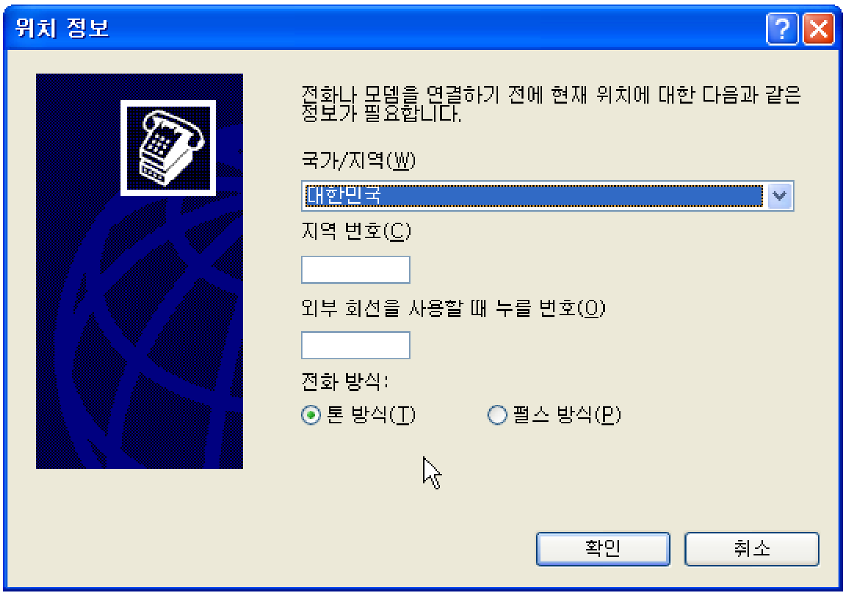

Descripción de la conexión
Icono:
MCI
Aceptar
Cancelar

Nueva conexión

Escriba un nombre y elija un icono para la conexión:

Nombre: GVC-289

8.6. Click "Cancel"



전화나 모뎀을 연결하기 전에 현재 위치에 대한 다음과 같은 정보가 필요합니다.

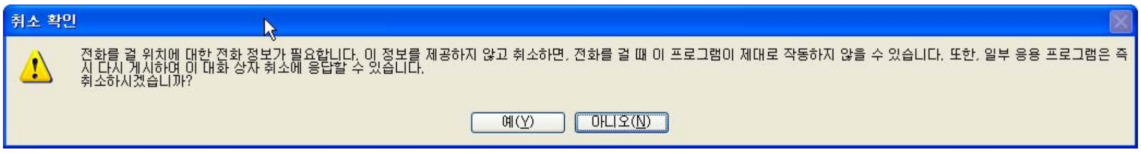
국가/지역(W): 대한민국

지역 번호(C):

외부 회선을 사용할 때 누를 번호(O):

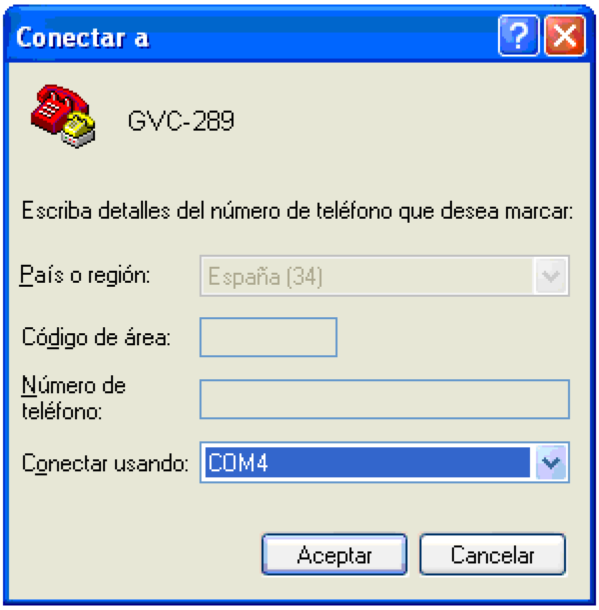
전화 방식: ● 톤 방식(T) ○ 펄스 방식(P)

8.7. Click “No“.



전화를 걸 위치에 대한 전화 정보가 필요합니다. 이 정보를 제공하지 않고 취소하면, 전화를 걸 때 이 프로그램이 제대로 작동하지 않을 수 있습니다. 또한, 일부 응용 프로그램은 즉시 다시 게시하여 이 대화 상자 취소에 응답할 수 있습니다.
취소하시겠습니까?

8.8. Choose confirmed Port at device manager as below.



GVC-289

Escriba detalles del número de teléfono que desea marcar:

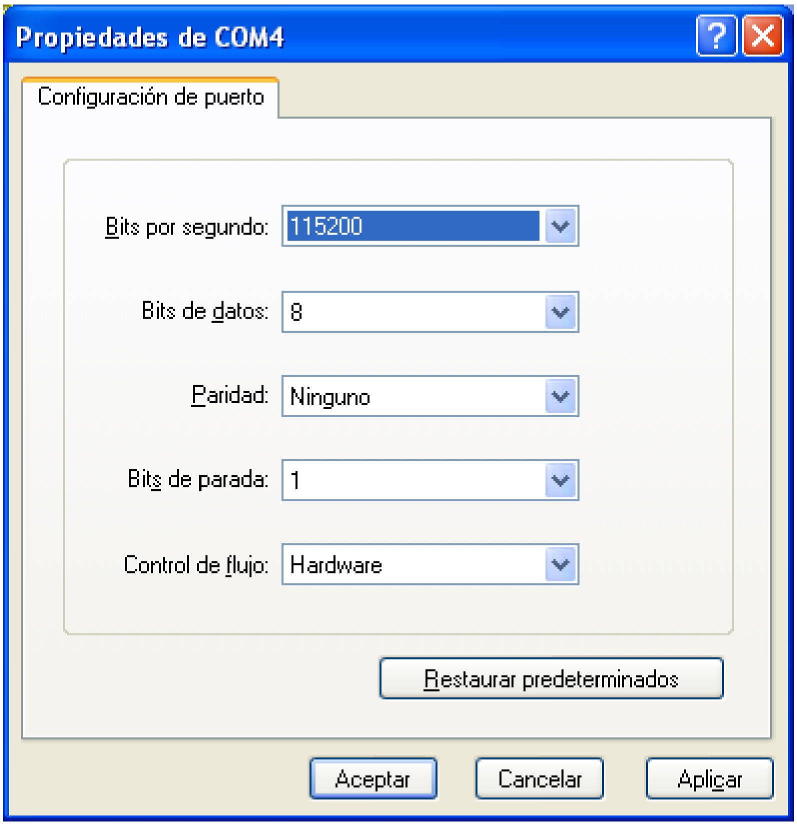
País o región: España (34)

Código de área:

Número de teléfono:

Conectar usando: COM4

8.9. Click "Confirm" after setting up as below.



Propiedades de COM4
Configuración de puerto
Restaurar predeterminados
Aceptar
Cancelar
Aplicar

Bits por segundo: 115200

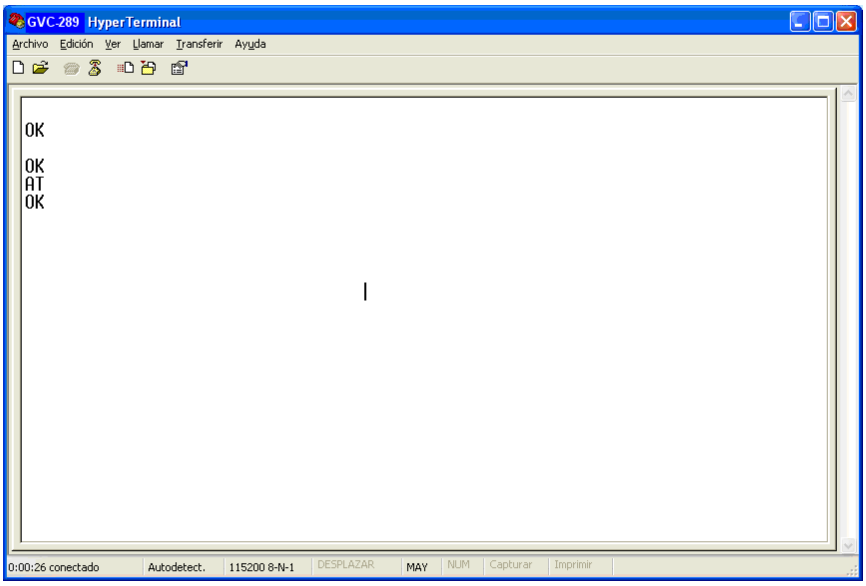
Bits de datos: 8

Paridad: Ninguno

Bits de parada: 1

Control de flujo: Hardware

8.10 If type "AT Command" and output "OK", it set up properly.


GVC-289 HyperTerminal
Archivo Edición Ver Llamar Transferir Ayuda
0:00:26 conectado
Autodetect.
115200 8-N-1
DESPLAZAR
MAY
NUM
Capturar
Imprimir

```
OK

OK
AT
OK
```

8.11 End

This equipment has been tested and found to comply with the limits for a Class B digital device,
pursuant to Part 15 of the FCC Rules. These limits aredesigned to
provide reasonable protection against harmful interference in aresidential installation.
This equipment generates, uses and can radiate radiofrequency energy and,
if not installed and used in accordance with the instructions,
may cause harmful interference to radio communications. However,
there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception,
which can be determined by turning the equipment off and on,
the user isencouraged to try to correct the interference by one or more of the following

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may notcause harmful interference, and
(2) this device must accept any interference received,
including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum 20 cm
between the radiator and your body.

IC Warning This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio
exempts de licence.L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi,
même si le brouillage est susceptible d'en compromettre le fonctionnement.