



GPRS - Network Coverage, Sim Cards & Installation

The current remote communications system from Skye uses GPRS on mobile phone networks to transmit the data over the Internet from your MiniMet/DataHog2 to a web server. Given the correct SIM card for local service supplies, the unit will work worldwide. The data modem is housed in a separate box and is connected to the RS232 socket of the MiniMet/DataHog2. As with your mobile phone, the data modem requires a SIM card for the transfer of data and also, as you would expect, a good reliable signal.

It is very important to ascertain which mobile phone provider has the strongest signal at the site where the MiniMet/DataHog2 is to be installed. The transmission of data will suffer the same issues and problems that are encountered with mobile phones, therefore starting with a provider who has the strongest signal is recommended. A high signal strength (as close to 31 as possible) is recommended with a minimum of 10-12 on the GPRS network. Checking the network 2G coverage maps will give indications of good and poor spots.

As with mobile phones, signal will fluctuate and there will be times when the signal drops too low or the network is too busy with other uses to allow the transfer of data. This is out of our control and we cannot accept any responsibility for loss of data in these situations. Skye will endeavour to provide support in maximising the signal strength, i.e. by suggesting the use of directional aerials. However, in anticipation of these occurrences a buffer has been built into the software of the modem to help avoid loss of data under poor service conditions. For a 7 channel MiniMet the buffer is 58 mins and for a 25 channel it is 36 minutes.

PROVISION OF SIM CARDS

SIM cards can either be sourced by the customer or supplied by Skye. We would recommend that they are supplied by Skye, as the SIM cards we use are 'roaming', which means they will automatically lock onto the strongest signal that is available at your chosen site. If the signal drops too low for data transfer, then the modem will re-set and lock onto the next strongest signal. These cards are not proof against busy networks with a strong signal, but they at least ensure that you have the best signal to cope with the reconnections required when connectivity fails because of unavailable network service.

For customers supplying their own SIM cards, then the cards need to be suitable for data on the 2G GPRS network with a minimum monthly allowance of 100 MB data. Here in the UK, Vodafone, EE/Orange or O2 networks (T-mobile is available in many places, but since the Orange/T-mobile merger into EE, T-Mobile is often not a good choice, as we are finding that many T-mobile base stations are unavailable). We do not recommend PAYG, partly because you have to remember to keep topping them up and partly because it is possible that on busy networks their access to services has a lower priority. Please note that '3' are 3G+ only.

Also for customers supplying their own SIM card we cannot accept responsibility for the choice of network provider and any subsequent signal issues and we reserve the right to charge for any technical support required because of this.

WHERE TO SITE THE GPRS UNIT

We would always recommend the unit/antenna is outdoors. The antenna should be at the highest point or at least very near to the top of an installation mast. The unit/antenna should be sited in as clear an area as possible, especially in poor signal areas, and avoid trees and dense foliage. Try and select the highest ground for the installation a hilltop is ideal!

Mobile phone signals mostly travel in straight lines. The aim is always to have your antenna in sight of a base station antenna. We realise that this isn't always possible, but avoiding buildings and deep valleys whilst keeping the antenna as high as possible above the ground will always be good advice.