

## Freeland Scientific smarTprobes

### Wireless Temperature Probes Data Storage / Transfer

#### smarTprobes

The system consists of wireless temperatures probes which transmit data back to a centralised 2G data gateway. The gateway transmits data to a web server via the cellular network. Data are processed by the server and securely backed up.

Real-time data can be viewed from any Internet-connected PC using freely available Windows-based software. The software can be used to demonstrate compliance with ABPR regulations and the site's operating procedures. Details of the batches are shared with the CompostManager system so that monitoring records for each batch are available throughout the process.

The online database is hosted in a secure data centre and is backed up daily. In addition, a copy of all data is stored on site in the 2G gateway on a SD card. In the event that the cellular network or server are not available for a period of time, data are buffered on the gateway and stored on the SD card until the connection is restored.

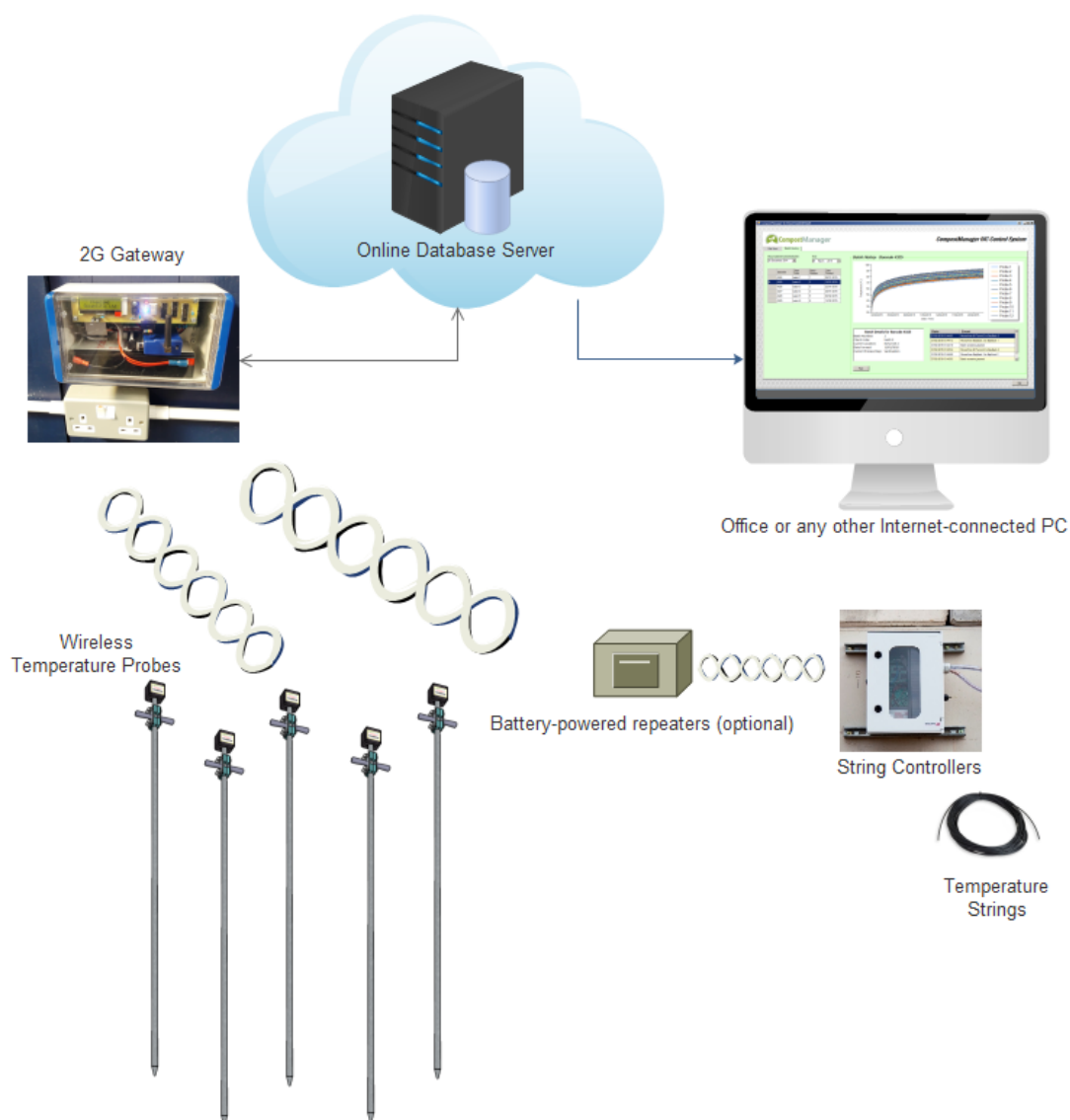
The gateway is mains powered but includes a battery backup, so data collection and transmission are uninterrupted during a power cut of up to 48 hours.

Full details of how data are managed and kept secure are available in the "smarTprobe Data Security and Protection Policy".



Developed by Freeland Scientific Limited





**Figure 1. Overview of data transfer for smarTprobes wireless probe system, showing optional string data sensors and signal repeaters**