# AT211 Quick Start Guide

1. Install an ASCII Terminal Application (on your PC)

An ASCII terminal is useful for initial testing and configuration. If you already have one, skip to step 2.

a. We recommend TeraTerm, which can be downloaded from our server, here:

https://astratelematics-my.sharepoint.com/:f:/p/phil/EiffxOSnjX1DiimDbvB5EHkBdk_nkauL34TKMLzLp4v4Sg?e=d3Iilo

b. Once downloaded, install TeraTerm and open the application

c. Select RS232 session type

d. Select *Setup* and then choose *Serial Port* from the drop-down options

e. Configure your serial connection as follows:
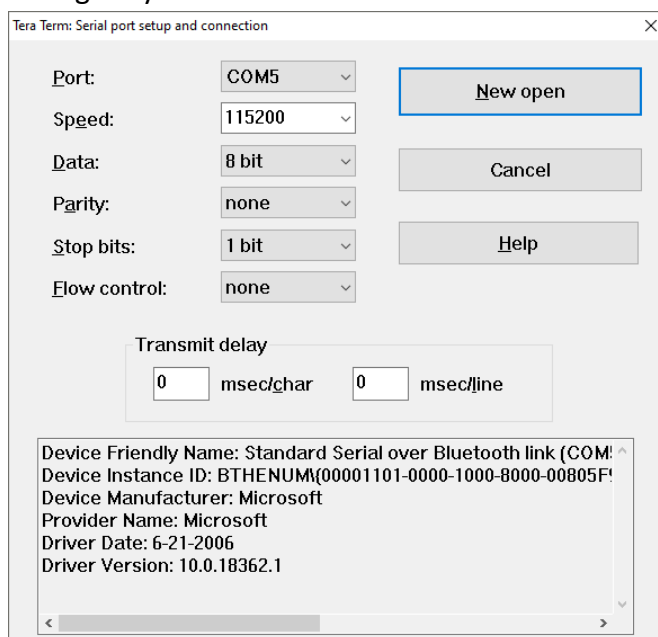
f. Choose the *Port* to suit your available COM ports on your PC. This will usually be COM1 if you have a built in RS232 port. If using a USB-RS232 adapter, go to the Windows® Device Manager and check which COM port has been assigned to your USB adapter (note: the assigned COM port will change if you plug into a different USB socket on your PC).

g. Select *Setup* and then *Save Setup* from the drop-down menu list to save this configuration

h. Leave the TeraTerm window open whilst you now set up and connect the AT211

Check that the battery is fitted and connected:

     i. Each AT211 is supplied with a 510mAh back-up battery, which should be fixed to the PCB and connected as shown below:
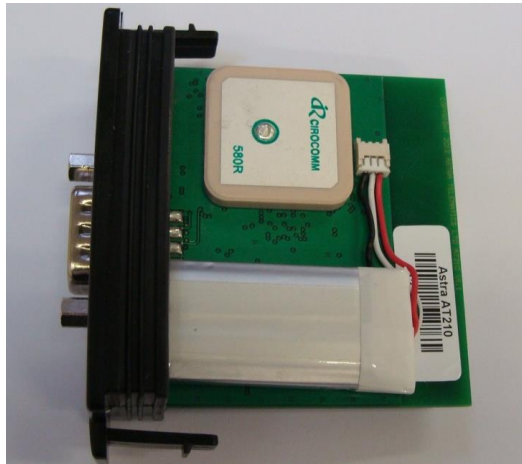
     a. Do not attempt to remove the battery from the cover, once it has been stuck down, as prising or bending can cause fire and smoke.

2. Slide the SIM (Micro 3FF format) into its holder:

     a. Note that the AT211 will now power up

Notched corner here

3. Check status LEDs

   a. Place the AT211 (or AE005 GNSS antenna) somewhere with reasonable view of the sky in correct orientation for a minute or two and then check the status LEDs as below:

Mobile network communication status (BLUE)

GNSS fix status (GREEN)

GNSS Status (green):	Constant ON	Searching for initial fix
	Double Flash @ 1Hz	GPS 3D navigation
	Slow Flash @ 0.2Hz	Lost GPS navigation
COMM Status (blue):	200 ms ON / 1800 ms OFF	ON / SEARCHING
	1800 ms ON / 200 ms OFF	registered on network
	Constant OFF	Modem OFF

During normal operation the LEDs should appear as below:

GNSS   double flash once per second

GSM   stays ON and blinks OFF every 2 seconds

4. Slide the AT211 assembly into the enclosure

   a. Note that the GNSS antenna faces the top of the enclosure (with the slots)

   b. Ensure that the PCB is aligned with the guide slots inside the enclosure and carefully push in until the clips snap together

5. **Fit the CB211 cable to the AT211 system connector**

   a. The CB211 cable has a DB9 female RS232 connector and 4 way Molex Microfit connector for power and ignition**.**
   b. Connect the DB9 serial connector to your PC COM port or USB-RS232 adapter
   c. If you have fitted a battery you should now see text scrolling continuously from the AT211 to TeraTerm
   d. Connect the power as outlined below

	+VE Power	-VE Power	IGNITION
CB211 cable	red	black	white
CB001 cable (3 way power & ign)	red	black	white

   e. Connect the IGNITION wire to an ignition switched 12/24V signal (i.e. something that only goes live when the vehicle ignition is ON

6. **Configure the AT211 to Communicate with your Platform**

   a. Once the device is running and you can see output text scrolling in TeraTerm, you are ready to configure the device by typing or pasting commands into the TeraTerm window (note: these commands can be sent by SMS also).

   b. Configure the AT211 mobile network operator APN settings to match your SIM, using the commands:

      $APAD,<apn-address>
      $APUN,<apn-username>
      $APPW,<apn-password>

      example:

      $APAD,internet
      $APUN,web
      $APPW,web

      Note: if using an ASTRA SIM card, the device APN will be configured by default:

      $APAD,astra

      If you don't know the appropriate APN settings for the network operator you are using, you can look them up from: http://www.taniwha.org.uk/gprs.html

   c. Configure your platform IP Address (or hostname) and port. This is the destination that the AT211 will deliver data reports via TCP socket connections. The commands are:

      $IPAD,<ip-address-or-hostname>
      $PORT,<port-number>

d. Select the required protocol X modules using the following command:

$PROT,16,<mask>   protocol 'X' (define <mask> to select required modules)

please contact Astra Telematics for advice and documentation on the above protocols

d. Your AT211 is now configured will all the basic essentials for operation. The text output in TeraTerm will show details of any errors.

e. Use the $TEST command (send through TeraTerm or by SMS) to confirm correct device operational status. The reply is user-readable and self-explanatory, but you can find an application note with details on our website downloads page.

f. Please refer to the AT211 User Guide, AT211 Installation Guide and the Astra Telematics Generic Command Reference for further details of features and configuration options.